2008

ENVIRONMENTAL REVIEW COMMISSION January 23

MINUTES



MINUTES ENVIRONMENTAL REVIEW COMMISSION January 23, 2008

The Environmental Review Commission met Wednesday, January 23, 2008 at 9:30 a.m. in Room 544 of the Legislative Office Building. Co-Chairperson Pryor Gibson presided.

Welcome and Attendance

Members present were Co-Chairperson Dan Clodfelter, Co-Chairperson Lucy Allen, Co-Chairperson Pryor Gibson, Senator Stan Bingham, Senator Katie Dorsett, Senator James Forrester, Senator Eleanor Kinnaird, Senator A. B. Swindell, Representative Jim Harrell, Representative Pricey Harrison, Representative Carolyn Justice, Representative Ruth Samuelson, and Advisory member Senator Fletcher Hartsell. Commission staff present were Commission Counsel George Givens, Assistant Counsel Jeffery Hudson, Assistant Counsel Jennifer McGinnis, Research Assistant Mariah Matheson and Commission Clerk Jessica Kozma Bennett.

A meeting notice was distributed to staff, members and outside parties via regular mail and electronically and is included as an attachment in these minutes as **Exhibit A**. A reminder was sent electronically on January 23. The meeting agenda and visitor's registration sheets are attachments to these minutes and referred as **Exhibit B** and **Exhibit C**, respectively.

Introductory Remarks from Chairs and Counsel

Co-Chairperson Gibson called the meeting to order at 9:35 a.m., recognizing Co-Chairpersons Allen and Clodfelter. Asking for comments from the other chairs and hearing that the Chairpersons had none, Co-Chairperson Gibson recognized staff and asked Commission Counsel Givens for his comments. Mr. Givens began thanking the Chair noted the receipt of reports submitted to the Commission. He reported that there were three segments of reports, with some reports held back and others to be distributed at this meeting. A packet of "read only" reports was distributed to members and is included in the minutes as **Exhibit D**. A planning meeting to prepare for the day's meeting was held Friday, January 11, 2008, he said. Reviewing the agenda, Mr. Givens said that recent changes in stormwater rules may result in legislative review, adding that stormwater rules have been reviewed for the past three short sessions. He then announced that the next Commission meeting will be held February 14 in Room 544 of the Legislative Office Building.

Three of five scheduled public hearings regarding an upcoming Water Allocation Study were well attended, Mr. Givens continued, then encouraging Commission

members to attend one or both of the remaining meetings, to be held in Raleigh and Wilmington. Co-Chairperson Gibson asked that ERC members get notice of working groups. Mr. Givens replied that members receive notices and reminders of the meetings.

Quarterly Report by the Environmental Management Commission

In concluding his comments, Co-Chairperson Gibson recognized Mr. Charles H. "Pete" Peterson, vice chairman of the Environmental Management Commission (EMC) to discuss the quarterly report of the EMC. This report is included it the minutes and it is referred to as **Exhibit E.**

The EMC had one meeting during the last quarter and little action was taken, Mr. Peterson began his report saying. The EMC is working with Session Law 2005-190, regarding assessing and maintaining nutrient control strategies to prevent excess nutrient loading in drinking water reservoirs. The EMC is working with both Falls and Jordan lakes. An eleventh Falls Lake Technical Advisory meeting was held November 15, 2007, he reported, and a project schedule and review of the monitoring study was presented to members. The next meeting is scheduled for March 20. He then reviewed other actions of the EMC. One, hearing for revisions to well construction rules was approved by EMC members, and a variance for Rockwell Collins in the Charlotte area was also approved.

Report on the Coastal Stormwater Rule

Co-Chairperson Gibson thanked Mr. Peterson for his comments and recognized Mr. Thomas A. Reeder, Chief of the Waterlands and Stormwater Branch of the Surface Water Quality Section (DWQ) with DENR. A copy of Mr. Reeder's presentation is included with the minutes and is noted as **Exhibit F.** Discussing stormwater rules, Mr. Reeder began his presentation explaining the status of rulemaking action, noting that revisions were adopted by the EMC on January 10 and that such rules will be subject to legislative review. In noting why the stormwater rule was revised, Mr. Reeder said Division of Water Quality staff determined that there were inadequacies in the current rule. Major changes of the rule include a reduction in the low density development from 25 percent to 12 percent within one-half mile of shellfishing waters. Development further than one-half mile of shellfish waters was reduced from 30 percent to 24 percent. Controversial aspects, he continued, include an expansion of setbacks from 30 to 50 feet, and a proposed 10,000 square foot threshold for coverage, changing from a previous oneacre threshold. Setbacks for redevelopment are grandfathered and remain at 30-feet. Mr. Reeder noted that a 50-foot buffer is already in place for the entire Neuse and Tar-Pamlico River Basins.

As Mr. Reeder concluded his presentation Mr. Givens noted that Senator Fletcher Hartsell had joined the meeting and was recently appointed as an advisory Commission Member by President Pro Tempore Marc Basnight.

In Lieu Fee Program for Stream and Wetland Impacts Mitigation

Co-Chairperson Gibson thanked Mr. Reeder and again recognized Mr. Peterson to report on the in-lieu fee program for stream and wetland impacts mitigation. Such

mitigation is administered by the Ecosystem Enhancement Program. Also recognized by the Co-Chair is Mr. Manly S. Wilder, Assistant Secretary for Natural Resources with DENR.

Mr. Peterson began reporting that the program is a fee-supported program offered by DENR, allowing mitigation in development areas near streams and adjacent creeks. Mandated federally but operated by the state, staff recently determined that fees needed to increase in order to properly support the program. The EMC voted the fee increase by unanimous vote and adopted a two-tier fee structure, allowing lower fees in rural areas and higher in urban or wealthier areas. Mr. Peterson then introduced Mr. Wilder.

Mr. Wilder reiterated that the program was fee supported, adding that since the last EMC meeting several actions had taken place. For one, he said, an interim policy had been enacted. Also, project costs from the past two years support the proposed fee increase, and while he appreciated the EMC passing the resolution, Mr. Wilder said he preferred for the legislature to resolve the issue.

Discussion ensued regarding the fee increase. Representative Harrison asked if the program needed statutory authority to increase fees, of which Mr. Wilder said his office had discussed that question with attorneys and that "it is a gray issue." Representative Harrison followed up asking if a range of fees would be adopted, in particular to deal with inflation. Mr. Wilder said the increase did factor in inflation.

Co-Chairperson Gibson commented that he had been disappointed for ten years with how program processes had not progressed, continuing saying that legislative solutions have not worked to help the program. With little more discussion Co-Chairperson Gibson thanked Mr. Wilder and Mr. Peterson.

Proposed Rules Concerning the Water Supply Nutrient Strategy for the Jordan Reservoir

Mr. Alan Clark, chief of the planning section with DWQ was recognized by Co-Chairperson Gibson. He is called by the chair to report on proposed rules concerning the Water Supply Nutrient Strategy for the B. Everett Jordan Reservoir. He began his presentation saying that there was a slate of public hearings that closed September 15. Five hearing officers are assigned to address concerns from those meetings and conceive how to reduce nutrient loading in Lake Jordan, particularly in the wake of increased development. Phosphorous is the nutrient of concern, he continued, and current rules for Lake Jordan were patterned from previous work on the Tar-Pamlico River. More than 400 people participated in the meetings and roughly 5000 form lettered comments were received. Total cost to pay for this implementation is estimated at \$1 billion.

Mr. Clark said "the target" to bring rules back for adoption is May 2008, and will be reviewed by the Commission prior to introduction into the General Assembly in 2009.

Senator Kinnaird said that she worked with watershed rules when serving as a mayor and added that local political will is important for watershed protection. Representative Samuelson asked how many years work is included in the estimated cost of the project. Mr. Clark answered 30 years.

Update on Current Drought Conditions

Co-Chairperson Gibson called Mr. Thomas C. Fransen, Chief of the River Basin Management Section, with the Division of Water Resources of DENR. A copy of Mr. Fransen's presentation is included in the minutes as **Exhibit G**. Mr. Fransen began saying that the drought situation had improved but the State remained classified in an exceptional drought. Eighty water systems were under some kind of water restrictions, he said, and water usage was "holding flat." La Nina effects were still affecting water plans, and Mr. Fransen said that the forecast was for some improvement. Representative Samuelson asked if people from the Green Industry continued attend meetings regarding the drought, which Mr. Fransen answered that they have continued and he expects that they will continue to attend. Although there had been some improvement, Mr. Fransen said until furthers rains came the State would continue to be considered in an exceptional drought. Co-Chairperson Gibson said that the Commission will continue to expect a monthly update on the drought. Senator Bingham asked if there is a list of water systems that have greatly complied with water restrictions compared to those that have not. Mr. Fransen said that he could create such a list.

Annual Report on the Dry-Cleaning Solvent Cleanup Act of 1997—Deferred

Presentation of the Finding of the Annual Solid Waste Management Report

Co-Chairperson Gibson recognized Mr. Paul S. Crissman, Chief of the Solid Waste Section of the Division of Waste Management. A copy of Mr. Crissman's presentation is included in the Minutes as **Exhibit H**.

For another year, solid waste disposal increased in the State, Mr. Crissman began, and solid waste is expected to continue to increase. He said that there could be some variable given the current recession. On per capita basis, solid waste reduced, however, part of such a reduction came because of economic factors including the closing of a Kannapolis mill. Municipal solid waste, he reported, increased. He also noted two other items that may have helped the reduction, the drought and increased recycling.

Mr. Crissman then reviewed what the amount of solid waste would be in 20 years, given current circumstances. If the State continues to experience solid waste disposal reductions total tons disposed would drop from a current 11,865,829 to 11,627,459 in 2027, rather than 18 million tons. To date: 155 million tons of waste is in landfills. If his projections remain correct, the State could save 68 million tons of waste within this period of time. Recycling in many forms—through C and D recycling, residential recycling and restaurant and bar recycling—would be the most positive way to achieve this, he added.

Mr. Crissman then said that the State continues to rely on out of state disposal sites, and uses transfer stations to harbor waste until it is exported. He showed photos of transfer centers to Members. A map showing proximities of landfills was reviewed as well as a map of landfill capacity in years, tons and volume. He ended the first part of his presentation saying that the State had a "lot of waste to manage."

Mr. Crissman then gave a status report of Senate Bills 6 and 1492, Amending the Solid Waste Act and the Solid Waste Act of 2007, respectively (S. L. 2007-543). Positions to support changes to the Acts were added immediately, he said, and permits in several categories had increased. More permits have been processed in this year so far than were processed for all of last year and construction and industrial permits had also increased. One hundred invoices have been sent so far, with \$800,000 raised to date.

Co-Chairperson Gibson called for questions and recognized Senator Kinnaird. The Senator mentioned that some other states were outlawing plastic bags, adding that banning plastic bags was "an interesting approach." She then focused on the importance of recycling. Mr. Crissman was thanked by Co-Chairperson Gibson.

<u>Discussion of the Waste Industries USA, Inc. and Black Bear Disposal, LLC. V.</u> <u>State of North Carolina and North Carolina Department of Environmental and Natural Resources Complain and Request for Declaratory Relief</u>

Mr. Mark A. Davis, Special Deputy Attorney General, Special Litigation Section with the North Carolina Department of Justice was recognized by Co-Chairperson Gibson. Mr. Davis said there is pending litigation again the State because of Senate Bills 6 and 1492. A complaint has been filed against Senate Bill 1492 regarding a requirement for a five mile buffer between national wildlife refuges and landfills. Senate Bill 6 is challenged specifically to allow those denied a permit because of the prior challenge to receive reimbursement from the State for costs accrued before and during the application process. The bill is currently filed in Wake Superior Court and a deadline to answer the challenges is set for February 4.

Mr. Givens asked if the plaintiffs in the lawsuit were also the applicants for reimbursement, of which Mr. Davis said they were. Co-Chairperson Gibson asked if there is precedent for this in other states. Mr. Davis replied that there is and that a ruling should come within six to nine months of the February 4 deadline.

Status of Recycling and Recycling Markets in North Carolina

Co-Chairperson Gibson recognized Mr. Scott Mouw, Chief of the Community and Business Assistance Section of the Division of Pollution Prevention and Environmental Assistance, DENR. A copy of his presentation is included in the minutes as **Exhibit I.**

Mr. Mouw summarized the main points of his presentation: 1) markets are still very strong for many materials; 2) increases in local government recycling helped reduce land-filled tonnage in the 2007 fiscal year, but there is much room for improvement; 3) ABC permit holder recycling requirements are now in force; 4) product stewardship is helping tackle difficult waste streams; and, 5) there are issues and concerns still left to be addressed. He then noted a slide showing an increase in paper pricing for mixed paper, newsprint and cardboard, and followed showing that prices for aluminum were also increasing.

In reviewing market developments, Mr. Mouw noted that Coca Cola is in the process of opening a \$60 million plastic bottle recycling plant in Spartanburg, S.C. and the PRC Industries, an appliance refurbisher, is opening a new plant—with 288 jobs—in

McDowell County. In reviewing Material Recovery Facilities, Mr. Mouw commented that capacity was at an all time high.

Average local government recycling programs are collecting 243 pounds of recyclable items per household, he reported, and noted that although the number of curbside programs is down, the number of homes served by curbside programs has increased. New recycling programs are beginning in Cabarrus County, Mooresville, Fayetteville and other towns, he said, and there are 8,000 permit restaurants and bars holding permits to recycle.

Recycling businesses needing more material to recycle was one concern, he reported and added that local governments needed to do a better job of modernizing their programs, including increasing participation and adding materials. Materials such as fluorescent lights and pharmaceuticals may require special attention, he added, and closed saying the State needs an overall increase in public commitment.

Representative Samuelson said she was aware of media stories depicting an awful experience with the ABC program and asked if indeed such awfulness had occurred. She followed up saying that she has constituents who do not believe recycling is economically viable and wanted a "sound bite' answer for their concerns.

Mr. Mouw replied that his office had received hundreds of calls and the calls "by and large have been positive." In the Charlotte area, he said, several "drop off" centers have recently opened. Regarding her second request, Mr. Mouw said that recycling is creating business and therefore creating jobs and also said most products people use have recycled materials.

Representative Harrison asked for Mr. Mouw to specifically explain fluorescent light recycling. Mr. Mouw said that there has been a substantial increase in light sales and the issue is getting lots of attention nationally.

Senator Dorsett commented that years ago there was a lot of education about recycling in schools, and that students shared the enthusiasm with their parents, which in turn created a surge in recycling. She then said that she did not believe that still existed. Mr. Mouw agreed and said there had been a lull in education across the State but added that he does see where there is education in schools. Co-Chairperson Allen asked what percent of grocery bags are recycled. Mr. Mouw answered that a third of all bags are biodegradable. Co-Chairperson Allen followed up commenting that most grocery stores have recycling places.

Co Chairperson Clodfelter was recognized and thanked Mr. Mouw for discussing a program in Wake Forest. Representative Samuelson asked if there are any efforts to reduce packaging in the United States. Mr. Mouw replied that there is some activity going on but that there had never been a "real policy push." Retailers, he said, were the leaders, including Wal-Mart and Target. Co-Chairperson Gibson commented on tipping fees in increased recycling efforts.

Co-Chairperson Clodfelter commented to Representative Samuelson that if she filed a Bill to outlaw "clamshell" packaging he would sponsor the same Bill in the Senate.

<u>Presentation of the Annual Report on the</u> Recycling Efforts of Public Schools in the State

Dr. Benjamin Matthews, Director of the Division of School Support with the Department of Public Instruction was recognized by the Co-Chairperson and began his report commenting that the top five LEA recycling programs are, in order from top down: Wake County, Charlotte-Mecklenburg County, Guilford County, Durham County and Forsyth County. Among the lowest are Macon County, Montgomery County, Washington County, Caswell County and Clinton City Schools. He then pointed out page three of a report (Exhibit J) charting statewide programs over the past five years. In 2003, there were 14 programs without recycling programs that number has dropped to four in 2008. The counties without programs are Anson, Bladen, Haywood, Moore and Sampson counties.

Dr. Matthews then noted increases of recycled of cardboard, paper and newspaper. The report shows that the three are the most recycled items in North Carolina schools. He said he feels recycling efforts across the state have improved.

Representative Harrison commented that the State needed to be a "leading by example" and said that there should be no excuse for a school system to not recycle what is banned from landfills. Senator Dorsett thanked him for a good report.

<u>Status of Litigation between North Carolina and South Carolina</u> Over the Allocation of Surface Water Resources in the Catawba River

Chairperson Gibson recognized Mr. James C. Gulick, Senior Deputy Attorney General with the Environmental Division of the North Carolina Department of Justice. Mr. Gulick began saying that the State of South Carolina seeks relief against the former Inter-basin Transfer statute in North Carolina. The United States Supreme Court has allowed South Carolina to file because it has the sole jurisdiction over any equitable portion of water between the two states. The State filed an answer to the complaint November 30, and since then Duke Energy and the Catawba River Water Supply Project have filed motions to intervene.

Mr. Gulick continued saying that the court has appointed a Special Master to work with the case, Ms. Christine Winslow Miles of the San Francisco Bar. Ms. Miles' duties include issuing subpoenas, submitting reports as to the complaints, allowing time for additional pleadings. There is not a lot of background litigation to set precedents, and the case may take several years to resolve, he said.

Co-Chair Pryor Gibson, Presiding

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Commission Clerk

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

MEMBERS

SENATOR STAN W. BINGHAM SENATOR KATIE G. DORSETT SENATOR JAMES S. FORRESTER SENATOR ELEANOR G. KINNAIRD SENATOR A.B. SWINDELL SENATOR DAVID F. WEINSTEIN

REPRESENTATIVE JAMES A. HARRELL REPRESENTATIVE PRICEY HARRISON REPRESENTATIVE CARCLYN H. JUSTICE REPRESENTATIVE RUTH SAMUELSON REPRESENTATIVE EDITH D. WARREN REPRESENTATIVE LARRY W. WOMBLE

Environmental Review Commission State Legislative Building Raleigh, Porth Carolina



7 January 2008

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MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

TO:

Members of the Environmental Review Commission

Interested Parties

FROM:

George F. Givens, Commission Counsel

Jessica Bennett, Commission Clerk

RE:

Notice of Commission Meeting

Notice of Planning Meeting (NOTE CHANGE OF DATE)

Schedule of Future Meetings

Meetings of Interested Parties (605 Working Groups)

Additional Information

COMMISSION MEETING:

The Environmental Review Commission (Commission) will meet at 9:30 a.m. Wednesday 23 January 2008 in Room 544 of the Legislative Office Building in Raleigh.

At this meeting, the Commission will begin or continue studies for which the Commission is responsible, hear reports from State agencies, discuss topics to be considered at future meetings, and attend to other matters. Listed below are potential agenda topics for this meeting and for future meetings. More specific information regarding the agenda for the 23 January meeting of the Commission will be developed at the staff planning meeting discussed below. Commission Staff may publish a revised notice/draft agenda following the staff planning meeting if circumstances permit.

STUDIES

- 1) Issues related to the franchise of solid waste management facilities by units of local government. (S.L. 2007-550, Sec. 18)
- 2) Issues related to the transportation of solid waste by rail or barge, including the extent to which regulation of the transportation of solid waste by rail or barge may be preempted by federal law. (S.L. 2007-550, Sec. 18)
- 3) Issues related to the use of pervious surfaces for vehicle parking areas, including associated costs, impact to the environment of stormwater runoff, and practices of other states with regard to stormwater best management practices. (S.L. 2007-323, Sec. 6.22.(b))
- 4) Allocation of surface water resources and their availability and maintenance in the State, including issues related to the transfer of water from one river basin to another, the withdrawal of

- water for consumptive use, and the accuracy and tolerance of equipment used to measure the flow of water transferred from one river basin to another river basin. (S.L. 2007-518, Sec. 1.(a))
- Preparation of a revised map entitled "Major River Basins and Sub-basins in North Carolina" as a recommended replacement for the map referenced in G.S. 143-215.22G. The revised map shall define the extent to which any river basin that encompasses any river that flows from another state into North Carolina or that flows from North Carolina into another state extends into an adjacent state. (S.L. 2007-518, Sec. 1.(b))
- 6) Other studies undertaken by the Commission.

REPORTS (Report due dates are indicated in parentheses)

General/Miscellaneous:

- 7) Annual report on litter enforcement, prevention, and removal efforts. (G.S. 147-12(b)) (1 March)
- 8) Quarterly report on the activities of the Environmental Management Commission (G.S. 143B-282(b)) (15 January)

Coastal Management:

9) Annual report by the Coastal Resources Commission evaluating the impacts on water quality and other environmental impacts from new urban waterfront area development. (S.L. 2004-117, Sec. 4) (1 October)

Hazardous Waste Management:

10) Report of Superfund cost share fund expenditures for cleanup of sites on the National Priorities List. (S.L. 1999-237(15.6)(b)) (Floating, within 30 days of expenditure)

Parks and Recreation / Land Conservation:

* Note: All reports under this heading are being held for presentation at the 18 March 2008 meeting of the Commission.

Solid Waste:

- 11) Solid Waste Management Annual Report (G.S. 130A-309.12(c), G.S. 130A-309.06(c)(6), G.S. 130A-309.06(c)(8), G.S. 130A-309.06(c)(9), G.S. 130A-309.06(c)(10), G.S. 130A-309.06(c)(11), G.S. 130A-309.06(c)(12), G.S. 130A-309.06(c)(13), G.S. 130A-309.63(e), G.S. 130A-309.85, G.S. 136-28.8(g), G.S. 143-58.2(f)) (15 January)
- Annual report on the recycling efforts of the public schools in the State including information provided by local school administrative units on the number of public schools that have recycling programs and the types of recyclable materials that are collected (S.L. 2001-512, Sec. 11 (15 December)

Water Quality:

- 13) Annual report on Basinwide Water Quality Management Plans. (G.S. 143-215.8B) (1 October)
- 14) Annual report on the Dry-Cleaning Solvent Cleanup Program. (G.S. 143-215.104U) (1 October)

- Annual report on the status of leaking petroleum underground storage tanks, the State cleanup funds, and the Groundwater Protection Loan Fund. (G.S. 143-215.94M) (1 September)
- 16) Implementation of the Clean Water Management Trust Fund; projects and awarded grants. (G.S. 113-145.6A(a) and S.L. 2002-148, Sec. 3) (1 December)

OTHER MATTERS

- 17) Discussion of issues related to drought.
- 18) Discussion of issues related to the use of flame retardants that contain polybrominated diphenylethers (PBDE).

PLANNING MEETING:

To facilitate development of the agenda for the 23 January meeting of the Commission, to begin planning for subsequent meetings of the Commission, and to receive input from interested persons regarding the work of the Commission, the Commission Counsel will hold an informal planning meeting at 10:00 a.m. on Monday 14 January 2008 in Room 605 of the Legislative Office Building. PLEASE NOTE THIS CHANGE OF DATE. Persons who wish to participate in the development of the agenda for meetings of the Commission, or who are interested in any matter before the Commission, are invited to attend.

SCHEDULE OF FUTURE MEETINGS:

Below is a schedule of meetings of the Environmental Review Commission for February 2008 through May 2008. This schedule is tentative and subject to adjustment. For planning purposes, however, please reserve these dates. This schedule may be modified to allow for out-of-town business meetings or site visits and in the event that it becomes necessary to cancel a scheduled meeting due to hazardous weather conditions. Please note the following:

- 1. Meetings of the Commission normally begin at 9:30 a.m., often include a lunch break, and run until mid-afternoon. Please plan on meeting from 9:30 a.m. until at least 3:30 p.m. Meetings of the Commission are open to the public.
- 2. Staff planning meetings normally begin at 10:00 a.m. and adjourn by noon. Staff planning meetings are informal and are open to the public. Commission members are not expected to attend these meetings.
- 3. The March meeting is anticipated to focus on parks and recreation issues. This meeting may take place over two days at a location outside Raleigh.
- 4. The 2008 Regular Session is scheduled to begin at 12:00 noon on Tuesday 13 May 2008. The Commission may meet shortly after the beginning of the session to complete ongoing work and to consider any legislative proposals and recommendations and may meet at other times during the legislative session.

Commission Meeting	Location	Staff Planning Meeting	Location
Thursday 14 February 2008	544 LOB	Tuesday 5 February 2008	605 LOB
Tuesday 18 March 2008	TBD	Friday 7 March 2008	605 LOB
Thursday 10 April 2008	544 LOB	Friday 28 March 2008	605 LOB
Friday 9 May 2008	544 LOB	Tuesday 29 April 2008	605 LOB
Wednesday 14 May 2008	544 LOB		

MEETINGS OF INTERESTED PARTIES (605 WORKING GROUPS):

The Commission Counsel will hold meetings of interested parties on specific topics as indicated below:

Underground Storage Tank Working Group 2:00 p.m. Monday 4 February 2008 – 605 Legislative Office Building

Public meetings on the scope and direction of the study of allocation of water resources 4:00 p.m. to 7:00 p.m. Wednesday 9 January 2008 – Asheville (Asheville-Buncombe Tech) 4:00 p.m. to 7:00 p.m. Wednesday 23 January 2008 – Raleigh (544 Legislative Office Building) 4:00 p.m. to 7:00 p.m. Thursday 24 January 2008 – Wilmington (New Hanover County Library)

Public meeting on the study of issues related to construction on artificial slopes 4:00 p.m. to 7:00 p.m. Thursday 10 January 2008 – Asheville (Asheville-Buncombe Tech)

ADDITIONAL INFORMATION:

If you have questions related to the Commission, please feel free to contact the Commission Counsel or other Commission staff at (919) 733-2578.

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

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REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

MEMBERS SENATOR STAN W. BINGHAM SENATOR KATIE G. DORSETT SENATOR JAMES S. FORRESTER SENATOR ELEANOR G. KINNAIRD SENATOR A.B. SWINDELL SENATOR DAVID F. WEINSTEIN

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Environmental Review Commission State Legislative Building Raleigh, Porth Carolina



AGENDA

9:30 a.m. Wednesday 23 January 2008
Room 544 Legislative Office Building
Raleigh, North Carolina

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JENNIFER R. F. MUNDT COMMISSION ANALYST

MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

1. Call to order

Representative Pryor A. Gibson, Presiding

2. Introductory remarks by Cochairs (5 minutes)

Representative Pryor A. Gibson Representative Lucy T. Allen Senator Charles W. Albertson Senator Daniel G. Clodfelter

- 3. Report to the Commission and explanation of agenda items (10 minutes)
 George F. Givens, Commission Counsel
- 4. Quarterly report by the Environmental Management Commission (EMC) as to its operations, activities, programs, and progress for the period 1 October 2007 through 31 December 2007 (G.S. 143B-282(b)) (1 hour)

Charles H. "Pete" Peterson, Vice Chairman Environmental Management Commission

Report on the coastal stormwater rule (15A NCAC 02H .1005, Stormwater Requirements: Coastal Counties, as adopted by the EMC on 10 January 2008) (10 minutes)

Thomas A. Reeder, Chief Wetlands and Stormwater Branch, Surface Water Quality Section, Division of Water Quality, Department of Environment and Natural Resources (DENR) Environmental Review Commission Agenda – 23 January 2008 Page 2

Report on the in-lieu fee program for stream and wetland impacts mitigation administered by the Ecosystem Enhancement Program (Reference: 15A NCAC 2R.0402, Schedule of Fees); Interim policy (29 October 2007) (10 minutes)

Charles H. "Pete" Peterson, Vice Chairman Environmental Management Commission

Manly S. Wilder, Assistant Secretary for Natural Resources DENR

Report on the proposed rules concerning the Water Supply Nutrient Strategy for the B. Everett Jordan Reservoir (proposed 15A NCAC 02B .0262-.0272 and .0311) (10 minutes)

Alan Clark, Chief Planning Section, Division of Water Quality, DENR

5. Update on current drought conditions in light of conservation efforts and recent rain events (15 minutes)

Thomas C. Fransen, Chief River Basin Management Section, Division of Water Resources, Department of Environment and Natural Resources (DENR)

6. Annual report on the Dry-Cleaning Solvent Cleanup Act of 1997 (G.S. 143-215.104U) (10 minutes)

Jonathan A. Powers, Head Special Remediation Branch, Superfund Section Division of Waste Management, DENR

7. Solid waste management (1 hour 30 minutes)

Presentation of the findings of the annual solid waste management report (G.S. 130A-309.12(c), G.S. 130A-309.06(c)(6), G.S. 130A-309.06(c)(8), G.S. 130A-309.06(c)(9), G.S. 130A-309.06(c)(10), G.S. 130A-309.06(c)(11), G.S. 130A-309.06(c)(12), G.S. 130A-309.06(c)(13), G.S. 130A-309.63(e), G.S. 130A-309.85, G.S. 136-28.8(g), G.S. 143-58.2(f)) (20 minutes)

Paul S. Crissman, Chief Solid Waste Section Division of Waste Management, DENR

Report on the implementation of the Solid Waste Management Act of 2007 (S.L. 2007-550 (Senate Bill 1492), as amended by S.L. 2007-543 (Senate Bill 6)) (15 minutes)

Paul S. Crissman, Chief Solid Waste Section Division of Waste Management, DENR

Status report on reimbursement of application costs as provided by S.L. 2007-543, Sec. 3 (Senate Bill 6) (10 minutes)

Paul S. Crissman, Chief

Environmental Review Commission Agenda – 23 January 2008 Page 3

Solid Waste Section
Division of Waste Management, DENR

Discussion of the Waste Industries USA, Inc. and Black Bear Disposal, LLC. v. State of North Carolina and North Carolina Department of Environment and Natural Resources Complaint and Request for Declaratory Relief (File No. 07CV019407) (10 minutes)

Mark A. Davis, Special Deputy Attorney General Special Litigation Section, North Carolina Department of Justice

Status of recycling and recycling markets in North Carolina (20 minutes)
Scott B. Mouw, Chief
Community and Business Assistance Section
Division of Pollution Prevention and Environmental Assistance, DENR

Presentation of the annual report on the recycling efforts of public schools in the State (15 minutes)

Dr. Benjamin J. Matthews, Director Division of School Support, Department of Public Instruction

8. Status of the litigation between North Carolina and South Carolina over the allocation of surface water resources in the Catawba River (*State of South Carolina v. State of North Carolina* (File No. 138, Original)) (15 minutes)

James C. Gulick, Senior Deputy Attorney General Environmental Division, North Carolina Department of Justice

- 9. Commission discussion and announcements
- 10. Adjourn

SCHEDULE OF FUTURE MEETINGS:

Below is a schedule of meetings of the Commission for January 2008 through May 2008. This schedule is tentative and subject to adjustment. In particular, the March meeting may take place over two days at a location outside Raleigh in order to focus on parks and recreation matters.

To facilitate development of the agenda for meetings of the Commission and to receive input from interested persons regarding the future work of the Commission, the Commission Counsel holds informal public planning meetings for staff and interested parties. The schedule of these meetings is also set out below.

Environmental Review Commission Agenda – 23 January 2008 Page 4

Commission Meeting	Location	Staff Planning Meeting	Location
Thursday 14 February 2008	544 LOB	Tuesday 5 February 2008	605 LOB
Tuesday 18 March 2008	TBD	Friday 7 March 2008	605 LOB
Thursday 10 April 2008	544 LOB	Friday 28 March 2008	605 LOB
Friday 9 May 2008	544 LOB	Tuesday 29 April 2008	605 LOB
Wednesday 14 May 2008	544 LOB		

MEETINGS OF INTERESTED PARTIES:

The Commission Counsel will hold meetings of interested parties on specific topics as indicated below:

Underground Storage Tank Working Group

2:00 p.m. Monday 18 February 2008 - 605 Legislative Office Building

Public Meetings on the Scope, Direction, and Conduct of the Study of Allocation of Water Resources (Water Allocation Study (WAS))

Public Meeting	Location
Wednesday 23 January 2008	Room 544, Legislative Office Building
4:00 p.m. to 7:00 p.m.	North Carolina General Assembly
	300 North Salisbury Street
	Raleigh, North Carolina 27603
Thursday 24 January 2008	New Hanover County Public Library
4:00 p.m. to 7:00 p.m.	201 Chestnut Street
- · ·	Wilmington, North Carolina 28401

Public Meeting on the Study of Issues Related to Construction on Artificial Slopes

Public Meeting	Location
TBD	TBD in North-western, North Carolina

ADDITIONAL INFORMATION:

Persons having questions about the Commission meeting or other matters related to the Commission may contact Commission Counsel or other Commission staff at (919) 733-2578 or may visit the Commission's website at:

http://www.ncleg.net/gascripts/DocumentSites/browseDocSite.asp?nID=12

ENVIRONMENTAL REVIEW COMMISSION January 23, 2008

VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION ASSISTANT

NAME	FIRM OR AGENCY AND ADDRESS
Dan Crawford	Electrication of AC
Evin Kinney	NX consenation wearbork
Anta Wolkins	NCLIN
Dul March	NEDENC - Waste Mange
Elizabeth Suf	DENF
James Golick	NC Department of Tustice
LODIN SMHL	DENR
Pane Naya	NC Assoc. County Cours
Emily Atkinson	Capatian
Jost Orig	NCGA
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ENVIRONMENTAL REVIEW COMMISSION

January 23, 2008

VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION ASSISTANT

NAME	FIRM OR AGENCY AND ADDRESS
Cleis Minard	State Bd of Education
JOHN SHAW	
Any Pickle	SECC
LOKI Am HARRIS	CAHA
Susanne Stels	NCRUM
Lisa Martin	Ne Home Builders
Butch Gunrelle	
aptn Hatch	NC Bererage Assoc. WRPI/NCSU
Phil CANER	WASTE IND.
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ENVIRONMENTAL REVIEW COMMISSION

January 23, 2008

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	NAME	FIRM OR AGENCY AND ADDRESS
	Amy McConkry	smita Anderson
6	John.	SR
	Abecca Trans	NACC
	Scott Moun	NC DENR - OPPEA
	DAND BREVES	Pogpar Sprull
	Marmileon Ment	MDA1CS
	ALAW CLARK	NC TWO
	NAVIN dickery	BREAL
	Joy Stem	NCAA
	Dewitt Handa	NeDA
	Paul Sherman	Ness
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ENVIRONMENTAL REVIEW COMMISSION

January 23, 2008

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ENVIRONMENTAL REVIEW COMMISSION

January 23, 2008

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NAME	FIRM OR AGENCY AND ADDRESS
Don M'Lawhon	Coty Attomy office Rolling
WATE RANGERS	The News & Observer
Wilmer Melton	City of Konnopoli's
Henry Woldroup	City of Concord
Terry Gross	City of Concord
Jim Staphenson	NC Constel Federation
ManayShompson	Neyerhaeuser
	Netson Mulling
CARY YUNT	Denr
Shannon Deaton	WRC.
Steve Wall	DEMR

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January 23, 2008

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NAME	FIRM OR AGENCY AND ADDRESS
Suzanne Himek	NC DENR EEP
Ross Smith	PCS PHOSPHATE
Thomas Masse	todaistan & Wall
Bill Schrum	ARpublic Services
Barbara Setler	EEP
Jeff Jurek	EEP
Rogarknight	Write Robbins / Washe Industrin
PRESTON HOWERS	MCIC
TomBEAN	NC Environmental Delever NC Sustainable Burngy Regar
Tom Franzen	Division of Water Resources, NCDENR
Tommy Stevens.	NCPC
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January 23, 2008

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NAME	FIRM OR AGENCY AND ADDRESS
Don McCorgnodale	Maring to lon
Don Hove	NEPEN
And Elle	NERMA
George Everett	Duke Energy
Matt Marul	Police Gross
Karny Hawkis	Progress Enery
Lecune madre	DÉWK
John Melber	LovoRice
Ben Matthewa	NCDPT
Daniel Zoyette	NODPI
Beth Warren	AGO

ENVIRONMENTAL REVIEW COMMISSION

January 23, 2008

<u>VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION</u> ASSISTANT

NAME	FIRM OR AGENCY AND ADDRESS
Jim Hickman	NCHENR-DIPER
restre Kleczek	Nicholas Institute, Duke Unive
8) Mussler	DWM-DENK
Steve Dorer	Green Industry
Ellen Lorscheider	, **

General Assembly of North Carolina

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23 January 2008

GEORGE F. GIVENS COMMISSION COUNSEL 545 LEGISLATIVE OFFICE BUILDING 300 NORTH SALISBURY STREET RALEIGH, NORTH CAROLINA 27603 (919) 733-2578 FAX: (919) 715-5460

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JENNIFER R. F. MUNDT COMMISSION ANALYST

MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

MEMORANDUM

To:

Members of the Environmental Review Commission

From:

Jennifer Mundt, Commission Analyst

Re:

Reports to the Commission

The following report has been submitted by the Office of the Governor to the Environmental Review Commission (Commission) since the last reports distribution on 19 December 2007. These reports are designated as read only and are attached to this memorandum:

1) Annual Interagency Report on Litter Enforcement, Prevention, and Removal Efforts. 1 March 2007. Authority: S.L. 2006-79, Sec. 15.

The following report has been submitted by the Department of Environment and Natural Resources (DENR) to the Environmental Review Commission (Commission) since the last reports distribution on 19 December 2007. These reports are designated as read only and are attached to this memorandum:

1) Annual report on Basinwide Water Quality Management Plans. 1 October 2007. Statutory Authority: G.S. 143-215.8B.

The following report has been submitted by the Environmental Management Commission (EMC) to the Environmental Review Commission and will be distributed in connection with today's Agenda Item #4:

1) Quarterly report by the EMC as to its operations, activities, programs, and progress during the previous quarter. 15 January 2007. Statutory Authority: G.S. 143B-282(b).

Environmental Review Commission Reports Distribution – 23 Jan 2008 Page 2

The following report has been submitted by the Department of Environment and Natural Resources to the Commission and will be distributed in connection with today's Agenda Item #7:

1) Annual Report by DENR on the North Carolina Hazardous Waste Management Plan. 1 October 2006. Statutory Authority: G.S. 130A-294(i).

The following report has been submitted by the Department of Public Instruction to the Commission and will be distributed in connection with today's *Agenda Item* #7:

1) Annual interagency report on the recycling efforts of the public schools in the State. 15 December 2007. Authority: S.L. 2001-512, Sec. 11.

The following reports have been received and are being held for distribution either as read-only or for presentation at a future meeting of the Commission. If you would like a copy of one of these reports in advance of the next meeting, please contact Jennifer Mundt at (919) 733-2578 or jennifermu@ncleg.net for assistance.

- 1) Annual report on the Parks and Recreation Trust Fund, Fiscal Year 2006-2007. 1 October. Statutory Authority: G.S. 113-44.15(c).
- 2) 2006 Annual Report NC Million Acre Initiative. 1 October 2007. Statutory Authority: G.S. 113A-241(c)).
- 3) Annual report on implementation of the Conservation Easements Program. 1 October 2007. G.S. 113A-235(c).

Please contact George Givens, Jeff Hudson, Jennifer McGinnis, Jennifer Mundt, or Mariah Matheson at (919) 733-2578 if you have any questions or comments.

2006

North Carolina Interagency Report

On

Litter Cleanup, Education/Prevention and Enforcement

This report provides statistics for the year 2006.

March 14, 2007

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Litter Report 2006

This report is prepared pursuant to Session Law 2006-79, Section 15 G.S. 147-12(b) ¹ and provides information describing the outcome of North Carolina's 2006 anti litter campaign.

The state's 2006 litter prevention campaign brings together three components:

- Litter cleanup
- Education/prevention
- Enforcement

Executive Summary

The North Carolina Department of Transportation maintained 79,009 road miles in 2006 versus 78,844 miles in 2005. That is an increase of 165 miles.

During 2006, more than 10.1 million pounds, represented by the 677,941 bags of roadway litter, were removed from 147,974 shoulder miles. While the shoulder miles decreased from 171,345 miles during 2005, the number of bags removed increased by 30 percent - up from the 468,600 bags removed in 2005. This count does not include other miscellaneous debris that is too large or too heavy to fit into the trash bags. The expenditure associated with the statewide roadside litter removal was more than \$16.6 million.

The NCDOT, its Office of Beautification Programs and the North Carolina Departments of Correction, Crime Control and Public Safety, Environmental and Natural Resources and Wildlife Resources Commission collectively supported statewide litter prevention initiatives.

Anti litter education/prevention activities continued statewide. The NCDOT through its Office of Beautification Programs participated on various statewide organizational boards, promoted litter prevention information at conferences and the N.C. State Fair. Also they provided anti litter promotional items to a multitude of local organizations.

The number of charges for littering violations increased from the previous year. A 2006 recap issued by the Administrative Office the Courts shows the number of charges and convictions by offense code, by county and by law enforcement agency. In addition, the Conference of the District Court Judges continued to provide an alternative to first time offenders charged with littering of less than 15 pounds. This alternative allows first time offenders a means of waiving a court appearance by pleading guilty/responsible and paying a fine. The fine for intentional littering is \$250 plus costs and \$50 plus costs for unintentional littering. This was adopted by the Conference of Chief District Court Judges on Oct. 11, 2006 pursuant to N.C.G.S. 7A-148, and applies to any new offenses on or after Dec. 1, 2006.

¹ See Attachment A - page 50

Statewide Roadside Litter Cleanup 2006

North Carolina Department of Transportation

The North Carolina Department of Transportation has built many relationships in order to provide safe, environmentally sound and aesthetic roadsides. These relationships are comprised of other agencies, local governments, citizen volunteers and other organizations/industries. Examples include volunteers within Adopt-A-Highway program, an alliance with the North Carolina Department of Correction, active roles on organizational boards such as N.C. Keep America Beautiful, Inc., N.C. Big Sweep and working with the N.C. Beverage Association.

The NCDOT continued to sponsor Litter Sweep, its biannual roadside litter cleanup. Litter Sweep is held the last two weeks of April and September. Volunteers on a statewide basis are asked to contribute their time for roadside litter removal. During Litter Sweep, the NCDOT provides volunteers the safety vests, gloves and bags for use in roadside litter cleanups. The Department also provides additional manpower for litter cleanup and picking up filled bags for immediate disposal.

NCDOT Adopt-A-Highway Program

The NCDOT through its Office of Beautification Programs continues to administer the AAH program. It's a mutually beneficial partnership endeavor between community volunteers and the NCDOT. North Carolina citizens continued to support local roadside litter cleanup by adopting a two-mile stretch and volunteering their time to pick up litter four times a year. The agreement is for four years. The volunteer groups are primarily made up of individuals and school, civic, business, professional, religious and social groups.

The AAH program has a statewide process in place, which works with its volunteers to help with litter cleanups and bag removal. The program has a State Adopt-A-Highway Coordinator that utilizes the assistance of 59 statewide program coordinators. The coordinators oversee the adoption and signage approval processes and other program administrative responsibilities within their assigned counties. The AAH program cost \$290,964 in 2006 versus \$280,045 in 2005. This cost includes items for administration, sign installation/removal, bag retrieval and other miscellaneous cleanup supplies, i.e. bags, gloves and safety vests. There were 6,080 man-hours charged to this program in 2006 versus 6,921in 2005.

In 2006, the AAH program continued to have some 6,000 groups who had adopted approximately 12,000 roadside miles. The volunteer cleanup efforts of the AAH program saved the state's taxpayers more than \$4.5 million dollars in cleanup costs in 2006, and collectively during the last three years, the AAH program has provided a cumulative savings of \$12.5 million dollars in roadside litter removal costs.

Annual Comparison of AAH program Taxpayer Savings:

	Hours Worked	Cleanup Cost Savings
2006	424,804	\$4.5 million
2005	362,080	\$3.8 million
2004	388,064	\$4.2 million

When it comes to the amount of litter collected, the actual pounds are higher than what was reported by AAH groups. As mentioned previously, some litter is not accounted for because it is too large or too heavy to fit into the bags.

Annual Comparison of the amount of litter collected through the AAH program:

Year	Total Pounds Collected Statewide by Adopt-A-Highway Groups
2006	3,594,500
2005	3,677,440
2004	3,795,040

Of the 3.6 million pounds collected, the AAH groups recycled 239,840 pounds as follows: 37,320 lbs. of metal, 89,440 lbs. of glass and 113,080 lbs. of plastic.

North Carolina Departments of Transportation and Correction

As in previous years, the NCDOT alliance with the NCDOC is critical to keeping roadside litter to a minimum on many heavily traveled routes throughout the state. This alliance makes it possible to have 1,360 inmates performing litter pick up on a daily basis (weather permitting). Here is the breakdown and description of the inmate crews:

104 Medium Custody Eight-Man Road Squads

- Armed DOC staff is required to supervise these inmates (two officers to eight inmates).
- NCDOT total cost of DOC for medium custody inmate labor was \$10,000,000.
 Approximately 83% of all medium custody inmate labor were spent on litter pick-up.
- An additional \$65,149 was expended for support cost related to working with DOC officers on work assignments.

66 Minimum Custody Highway Work Crews.

- Correctional officers supervised minimum custody inmates (one officer per eight inmates).
- Assigned primary responsibility for removing litter from major highways statewide.
- The labor cost for these crews is \$1,300,000 that the NCDOT transfers to the DOC.

Minimum Custody Road Squads

- NCDOT staff, trained by the DOC, supervised minimum custody inmates.
- Inmate labor was billed at \$1 per day per inmate for litter cleanup. In 2006 there were 20,574 man-days at a charge of \$20,574.
- NCDOT spent and additional \$185,423 for support supervision and transportation costs.

125 Governor's Community Work Program (CWP) crews - up from 117 crews (end of 2006)

- Through this program, a correction officer supervises a crew of up to 10 minimum-custody inmates on short-term, manual labor projects for local governments and state agencies.
- These crews are dedicated to litter pick up during Litter Sweep.
- There is no charge for this labor.

During the 2006 spring and fall Litter Sweeps, the NCDOT picked up 759,102 pounds of litter versus 691,065 pounds in 2005, and expended approximately 28,693 man-days of its employees and inmates for picking up litter on 21,435 highway miles versus 26,105 man-days on 19,065 highway

miles in 2005. The amount of litter picked up during the 2006 spring and fall Litter Sweeps by the NCDOC inmates was 1,927,578 pounds versus 2,262,585 pounds in 2005.

NCDOT and NCDOC Inmate Litter Sweep Roadside Cleanup Comparison:

Year	Pounds Collected
2006	2,686,680
2005	2,953,650
2004	2,913,720

Community Service Work Programs Litter Control Efforts, Calendar Year 2006

The Community Service Work Program was established as a grant funded initiative in the early 1980's. During 1983, it was established as a program through the Safe Roads Act. Effective January 2002, CSWP was transferred from the Department of Crime Control and Public Safety to the North Carolina Department of Correction, Division of Community Corrections through legislative action. CSWP is a separate program from the Division of Prisons inmate work crews. Offenders in CSWP are not incarcerated but are ordered to perform community service work hours as a condition of either supervised or unsupervised probation, based upon the criminal offense committed and history of the offender.

DCC community service coordinators place offenders at government or non-profit agencies within the local community to perform work needed by the agency. During 2006, there were 3,700 agencies statewide that participated in the CSWP by contracting as work sites for placement of community service offenders.

Records of these placements, number of hours worked, and value of hours performed are recorded in an automated system. Prior to 2005, records were kept manually. Offenders perform a variety of work, including general labor, skilled labor, clerical labor, professional labor, and litter pick up. Value of the various types of labor is calculated upon the N.C. Department of Labor categories and relative market value minimum payment rates. Many of these agencies focus on litter control regularly and also participate in the NCDOT Litter Sweeps.

For calendar year 2006, there were approximately 118,154 hours worked. There was 2,126,775 pounds of litter removed. Approximately seven percent of the general labor work hours were focused on litter control efforts.

CSWP Annual Roadside Litter Cleanup Comparison:

Year	Pounds Collected
2006	2,126,775
2005	3,227,565
2004	3,026,730

The DOC inmate crews and the CSWP litter pickups are performed separately and independently of one another. The pounds of litter reported above represent the litter pick up efforts of each separately.

2006 Roadside Litter Pick Up Summary - NCDOT, AAH, NCDOC and CSWP

Roadside Litter Cleanup Recap and Comparison:

In 2006, the NCDOT removed a total of 677,941 bags of litter from the state's roadsides. These bags equate to more than 10.1 million pounds of litter not including the items that were too large or heavy to fit into the bags. Below is the 2006 recap.

Departments and	Pounds of Litter Picked Up by Year					
Other Groups	2006	2005	2004			
NCDOT *	759,102	691,065	491,805			
DOC *	1,927,578	2,262,585	2,421,915			
CSWP**	2,126,775	3,227,565	3,026,730			
AAH**	3,594,500	3,677,440	3,795,040			
Other volunteers *	380,040	365,280	400,620			
Other pounds picked up - not designated to specific group	1,381,120					
Sum of Pounds	10,169,115	10,223,935	10,136,110			

^{*} Litter Sweep (only) litter pick up amount

NCDOT 2006 Disbursements:

NCDOT Disbursement Recap By Year							
	2006	2005	2004				
NCDOT Employees	\$4,758,108	\$4,457,575	\$3,410,517				
Adopt-A-Highway	\$290,964	\$280,045	351,875				
DOC (Medium and Minimum Custody Inmates)	\$11,571,146	11,614,569	11,471,856				
Disbursement by year:	\$16,620,218	\$16,352,189	\$15,234,258				

Department Of Environmental and Natural Resources

Division of Parks and Recreation 2006 Litter Cleanup Summary

Summary Statement: During 2006, many of the parks hosted some type of litter cleanup and some hosted interpretive programs to educate visitors about the importance of recycling. Several parks increased the number of recycling stations, and rangers issued citations to litterers in the parks. More than 2,000 bags of trash, such as tires and appliances, were pulled from trails, roadsides and waterways in or near state parks. A handful of parks were able to sell scrap steel and other metal materials collected to nearby business. As this market expands, other opportunities for similar partnerships are expected to grow.

^{**}Annual litter pick up amount

Division Of Parks and Recreation Litter Cleanup Efforts – Total for the Year of 2006

Enter Cleanup Entorts – Total for the Year of 2000								
	Dates of	Number of						
	Litter	Volunteers	Number of	Number of				
Park Name	Pickups	and/or Staff	Bags	Pounds	Other- man hours, etc.			
	3/20/06							
	4/21/06	·						
	Various	45 volunteers	İ	1	Installed 2 pet waste stations at			
	Dates	3 CSW workers			trail heads. Installed			
Carolina	9/16/06	1 Camp Host			monofilament line recycling			
Beach	12/30/06	_	114	2314	station in fishing area			
Cliffs of	11/9/06							
Neuse	11/15/06	4 staff		850	85 staff hours			
Crowders	Three times							
Mountain	a week	CSW workers	130	2600				
Dismal					<u> </u>			
Swamp				,	No activity-Park not open			
Swamp	Various	<u> </u>			Removal of old junk piles in			
Elk Knob	Dates	4	32	8160	park as well as roadside cleanup			
EIK KHOU	1/21/06		32	0100	park as well as readside creatap			
	5/21/06	86 volunteers						
Eno River	11/4/06	3 staff	206	12650	6 litter citations			
Eno River	11/4/00		200	12030	o litter citations			
_ , , , ,	D "1	20 staff and	145	1015	20 1:44-11 -14-4:			
Falls Lake	Daily	volunteers	145	1015	29 litter citations			
		11 staff	,	•	,			
	Various	20 CSW						
Fort Fisher	Dates	workers .	260	1300				
Fort Macon	No Activity							
	6/15/06							
	8/22/06	18 volunteers						
Goose Creek	10/6/06	2 staff	23		7 ½ person hours			
					One clean up event			
		4 staff		196	229 staff hours			
Gorges	Daily	6 CSW workers	35	800				
Hammocks	3/30/06							
Beach	10/14/06	67 volunteers		1860	219 volunteer hours			
					96 man-hours, Dan River Clean			
					Up, Fox 8 did news story on			
	,	ļ.			Natl. Public Lands Day.			
		Boy Scout,			"Overall we picked up less trash			
	4/1/06	Junior Ranger,			on the entire river, this is the			
	9/30/06	Intern	ļ		cleanest this section has looked			
Hanging	Various	Volunteers	ŀ		in 10 years of paddling," said the			
Rock	Dates	4 staff	305	3010	Tarheel Paddlers Assoc.			
ROOK	4/06							
	5/06							
	6/10/06							
	7/10/06				1			
	7/28/06							
	8/14/06				1 ·			
	8/25/06	21 staff						
1	9/15/06	13 CSW						
1	10/18/06	workers	1		;			
Jockey's	11/10/06	9 inmates	1	ŀ				
	12/14/06	1 volunteer	30	1067				
Ridge		1 VOIGILICOI		1 .	<u> </u>			
Tames T also	Various	30	12	160				
Jones Lake	Dates	1 30 .	14	1 100				

	Dates of	Number of			
İ	Litter	Volunteers	Number of	Number of	
Park Name	Pickups	and/or Staff	Bags	Pounds	Other- man hours, etc.
		Several staff			
		and volunteers,			
		Girl Scout		i	
		Troop from			
		Raleigh,			
	Various	Delancy Street	1		174
Jordan Lake	Dates		122		17 tires and 3 rims, One litter
Juluan Lake		Group	133		citation written
77 7 1	Various	Park staff and			1 Recycling Interpretive
Kerr Lake	Dates	volunteers	50	Not weighed	program given during the year
•	3/29/06	;	Ì		
	4/23/06				
	5/22/06	1			
	6/26/06		ŀ		•
	7/29/06		ľ		
	8/13/06				
	9/28/06				
	10/14/06		,		
	11/5/06				
Lake James	12/27/06	13	15	136	1 1:44:4-4::44
Lake Jailles	6/30/06	13	13	130	1 litter citation written
T also NI ammon		45 1	1.0	2050	160 hours
Lake Norman	10/7/06	47 volunteers	10	3050	Cub scouts Big Sweep
Lake Waccamaw Lumber River	2/10/06 2/25/06 5/18/06 8/1/06 10/7/06 10/2/06 12/30/06 1/5/06 7/14/06	144 volunteers 3 CSW worker various park staff 5 staff 88 volunteers	85	100 4990	Big Creek Clean Up Lake Shore Clean Up Oyster shells removed from Lake Waccamaw Waccamaw River and Big Creek Posted educational posters about cigarette butts and handed out pocket ashtrays in picnic area. Annual Big Sweep Event Bella Coola Canal Clean Up Adopt a Highway Clean up, Big Sweep, Boy Scout Service
Merchants Millpond	10/3/06 10/28/06 1/19/06 4/3/06 4/24/06 7/31/06	10 inmates 7 staff 4 CSW workers	52		Cleaned old dump site, roadside and use areas
Millpond Medoc	10/28/06 1/19/06 4/3/06 4/24/06 7/31/06 3/6/06	7 staff 4 CSW workers 1 Volunteer	52		
Millpond Medoc Mountain	10/28/06 1/19/06 4/3/06 4/24/06 7/31/06 3/6/06 4/19/06	7 staff 4 CSW workers 1 Volunteer 1 CSW worker	5		and use areas
Medoc Mountain Morrow	10/28/06 1/19/06 4/3/06 4/24/06 7/31/06 3/6/06 4/19/06 Various	7 staff 4 CSW workers 1 Volunteer 1 CSW worker 10 staff			and use areas 150 staff hours, Litter education
Millpond Medoc Mountain	10/28/06 1/19/06 4/3/06 4/24/06 7/31/06 3/6/06 4/19/06 Various dates,	7 staff 4 CSW workers 1 Volunteer 1 CSW worker 10 staff 23 seasonal	5		and use areas 150 staff hours, Litter education is included in most hike
Medoc Mountain Morrow	10/28/06 1/19/06 4/3/06 4/24/06 7/31/06 3/6/06 4/19/06 Various	7 staff 4 CSW workers 1 Volunteer 1 CSW worker 10 staff 23 seasonal employees	5		and use areas 150 staff hours, Litter education is included in most hike programs held in and out of the
Medoc Mountain Morrow Mountain	10/28/06 1/19/06 4/3/06 4/24/06 7/31/06 3/6/06 4/19/06 Various dates, 10/7/06	7 staff 4 CSW workers 1 Volunteer 1 CSW worker 10 staff 23 seasonal employees 37 volunteers	5 127		and use areas 150 staff hours, Litter education is included in most hike programs held in and out of the park, Big Sweep
Medoc Mountain Morrow Mountain Mt. Jefferson	10/28/06 1/19/06 4/3/06 4/24/06 7/31/06 3/6/06 4/19/06 Various dates,	7 staff 4 CSW workers 1 Volunteer 1 CSW worker 10 staff 23 seasonal employees 37 volunteers 15 staff	5	1 ton	and use areas 150 staff hours, Litter education is included in most hike programs held in and out of the
Medoc Mountain Morrow Mountain	10/28/06 1/19/06 4/3/06 4/24/06 7/31/06 3/6/06 4/19/06 Various dates, 10/7/06	7 staff 4 CSW workers 1 Volunteer 1 CSW worker 10 staff 23 seasonal employees 37 volunteers	5 127	1 ton	150 staff hours, Litter education is included in most hike programs held in and out of the park, Big Sweep 147 tires, 444 staff and volunteer
Medoc Mountain Morrow Mountain Mt. Jefferson	10/28/06 1/19/06 4/3/06 4/24/06 7/31/06 3/6/06 4/19/06 Various dates, 10/7/06 Various Dates-	7 staff 4 CSW workers 1 Volunteer 1 CSW worker 10 staff 23 seasonal employees 37 volunteers 15 staff	5 127	1 ton	150 staff hours, Litter education is included in most hike programs held in and out of the park, Big Sweep 147 tires, 444 staff and volunteer hours, Big Sweep, Boy Scout
Medoc Mountain Morrow Mountain Mt. Jefferson and New	10/28/06 1/19/06 4/3/06 4/24/06 7/31/06 3/6/06 4/19/06 Various dates, 10/7/06 Various Dates- Daily Litter	7 staff 4 CSW workers 1 Volunteer 1 CSW worker 10 staff 23 seasonal employees 37 volunteers 15 staff	5 127	1 ton	150 staff hours, Litter education is included in most hike programs held in and out of the park, Big Sweep 147 tires, 444 staff and volunteer
Medoc Mountain Morrow Mountain Mt. Jefferson and New River	10/28/06 1/19/06 4/3/06 4/24/06 7/31/06 3/6/06 4/19/06 Various dates, 10/7/06 Various Dates- Daily Litter collection	7 staff 4 CSW workers 1 Volunteer 1 CSW worker 10 staff 23 seasonal employees 37 volunteers 15 staff 128 Volunteers	5 127		and use areas 150 staff hours, Litter education is included in most hike programs held in and out of the park, Big Sweep 147 tires, 444 staff and volunteer hours, Big Sweep, Boy Scout Project
Medoc Mountain Morrow Mountain Mt. Jefferson and New River Mount	10/28/06 1/19/06 4/3/06 4/24/06 7/31/06 3/6/06 4/19/06 Various dates, 10/7/06 Various Dates- Daily Litter collection	7 staff 4 CSW workers 1 Volunteer 1 CSW worker 10 staff 23 seasonal employees 37 volunteers 15 staff 128 Volunteers 7 staff, Boy	5 127	1 ton	and use areas 150 staff hours, Litter education is included in most hike programs held in and out of the park, Big Sweep 147 tires, 444 staff and volunteer hours, Big Sweep, Boy Scout Project Due to weather conditions both
Medoc Mountain Morrow Mountain Mt. Jefferson and New River	10/28/06 1/19/06 4/3/06 4/24/06 7/31/06 3/6/06 4/19/06 Various dates, 10/7/06 Various Dates- Daily Litter collection	7 staff 4 CSW workers 1 Volunteer 1 CSW worker 10 staff 23 seasonal employees 37 volunteers 15 staff 128 Volunteers	5 127		and use areas 150 staff hours, Litter education is included in most hike programs held in and out of the park, Big Sweep 147 tires, 444 staff and volunteer hours, Big Sweep, Boy Scout Project

Park Name	Dates of Litter Pickups	Number of Volunteers and/or Staff	Number of Bags	Number of Pounds	Other- man hours, etc.				
Pettigrew	3/4/06 7/13/06 7/16/06 12/14/06	25		119815					
Pilot Mountain	Various dates	299	172	6880					
Raven Rock			10/7/06 32 37		37	2840	Big Sweep		
Singletary Lake	6/6/06 6/20/06 7/17/06 8/24/06	5	5	50	Roadside clean up				
South Mountains	7/18/06 and various other dates	4 staff 7 DOC 13 volunteers		1800	2 pick up truck loads taken to Cool Springs				
Stone Mountain	No activity this period	,							
Weymouth Woods	Various Dates	17	62						
William B. Umstead	Various Dates	15-20 staff 39 Volunteers 5 CSW workers	60-70	700	Litter is picked up every day				

The above information describes the Division of Parks and Recreation litter cleanup efforts in 2006. Estimated weight of all litter collected in 2006 is more than 32 tons. During 2006, more than 230 litter cleanups were held across the state park system, beyond the normal daily maintenance carried out by staff, versus 210 litter cleanups in 2005.

Division Of Parks and Recreation Recycling Efforts - Total for the Year of 2006

Park	#										
Name	Sites	Locations	A	PL	C	PA	G	LBS	Rev	Expense	Comments
		Maintenance									
		Areas,						ļ			
	1	Campgrounds,									
	ł	Picnic Areas,			; 						
Carolina	ŀ	Marina,									
Beach	26	Parking lots	600		300			900	0	0	
Cliffs of											Conservation
Neuse	1 -	Camp ground	75		275	500		850.	\$300	\$1045	of resources
		Picnic Areas,									
		Lake, Linwood						i		İ	
	ĺ	and Main									
		Trailhead								•	
Crowders		Access, Park									Public
Mountain	6	Facilities	50	520	265	265		1100	0	\$3100	Awareness
Dismal											
Swamp		No activity									
Elk Knob	1	Office			30	60		90			
Eno River	8		473	482		92	1200	2247			

Park	#	T	γ	I	Т -	Т —	T	Τ	1	1	· · · · · · · · · · · · · · · · · · ·
Name	Sites	Locations	A	PL	C	PA	G	LBS	Rev	Expense	Comments
					† –	1	-	200	Rev	LAPCIISC	1040 hours
	ļ		1						İ		staff time,
Falls Lake	1		330	672		550	1373	2925			2028 miles
				ļ	1						Park vehicle
			ļ		'			1			travels 20
		Refreshment			1	1		•			miles round
Fort Fisher	2	Area, Office	250	300		650		1200		6120	trip
Fort Macon		No activity	230	300	 	030	 	1200		\$120	monthly.
		Picnic Area,	<u> </u>	-	ļ	<u> </u>					
		Campground,	ļ								
	•	Shop, Env. Ed.		i	İ]		
Goose		Ctr., Landing									
Creek	10	Access	240	90		110	ļ	440		\$33	
		Grassy Ridge					į				
		Access, Frozen Creek Access,								İ	
Gorges	3	Park Office	110	300	50	1045		1505			
Corges		Staff Kitchen,	110	300	1-30	1045		1303	<u> </u>		
		Island Waiting									
		Station, Visitor									
		Ctr., Beach			-						
Hammocks		Front Island						i			
Beach	4	Gazebo	110	156	400	435	-	1101			
											Contribution
		Parking Area,									to
		Picnic Areas,			l						preserving the
		Lake Area,					İ				environment.
		Campgrounds,			-						Public sees
		Cabins,									and learns
Hanging Rock	6	Maintenance	۰,	150	120	10	176	525	0.40	01060	from our
RUCK	0	Bldg. No Activity-	80	150	120	10	175	535	\$40	\$1060	contribution.
l		Developing									
		Recycling									
Haw River		Program									
											We use 2-3
	<i>'</i>					•					liter bottles
T1											for kid's
Jockey's Ridge	1	Park Area	574	118	56	83	226	1067			summer
Jones Lake	1	Park Area	50	30	60	- 63	236	1067 140			programs.
TOHOS DURC	- •	Park Area,	- 30	50	- 50			140		-	-
İ	.	Boat Ramps,		•		·		İ	l		
Jordan		Picnic Areas,									
Lake	17	Office	620	330	1500	600	35	3085		\$2147	
											Reduce
1			•			.					amount sent to landfill.
[Ī					Promote good
			i			ļ					stewardship,
		Boating and	ŀ]	Increase the
ļ	ĺ	Camping									number of recycling
Kerr Lake	8	Areas	75	30	10	60	50	225		\$960	stations.
Lake James	1	Day use area	32	19	72	62		185	٠, ۰,		

Park	#		·	<u> </u>	1			T	F -		
Name	Sites	Locations	A	PL	C	PA	G	LBS	Rev	Expense	Comments
Lake Norman	2	Swimming Area, Campground	81	960	800	2880	280	5001	\$56.70	\$125	Reduce need for landfill space and associated tipping fees.
Lake Waccamaw	1	Park area	13	13		60		86			Saving the resources.
Lumber River	1	Princess Anne	200	80		50		330			
Mayo River		No activity - New Park									
Merchants Millpond	1	Roadside and Boundary	240	170	100	260		770			Saving the resources.
Medoc Mountain	3	Park Grounds, Picnic Area, Office	70	·				70			15 bags have been collected and stored at the warehouse.
Morrow Mountain	8	Camp Loop Locations, Picnic Areas, Boathouse, Office	276	25	750	60	•	1111		\$305	
Mt. Jefferson and New											Return to production flow reduces demand for raw materials, helps country meet targeted mandate for
River Mount	6	Access Areas Contracted	294	569	475	650		1988		\$6065	recycling
Mitchell Pettigrew	8	Campground, Picnic Area, Boat Rramp, Overlook	515					515		\$20	Co-sponsor Recycle Day for the community. Citizens donated 14,000 lbs of metal to be recycled.
Pilot Mountain	5	Summit Area, Yadkin River Section, Park Area	350	800		500		1650		\$450	Less space in dumpster used.
Raven Rock	3	Refreshment Areas, Picnic Areas, Office	63	150		75 -		288	\$22	\$87.75	
Singletary Lake	2	Group Camps	50					50			

Park	#	1				T		<u> </u>			
Name	Sites	Locations	A	PL	C	PA	G	LBS	Rev	Expense	Comments
South		Picnic Areas,									Created projects for scouts. Saved money that would be used to take waste to
Mountains	7	Office	195	660	1000	660	500	3015		\$60	landfill.
Stone Mountain	4	Campgrounds, Picnic Areas, Trailheads, Parking Lots	290					290			Volunteers collect and take to county site.
Weymouth Woods	_ 3	Visitor Center, Maint. Bldg., Roadside	36	34		65	84	219	·		
William B.		Group Camps, Picnic Areas, Tent and Trailer Sites,									A good educational program and resource awareness for the general
Umstead	13	Residences	42	35	225	25	450	807	,	\$268	public.
Operations	1	Office	50	10		150		210			
Totals	164		6,434	6,703	6,488	9,957	4,383	33,995	\$418	\$15,845	

Division of Parks and Recreation Recycling Recap:

Number of Pounds Recycled by Year

Item	2006	2005	2004
Aluminum	6,434	5,574	5,913
Plastic	6,703	4,484	3,344
Glass	6,488	6,681	4,614
Metal			
Paper	9,957	11,006	9,250
Other	4,383	48,632*	15,420
Totals	33,965	76,377	38,541

^{*} Note: in 2005 the category of Other Recycled the a large amount is primarily due to the Cliffs of the Neuse State Park recycling of 15,020 pounds of scrap wood and 14,980 pounds of old wood fencing. The Cliffs of the Neuse State Park recycled a total of 35,406 pounds that includes the scrap wood and metal.

Other Statewide Litter Cleanups

North Carolina Big Sweep

North Carolina Big Sweep is a 501(c)(3) nonprofit organization whose mission is litter-free watersheds.

2006 represented several milestones for NC Big Sweep. First, the 2006 NC Big Sweep cleanup was its 20th annual cleanup. During the 2006 NC Big Sweep, 14,763 volunteers retrieved 543,425 pounds of debris. Since Big Sweep was founded in 1987, 234,407 volunteers have retrieved 8,090,330 pounds of debris.

A second milestone was the record-breaking 2,449 miles that were cleaned during the 2006 cleanup. Another 2006 milestone was the record-breaking number of volunteers some counties experienced. Six counties—Forsyth, Gaston, Nash, Orange, Randolph, and Rockingham—broke their all-time record for community involvement. An additional 34 counties improved their community involvement from the previous year.

A statewide videoconference and regional meetings were held in 2006. These were held to train volunteer leaders and also provide awareness of the harmful effects of debris. *Undercurrents* was created in 2006 for middle school teachers. It is a sequel to *Splish Splash* and *Ripples* the nationally recognized teacher activity books about the harmful effects of marine debris. These books aid teachers from kindergarten through middle school.

In addition, because the most common source of animal entanglements found during its cleanups is monofilament fishing-line, Big Sweep installed monofilament line recycling containers at 55 coastal marinas. This project will be expanded inland in 2007.

2006 N.C. Big Sweep Litter Pickup Results

	T		····			
County	Sites	Volunteers	Miles	Tires	Pounds	Animal Entanglements, Unusual Finds
						60 tires, 1 white goods, luggage, paint buckets, 4x4
Alamance	4	83	18	60	3,200	post, part of wheelchair, shelf board, TVs, A/C.
Alexander/		·				1 tire, golf club, helmet, cooler, 30 Styrofoam dock
Catawba	1	76	1.0	1	56,000	floats or parts of floats, 16 pieces of lumber.
						Small mouth bass, dead cat, 147 tires, commercial
						popcorn popper, grill, table, TV, washing machine,
Alleghany/]					kiddy pool, mailbox, ball of barbed wire, car
Ashe	12	111	36.35	147	4,760	bumper, truck tailgate, siding.
Anson		-				
						1 tire, plastic chairs, rug, clothes, buckets, balls,
Beaufort	5	44	10	1	1,180	fishing tackle box, propane tank, building material.
Bertie	4	18	4.5		600	2 more sites 10/20. Bike seat, car filter.
			_			<u> </u>
Bladen	1	10	1			Lots of cigarette butts.
Brunswick	9	163	24		5,800	Gulls in fishing net.
						*
Buncombe	1	42	1	75	4,200	75 tires, fire safe, parking meter, slot machine.

County		Volunteers	Miles		Pounds	<u> </u>
Burke	5	140	15	70	9,140	70 tires, 15 white goods.
C-1	1,0	122	10			16 tires, street sign post, bike, ladder, mower, desk,
Cabarrus	10	133	18	16	2,060	drum, siding, smoker, lawn chair.
Caldwell	16	279	22.6	25	12 440	Fish in fishingline, 25 tires, 13 white goods, 4 car
Caldwell	10	219	32.6	25	12,440	gas tanks, bedsprings, 2 chairs.
Camden	1	28	1		600	
			-			17 tires, 4 white goods, beach umbrella, wood, lawn
1						chairs, tabletop, 8' piling, big Styrofoam pieces,
Carteret	3	316	43.5	17	1,440	insulation, wire, electrical box, auto brake drum.
,,		20				
Caswell	3	20	4.75		1,315	
Chatham		20		4	2 240	4 tires, 1 white goods, carpet, building materials, 2
Chatham Cherokee	1	38	6.5	4	2,240	propane tanks.
Chowan						Had to consol but will do malcour in coming
Chowan		· ·				Had to cancel but will do makeup in spring.
Clay	1	8	1	1	500	1 tire, windshield, exhaust pipe, carpet.
Cleveland	1	12	4.8	14	840	14 tires.
						,
Columbus	4	52	5	2	1,260	2 tires, grill, flea & tick shampoo, large floats.
						,
Craven	1	97	1		1,680	
			_			98 tires, car parts, rims, 55 gal. drums, gutters,
Cumberland	4	194	3	98	22,800	screen doors.
Currituck	1	4	. 1		80	
						1 tire, fireworks debris, balloon, ladies underwear,
		ĺ			•	beach chair, bait containers, fishingline, net, buoys,
Dare	15	146	41.25	1	2,325	light sticks.
Davidson	1	35	1			
Davie	2	24	2			Bad weather.
						201 tires, 7 white goods, car parts, signs, carts,
D 1:		1.67		201		building materials, carpet, furniture, slide, toilet,
Duplin	1	167		201		sink, crutches, lots of metal poles.
						26 tires, 9 white goods, car parts, signs, shopping carts, carpet, furniture, slide, plumbing, toilet, sink,
Durham	5	150	35	26		TV w/remote, crutches, animal skeletons.
- Durnam		130	33		7,440	1 v w/tenlote, crutenes, animai skeletons.
Forsyth	1	3,000	1	,	,	Was expecting 3,000 for the original date.
/		-,	 			12 tires, 8 white goods, Big Wheel, purse, china
Franklin	10	95	38	12	25,700	plate, pipe.
						124 tires, 4 white goods, tin roof, tent, 14" turtle
						shell (not entangled), hood dryer top, golf balls, car
						gas tank, headlights, car batteries, green card,
Gaston	25	1096	70	124	-	computers, Styrofoam blocks.
Gates	5	39	5		1,840	OFF CIVA DI COID WILL
Graham	L					SEE SWAIN COUNTY.

County	Sites	Volunteers	Miles	Tires	Pounds	Animal Entanglements, Unusual Finds
Granville	1	16	0.5	1	250	1 tire, 1 6' PVC pipe, 10 long pieces of fishingline.
Greene	1	10	1.5	1	300	1 tire, cardboard boxes, Styrofoam, plastic buckets.
Guilford Halifax	2	238	11.75	15	7,090	15 tires, 3 white goods, Craftsman toolbox with tools, sofa, bike, shopping carts.
Harnett	4	32	5	6	2,840	6 tires, 4 white goods, carpet, ceiling fan, vinyl flooring.
Haywood	1	37	4		4,140	Carpet, toys, bikes, car transmissions, sheet metal, lots of plastic.
Henderson	25	127	10	52	10,380	Turtle, oyster, 52 tires, 1916 Georgia auto registration, staircase.
Hertford	3	7	1	5	630	5 tires, lawn chair, scrap metal. Recruited at last minute and couldn't get it together.
Hoke				,		Will do spring cleanup. \$10 bill, dog skeleton, lot of food wrappers and
Hyde	2	50	3		700	cigarette butts. Real motivated volunteers! 16 tires, white barrels, 1000 pounds of treated
Iredell	4	184	1091.5	16	2,340	lumber, mannequin, dog house. 2 tires, 1 white goods, folding chairs, car parts,
Jackson	1	9	5	2	1,520	wood deck.
Johnston	1	12	1.75		80	Head of duck (not entangled).
Jones	2	16	2	2	300	2 tires.
Lee	2	77	10	1		1 tire, plastic pipe.1 tire, 1 white goods, full can of beer, metal detector
Lenoir	1	13	1.5	1		head, car parts, shopping cart, homemade broom.
Lincoln Macon	1	11	6		980	Belks cart.
Madison						Cleanup had to be rescheduled. Waiting on results. 3 tires, 3 balloons, 150 beverage bottles, diapers, fishingling toy kitchen set our betteries license.
Martin	1	12	1	3	1,180	fishingline, toy kitchen set, car batteries, license plates, hub caps.
McDowell	5	37	7	35	2,740	35 tires, snorkeling equipment, crack pipe, bed springs, chairs, Barbie toilet, newspaper vending machine. 27 tires, 2 white goods, bra, tricycle, fire
Mecklenburg	13	454	69	27		extinguisher, toy Jeep, toy spaceship, exercise machine.
Mitchell	2	27	3.5	30		30 tires, shopping cart, clothing, vehicle and heavy equipment parts, many cans and bottles, old washing machine.
Montgomery	1	35	12	5	2,000	5 tires, metal tables, boat windshield.
Moore	1	10	2		40	

County	Sites	Volunteers	Miles	Tires	Pounds	Animal Entanglements, Unusual Finds
Nash/						
Edgecombe	87	731	142	9	36,340	9 tires.
			_			
New Hanover	1	610	5		10,940	False teeth, mannequins head.
Northampton						
Onslow	5	19	15		530	
Orange	1.	- 238	21.55		9,994	
Orange		- 236	21.55		7,774	·
Pamlico	1	16	1		400	Had 5 boats involved in cleanup.
Pasquotank						
Pender	29	73	10		900	
Perquimans	29	/3	10		800	TV screen, siding, lawn chair, umbrellas, bricks.
reiquinans						
Person	1	50	1		105	
Pitt	1	344	1	12	8,820	12 tires.
Polk	1	2	3		300	Two 1 gal. oil.
						Deer, 16 tires, 7 white goods, fishing pole, flooring,
		ŀ				crack pipe, logbook, rusty wire, spittle, lift gate,
						carpet padding, suitcase, cooler, floor mat, propane
						bottle, weed whacker, tabletop, concrete mesh,
Dondolnh	12	015	10.25	16		swimming pool, volleyball net, car parts, Tonka
Randolph Richmond	12	815	19.25	16	9,605	truck, tricycle, golf bags, toy boat.
Riciniona		<u> </u>			·	
Robeson	1	38	6	30	4,200	30 tires, toilet.
						410 tires, 21 white goods, scarecrow, Social
						Security card, chain ladder, sink, pacifier, trolling
Rockingham	41	1190	170	410		motor, orange barrel.
Rowan	1	1	0			Due to lake level, rescheduled to February.
	ĺ					58 tires, 2000 white goods, lawn chairs, fishing rods, tent, mailbox, propane & fumigant tanks,
Rutherford	1.1	55	43	58		basketball, soccer ball, child car seat, tank cover.
Sampson						Waiting on results.
		1				2
Scotland	1	25	7		600	
-	ا	50			5.40	
Stanly	4	72	5.5		540	5 fishing rods.
Stokes	1	506	100	53	30,000	53 tires, bus seat, hot water heater, buckets, matting.
Surry	1	17	2	6	940	6 tires.
Swain	1	7	1	**.	800	
					- 555	
Transylvania	1	25	10	1	4,160	1 tire.

County	Sites	Volunteers	Miles	Tires	Pounds	Animal Entanglements, Unusual Finds
Tyrrell	1	25	2.5	111 03		Salt treated wood.
	1	2.5	2.3		200	Sait dealed wood.
Union	1 1	1	1			
Vance	1	40	15	4	400	4 tires, 15 trash cans, carpet, steel rod.
		105			1.1.0.4.0	45 tires, 2 white goods, pig skeleton, coconuts & lemons, pink flamingo, many yellow tennis balls,
Wake	22	437	36.65	45	14,060	60' metal piping, 8 sheets metal roof.
Warren	1	1	1			
Washington					• •	
Watauga/ Avery	2	160	11	2	3,900	2 tires.
Wayne	19	315	22.5		876	
Wilkes	1	124	1	9	1,880	9 tires.
Wilson	1	2	1		80	
Yadkin	1	12	1.5	2	680	2 tires.
Yancey						
Underwater cleanups	1	778	107		24,835	
TOTALS Statewide	480		٠		543,425	

There is no data for Anson, Buncombe, Cherokee, Halifax, Macon, Northampton, Pasquotank, Perquimans, Richmond, Washington and Yancey Counties.

N.C. Keep America Beautiful

North Carolina Keep America Beautiful, Inc. is a nonprofit public education organization dedicated to enhancing the natural beauty of North Carolina communities, improving waste handling practices and empowering individuals to take greater responsibility for improving community environments. N.C. KAB is comprised of local, independent affiliates located in communities all across North Carolina.

The N.C. KAB affiliates participated in the 2006 Great American Cleanup[™]. This annual cleanup runs from March to the end of May. The volunteers worked on a number of projects such as picking up litter, removing debris, used tires, abandoned mobile homes and junk cars, eliminating illegal dumps, restoring playgrounds and planting trees, flowers and bulbs. There were 32,776 volunteers that expended more than 69,863 hours in these various initiatives, and overall saved the state's taxpayers in equivalent labor costs through all their volunteer efforts. The reported amount of litter picked up during their N.C. Great American Cleanup was 893,948 pounds. Volunteers planted 1,658 trees and 590,652 flowers and bulbs. They collectively held 111 public litter prevention workshops with an attendance of 6,332.

Volunteers by N.C. KAB Affiliate - All Projects:

Affiliate City/County	Volunteers*	Hours*	Pounds Collected:
Belmont	150	375	6,000
Brunswick	2,171	2,732	8,700
Buncombe	300	850	9,600
Charlotte	212	1,130	54,500
Duplin	181	434	109,960
Durham	279	241	14,200
Franklin	70	52	4,385
Gastonia	790	1,007	16,100
High Point	138	15	2,640
Iredell '	550	3,500	33,500
Laurinburg	24	84	1,680
McDowell	209	1,696	12,120
Mecklenburg	1,850	4,000	72,000
Moore	888	1,730	104,800
Nash	726	1,646	87,020
New Hanover	3,270	6,630	310,000
Onslow	538	1,614	5,380
Pasquotank	6	5	1,200
Shelby	152	646	2,540
Wayne	215	600	7,008
Winston	20,127	41,000	35,000
Total	32,846	69,915	898,333

^{*} For all projects

Anti-Litter Education/Prevention - 2006

Department of Environmental and Natural Resources

Division of Pollution Prevention and Environmental Assistance

RE3.org and the Recycle Guys - January 06 - December 06

Advertising: TV/Cinema/Truck/Radio

DPPEA developed a total of seven television ads to promote recycling. Commercials ran in all of Time Warner's North Carolina markets during the following time periods:

- December 15, 2005 January 22, 2006
- April 3, 2006 May 14, 2006

In addition to television ads, RE3 also appeared at the movies. RE3 cinema ads ran during the following time periods:

May 2006-June 2006

Evaluations

As RE3.org and the Recycle Guys campaigns move forward, DPPEA feels evaluating the impact of our outreach materials and advertising mechanisms is key to making the programs successful. Having evaluated both campaigns from the point of view of recycling program coordinators in the summer of 2006, DPPEA has begun to gather feedback directly from the target audiences. During the fall of 2006, DPPEA conducted focus groups with students at several North Carolina colleges, including Barton College and Greensboro College. Focus group sessions addressed whether specific materials resonated with individuals. In addition, surveys about RE3.org materials were distributed on the campus of NC State.

Funding

Local government partnerships continue to help fund the RE3.org and Recycle Guys programs. In FY 2004-05, 13 counties and municipalities partnered with DPPEA, and in FY 2005-06 10 local governments partnered on the campaigns. The 2006-07 sponsors listed below have already donated over \$40,000:

Brunswick County	Johnson County	
City of Burlington	Lee County	
Town of Cary	Mecklenburg County	
Catawba County	New Hanover County	
Chatham County	Orange County	
City of Charlotte	Pasquotank County	
Davidson County	City of Raleigh	·
City of Durham	Wayne County	
Durham County		

DPPEA is partnering with the N.C. Beverage Association (formerly, the N.C. Soft Drink Association) to fundraise for the campaigns. The NCBA's governing board, in late December 2006, voted to commit \$15,000 to the campaigns, if DPPEA could raise an additional \$35,000 from other private sector companies and trade groups.

Material Distribution

Many local governments request RE3.org and Recycle Guys materials from DPPEA. Since August 2006, 18 local governments in North Carolina have asked for stickers, t-shirts or other items. These local governments are listed below.

Anson County	Lee County
Catawba County	Madison County
City of Brevard	Mecklenburg County
City of High Point	Onslow County
City of Monroe	Orange County
Henderson County	Pasquotank County
Iredell County	Rowan County
Land-of-Sky Regional Council	Transylvania County
, ,	Vance County

In addition to local governments, 15 public and eight private organizations in North Carolina have requested RE3.org and Recycle Guy materials. These organizations are listed below.

Barton College	Guilford College
Brunswick County Community College	Newport Middle School
Carolina Recycling Association	North Carolina Cooperative Extension
DENR Environmental Education Office	Pisgah Forest Institute
Environmental Educators of NC	SWANNC
MCAS Cherry Point	SWEEP
Great Smoky Mountains National Park	UNC-Chapel Hill
Greensboro College	UNC-Charlotte
Clear Channel Communications	Octobers Band
Eastern Carolina Vocational Center	Pepsi
GDS Conover MRF	Wyeth Pharmaceuticals

Since August of 2006 alone, DPPEA has distributed the following materials:

Recycle Guys Materials	RE3.org Materials
4,180 Recycle Guys trading cards	7,287 RE3.org bumper stickers
573 Recycle Guys recycling bin decals	2,144 small RE3.org stickers
11 Recycle Guys tattoos	178 RE3.org commercials in various formats
3 copies of Recycle Guys commercials in	157 RE3.org films in various formats
various formats	36 RE3.org key chains
1 Recycle Guys activity book	173 copies of React
1 Recycle Guys pencil	1,475 "Boone to Bald Head" posters
	892 "Skateboard" posters
Other Materials	426 "Find a Bin" posters
1,413 Cleanup.org magnets	504 "What's it to me?" posters
150 Junk Mail postcards	24 RE3.org t-shirts
86 NEED environmental education booklets	212 RE3.org balloons

Presentations

In 2006, DPPEA worked hard to spread the word about the RE3.org campaign. Staff gave presentations about the campaign to a statewide Solid Waste Enforcement Officers' Meeting, a statewide Keep America Beautiful conference, the National KAB Conference, the National Recycling Congress, SWANA WasteCon and at the NC Environmental Educators Conference.

Web Sites

The Web sites for both RE3.org and Recycle Guys continue to grow in popularity. In FY 2005-06, 9,618 unique visitors (not including repeats) went to www.RE3.org. This is an average of 801 unique visitors per month. From July through September 2006, the number of unique visitors averaged 950. The number of unique visitors to the site has grown. From May 2005 to May 2006, the number of visits per month increased by 120 percent.

The RE3.org campaign has a greater presence on the Internet now. There is a RE3.org blog, MySpace page and You Tube account.

http://re3org.blogspot.com/

http://www.myspace.com/re3org

http://www.youtube.com/re3org

The number of unique visitors to www.RecycleGuys.org in FY 2005-06 was 47,820. This was a 43 percent increase over FY 2004-05. The average number of unique visitors per month in FY 2005-06 was 3,985. In the first half of FY 2006-07, this average has already increased to 5,678 unique visitors per month.

Division of Parks and Recreation

Litter Prevention: During 2006, many of the parks hosted some type of litter cleanup and some hosted interpretive programs to educate visitors about the importance of recycling. Several parks increased the number of recycling stations, and rangers issued citations to litterers in the parks. More than 2,000 bags of trash, such as tires and appliances, were pulled from trails, roadsides and waterways in or near state parks. A handful of parks were able to sell scrap steel and other metal materials collected to nearby business. As this market expands, other opportunities for similar partnerships are expected to grow.

Division of Marine Fisheries - Marine Patrol

In 2006 Marine Patrol officers issued 13 citations and 2 warnings for a total of 15 littering cases attributing 78 hours to this effort. In 2005 the Marine Patrol officers issued 17 citations and 8 warnings for a total of 25 littering cases expending 83 hours on this effort.

	Littering	Littering	Time
Year	Citations	Warnings	Spent
2006	13	2	78 Hours
2005	17	8	83 Hours
2004	6	0	69.5 Hours

The Marine Patrol is still investigating several more abandoned vessels and the annual closed crab pot clean up season starts on January 15, 2007. Officers will remove several hundred abandoned commercial crab pots from coastal waters during this closed season.

N.C. Wildlife Resources Commission

The Division of Engineering Services has an inventory of 200 boating access areas. Additionally, Engineering Services maintains 38 public fishing access areas across the state. Maintenance and operation of these areas includes the policing and removal of litter. Approximately 3,254 man-hours were spent performing litter removal for the past year. "Littering is Illegal" sign are also maintained on the access areas. The Division is also indirectly involved in litter removal by allowing civic organizations to utilize boating access areas as focal points for litter sweeps. There is no data on the quantity of litter removed during the litter sweeps.

The Division of Wildlife Management reports 2,363 miles driven at a cost of \$827.43. 229 hours expended at a cost of \$5,016.

NCDOT - Office of Beautification Programs

During 2006 the Office of Beautification Programs continued to place emphasis on enhancing its Web site in promoting anti-litter education. Currently the Gaston County 2006-2007 Beautification and Environmental Education Programs and Union County - Yes! Yes! We Can Stop Littering Campaign are provided in their entirety. The intent of this site is to be a resource for educators in need of classroom curriculum material. The information can be found at the Office of Beautification Programs homepage at www.ncdot.org/~beautification within the Litter Prevention link. The curriculums can be downloaded for classroom usage.

Another educational effort was the roll out of the new Adopt-A-Highway database for coordinators and volunteers. The entire site has a new look and reorganized to make it simpler and easier to find and report information

In addition, the Office of Beautification Programs provided a variety of educational materials for schools, civic groups and others. This included anti-litter stickers, no litter bumper stickers, pencils, car litterbags, temporary tattoos, litter law fliers and Swat-A-Litterbug cards. Other links/items available through its Web site include the litter law, Swat-A-Litterbug, Adopt-A-Highway, Litter Sweep, printable activity pages - *Litter Activity Book* with lessons and activities for second and third grades and information about NCDOT's fight against litter.

The Office of Beautification Programs also distributed car litterbags in the tens of thousands through rest areas, welcome centers, the N.C. State Fair, Earth Day and upon request to numerous groups.

Annual Litter Prevention Awards Contest: The NCDOT, along with the Office of the Governor and the N.C. Beverage Association, sponsored the Annual Litter Prevention Awards Contest. Eligible categories are as follows: Government Agencies, Schools/Youth Groups and Nonprofits. Each category offers first place prizes of \$1,000 and second place prizes of \$500. Winners are posted to the Office of Beautification Programs Web site within the Litter Contest link.

Yes! Yes! We Can Stop Littering Campaign: This alliance between the Union County Rotary Clubs, the Union County Public School System, county charter and private schools, local businesses and the NCDOT was developed to prevent littering. The campaign's purpose was to cultivate a cultural change in Union County to stop littering during a five-year period. It is estimated that more than 18,000 children participated in the program.

The Union County Rotary Clubs were the leaders of this initiative. Other sponsors provided assistance as the program moved forward. The NCDOT Office of Beautification Programs provided items such as litterbags, stickers and tattoos with anti-littering messages, promotional pencils and plaques to support the "Yes! Yes! We Can Stop Littering Campaign." Although the program ended in 2006, the template for organizing and implementing the program is maintained on the Office of Beautification Programs Web site for others to review and use.

Bus Placard Campaign: Litter prevention signage specifically for placement within transit area buses was created as a pilot program in 2004. The message content seeks everyone to assist in the fight against litter, states that cigarette butts are litter and that a fine of up to \$1,000 can be given upon conviction.

The intent of the pilot was to stimulate litter prevention and inform that even the smallest of items, such as improperly discarded cigarette butts, are litter and that littering is a fineable offense. The placards were in either 11" x 17" format or 8.5" x 11" in English and Spanish in the quantity required specifically for each pilot program. These can be viewed and downloaded from the Office of Beautification Programs Web site at www.ncdot.org/~beautification within the Litter Prevention link. These placards were initially utilized on the transit buses of Raleigh CAT and Fayetteville FAST.

N.C. State Fair Booth: 2006 was the second year, a teacher materials window was used in the Roadside Environmental Unit's booth. Teachers were able to sign up litter prevention materials, such as Swat-A-Litterbug stickers, cards and pencils, Swat-A-Litterbug temporary tattoos, litter law fliers, stormwater fact sheets, anti litter activity pages, no litter bumper stickers and car litterbags. The car litterbags had "Stop the Littering" printed on one side along with the message "it could cost you...up to a \$2,000 fine, community service work and a point on one's driver license," and a stormwater message on the other. There were more than 700 kits mailed to teachers statewide with enough materials for more than 16,000 students. This was double the kit requests of 2005.

In addition this past year a Pet Waste Station was on display at the booth to educate all visitors not only about litter prevention but also about stormwater pollution prevention. This began as a pilot program at a few rest areas that were located near creek, stream or other nearby watershed areas. The pet waste station offers pet owners a bag to pick up pet waste to reduce/eliminate polluting the nearby water resource. Pet owners have been very receptive to this concept and now the stations are placed throughout the rest area system.

Other Litter Prevention Displays, Meetings, Presentations and Government Radio: The Office of Beautification Programs manned litter prevention displays at various events. These events were Earth Day at NCSU, Earth Day at IBM with N.C. Big Sweep, Tourism Day at the Legislative Building, NCDOT Continuous Improvement Process Award Conference and State Employee Wellness Fair.

In addition to events, the Office of Beautification Programs participated in various meeting presentations and interviews. These included a Whiteville Elementary Litter Sweep student event, N.C. Big Sweep 20-year tribute, and NCDOT Board meeting and other local presentations. Other meetings included board meetings of both N.C Keep America Beautiful and N.C Big Sweep.

There was also a N.C. State Highway Patrol meeting regarding wrecker and towing regulations. During that meeting, policy enhancements were implemented. Wrecker and towing companies called to assist with vehicle removal from accident scenes must remove all vehicle debris as well. Failure to do so will affect their standing on the State Highway Patrol wrecker and towing company call list.

Finally, there were radio and television interviews regarding promotional events. There was an interview on Durham's WTVD talk show with Keep Durham Beautiful which aired prior to the Fall Litter Sweep; as well as interviews on government radio broadcasts on topics of Litter Sweep (spring and fall) and the importance of securing loads.

Swat-A-Litterbug Program: The Office of Beautification Programs continued to administer the Swat-A-Litterbug program. The Swat-A-Litterbug Program is viewed as an educational mechanism intended to inform those observed littering, that it is illegal to litter.

Those observed littering can be reported using the Swat-A-Litterbug online at the Office of Beautification Programs Web site at www.ncdot.org/~beautification, through the mail or by calling the NCDOT Customer Service Office at 1-877-DOT-4YOU. Reports include information regarding the offender's vehicle license plate number, time, date, street, city, county, and a description of the littering offense.

When reports are received, a letter signed by the Colonel of the State Highway Patrol is mailed to the owner of the vehicle reported. The recipient is informed of the observed littering, that littering is illegal and the offense is fineable upon conviction. There are no citations or warnings issued from these reports.

In 2006, approximately 8,250 Swat-A-Litterbug letters were mailed to those observed littering – in 2005 there were more than 7,500 and in 2004 there were 6,600 letters mailed. The program is totally anonymous and no record is kept regarding who submits or receives a letter.

Litter License Plate: As of this report date, there have been 481 litter plates issued. This number is up from 466 in 2005. The General Assembly approved the Litter Prevention license plate during the 2000 session. The initial 300 plates were sold in 2001 and the plate became available through the tag agencies by the beginning of 2002. Ten dollars of each plate sold is diverted to a "Litter Prevention Fund" on a quarterly basis. The money is used to help support other statewide anti litter efforts.

Litter Enforcement – 2006 Summary

Department of Crime Control and Public Safety

In 2006, the State Highway Patrol issued 885 tickets for littering. The State Highway Patrol also partnered with N.C. Department of Transportation by participating in the NCDOT Litter Sweep (spring and fall) by focusing on citing individuals that either littered or failed to properly secure or cover their loads. Troopers issued 301 citations during the spring and fall Litter Sweep.

State Highway Patrol Recap of Litter Charges G.S. 14-399 and local ordinances:

Year	Number of Charges
2006	885
2005	708
2004	681

The Division of Motor Vehicle Enforcement Officers were transferred from the NCDOT to the Department of Crime Control and Public Safety State Highway Patrol in January of 2003. In the table below, the tickets issued for G.S. 20-116(g) violations represent the combined tickets issued by the State Highway Patrol and the DMV enforcement officers.

State Highway Patrol Recap of Improper Loading/covering of Vehicle G.S. 20-116(g):

Year	Number of Charges
2006	1,235
2005	1,384
2004	1,164

Division of Parks and Recreation

State park rangers wrote a total of 34 litter citations during 2006.

Year	Number of Citations
2006	34
2005	60
2004	32

Division of Marine Fisheries - Marine Patrol

In 2006 the Marine Patrol officers issued 13 citations and 2 warnings for a total of 15 cases attributing 78 hours to this effort. In 2005, the Marine Patrol Officers issued 17 littering citations and 8 warnings for a total of 25 cases expending 83 hours.

Marine Patrol Citation Recap:

Year	Citations	Warnings	Time Spent
2006	13	2	78 hours
2005	17	8	83 hours
2004	6	0	69.5 hours

The Marine Patrol is still investigating several more abandoned vessels and the annual closed crab pot clean up season starts on January 15, 2007. Officers will remove several hundred abandoned commercial crab pots from coastal waters during this closed season.

N.C. Wildlife Resources Commission

The Division of Engineering Services has an inventory of 200 boating access areas. Additionally, Engineering Services maintains 38 public fishing access areas across the state. Maintenance and operation of these areas includes the policing and removal of litter. Approximately 3,254 man-hours were spent performing litter removal for the past year. "Littering is Illegal" sign are also maintained on the access areas. The Division is also indirectly involved in litter removal by allowing civic organizations to utilize boating access areas as focal points for litter sweeps. There is no data on the quantity of litter removed during the litter sweeps.

The Division of Wildlife Management reports 2,363 miles driven at a cost of \$827.43. 229 hours expended at a cost of \$5,016.

Wildlife Resources Commission Litter Charges Recap G.S. 14-399 and local ordinances:

Year	Charges
2006 *	657
2005 *	751
2004 *	744

^{*} Includes G.S. 14-399, 113-264 (a), local ordinances and 75A-10(c).

ADMINISTRATIVE OFFICE OF THE COURTS

Research and Planning Division

REPORT ON LITTERING CHARGES AND CONVICTIONS Pursuant to Session Law 2006-79, Section 15

February 1, 2007

This report provides detailed information about littering offenses for calendar year 2006.

Data on charges and convictions by county, the number of charges disposed, and the manner of disposition are provided for the following twelve offenses:

Offense Code 4425 Improper Loading/Covering of Vehicle § 20-116(g) 5370 Commercial Littering § 14-399(e) 5371 Littering Hazardous Waste § 14-399(e) 5372 Littering not more than 15 pounds § 14-399(c) 5373 Littering more than 15 but less than 500 pounds § 14-399(d) 5374 Littering more than 500 pounds § 14-399(e) 5375 Unintentional Littering not more than 15 Pounds § 14-399(c1) 5376 Unintentional Littering more than 15 but less than 500 Pounds § 14-399(d1) 5377 Unintentional Littering more than 500 Pounds § 14-399(e1) 6248 Litter Gameland/Access Area § 113-264(a) 8514 Littering Beer/Wine Container local ordinance Litter State Waters/Inland Lake Waters § 75A-10(c)

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STATEWIDE LITTERING CHARGES AND CONVICTIONS

Calendar Year 2006

be charged in one calendar year and convicted in the next. Thus, for any given calendar year, the defendants convicted are not necessarily the same defendants represents totals from district and superior court. Some of the defendants have other charges in addition to a littering offense. It is possible for a defendant to The following data are from the AOC's Automated Criminal/Infraction System for calendar year 2006. The number of charges, convictions, and dispositions charged in that year. There is not an offense code for GS 75A-10(c); this offense is designated by four asterisks.

					_										
ENCY	Qu'n	- WEC	T		443	11		10			187	2	3	657	751
G AG	cm		1633		764	19		84	2	3	_	12		2118	2092
RGIN	มฺ≔บนูอ	57	<u> </u>	9	361	46	23	6				8		518	428
CHARGES BY CHARGING AGENCY	Doline		7	-	1531	35	4	89	3	1		65	1	2020	1874
RGES	WAY		1											2	6
CHAI		र			23			1						24	26
	Jav	3			13									13	13
			٠												
	Sacionas	000	3	0	1564	99	1	115	8	3	149	36	3	2850	3145
	Chorne	1601	18	7	3333	137	48	175	6	. 4	211	91	5	5636	5473
	Offense	4425	5370	5371	5372	5373	5374	5375	5376	.5377	6248	8514	****	2006 Total	2005 Total
1	L			Ь	L	Ц				نـــــا				•••	

I L	i	Ĺ.,						1	1					
Other	4	3		198	97	21	3	1		23	4	1	284	280
WRC	1			443	11		01			187	2	3	657	751
SHP	1233			764	19		84	2	3	1	12		2118	2002
Sheriff	57	8	9	361	46	23	6				8		518	428
Police	304	7	1	1531	35	4	68	3	1		65	1	2020	1874
DMV	2												2	9
ALE				23			1						24	26
ABC				13									13	13
										•				

	~	TETHOI	METHOD OF DISPOSITION	OSITIO	7
Charaec	î î	Trie	Triol. Mot		
Disposed	Plea	Guilty	Guilty	Dismiss	Other
1601	121	6	1	659	811
16	9			9	4
7	2			3	2
3317	915	40	24	1628	710
149	53	2	4	73	17
37	6		•	18	10
163	21	2		62	78
8	3			5	
5	1			2	2
222	09	1	1	72	88
91	27	3		53	∞
5	-			2	2
5621	1219	57	30	2583	1732
5559	1141	37	34	2254	2093

Three-year Comparison

	Littering Offenses *	*		Numi	er Of C	harges I	Number Of Charges By Charging Agency	ging Ag	gency	
		Number of								
	Number of Charges	Convictions	ABC	ABC ALE	Police	DMV	DMV Sheriff	SHP WRC		Other
2006	4,035	1,948	13	24	1,716	0	461	885	959	280
2005	3,732	1,986	13	26	1,562	0	399	708	751	273
2004	3,469	2,005	10	23	1,377	. 2	368	681 743	743	265

* Totals do not include charges and convictions for offense code 4425, GS 20-116(g).

Calendar Year 2006

The following data are from the AOC's Automated Criminal/Infraction System for calendar year 2006. The number of charges and convictions represents totals from district and superior court. Some of the defendants have other charges in addition to a littering offense. It is possible for a defendant to be charged in one calendar year and convicted in the next. Thus, for any given calendar year, the defendants convicted are not necessarily the same defendants charged in that year.

The numbers in bold represent county totals. County data include only the codes for which there were any charges or convictions. There is not an offense code for littering under GS 75A-10(c); this offense is designated by four asterisks.

	Offense Code	Charges	Convictions		Offense Code	Charges	Convictions
ALAMANCE	4425	25	12	BEAUFORT	4425	17	13
	5372	59	40		5372	33	19
•	5373	9	3		5373	1	1
	5375	2	1		5375	1	0
	***	0	1		6248	1	1
	8514	3	0		8514	1	1
		98 -	57			54	35
ALEXANDER	4425	4	3	BERTIE	4425	5	1
	5372	11	7		5372	14.	8
	5373	1	0		5373	1	0
	6248	1	0	•	5375	7	2
		17	10			27	11
ALLEGHANY	5372	4	3	BLADEN	4425	6	5
•	8514	1	1		5372	16	11
		5	4		5375	3	. 2
				·	8514	1	0
ANSON	4425	9	7	•		26	18
	5372	20	7				
	5373	2	0	BRUNSWICK	4425	42	18
	6248	11	7		5370	2	0
	8514	2	1		5372	27	17
		44	22		5373	1	1
					5374	1	0
ASHE	4425	9	4		5375	2	1
	5372	3	0		6248	1	1
	5373	1	1			76	38
		13	5				
*•				BUNCOMBE	4425	19	6
AVERY	4425	3	1		5372	74	43
	5372	13	9		5373	2	1
		16	10		5375	4	1
	•				6248	1	0
					8514	3	2
		`		•		103	53

	Offense Code	Charges	Convictions		Offense Code	Charges	Conviction
BURKE	4425	12	9	CHATHAM	4425	9	6
	5372	21	8		5372	47	26
	5373	. 4	1		6248	8	4
	5375	1	Ö		8514	0	
	6248		1		0014		1
		1	•			64	37
	8514	1	0				
		40	19	0115501755		_	_
				CHEROKEE	4425	8	6
0.4.5.4.5.5.4.0					5372	14	3
CABARRUS	4425	41	35		5374	1	0
	5372	46	28		5375	1	1
	537.3	1	0	•	8514	1	0
	5375	3	1			25	10
		91	64				
CALDWELL	4425	7	2	CHOWAN	4425	3	4
	5372	30	20		5372	25	16
	5375	0	1		5374	2	0
•	6248	23	18			30	20
	8514	1	0			•	
		61	41	CLAY	4425	1	0
				·	5372	6	2
CAMDEN	4425	1	0		6248	1	1
	5372	1	1		00	8	3
	***	3	1			•	•
		5	2				
				CLEVELAND	4425	19	7
CARTERET	4425	18	10		5370	1	0
	5370	1	0		5371	1	. 0
	5372	63	30		5372	46	21
	5373	2	2		5373	2	1
	5375	2	1		5375	1	0
		86	43		8514	1	Ö
						71	29
CASWELL	4425	· 7	3	•		* -	
	5370	3	2				
	5371	4	0	COLUMBUS	4425	14	7
	5372	8	7		5372	13	6
	5373	2	Ó		5374	3	0
	5374	1	ŏ		8514	1	1
	5375	3	2		0014	31	14
	6248	1	1			31	17
	0240	29	15		•		
		20	10	CRAVEN	4425	18	12
CATAWBA	4425	26	14		5372	71	32
	5372	44	24		5373	3	4
	5373	3	1		5375	2	1
•	5375 5375	3	1		5376	1	1 4
	5375 5377	1	' 1	•	0070	95	50
	6248	9	7	•			30
	0240	86	48		* •	•	
		00	70				

	Offense Code	Charges	Convictions		Offense Code	Charges	Convictions
CUMBERLAND	4425	68	41	FORSYTH	4425	43	25
	5372	59	16		5372	66	43
	5373	1	0		5373	0	1
•	5375	1	0		5375	2	2
		129	57		8514	4	4
,	•			•	33	115	75
CURRITUCK	4425	4	4				
	5372	9	3 .				
	5374	3	0	FRANKLIN	4425	11	6
•	5375 -	1	0		5372	14	7
	8514	1	0		5375	1	0
		18	7		8514	1	0
						27	13
DARE	4425	9	3				
	5372	37	24				
	5373	3	1	GASTON	4425	26	15
	5375	5	1		5372	133	84
	6248	1	3		5373	2	0
	8514	1	1		5375	7	11
		56	33		6248	5	6
					8 <u>5</u> 14	2	ő
DAVIDSON	4425	37	15		00,14	175	116
	5372	20	8				110
	5373	2	Ö	•			
	5374	1	ő	GATES	5372	6	. 3
	5375	6	2	OAILO	3372	O	. 3
	6248	1	0				
•	8514	2	0	GRAHAM	4425	4	0
	0314	69	25	GRAHAM	5372	1	0
		09	23		5372 5375	2 1	1
DAVIE	4425	. 9	A .			·	0
DAVIE	5372	23	4		6248	4	3
		23 1	8 0			8	4
	5373 5375	•					
	5375	1	1	CDANI/II I E	4405	4	•
		34	13	GRANVILLE	4425	4	2
DUBLIN.	4405	00	4.4	•	5372	10	6
DUPLIN	4425	23	14		6248	3	3
	5372	3	1		****	1	0
	5375	3	0			18	11
		29	15				
*				GREENE	4425	2	0
DURHAM	4425	13	. 11		5372	6 8	1
	5372	42	15			8	· 1
	6248	26	18	•			
	8514	2	Ó	GUILFORD	4425	48	25
•		83	44		5372	83	17
		••			5373	4	0
EDGECOMBE	4425	1	0		5374	2	0
	5372	34	9	• .	5377	1	0
	5375	5	1		8514	3	1
	23.0	40	10			141	43
							••

	Offense Code	Charges	Convictions		Offense Code	Charges	Conviction
HALIFAX	4425	9	9	IREDELL	4425	39	20
	5372	29	15		5372	25	14
	5373	2	1		5373	2	0
	5375	3	2		5375	1	1
	6248	1	0		6248	3	2
	02.0	44	27		0240	70	37
		••				,,	,
HARNETT	4425	14	7	JACKSON	4425	3	3
	5370	1	0		5372	16	8
	5372	57	31		5373	1	1
	5373	9	6		5374	1	0
	5375	1	0		6248	1	1
•		82	44		52.0	22	13
HAWMOOD	4405	40	40	IOUNGTON	4405	20	
HAYWOOD	4425	12	12	JOHNSTON	4425	38	24
	5372	10	4		5370	1	0
	5373	1	2		5372	34	12
	5374	4	0		5373	1	1
		27	18		5374	1	0
					5375	2	· 0
			•		5376	1	0
HENDERSON	4425	10	3		8514	3	0
	5370	2	0			81	37
	5372	30	· 18				
	5373	2	1	•	•		
	5374	1	0	JONES	4425	3	3
	5375	5	3		5372	4	. 2
	6248	3	2		5373	1	Ō
	8514	1	1		8514	1	Ö
	0014	54	28			9	5
HERTFORD	4425	4	1	LEE	4425	12	5
	5370	1	0		5372	11	6
	5372	9	4		5373	1	0
	5375	0	2		5375	1	1
		14	7			· 25	12
HOKE ~	4425	6	5	LENOIR	4425	11	5
	5372	40	. 17		5372	21	7
	5373	3	0	•	5373	2	0
	5374	3	0		5375	0	1
		3 1	0		8514	2	1
	8514	53	22		0314	36	14
HYDE	5372	4	2				. (
·	5375	1	0	• .			
	6248		3				
	<u> </u>	3 8	5		· •1		

	Offense Code	Charges	Convictions		Offense Code	Charges	Convictions
LINCOLN	. 4425		E	MOORE	4405	_	
LINCOLN	4425	13	5	MOORE	4425	25	11
	5372	21	9		5372	8	2
	5373	1	1	•	5375	1	1
	5375	3	2		6248	2	0
•		38	17	·		36	14
MACON	4425	4	0	N ASH	4425	29	14
	5372	14	0		5371	1	0
	5375	0	1		5372	16	4
	6248	4	3		5374	1	Q
•	02.10	22	4		5375	Ö	3
			•		6248	5	3
	•				8514	2	2
MADICON	4405	4	0		0014		
MADISON	4425	4	0			54	26
	5372	8	4				
•	5374	2	0				
		14	4	NEW HANOVER	4425	69	28
					5372	132	49
					5373	1	0
MARTIN	4425	6	2		5374	2	0
	5372	4	2	•	5375	7	3
	5375	1	2		8514	7	1
	5376	1	1			218	81
	6248	3	2				•
	02.0	15	9				
		.0		NORTHAMPTON	4425	3	1
•				NORTHAIN TOR	5372	11	
McDOWELL	4425	10	6				4
MCDOVVELL	4425	12	6		6248	1	0
	5372	29	17			15	5
	5373	0	1	•			
	5374	3	1				
	5375	2	1	ONSLOW	4425	52	. 38
•		46	26		5372	37	17
•				,	5373	1	3
•	•		•	•	5374	6	0
MECKLENBURG	4425	134	90		5375	0	1
	5372	226	96			96	59
•	5373	11	3				
	5375	23	20		•		*
	5376	2	1	ORANGE	4425	23	9
	****	1	Ö	Oldaton	5372	35	14
•		16	10		5373	3	1
	8514			•			
		413	220		5375	1	0
					8514	3	1
MITCHELL	5372	8	0			65	25
MONTGOMERY	4425	7	3	PAMLICO	4425	3	1
mon i comerci	5372	37	18		5372	5	3
	5372 5373	1	0	,	5377	1	1
	53/3	-			3311	9	5
		45	21			3	3

·	Offense Code	Charges	Convictions		Offense Code	Charges	Convictio
PASQUOTANK	4425	8	2	RICHMOND	4425	9	3
	5372	27	20		5372	11	6
	5373	1	1		5375	1	1
	6248	1	2		6248	37	26
	8514	1	1		8514	2	1
		38	26		0011	60	37
PENDER	4425	12	7	ROBESON	4425	22	15
	5372	22	4	KODEOOK	5372	46	. 22
	5373	1	0		3312	68	37
	5374	3	. 0			00	31
	5375	0	1				
	5575	38	12	DOCKINGHAM	4.405	•	_
•	•	30	12	ROCKINGHAM	4425	6	5
					5372	20	15
DEDOUMANC	4405	•	0		5373	1	1
PERQUIMANS	4425	2	2		5374	2	0
	5372	5	2		5375	0	1
		7	4		8514	2	0
						31	22
PERSON	4425	6	4	•			
	5372	10	3	ROWAN	4425	16	12
	5373	4	2	•	5372	39	22
	6248	4	2		5375	2	2
	***	0	1		6248	12	12
		24	12		•	69	48
PITT	4425	32	12	RUTHERFORD	4425	5	· 3
	5372	61	21		5372	67	50
	5373	3	1		5376	0	1
•	5375	7			00.0	72	54
	8514	6	6 2				•
		109	42				
				SAMPSON	4425	16	7
					5372	24	9
POLK	4425	2	1		5373	3	ŏ
. •=	5372	24	12		5375	1	1
	5373	2	1		8514	1	Ö
	6248	15	11	•	0517	45	17
-	0240	43	25			40	**
				SCOTLAND	4425	6	1
RANDOLPH	4425	19	10		5372	32	18
	5372	29	15		5375	1	0
•	5373	2	1 .		8514	1	0
	5375	2	0			40	19
	6248	8 60	0 26	~			

		Offense Code	Charges	Convictions		Offense Code	Charges	Convictions
	STANLY	4425	7	1	VANCE	4425	5	3
		5372	46	23	***************************************	5372	13	6
		5373	3	0		5373	6	
		5374	2	Ö				4
		5375	1			5375	1	0
		5376		0		8514	1	1
			0 .	2			26	14
		8514	2	0				
			61	26			•	•
					WAKE	4425	168	119
						5370	6	1
	STOKES	5372	. 14	7	•	5372	469	187
		5373	1	1		5373	4	2
	•	5374	1	0		5374	1	0
			16	8	•	5375	20	13
						5376	0	1
						6248	2	1,
	SURRY	4425	11	2		8514	2	1
		5372	20	- 13		0014	672	325
		5373	1	- 1			0/2	323
		5375	2	2				
		0070	34	18	WARREN	4405	•	•
			34	10	WAKKEN	4425	2	·. 0
						5372	2	2
	OVAZAJNI	4.405				6248	1	1
	SWAIN	4425	2	1			5	3
		5372	5	2				
		5375	3	3				
			10	6	WASHINGTON	5372	9	5
	TRANSYLVANIA	4425	2	2	WATAUGA	4425	5	2
		5372	10	5	WAIAOOA	5371	1	
		5373	1	1			•	0
		6248	Ö,			5372 5375	17	9
		0240	13	9		5375	6	4
			13		,		29	15
	TYRRELL	4425	1	0	WAYNE	4425	18	7
	•	5372	8 9	5		5372	· 22	11
			9	5		5373	3	4
					*** ****	5375	4	
	. '					5377	1 '	2 1 2
	UNION	4425	23	11	• • • •	6248	1 1	2
		5372	26	9			49	27
		5373	3	1			70	
		5375	1	1	•			
		8514	1	Ö	•			
		0014	54	22				
٠				2.6				

	Offense Code	Charges	Convictions
WILKES	4425	8	4
	5372	32	15
	5373	2	6
	5374	1	0
	5375	2	1
	5376	1	1
	6248	6	1
		52	28
WILSON	4425	15	. 7
	5372	61	21
	5373	1	0
	8514	4	1
		81	29
YADKIN	4425	4	3
	5372	20	11
	5373	4	0
	5375	1	Ö
	33.0	29	14
YANCEY	4425	2	1
	5372	5	1
		7	2

LITTERING CHARGES BY COUNTY BY AGENCY Calendar Year 2006

The following data are from the AOC's Automated Criminal/Infraction System for calendar year 2006. The number of charges and convictions represents totals from district and superior court. Some of the defendants have other charges in addition to a littering offense. It is possible for a defendant to be charged in one calendar year and convicted in the next. Thus, for any given calendar year, the defendants convicted are not necessarily the same defendants charged in that year.

The numbers in bold represent county totals. County data include only the codes for which there were any charges or convictions. There is not an offense code for littering under GS 75A-10(c); this offense is designated by four asterisks.

		Offense Code	Charges		•	Offense Code	Charges
ALAMANCE	ALE	5372	1	ASHE	Police	5373	1
	Police	4425	2		Other	5372	2
		5372	42		Sheriff	5372	1
		5373	1		SHP	4425	9
		5375	1				13
		8514	2				
	Other	5372	1	AVERY	Other	5372	3
		5373	1		Sheriff	5372	3
	Sheriff	5372	4	•	SHP	4425	3
		5373	7			5372	1
	SHP	4425	23		· WRC	5372	6
	_	5372	3				16
		5375	1				
		8514	1	BEAUFORT	Police	4425	3
•	WRC	5372	8			5372	12
		55.2	98			8514	1
					Other	5372	2
ALEXANDER	Police	5372	1		Sheriff	4425	1
7.22.0.0.0	Sheriff	5372	1			5372	1
	SHP	4425	4		SHP	4425	13
	•	5372	9		5	5372	16
•	WRC	5373	1			5373	1
		6248	1		WRC .	5372	2
		5 5	17			5375	1
•			••			6248	1
ALLEGHANY	SHP	5372	1			02.0	54
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	WRC	5372	3				
. •		8514	1	BERTIE	Police	5372	. 2
	•	•	5		Other	5373	1
	•				SHP	4425	5
ANSON	Police	4425	7			5372	7
Alloon	. 055	5372	7			5375	7
		8514	1		WRC	5372	5
~'	Sheriff	5372	1			33. 2	27
		5373	i				
	·.	8514	1	BLADEN	Other	5372	1
	SHP	4425	2		Sheriff	5372	2
	·	5372	2 3	•	SHP	4425	6
	WRC	5372	9		···	5372	10
	**110	5373	1		. ,	8514	. 1
		6248	41		WRC	5372	3
		027U	44	•		5375	3
		*	77		* · · ·		26
					-•		

		Offense Code	Charges			Offense Code	Charges
BRUNSWICK	Police	4425	1	CABARRUS	Police	4425	4
		5372	9			5372	24
	DMV	4425	1			5375	1
	Other	5370	1		Other	5372	1
		5372	4		Sheriff	4425	2
		5374	1			5372	3
		6248	1			5373	1
	Sheriff	4425	1			5375	1
		5370	1		SHP	4425	35
		5372	5			5372	17
	SHP	4425	39			5375	1
		5372	5		WRC	5372	1
,		5373	1				91
		5375	2				
	WRC	5372	4				
			76	CALDWELL	ALE	5372	1
					Police	4425	1
				1		5372	12
BUNCOMBE	Police	4425	4			8514	1
		5372	50		Other	5372	1
		5373	1	•	Sheriff	5372	5
		5375	2		SHP	4425	6
		8514	2			5372	11
	Other	5372	4		WRC	6248	23
		8514	1		•		61
	Sheriff	· 5372	6				•
	SHP	4425	15			٠	
		5372	12	CAMDEN	Other	5372	· 1
		5373	1	•		***	1
		5375	2	•	SHP	4425	1
	WRC	5372	2		WRC	***	2
		6248	1				5
			103				
				CARTERET	Police	4425	7
BURKE	Police	4425	2			5372	21
		5372	6			5373	1
		5373	1		Other	5370	1
		8514	1			5372	2
	Other	5372	1		Sheriff	5372	7
~ ¹		5373	1.			5373	1
	Sheriff	5372	3		SHP	4425	11
	SHP	4425	10			5372	32
		5372	9			5375	2
		5373	1		WRC	5372	1
		5375	1				86
	WRC	5372	2				
		5373	_ 1				
		6248	1				
	•		40				

)			Offense Code	Charges			Offense Code	Charges
	CASWELL	Police	4425	2	CHOWAN	Police	5372	5
			5372	1		Other	5372	1
			5375	1		Sheriff	5372	8
		Sheriff	4425	4			5374	2
			5370	3		SHP	4425	3
			5371	4			5372	2
			5372	4		WRC	5372	9
			5373	2				30
			5374	1	•			
			5375	2	CLAY	SHP	4425	1
		SHP	4425	1		•	5372	3
			5372	2		WRC .	5372	3
		WRC	5372	1			6248	1
			6248	1				8
				29				
					CLEVELAND	Police	4425	3
	CATAWBA	ALE	5372	1			5372	19
		Police	5372	23			5373	1
			5373	3		O	8514	1
		01	5375	1		Sheriff	4425	1
		Sheriff	5372	1		•	5370	1
		SHP	4425	26			5371	1
			5372	14			5372	10
)			5375	1		OUD	5373	1
		MOC	5377	1		SHP	4425	15
		WRC	5372 5375	5			5372	. 16
			5375 6248	1 9		WRC	5375 5370	1
			0240	86	·	WKC	5372	1 71
	CHATHAM	Police	4425	1	COLUMBUS	Police	5372	5
			5372	1		Other	5372	2
		Other	5372	1			5374	3
		Sheriff	5372	6	•	SHP	4425	14
	•	SHP	4425	8			5372	4
			5372	3			8514	1
		WRC	5372	36		WRC	5372	2
			6248	8				31
				64				
		•	•		CRAVEN	Police	4425	6
	CHEROKEE	Police	5372	3			5372	28
		Sheriff	5372	1			5373	1
			5374	1			5376	1
			8514	1		Sheriff	5372	1
		SHP	4425	8		SHP	4425	12
			5372	3			5372	40
			5375	1 ·			5373	2
)		WRC	5372	-7	•		5375	2
		•		25		WRC	5372	2
						V		95

CUMBERLAND ABC ALE 5372 1 Police 4425 14 Sheriff 5372 2 Police 4425 14 Police 4425 14 Sheriff 5372 2 Police 4425 14 Sheriff 5372 2 Police 5372 23 Sheriff 5372 1 Police 5372			Offense Code	Charges			Offense Code	Charges
Police	CUMBERLAND	ABC	5372	1	DAVIE	Police	4425	1
Police		ALE	5372	1			5372	1
S372 23	•	Police	4425	14		Sheriff		2
Sample			5372	23				
Other 5372 1 1 5372 11 5372 11 5373 1 5375 1 1 5375 1 1 5375 1 1 5372 11 5372			5375			SHP		
Sheriff		Other		1				
Sheriff				1				
SHP 4425 53 5372 10 DUPLIN Police 4425 1		Sheriff		1		WRC		
SHP								
CURRITUCK Variable		SHP						
CURRITUCK CURRITUCK Color					DUPLIN	Police	4425	1.
CURRITUCK Other 5372 1 Sheriff 4425 1 Sheriff 4425 1 Sheriff 4425 1 Sheriff 4425 1 Sheriff 5372 6 S373 3 S374 3 S374 3 S375 1 SHP 4425 3 S375 1 SHP 4425 3 S372 2 S372 2 S372 2 S372 2 S372 2 S372 2 S372 2 S372 2 S372 2 S372 2 S372 2 S372 2 S372 2 S372 2 S372 2 S372 2 S372 2 S372 1 S372 1 S372 1 S372 1 S372 1 S372 1 S372 1 S372 1 S372 1 S372 1 S372 1 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 5 S373 3 SHP 4425 1 S372 3 S375 3 SHP 4425 1 S372 3 S375 3 SHP 4425 1 S372 3 SHP 4425 1 S373 3 SHP 4425 1 S373 3 SHP 4425 1 S373 3 SHP 4425 1 S373 3 SHP 4425 1 S373 3 SHP 4425 1 S373 3 SHP 4425 1 S373 3 SHP 4425 1 S373 3 SHP 4425 1 S373 3 SHP 4425 1 S373 3 SHP 4425 1 S374 1 S375 3 SHP 4425 1 S375 3 SHP 4425 3 S375 3 SHP 4425 33 S375 3 SHP 4425 33 S375 3 SHP 4425 33 S373 2 SHP 4425 33 S373 2 SHP 4425 33 S373 2 SHP 4425 33 S373 2 SHP 4425 33 S373 2 SHP 4425 33 S373 2 SHP 4425 33 S373 2 SHP 4425 33 S373 2 SHP 4425 33 S375 3 SHP 4425 33 S372 3 SHP 4425 33 S375 3 SHP 4425 33 S375 3 SHP 4425 33 S375 3 SHP 4425 34 SHP 4425 34 SHP 4425 34 SHP 4425 34 SHP 4425 34 SHP 4425 34 SHP 4425 34 SHP 4425 34 SHP 4425 34 SHP 4425 34 SHP 4425 34 SHP 4425 34 S	•	WRC						
CURRITUCK Other 5372 1 Sheriff 4425 1 Sheriff 4425 1 Sheriff 4425 1 Sheriff 4425 1 Sheriff 4425 1 Sheriff 4425 1 Sheriff 4425 1 Sary 6 Sary 6 Sary 3 Sary 3 Sheriff 4425 3 Sheriff 6428 1 Sheriff 6428 1 Sheriff 6428 1 Sheriff 6428 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6425 6 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 5 Sary 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1 Sheriff 6426 1						Sheriff		
CURRITUCK	*							
Sheriff	CURRITUCK	Other	5372	1		O		
S372 6 5374 3 5375 1 SHP 4425 3 5372 28 5375 2 5375 2 5375 2 5372 20 5372 20 5372 20 5372 20 5372 20 5372 20 5372 20 5372 20 5372 20 5372 20 5372 20 5372 20 5372 20 5372 20 5372 20 5372 20 5372 20 5372 20 5372 20 5375 3 5375								3
S374 3 5375 1							0070	
SHP								20
SHP				1				
DARE SHP				1	DURHAM	ARC	5372	1
DARE ALE 5372 18 0ther 5372 19 0ther 5372 10 0ther 5372 11 6248 17 Police 4425 4425 5372 13 5372 28 Sheriff 4425 38 5372 13 5372 20 Sheriff 5372 10 Sheriff 5372 10 Sheriff 5372 10 Sheriff 5372 11 5372 10 Sheriff 5372 11 5372 11 5372 11 5372 11 5373 3 SHP 4425 5372 11 5375 3 EDGECOMBE ALE 5372 3 Sheriff 5372 21 5373 5372 10 83 BDGECOMBE ALE 5372 3 Sheriff 5372 11 5375 1 5375 1 DAVIDSON Police 4425 4425 5372 7 5374 1 5375 3 WRC 5372 7 5374 5375 3 Sheriff 5372 7 5375 3 Sheriff 5372 7 5375 3 Sheriff 5372 2 Sheriff 5372 3 Sheriff 5372 5373 2 Sheriff 5372 3 Sheriff 5372 5373 5375 3 WRC 5372 5375 3 WRC 5372 5375 3 WRC 5372 5376 3 WRC 5372 5376 3 WRC 5372 5376 3 WRC 5372 5376 3 WRC 5372 5376 5376 3 WRC 5372 5376 5376 5376 5377 5376 5377 5378 5378 5379 5370		SHP			DOMINI			
DARE ALE 5372 Police 4425 4 Police 4425 5372 5375 2 5375 2 5375 2 Sheriff 5372 5373 3 SHP 4425 55 5372 11 5375 3 SHP 4425 55 5372 11 5375 3 BEDGECOMBE ALE 5372 3 Sheriff 5372 10 DAVIDSON Police 4425 5372 7 5372 7 5372 7 5372 7 5372 7 5372 7 5372 7 5372 7 5372 7 5372 7 5372 7 5372 7 5372 7 5372 7 5372 7 5372 7 5372 7 5372 7 5372 7 5373 1 WRC 5372 7 5372 7 5373 1 WRC 5372 7 5373 1 WRC 5372 7 5373 1 WRC 5372 7 5373 1 WRC 5372 7 5374 1 WRC 5372 3 Sheriff 5372 7 5373 2 Sheriff 5372 7 5373 2 Sheriff 5372 7 5374 5375 3 WRC 5375 3 Sheriff 5372 7 5375 3 Sheriff 5372 7 5375 3 Sheriff 5372 7 5375 3 WRC 5375 3 WRC 5372 3 Sheriff 5372 5373 2 Sheriff 5372 3 Sheriff 5372 5373 2 Sheriff 5372 3 Sheriff 5372 Sheriff 5373 Sh		0111			•	Louce		
DARE ALE 5372 2 Police 4425 4 Police 4425 2 Formal State of Sampl			3372		•			
DARE ALE 5372 2 Police 4425 4 Police 4425 4 Sheriff 4425 3 5372 2 5375 2 SHP 4425 5 8514 1 Sheriff 5372 8 SHP 4425 5 5373 3 SHP 4425 5 5372 11 S372 11 S375 3 WRC 5372 3 Police 5372 21 Police 5372 2 SHP 4425 5 SHP 4425 5 STATE S				10		Other		
Police	DARF	Δ1 Ε	5372	2		Other		
Sample	DAIL					Chariff		
Sheriff 5375 2		Police				Siletiii		ુ ૧
Sheriff 5372 8						CHD		2
Sheriff 5372 8 WRC 6248 9 5373 3 SHP 4425 5 5372 11 5375 3 EDGECOMBE ALE 5372 3 WRC 5372 3 Police 5372 21 6248 1 5375 1 Sheriff 5372 6 SHP 4425 1 STATE TO S						SHE		
SHP 4425 55 5372 11 5375 3 EDGECOMBE ALE 5372 3 WRC 5372 3 6248 1 5375 1 DAVIDSON Police 4425 4 5374 1 WRC 5372 3 5374 1 WRC 5375 1 5375 3 8514 2 Other 5372 3 Sheriff 5372 2 SHP 4425 33 5372 2 SHP 4425 33 5372 3 WRC 5372 3 WRC 5372 5 6248 1	•	Shoriff				WPC		
SHP		Sileilli				VVAC	0240	
S372 11		end						03
WRC 5375 3 EDGECOMBE ALE 5372 3 Police 5372 21 5375 1 5375 1 5375 1 5372 6 SHP 4425 1 5372 3 5374 1 WRC 5375 3 40 8514 2 Other 5372 3 5375 3 SHP 4425 33 5372 3 5375 3 WRC 5372 3 5375 3 WRC 5372 3 5375 3 WRC 5372 5 6248 1		SHE						
WRC 5372 3 Police 5372 21 6248 1 5375 1 566 Sheriff 5372 6 SHP 4425 1 DAVIDSON Police 4425 4 5372 3 5374 1 WRC 5375 1 5375 3 WRC 5372 3 Sheriff 5372 2 Sheriff 5372 2 Sheriff 5372 2 Sheriff 5372 2 Sheriff 5372 2 WRC 5372 3 5375 3 WRC 5372 5 6248 1					EDGECOMPE	۸۱۵	E272	. 3
6248 1 5375 1 566 Sheriff S372 6 SHP 4425 1 DAVIDSON Police 4425 4 5372 3 5372 7 5375 4 5374 1 WRC 5372 1 5375 3 WRC 5372 1 5373 2 Sheriff 5372 2 SHP 4425 33 5372 3 5375 3 WRC 5372 5 6248 1	• •	WDC			EDGECOMBE			
DAVIDSON Police 4425 4 5372 6 DAVIDSON Police 4425 4 5372 7 5372 7 5375 4 5375 3 WRC 5372 2 Sheriff 5372 2 Sheriff 5372 2 WRC 5372 3 5375 3 WRC 5372 5 6248 1		WAC			•	Police		
DAVIDSON Police 4425 4 5372 7 5372 7 5375 4 5375 3 8514 2 Other 5372 3 5373 2 Sheriff 5372 2 SHP 4425 33 5372 3 5375 3 WRC 5372 5 6248 1	•		0248	•		Ob:		
DAVIDSON Police 4425 4 5372 7 5375 4 5374 1 WRC 5372 1 5375 3 8514 2 Other 5372 3 5373 2 Sheriff 5372 2 SHP 4425 33 5372 3 5375 3 WRC 5372 5 6248 1				96				
5372 7 5375 4 5374 1 WRC 5372 1 5375 3 8514 2 Other 5372 3 5373 2 Sheriff 5372 2 SHP 4425 33 5372 3 5375 3 WRC 5372 5 6248 1	DAVADCON	Dalias	4405	4		SHP		
5374 1 WRC 5372 1 5375 3 40 8514 2 Other 5372 3 5373 2 Sheriff 5372 2 SHP 4425 33 5375 3 WRC 5372 5 6248 1	DAVIDSON	Police						
5375 3 40 8514 2 Other 5372 3 5373 2 Sheriff 5372 2 SHP 4425 33 5372 3 5375 3 WRC 5372 5 6248 1				/		14/50		
8514 2 Other 5372 3 5373 2 Sheriff 5372 2 SHP 4425 33 5372 3 5375 3 WRC 5372 5 6248 1				1		WRC	5372	
Other 5372 3 5373 2 Sheriff 5372 2 SHP 4425 33 5372 3 5375 3 WRC 5372 5 6248 1	~· ·				•			40
5373 2 Sheriff 5372 2 SHP 4425 33 5372 3 5375 3 WRC 5372 5 6248 1	•	-			•			•
Sheriff 5372 2 SHP 4425 33 5372 3 5375 3 WRC 5372 5 6248 1		Other					••	
SHP 4425 33 5372 3 5375 3 WRC 5372 5 6248 1				2				
5372 3 5375 3 WRC 5372 5 6248 1								
WRC 5372 5 6248 1		SHP		33	•			
WRC 5372 5 6248 1				3				•
6248 1				3				
	•	WRC						
69	•		6248			**		
				69		•		

		Offense Code	Charges			Offense Code	Charges
FORSYTH	Police	4425	14	GRANVILLE	Police	5372	3
,		5372	48		Sheriff	5372	2
		8514	4		SHP	4425	4
	Other	4425	1			5372	4
	Sheriff	5372	5		WRC	5372	1
		5375	1			6248	3
	SHP	4425	28			****	1
	.	5372	9				18
		5375	1				
	WRC	5372	4				
			115	GREENE	Other	5372	1
					Sheriff	5372	3
		•			SHP	4425	2
FRANKLIN	Police	4425	1			5372	1
		5372	7	•	WRC	5372	· 1
		5375	1				8
		8514	1				
	Sheriff	4425	¹ 1				
		5372	2	GUILFORD	ALE	5372	2
	SHP	4425	9		Police	4425	18
		5372	4			5372	53
	WRC	5372	1		•	5373	3
			27			8514	2
						5374	2
						5372	13
GASTON	Police	. 4425	8		Sheriff	4425	. 2
		5372	32			5372	8
		5375	3 [°] 2		SHP	4425	. 28
		8514	2			5372	7
	Other	4425	1			5373	1
•		5372	42			5377	1
		5375	2			8514	1
	SHP	4425	17				141
		5372	52				
	•	5373	2	•			
• *		5375	2	HALIFAX	ALE	5372	1
	WRC	5372	7 .		Police	5372	6
		6248	5			5373	1
			175			5375	1
					Other	5373	1
_					Sheriff	5372	5
GATES~	SHP	5372	5			5375	1
	WRC	5372	1		SHP	4425	9
			6		14/50	5372	7
					WRC	5372	10
						5375	1
GRAHAM	Police	5375	1			6248	1
	Sheriff	5372	2	•			44
	SHP	4425	···1				
	WRC	6248	4				
			8		·		

		Offense Code	Charges			Offense Code	Charges	ŀ
HARNETT	Police	4425	1	HOKE	Police	5372	21	
,		5372	9			5373	1	
		5375	1		Other	5373	1	
	Sheriff	4425	1		0	8514	1	
		5370	1		Sheriff	5372	14	
		5372	10		0	5374	3	
		5373	8		SHP	4425	6	
	SHP	4425	12 ·		0	5372	3	
		5372	11	•		5373	1	
	WRC	5372	27		WRC	5372	2	
		5373	1		,,,,	***	53	
			82	•				
				HYDE	SHP	5372	2	
HAYWOOD	Police	4425	1		WRC	5372	2	
		5372	1			5375	1	
	Other	5374	4			6248	3	
	Sheriff	4425	2			0240	3 8	
		5372	4				· ·	
		5373	1					
. •	SHP	4425	9	IREDELL	ABC ·	5372	1	
		5372	4		Police	4425	5	
	WRC	5372	, 1		. 000	5372	12	
			27		Other	5373	2	í
					Sheriff	4425	1	,
					CC.	5372	4	
HENDERSON	Police	4425	1		SHP	4425	33	
		5370	1			5372	. 6	
		5372	11		WRC	5372	2	
		8514	1			5375	1	
	Other	5370	1			6248	3	
		5373	2				70	
	Sheriff	5372	6		•		•	
		5374	1		•			
	SHP	4425	9	JACKSON	Police	5372	5	
		5372	11		Other	5372	1	
		5375	5		Sheriff	5372	4	
		6248	1			5374	1	
	WRC	5372	2		SHP	4425	* 3	
		6248	2			5372	4	
			54			5373	1	
•					WRC	5372	2 1	
			·		•	6248		
HERTFORD	Police	4425	1				22	
		5372	2				•	
•	Sheriff	5370	1					
		5372	1					
	SHP	4425	3					
		5372	-4	4				(
	WRC	5372	2					
·			14		×			

		Offense Code	Charges			Offense Code	Charges
JOHNSTON	ALE	5372	2	LINCOLN	Police	5372	6
	Police	4425	3			5375	1
•		5370	1		Sheriff	5372	3
		5372	17			5373	1
		5376	1			5375	1 .
		8514	1		SHP	4425	13
	Other	5372	1			5372	11
		5374	1			5375	1
	Sheriff	5372	3		WRC	5372	1
		5373	1				38
	SHP	4425	35				•
		5372	11	MACON	Police	4425	1
		5375	2			5372	9
		8514	1		Sheriff	4425	2
	WRC	8514	1			5372	5
			81		SHP	4425	1
					WRC	6248	4
							22
JONES	Police	5372	1				
		5373	1	MADISON	Police	5372	1
		8514	1		Other	5374	1
	SHP	4425	3		Sheriff	5372	2
		5372	2			5374	1
	WRC	5372	1		SHP	4425	4
	•		9			5372	2
					WRC	5372	3
					-		14
LEE	Police	4425	6				•
		5372	7				
		5375	1	MARTIN	Sheriff	4425	1
	Other	5373	1			5372	2 5
	Sheriff	5372	2		SHP	4425	
	SHP	4425	6			5372	2
,		5372	2	•		5375	1
,	•		25	•		5376	1
•. •					WRC	6248	3
							15
LENOIR	Police	4425	1				
		5372	9	McDOWELL	Police	5372	3
	•	5373	2		Other	5372	2
-	SHP	4425	10			5374	1
		5372	12		Sheriff	5372	3 2
	•	8514	2			5374	
			36		SHP	4425	11
•						5372	11
			•			5375	1
					WRC	. 4425	1
						5372	10
			·			5375	1
					•		46

		Offense Code	Charges			Offense Code	Charges
MECKLENBURG	ABC	5372	9	NASH	Police	4425	3
	ALE	5372	1	***************************************	. 000	5371	1
	Police	4425	34	•		5372	6
		5372	166			5374	1
		5373	9	•		8514	1
		5375	18		Sheriff	5372	1
		5376	·1		Sileili		1
		****	1		SHP	8514 4425	1
		8514	15		SHE		26
	Other	5372			MDC	5372	6
	Other		8		WRC	5372	3
•		5373	2			6248	5
	OUD	5376	1				54
	SHP	4425	100				
		5372	35				
		5375	5	NEW HANOVER	Police	4425	15
		8514	1_			5372	78
	WRC	5372	7			5373	1
			413			5375	7
				,		8514	7
					Other	5372	16
MTICHELL	Police	5372	2		Sheriff	4425	6
	Sheriff	5372	6			5372	23
			8			5374	2
					SHP	4425	48
						5372	9
MONTGOMERY	Police	4425	1		WRC	5372	6
		5372	5				218
	Other	5372	1				•
		5373	1				
•	SHP	4425	6	NORTHAMPTON	Sheriff	5372	3
		5372	2		SHP	4425	3
	WRC	5372	29			5372	4
•			45		WRC	5372	4
						6248	1
MOORE	Police	4425	3	•			15
		5372	3				,
		5375	1				
	DMV	4425	1	ONSLOW	Police	4425	3
	Sheriff	4425	9			5372	27
		5372	4		Other	5372	3
	SHP	4425	12			5374	6
-		5372	1		Sheriff	5372	3
	WRC	6248	2		SHP	4425	49
		•	36			5372	4
	·		-			5373	1
							96

		Offense Code	Charges			Offense Code	Charges
ORANGE	Police	4425	1	PERSON	Police	4425	1
		5372	14			5372	2
•		8514	2		Other	5372	2
•	Other	5372	12			5373	1
		5373	3			6248	3
		5375	1		Sheriff	5372	3 2
		8514	1.			5373	2
	Sheriff	5372	1		SHP	4425	5
	SHP	4425	22			5372	3
		5372	3			5373	1
	WRC	5372	5	•	WRC	5372	1
			65			6248	1
							24
PAMLICO	Sheriff	5372	1				
	SHP	4425	3	PITT	ABC	5372	1 .
		5372	4		ALE	5372	1
		5377	1		Police	4425	5
			9			5372	. 31
						5373	1
						5375	5
PASQUOTANK	ALE	5372	2			8514	3
	Police	5372	13		Other	5372	2
	•	5373	1		Sheriff	4425	1
		8514	1			5372	2
	SHP	4425	8			5373	2
		5372	2			8514	, 1
	WRC	5372	10		SHP	4425	26
		6248	1			5372	18
			38			5375	1
						8514	2
			_		WRC	5372	6
PENDER	Police	5372	3		•	5375	1
•	Other	5372	1				109
. •		5373	1				
	Oh	5374	1.	DOL IZ	Dalla.	5070	•
	Sheriff	4425	1	POLK	Police	5372	3
,		5372	2		Sheriff	5372	5
	CUD	5374	2		SHP	4425	2
1	SHP	4425	11 16			5372 5373	10
		5372	16		WBC	5373 5373	2
			38		WRC	5372 6248	6 15
						6248	15 43
PERQUIMANS	Other	5372	2	•			40
renguiiviAN3	SHP	4425	3 2				•
•	WRC	5372	2	•	•		
•	WIRC	001Z	7	-			

2006 LITTERING CHARGES BY COUNTY BY AGENCY

		Offense Code	Charges			Offense Code	Charges
RANDOLPH	Police	4425	1	ROWAN	ALE	5372	1
		5372	11		Police	4425	3
		5373	1			5372	8
		5375	1			5375	1
	Other	4425	1		Sheriff	4425	1 -
		5372	1			5372	6
	SHP	4425	17		SHP	4425	12
		5372	14			5372	5
		5375	[*] 1			5375	1
	WRC	5372	3		WRC	5372	19
		5373	1			6248	12
		6248	8				69
			60	•			
DIGITAGUE	5 "			RUTHERFORD	Police	4425	1
RICHMOND	Police	5372	3			5372	16
	Ob:	5375	1		Other	5372	4
	Sheriff	4425	1		Sheriff	5372	7
		5372	2	•	SHP	4425	4
	CLID	8514	2		14/50	5372	15
	SHP	4425	8	•	WRC ²	5372	25
	MBC	5372 5372	3				72
	WRC	5372	3				
		6248	37	CAMBOON	Dalias	4405	. 0
•			60	SAMPSON	Police	4425	· 2
						5372 8514	4
ROBESON	ALE	5372	1		Other	5373	1 . 3
ROBESON	Police	4425	4		Sheriff	5373 5372	. 3 9
	i Olice	5372	11		SHP	4425	14
	Other	5372	2		SHE	5372	9
	Sheriff	5372	6			5372 5375	1
	SHP	4425	18		WRC	5372	2
	0.11	5372	17		WIC	3372	45
	WRC	5372	9				43
	******	00,2	68				
				SCOTLAND	Police	4425	1_
DOOKINGUAM	D-11	14405	•			5372	7
ROCKINGHAM	Police	4425	2			5375	1
		5372	7	•	045	8514	1
***		5374	2		Other	5372	1
	041	8514	2		SHP	4425	5
	Other	5372	1		14/50	5372	8
	Sheriff	5372	2		WRC	5372	16
•	SHP	4425	4				40
		5372	8				•
	WDO	5373	1				
•	WRC	5372	2 31		•		
			31	-			

2006 LITTERING CHARGES BY COUNTY BY AGENCY

		Offense				Offense	
		Code	Charges			Code	Charges
STANLY	Police	4425	5	UNION	Police	4425	6
		5372	22			5372	6
	;	5373	1		Other	5372	2
		5375	1 .			8514	1
	Sheriff	5372	2		Sheriff	4425	1
	•	5373	2 2 2	•		5372	11
		5374	2			5373	3
	SHP	4425	2 9 2			5375	1
		5372	9		SHP	4425	16
		8514	2			5372	4
	WRC	5372	13		WRC	5372	3
			61				54
STOKES	Police	5372	.1				
	Other	5372	1	VANCE	ALE	5372	2
	Sheriff	5372	3		Police	8514	1
		5374	1		Other	5372	1
•	SHP	5372	6		Sheriff	4425	1
	WRC	5372	3		5	5372	3
		5373	1			5373	5
		00.0	16		SHP	4425	4
					0	5372	6
SURRY	Police	5372	5		•	5373	1
	. 000	5375	-1		•	5375	1
	Other	5372	2		WRC	5372	1
	Sheriff	5372	2		WILC	3312	26
	SHP	4425	11				20
	OI II	5372	8				
		5373	. 1	WAKE	ALE	5272	4
		5375	1	WAKE		5372	1
	WRC	5373 5372	3		Police	4425	70
	WKC	5572	3 4		•	5370	5
			34			5372	384
CWAIN.	Dalias	5070	•			5373	1
SWAIN .	Police	5372	2			5375	5
	Sheriff	4425	1	·		8514	2
	SHP	4425	1		Other	4425	1
		5372	3			5372	37
;		5375	3			6248	2
			10	•	Sheriff	4425	9
						5370	1
TRANSYLVANIA	Police	5372	3			5372	23
	Other	5373	1			5373	2
•.	Sheriff	5372	1			5374	1
**: *	SHP	4425				5375	1
		5372	4		SHP	4425	88
	WRC	5372	2			5372	24
•		•	13			5373	1
						5375	14
TYRRELL	Sheriff	5372	1		•		672
	SHP	4425	1				
		5372	6	No.			
•	WRC	5372	1				
			9		and the second		

2006 LITTERING CHARGES BY COUNTY BY AGENCY

		Offense Code	Charges			Offense Code	Charges	
WARREN	Sheriff	5372	1	WILSON	Police	4425	1	
	SHP	4425	2			5372	21	
		5372	1			5373	1 .	
	WRC	6248	1			8514	3	
			5		Sheriff	5372	10	
	•					8514	1	
					SHP	4425	14	
WASHINGTON	SHP	5372	7			5372	4	
	WRC	5372	2		WRC	5372	26	
		•	9				81	
WATAUGA	ALE	5375	1	YADKIN	Police	5372	6	
	Police	5372	15		Other	5372	1	
		5375	4		Sheriff	5372	1	
	Sheriff	5371	1			5373	1	
	SHP	4425	5		SHP	4425	4	
		5372	2			5372	10	
		5375	1			5375	1	
			29	•	WRC	5372	2	
					•	5373	3	
14/41/19					·		29	
WAYNE	Police	4425	9					
		5372	13	VANOEV	.	5070	_	
		5373	1	YANCEY	Police	5372	1	
	Other	5377	1		Sheriff	5372	. 1	
	Sheriff	5372 4425	1 2		SHP	4425	2	
	Sheriii	5372	4		WRC	5372 5372	. 1 2	
	SHP	4425	7		WIC	3372	7	
	0.11	5372	3				•	
		5375	4					
	WRC	5372	1			•		
		5373	2					
•	•	6248	1	•				
			49					
WILKES	Police	5372	4					
	Other	5372	3					
		5373	1					
÷.*		5374	1		•			
	Sheriff	5372	12					
		5373	1					
	SHP	4425	8					
		5372	9					
		5375	2	·				
		5376	1					
	WRC	5372	4	•				
	•	6248	6				•	
			52		* •			

GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2005

SESSION LAW 2006-79 HOUSE BILL 2165

AN ACT TO MAKE CLARIFYING, CONFORMING, AND TECHNICAL AMENDMENTS TO VARIOUS LAWS RELATED TO THE ENVIRONMENT AND NATURAL RESOURCES, AND TO AMEND OR REPEAL VARIOUS ENVIRONMENTAL REPORTING REQUIREMENTS.

The General Assembly of North Carolina enacts:

SECTION 15. G.S. 147-12(b) reads as rewritten:

The Department of Transportation, the Department of Correction. the Department of Crime Control and Public Safety, the State Highway Patrol, the Wildlife Resources Commission, the Division of Parks and Recreation in the Department of Environment and Natural Resources, and the Division of Marine Fisheries in the Department of Environment and Natural Resources shall deliver to the Governor by February 1 and August 1 of each year detailed information on the agency's litter enforcement, litter prevention, and litter removal efforts. The Administrative Office of the Courts shall deliver to the Governor by February 1 and August 1 of each year detailed information on the enforcement of the littering laws of the State, including the number of charges and convictions under the littering laws of the State. The Governor shall gather the information submitted by the respective agencies and deliver a consolidated semiannual annual report on or before March 1 and September 1 of each year to the Environmental Review Commission, the Joint Legislative Transportation Oversight Committee, and the House of Representatives and the Senate Appropriations Subcommittees on Natural and Economic Resources."

Attachment B: "Keep NC Clean and Green" Signs Posted By County

Signs

7

12

15

17

18

9

County	# Signs	County	# Signs	County
Alamance	13	Hoke	7	Warren
Alexander	5	Hyde	7	Washington
Alleghany	12	Iredell	15	Watauga
Anson	10	Jackson	10	Wayne
Ashe	13	Johnston	21	Wilkes
Avery	12	Jones	10	Wilson
Beaufort	14	Lee	9	Yadkin
Bertie	9	Lenoir	14	Yancey
Bladen	17	Lincoln	13	
Brunswick	12	Macon	6	
Buncombe	16	Madison	10	· · · · · · · · · · · · · · · · · · ·
Burke	12	Martin	15	
Cabarrus	15	McDowell	13	
Caldwell	10	Mecklenburg	20	
Camden	5	Mitchell	10	
Carteret	6	Montgomery	12	
Caswell	16	Moore	11	
Catawba	15	Nash	20	
Chatham	15	New Hanover	8	
Cherokee	6	Northampton	14	•
Chowan	6	Onslow	10	
Clay	3	Orange	14	
Cleveland	17	Pamlico	4	
Columbus	15	Pasquotank	4	
Craven	10	Pender	12	
Cumberland	18	Perquimans	4	
Currituck	7	Person	9	
Dare	5	Pitt	20	
Davidson	14	Polk	8	
Davie	9	Randolph	18	
Duplin	17	Richmond	8	
Durham	14	Robeson	15	
Edgecombe	16	Rockingham	16	
Forsyth	19	Rowan	13	
Franklin	18	Rutherford	12	-
Gaston	18	Sampson	20	
Gates	5	Scotland	12	
Graham,	3	Stanly	12	
Granville	10	Stokes	12	
Greene	12	Surry	14	
Guilford	24	Swain	6	
Halifax	18	Transylvania	8	
Harnett	18	Tyrrell	3	
Haywood	10	Union	15	
Henderson	11	Vance	8	
Hertford	10	Wake	31	

- Discretionary signs (1995) 20 per Highway Division (a total of 280)
- Rest Areas & Welcome Centers 58
- Total Signs 1,827

In addition to the "Keep NC Clean & Green" signs there are approximately 1400 "Littering Is Illegal" signs posted across the state. These were issued at a rate of 100 per Highway Division.

North Carolina Contacts

Statewide Contacts

N.C. Department of Transportation

George Kapetanakis NCDOT Litter Programs Coordinator Office of Beautification Programs gkapetanakis@dot.state.nc.us (919) 715-3188 Helen Landi Director Office of Beautification Programs hlandi@dot.state.nc.us (919) 715-3188

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Patti Avery, State Lead CSWP Coordinator Division of Community Corrections (CSWP) kpb02@doc.state.nc.us 919-716-3104

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Wildlife Resources Commission

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Other Statewide Volunteer Groups

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Judy Bolin
President
ncbigsweep@bellsouth.net
(919) 366-3888

N.C. Keep America Beautiful, Inc. Brenda Ewadinger Interim Director bargebf@co.mecklenburg.nc.us (704) 432-1772



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

October 1, 2007

TO:

Senator Dan Clodfelter

Senator Charlie Albertson Representative Pryor Gibson Representative Lucy Allen

FROM:

William G. Ross Jr., Secretary

RE:

Annual Report on Basinwide Water Quality Management Plans

G.S. 143-215.8B requires the Department of Environment and Natural Resources to report to the Environmental Review Commission each year on the progress in developing and implementing basinwide water quality management plans and on increasing public involvement and public education in connection with basinwide water quality management planning. If you have any questions please contact Alan Clark at (919) 733-5083, extension 570.

Attachment

cc: Coleen Sullins



Annual Report from the Division of Water Quality's Basinwide Planning Program on Progress in Developing and Implementing Basinwide Water Quality Plans

BACKGROUND

G.S. 143-215.8B requires that Basinwide Water Quality Plans be prepared for all seventeen major river basins in North Carolina within a maximum five-year time period, and that the North Carolina Environmental Management Commission report annually to the Environmental Review Commission. This constitutes the annual Report for the time period from October 1, 2006 to September 30, 2007. The plans are intended to improve effectiveness, efficiency, and consistency of the state Water Quality Program.

The Basinwide Planning Program finalized the first five-year cycle of basin plans in May 1998. The second cycle of plans was completed in March 2003. The third cycle of basinwide water quality plans is well underway, with the finalization and Environmental Management Commission approval of the Neuse (July 2002), Lumber (December 2003) Tar-Pamlico (March 2004), Catawba (September 2004), French Broad (April 2005), New (October 2005), Cape Fear (October 2005), Roanoke (September 2006), Watauga (January 2007), Little Tennessee (March 2007), Hiwassee (March 2007), Savannah (March 2007), White Oak (May 2007), Chowan (September 2007), and Pasquotank (September 2007) River Basinwide Water Quality Plans. Completion of the Broad and Yadkin-Pee Dee plans is well underway and these remaining plans will be presented to the Water Quality Committee in the next few months for public review and input. Their approval will complete the third cycle. Activities related to gathering formal public input on the basinwide plans during October 2006 through September 2007 are presented below.

River Basin	Plans Approved by Environmental Management Commission	Public Review
Watauga	January 2007	Oct-Nov 2006
Little Tennessee	March 2007	January 2007
Hiwassee	March 2007	January 2007
Savannah	March 2007	January 2007
Chowan	September 2007	July 2007
Pasquotank	September 2007	July 2007

PROGRAM PRIORITIES

- 1. Development and implementation of Basinwide Plans for water quality improvement and protection.
- 2. Promotion of public understanding and involvement and in water quality.

3. Interagency coordination and collaboration activities related to basinwide planning, water quality protection and improvement.

BASINWIDE PLANNING IMPLEMENTATION ACCOMPLISHMENTS

Many activities have occurred over the past year that are not tied to a specific basin, but rather can be applied to the program as a whole. The Basinwide Planning Program has been tracking public contact opportunities since 2004; with approximately 10,000 individuals receiving direct outreach through formal or informal presentations or technical assistance. Many more public contact opportunities, such as emails and phone calls, are made by program staff but are not tracked. Some of the more significant activities are as follows.

- In 2007, the Basinwide Planning Program began to implement a major program change to better facilitate public outreach and to improve the rate at which water quality information is updated. First, the program now evaluates statewide water quality on a two-year basis. It hopes to eventually update the basinwide text on the same schedule, rather than every five years. Secondly, the Basinwide Program partnered with North Carolina State University to translate the plans to a web-based format. The new system is based on Google Earth, which allows users to better understand the connection between land use and water quality. The Broad and Yadkin-Pee Dee River basins will be the first to use this format.
- In an effort to assure Basinwide Plan implementation and to increase coordination among Division of Water Quality staff and other agencies, meetings to discuss implementation needs are held regularly for each river basin. At least one meeting has been held with each regional office staff during this reporting period to discuss the Implementation Packet for each river basin covered by the regional office. Central office staff from various units may attend these meetings with Basinwide staff, or further coordination is conducted with central office staff as follow-up to the meetings. This process is being expanded to include groundwater professionals, the Division of Land Resource, and the Division of Soil and Water Conservation.
- Additional coordination is conducted with other agency personnel and local
 watershed organizations as needed to discuss specific management strategies and
 to assess progress being made to implement these strategies. These meetings are
 also used as an opportunity to share more information and jointly develop
 appropriate management strategies to address specific problems.
- Basinwide staff coordinate with the Ecosystem Enhancement Program staff on prioritization of targeted watersheds.
- Basinwide staff coordinates with state, federal and local agencies to obtain information pertinent to the basinwide plans, increasing the level of coordination and communication with these agencies and their participation in the development of basinwide plans. Discussions frequently occur between the Basinwide Planning Program and the following agency staff: NC Division of Soil and Water Conservation and Soil and Water Conservation Districts, Environmental Health, Coastal Management, Water Resources and Marine Fisheries, as well as the

- Wildlife Resources Commission and US Fish and Wildlife. These discussions have resulted in improved communication, sharing information and assuring appropriate information is presented in the basin plans.
- Basinwide information was provided to applicants for Clean Water Management Trust Fund and Sections 319 and 205(j) grants. Basin planners also provide technical reviews of these applications.
- Basinwide plans, notices of public input opportunities, and other information relevant to the basinwide planning program are updated on the web site to provide more information access. This includes a new page dedicated to use support decisions and methodology (see http://h2o.enr.state.nc.us/basinwide/).
- Basinwide staff coordinates with the Classifications & Standards Unit and other federal and state agencies to develop management strategies for threatened and endangered species per DWQ rule.
- Basinwide staff continues to work with US Geologic Survey, NC Department of Transportation (NCDOT) and the Center for Geographic Information and Analysis in development of 1:24,000 National Hydrography Data (NHD) for North Carolina. Methods continue to be developed and tested to incorporate water quality and NCDOT data onto the NHD. The NHD will be a necessary data layer for submittal of future 303(d) impaired waters lists to the Environmental Protection Agency.
- Basinwide staff continues to develop information and improve skills related to Geographic Information System procedures. The results of these efforts have increased proficiency in mapping capabilities and analysis of data, as well as higher quality maps for public use.
- Basinwide staff continues to enhance procedures, methods and database implementation pertaining to use support decisions on surface water quality status.
- Solicitation for water quality information from outside sources for all river basins were solicited in 2006. This activity entails mailing thousands of flyers to all persons on the Planning Section mailing list database for all basins, including NPDES dischargers.
- Basinwide staff is preparing draft plans for public review for the Yadkin-Pee Dee, Broad and Neuse River basins. This activity entails conducting data analysis and making use support decisions based on all available information, obtaining public input as noted above, preparing text and maps identifying watershed level water quality problems and potential solutions.
- Basinwide staff conducted public review and comment phase on the Watauga, Little Tennessee, Hiwassee, Savannah, White Oak, Chowan, and Pasquotank River basins. This activity entails mailing notices of the availability of the draft plan on-line or by hard copy, meeting with various interested parties as noted above, editing the plan to reflect the comments as needed, and conducting final preparation of the plan for approval by the Environmental Management Commission.
- Basinwide staff continues to coordinate with river basin coalitions and watershed groups to identify high priority waters and issues of relevance to that group, and identify potential means to address the issues. This activity entails providing

- technical assistance and guidance on water quality initiatives developed and implemented at the local level.
- Basinwide staff continues to participate in FERC hydropower relicensing negotiation efforts for the Catawba and Yadkin-Pee Dee River basins. This activity entails assuring that water quality conditions in the basin are maintained or improved as a result of relicensing activities.
- Basinwide staff continues to review and provide comments to the Division of Coastal Management staff on content and accuracy of land-use plans related to water quality in coastal areas.
- The Basinwide Program has embarked on a collaboration effort with the Soil and Water Conservation Districts across the state as each basin plan is revised. This initiative is intended to meet the expectations of the DENR Strategic Plan Directive 3. The Districts provide watershed level information for the basin plans and contribute to implementation strategy development. The program has proved successful in the French Broad River Basin and is expanding into more.
- Basinwide staff coordinates with the DWQ State Environmental Policy Act (SEPA) Coordinator, positioned within the basinwide unit, on project reviews of Environmental Assessments.
- Staff are helping to develop requirements and expectations for QAPPs and 9element Watershed Restoration Plans, as well as actual recruitment of QAPPs and 9-element plans.
- Basinwide staff released the second revision of A Citizen's Guide to Water Quality Management in NC with a new title Supplemental Guide to NC Basinwide Planning Support Document for Basinwide Water Quality Plans. It provides general information about water quality issues. It also includes several DENR program descriptions and identifies several BMPs that can protect water quality. Information in the guide replaces much of the general text that has historically been included in the basinwide water quality plans. The document is available on-line and in print.

HIGHLIGHTS AND ACCOMPLISHMENTS BY RIVER BASIN

Broad River

- Continued reviewing data and developing draft basinwide water quality plan. This includes format changes (i.e., hydrologic unit codes and local watersheds) and inclusion in the GIS map-based, web document display system.
- Scheduled to meet with DSWC, SWCD and local watershed groups to review draft plan (October 2007). Final plan should be approved by EMC in May 2008.

Cape Fear River

- Continued to work with the Basin Discharger Coalitions in development of projects and coordination with basinwide planning efforts.
- Participate in modeling and Total Maximum Daily Load (TMDL) meetings with stakeholders in lower Cape Fear regarding dissolved oxygen.
- Participated in Division of Water Resources hydrologic model update.

- Participated in Haw River/Jordan Reservoir nutrient management rule making meetings with stakeholders in the upper and lower Cape Fear basin.
- Participated in the Cape Fear River Assembly (CFRA) Jordan Lake Water Quality Trading Study.
- Participated in the Rocky River watershed committee to develop management strategies to address impairment and impacts in the watershed.

Catawba River

- Participating in monthly meetings with DENR agency staff and other stakeholders and Duke Power representatives to continue to develop a Federal Energy Regulatory Commission (FERC) relicensing settlement agreement. Program supervisor and basin planner participate in the Water Quality Resource Committee and State Relicensing Team. Staff works with the agencies and Duke Power to assess the impacts of hydropower operations on water quality, wetlands and aquatic habitat. A Settlement Agreement has been signed that provides for increased minimum flows, flows to bypass reaches, land conservation, buffer zones along many miles of streams, and dissolved enhancement improvements at each hydro. A 401 Certificate is required by DWQ and the FERC for renewing the expiring hydropower license. The new license will be a 30 or 40-year license.
- Continued process to develop strategy to reverse impairment to Lake Rhodhiss. Parties involved include Western Piedmont Council of Government, Carolina Land and Lakes RC&D, SWCD, DENR, etc. Funding for the project was secured from Section 319 in 2005. Project is in the monitoring and assessment phase
- Provide technical advice and guidance to WaterWatch Lake Hickory, a newly formed citizen advocacy group in Catawba and Alexander Counties.
- Provide guidance to Muddy Creek Restoration Partners in their effort to expand into the Corpening/Jacktown Creek watershed.
- Held implementation meetings in three regional offices (Asheville, Winston-Salem and Mooresville) to review information pertinent to the basin plan.

Chowan River

- Held a plan review meeting in the Washington regional office to review information pertinent to the finalization of the Chowan River Basin plan.
- Held a roundtable discussion with SWCD and RC&D covering land use changes and updates on agency activities.
- Met with Hertford County SWCD to discuss possibility of starting a 9-element watershed plan for the Wiccacon Watershed.
- Presented the Draft Chowan Basinwide Water Quality Plan to WQC in May 2007 to send the plan out for public review.
- Began work with Aquifer Protection staff to identify noncompliant non-discharge facilities.
- Presented final revised plan to WQC and EMC in September 2007.

French Broad River

- Three watersheds in this basin have been identified by the EPA Watershed Management Office as "high priority" watersheds. Basin planner is working with the local resource agency staff in implementing watershed management plans. This includes identifying project needs and funding sources.
- Participated in Haywood County's Growth Readiness Roundtable. Participants included local resource agencies, county and municipal leaders, homeowner and homebuilder associations and realtors.
- DWQ advisor and active participant in the Hyatt Creek Restoration Group (HCRG).
- Solicited sample requests from SWCDs and DWQ for basinwide sampling effort. Coordinated requests with DWQ biologists to improve sample coverage.
- Active participant in the French Broad River Coalition (FBRC). Activities thus far
 include prioritizing agricultural BMPs, developing an implementation plan and
 submitting an application to CWMTF. CWMTF application approved for funding.
- Participating in local watershed group meetings when possible/appropriate, including: Haywood Waterways Association, Mud Creek Restoration Council, Mills River Partnership, Newfound Creek Watershed, RiverLink, etc.

Hiwassee River

- Serving on the Technical Advisory board for Hiawassee River Watershed Coalition (HRWC).
- Active member on the Hiwassee Interagency Team. The team is working to enhance communication and coordination between States, hydropower operations, and watershed associations.
- Technical advisor to EEP and HRWC as they develop a restoration plan for the Hiwassee River Basin.
- Attend regular meetings with DWSC and the local district staff to coordinate planning efforts.
- Developed basin plan for resource agency and watershed group use. Plan is approved and in the implementation phase
- Helped secure several small education and BMP installation grants to the HRWC.
- Consulting with USFWS, NCWRC, NHP on protection strategy for the Appalachian Elktoe mussel and Spotfin Chub fish.
- Held implementation meeting in the Asheville regional offices to review information pertinent to the basin plan.

Little Tennessee River

- Coordinating Nonpoint Source Team of local, state, Indian, and federal agencies and local watershed organizations to conduct education and demonstration projects in the basin.
- Serving on the technical advisory board for the Little Tennessee Watershed Association, Tuckasegee Watershed Association and Upper Cullasaja Watershed Association.
- Work with Watershed Association of the Tuckasegee River to develop a community based restoration effort on Greens and Savannah Creeks. Funds were

- secured through the Section 319 program and a special technical assistance grant from EPA's central office.
- Assisting three volunteer watershed associations to develop local watershed action plans for stream restoration.
- Attend regular meetings with DWSC and the local district staff to coordinate planning efforts.
- Consulting with USFWS, NCWRC, NHP on protection strategy for the Appalachian Elktoe mussel and Spotfin Chub fish.
- Developed basin plan for resource agency and watershed group user. Plan was presented to the Water Quality Committee of the Environmental Management Commission in March. Plan was approved
- Helped acquire a grant to address water supply threats in Franklin, NC.
- Held implementation meeting in the Asheville regional offices to review information pertinent to the basin plan.

Lumber River

- Coordinated with the Lumber River Council of Governments regarding raising public awareness and identifying appropriate groups and agencies to aid in this effort.
- Held an implementation meeting in Fayetteville regional office to review information pertinent to the upcoming Lumber River basin plan.
- Started the initial review process for upcoming 2009 basin plan.

<u>Neuse River</u>

- Participate in DWQ Falls Lake TAC for the modeling and Total Maximum Daily Load (TMDL) meetings with stakeholders in Upper Neuse River basin.
- Held implementation/interim review meetings in two regional offices (Raleigh and Washington) to review information pertinent to the upcoming Neuse River plan.
- Held interim review meetings with the NC Division of Soil and Water
 Conservation and Soil and Water Conservation Districts as well as with other
 watershed groups to review information pertinent to the upcoming Neuse River
 plan.
- Developed revised use support ratings for stream, rivers and lakes in the basin for the upcoming revised basin plan (revised so the plan would match the 2008 IR).
- Developing draft basin plan to be presented to the Water Quality Committee of the Environmental Management Commission in January for public review in March and April.

New River

- Participated in multi-agency meeting related to water quality concerns in the Ore Knob area. Meeting included a site visit to the defunct Ore Knob mining facility and a brainstorming session to identify immediate needs and priorities. Several sections of EPA and DENR participated in the meeting.
- Update/progress meeting held with DWQ, SWCD, NRCS, NCSU-CES and the National Committee for the New River (NCNR) to review priorities identified in

- the 2006 basinwide water quality plan. Meeting included site visits to areas impacted by stormwater, land clearing/grading activities and basinwide sample locations.
- Update/progress meeting held with NCSU-CES, SWCD, Blue Ridge RC&D and the Town of Sparta to review the Town's stormwater management plan and Bledsoe Creek Watershed Management Plan. Worked with the High Country Piedmont Council of Government to identify potential funding sources.

Pasquotank River

- Held a plan review meeting in the Washington regional office to review. information pertinent to the finalization of the Pasquotank River Basin plan.
- Held a roundtable discussion with SWCD and RC&D covering land use changes and updates on agency activities in January 2007.
- Presented the Draft Pasquotank Basinwide Water Quality Plan to WQC in May 2007 to send the plan out for public review.
- Presented final revised plan to WQC and EMC in September 2007.

Roanoke River

- Finalized the revised basin plan with approval from the Environmental Management Commission in September 2006.
- Began working with DENR agency staff to identify and address impacts and impairment in the Dan River watershed.
- Began working with the Dan River Basin Association to address impairments in the Dan River Watershed. This includes working with the Dan River Basin Association (DBRA) and the DSWC to coordinate sampling efforts and BMP implementation in both NC and VA.
- Participated in the Virginia TMDL Stakeholder process for the Dan and Smith River TMDLs.

Savannah River

- Consulting with USFWS, NCWRC, NHP on protection strategy for the Appalachian Elktoe mussel and Spotfin Chub fish.
- Developed basin plan for resource agency and watershed group user. Plan was presented to the Water Quality Committee of the Environmental Management Commission in March. Plan was approved

Tar-Pamlico River

- Held a sample site selection meeting with Washington and Raleigh regional offices.
- Attended WECO/EEP restoration initiative meeting for Fishing Creek.

- Participated in a Tar-Pam Stormwater Roundtable with municipality and county representatives.
- Began data organization and analysis for 2009 Plan.

Watauga River

- Participated in Nonpoint Source Management Team meetings. Group worked to identify problem areas, concerns and on-going voluntary actions.
- Received EMC approval for basinwide water quality plan in January 2007.

White Oak River

- Participated in Division of Environmental Health review of their program responsibilities, discuss database development for shellfish harvesting use support assessment, and discussion on current shoreline surveys.
- Participated in New River Roundtable meetings for continued discussion on restoration activities on the New River.
- White Oak Basinwide Plan was approved for public review in January 2007.
- Basin Plan finalized in May 2007.
- Coordinated with Stormwater Staff for preparation of phase II stormwater presentations and coastal stormwater rules public hearings.

Yadkin-Pee Dee River

- Participating in monthly meetings with DENR agency staff and other stakeholders, along with Progress Energy and Yadkin, Inc. (APGI) representatives to continue to develop a Federal Energy Regulatory Commission (FERC) relicensing settlement agreement and license application for both hydros. Program supervisor participates in both relicensing processes, working with the agencies and hydros to assess the impacts of hydropower operations on water quality, wetlands and aquatic habitat. A Settlement Agreement has been signed that provides for increased minimum flows, flows to bypass reaches, land conservation, buffer zones along many miles of streams, and dissolved enhancement improvements at each hydro. A 401 Certificate is required by DWQ and the FERC for renewing the expiring hydropower license. The new licenses will be 30 or 40-year licenses.
- Assist with stakeholder education and TAC for the High Rock Lake TMDL development process.
- Attend regular meetings with DWSC and the local district staff to coordinate planning efforts.
- Assisted Rowan County SWCD with a 319 project to address impacts from dairy farms on Second Creek. Funding was secured and project is underway.
- Solicited sample requests from SWCDs for basinwide sampling effort.
 Coordinated requests with DWQ biologists to improve sample coverage.
- Consulted with USFWS, NCWRC, NHP on protection strategy for the Carolina Heelsplitter mussel.

- Coordinated with 401, SEPA, and Classification & Standards unit to advise local municipalities on issues related to Carolina Heelsplitter protection.
- Held implementation/pre-sample meetings in two regional offices (Asheville and Mooresville) to review information pertinent to the upcoming Broad River plan.
- Revised use support rating and began development of the 3rd basin plan revision.
- Worked with EEP to revise their targeted local watersheds report.

QUARTERLY REPORT

TO THE

ENVIRONMENTAL REVIEW COMMISSION

ON

ENVIRONMENTAL MANAGEMENT COMMISSION ACTIVITIES

JAN 2008

QUARTERLY REPORT TO ERC IN ACCORDANCE WITH § 143B-282(b)

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 - F. NPDES COMMITTEE
- III. SUMMARIES OF ENVIRONMENTAL MANAGEMENT COMMISSION (EMC) ACTIONS

I. SESSION LAW 2005-190 REPORTING REQUIREMENTS

Section 2. (b) of Session Law 2005-190

Based upon Section 2. (b) of Session Law 2005-190, the Environmental Management Commission continues to assess and identify nutrient control strategies and criteria necessary to prevent excess nutrient loading in each drinking water supply reservoir. In compliance with the goals of the Section, the Division of Water Quality (DWQ) received US EPA approval of a plan of action evaluating the current surface water quality standards to determine if adequate nutrient criteria controls are in place to prevent nutrient impairments in North Carolina lakes. Approval to continue with development of additional or revised lake nutrient criteria was granted by the US EPA on June 27, 2006.

Monitoring data collected from 2005 – 2007 in Falls Lake and the Falls Lake watershed are being used to calibrate and validate the lake nutrient response model as well as the watershed loading model. At present, the watershed loading model has been calibrated for flow and temperature, and calibration for total suspended solids (TSS) is underway. Upon successful calibration for these parameters, work will begin to calibrate the model for nutrients. The lake hydrodynamic model has been calibrated for lake level and temperature, and calibration for TSS is underway. The lake nutrient response model calibration will follow.

Although Session Law 2006-259 technically corrected the target date for the EMC to develop a nutrient management strategy for the Falls Lake Reservoir from July 1, 2008 to July 1, 2009, the target date for the EMC to adopt the rules to implement the nutrient management strategy by the same date (July 1, 2009) does not allow for rulemaking procedure in accordance with the Administrative Procedures Act, General Statutes 150B.

An eleventh Falls Lake Technical Advisory Committee meeting was held on November 15, 2007 at the Triangle J COG offices in RTP. A discussion of the project schedule and a review of the monitoring study was presented to concerned stakeholders by Peter Caldwell of the DWQ's Modeling and TMDL Unit, as well as summaries of the current status of the watershed loading model (presented by Narayan Rajbhandari of the DWQ's Modeling and TMDL Unit), and the lake hydrodynamic model and lake water quality model (presented by Jing Lin of the Marine Earth and Atmospheric Science Department at N.C. State University).

The next scheduled Falls Reservoir Technical Advisory meeting is scheduled for March 20, 2008, 9:30 am at the TJCOG facility.

Section 4 of Session Law 2005-190 (amended by SL 2006-259) Report:

Section 4 of Session Law 2005-190 and amendments in Session Law 2006-259 require the Environmental Management Commission to report its progress in developing and implementing nutrient management strategies for drinking water supply reservoirs meeting certain criteria to the Environmental Review Commission by April 1 of each year beginning April 1, 2006. The B. Everett Jordan Reservoir is the only water body that currently fits these criteria. The following is an update on progress of the Jordan nutrient strategy.

In January 2006, the Environmental Management Commission deferred proceeding to public comment with draft rules for Jordan Reservoir, and directed staff to address outstanding stakeholder issues with the rules. Over the course of 2006, staff conducted over thirty structured stakeholder meetings, resulting in revisions to most of the draft rules, and a draft fiscal note summarizing estimated costs of the rules to affected parties.

In March 2007, Division staff obtained Environmental Management Commission (EMC) approval to initiate the formal public comment period for the draft rules. The public comment period ran from June 15 – September 15, 2007 and included three public hearings held in Carrboro and Elon. The five hearing officers, who are all EMC members, are currently deliberating over rule changes based on the comments received. The rules are scheduled to appear before the EMC for adoption in May 2008. Those that require consideration by the General Assembly would be expected to reach the 2009 Session.

Total Maximum Daily Load (TMDL) Update:

The Final Jordan Reservoir TMDL was approved by EPA in September 2007. This TMDL is a phased TMDL; Phase I (now final) addresses the chlorophyll-a impairment of the reservoir and a future Phase II will address the pH impairment of the Haw River Arm. The final Phase I TMDL document is available on the following website: http://h2o.enr.state.nc.us/tmdl.

II. STANDING COMMITTEE MEETINGS

i. WATER ALLOCATION COMMITTEE

The Water Allocation Committee did not meet in Nov 2007.

ii. WATER QUALITY COMMITTEE

The Water Quality Committee conducted business in Nov 2007.

iii. GROUNDWATER COMMITTEE

The Groundwater Committee conducted business in Nov 2007.

iv. AIR QUALITY COMMITTEE

The Air Quality Committee conducted business in Nov 2007.

v. STEERING COMMITTEE

The Steering Committee did not meet in Nov 2007.

vi. NPDES COMMITTEE

The NPDES Committee did not in Nov 2007.

III. SUMMARIES OF ENVIRONMENTAL MANAGEMENT COMMISSION (EMC) ACTIONS

Request to Proceed to Public Notice and Hearing for Revisions to the Well Construction Rules (15A NCAC 2C .0100)

The well construction rules in 15A NCAC 2C .0100 establish minimum construction standards for water supply wells and certain other types of wells. These rules were last revised in 2002. Since that time, it has become evident that several revisions are needed in order to provide clarifications, address new well construction materials, and provide better protection of groundwater quality.

The proposed revisions are the result of input from DWQ staff, local health departments, the Division of Environmental Health, the NC Groundwater Association (the state's leading professional association for well contractors), the Well Contractors Certification Commission and Clean Water for North Carolina. DWQ held two stakeholders meetings involving all of these groups. All stakeholders were given the opportunity to comment on two drafts of proposed revisions to the rules prior to DWQ submitting these proposed rule revisions to the Groundwater Committee and full EMC.

A detailed summary of the proposed revisions is available upon request along with the text of the proposed revisions. The proposed revisions can be generally categorized into the following areas:

- Organizational changes: Within the Department of Environment and Natural Resources, multiple divisions have interests in or responsibility for administration of parts of the Well Construction Rules. In order to give the Department flexibility to implement the Well Construction Rules in the most efficient and logical manner, most references to "Division" and "Director" have been replaced with "Department" and "Secretary," respectively.
- Editorial changes: Numerous changes are proposed in order to remove ambiguity, clarify requirements, correct typographical errors, and provide consistency with terms used in the Well Construction Act, other EMC rules and Well Contractor Certification Commission rules.
- Changes in Other Standards: Since the last revision of these rules, ASTM and other standards referenced in the rules have been updated. Revisions are proposed to reflect these updated standards.
- Technical Changes: Since the last revision of these rules, bentonite chips and pellets have become accepted for use in ways not allowed without a variance under the current rules.
- Enhanced protection of groundwater: Provisions have been added to the rules to set clearer standards for specialty grouts, require grouting of the full depth of casing for certain wells, to make abandonment of certain older wells more practical and economical, to provide better protection against flooding, and to make the well owner responsible for maintaining separation distances between their well and potential sources of contamination.
- The Division of Environmental Health has pointed out that local health department staff will be enforcing the Well Construction Standards statewide beginning July 1, 2008.

Many of these local health department staff are unfamiliar with the current well construction rules and the majority of them are unfamiliar with the proposed revisions to the rules. This makes it necessary for DEH to develop and conduct training of these staff on the revised Well Construction Standards. DWQ concurs with the need to expedite the revision process for these rules. For this reason, DWQ is asking the EMC Groundwater Committee and EMC to waive the usual 30 day waiting period to proceed from the Groundwater Committee to the full EMC.

The Division of Water Quality and the Groundwater Committee Chairman recommended that the Commission approve initiating rulemaking proceedings and allow the Division to publish the proposed text of rules 15A NCAC 02C .0101 through .0119 in the North Carolina Register, to take public comments on the proposed rules, and to bring the rules before the Commission for adoption next year.

EMC Action: The EMC approved sending the proposed rule amendments to public hearing.

Request to Adopt 2L Groundwater Variance for the Former Kaiser Fluid Site

Rockwell Collins issued a request to the EMC for a variance from the 15A NCAC 2L .0202 Groundwater Quality Standards for the site located at 530 East Sugar Creek Road in Charlotte, NC based on the Commission's authority in 15A NCAC 2L .0113.

The site is approximately 5.02 acres in size. The environmental assessments at the site indicate that historic releases of halogenated volatile organic compounds (HVOCs) has occurred in the former settling tank area. Short term dual phase extraction events were held in 2004 and 2005. Then in 2006 further work was done to excavate 550 cubic yards of soil near the settling tank and a 3 foot thick zero-valent iron/sand reaction zone was placed along the down gradient face of the excavation. Groundwater modeling indicates the concentrations of Trichloroethene, the primary HVOC, will attenuate onsite and will not exceed the standards at the property. The June 30, 2006 memorandum generated by the Mooresville Regional Office regarding the site conditions is included in the attached Hearing Officer's Report.

The Hearing Officer's Report and site map are available upon request.

The Hearing Officer and staff recommended that the EMC approve the variance from the 15A NCAC 2L .0202 Groundwater Quality Standards as proposed in the Hearing Officer's Report with a condition that a land use restriction is implemented to restrict the use of the groundwater at the site.

EMC Action: The EMC approved the variance for the site.

Request to Adopt 2L Groundwater Variance for the Former Home Concrete Supply, LLC Site

Home Concrete Supply, LLC issued a request to the EMC for a variance from the 15A NCAC 2L .0202 Groundwater Quality Standards for the site located at 400 North Long Street in Salisbury, NC based on the Commission's authority in 15A NCAC 2L .0113.

The site is approximately 3.6 acres in size. The environmental assessment conducted at the site indicate petroleum compounds remain in and around the northwest corner of the site in an area where Home Concrete and Supply, LLC operated bulk above-ground storage tanks. The property is now owned by Chandler Concrete Company Incorporated, which operates as a retail supply and distribution center for home construction and concrete products. The September 2, 2005 Information Paper generated by the Mooresville Regional Office is included in the attached Hearing Officer's Report. Home Concrete and Supply has removed 5,683 tons of soil and contaminants were found in the shallow portion of the aquifer. The DWQ approved a Corrective Action Plan in 2001 and has indicated the project met the requirements. Home Concrete is no longer an operating company and has a similar site in another area that poses a greater risk to public health. The remaining assets are thought to be better spent on that remediation project.

The Hearing Officer's Report and site map are available upon request.

The Hearing Officer and staff recommended that the EMC approve the variance from the 15A NCAC 2L .0202 Groundwater Quality Standards as proposed in the Hearing Officer's Report with a condition that a land use restriction is implemented to restrict the use of the groundwater at the site.

EMC Action: The EMC approved the variance with a condition restricting the use of the site's groundwater.

EMC Amendments to Coastal Stormwater Rule

Environmental Review Commission

January 23, 2008





Status of Rulemaking Action

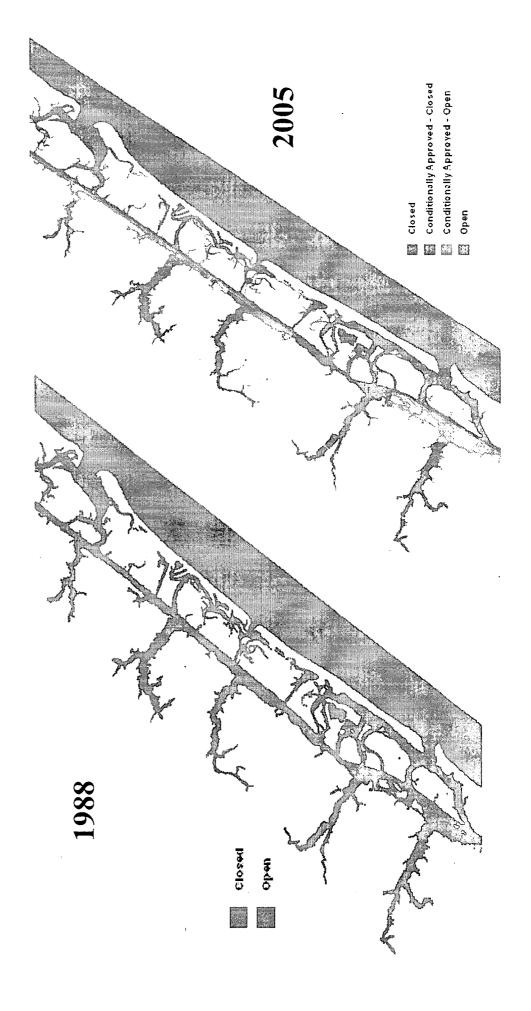
Revisions adopted by EMC on Jan 10.

RRC Review on Feb 21.

Legislative Review.

Why did the EMC Revise this Rule?

DWQ study demonstrated inadequacies in the current rule.



What are the major changes?

Within ½ mile of shellfishing waters*

	Adopted	Existing
Low Density (BUA)	12%	25%
Control Req High Density	1-yr, 24-hr storm	Runoff from 1.5" of rain.

^{*} Same requirements as the Phase 2 Rules.

What are the major changes?

Not within ½ mile of shellfish waters.*

	Adopted		Existing
Low Density (BUA)	24%		30%
Control Req High Density	Runoff from 1.5" of rain.	•	Runoff from 1.0" of rain.

^{*} Same requirements as the Phase 2 Rules.

Most Controversial Aspects

Expansion of setback from 30 to 50 feet.

Prohibition of wetlands from imp surf. calculations.

Proposed 10,000 square foot threshold for coverage. Existing threshold is 1 acre.

Setback Revision

Setback remains at 30 feet for redevelopment.

Facilitates rebuilding & reconfiguration of existing lots.

Setback expanded to 50 feet for new development.

50 foot buffer already in place in the entire Neuse and Tar-Pamlico River Basins.

Wetlands & Impervious Surface Calculations

- EMC Adopted: No wetlands area included in future impervious surface calculations.
- Will make more projects "high density."
- Concession: Allow stormwater controls other than infiltration within 1/2 mile of shellfishing waters.
- Negates concerns regarding 2 feet of separation from the high water table.

10,000 ft² Threshold Issue

- Lower threshold for coverage from 1 acre to 10,000 ft² for non-residential development.
- Retain 1 acre threshold for permit for residential dev.
 - For residential projects > 10,000 ft², but < 1 acre, require 1 of the following 3:
- Rain cisterns + Permeable pavement, or
- Rain garden + Permeable pavement, or
- Any other appropriate BMP (like on-site infiltration)
- Support sustainable development in Coastal NC.

Vested Rights Issue

- EMC amendments covered by:
- DWQ stormwater redevelopment provision.
- Statutory vested rights.
- "Common law" vested rights.

Last Points

- Please Remember:
- USMP alternative always available for local govts.
- Next Steps
- RRC Review on Feb 21.
- Legislative Review.

Information/Education on Rule Change

- Website initiated.
- Contains complete Hearing Report, Rule, Other Info
- Web address: http://h2o.enr.state.nc.us/su/coastal.htm
- Fact sheets developed.
- Explains reasons for & impact of rule change.
- Long & Brochure versions.
- Available on website.



ONALITY ONO/SINIO



E-mail: tom.reeder@ncmail.net 919-733-5083 extension 528 Tom Reeder

Proposed Changes, cont.

new development will increase from 30 to 50 feet, and the threshold for coverage will be lowopment projects within the coastal counties, regardless of location, the vegetative setback for and treat more stormwater run-off than presently mandated. In addition, for all new develactivities with lower impervious surface densities and require stormwater BMPs to control ered to 10,000 square feet of land disturbance for commercial (non-residential) pro

considered within the project site to be included in the calculation used to determine the impervious surface density high density and will require stormwater controls. This change is proposed because coastal wetlands and marshes are a very unique and diverse ecosystem, and the new rules must pre-In effect, this change will mean more sites with wetlands in the project area will be Furthermore, the proposed rule change will not allow any wetlands that are located vent these valuable resources from becoming stormwater treatment devices.

one acre, Finally, residential projects that disturb more than 10,000 square feet, but less than will be required to implement one of the following three provisions:

- Collect rooftop run-off into properly sized cisterns or rain barrels and constitut all uncovered driveways, walkways, patios, and parking areas out of permeable pavement or pervious materials. Or,
- Direct rooftop run-off into a properly sized rain garden and construct all uncovered driveways, walkways, patios, and parking areas out of permeable pavement or pervi-
- the re-Install any other stormwater best management practice (BMP) that meets quirements of 15A NCAC 2H .1008-to-control-and-treat-the-stormwater's

Although these proposed changes to the rule are broad and far-reaching, the Environmental necessary Management Commission (EMC) is confident that these types of amendments are from the built-upon areas of the site.

store stormwater run-off from rooftops and Rain cisterns are devices that collect and other impervious surfaces. Cisterns then make this water available for other uses,

to protect our vital coastal waters



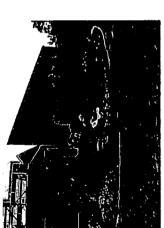
Cross-section of a Rain Cistern

such as irrigation. These measures will prothe reuse of water resources at a time when mote sustainable coastal development and

are not limited to: porous concrete, permeconcrete material that allows the rain water to flow through and infiltrate into the soils below. Examples of permeable pavement include, but Permeable pavement is paving able interlocking concrete pavers grid pavers, and porous asphalt. precedented, historic drought.

pervious surfaces and allows it to soak into A rain garden is a shallow depression in the ground that captures runoff from im-

the ground, rather than carry pollutants directly into streams. Rain gardens filter pollutants and reduce flooding, as well as provide beneficial habitat for wildlife and insects.



building of homes, businesses, and other struc- ,

Furthermore, both the "Common Law" and Statutory Vested Rights already apply to this

tures in the event of natural disasters or fire.

net increase in impervious surfaces and the

the redevelopment of existing lots from these

proposed rule changes, provided there is no

DWQ's redevelopment provision exempts

stormwater controls than the previous de-

redevelopment incorporates equal or better

velopment. This provision will allow the re-

Rain Garden at the N.C. Aquarium. Photo courtesy of NC Cooperative Extension

rule change. Vested rights will exempt certain projects from these new changes.

Frequently Asked Questions

analysis and determined that a 3,600 square foot home with an associated driveway and patio within a half-mile of shellfishing waters could meet the most stringent requirements contained in these pro-Won'r these changes make coastal housing unaffordable? DWQ Staff engineers performed an posed changes with an appropriate rain garden that would cost approximately \$3,000 to install.

coastal counties are more stringent than the stormwater control program currently in place in most of Carolina that is outside of the 20 coastal counties is already covered under some type of DWQ storm-What about the area outside of the 20 coastal counties? The majority of the area within North water control program. Most of these programs that are already implemented within the 80 nonthe 20 coastal counties.

changes to the Coastal Stormwater Rule? No. N.C. DOT is regulated under a separate, federally. Is the N.C. Department of Transportation (DOT) and its activities exempted from these enforceable stormwater permit, which covers all DOT activities statewide.

When will the new rule changes take effect? These new rule changes could become effective on August 1, 2008

an nu-

North Carolina is in the midst of

North Carolina Department of Environment and Natural Resources (NC DENR) Division of Water Whom do I contact for more information? Contact the Wetlands and Stormwater Branch of the Quality (DWQ)

NC DENR Division of Water Quality

Wetlands and Stormwater Branch Raleigh, NC 27604 Mailing Address 512 N. Salisbury Stree

1617 Mail Service Center Raleigh, NC 27699-1617 Phone: 919-733-5083

E-mail: stormwater@ncmail.net

January 16, 2008 Pamphlet Cover Photos of Shrimbers and Cattle Egret courtesy of the N.C. Museum of History and Will Cook,

The North Carolina Division of Water Quality

Coastal Stormwater The North Carolina Rule

What is the Coastal Stormwater Rule?

Background

water flows off of these hardened surfaces. The flow is called "stormwater run-off." surfaces that do not allow the water to infiltrate naturally into the ground. Instead, the rain When it rains on developed areas, the rain hits driveways, parking lots, roadways, and other



Stormwater Run-off from Residential Housing in Coastal North Carolina
Photo courtesy of NC DENR

pacted gravel, and any other surface that prevents the rain water from penetrating the ground Impervious surfaces are the hardened surfaces that cause stormwater run-off. These sur-Examples of impervious surfaces are the rooftops of buildings, driveways, parking lots, comfaces are usually man-made and are added to the natural landscape by development activity.

water run-off. This is why stormwater run-off has become the biggest water quality problem in North Carolina. pervious surfaces are added to our state's landscapes and watersheds—creating more stormpervious surfaces and carries these substances to nearby waters. Every day, large tracts of imrun-off picks up pollutants like oil, grease, chemicals, and loose soil from the ground or im-Often stormwater run-off flows into a stream, lake, estuary, bay, or the ocean. Stormwater

septic systems. The important thing to remember is that under natural conprimarily come from wastes of wild and domesticated animals and failing shellfish harvesting, swimming, and surfing. Bacteriological pollutants portant on the coast because high levels can close down coastal waters to fecal coliforms, that pose health risks. These pollutants are particularly im In many cases stormwater run-off carries bacteriological pollutants, like



Mahogany Clam
(Artica islandica)
Photo countesy of NC
DEH Shellfish Sonitotion and Recreational
Water Quality Section

ter run-off transports and deposits large amounts of bacteria into North Carolina's waterways. ditions, these bacteriological pollutants would not impact coastal waters. However, stormwa-

The Coastal Stormwater Kule

regulate new development activities in the 20 coastal counties of N.C. so that the stormwater of coastal North Carolina. This rule is part of the State Stormwater Rules described in Title run-off from new development does not pollute and degrade the public trust surface waters Administered and implemented by the Division of Water Quality, this rule is intended to 15A of the North Carolina Administrative Code 2H .1005 The Coastal Stormwater Rule is a water quality rule originally adopted in the late 1980s

How do the Stormwater Rules work?

Commercial Shellfishing Revenue Trends

(In present-day dollars)

surfaces. Only high density projects, or projects surfaces to the natural landscape, while high is to divide these regulated activities into "low" and "high" density projects. Low density Stormwater rules manage development activities One of the primary ways that DWQ's State engineered stormwater controls. a low density threshold, are required to have with an impervious surface density that exceeds density projects add larger amounts of these projects add a small amount of new impervious

are also known as stormwater Best Management off from impervious surfaces. These devices Engineered stormwater controls are devices http://h2o.enr.state.nc.us/su/bmp_forms.htm BMPs. The manual is available online from: contains a full range of approved stormwater DWQ has developed an extensive manual that complex devices such as wet detention ponds. the opposite end of the spectrum are more scaping on the site, such as a rain garden. On be simple and may only require additional land-Practices, or "BMPs." Stormwater controls can installed to collect and treat the stormwater run-

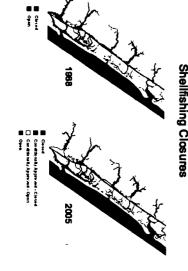
project is: 10,000/40,000 = 0.25, or 25 percent. then the impervious surface density for that For instance, if you are building a home on a added in the final, completed development by surface (including rooftop, driveway, patio, etc.), ject will add 10,000 square feet of impervious the total area of the property being developed Impervious surface density is calculated by 40,000 square foot lot, and the completed prodividing the amount of new impervious surface



case, one acre is the threshold for coverage. State Stormwater Rules also include a vegetawater rule. In some rules, only development The threshold for coverage determines adjacent to surface waters. allowed to be located within this area directly tive setback. No new impervious surfaces are one acre are covered under the rules. In that projects that will disturb, or involve, more than whether a specific project is subject to a storm-

Why Are Changes to the Rule Important?

Hanover County best demonstrates the inefclosed shellfishing waters in areas such as New quality and fisheries data, the dramatic increase in ough analysis of many years of statewide water tecting the water quality of the coastal environexisting rule was outdated and ineffective in proview of the effectiveness of the existing Coastal In 2005 DWQ performed a comprehensive rement. Although DWQ's study included a thor-Stormwater Rule. DWQ Staff concluded that the fectiveness of the current rule (right).



Tidal Creeks in New Hanover County, North Carolina Shellfish Closures Between 1988 & 2005

Graphic courtesy of NC DENR

off. The steady decline of N.C.'s commercial shellfishing industry has a variety of causes, but closure of fish harvesting. More than 90 percent of these permanent closures are attributable to stormwater run-At present, over 56,000 acres of NC's shellfishing waters are permanently closed to commercial shell-

shellfishing waters by stormwater run-off plays a major role.

waters, the changes would: Require stormwater controls for high density projects to be designed for about 3.5 Reduce the low density threshold from 25% to 12%. inches of rainfall. (The old "design storm" was 1.5 inches of rainfall.)

For new projects that are proposed to be located within one-half mile of shellfish harvesting

ing waters, For new projects that are proposed to be located outside of one-half mile of shellfish harvest-

- Reduce the low density threshold from 30% to 25%.
- Require stormwater controls for high density projects to be designed for 1.5 inches of rainfall. (The old "design storm" was 1.0 inch of rainfall.)

The changes will require the installation of engineered stormwater controls for development

Stormwater run-off also closes recreational swimming beaches and can degrade coastal Value \$5,000,000 \$5,000,000 \$6,000,000 \$6,000,000 \$7,000 \$7 Commercial Shellfishing Revenue Trends, 1988-2006 [Information from NC DENR Division of Marine Fisheries]

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Shellfish Sanitation and Recreational Swimming Advisory Sign
Photo courtesy of NC DENR DEH

Water Quality Section



Example Impervious Surface Calculation

diverse species of flora and fauna that inhabit this world-class aquatic environment is impera-Carolina is considered one of the most unique ecosystems in the world, and protecting the

tive [Albemarle-Pamlico National Estuary Program (NC DENR, 2004)]

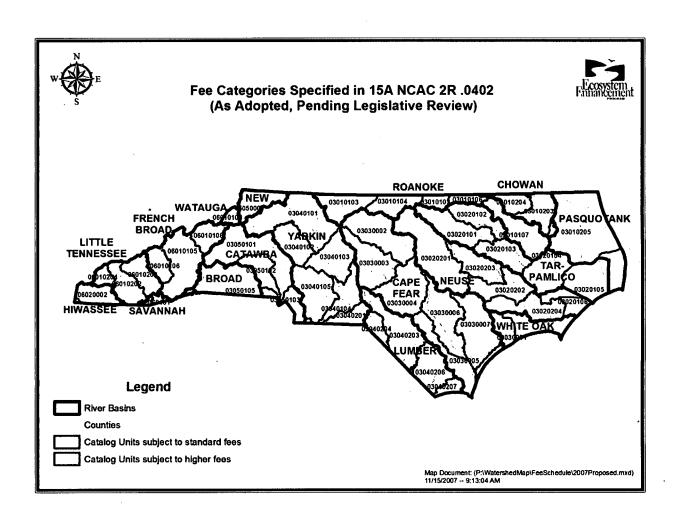
water habitat. This run-off threatens the ability of these waters to support the wide variety of

aquatic life that depends on this unique ecosystem for propagation and life. Coastal North

the long term economic security of this state. North Carolina must take steps to prevent any further impairment of coastal waters that might impact this sector of the economy economy of North Carolina [N.C. Department of Commerce]. This revenue stream is critical to Finally, coastal recreation and tourism accounts for over \$2 billion per year added to the

Proposed Changes to the Rule

20 coastal setback. The magnitude of the change is dependent upon the location of a development bebe controlled and treated by stormwater BMPs, the threshold for coverage, and the vegetative Under the have been cause the proposed changes are different for projects located within a half-mile of waters that major alterations of the low density threshold, the amount of stormwater that would need to designated for shellfish harvesting. About 10 percent of the land area within the counties is within a half-mile of shellfish harvesting waters. changes that have been proposed to the coastal stormwater rule, there would be



Ecosystem Enhancement Program Adopted Fees (Pending Legislative Consideration) and Current Program Costs

January 23, 2008

The Ecosystem Enhancement Program is a state-provided service for the public and private sectors to meet state and federal clean-water requirements. EEP facilitates responsible economic development across North Carolina by offsetting unavoidable damage to the environment through a process known as compensatory mitigation.

When EEP provides compensatory mitigation on an applicant's behalf, the applicant is charged a fee based on how much mitigation is needed. Project costs have outpaced inflation adjustments due to additional regulatory requirements, rising land prices, and increased engineering and construction fees. As a result, EEP initiated rule-making in 2006 to modify fees so that they better reflected actual costs. At the culmination of the rule-making process, the fees presented to the right (Chart 1) were adopted in September and October 2007 by the Environmental Management Commission and the Rules Review Commission (respectively). Higher fees were set to apply in areas of the state where mitigation costs are elevated due to land costs, urban infrastructure and/or limited mitigation opportunities.

The fees adopted were based on actual program data current up to 2006. EEP recently conducted an updated trend analysis that comprises project costs inclusive of 2007, to reflect the last 18 months (July 2006 through December 2007), to gauge how adopted fees compared to current program costs. Data was evaluated based on adopted standard and higher fee areas.

The updated analysis is presented in Chart 2. Project costs are showing additional increases since proposed fees were originally put forth. EEP is confident that it can operate at the adopted fees throughout 2008, but careful trend analysis will need to continue to ensure that fees are in step with actual costs.

Chart 1: Fees Adopted by the EMC and RRC

Category	Standard Fee Areas	Higher Fee Areas	Unit
Streams	\$244	\$323	Linear feet
Riparian Wetlands	\$33,696	\$59,600	Acre
Non- riparian Wetlands	\$22,113	\$43,000	Acre

(map showing fee areas is on back of this page)

Chart 2: Updated Analysis of Actual Costs

Category	Standard Fee Areas	Higher Fee Areas	Unit
Streams	\$281	\$327	Linear feet
Riparian Wetlands	\$36,915	\$59,876	Acre
Non- riparian Wetlands*	\$77,575	\$59,131	Acre

^{*} The figures for non-riparian wetlands are based on a small and therefore misleading data set. EEP believes that it will be possible to benefit from economies of scale by securing larger projects so that actual costs will be reflective of adopted fee rates.

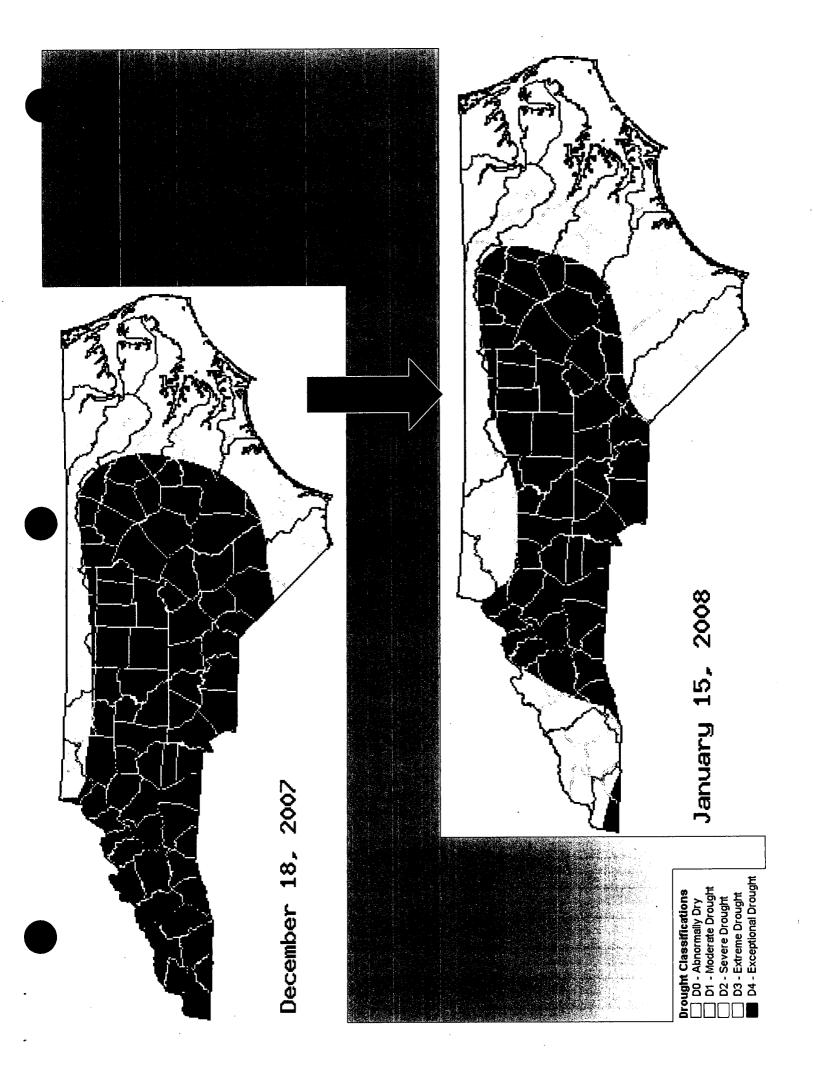
Environmental Review Commission

Drought Update

Division of Water Resources

January 23, 2008





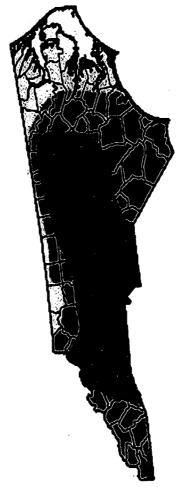
Current Conditions Drought Monitor

U.S. Drought Monitor North Carolina

January 15, 2008

Drought Conditions (Percent Area)

	ì					`
	None	00-04	None DD-D4 D1-D4 D2-D4 D3-D4	D2-D4	D3-D4	D4
Curent	0.0	100.0	100.0 100.0 100.0 83.5	100.0	83.5	46.0
Last Week (01/08/2008 m=p)	0.0	100.0	100.0 100.0 100.0 83.7	100.0	83.7	51.3
3 Months Ago	0.0	100.0	100.0 100.0 100.0 84.8	100.0	84.8	56.5
Start of Calendar Year (01/01/2008 map)	0.0	100.0	100.0 100.0 100.0 83.7	100.0	83.7	51.3
Start of Water Year (10/02/2007 map)	0.0	100.0	100.0 100.0 92.8	92.8	79.4	37.7
One Year Ago (01/16/2007 map)	98.6	1.4	0.0	0.0	0.0 0.0	0.0



Intensity:

D1 Oronghi - Moderate
D2 Oronghi - Severe

D3 Drought - Extramo D4 Orought - Exceptional The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

USDA teating Very





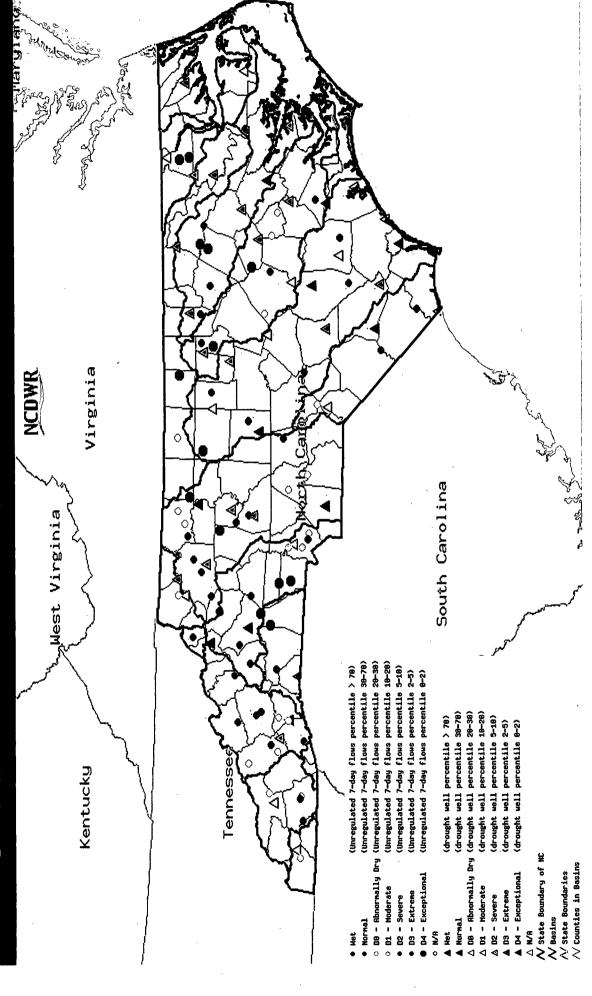
Released Thursday, January 17, 2008 Author: Rich Tinker, CPC/NOAA

http://drought.unl.edu/dm

Unofficial Rainfall Estimates

	Dec 22, 2	2007 through Jan 20, 2008	Jan 20, 2	908	
	Total	Departure	Pct of	Rank	Driest
	Rainfall	from Normal	Normal		on Record
North Carolina Statewide	4.02"	-0.04	%66	28th wettest	28th wettest 0.88" (85-86)
	365-Day	Precip for North Carolina	rth Carol	i.	
	Jan 21, 2	Jan 21, 2007 through Jan 20, 2008	Jan 20, 20	900	
	Total	Departure	Pct of	Rank	Driest
	Rainfall	from Normal	Normal		on Record
					39.31" (88-
North Carolina Statewide	34.20"	-16.25	%89	1st driest	89)

Ground Water Levels & Streamflows **Current Conditions**



Public Water Supply Systems Current Conditions

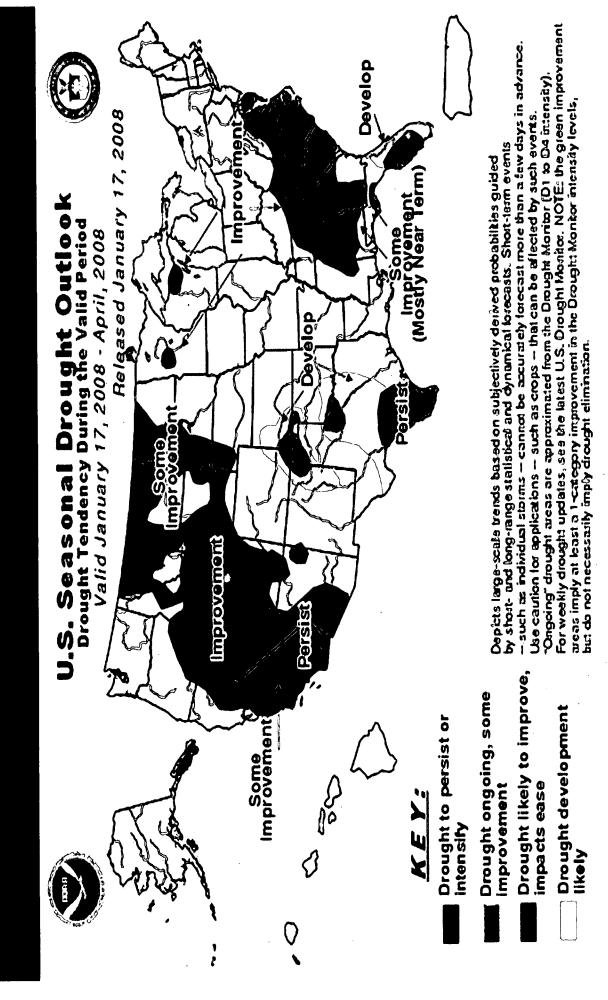
Water Conservation level summary data

	Systems		Population	
Stettus	Number	Percent	Number	Percent
Not Restricted	291	46.34	1,329,479	19.61
Voluntary Conservation	165	26.27	1,693,442	24.97
Mandatory Conservation	172	27,39	3,758,251	55,42
Emergency	0	0000	0	00°0
	628		6,781,172	

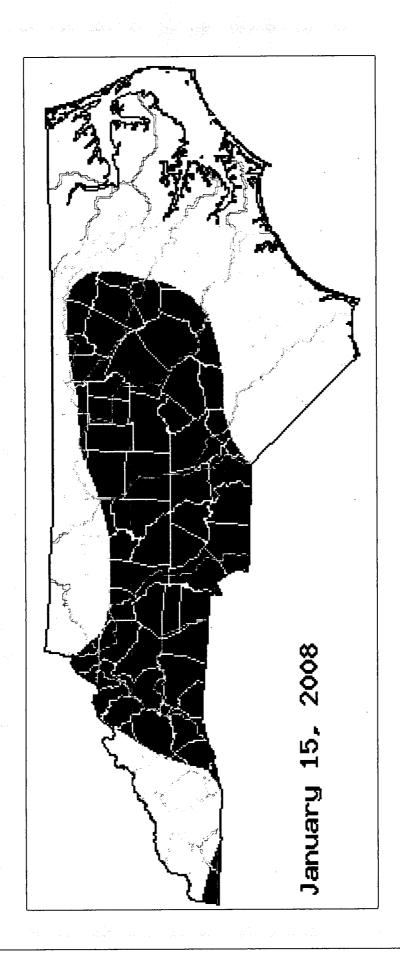
Public Water Supply Systems Weekly Water Use Reduction Compared to August

System	1/7/2008	1213112007	1212412007	12/17/12007
Charlotte- Mecklenburg		40%	43%	40%
Raleigh	-35%	%48-	₩ ₽₩	-38%
Durham	43%	41%	46%	43%
Winston-Salem	739%	-34%	-36%	-32%
Greensborg	-32%	-35%	-39%	-34%
āļķāķāķēj	-36%	-37%	41%	-38%
	-31%	-29%	-32%	-32%
	-50%	-21%	-55%	-52%
A STORY	%8E-	42%	45%	41%
	-14%		-17%	-13%

Forecast



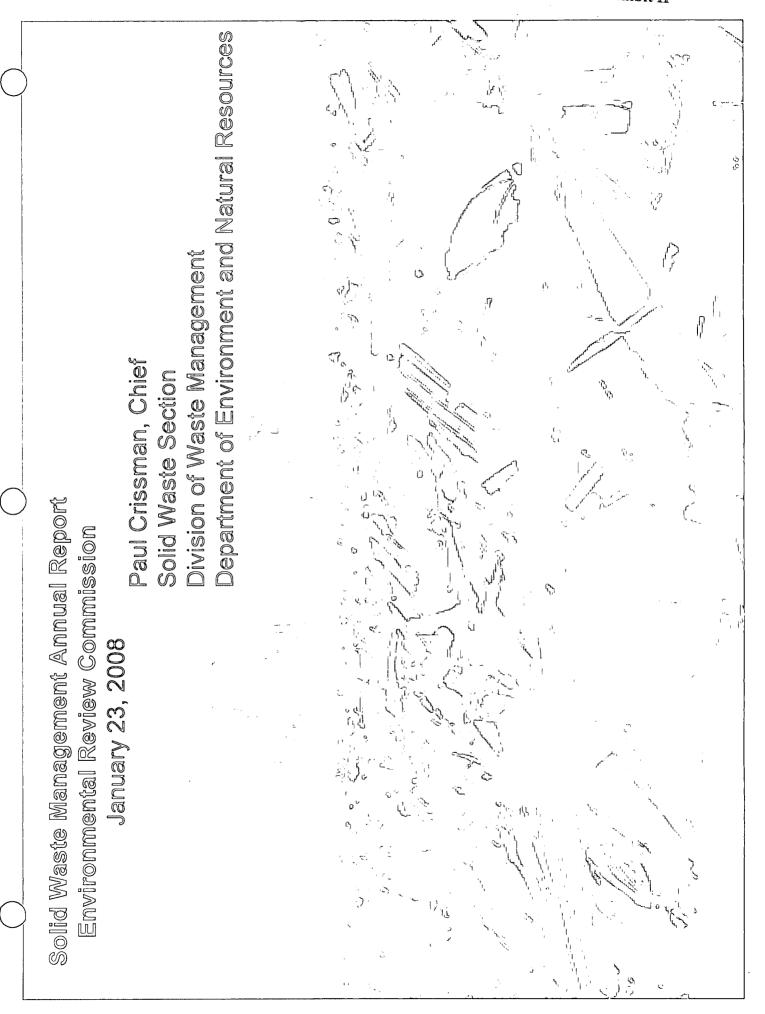
Questions



• NC Drought Management Advisory Council -I BLO JUDTON BOY WANNAN/PAIDU

• Water Sources Task Force -

hittp://www.newater.org/Drought Monitoring/wstaskfore.php



10,900z 90.500z SOBOOS *acoos Facos ta 1002 100002 00.6661 00.6661 Fiscal Year e_{G-AGG1} 46 1661 16. 9661 <6.9661 96 5661 So Bool FO. COSL [₹]6, ₹66/ ₹6. 166/ ₹6. 1661 16.0661 2,000,000 10,000,000 8,000,000 6,000,000 4,000,000 12,000,000 suoŢ

Tons of Solid Waste Disposed of by North Carolina

NC Per Capita Waste Disposal

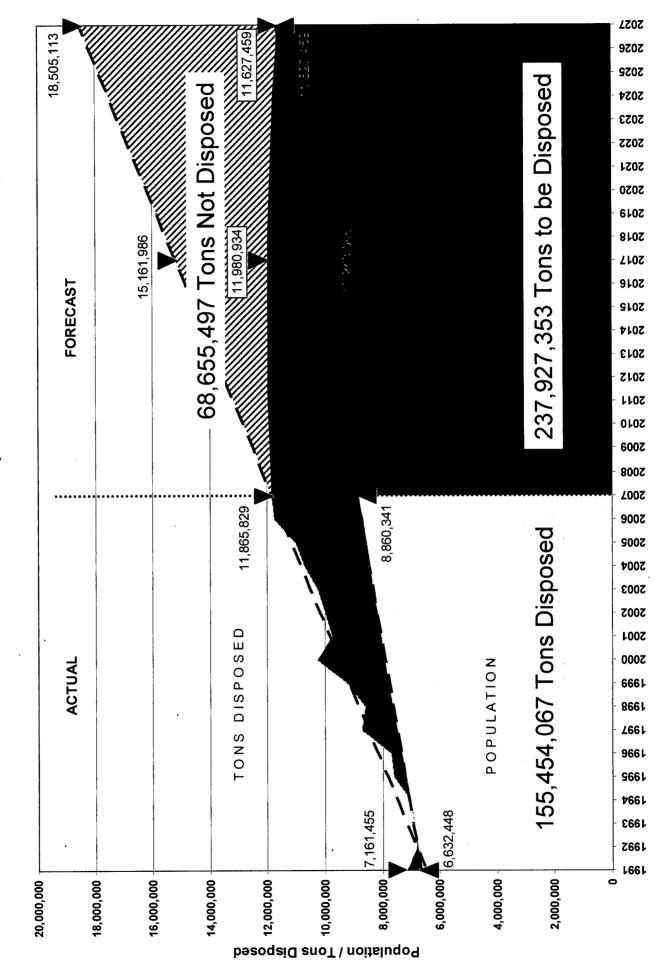
7202 18,505,113 2026 2025 **2024** 2023 2022 2021 2020 2019 10,243,586 8102 15,161,986 7102 9102 **FORECAST** 2012 7102 2013 2012 1102 2010 2009 2008 7002 11,865,829 8,860,341 2008 2002 2004 2003 2002 TONS DISPOSED 2001 2000 POPULATION ACTUAL 666 L 866 L 466 L 966 l 966 l 766 l 7,161,455 6,632,448 1993 1995 1661 6,000,000 2,000,000 20,000,000 18,000,000 16,000,000 14,000,000 12,000,000 10,000,000 8,000,000 4,000,000 Population / Tons Disposed

North Carolina Solid Waste Disposal 20-Year Forecast

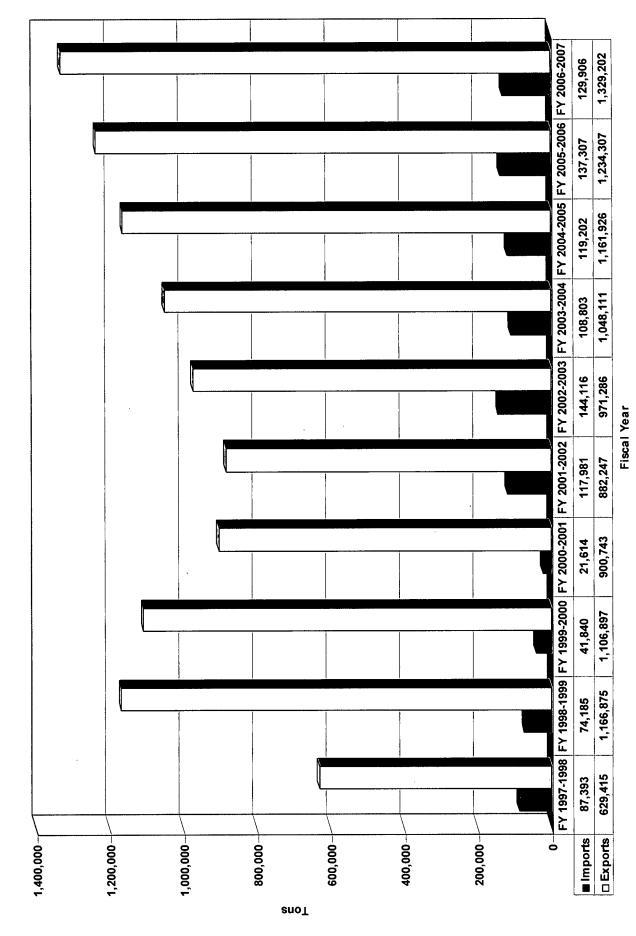
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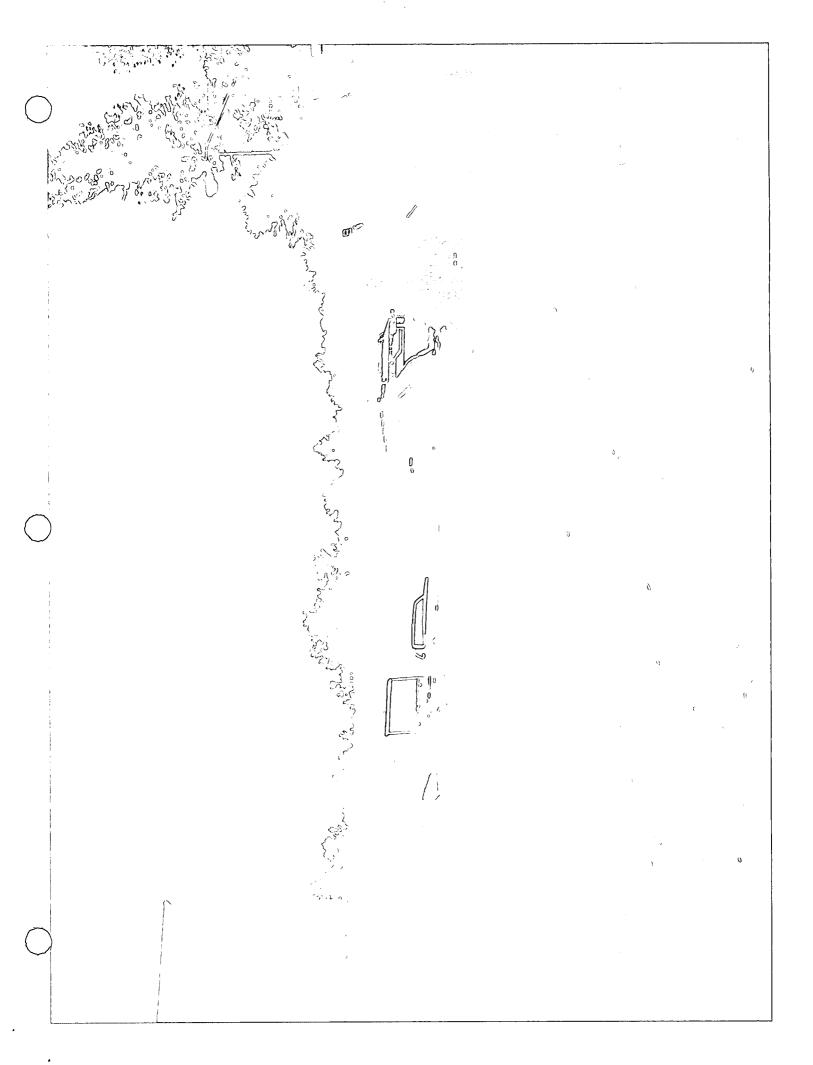
North Carolina Solid Waste Disposal 20-Year Forecast

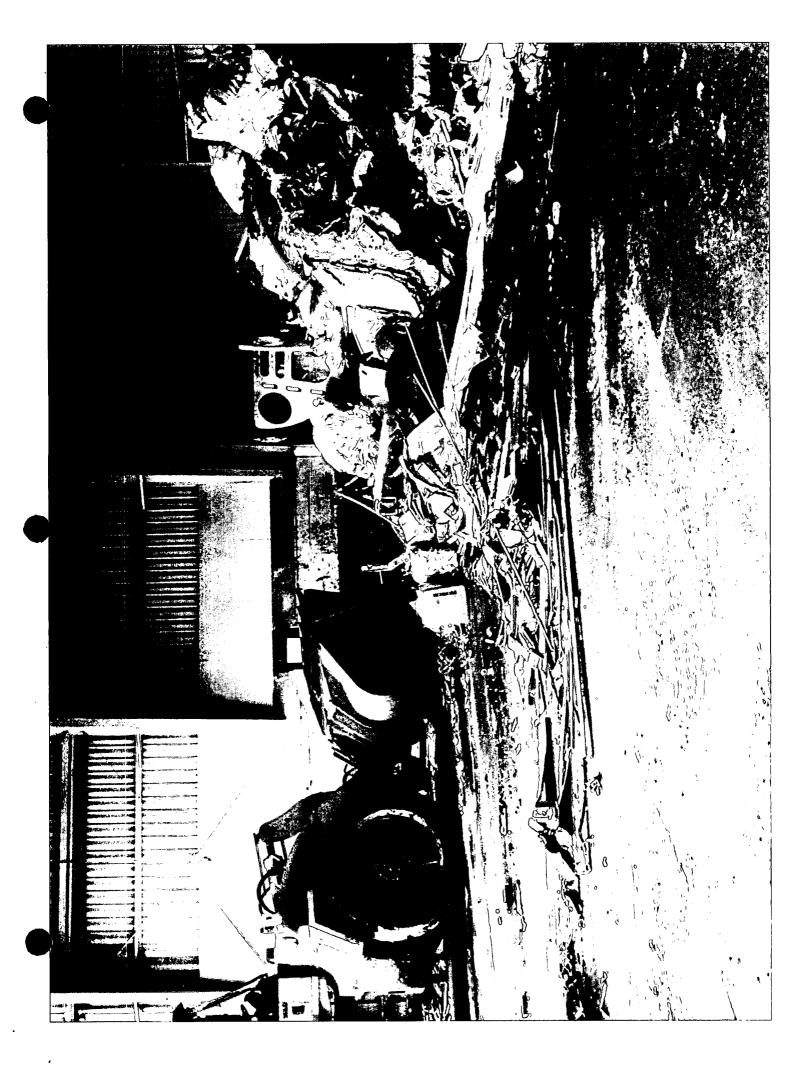
North Carolina Solid Waste Disposal 20-Year Forecast

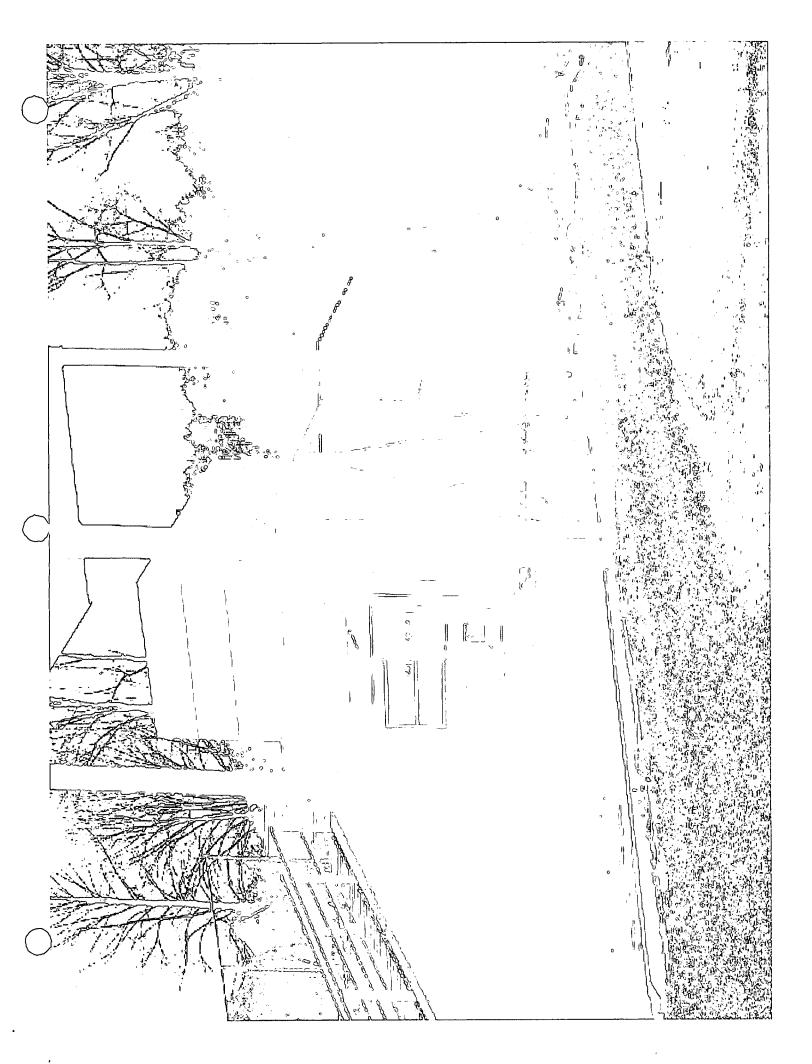


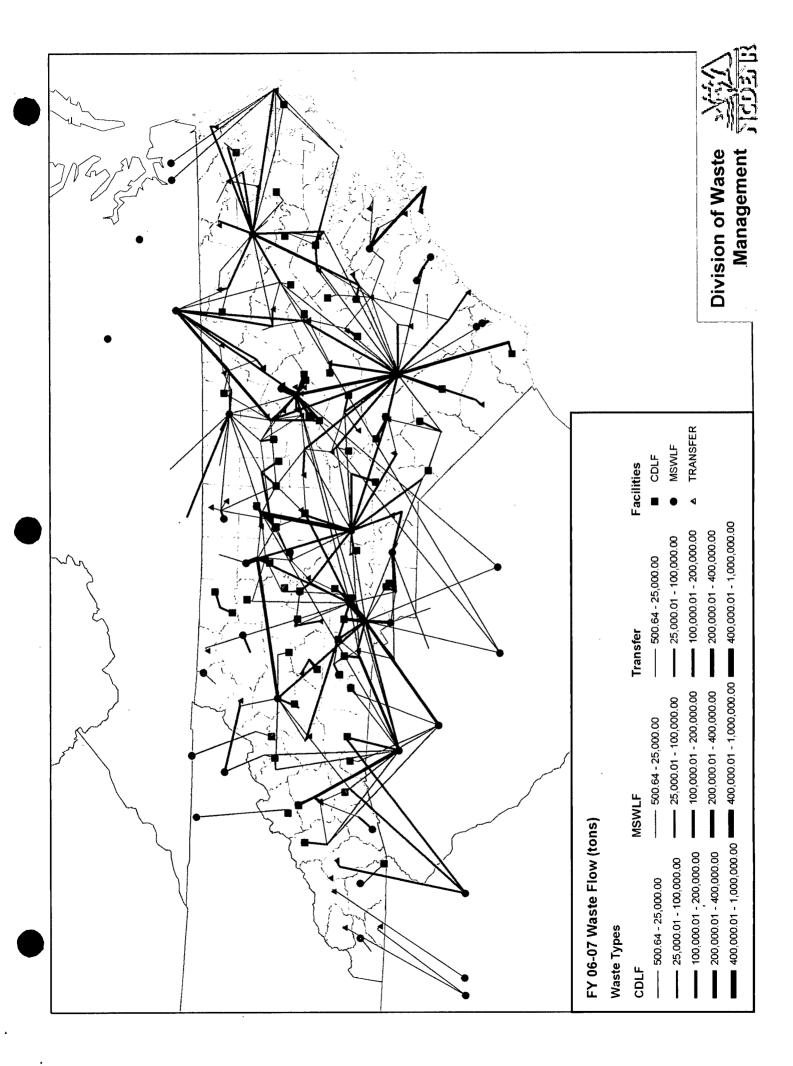
Imports / Exports

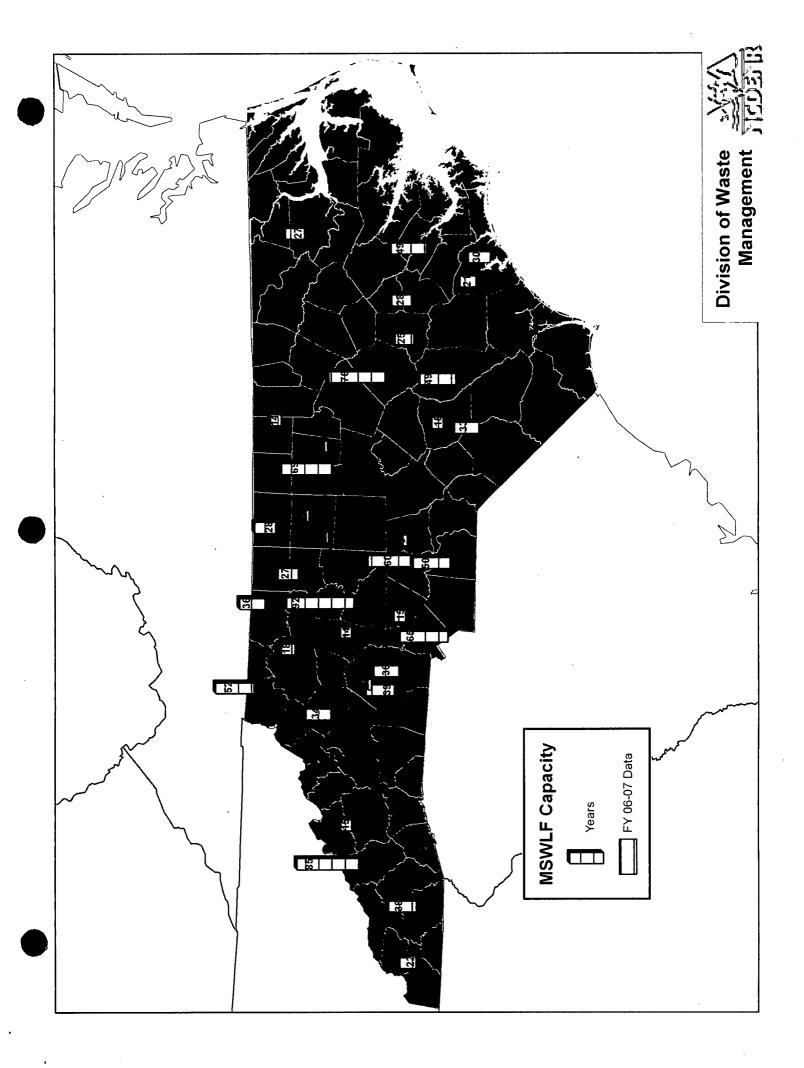


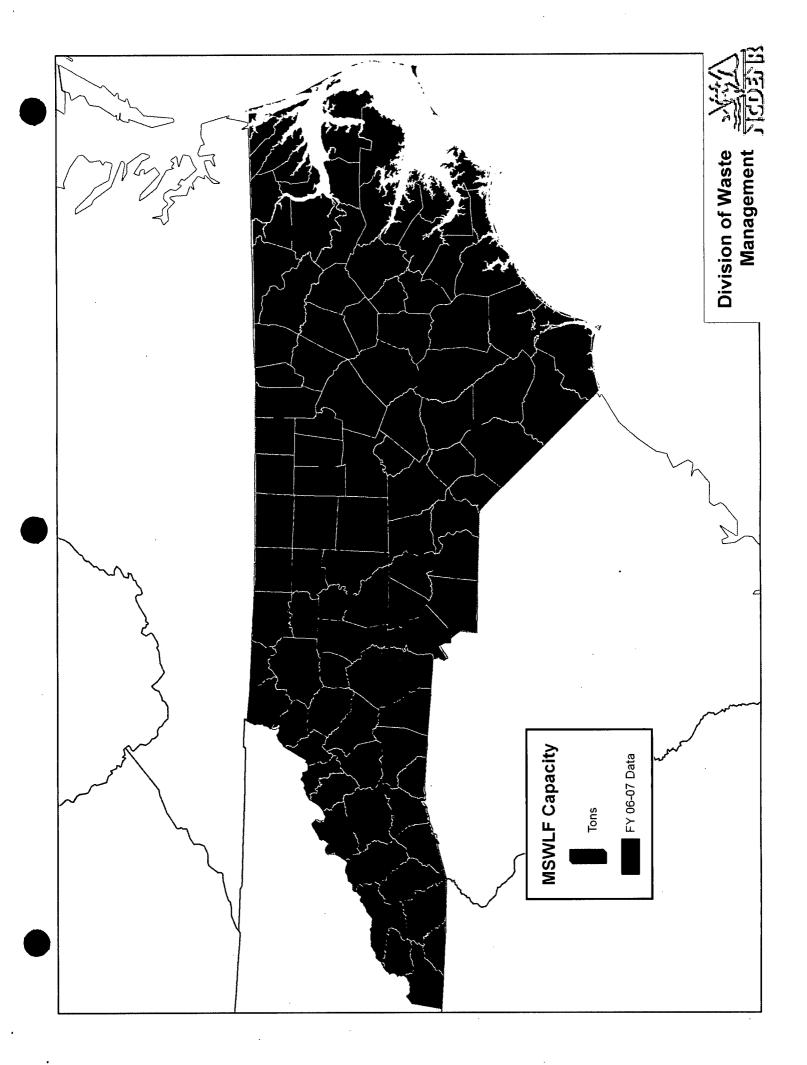


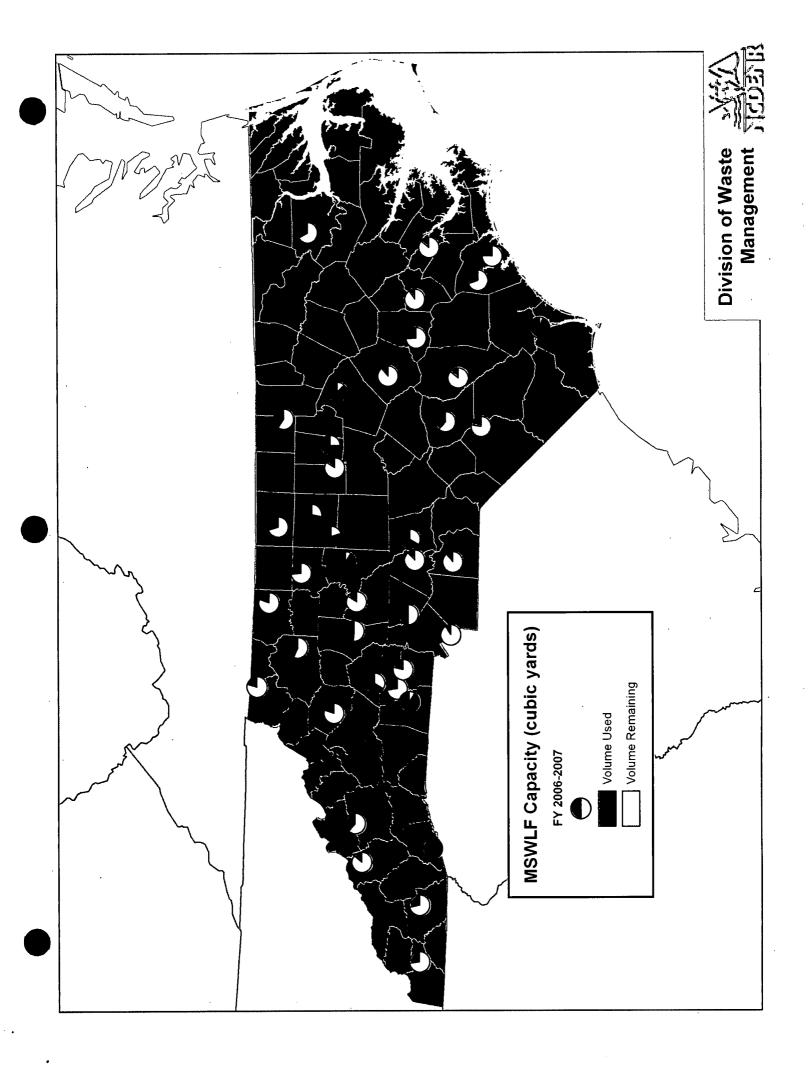












State-wide Municipal Solid Waste Landfills (MSWLF)

FY 2006-2007

40 MSW Landfills currently operating Average facility size: 310.8 acres	Average waste footprint: 76.5 acres	Average compaction density: 0.60 tons/c	Average years in operation: 11.1 years
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Average	<u>ლ</u>
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Total

Volume
$$(yd^3)$$

29,004,224.7

Tons of Waste

Years (average)

Years (FY06-07)

17,279,574.66 157,920,815.11

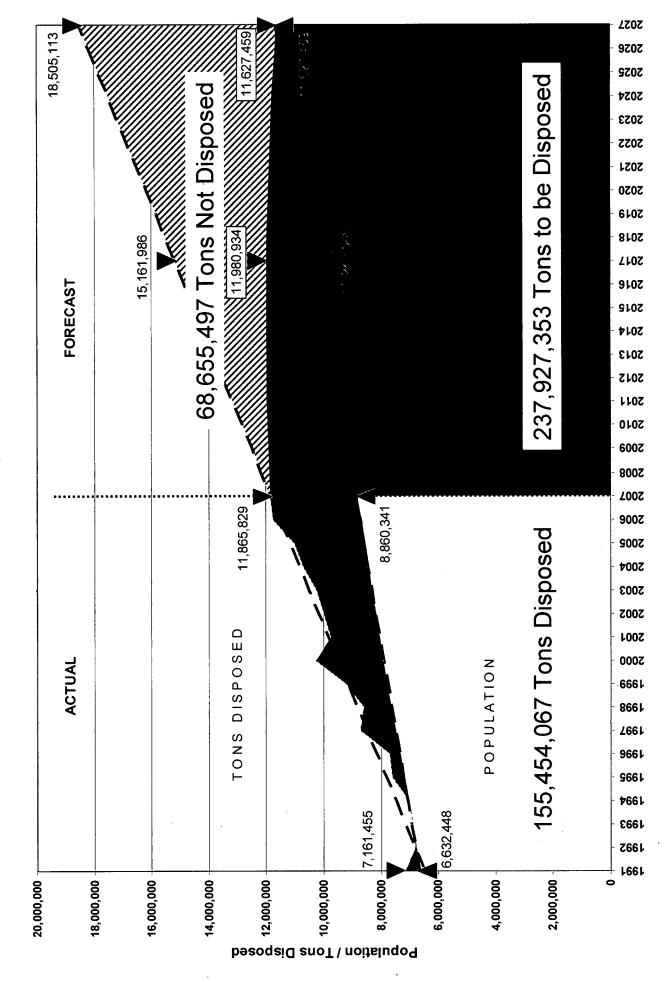
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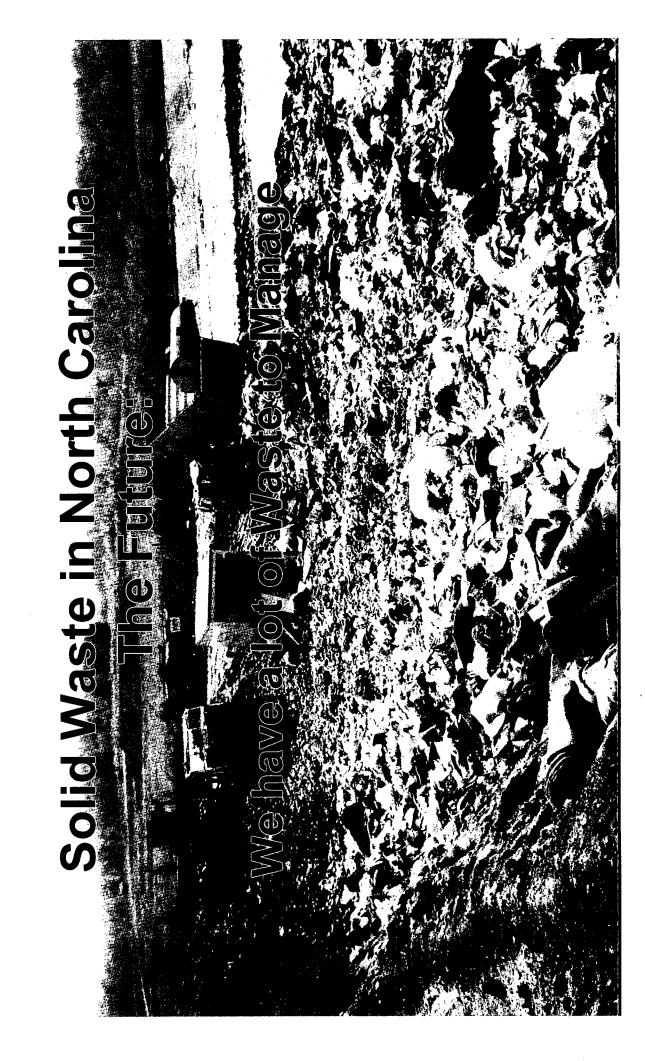
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North Carolina Solid Waste Disposal 20-Year Forecast





Paul Crissman

Solid Waste Section

Division of Waste Management

Department of Environment and Natural Resources 919.508.8497

www.wastenotnc.org

Paul.Crissman@ncmail.net

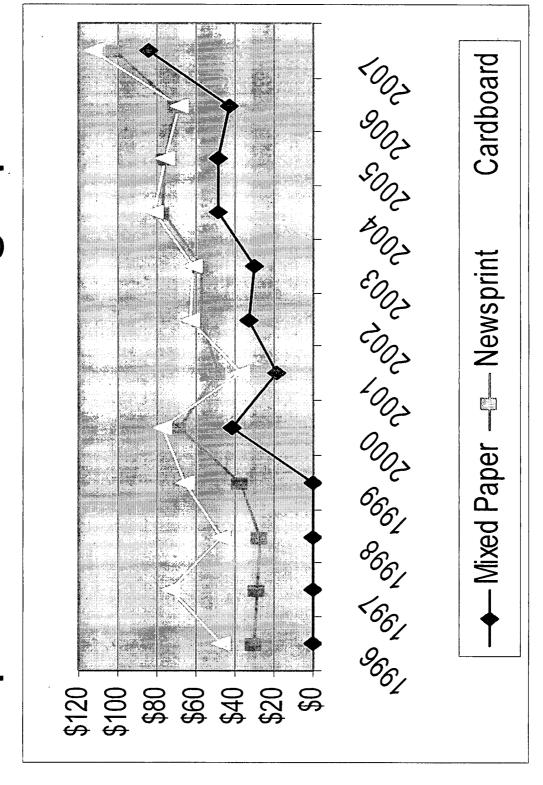
North Carolina Recycling Overview

Scott Mouw NC DPPEA

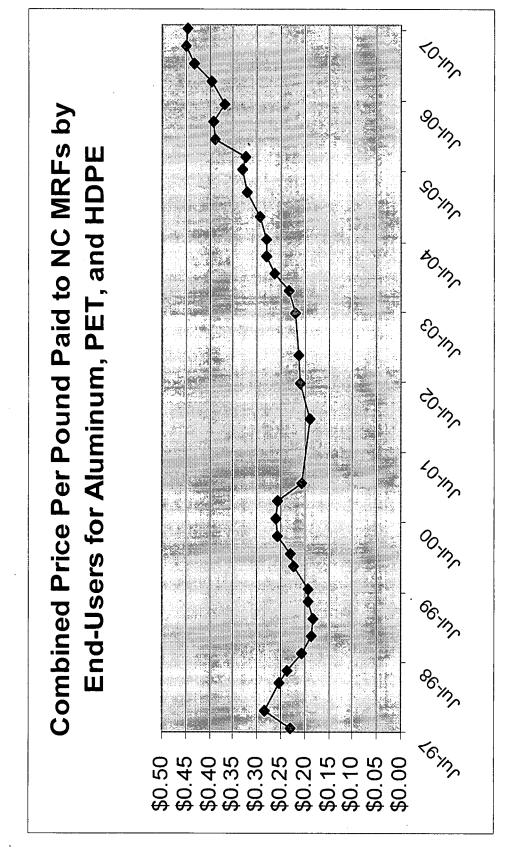
Summary of Main Points

- Markets still very strong for many materials.
- reduce landfilled tonnage in FY07, but still much Increase in local government recycling helped room for improvement.
- ABC permit-holder recycling requirements now in force.
- Product stewardship helping tackle difficult waste streams.
- Issues and concerns still left to be addressed.

Paper Prices Moving Upward



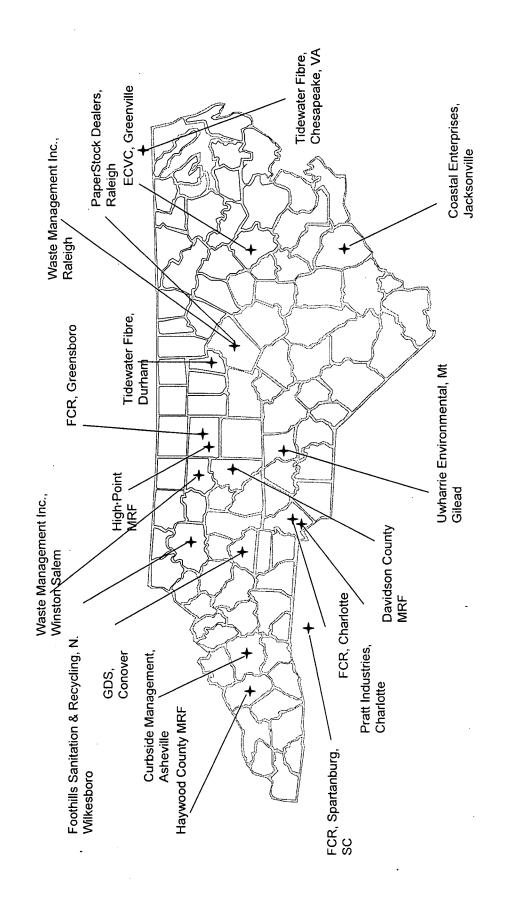
ncreases in Container Recycling Prices – Aluminum and Plastic

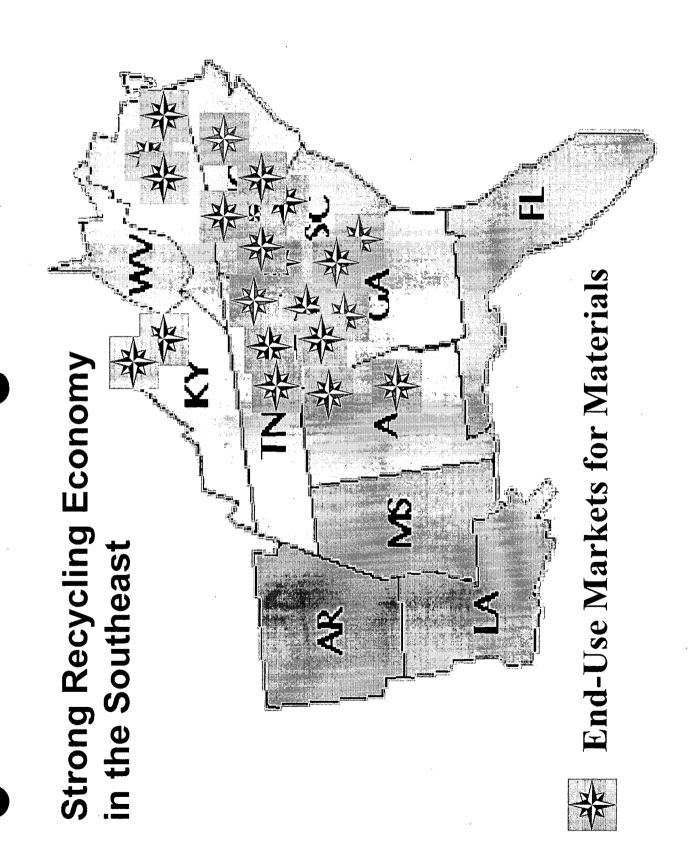


Major Market Developments

- Coca Cola opening \$60 million plastic bottle recycling plant in Spartanburg, SC.
- Large new processing facility opened by Pratt Industries in Charlotte.
- PRC Industries, an appliance refurbisher, bringing new plant and 288 jobs to McDowell County.
- electronics, wallboard, wood, organic wastes, Capacity expansions in 2007 by recyclers of plastics, and metals.

Material Recovery Facilities (MRFs) Serving North Carolina

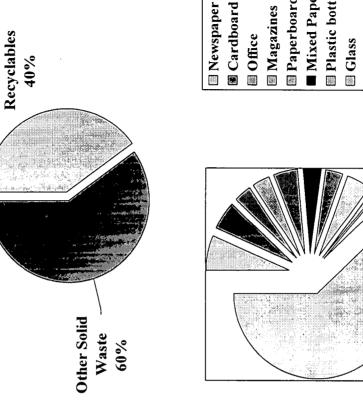




Underachieving Household Recycling Potential

Traditional

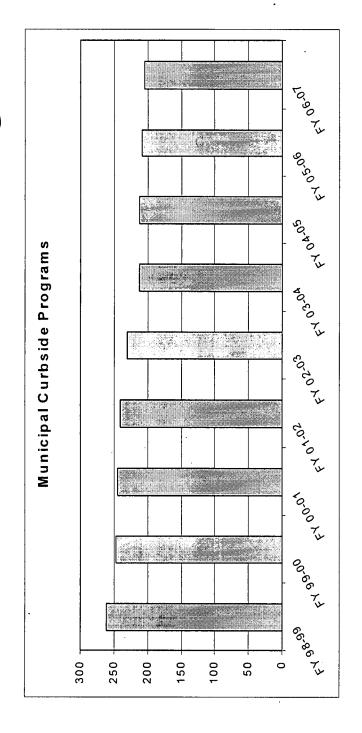
- 745 recyclable lbs. per household.
- waste stream recyclable. 40% of a household's



Average local program only collecting 243 lbs per nousehold served.

- Newspaper 🗆
- Office
- Magazines
- Mixed Paper Paperboard
- Plastic bottles
- Aluminum cans
 - ☐ Steel Cans
- Other Waste

Decline in Curbside Programs

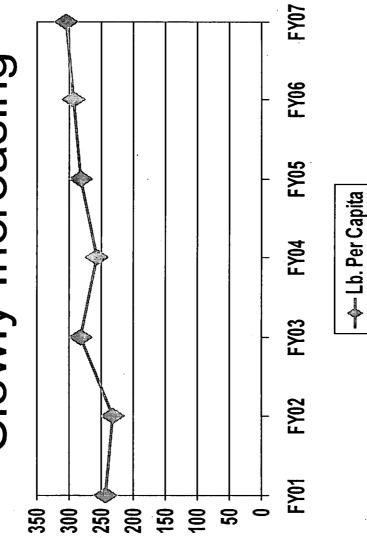


- Curbside Programs are down, but the number of households served by curbside programs is up.
- Overall Curbside tonnage up 12.5% in FY07, or 21,071 tons.

Some Local Governments Making Strides

- Cabarrus County, Mooresville, Fayetteville, and New and pending curbside programs in other towns.
- More grassroots support for recycling programs.
- Some programs modernizing: e.g. Wake Forest conversion to carts raises participation to 97%.
- Good programs achieving high efficiency: e.g., Brevard's recycling program costs less than collecting and disposing solid waste.
- Overall local government recycling tonnages increased in FY 07.

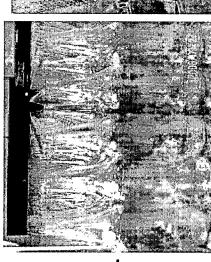
Per Capita Recycling Slowly Increasing

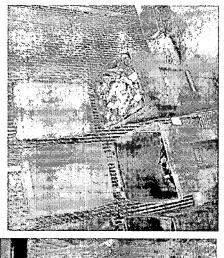


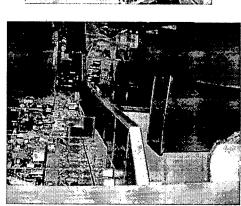
- Ratio of Recycling to Disposal has stayed steady recycling keeping pace with landfilling.
- Increase of 77,538 tons diverted by local governments, FY06 to FY07.

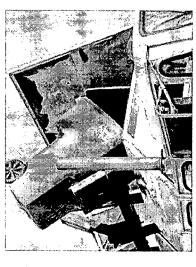
ABC Recycling Underway

- 8,000+ permit-holders beginning recycling efforts.
- Most having to pay for recycling services; some served by local governments
- Exemptions granted where service not available.
- Program has spurred business development at least 10 new companies started up in NC to collect ABC material.
- Program will result in more material for recyclers: glass plastic, and aluminum (approx. 50,000 tons).







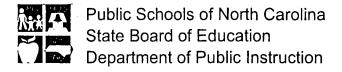


Product Stewardship Initiatives North Carolina Active on

- involvement through "product stewardship." Some materials will require more industry
- Through Product Stewardship Institute, NC working books, paint, fluorescent lights, and other products. with other states to address thermostats, phone
- National Paint Agreement struck in 2007.
- beverage industry to increase container recycling. NC, EPA, and other states in dialogue with
- NC involved in national Carpet America Recovery Effort (CARE).

Issues and Concerns

- Recycling Businesses Need More Material.
- Local Governments must do a better job of modernizing their programs:
- Increasing participation
- Adding materials
- Increasing collection efficiency
- Adding other services e.g., school recycling
- Some materials may require special attention: e.g., fluorescent lights, pharmaceuticals.
- North Carolina needs an overall increase in public commitment to recycling.



2007 Report to the Joint Legislative Education Oversight Committee

Strengthening Littering Laws

SL2001-512, sec. 11

Senate Bill 1014

Due Date: December 15, 2007

Report #: 21

DPI Chronological Schedule, 2007-2008

2007 RECYCLING SURVEY

In September and October, 2007, the Department of Public Instruction, in conjunction with School Planning Section of the School Support Division conducted a survey to assess the recycling efforts of each school system in North Carolina. This survey is in response to Senate Bill 1014, which directs the State Board of Education to report on the recycling efforts on a yearly basis. Out of the 115 individual school systems in NC (LEAs), all 115 systems responded to the survey, for a response rate of 100%.

Survey results will be sent to, and used by the Joint Legislative Oversight Committee and The Environmental Review Commission to determine recycling status and trends from year to year. Results will be tabulated annually through the year 2007, for an accurate longitudinal assessment of the recycling program in North Carolina Public Schools.

Results

Do any of your schools have a recycling program?

	# Recycle (2007)	% 2007	% 2006	% 2005	% 2004	% 2003
Yes	110	95.7	93.9	93.0	85.2	88.0
No	5	4.3 ¹	6.1	7.0	14.8	12.0
Total	115	100.0	100.0	100.0	100.0	100.0

Is the recycling program organized at the school or LEA level?

	# Recycle (2007)	% 2007	% 2006	% 2005	% 2004	% 2003
LEA	9	7.8	29.6	34.8	27.8	18.7
School	25	21.7	. 31.3	32.2	25.2	38.5
Both	76	66.1	33.0	26.1	32.2	30.8
None.	5	4.3	6.1	7.0	14.8	12.0
Total	115	100.0 ²	100.0	100.0	100.0	100.0

When asked if a recycling program is in place within the 115 school systems the response was overwhelmingly positive, with almost all (95.7%) of LEAs having a program in all or at least one of the schools in their system. This resulted in a percent increase of 1.8% from 2006/2007. Additionally, the vast majority of *individual schools* in the North Carolina School System (88.6% or 2,086 schools)³ report they recycle at least one item.

¹ This figure represents LEAs with no recycling programs, and refer to Anson, Bladen, Haywood, Moore, and Sampson.

² Percentages may not equal 100 due to rounding.

³ Please note: This percentage may be greater because not all school systems reported the exact number of participating schools.

Summary of Recycled Items

What items does your school system recycle?

	# Recycle (2007)	% 2007	% 2006	% 2005	% 2004	% 2003
Cardboard	89	77.4	75.7	73.9	73.9	62.4
Paper	88	7ê.5	66.1	67.8	61.7	68.4
Newspapers	85	73.9	67.0	67.0	61.7	62.4
Cans	83	72.2	76.5	72.2	74.8	76.9
Ink/toner cartridges	83	72.2	36.5	38.3	36.0	4
Computer hard drives	76	66.1	58.3	49.6	56.5	36.7
Computer keyboards	72	62.6	54.8	47.0	47.8	35.0
Motor oil	72	62.6	72.2	71.3	68.7	65.8
Tires	65	56.5	67.0	65.2	60.9	61.5
Cooking oil	64	55.7	58.3	53.9	53.9	48.7
CRT monitors	64	55.7	51.3	40.9	40.0	25.6
Plastic bottles	64	55.7	46.1	44.4	43.5	41.0
Printers	63	54.8	54.8	44.4	36.5	34.2
Glass bottles	35	30.4	26.1	23.5	25.2	19.6
Other glass containers	16	13.9	16.5	14.8	17.4	13.7
Plastic cafeteria plates and cups	16	13.9	15.7	11.3	10.4	12.8
Plastic cafeteria utensils	9	7.8	13.0	9.6	4.3	8.5
Other ⁵	35	30.4	34.8	41.7	47.8	54.7

Paper based items are the top three most recycled items by school systems. Slightly more than three-fourths (77.4%) of LEAs recycle cardboard, making it the most recycled item. Paper and newspaper are second and third on the list, with 76.5% and 73.9% of school systems recycling these items respectively. The least recycled items reported are plastic cafeteria utensils (7.8%), which may be contributed to the difficulty of separating smaller items.

Once again, all computer equipment showed significant increases in the number of LEAs recycling these items. The largest increase was in ink/toner cartridges, which almost doubled from 36.5% in 2006 to 72.2% in 2007.

Only five school systems (Anson, Bladen, Haywood, Moore, and Sampson) have no organized recycling program intact. These school systems are average to smaller than average and list cost, reliance on recycling companies, and no interest as huge factors for the lack of a recycling program in their school system. However most of these systems are currently in the process of trying to implement a recycling program.⁶

⁴ Data was not collected for ink/toner cartridges in 2003

⁵ Examples include: Antifreeze, batteries, cell phones, and textbooks. For a complete listing, see Appendix A

⁶ For a complete listing of comments, see Appendix B

Appendix A- Other Recycled Items

PLEASE LIST ANY OTHER ITEMS RECYCLED BY THE LEA (in order by LEA #)

- 050 Ashe County Schools Central office recycles paper and cans; large tires are recapped
- 070 Beaufort County Schools cell phones, diskettes, CDs, DVDs, video
- 130 Cabarrus County Schools books, office paper
- 132 Kannapolis City Schools cell phones
- 180 Catawba County Schools cell phones, CPU, speakers
- 182 Newton Conover City Schools batteries, cell phones
- 200 Cherokee County Schools industrial metal, textbooks, wooden pallets
- 240 Columbus County Schools ballasts and fluorescent lamps
- 280 Dare County Schools boat (1)
- 300 Davie County Schools cell phones (5)
- 350 Franklin County Schools antifreeze, cell phones
- 460 Hertford County Schools cell phones
- 491 Mooresville City Schools cell phones
- 510 Johnston County Schools can tabs
- 560 Macon County Schools computer hardware, paper products
- 590 McDowell County Schools cell phones, magazines, PDAs
- 620 Montgomery County Schools can liners, carpet, custodial items, VCT flooring
- 670 Onslow County Schools cell phones, clothing, eye glasses, textbooks
- 680 Orange County Schools batteries
- 681 Chapel Hill-Carrboro Schools batteries
- 700 Elizabeth City / Pasquotank County Schools office paper
- 740 Pitt County Schools desks, lockers, used equipment, water coolers
- 760 Randolph County Schools antifreeze, rechargeable batteries
- 770 Richmond County Schools batteries (bus garage)
- 780 Robeson County Schools cell phones, milk cartons, scrap metal, tabs
- 790 Rockingham County Schools catalogs
- 840 Stanly County Schools plastic bags (1)
- 850 Stokes County Schools cell phones, textbooks
- 860 Surry County Schools cell phones, magazines, telephone directories, textbooks, workbooks
- 900 Union County Public Schools antifreeze (1), cell phones(4), scrap metal(1)
- 910 Vance County Schools plastic bags (1)
- 920 Wake County Schools ballasts, batteries, carpet, sheet rock, textbooks
- 950 Watauga County Schools antifreeze, batteries, scrap metal
- 960 Wayne County Public Schools metals
- 970 Wilkes County Schools batteries, cell phones, scrap metal

() represents the # of schools that are recycling the items listed

Appendix B- Written Comments

EXPLAIN PROBLEMS WITH RECYCLING PROGRAM (in order by LEA #)

- 040 Anson County Schools We used to have one, but it was too much work for the amount of money that we got in return for it.
- 090 Bladen County Schools Do not have enough participation and interest.
- 300 Davie County Schools Each school has there own system and some use this as fund raisers.
- 390 Granville County Schools No recycle pick-up.
- 440 Haywood County Schools Our maintenance director is presently working with the county to develop a recycling program.
- 480 Hyde County Schools Lack of recycling collection.
- 590 McDowell County Schools Presently working with Cooperative Extension Service to develop system wide program.
- 610 Mitchell County Schools At this time our central office administration and board of education is updating our system wide policy manual. Providing a policy concerning recycling is a high priority for development. Currently our system allows recycling to be an individual school's decision.
- 620 Montgomery County Schools We recycle some supplies and buy some recycled products. However, this has not been a point of concern over the last few years.
- 681 Chapel Hill-Carrboro Schools We do not recycle glass as we do not purchase or supply products in glass containers.
- 730 Person County Schools We have several organizations helping us to develop a consistent recycling program. Our problem is limited resources.
- 790 Rockingham County Schools We do not have a system-wide recycle program due to the expanse of our County. Our technology department is responsible for recycling computer equipment at all of our schools. Our school food service participates in recycling of cooking oil at all of our middle and high schools. Our elementary schools do not use cooking oil. We have two elementary schools that do not participate in additional recycling of some kind.
- 820 Sampson County Schools Sampson County Schools does not have a recycling program at this time but we do purchase recycled products whenever possible.
- 840 Stanly County Schools The schools participate on an individual basis in recycling efforts.

2008

ENVIRONMENTAL REVIEW COMMISSION February 14

MINUTES



MINUTES ENVIRONMENTAL REVIEW COMMISSION

February 14, 2008

The Environmental Review Commission met at 9:30 a.m.Thursday, February 14, 2008 in Room 544 of the Legislative Office Building. Co-Chairperson Charlie Albertson presided. The meeting was called to order at 9:41 a.m.

Welcome and Attendance

Members present were Co-Chairperson Charlie Albertson, Co-Chairperson Pryor Gibson, III, Senator Stan Bingham, Senator Katie Dorsett, Senator James Forrester, Senator Ellie Kinnaird, Senator A. B. Swindell, Senator David Weinstein, Representative Jim Harrell, Representative Pricey Harrison, Representative Carolyn Justice, Representative Ruth Samuelson Representative Edith Warren, and advisory member Senator Fletcher Hartsell. Commission staff present were Commission Counsel George Givens, Assistant Counsel Jeffrey Hudson, Assistant Counsel Jennifer McGinnis, Commission Analyst Jennifer Mundt, Research Assistant Mariah Matheson and Commission Clerk Jessica Kozma Bennett.

A meeting notice was distributed to staff, members and outside parties via regular mail and electronically and is included as an attachment to the minutes as **Exhibit A**. A reminder was sent electronically February 13. The meeting agenda and visitor's registration sheets are attachments to these minutes and referred as **Exhibit B** and **Exhibit C**, respectively.

Report to the Commission and Explanation of Agenda Items

Mr. Givens was recognized by the Co-Chairperson to review the day's agenda. Mr. Givens welcomed membership and introduced Jeff Cherry of the Bill Drafting Division, and told the Commission that Mr. Cherry's legal focus is with water issues. Mr. Givens then discussed the "read only" packet (**Exhibit D**), stating that this month there were no reports included for the month. Those reports will be distributed in future months.

A planning meeting for this meeting was held February 5 at 10 a.m. in Room 607 of the Legislative Office Building. Mr. Givens announced the date of the next Commission meeting, March 18, and noted that an out of town meeting regarding parks and recreations meeting tentatively scheduled for March would be moved to April. Mr. Givens also announced an upcoming public hearing for the matter of House Bill 1756, the Safe Artificial Slope Construction Act, scheduled for March 10 in Boone.

Approval of the Minutes of the 27 November 2007 and 19 December 2007 meetings

Representative Samuelson asked that the minutes be partitioned by subject. With that noted for the record, Representative Samuelson moved for approval of the Minutes. With no discussion the minutes were approved

<u>Update on the Status of</u> North Carolina Board of Pharmacy v. The Rules Review Commission Case

Responding to an inquiry by Senator Kinnaird, Mr. Hudson reported that in 1998 the Board of Pharmacy adopted a rule to limit the amount of hours a pharmacist could work and allow for minimal lunch and other breaks. However, the Rules Review Commission objected to the rule, saying the Board of Pharmacy lacked the statutory authority to adopt such a rule. In response, the Board of Pharmacy sued the Rules Review Commission saying that the Board did have statutory authority and that the Rules Review Commission acted unconstitutionally in its objection to the rule. Both trial and appeals courts upheld the decision of the Rules Review Commission, saying that the Pharmacy Board did not have statutory authority to adopt the rule and could not challenge the constitutionality of the Rules Review Commission's actions. These decisions were reversed by the Supreme Court, which found that the Pharmacy Board did have statutory authority to adopt the rule. On the constitutional matter, the court opined that the lower courts should not have reached the constitutional issue and offered no opinion of its own.

Representative Gibson asked if there would be something further on this because of the court's silence regarding constitutionality. Mr. Hudson said that the case is disposed of and that the court does not rule on matters of constitutionality when ruling in favor of the plaintiff on another issue.

Mr. Givens commented that there is no judicial determination on the constitutionality of the Rules Review Commission.

<u>Update on Current Drought Conditions</u> In Light of Conservation Efforts and Recent Rain Event

Co-Chairperson Albertson recognized Mr. Thomas C. Fransen, Chief of the River Basin Management Section with the Division of Water Resources (DENR). Mr. Fransen began saying that the state remained in extreme or exceptional drought with rainfall deficits ranging from eight to 12 inches in the Piedmont and 20 to 24 inches in the mountains and southeastern North Carolina. Since the beginning of the year rainfall deficits have continued to increase and the worst categories of drought continue to slowly expand.

However, Mr. Fransen also reported that agricultural conditions had improved slightly from periodic rainfall that soaks into topsoil quickly. Crop moisture is at a small surplus.

Two lakes—Falls and Michie—continue to drop in flow despite being in a time of year when lake levels typically rise. The drought is expected to continue at least through April, he reported, and said that the State needed "to plan for the worst."

A copy of his presentation is included in the minutes as Exhibit E.

Mr. Fransen then reviewed a list of water system's differences in water use from the September 2007 through February. Mr. Fransen noted page four of the handout, showing non-reporting systems. He said that the message he wants to get out is for people to stay at current water levels.

Senator Bingham asked if the number of non-reporting systems is a problem for him for long range planning. Mr. Fransen said that non-reporting systems are scattered around and now all systems have to report annually. Co-Chairperson Albertson commented that it would be good to have all information. Senator Hartsell asked that if this was an indication there are too many systems.

Senator Weinstein asked if there were any plans to desalinate waters, of which Mr. Fransen commented that there was a "lot of thinking going on."

Annual Report on the Dry -Cleaning Solvent Cleanup Act of 1997

Co-Chairperson Albertson recognized Mr. Jonathan A. Powers, Head, Special Remediation Branch, Superfund Section with the Division of Waste Management (DENR). Mr. Powers is recognized to report on an annual report on the Dry Cleaning Solvent Cleanup Act of 1997.

A copy of this report is included in the minutes as Exhibit F.

Currently, the program has 172 sites, and Mr. Powers added that there would likely be 17 will require no action, and 7 or 8 additional sites will quality for public notice in July. Statutory changes have also occurred (SB 1362), and those changes include deductions, instated a \$1000 application fee and allows the program to use one percent of its fund balance to investigate contaminated groundwater areas.

Mr. Powers then emphasized his report to explain the program's financial status, and said last year expenditures were greater than \$3 million. He added that site work across the state was increasing, spending to address the increase rose 250 percent. There are an estimated 2000 active or abandoned dry cleaning sites in the State, and compared data gathered from similar programs in other states, an estimated 75 percent of those sites are contaminated, roughly 1500 sites. Cleaning up all sites at roughly \$250,000 a site, total cost would be roughly \$188 million.

Co-Chairperson Albertson asked when existing sites in the program would be cleaned up, of which Mr. Powers noted that site projects come in at various times. Co-Chairperson Albertson then asked what would need to do to stop the continuation of the system. Mr. Powers said that a "drop dead" date was established in Florida. Mr. Given noted that if a "drop dead" date was instituted sites found after that date would be orphaned. Senator Bingham inquired on the communication between the program and actual cleaners. He also asked if poorer operators were excluded from liability, of which Mr. Powers said he would defer to legal advice to determine liability. Senator Hartsell commented that dry cleaners in his district are not happy with the program, and asked how many sites had actually been cleaned up. Mr. Powers said no sites had been totally cleaned up but 17 sites would be completed by the end of the year. Senator Hartsell said that \$22 million has been collected, and the complaints heard questioned the effectiveness of the program. Senator Hartsell then asked why the price of the calendar had increased from \$1 to \$13. Mr. Powers said the new calendar is quite a bit more

expensive and that the current calendar is presented in a format that is dry cleaner friendly.

Presentation on the Science of PBDEs

Dr. Heather Stapleton, Assistant Professor of Environmental Science at the Nicholas School of Environmental and Earth Sciences, Duke University was recognized by the Co-Chairperson. A copy of her report is included in the minutes as **Exhibit G.**

Her presentation "Human Exposure to Brominated Flame Retardants," included background on brominated flame retardants, including a focus on polybrominated diphenyl ethers, its types, uses and commercial formulations. She also discussed human exposure to PBDE and new and alternate BFRs.

Concerns were raised by members including effects of the PBDEs on both children and adults. Senator Forrester asked if there were studies on possible toxicity among pregnant women. Dr. Stapleton said there were prior studies on rats and that currently studies were being compiled on humans. Representative Harrison asked if PBDEs and PCB have a similar nerve toxin effect, of which Dr. Stapleton said that both can metabolize.

Report on Actions Taken by Other Governmental Units In the Use and Regulation of PBDEs

Kathleen A. Curtis, Policy Director of Clean New York was recognized by Co-Chairperson Albertson. A copy of her presentation is included in the minutes as **Exhibit H.** Ms. Curtis said that decaBDE restrictions were already in place in Sweden, Norway, Washington State, Maine and the European Union. Sweden restricted decaBDEs on 1 January 2007; Norway had an existing ban. The European Union had restrictions on toys and cosmetics, and Ms. Curtis said the Union was far ahead of the United States in regulations.

Discussing restrictions in Maine, Representative Samuelson asked if a flame retardant is banned, could you still sell it for manufacturing. Ms. Curtis said that ban affects manufacturing, selling or distributing the retardant. Co-Chairperson Albertson asked what the symptoms of deca, which Ms. Curtis said pregnant mother could have no symptoms but could have a baby with a harmed brain. Representative Justice commented that health issues from flame retardants are similar to cigarette smoking, that one has no symptoms until one is very sick.

Ms. Curtis reviewed current legislation in numerous states, including deca bans in television and computer enclosures. Co-Chairperson Albertson then asked how one would know if their mattress was contaminated. Ms. Curtis suggested a website, www.safer-products.com, to research various products that have or have not used flame retardants. She continued to review other state's progress with bans.

Reports from other states show that there are safer alternatives for television cabinets and textiles, two items that consume the most decaBDE. Also, the Illinois ERC determined that decaBDE can be broken down by light and organisms under certain conditions and that exposure can cause thyroid, reproductive and neurological effects.

Regarding mattresses alternatives from deca, fabric may be back coated with phosphate and cotton padding can be treated with boric acid. Also, there are halogen free alternatives. A majority of mattress companies are already manufacturing mattresses without PBDEs, noting that often industry is ahead of legislation.

She warned the Commission—if legislation is indeed to be drafted—to avoid amendments for agency rule making, narrowing the definition of "safer alternative," and requiring the State's fire marshal to adopt state fire safety standards.

Concluding her presentation, Ms. Curtis reiterated that reports had proven the health issues of PBDEs and said that legislation had quickly grown from 1 to 15 states.

Representative Harrison asked how much of the market is safe given that other brominated chemicals may be used in products. Ms. Curtis said there was the potential for industries to use what may be an equally toxic chemical but one that had not yet been studied. She also said that emerging economies—such as Southeast Asia—could have relaxed industrial standards allowing for the use of toxic flame retardants. Representative Harrison commented that she did not know what kind of chemical studies are currently completed in the State and noted the importance of the issue.

Senator Kinnaird was recognized by the Co-Chairperson and asked if the health profession was aware. Ms. Curtis said that the profession was and that there is participation and outcry over the issue. Senator Kinnaird followed up asking if family practitioners know, which Ms. Curtis said varied from doctor to doctor. Senator Kinnaird again followed up asking about the switch to digital televisions and how that would impact. Ms. Curtis said that most televisions—roughly 95 percent—are made by manufacturers that have committed to not using deca. Representative Justice asked for what reasons legislation failed in one state. Ms Curtis said that deca is the most tested chemical in the world and an argument is made that newer products have not been tested yet and therefore the public knows not if its health effects.

Mr. Givens asked what other groups have proposed bans. Ms. Curtis replied that firefighters have supported bans and firefighting association officials have considered deca products a serious occupational hazard.

<u>Issues Related to the Administration of the</u> Bernard Allen Memorial Drinking Water Fund

Ms. Robin Smith, Assistant Secretary for Environment with DENR was recognized by Co-Chairperson Albertson. She began her presentation reviewing legislation from years 2006 and 2007 (Exhibit I). An emergency drinking water fund was established in 2006 with an appropriation of \$300,000. In 2007, the fund was renamed after former Representative Bernard Allen and established risk and income levels. For risk, the fund adheres to federal drinking water standards. For income, the fund is for those less than three times the federal poverty level. For the 2007 session \$615,000 was appropriated. After ratification, DENR officials created a working group to develop criterion and possible eligible sites were identified.

She noted a project in Jackson County with one contaminated well serving four dwellings and four people. The well had five times the federal drinking water standard for benzene. Contamination had spread to three nearby residences, but those residences were ineligible for assistance from the fund due to their proximity to the original site.

Total costs for the project are roughly \$900,000. Upon completion, new water supply will support six homes and a rest home with 55 residents.

Representative Justice asked what would have happen had this fund not existed. Ms. Smith said that the county could have possibly funded the project but did not have an answer to who would be able to assist. Representative Justice followed up asking if the State has an obligation to step in when such a situation occurs. Ms. Smith answered that the State does not, and that before there was no funding except for underground storage tanks.

Representative Harrison said she realized that the General Assembly gave the fund to DENR without the resources to manage it. She then asked how people have access to information regarding the program and how the State could do a better job of notifying residents on contaminated lands. Ms. Smith said that a challenge is with limited state resources it is very difficult to fully characterize extent of contamination for a limitless amount of time. Representative Harrison then asked if there is a program set up in recent legislation to test new wells. Ms. Smith said the items tested through the new legislation were relatively limited. Representative Samuelson suggested that the State create a program similar to the flood buyout rather than incur the costs of running new water lines.

Senator Bingham asked if testing was consistent in all 100 counties and also asked why new wells were not tested for solvents. Ms. Smith said to her knowledge she did not know what solvents were tested. Commission Analyst Jennifer Mundt reported to the Commission the items tested.

Status of the Alcohol and Beverage Control Recycling Program

Mr. Scott B. Mouw, Chief of the Community and Business Assistance Program with the Division of Pollution Prevention and Environmental Assistance (DENR) was recognized to report on a recent recycling program for ABC permitted establishment. There are 8,000 establishments participating in the program with a density of those in urban, university and tourism counties. A majority participating in the program are bars and restaurants but theaters, golf courses, AFW halls and also participating. Affected containers include aluminum cans, plastic bottles and glass beverage bottles.

A copy of his presentation is included in the minutes as Exhibit J.

Forty exemptions have been granted so far but there have been no exemptions granted for the recycling of aluminum cans. Fifty to 75,000 tons are anticipated as additional recycling, doubling current recycling tonnage. Ms. Mouw reported on energy savings, noting that it was significant.

There was no discussion following Mr. Mouw's report.

Commission Discussion and Announcements

Senator Hartsell reported that he attended the Catawba-Wateree Bi-state Commission and that he attended a presentation from officials from Colorado. He complimented the presentation, and said that he thought the commission was working on a compact. He asked to find out the status of the Yadkin-Pee Dee Bi-State Commission. Mr. Givens said there were three commissions including the Yadkin-Pee Dee

commission, and that neither North nor South Carolina had aggressively sought to activate the commission.

The meeting was adjourned at 1:29 p.m.

Co-Chair Charlie Albertson

Presiding

Jessica Kozma Bennett

Commission Clerk

Co-Chair Lucy Allen

Co-Chair Pryor Gibson

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

MEMBERS

SENATOR STAN W. BINGHAM SENATOR KATIE G. DORSETT SENATOR JAMES S. FORRESTER SENATOR ELEANOR G. KINNAIRD SENATOR A.B. SWINDELL SENATOR DAVID F. WEINSTEIN

REPRESENTATIVE JAMES A. HARRELL REPRESENTATIVE PRICEY HARRISON REPRESENTATIVE CAROLYN H. JUSTICE REPRESENTATIVE RUTH SAMUELSON REPRESENTATIVE EDITH D. WARREN REPRESENTATIVE LARRY W. WOMBLE

Environmental Review Commission State Legislative Building Raleigh. Porth Carolina



31 January 2008

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JENNIFER R. F. MUNDT COMMISSION ANALYST

MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

TO:

Members of the Environmental Review Commission

Interested Parties

FROM:

George F. Givens, Commission Counsel

Jessica Bennett, Commission Clerk

RE:

Notice of Commission Meeting Notice of Planning Meeting Schedule of Future Meetings

Meetings of Interested Parties (605 Working Groups)

Additional Information

COMMISSION MEETING:

The Environmental Review Commission (Commission) will meet at 9:30 a.m. Thursday 14 February 2008 in Room 544 of the Legislative Office Building in Raleigh.

At this meeting, the Commission will begin or continue studies for which the Commission is responsible, hear reports from State agencies, discuss topics to be considered at future meetings, and attend to other matters. Listed below are potential agenda topics for this meeting and for future meetings. More specific information regarding the agenda for the 14 February meeting of the Commission will be developed at the staff planning meeting discussed below. Commission Counsel may publish a revised notice/draft agenda following the staff planning meeting if circumstances permit.

STUDIES

- 1) Issues related to the franchise of solid waste management facilities by units of local government. (S.L. 2007-550, Sec. 18) **Deferred.**
- 2) Issues related to the transportation of solid waste by rail or barge, including the extent to which regulation of the transportation of solid waste by rail or barge may be preempted by federal law. (S.L. 2007-550, Sec. 18) **Deferred.**
- Issues related to the use of pervious surfaces for vehicle parking areas, including associated costs, impact to the environment of stormwater runoff, and practices of other states with regard to stormwater best management practices. (S.L. 2007-323, Sec. 6.22.(b)) Still under discussion. Deferred.
- 4) Allocation of surface water resources and their availability and maintenance in the State, including issues related to the transfer of water from one river basin to another, the withdrawal of water for consumptive use, and the accuracy and tolerance of equipment used to measure the

flow of water transferred from one river basin to another river basin. (S.L. 2007-518, Sec. 1.(a)) Completed public meetings and is in process of developing a contract. Will have comments regarding public meetings March 1.

- Preparation of a revised map entitled "Major River Basins and Sub-basins in North Carolina" as a recommended replacement for the map referenced in G.S. 143-215.22G. The revised map shall define the extent to which any river basin that encompasses any river that flows from another state into North Carolina or that flows from North Carolina into another state extends into an adjacent state. (S.L. 2007-518, Sec. 1.(b)) Map is received. Deferred.
- 6) Other studies undertaken by the Commission.

Clean Car legislation: perhaps.

Follow up items from last meeting: 1) inquiry about status of pharmacy board case. 2) ABC recycling need specific report on how that is going. 30 minutes.

REPORTS (Report due dates are indicated in parentheses)

General/Miscellaneous:

- Report on the Department of Administration plan to implement an energy conservation measures program and development or revisions of architectural or engineering standards consistent with an energy conservation measures program. (S.L. 2007-546, Sec. 2.1(c)) (1 February 2008)Report ready and deferred until March. Susan to begin drafting revision of bill.
- Annual report by the Soil and Water Conservation Commission on the Community Conservation Assistance Program, including a summary of projects that received State funding pursuant to the Program, the results of the evaluation conducted, and a summary of the effectiveness of the Program. (G.S. 143-215.74M(e)) (31 January 2007) Report ready. Deferred until March. Julie Minshaw from Division of Soil and Water to deliver presentation.

Hazardous Waste Management:

- 9) Report of Superfund cost share fund expenditures for cleanup of sites on the National Priorities List. (S.L. 1999-237(15.6)(b)) (Floating, within 30 days of expenditure) **Deferred.**
- Department of Environment and Natural Resources study of the need for further regulation of hazardous waste transfer facilities, including whether to require the facilities to obtain a permit, pay permit fees, provide contingency plans, and demonstrate financial responsibility. (S.L. 2007-107) (1 February 2008) Elizabeth said was not ready for presentation. Deferred.

Parks and Recreation / Land Conservation:

* Note: All reports under this heading are being held for presentation at the 18 March 2008 meeting of the Commission.

Water Quality:

- 11) Annual report on the Dry-Cleaning Solvent Cleanup Program. (G.S. 143-215.104U) *(1 October)* 15 minutes.
- Annual report on the status of leaking petroleum underground storage tanks, the State cleanup funds, and the Groundwater Protection Loan Fund. (G.S. 143-215.94M) (1 September) Deferred until revised bill.

- Implementation of the Clean Water Management Trust Fund; projects and awarded grants. (G.S. 113-145.6A(a) and S.L. 2002-148, Sec. 3) (1 December) Perhaps in March.
- Annual report on the effectiveness of projects funded under the Agriculture Cost-Share Program for Nonpoint Source Pollution Control. (G.S. 143-215.74(e)) (31 January) Deferred until March.
- North Carolina Water Quality Workgroup (Rivernet) annual report on the previous year's activities, findings, and recommendations (G.S. 143-215.8D) (30 January) Now mostly a NCSU study. Report ready.

Note: the Environmental Management Commission is meeting February 14 at 10 a.m.

OTHER MATTERS

- 16) Update on the current drought. 20 minutes.
- 17) Discussion of issues related to administration of the Bernard Allen Memorial Emergency Drinking Water Fund. Robin to do presentation. 25 minutes.
- 18) Discussion of issues related to the use of flame retardants that contain polybrominated diphenylethers (PBDE). 1.25 minutes. Heather Stapleton from Duke to speak.

PLANNING MEETING:

To facilitate development of the agenda for the 14 February meeting of the Commission, to begin planning for subsequent meetings of the Commission, and to receive input from interested persons regarding the work of the Commission, the Commission Counsel will hold an informal planning meeting at 10:00 a.m. on Tuesday 5 February 2008 in Room 605 of the Legislative Office Building. Persons who wish to participate in the development of the agenda for meetings of the Commission, or who are interested in any matter before the Commission, are invited to attend.

SCHEDULE OF FUTURE MEETINGS:

Below is a schedule of meetings of the Environmental Review Commission for March 2008 through May 2008. This schedule is tentative and subject to adjustment. For planning purposes, however, please reserve these dates. This schedule may be modified to allow for out-of-town business meetings or site visits and in the event that it becomes necessary to cancel a scheduled meeting due to hazardous weather conditions. Please note the following:

- 1. Meetings of the Commission normally begin at 9:30 a.m., often include a lunch break, and run until mid-afternoon. Please plan on meeting from 9:30 a.m. until at least 3:30 p.m. Meetings of the Commission are open to the public.
- 2. Staff planning meetings normally begin at 10:00 a.m. and adjourn by noon. Staff planning meetings are informal and are open to the public. Commission members are not expected to attend these meetings.
- 3. The March meeting is anticipated to focus on parks and recreation issues. This meeting may take place over two days at a location outside Raleigh.
- 4. The 2008 Regular Session is scheduled to begin at 12:00 noon on Tuesday 13 May 2008. The Commission may meet shortly after the beginning of the session to complete ongoing work and to consider any legislative proposals and recommendations and may meet at other times during the legislative session.

Commission Meeting	Location	Staff Planning Meeting	Location
Tuesday 18 March 2008	TBD	Friday 7 March 2008	605 LOB
Thursday 10 April 2008	544 LOB	Friday 28 March 2008	605 LOB

Tuesday 29 April 2008

Friday 9 May 2008 Wednesday 14 May 2008

MEETINGS OF INTERESTED PARTIES (605 WORKING GROUPS):

The Commission Counsel will hold meetings of interested parties on specific topics as indicated below:

Underground Storage Tank Working Group 2:00 p.m. Monday 18 February 2008 – 605 Legislative Office Building

Public meeting on the study of issues related to construction on artificial slopes TBD – in Northwestern North Carolina

ADDITIONAL INFORMATION:

If you have questions related to the Commission, please feel free to contact the Commission Counsel or other Commission staff at (919) 733-2578.

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

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SENATOR JAMES S. FORRESTER
SENATOR ELEANOR G. KINNAIRD
SENATOR A.B. SWINDELL
SENATOR DAVID F. WEINSTEIN

REPRESENTATIVE JAMES A. HARRELL REPRESENTATIVE PRICEY HARRISON REPRESENTATIVE CAROLYN H. JUSTICE REPRESENTATIVE RUTH SAMUELSON REPRESENTATIVE EDITH D. WARREN REPRESENTATIVE LARRY W. WOMBLE Environmental Review Commission State Legislative Building Raleigh, Porth Carolina



AGENDA
9:30 a.m. Thursday 14 February 2008
Room 544 Legislative Office Building
Raleigh, North Carolina

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JEFF W. HUDSON ASSISTANT COMMISSION COUNSEL

JENNIFER L. McGINNIS
ASSISTANT COMMISSION COUNSEL

JENNIFER R. F. MUNDT COMMISSION ANALYST

MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

- 1. Call to order Senator Charles W. Albertson
- 2. Introductory remarks by Cochairs (5 minutes)
 Senator Charles W. Albertson
 Senator Daniel G. Clodfelter
 Representative Lucy T. Allen
 Representative Pryor A. Gibson
- 3. Report to the Commission and explanation of agenda items (15 minutes)
 George F. Givens, Commission Counsel

Approval of the minutes of the 27 November 2007 and 19 December 2007 meetings of the Commission

Update on the status of the North Carolina Board of Pharmacy v. The Rules Review Commission case

Jeff W. Hudson, Assistant Commission Counsel

4. Update on current drought conditions in light of conservation efforts and recent rain events (20 minutes)

Thomas C. Fransen, Chief River Basin Management Section, Division of Water Resources, Department of Environment and Natural Resources (DENR) Environmental Review Commission Agenda – 14 February 2008 Page 2

5. Annual report on the Dry-Cleaning Solvent Cleanup Act of 1997 (G.S. 143-215.104U) (15 minutes)

Jonathan A. Powers, Head Special Remediation Branch, Superfund Section Division of Waste Management, DENR

6. Discussion of issues related to the use of flame retardants that contain polybrominated diphenylethers (PBDE) (1 hour and 30 minutes)

Presentation on the science of PBDEs

Dr. Heather M. Stapleton, Assistant Professor of Environmental Science Nicholas School of the Environment and Earth Sciences, Duke University

Report on actions taken by other governmental units in the nation related to the use and regulation of PBDEs

Kathleen A. Curtis, Policy Director

Clean New York and

National PBDE Strategic Collaboration Campaign Coordinator for the Environmental Health Fund

7. Discussion of issues related to the administration of the Bernard Allen Memorial Emergency Drinking Water Fund (25 minutes)

Robin W. Smith, Assistant Secretary for Environment DENR

8. Status of the Alcohol and Beverage Control recycling program (30 minutes)

Scott B. Mouw, Chief

Community and Business Assistance Section

Division of Pollution Prevention and Environmental Assistance, DENR

- 9. Commission discussion and announcements
- 10. Adjourn

Environmental Review Commission Agenda – 14 February 2008 Page 3

SCHEDULE OF FUTURE MEETINGS:

Below is a schedule of meetings of the Commission for March 2008 through May 2008. This schedule is tentative and subject to adjustment. To facilitate development of the agenda for meetings of the Commission and to receive input from interested persons regarding the future work of the Commission, the Commission Counsel holds informal public planning meetings for staff and interested parties. The schedule of these meetings is also set out below.

Commission Meeting	Location	Staff Planning Meeting	Location
Tuesday 18 March 2008	544 LOB	Friday 7 March 2008	605 LOB
Wednesday 9 April 2008	See below*	Friday 28 March 2008	605 LOB
Thursday 10 April 2008	See below*		
Friday 9 May 2008	544 LOB	Tuesday 29 April 2008	605 LOB
Wednesday 14 May 2008	544 LOB		

^{*}The April meeting of the Commission will be held at Hammocks Beach State Park in Onslow County and may include additional site visits to other locations in the area. A specific itinerary will be included in the notice for the April meeting.

MEETINGS OF INTERESTED PARTIES:

The Commission Counsel will hold meetings of interested parties on specific topics as indicated below:

Underground Storage Tank Working Group

2:00 p.m. Monday 18 February 2008 - 605 Legislative Office Building

Public Meeting on the Study of Issues Related to Construction on Artificial Slopes
TBD – Northwestern North Carolina

ADDITIONAL INFORMATION:

Persons having questions about the Commission meeting or other matters related to the Commission may contact Commission Counsel or other Commission staff at (919) 733-2578 or may visit the Commission's website at:

http://www.ncleg.net/gascripts/DocumentSites/browseDocSite.asp?nID=12

ENVIRONMENTAL REVIEW COMMISSION

February 14, 2008

<u>VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION ASSISTANT</u>

NAME	FIRM OR AGENCY AND ADDRESS
DAVID BASENES	Poyner+ Sprail
Ful Con	Bone: Aso
Susanne Streb	Nerua
Jim Lowry	NC Utility Contractors AssN
Lu- Gun Cheann) ITW
thong willow	Bone + Assoc
Anny Mcconkey.	Smith Aderson
Tracil Kimbrell	Parker Poe
LisaMarkin	Ne Home Builders
AutoWatkins	PCLW
Kini fibband	NCLM

VISITOR REGISTRATION SHEET

ENVIRONMENTAL REVIEW COMMISSION February 14, 2008

VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION ASSISTANT

NAME	FIRM OR AGENCY AND ADDRESS
Don McConquodale	Maringfulton
Thomas Whoere	tiduision = Webb
And Eller	NCRMA
Frank W. Folger	Helms Mulliss Wicker
Jay Stem	NCAA
Jucilene Hoffmann	DENR
DICK Carlton.	Low office of Richard Carlfon
Christa Wagner	Nc Siem Chb
Leanne Matre	DENR
Allison Fowler	NC State Grange
Jim Johnu	Blood 5, real Advisor
	I

VISITOR REGISTRATION SHEET

ENVIRONMENTAL REVIEW COMMISSION

February 14, 2008

<u>VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION ASSISTANT</u>

NAME	FIRM OR AGENCY AND ADDRESS
JOHN SHAW	
Erin Kinney	NX Consensation Notwork
Dan Crawford	Electricities of NC
Steve Will	DENR
Annamy ANGW	NAC
Patrick Woodie	NC Ruval Center
BILLY GUILLET	NC RURYL CTR.
Amy Pickle	SOUTHERN ENVIRONMENTAL
TAD BOGGS	NCDENR
Linda Culpum	HCDINK
Pete Doorn	NC DENR
Tom BEAN	nc Givikonmental Defense

VISITOR REGISTRATION SHEET

ENVIRONMENTAL REVIEW COMMISSION February 14, 2008

VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION ASSISTANT

NAME	FIRM OR AGENCY AND ADDRESS
John Powers	NC DENR
Di. Holm	Nahola, Int / Dokel
DANIEL BAUM	KENNEBY CONNOTEN
Million 7- Justice	REKERS Public 1947 tos
Doug Lassiter	NCSTA
JOBIN SMHL	DENR
Elizabeth Self	DENP
Dan Mawhorn	City of Roleigh
Wendy Kelly	HMW
PRESTON HOWARD	MCIC
Butch Gannells	NC Beverage Assoc.
Hirabeth Dalta	MCRMA
· ·	

VISITOR REGISTRATION SHEET

ENVIRONMENTAL REVIEW COMMISSION February 14, 2008

VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION ASSISTANT

NAME	FIRM OR AGENCY AND ADDRESS
Paul Shermon	NCFB
Jul Gumio	John Cache Foundation
Dr. Heather Stapleton	Doke University
Julia Loggetto	The Are of MC
Hope Taylar	Clear Waker for All Durham, NC 2770
/ / /	

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

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Environmental Review Commission State Legislative Building Raleigh, Porth Carolina



14 February 2008

GEORGE F. GIVENS COMMISSION COUNSEL 545 LEGISLATIVE OFFICE BUILDING 300 NORTH SALISBURY STREET RALEIGH, NORTH CAROLINA 27603 (919) 733-2578 FAX: (919) 715-5460

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JENNIFER R. F. MUNDT COMMISSION ANALYST

MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

MEMORANDUM

To:

Members of the Environmental Review Commission

From:

Jennifer Mundt, Commission Analyst

Re:

Reports to the Commission

The following report has been submitted by the Department of Environment and Natural Resources to the Commission and will be distributed in connection with today's Agenda Item #5:

1) Annual Report on the Dry-Cleaning Solvent Cleanup Act of 1997. 1 October 2007. Statutory Authority: G.S. 143-215.104U.

The following reports have been received and are being held for distribution either as read-only or for presentation at a future meeting of the Commission. If you would like a copy of one of these reports in advance of the next meeting, please contact Jennifer Mundt at (919) 733-2578 or jennifermu@ncleg.net for assistance.

- 1) Annual report on the Parks and Recreation Trust Fund, Fiscal Year 2006-2007. 1 October 2007. Statutory Authority: G.S. 113-44.15(c).
- 2) 2006 Annual Report NC Million Acre Initiative. 1 October 2007. Statutory Authority: G.S. 113A-241(c)).
- 3) Annual report on implementation of the Conservation Easements Program. 1 October 2007. G.S. 113A-235(c).
- 4) Annual report on the implementation of the Clean Water Management Trust Fund. 1 December 2007. Authority: S.L. 2002-148, Sec. 3 and G.S. 113-145.6A(a).

Environmental Review Commission Reports Distribution – 14 Feb 2008 Page 2

5) Annual report on the Community Conservation Assistance Program. 31 January 2008. Statutory Authority: G.S. 143-215.74M(e).

Please contact George Givens, Jeff Hudson, Jennifer McGinnis, Jennifer Mundt, or Mariah Matheson at (919) 733-2578 if you have any questions or comments.

2008 Winter - Spring Drought Outlook

February 2008 Assessment from NOAA's National Weather Service Office in Raleigh Issued February 12, 2008

North Carolina started the new 2008 year with rainfall deficits ranging from 8 to 12 inches in the Piedmont and 20 to 24 inches in the mountains and southeastern North Carolina (Figure 1). This meant throughout 2007 most of North Carolina received only 50-75% of the normal rainfall expected in a year.

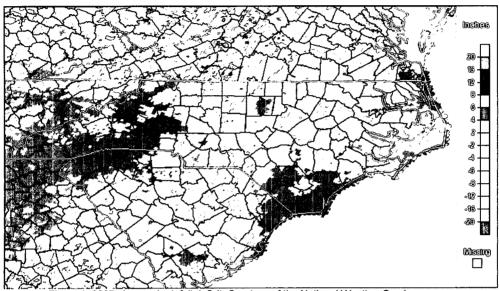


Figure 1: 2007 observed rainfall deficit. Courtesy of the National Weather Service.

Since January 1st the rainfall deficit has continued to increase in 2008, with rainfall only ranging from one to three inches (Figure 2) through February 12. This is only 30 to 60 percent of normal rainfall for January and early February falling in line with predictions of below normal rainfall during the winter months made by climate forecasters back in September and October of 2007.

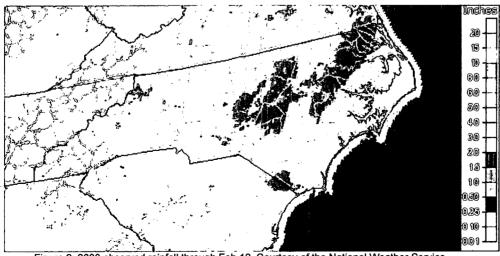


Figure 2: 2008 observed rainfall through Feb 12. Courtesy of the National Weather Service.

As a result of this ongoing shortage of rainfall, the area continues to experience extreme to exceptional drought. If fact the worst categories of drought has continued to slowly expand, and now covers more than 85 percent of the state (Figure 3).

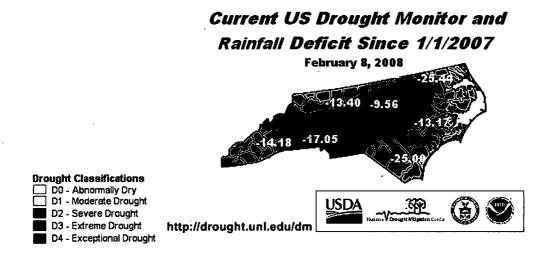


Figure 3: North Carolina Drought Monitor including rainfall deficits from January 1, 2007 to February 8, 2008. Image courtesy of http://www.ncdrought.org

The current extreme to exceptional drought classifications are largely determined by the long term lack of surface and ground water. Stream flows across central North Carolina are well below normal, and many are at less than 10 percent of normal (Figure 4). This type of drought is defined as a hydrologic drought. Surface and ground water supplies take much longer to replenish, thus hydrologic droughts last much longer and are slower to improve and end.

Tuesday, February 12, 2008 08:31ET

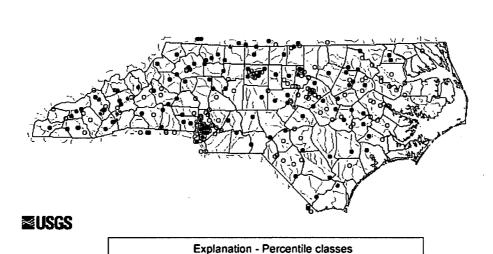


Figure 4. Stream flow at long-term stream flow gaging stations as of February 12, 2008. Graphics courtesy of the USGS.

Normal

76-90

High

10-24

In contrast, agricultural conditions have improved to a small degree and are typically the first to respond as periodic rainfall soaks into the topsoil quickly. This quick response of the soil and crops to periods of wet and dry weather makes it easier to move in and out of these agricultural droughts. While rainfall has been below normal across the area this winter, our available crop moisture is actually running a small surplus (Figure 5), as there is less agricultural demand and less water loss to evaporation over the winter. Due to the responsive nature of agricultural droughts, if dry weather continues over the next few months, we should expect a quick return of significant agricultural drought conditions.

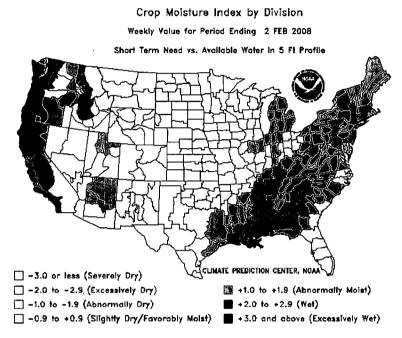


Figure 5. US Crop Moisture Index. Provided by NOAA's Climate Prediction Center.

The low flows in streams and rivers mean the recharge in larger water supply reservoirs remains limited and much below normal for the time of year. In particular the lake levels at Falls Lake, the primary water supply for Raleigh, and Lake Michie, the water supply for Durham, continue to edge downward during a time of year where lake level risers are more common (Figures 6 & 7).

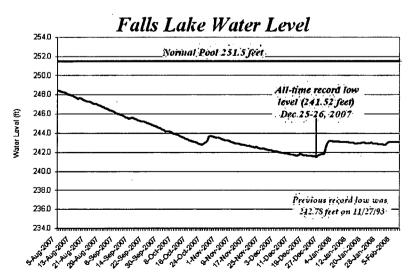


Figure 6. Falls Lake Water Levels. Graph by NWS Raleigh, NC



Figure 7. Exposed shoreline on Falls Lake. Photo by NWS Raleigh, NC

Local research conducted by the National Weather Service and North Carolina State Climate office suggests that much of the state needs at least 13 to 16 inches of rain through April (Figure 8) and 22 to 26 inches of rain through July (Figure 9) to at least lessen the drought impacts across the state. These rainfall amounts (which are 2-5 inches above normal) would allow for some improvement in stream flows and water supply. If we receive lesser rainfall amounts than these during the next few months, drought conditions will have serious consequences during the summer - especially if rainfall deficits continue through the hotter months of the year.

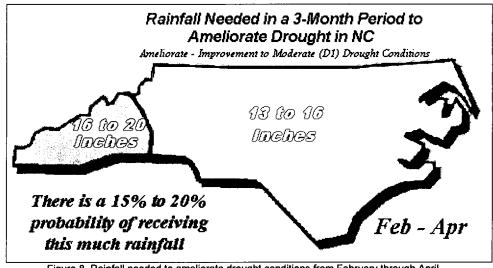


Figure 8. Rainfall needed to ameliorate drought conditions from February through April.

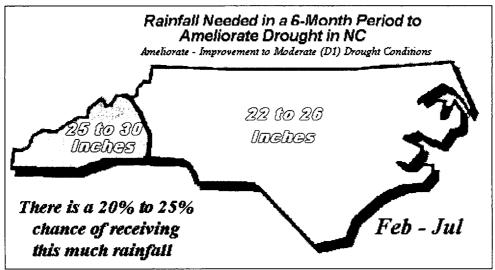


Figure 9. Rainfall needed to ameliorate drought conditions from February through July.

Precipitation Outlook and La Niña

Looking ahead to remainder of this winter and spring, there is a good chance that the state will receive below normal rainfall through the spring as moderate to strong La Nina conditions persist over the equatorial Pacific Ocean through February and March (Figure 10). Although the La Nina conditions are no longer intensifying, a continued moderate La Nina is expected to persist through the spring before weakening later this summer. Past La Nina events occurring during the winter and spring months have resulted in an average rainfall deficit of 1 to 3 inches below normal rainfall for the months of February, April and March. Below normal rainfall over North Carolina this spring would impact water availability this summer in locations currently experiencing below normal water supply levels. La Niña, the cold phase of the ENSO cycle, occurs when cooler than normal sea surface temperatures over the central Pacific Ocean persist for several months. The El Niño/ La Niña phenomena are one of the main sources of year-to-year variability in weather and climate for many areas of the United States and even the world. La Niña conditions during the later winter and spring tend to influence the atmospheric flow across the eastern North Pacific and North America. During La Niña, the southern stream of the jet stream, which typically brings moisture and enhanced storm systems into the mid Atlantic, is weakened. This can result in fewer storms and less moisture in the Carolinas (Figure 11).

Observed Sea Surface Temperature Anomalies (*C)

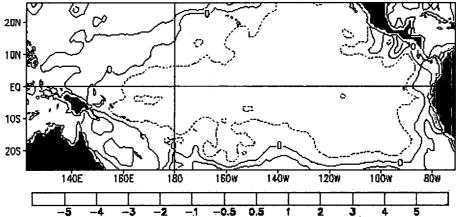


Figure 10. January 30, 2008 Sea surface temperature anomalies colder than normal across most of the equatorial Pacific Ocean.

Graphic provided by NOAA's Climate Prediction Center.

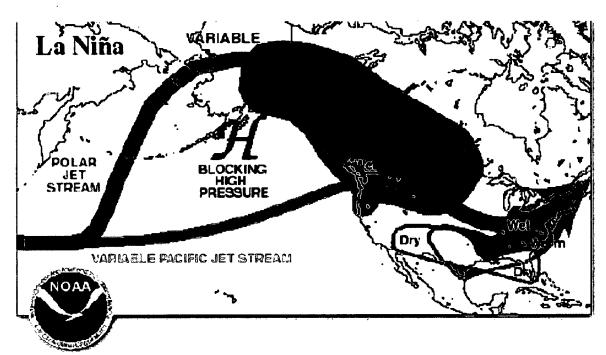


Figure 11. La Niña's influence on jet stream provided by NOAA's Climate Prediction Center.

On a brighter note, La Nina's influence on rainfall distribution across North Carolina weakens considerably as temperatures warm heading into late Spring. The precipitation outlook from NOAA's Climate Prediction Center for the remainder of this winter and through most of the spring continues to call for a continued chance of below normal precipitation from February through May (Figure 12). As La Nina's influence weakens, there is no longer a strong indicator that would produce a precipitation anomaly (either surplus or deficit) from April through June (Figure 13). Unfortunately summer rainfall is highly dependent upon sporadic thunderstorm activity as well as occasional tropical systems such as hurricanes which can prove to be unreliable sources of needed rainfall.

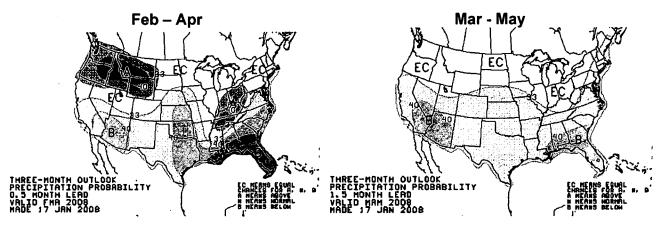
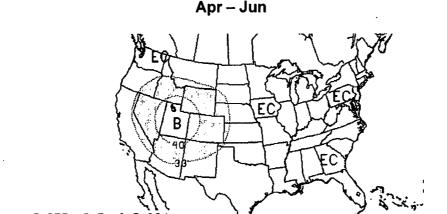


Figure 12. Precipitation Outlooks Feb through May. Note the weakening influence of La Nina in Mar-May depiction.

Courtesy of by NOAA's Climate Prediction Center



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Figure 13. Precipitation Outlook from April – June. La Nina is no longer influencing the chance of precipitation.

Courtesy of by NOAA's Climate Prediction Center

A local study examining precipitation at Asheville, Charlotte, Greensboro, Raleigh and Wilmington indicates below normal precipitation occurs anywhere from 42% to 58% of the time during moderate to strong La Nina episodes. More importantly above normal precipitation during the spring has been very uncommon during La Nina. Above normal precipitation occurred no more than 2 out of 12 winters (17% and less) when moderate to strong La Nina conditions persisted (Figure 11). It is worth noting the rain any which does fall through March will be somewhat beneficial since evaporation and water usage is lower in the winter and early spring.

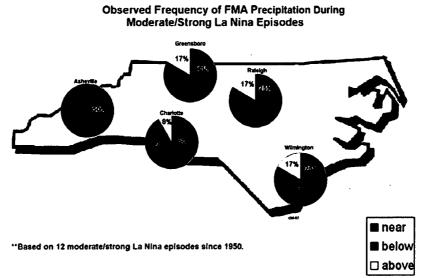


Figure 11. Observed frequency of precipitation during moderate and strong la Nina episodes. Data provided by the National Climatic Data Center. Graphic created by the Raleigh National Weather Service Office.

Summer Outlook

Warm summer days mean an increase in surface water loss to evaporation along with increased water demand. Daily evaporation increases significantly in May and June and remains high through June, July, August and September. Climatologically between 3 to 4 inches of surface water is lost each month from June through October nearly equaling the amount of rainfall

across the Piedmont during the summer. This suggests the balance of water received from rainfall versus the water lost to evaporation is in delicate balance especially in the Piedmont. Based on pan evaporation rates the amount of surface water lost to evaporation in a given year in the Piedmont (40 to 42 inches) is only slightly less than the normal rainfall of the region (43 to 44 inches) (Figure 12). While the process of evapotransiration, taking into account the effects of vegetation, lowers the water loss to around 70 percent of the actual direct evaporation it is still worth noting the balance between expected yearly rainfall and water loss to evaporation in the Piedmont is less than that for other portions of the state. On average a rainfall deficit of 20% to 30% in a given year will likely result in a drought of some variety. As population increases in the Piedmont further stresses on local water supplies will potentially increase the frequency of water shortages especially during periods of prolonged dryness.

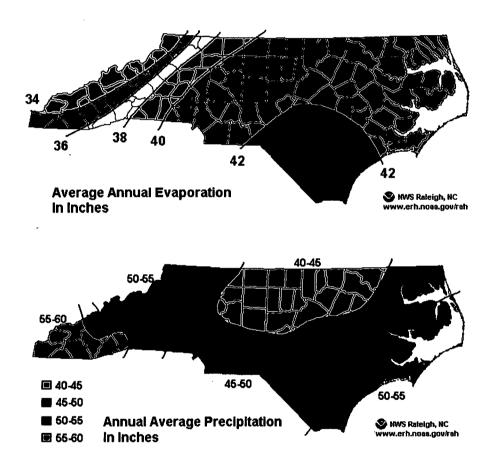


Figure 12. Annual average pan evaporation (top) and annual average rainfall (bottom). Graphic created by the Raleigh National Weather Service Office.

It is important to understand that due to low lake levels in some areas even near normal rainfall over the next three to six months will not bring an end to the current drought and drought conditions are forecast to persist and even possibly worsen during the early summer months (Figure 13). If climate predictions come to fruition and the rains of the winter and spring remain below normal, farms, cities and residences will be facing ongoing water shortages as we move into the summer months. Water shortages of some degree will likely persist in those areas currently experiencing below normal water levels. With the prospects of possible slightly below normal rainfall this spring drought conditions will likely not end before summer.

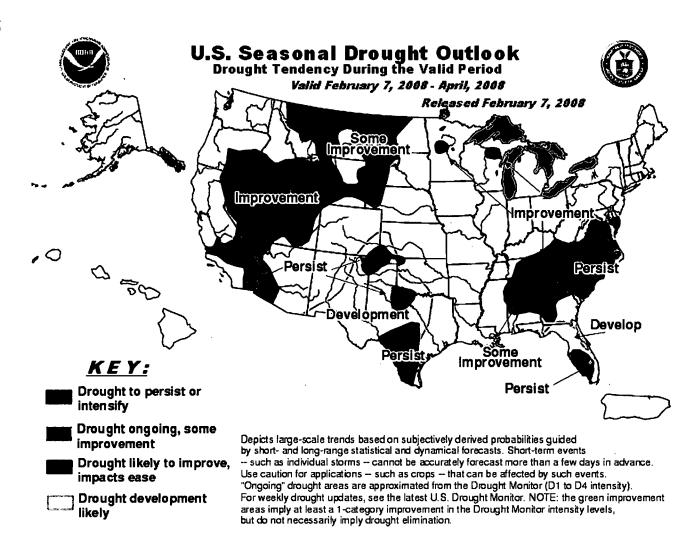


Figure 13. Drought Outlook February – April. Courtesy of by NOAA's Climate Prediction Center

Websites

National Integrated Drought Information System (NIDIS) http://www.drought.gov

NC Drought Monitor http://www.ncdrought.org

State Climate Office of North Carolina http://www.nc-climate.ncsu.edu/

National Weather Service Raleigh, NC http://www.erh.noaa.gov/rah/

Climate Prediction Center http://www.cpc.ncep.noaa.gov

Acknowledgments & Contacts

National Weather Service, Raleigh

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Contact:

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North Carolina State Climatologist

ryan_boyles@ncsu.edu

919-515-3056

Climate Prediction Center (CPC)
National Climatic Data Center (NCDC)

Percent Difference in Monthly Water Use Compared to the Previous Month

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Facility Aberdeen	Feb/2008	Jan/2008	Dec/2007	Nov/2007 -45.6%	Oct/2007	Sep/2007	Sep to Feb Average -45.6%
Albemarie	-3.5%	12.6%	-12.0%	-1.2%			-1.0%
Andrews	-3.9%	8.9%	2.7%	-1.9%	-9.4%	-11.3%	-2.5%
Angier	-2.1%	-2.0%	-2.8%	4.0%			-0.7%
Apex	2.5%	-1.0%	-5.3%	-23.5%	-16.1%	-9.1%	-8.7%
Appalachian State University		-19.8%	-48.4%	-24.3%			-30.8%
Archdale		36.2%	80.1%				58.1%
Asheville	-2.0%	1.3%	-2.6%	-5.7%			-2.3%
Aulander				-31.9%			-31.9%
Ayden	-11.1%	-0.7%	2.5%	-9.9%	00.50/	40.00/	-4.8%
BALD HEAD ISLAND UTILITIES	-42.8%	0.2%	-22.0%	-12.8%	-36.5%	-43.6%	-26.2%
Baton WC	-0.9%	0.0%	-2.8%	-8.4%			-3.0%
Beaufort	40.407	47.40/	4.6%	-9.9%			-2.7% 0.9%
Beech Mountain	-12.1%	17.1%	10.1%	-11.6%			-2.6%
Belmont	-13.6%	9.1%	-12.8%	7.1% 6.1%			6.1%
Bertie County RWS	E 10/	6.4%	-12.6%	-4.0%			-3.9%
Bessemer City	-5.1%	7.9%	1.6%	-4.0 % -2.8%			-2.9%
Beulaville	-18.2%	7.9% 2.5%	-6.0%	0.5%			-1.4%
Black Creek	-2.6%		13.9%	68.4%			18.8%
Blowing Rock	-22.9% -2.4%	15.8% 3.0%	-8.9%	2.2%			-1.5%
Blue Ridge WA		2.3%	-6.9% -15.6%	-14.9%			-5.4%
Boiling Springs	6.5% -0.1%	3.9%	-4.0%	-14.9%	-6.6%	-0.2%	-1.5%
Boone BRANDYANNE BAY	1.2%	0.0%	-0.2%	-6.9%	-0.070	-0.2.70	-1.5%
BRANDYWINE BAY	-9.0%	5.4%	-4.4%	-5.4%			-3.3%
Brentwood Jamstown Road	-9.0%	5.4%	-4.4%	-5.4%			-3.3%
Brentwood WA	1.0%	1.6%	-3.9%	-4.8%			-1.5%
Brevard Broad River WAu	-2.3%	5.5%	-3.4%	-10.8%			-2.8%
	5.4%	0.0%	-14.9%	-20.0%			-7.4%
Brunswick County ₁	-14.4%	8.7%	-1.6%	20.070			-2.4%
Bryson City	-14.470	0.770	1.070	26.0%			26.0%
Burgaw	-5.2%	3.9%	-7.6%	-8.9%			-4.4%
Burlington Burnsville	-1.3%	10.0%	-1.6%	-3.0%			1.0%
Butner	1.070	10.070	-4.2%	-17.2%	-15.8%		-12.4%
Caldwell County SE	7.7%	-6.9%	0.2%	0.0%			0.2%
well County W	0.6%	0	-0.4%	0.7%			4%
Camp Lejeune - Court House Bay	-5.1%	15.	2.4%	-2.5%			5%
Camp Lejeune - Hadnot Point	-0.3%	5.7%	-1.5%	-1.1%			0.7%
Camp Lejeune - Holcomb Blvd	-3.3%	3.9%	-18.5%	-6.9%			-6.2%
Camp Lejeune - New River MCAS	16.9%	23.7%	-7.3%	-8.6%			6.2%
ton	-1.6%	3	0.1%	-3.8%	-0.8%	-1.1%	7%
Cary	-3.0%	-3.6	-2.3%	-22.8%			9%
Caswell Beach	24.0%	-10.7%	-33.1%				-6.6%
Charlotte-Mecklenburg	-1.0%	-0.3%	-5.1%	-4.7%	-20.3%	-17.2%	-8.1%
Chatham County N	36.3%	-2.3%	0.2%	-21.7%		,	3.1%
Chinquapin WA	-7.1%	7.7%	0.3%	5.3%			1.6%
Chowan County				-5.0%			-5.0%
Clarkton	5.4%	4.4%	-11.8%	-25.1%			-6.8%
Clay County WSD	-7.4%	18.2%	- 2.6%	-21.5%			-3.4%
Clayton	-1.4%	5.1%	-5.5%	-8.0%			-2.4%
Cleveland County SD		4.00/		-5.0%			-5.0%
Clinton	3.0%	1.0%	-4.9%	-4.1%			-1.3%
Clyde	-14.6%	17.7%	-13.7%	-32.6%			-10.8%
Coats	-6.3%	-0.7%	-5.6%	8.8%			-0.9%
Columbus County WD II	-18.5%	25.4%	4.9%	-14.0%			-0.5% -0.6%
Columbus County WD III	-6.5%	2.8%	-0.5%	1.8%	4.4.40/	14 10/	-5.9%
Concord	1.2%	-0.1%	-2.6%	-5.2%	-14.4%	-14.1% -14.6%	-14.6%
Conover	0.00/	45.00/	6.69/	1.3%		-14.076	-3.7%
Craven County	6.3%	- 15.9%	-6.6% -0.3%	-6.5%			-2.4%
Cricket Millers Creek WA	-7.7% -5.2%	4.7% -2.2%	2.1%	-14.8%			-5.0%
Currituck County (Mainland)	-0.7%	-2.2 % -9.6%	-25.4%	-22.1%	-19.8%	-30.8%	-18.1%
Dare County Cape Hatteras	-3.1%	-10.4%	-13.0%	-20.5%	-14.9%	-33.3%	-15.9%
Dare County Regional	-21.1%	-8.9%	-33.0%	-36.1%	-33.8%	-35.1%	-28.0%
Dare County Rodanthe-Waves-Salvo Davidson Water	-21.1%	-0.6%	-5.5%	-13.8%	-8.7%	-7.5%	-6.0%
Deep Run WC	-1.9%	0.1%	2.4%	2.0%	0.7 70	7.070	0.7%
Denton Denton	-13.6%	6.3%	-0.2%	-11.4%			-4.7%
Dunn	-7.3%	-5.0%	-6.7%	-17.5%			-9.1%
Duplin County WDs	-5.0%	-0.1%	-3.6%	7.5%			-0.3%
Durham	8.6%	-2.0%	-9.4%	-15.1%			-4.5%
EAST MOORE WATER DISTRICT	0.4%	-8.6%	9.8%	-18.8%			-4.3%
Eastern Pines WC	-0.6%	-2.2%	-1.7%	-0.5%			-1.2%
Eden	-3.3%	12.8%	-5.8%	-7.8%			-1.0%
Edenton	5.9%	-1.3%	-5.8%	-4.2%			-1.3%
Elizabeth City			0.4%	-5.0%			-2.3%
Elizabethtown	-5.3%	-6.0%	-5.1%	-11.0%	•		-6.8%
Elkin	-3.4%	3.3%	0.5%	-7.4%			-1.7%
Fairfield Harbour	6.5%	-2.7%	-15.7%	-28.3%			-10.0%
Faison	-10.1%	22.8%	-20.5%	-48.0%	47.00/	0.70/	-13.9% 7.4%
Fayetteville	-1.6%	1.6%	-6.0% -3.5%	-11.8% -9.4%	-17.8%	-8.7%	-7.4% -4.3%
First Craven SD	0.5%	-4.9%	- J.U70	-3. 4 70			~4 .⊍ /0

Percent Difference in Monthly Water Use Compared to the Previous Month

Percent Differe				Nov/2007	Oct/2007	Sep/2007	Sep to Feb Average
Facility	Feb/2008 1.5%	Jan/2008 -0.1%	Dec/2007 -4.9%	2.3%	OCUZOUI	GCP/2007	-0.3%
Forest City Fork Township SD	1.070	• • • • • • • • • • • • • • • • • • • •		-0.8%			-0.8%
Franklin		3.9%	-3.6%	-8.1%			-2.6%
Franklinton	-6.5%	25.0%	12.2%	9.9%			10.2% -2.4%
Franklinville		-16.1%	20.0%	-11.2%	0.00/	44.00/	-2.4% -4.9%
Gastonia	1.8%	0.7%	-6.2%	-4.9%	-9.6%	-11.0%	-5.0%
Gibsonville	-3.5%	-1.8%	-0.5% -3.8%	-14.3% -8.5%			-3.3%
Goldsboro	-1.3%	0.3%	-3.8% 2.1%	-6.5% -4.3%			-2.5%
Graham	-6.4%	-1.6% 8.3%	-4.6%	-20.7%	-58.8%	-24.0%	-16.2%
Grand Total	2.7% -6.4%	10.3%	-4.0 % -2.3%	-7.7%	-6.7%	-22.2%	-5.8%
Granite Falls	-0.470	10.570	-10.3%	-3.5%	• • • • • • • • • • • • • • • • • • • •		-6.9%
Greene County		-2.1%	-4.4%	-7.7%	-13.5%	-12.9%	-8.1%
Greensboro	1.6%	1.8%	-8.8%	-14.8%			-5.0%
Greenville Grifton	1.070	1.070		-2.5%			-2.5%
Halifax County				-24.4%			-24.4%
Hamlet	1.8%	-5.1%	-10.2%	-2.4%			-4.0%
Handy SD		9.6%	-4.8%	-16.7%			-4.0% -4.5%
Harnett County	3.9%	-0.4%	-5.6%	-13.5%	-7.0%		-0.8%
Henderson	-5.8%	1.6%	1.6%	0.00/	40.40/	-7.0%	-5.0%
Hendersonville	-2.7%	4.6%	-4.8%	-9.6%	-10.4% -2.6%	-7.0% -7.0%	-4.6%
Hertford	-12.4%	2.1%	-0.7% -6.5%	-7.1% -5.1%	-2.6% -12.6%	-18.1%	-6.1%
Hickory	-0.1%	5.6% 4.0%	-6.5% -5.9%	-3.1% -11.7%	-13.2%	-5.1%	-5.6%
High Point	-1.5%	4.0%	5.7%	-27.8%	-10.270	0,,,,	-11.1%
HOKE CO REGIONALROCKFISH			-7.7%	6.7%			-0.5%
Hoke County RWS			-2.2%	-30.7%	-16.8%	-18.5%	-17.0%
Holly Springs Hyde County			1.0%	-5.5%			-2.2%
Icard Township WC	-2.0%	4.6%	-5.8%	-8.7%			-3.0%
Iredell Water Corporation	-0.6%	1.9%	-4.2%	-12.0%	-9.3%	-10.6%	-5.8%
Jacksonville	0.2%	1.0%	-1.2%	-6.6%			-1.7%
Johnston County	-1.5%	2.9%	-4.6%	-10.5%			-3.4% -3.6%
Jones County		-1.8%	-6.7%	-2.2%			-3.0%
Jonesville	-8.6%	4.5%	-7.5%	-0.2%			-3.5% -2.5%
Kannapolis	- 4.0%	-4.9%	-2.8%	1.9%	10 20/	-23.5%	-15.8%
Kill Devil Hills	0.00/	-5.2%	-15.5%	-15.5% -3.8%	-19.3%	-23.576	-0.4%
King	0.6%	2.9% 0.7%	-1.4% -3.1%	-3.6% -10.3%			-3.3%
Kings Grant Water Company	-0.6% -7.3%	-12.1%	-15.1%	-14.4%			-12.2%
Kings Mountain	-7.4%	1.6%	-3.9%	-8.9%			-4.7%
Kinston Kura Raach	- 4.6%	9.3%	-23.6%	-27.4%			-16.2%
Kure Beach Lake Waccamaw	1.070	5.0%	6.5%	-14.6%	-24.4%	1.0%	-5.3%
Laurinburg	0.3%	-0.9%	-0.8%	-7.0%			-2.1%
Lenoir	-1.2%	4.4%	-0.9%	-4.6%	-5.8%	-9.0%	-2.9%
Lexington	1.0%	0.0%	-6.1%	-1.6%			-1.7% -2.7%
Liberty	-10.2%	-2.7%	18.3%	-16.1%			-2.7% -1.2%
Lillington	-3.3%	1.6%	-1.4%	-1.5%	7.00/	ĵ 0.00/	-1.2% -4.2%
Lincoln County	0.9%	1.5%	-5.0%	-5.5%	-7.3%	-9.8%	-4.9%
Lincolnton	-5.8%	7.1%	-5.9%	-14.8%			-7.5%
Louisburg	-4.2%	-10.5%	-10.1%	-5.2% -6.3%			-5.7%
Marion	-8.1%	-4.6% 17.9%	-3.6% -0.9%	-8.9%			5.7%
Mars Hill	14.6% -1.1%	17.9%	-4.4%	-4.1%			-2.1%
Marshall	-1.170	-6.6%	-3.1%	1.5%			-2.7%
Martin County WSD 1		18.4%	-21.5%	-1.7%			-1.6%
Mayodan			0.8%	-20.2%		•	-9.7%
Mebane Monroe	-9.9%	3.5%	-7.4%	-15.3%			-7.3%
Monterey Heights Subdivision	-1.0%	-1.0%	-12.9%	-11.3%			-6.6%
Montgomery County	3.2%	3.1%	-4.0%	2.4%	-2.3%	-7.1%	-0.8%
Montreat	-11.1%	22.2%		-11.6%		45.00/	-5.1% 12.6%
Moore County (Pinehurst)	-4.4%	-2.9%		-14.6%	-31.7%	-15.8%	-12.6% -12.2%
Moore County (Seven Lakes)	-5.0%			-11.2%	-30.7%	-20.8%	-3.4%
Moore County (Vass)	1.9%			-17.2%			-4.5%
Mooresville	-0.1%	5.2%		-17.8% 9.6%			1.3%
Moravian Falls WW	0.00/	-4.0% 3.4%					-5.7%
Morehead City	-8.2%	-3.4% 8.5%	-1.3%	-13.1%	-12.4%	-10.1%	
Morganton	-9.9% -3.5%	-3.5%		-41.4%	12.170		-12.1%
Morrisville	-3.5% -21.9%						-7.1%
Mount Holly Mt. Airy	4.3%				-11.5%	-20.0%	-8.2%
Mt. Alry Mulberry-Fairplains WA	1.4%						5.7%
Murphy				-0.4%			-0.4%
Nags Head		-12.8%					-12.5%
Nash County	4.4%						-2.5% 0.5%
Nashville		5.5%					-0.5% -0.1%
New Bern	-7.3%						-0.1% -7.7%
New Hanover County	-1.8%						-1.7% -1.6%
Newport	4 404	6.1%				<i>-</i> 10.7%	
Newton	-1.4%	2.6% 3.7%				- 10.7 70	1.8%
Northampton-Milwaukee	-6.6%						0.5%
NW Onslow Water Association	-0.070	0.070	3.070	27.1.0			

Percent Difference in Monthly Water Use Compared to the Previous Month

Facility	Feb/2008	Jan/2008	Dec/2007	Nov/2007	Oct/2007	Sep/2007	Sep to Feb Average
Oak Island - Wells				-9.6%			-9.6%
Old Fort	-11.7%	9.4%	-5.4%	-15.3%			-5.7%
Onslow County	40.50/	1.7%	-2.9%	-6.3% 1.3%			-2.5% -2.2%
Orange-Alamance	-13.5% 0.7%	4.1% 8.6%	-0.8% -12.0%	-2.1%			-1.2%
OWASA Pilot Mountain	2.2%	0.9%	-12.0 % -5.1%	-19.2%			-5.3%
Pine Knoll Shores	-22.5%	6.8%	-14.3%	-22.8%	*		-13.2%
Pinebluff	22.070	-20.4%	2.3%	-8.9%			-9.0%
Raleigh	-1.3%	3.7%	-4.0%	-15.1%	-1.6%	-25.6%	-7.3%
Ramseur	14.8%	4.1%	-6.9%	-18.2%	-12.0%	-1.2%	-3.2%
Reidsville	-1.2%	10.5%	-19.9%	-9.3%			-5.0%
Richmond County	4 50/	5.2%	6.7%	-8.4%			1.2% -1.1%
River Bend	-1.5%	-3.1%	1.2%	-0.9% -13.6%			-13.6%
Roanoke Rapids SD Robersonville	0.0%	-2.4%	-1.0%	-2.8%			-1.5%
Rockingham	-1.8%	0.2%	-1.6%	0.3%			-0.8%
Rocky Mount	-6.1%	15.1%	-7.2%	-4.1%	-9.8%	-13.8%	-4.3%
Rose Hill	-6.6%	7.2%	-8.9%	2.3%			-1.5%
Roseboro	1.0%	-0.9%	-3.3%	-4.5%			- 2.0%
Roxboro	-0.9%	8.0%	-6.0%	-11.0%			-2.5%
Salisbury	-4.0%	3.5%	-9.1%	-23.4%	-10.5%	-9.7%	-8.9%
SAMPSON CO WRT DIST I-CLINTON	-1.2%	5.8%	2.0%	-36.9%			-7.6% 24.2%
SAMPSON CO WTR DIST I DOSEBORO	118.8% 5.6%	-3.2% -7.9%	1.2% 6.8%	-20.0% -83.7%			-19.8%
SAMPSON CO WTR DIST I-ROSEBORO Sanford	1.4%	-7.9% -0.8%	-2.1%	-03.7 % -18.5%			-5.0%
Sawmills	-3.7%	3.2%	-4.5%	5.5%			0.1%
Shallotte	-1.9%	57.1%	-19.3%	-15.5%			5.1%
Shelby	-4.1%	-7.5%	3.0%	-12.7%			-5.3%
Siler City	-8.4%	8.0%	-6.8%				-2.4%
Smithfield	-3.7%	- 5.9%	5.5%	-19.9%			- 6.0%
Snow Hill				-0.9%			-0.9%
South Mills		1.0%	9.2%	-1.5%			2.9%
Southern Pines	-16.4%	0.8%	-19.8%	-23.7%			-14.8%
Southport	-1.5% -2.6%	9.4% 0.4 <u>%</u>	-28.0% -7.0%	1.4%			-6.7% -2.0%
kes RWC	-2.0 % -8.0%	8	-4.0%	-7.1%			7%
Surf City	0.070	-3.7.0	-27.7%	-23.0%			%
Tarboro	-3.8%	-3.3%	-1.4%	3.6%			-1.2%
TAYLORSVILLE	0.6%	0.7%	-0.5%	3.7%		•	1.1%
masville	3.1%	15. <u>4%</u>	-3.8%	-7.3%			1.8%
sail Beach	-9.0%	18	-29.5%	-35.4%			8%
Triple Comm WC	-1.8%	2.670	0.0%	-3.0%			5%
Troutman	-20.8%	8.7%	8.5%	-16.6% 3.6%	•		-5.1% 1.3%
Tryon Tuckaseigee WSA	-6.3% -0.1%	9.4%	-1.3%	3.6% 6.7%			3.3%
Tyrrell County	-49.4%	10.9%	3.6%	-28.8%			-15.9%
Union County		0.5%	-11.6%	-1.5%			-4.2%
Valdese	-12.0%	16.9%	-12.9%	-10.5%			-4.6%
Vanceboro	- 2.9%	-0.1%	-3.8%	- 8.7%			-3.9%
Wallace			-3.2%	-12.1%			-7.6%
Warsaw	1.0%	7.3%	-3.5%	-2.7%			0.5%
Washington	-0.6% 5.2%	4.8% 5.4%	-3.6% 0.6%	-8.0% -2.3%			-1.9% 2.2%
Waynesville Weaverville	5.270	6.1%	-6.8%	-12.3%			-4.4%
West Iredell WC	-1.9%	0.3%	-5.2%	12.4%			1.4%
West Jefferson	0.3%	-6.5%	0.0%	-7.8%			-3.5%
Western Carolina University	10.1%	-3.6%	-19.3%	-21.1%			-8.5%
Whiteville		-2.8%	-7.1%	-12.1%			-7.3%
Wilkesboro	-29.7%	3.9%	-8.2%	-9.6%			-10.9%
Williamston	-2.6%	6.1%	-6.2%	-13.7%			-4.1%
Wilmington	-0.1%	1.9%	-7.8%	-21.9%	0.007	0.407	-7.0%
Wilson	-11.0%	-6.0% 5.1%	-2.1% 2.6%	-7.8% 4.1%	-6.6%	-6.4%	-6.6% -2.2%
Windsor	-7.1% - 2.2%	5.1% 1.4%	-2.6% -5.9%	-4.1% -11.7%			-2.2% -4.6%
Winston-Salem Winterville	-2.2% 5.2%	1.4% 2.6%	-3.9% -8.1%	-11.7%	•		-3.4%
Wrightsville Beach	-2.2%	-15.2%	-21.6%	-24.8%	-19.4%	-19.8%	-17.2%
Yadkinville	0.1%	-1.5%	-6.3%	/*	. =	. 2	-2.5%
Average Of All Facilities	-2.7%	2.6%	-4.6%	-9.3%	-14.7%	-14.5%	-4.4%

Non-Reporting Systems (Pop > 3,000)

Alexander County WDs

Anson County Asheboro

Bayleaf/Stonebridge Beaufort County RWS Beaufort County WD VII

Bell Arthur WC
Benson

Black Mountain

Bladen County WD - W Bladen Bogue Banks WC

Boiling Spring Lakes Broadway WA Brookwood Comm

Cabarrus Woods/Cambridge

Campbell University
Carolina Beach

Carollina Shores Subdivision

Cherry Point MCAS

Cherryville
China Grove
Cliffdale West
Cramerton
Creedmoor
Dallas

Dan River Water Inc.

Davie County

Eastern Band of Cherokee Indians

Edgecombe County WSD 1

Elon College

Energy United WC\Alexander Co

Erwin
Farmville
Fort Bragg
Four Oaks

Franklin County WSA

Fuquay-Varina
Gates County
Harrisburg
Havelock
Hertford County
Highlands
Hillsborough
Holden Beach
Jamestown
Junaluska SD

Junaluska SD *Knightdale* La Grange

Lake Royale Sudivision
Lamp Lighter South Danby

Landis

Lee County WSD I
Leesville Master
Long View
Lumberton
Maiden
Marshville
Maxton
Mocksville
Mount Olive

NORTH BRUNSWICK SD

North Wilkesboro

Murfreesboro

N Lenoir WC

Northampton-Lake Gaston

Norwood Oxford

Pamlico County
Pasquotank County
Perquimans County
Pfeiffer-North Stanly WA

Pittsboro
Plymouth
Raeford
Randleman
Red Springs
Robeson County

Rocky Point-Topsail WSD

Rowan County S Camden WSD

Selma

Southern Wayne SD

Stanley

Stanly County-West Stanly

Statesville Tabor City

The Cape Sudivision

Troy
Wadesboro
Wake Forest
Warren County
Washington County

Wayne WD Wendell

West Carteret WC

Whispering Pines Development

Woodfin WSD Zebulon

italic systems - These water systems need to be check. Their water use may be include in another systems report.

Annual Report to the Environmental Review Commission North Carolina General Assembly

The Dry-Cleaning Solvent Cleanup Act Program

October 2007



Superfund Section
Division of Waste Management
www.wastenotnc.org
www.ncdsca.org

Department of Environment and Natural Resources

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Secretary
NC Department of Environment and Natural Resources

Dexter R. Matthews
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DRY-CLEANING SOLVENT CLEANUP ACT ANNUAL REPORT

Executive Summary

As required by the Dry-Cleaning Solvent Cleanup Act (DSCA) of 1997 and amendments (G.S. 143-215.104A et seq.), this report provides an annual update on activities conducted in the DSCA Program in 2006. The DSCA of 1997 and its amendments created a fund for assessment and cleanup of dry-cleaning solvent environmental contamination at dry-cleaning and wholesale distribution facilities and also authorized the program to develop and enforce rules relating to the prevention of dry-cleaning solvent releases at operating facilities.

Significant progress has been made in all aspects of program implementation. Risk-based rules that will be used to establish the amount of remediation necessary at contaminated sites received final approval and go into effect on October 1, 2007. Amendments to the DSCA statute that were signed into law on August 31, 2007 included provisions that significantly modified the financial contributions required from petitioners who bring sites into the cleanup program. Three new cleanup contracts totaling \$18 million were executed with environmental engineering firms. Prioritization and comprehensive site assessments continued to be performed at certified sites. Imminent hazard response activities including connecting groundwater users to clean sources of drinking water and removal of highly contaminated soil beneath buildings that posed indoor vapor hazards were also conducted.

The Department of Environment and Natural Resources (DENR) has identified 243 operating or abandoned dry-cleaning facilities with environmental contamination by dry-cleaning solvent. Of these, 193 have voluntarily petitioned for acceptance, and 172 have been certified into the DSCA Program. Assessment and Remediation Agreements have been executed for 157 sites, and 135 sites have been prioritized.

The DSCA facility compliance group became fully staffed with the addition of two inspectors who will cover the central and western parts of the state. Inspectors visited 185 facilities in FY 2006-07 and provided educational assistance to facility owners and operators on all environmental regulations applicable to dry cleaners. The compliance group also developed and distributed to cleaners a 2007 perchloroethylene compliance calendar that provides rules, guidance and recordkeeping tables.

The DSCA Fund continues to be solvent, with a fund balance of approximately \$35.7 million and encumbered funds totaling \$25.7 million. Fund expenditures will increase by 250 percent in FY 2007-08 following full implementation of the risk-based rules. Currently, the DSCA Program appears to have sufficient financial resources to assess and clean up the 172 contaminated dry-cleaning facilities certified to date by the program. However, available records indicate that an estimated 1,500 contaminated sites may exist in North Carolina. Projected costs to clean up 50 percent of those sites would be approximately \$188 million.

Program Activity

The General Assembly ratified DSCA and its subsequent amendments to remediate contaminated dry-cleaning and solvent wholesale distribution sites and to protect human health and the environment by preventing future releases from these facilities. DENR made significant progress during 2007 implementing both the cleanup and compliance components of DSCA.

Site Cleanups

During 2007 DSCA staff directed significant energy towards development of the cleanup program through initiatives including risk-based rules, legislative amendments to DSCA, contracts with environmental firms and site assessment and remediation.

Risk-Based Rule Development

DENR was delegated the task of developing rules that establish a risk-based approach to assessing, prioritizing, and cleaning up dry-cleaning solvent contamination that resulted from releases at certified facilities or abandoned sites. During the past year, DSCA staff and counsel from the Attorney General's Office have advanced draft rules through the rule-making process. These rules were developed with input from DSCA stakeholders that include dry cleaners, environmental advocacy groups, attorneys, bankers and environmental consultants. After receiving the consent of the Environmental Management Commission (EMC) in January 2007, the proposed rules were published in the North Carolina Register in April as part of the public notice process. Two public hearings (in Mooresville and Raleigh) were held in May. After the public notice period ended, DSCA staff returned to the EMC in July, and the hearing officer gave his report and recommended that the rules be adopted. The EMC voted to adopt the rules, which were then submitted to the Rules Review Commission (RRC). The RRC approved all but one of the rules at its August meeting. After modifying the wording of the disapproved rule by consent of the EMC, the DSCA Program received final approval from the RRC in September. All of the risk-based rules go into effect on October 1, 2007.

The DSCA Program continued working with an independent contractor, the RAM Group of Houston, Texas, a firm which assisted in the development of the risk-based rules. The RAM Group prepared a draft guidance document with risk procedures as well as standardized reporting forms and customized spreadsheets that perform the risk calculations necessary to determine site-specific, risk-based cleanup levels. Review and discussion of this draft guidance were performed both within DENR and with a review group composed of DSCA stakeholders. This document is undergoing final review and will be ready to apply to site cleanups when the rules become effective in October.

Legislative Amendments to DSCA

On August 31, 2007, Governor Easley signed into law Senate Bill 1362, which made significant changes to the Dry-Cleaning Solvent Cleanup Act (DSCA). The DSCA Program anticipates that the following changes will improve program implementation and also

encourage more dry cleaner owners, operators and property owners to bring their contaminated sites into the program.

<u>Application Fee:</u> Effective September 1, 2007, each person who petitions for certification of a facility or abandoned site into the cleanup program must pay an application fee of \$1,000.

<u>Financial Responsibility Changes:</u> S.B. 1362 significantly modified the financial contributions that are required from petitioners participating in the cleanup program. Deductibles have been eliminated and are replaced by a fixed co-pay percentage applied to site costs between \$0 and \$1 million. For active facilities with less than 5 full-time equivalent employees, petitioners would have to pay 1% of assessment and remediation costs between \$0 and \$1 million. For active facilities with 5-9 full-time equivalent employees and for abandoned facility sites, the co-pay is 1.5%. For active facilities with 10 or more full-time equivalent employees and for wholesale distribution facilities, the co-pay is 2%.

The financial obligations of petitioners for sites that entered the program prior to September 1 will also be converted to the new system. Payments made by petitioners prior to the change will be credited toward the new obligations. For example, if a petitioner paid the \$5,000 deductible for a small site, the program would not bill that petitioner again unless total site costs exceed \$500,000. Petitioners for abandoned sites that paid the \$25,000 deductible have satisfied all financial obligations and would not be billed again. S.B. 1362 does not allow for reimbursement of previously-incurred costs that exceed the new obligations.

<u>Program Eligibility and MMP Compliance:</u> A dry cleaner owner or operator under the old law would have been denied access to the cleanup program if the facility was out of compliance with the MMPs at the time contamination was discovered. S.B. 1362 changed that, now allowing the DSCA Program to use discretion when determining if the noncompliance was significant enough to warrant denial of site eligibility.

Definition of "Dry-cleaning Solvent": The introduction of alternative solvents to the dry-cleaning industry in recent years led to the need to clarify the definition of "dry-cleaning solvent" so that it would be clear which solvents would be subject to DSCA and the Minimum Management Practices (MMPs) for operating facilities. S.B. 1362 modified the definition so that it applied strictly to "any hydrocarbon or halogenated hydrocarbon used as a solvent in a dry-cleaning operation or the degradation products from these solvents." The bill also added new definitions that define "halogenated hydrocarbon" and "hydrocarbon." These additions were used to also modify the solvent tax law by clarifying that the \$10.00 per gallon tax applies to halogenated hydrocarbon-based solvents and the \$1.35 tax applies to hydrocarbon-based solvents.

Solvents subject to DSCA regulation and the \$10.00 per gallon tax include perchloroethylene, F-1,1,3 or 1,1,1 trichloroethane, and n-propyl bromide. Solvents subject to DSCA and the \$1.35 per gallon tax include the various petroleum solvents, such as Stoddard and Quick Dry 105F, as well as the high-flash hydrocarbons,

including DF-2000 and EcoSolv. Solvents not subject to DSCA and for which no solvent tax is charged include liquid CO₂, propylene glycol ether and methyl siloxane.

Allowance to Investigate Possible Dry-Cleaning Contamination Sites: S.B. 1362 allows the DSCA Program to utilize up to one percent of the DSCA Fund balance for the investigation of sites that appear to be contaminated by dry-cleaning solvents. The purpose of this investigation is to determine if the contamination originated from a dry-cleaning facility (either active or abandoned). If a facility is identified, the potentially responsible party (PRP) will be notified and given the opportunity to enter into the cleanup program. As a condition for acceptance into the program, the PRP will be required to accept in writing the responsibility of costs incurred to perform the investigation. These costs will then be credited toward the petitioner's financial responsibility requirements for the site. If the PRP decides not to petition, the DSCA Program may request the Attorney General to commence a civil action against the PRP to recover the investigation costs. An example of an approved investigation under this provision is when perchloroethylene is found in a water-supply well and one or more dry-cleaning facilities are located nearby.

Annual Site Expenditures: S.B. 1362 increased the amount that DSCA can spend on a site from \$200,000 to \$500,000 per year. If a site poses an imminent hazard, the amount increases from \$400,000 (under the old law) to \$1 million.

<u>Clarification - All Work Performed by State-hired Contractors:</u> Language throughout DSCA was modified to clarify that all site work must be conducted by environmental contractors hired by the DSCA Program.

<u>Temporary Rule-making Authority:</u> S.B. 1362 gave authority to the Environmental Management Commission to adopt temporary risk-based rules in the event that ten or more letters of objection to the permanent rules are received by the Rules Review Commission.

DSCA Contracts

In April 2007, DENR executed three new contracts totaling \$18 million over three years with independent environmental engineering firms to perform assessment and remediation at DSCA sites. In 2004 and 2006, DSCA entered into seven engineering contracts totaling \$12.6 million. During FY 06-07, these contractors conducted site assessments and imminent hazard response activities, including the removal of contaminated soil and provision of clean drinking water to residences with contaminated water supply wells. The DSCA Program anticipates soliciting proposals for three additional contractors in April 2008, with these contracts totaling \$18 million over three years.

Sites in Program

Table 1 provides the current statistics for sites that have petitioned the DSCA Program. A listing of the certified sites along with current site status is shown in Appendix A. The cleanup unit now consists of six project managers who oversee site work performed by six independent

environmental engineering firms contracted by DENR. During FY 06-07, DSCA staff and the program's independent contractors performed the following activities:

- · Reviewing petitions to determine site eligibility;
- Executing assessment and remediation agreements;
- Screening sites for imminent hazards such as threatened supply wells and vapor intrusion into buildings;
- Providing alternative sources of clean drinking water;
- · Removal of highly contaminated soil beneath buildings causing indoor vapor hazards;
- · Site prioritization;
- · Comprehensive site assessments; and
- Groundwater monitoring.

Implementation of the risk-based rules on October 1, 2007 will allow the program to determine whether remediation at a site is necessary. Sites requiring no cleanup based on an assessment of the risks to current and future receptors (public and private drinking water wells, surface water bodies, sensitive ecological environments) will be closed. If risks are identified, site cleanup goals will be established that are protective of those receptors, and remediation will be performed.

Table 1. DSCA Site Statistics

Petition Status	Number	Percent of Total
Sites Petitioned in Program	193	
Sites Certified	172	90
Sites Pending Certification	18	1
Sites Denied Certification	2	9
Site S	tatus	
Sites with Executed Agreements ¹		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
Sites Prioritized	135	86
Site Class	sification	
Abandoned	103	
Wholesale Distribution	2	1
Operating	66	38
Size Distribution of	of Operating Si	ites
Small Size (1-4 employees)	26	39
Medium Size (5 - 9 employees)	20	30
Large Size (> 10 employees)	20	30
Distribution and Class	ification of Pe	titions ²
Property Owners	164	60
Dry-cleaning Business Owners/Operator	89	32

Assessment and Remediation Agreements

Reflects multiple petitioners for some sites

Identified Contamination Sites

A total of 243 sites contaminated by dry-cleaning solvents have been reported to DSCA. As noted in Table 1, 193 of these sites have petitioned the program. In 2007, DSCA staff mailed letters to owners of those sites that have not petitioned to provide them information on the program. Potentially responsible parties for several sites did elect to submit a petition to the program. Sites for which owners either chose not to enter DSCA or did not respond to the letter were automatically assigned to the jurisdiction of the Division of Waste Management's Inactive Hazardous Sites Program. Appendix B provides a list, by county, of all known sites contaminated with dry cleaning solvent. A total of 18 new dry-cleaning solvent releases were reported to DSCA in 2007.

Outreach

DSCA cleanup staff gave six presentations across the state in 2007 to provide information on the cleanup program to dry cleaners and other interested parties. A brochure describing the program was also produced. The DSCA website continues to be used to distribute program documents and data to the public.

Facility Compliance

DENR has been authorized under DSCA to develop rules that operating dry-cleaning facilities must follow to prevent environmental contamination by dry-cleaning solvents. These rules, or Minimum Management Practices (MMPs), were implemented in 2001 as temporary rules and were approved as permanent rules in 2002. In 2005, the DSCA Program created and filled a new position that coordinates compliance assistance visits and formal inspections of facilities and also serves as the lead for enforcement actions where necessary. In May 2006, DSCA hired a new inspector to perform compliance assistance and facility inspections in the eastern part of the state. Two additional inspectors were hired in June and September 2007 to cover the central and western parts of the state. The compliance group is now fully staffed.

In addition to the program's MMP regulations, DSCA has been authorized to inspect facilities for compliance with Resource Conservation and Recovery Act (RCRA) regulations, which currently are administered by the Division of Waste Management's Hazardous Waste Section. The program also entered into a memorandum-of-agreement with the Division of Air Quality that enables DSCA staff to perform compliance inspections for air quality regulations that are applicable to dry-cleaning facilities. Such multimedia inspections enable one program within DENR to ensure compliance with all environmental regulatory requirements and give dry cleaners and the public a single DENR point-of-contact for compliance questions or concerns.

Educational Assistance Visits

Approximately 730 active dry-cleaning facilities have been identified in the state based on lists obtained from other state programs. Because many of these facilities have never been inspected by a DENR program, DSCA is currently visiting every facility to provide educational assistance to owners and operators regarding MMPs, RCRA and air quality regulations. Inspectors also utilize these visits to thoroughly document all compliance issues

that are observed. Follow-up inspections will be performed at facilities where violations are identified to ensure that sufficient corrections have been made. Enforcement with civil penalties may be initiated against facilities that remain out of compliance. In 2006, DSCA inspectors provided compliance assistance at 62 facilities. An additional 185 facilities were visited in 2007. The program anticipates that the remaining facilities will be addressed by 2009, at which point facilities will then be inspected on a two-to-four year cycle.

Other Compliance Outreach

The DSCA Program developed a 2007 perchloroethylene (perc) compliance calendar that provides all applicable rules, recordkeeping, guidance and reference information in one document for the convenience of facility owners and operators. Mailed or hand-delivered to over 500 facilities across the state, the calendar has received positive reviews from both drycleaners in North Carolina and industry officials in other states where it has been praised for its comprehensive scope and functionality.

Program Financial Status and Projections

Fund Receipts and Disbursements

The primary funding sources for the dry-cleaning solvent cleanup fund are a tax on dry-cleaning solvents, the state portion of the current sales tax on dry-cleaning, deductible payments from petitioners participating in the cleanup program and interest earned on the account. Disbursements consist primarily of payments to the program's independent contractors for site assessment and remediation, reimbursements to petitioners for past-cost claims and program administration costs.

The DSCA Fund's finances through FY 2006-07 (ending June 30, 2007) are summarized below:

Receipts Solvent Tax Revenue Sales Tax Revenue Petitioner Payments Miscellaneous (file copying) Interest Total	FY 2006-07 \$ 754,408.88 7,967,331.60 540,757.46 130.00 1,425,041.12 \$10,687,669.06	Duration of Program (through 6/30/07) \$ 8,182,478.56 32,849,919.55 549,245.96 166.00 3,539,933.55 \$45,121,743.62
Disbursements Dept. of Revenue* Reimbursements to Petitioners Contracts Hazardous Waste Fees DENR Administration Total	\$ 0 219,324.91 3,173,747.30 22,628.50 768,350.92 \$4,184,051.63	\$ 57,272.02 1,892,409.52 4,425,361.02 25,128.50 3,029,487.06 \$9,429,658.12
Total Receipts Total Disbursements Fund Balance Funds Encumbered in Contract		\$45,121,743.62 <u>-9,429,658.12</u> \$35,692,085.50 \$25,737,887.15

The last past-cost claims totaling \$177,205.87 for work conducted by petitioners prior to DSCA implementation were paid during FY 06-07. A total of \$42,119.04 was paid to petitioners for work conducted by petitioners under DSCA Prioritization Assessment Agreements for amounts that exceeded the petitioners' financial obligations (deductibles). Any additional claims against the fund for past work not performed by DSCA contractors may only be credited toward petitioners' financial obligations for each site.

^{*} This represents the actual amount charged by the Department of Revenue for its expenses. The Department of Revenue is authorized by DSCA to charge no more than \$125,000 per year.

Estimated Future Assessment and Remediation Expenditures

Fund expenditures for site work will increase significantly in FY 07-08 over the previous year due to implementation of the risk-based rules on October 1, 2007. The DSCA Program, up to this time, has been assessing the extent of contamination at certified sites and performing remediation to address imminent hazard situations such as treatment and replacement of contaminated drinking water and excavation of hazardous soil. The risk-based rules will enable the Program to determine site-specific cleanup levels at all sites. Remediation, the most expensive phase of site work, can then commence at those sites where the risks posed by the contamination are unacceptable as defined by the rules. Expenditures are projected to increase by approximately 250 percent beginning in FY 2007-08.

Based on costs figures provided by other states, DSCA can calculate an approximate total cleanup cost for those sites that have been certified into the program. Using an average total cleanup cost of \$250,000 per site, the total projected cost to remediate the 172 presently certified sites is approximately \$43 million. Based on figures from the North Carolina Department of Labor, there are at least 2,000 active and abandoned dry-cleaning facilities in the state. Investigations performed across the nation indicate that contamination is present in about 75 percent of all dry-cleaning operations. Applying this percentage to the number of current and former facilities in North Carolina, a total of 1,500 contaminated sites may be present. If only 50 percent of these contaminated sites are accepted into the DSCA Program, the projected total cleanup cost would be approximately \$188 million.

Recommendations to Ensure Fund Solvency

DENR has no recommendations regarding fund solvency at this time. Prior to passage of statutory amendments to DSCA in 2000 (S.L. 2000-19), it was clear that the fund balance was inadequate to address all of the dry-cleaning sites in the state. However, with the passage of the DSCA Amendments that established a second funding mechanism, the General Assembly took the most important step necessary to assure future fund solvency. With the infusion of the sales tax monies, which began in July 2003, DSCA now appears to have sufficient financial resources to assess and remediate the contaminated dry-cleaning facilities on a priority basis.

The Fiscal Note on the DSCA Amendments (S.L. 2000-19) anticipated that the funding mechanisms would provide the fund with \$8 million to \$10 million annually. As noted above, total collections for FY 2005-06 were approximately \$10.7 million. Therefore, the DSCA Fund is solvent.

DSCA ID .	City	Site Name	Status
Alamance County	(2)		
001-0003	BURLINGTON	A CLEANER WORLD - NEW MARKET SQUARE	Assessment
001-0004	BURLINGTON	RE BOONE CLEANERS - N. MAIN ST	Assessment
Brunswick County	(2)		
010-0001	SOUTHPORT	TOWN GATE CLEANERS - N HOWE ST	Assessment
010-0002	CALABASH	LOVE CLEANERS, INC TOWN SQUARE SHOPPING CENTER	Monitoring
Buncombe County	· (2)		
011-0001	ASHEVILLE	SWANNANOA LAUNDRY - CHURCH ST	Assessment
011-0004	ASHEVILLE	SWANNANOA CLEANERS – MERRIMON AVE	Certified
Burke County (2)			
012-0001	MORGANTON	FERREE CLEANERS - S STERLING ST	Certified
012-0007	MORGANTON	JORDAN'S CLEANERS - COLLEGE ST	Assessment
Cabarrus County		FULLER SUPPLY COMPANY - NW CROWELL DR	Assessment
013-0001	CONCORD CONCORD	CALDWELL CLEANERS - N CHURCH ST	Assessment
013-0002		CALDWELD CEDIMENT IN CONTROL	
Carteret County (COASTAL DRY CLEANERS - MOREHEAD PLAZA SC	Assessment
016-0001	MOREHEAD CITY	COASTAL DET CLEANERS MOREHEND TERENTSC	,
Catawba County	•	CONONED BLAD	Assessment
018-0001	CONOVER	CONOVER CLEANERS – CONOVER BLVD	Assessment
Chatham County	(1)		
019-0001	CHAPEL HILL	COLE PARK CLEANERS – COLE PARK PLAZA SHOPPING CTR	Assessment
Cleveland County	· (1) .		
023-0001	SHELBY	FOLKS DRY CLEANERS - HICKORY CREEK SHOPPING CENTER	Assessment
Cumberland Cou	nty (6)		
026-0001	FAYETTEVILLE	MAYFLOWER LAUNDRY AND DRY CLEANING - W RUSSELL ST	Assessment
026-0002	FAYETTEVILLE	EASY WASH DRY CLEANERS - BROADFOOT PLAZA SHPG CTR	Prioritization
026-0003	FAYETTEVILLE	SMITTYS CLEANERS - OWEN DR	Assessment
026-0004	FAYETTEVILLE	KORE-O-MAT LAUNDROMAT - BRAGG PLAZA SHOPPING CTR	Assessment
026-0005	FAYETTEVILLE	DAVIS CLEANERS – OWEN DR	Assessment
026-0006	FAYETTEVILLE	ONE HOUR KORETIZING CLEANERS – RAEFORD RD	Prioritization
Dare County (1)			
028-0001	MANTEO	ANGE SPEED WASH - BALLAST ROCK SHOPPING CENTER	Assessment
Durham County ((10)		
032-0003	DURHAM	TRIANGLE SQUARE CLEANERS - TRIANGLE SQUARE SC	Assessment
032-0005	DURHAM	AMERICAN DRY CLEANERS - WOODCROFT SHOPPING CENTER	
032-0007	DURHAM	MODEL LAUNDRY - HOLLOWAY ST	Prioritization
032-0008	DURHAM	W.P. BALLARD - JUNCTION RD	Remediation
032-0009	DURHAM	TNT CLEANERS – N ROXBORO RD	Assessment
032-0010	DURHAM	WEAVERS CLEANERS - FAYETTEVILLE ST	Interim Action
032-0011	DURHAM	SCOTT AND ROBERTS DRY CLEANERS	Certified Assessment
032-0012	DURHAM	SHANNON DRY CLEANING/LAUNDROMAT – SHANNON PLAZA	Assessment
032-0013	DURHAM	FORMER BB&T - WEST CLUB BLVD	Prioritization
032-0014	DURHAM	HOLLYWOOD CLEANERS – GUESS RD	
Forsyth County (WALL DIME OF CAMERO CHANGETODNIC DO	Certified
034-0005	WINSTON-SALEM	KLEAN RITE CLEANERS – S HAWTHORNE RD	Assessment
034-0007	KERNERSVILLE	CAMELOT CLEANERS - S MAIN ST	/100003HIUH

DSCA ID	City	Site Name	Status
034-0008	WINSTON-SALEM	HOUR GLASS CLEANERS - UNIVERSITY PKY	Assessment
034-0009	WINSTON-SALEM	SMITH DRY CLEANERS - N MARTIN LUTHER KING JR DR	Prioritization
034-0011	WINSTON-SALEM	CAMELOT CLEANERS - FOOD TOWN PLAZA SHOPPING CENTER	Assessment
034-0012	WINSTON-SALEM	A CLEANER WORLD - HEALY DR	Assessment
034-0013	WINSTON-SALEM	A CLEANER WORLD #161, PEACE HAVEN - S PEACEHAVEN RD	Assessment
034-0014	WINSTON-SALEM	CAMEL CITY CLEANERS - REYNOLDA MANOR SHOPPING CTR	Assessment
034-0015	WINSTON-SALEM	CAMEL CITY LAUNDRY – E 3 RD ST	Assessment
034-0016	WINSTON-SALEM	\$2.50 CRYSTAL CLEANERS – JONESTOWN SHOPPING CTR	Assessment
034-0017	WINSTON-SALEM	TRADE STREET CLEANERS – N TRADE ST	Assessment
Gaston County ((2)		
036-0003	GASTONIA	DE-LUX CLEANERS - DIXIE VILLAGE SHOPPING CENTER	Assessment
036-0004	GASTONIA	UNION ROAD CLEANERS – UNION HUDSON CROSSING	Assessment
Guilford County	(16)		•
041-0001	GREENSBORO	CLEANER IMAGE - LAWNDALE VILLAGE SHOPPING CENTER	Prioritization
041-0002	GREENSBORO	FORMER CINDERELLA CLEANERS – MARTIN LUTHER KING DR	Prioritization
041-0003	GREENSBORO	U.S. \$1.75 CLEANERS - BENCHMARK SQUARE SHOPPING CTR	Assessment
041-0006	HIGH POINT	EASTGATE CLEANERS - EASTGATE SHOPPING CENTER	Assessment
041-0007	GREENSBORO	MASTER KLEEN - FOREST OAKS SHOPPING CENTER	Assessment
041-0008	JAMESTOWN	A CLEANER WORLD - W MAIN ST	Assessment
041-0009	GREENSBORO	EVERHART DRY CLEANERS - NORTHEAST PLAZA SC	Assessment
041-0013	HIGH POINT	BANNER LAUNDRY – N MAIN ST	Prioritization
041-0014	GREENSBORO	MASTER KLEEN CLEANERS – HIGH POINT RD	Assessment
041-0017	GREENSBORO	PREMIER CLEANERS - SUMMIT AVE	Assessment
041-0018	GREENSBORO	DRY CLEAN AMERICA – SPRING VALLEY SHOPPING CTR	Assessment
041-0019	GREENSBORO	BURNETTS CLEANER AND LAUNDRY – E MARKET ST	Prioritization
041-0021	HIGH POINT	GINGISS FORMAL WEAR – N MAIN ST	Assessment
041-0023	GREENSBORO	A CLEANER CITY – BATTLEGROUND AVE	Assessment
041-0024	GREENSBORO	A CLEANER WORLD #162 – HIGH POINT RD	Assessment
041-0029	GREENSBORO	PRESTO CLEANERS – SEDGEFIELD CROSSING SHOPPING CTR	Certified
Henderson Cou	nty (1)		
045-0002	HENDERSONVILLE	VILLAGE ONE HOUR CLEANERS - E BARNWELL ST	Certified
Hoke County (1))		
047-0001	RAEFORD	SMITTY'S CLEANERS - N MAIN ST	Assessment
Iredell County ((3)		
049-0002	STATESVILLE	JOHNSON CLEANERS, INC E BROAD ST	Assessment
049-0003	STATESVILLE	BROOKDALE CLEANERS - BROOKDALE SHOPPING CENTER	Assessment
049-0004	TROUTMAN	CAMPBELL'S CLEANERS - WAGNER ST	Assessment
Lee County (1)		•	
053-0001	SANFORD	DRYCLEAN EXPRESS – SPRING LN	Assessment
Lenoir County (7)		
054-0001	KINSTON	VICKS CLEANERS - PLAZA SHOPPING CENTER SHOPPING CTR	Assessment
Lincoln County	(1)		
055-0001	LINCOLNTON	LINCOLN CLEANERS - LINCOLN CENTER SHOPPING CENTER	Assessment
Martin County ((1)		
059-0001	ROBERSONVILLE	WILLIFORD CLEANERS - E ACADEMY ST	Certified
	-		

DSCA ID	City	Site Name	Status
Mecklenburg Coun	itv (32)	•	
-	CHARLOTTE	A CLEANER - MONROE RD	Assessment
***************************************	MATTHEWS	· ·	Monitoring
•••	CHARLOTTE	MINUTE MAN CLEANERS - EASTWAY CROSSING SC	Assessment
	CHARLOTTE	MITCHELLS FORMAL WEAR WAREHOUSE - CROSLAND CENTRE	Assessment
060-0007	CHARLOTTE	QUAIL DRY CLEANERS - QUAIL CORNERS SHOPPING CENTER	Assessment
060-0008	CHARLOTTE	SNO-WHITE CLEANERS AND LAUNDERERS - SOUTHPARK MALL	Assessment
060-0010	CHARLOTTE	BOGGS AND COMPANY - GLENWOOD DR	Assessment
060-0011	CHARLOTTE	SNO-WHITE CLEANERS - CARMEL COMMONS SHOPPING CTR	Assessment
060-0012	CHARLOTTE	DOMESTIC LAUNDRY - S MCDOWELL ST	Prioritization
060-0014	CHARLOTTE	ONE PRICE DRY-CLEANING - SOUTH SQUARE MARKETPLACE	Assessment
060-0016	CHARLOTTE	60 MINUTE CLEANERS - STEELE CREEK COMMONS SC	Assessment
060-0021	PINEVILLE	HEARTS DRY CLEANERS - PARK PLACE SHOPPING CENTER	Assessment
060-0023	CHARLOTTE	PRESTOWN LAUNDRY AND CLEANERS - IDLEWILD RD	Assessment
060-0024	CHARLOTTE	60 MINUTE CLEANERS - PLAZA SHOPPING CENTER	Assessment
060-0025	MATTHEWS	HO CLEANERS - PLANTATION MARKET SHOPPING CENTER	Monitoring
060-0026	CHARLOTTE	SNO-WHITE CLEANERS - E 4TH ST	Assessment
060-0028	CHARLOTTE	SHARON CLEANERS - SHARON CORNERS SHOPPING CENTER	Assessment
060-0029	CHARLOTTE	ABRA COSTUMES - CENTRAL AVE	Assessment
060-0030	CHARLOTTE	VILLAGE CLEANERS - ALBEMARLE RD	Assessment
060-0031	CHARLOTTE	SNO-WHITE CLEANERS - FOUR SEASONS SHOPPING CENTER	Prioritization
060-0032	CHARLOTTE	EASTWAY QUICK CLEAN SERVICE - EASTWAY CROSSING SC	Assessment
060-0033	CHARLOTTE	JONES DRY CLEANING – E 4 TH ST	Assessment
060-0034	MATTHEWS	HO CLEANERS - MATTHEWS FESTIVAL SHOPPING CENTER	Assessment
060-0035	CHARLOTTE	IVORY CLEANERS – WESTERLY HILLS SHOPPING CENTER	Assessment
060-0036	CHARLOTTE	FAULK CLEANERS – WESTERLY HILLS SHOPPING CENTER	Assessment
060-0037	CHARLOTTE	DRYCLEAN CAROLINAS - SOUTH BLVD	Assessment Assessment
060-0039	CHARLOTTE	PROVIDENCE CLEANERS – S SHARON AMITY RD	
060-0040	CHARLOTTE	PEOPLE'S DRY CLEANERS – UNIVERSITY PARK SHOPPING CTR	Prioritization
060-0041	CHARLOTTE	HOLIDAY CLEANERS – BEATTIES FORD RD	Prioritization
060-0044	CHARLOTTE	GAY LAUNDRY AND CLEANERS – N BREVARD ST	Prioritization
060-0045	CHARLOTTE	CARILLON BUILDING - W TRADE ST	Assessment
060-0048	CHARLOTTE	DAN MEIGS CLEANERS – CENTRAL AVE	71330331110111
Moore County (4)			
063-0001	PINEHURST	PINEHURST HOTEL CLEANERS - MCCASKILL RD	Assessment
063-0003	SOUTHERN PINES	CARTERS LAUNDRY AND CLEANING - W NEW YORK AVE	Assessment
063-0004	ABERDEEN	SOAPY BUBBLES - POPLAR ST	Assessment Assessment
063-0005	SOUTHERN PINES	DRY CLEAN EXPRESS – N POPLAR ST	Assessment
New Hanover Co	inty (6)		
065-0001	WILMINGTON	MODERN DRY CLEANERS & LAUNDRY - INDEPENDENCE MALL	
065-0002	WILMINGTON	COASTAL DRY CLEANERS - LONG LEAF MALL SHOPPING CTR	Assessment
065-0004	WILMINGTON	COASTAL DRY CLEANERS - CAROLINA BEACH RD	Assessment
065-0005	WILMINGTON	WILLIAMS CLEANERS - MARKET ST	Assessment
065-0006	WILMINGTON	WILLIAMS FABRICARE INC- CAROLINA BEACH RD	Assessment
065-0007	WILMINGTON	COASTAL DRY CLEANERS - OGDEN PLAZA SHOPPING CTR	Certified
Onslow County (3	3)		
067-0002	JACKSONVILLE	SOUTHERN CLEANERS AND LAUNDRY - COURT ST	Assessment
067-0005	MIDWAY PARK	VILLAGE CLEANERS - PINEY GREEN SHOPPING CENTER	Assessment

DSCA ID	City	Site Name	Status
Onslow County (3))		
067-0006	JACKSONVILLE	NORTHWOODS CLEANERS – HENDERSON DR	Certified
Orange County (5))		
068-0001	CHAPEL HILL	KSP CLEANERS - EASTGATE SHOPPING CENTER	Assessment
068-0003	CHAPEL HILL	DELUXE CLEANERS - VILLAGE PLAZA SHOPPING CENTER	Prioritization
068-0005	CHAPEL HILL	MIDTOWN SHOPS LLC - MIDTOWN SHOPS SHOPPING CENTER	Assessment
068-0006	CHAPEL HILL	ONE HOUR KORETIZING CLEANERS – W FRANKLIN ST	Assessment
068-0007	CARRBORO	HANGERS CLEANERS - FIDELITY ST	Assessment
Pasquotank Count	ty (1)		
070-0001	ELIZABETH CITY	SOUTHGATE KORETIZING - SOUTHGATE MALL SHOPPING CTR	Assessment
Pitt County (3)			
074-0002	AYDEN	AYDEN PLAZA – AYDEN PLAZA SHOPPING CTR	Prioritization
074-0004	GREENVILLE	BOWENS CLEANERS - STANTON SQUARE SHOPPING CENTER	Assessment
074-0005	GREENVILLE	BOWEN CLEANERS - S EVANS ST	Assessment
Polk County (1)			•
075-0001	TRYON	BROCKS CLEANERS - MAPLE ST	Assessment
Rockingham Coun	ntv (2)		•
079-0001	REIDSVILLE	HICKS POLY CLEAN SELF SERVICE LAUNDRY - S SCALES ST	Assessment
079-0001	REIDSVILLE	PENROSE MALL – PENROSE MALL SHOPPING CENTER	Assessment
Rowan County (2)			
080-0001	SPENCER	SHUPING CLEANERS - PARK PLAZA SHOPPING CENTER	Prioritization
080-0001	SALISBURY	WMS CLEANERS – W JAKE ALEXANDER BLVD	Assessment
Surry County (1)			
086-0001	MOUNT AIRY	MODERN LAUNDRY AND DRY CLEANERS - W LEBANON ST	Assessment
Transylvania Cou	nty (1)	•	
088-0001	BREVARD	RAINBOW CLEANERS – CALDWELL ST	Certified
Union County (1)			
090-0001	MONROE	PRESTOWN PRESTO CLEAN - SUTTON PARK SHOPPING CTR	Assessment
Wake County (35)			
092-0001	RALEIGH	PRO CLEANERS - TOWNE NORTH SHOPPING CENTER	Interim Action
092-0003	RALEIGH	RAINBOW CLEANERS AND LAUNDRY - GLENWOOD VILLAGE	Assessment
092-0004	CARY	MEDLIN-DAVIS CLEANERS - KILDAIRE PLAZA SHOPPING CTR	Prioritization
092-0005	RALEIGH	DJ CLEANERS - TOWER MERCHANTS VILLAGE SHOPPING CTR	Certified
092-0006	RALEIGH	HILKERS CLEANERS - EASTGATE SHOPPING CENTER	Assessment
092-0007	RALEIGH	BROTHERS CLEANERS - NORTH RIDGE SHOPPING CENTER	Assessment
092-0008	RALEIGH	JOHNSONS DRY CLEANERS - RIDGEWOOD SHOPPING CENTER	Assessment
092-0010	RALEIGH	FULLER SUPPLY COMPANY - EBY DR	Assessment
092-0011	CARY	MEDLIN-DAVIS CLEANERS - MACGREGOR VILLAGE SC	Assessment
092-0012	RALEIGH	NEWTONS CLEANERS - CAMERON VILLAGE SHOPPING CTR	Assessment
092-0013	RALEIGH	MEDLIN-DAVIS CLEANERS - CAMERON VILLAGE SC	Assessment
092-0014	RALEIGH	GLAM-O-RAMA CLEANERS - CAPITAL SQUARE SHOPPING CTR	Assessment
092-0015	RALEIGH	EMPORIUM CLEANERS - EMPORIUM PLAZA SHOPPING CTR	Assessment
092-0016	RALEIGH	NEW HOPE CLEANERS AND TAILORS - TARRYMORE SQUARE	Prioritization
092-0017	RALEIGH	BROTHERS CLEANERS - THE LASSITER AT NORTH HILLS SC	Assessment
092-0018	RALEIGH	ACE DRY CLEANERS - ATLANTIC AVE	Assessment
092-0019	RALEIGH	SANITARY LAUNDRY - MCDOWELL ST	Certified

DSCA ID	City	Site Name	Status
Wake County (3.	5)		
092-0020	RALEIGH	SHERRILL'S DRY CLEANING - CELEBRATION AT SIX FORKS SC	Assessment
092-0021	RALEIGH	T AND J CLEANERS - GATEWAY PLAZA SHOPPING CENTER	Assessment
092-0022	RALEIGH	MEDLIN DAVIS CLEANERS - KIDDS HILL PLAZA SHOPPING CTR	Certified
092-0023	RALEIGH	POPES DRY CLEANERS - GREYSTONE VILLAGE SHOPPING CTR	Assessment
092-0024	RALEIGH	PLEASANT VALLEY CLEANERS – TOWNRIDGE SHOPPING CTR	Assessment
092-0025	RALEIGH	HILKERS CLEANERS – SUTTON SQUARE SHOPPING CTR	Assessment
092-0026	RALEIGH	IDEAL CLEANERS - FALLS VILLAGE SHOPPING CTR	Assessment
092-0027	RALEIGH	EAGLE CLEANERS – SPRINGFIELD COMMONS SHOPPING CTR	Assessment
092-0028	RALEIGH	JOY CLEANERS – FAYETTEVILLE RD	Interim Action
092-0029	CARY	GALAXY CLEANERS - WAVERLY PLACE SHOPPING CTR	Monitoring
092-0030	APEX	BEST DRY CLEANERS - PEAK PLAZA SHOPPING CENTER	Assessment
092-0031	RALEIGH	THE CLEANERS – AVENT FERRY SHOPPING CENTER	Prioritization
092-0032	RALEIGH	GREENBRIER CLEANERS – FAYETTEVILLE RD	Assessment
092-0033	RALEIGH	COURTESY CLEANERS - BRENNAN STATION SHOPPING CTR	Assessment
092-0035	RALEIGH	SHERRILL'S DRY CLEANERS – PLAZA WEST SHOPPING CTR	Prioritization
092-0036	RALEIGH	NORTH BOULEVARD CLEANERS – MINI CITY MARKETPLACE	Remediation
092-0037	CARY	AVALON CLEANERS - CARY TOWNE BLVD	Prioritization
092-0038	CARY	MEDLIN-DAVIS - SHOPPES AT KILDAIRE - CARY PARKWAY	Certified
Wilson County ((6)		
098-0001	WILSON	KORETIZING CLEANERS - WARD BLVD	Assessment
098-0002	WILSON	DISCOUNT CLEANERS - FIKEWOOD PLAZA SHOPPING CENTER	Assessment
098-0003	WILSON	EXCLUSIVE CLEANERS - S GOLDSBORO ST	Prioritization
098-0004	WILSON	EXCLUSIVE CLEANERS - PARKWOOD MALL & PLAZA SC	Prioritization
098-0006	WILSON	EXCLUSIVE CLEANERS - PARKWOOD MALL AND PLAZA SC	Assessment
098-0007	WILSON	EXCLUSIVE CLEANERS - CENTURA VILLAGE SHOPPING CTR	Prioritization

172 Certified Sites

Appendix B. Sites with Dry-cleaning Solvent Contamination

	J	
DSCA ID Alamance County (4)	City	Site Name
001-0001	GRAHAM	DELUXE CLEANERS AND LAUNDRY - W HARDEN ST
001-0002	BURLINGTON	WORKMAN PROPERTY - N CHURCH ST
001-0003	BURLINGTON	A CLEANER WORLD - NEW MARKET SQUARE SHOPPING CTR
001-0004	BURLINGTON	RE BOONE CLEANERS - N MAIN ST
Brunswick County (2)	501211	
010-0001	SOUTHPORT	TOWN GATE CLEANERS - N HOWE ST
010-0002	CALABASH	LOVE CLEANERS, INC TOWN SQUARE SHOPPING CENTER
Buncombe County (3)		•
011-0001	ASHEVILLE	SWANNANOA LAUNDRY - CHURCH ST
011-0002	WEAVERVILLE	QUORUM KNITTING - REEMS CREEK RD
011-0004	ASHEVILLE	SWANNANOA LAUNDRY - MERRIMON AVE
Burke County (2)		
012-0001	MORGANTON	FERREE CLEANERS - S STERLING ST
012-0002	MORGANTON	JORDAN'S CLEANERS - COLLEGE ST
Cabarrus County (3)		
013-0001	CONCORD	FULLER SUPPLY COMPANY - NW CROWELL DR
013-0002	CONCORD	CALDWELL CLEANERS - N CHURCH ST
013-0003	KANNAPOLIS	JAYE'S ONE-HOUR CLEANERS - N MAIN ST
Carteret County (1)		
016-0001	MOREHEAD CITY	COASTAL DRY CLEANERS - MOREHEAD PLAZA SHOPPING CTR
Catawba County (1)		
018-0001	CONOVER	CONOVER CLEANERS - CONOVER BLVD
Chatham County (1)	CONOVER	CONC TERCOSERIOSES CONC. CO. C.
• • •	CHAREL IIII	COLE PARK CLEANERS - COLE PARK PLAZA SHOPPING CENTER
019-0001	CHAPEL HILL	COLE PARK CLEANERS - COLL PARK PEAZA SHOTTING CENTER
Cleveland County (1)		TO ME DRY OF TANEDS THEY ORY CREEK SHORDING CENTER
023-0001	SHELBY	FOLKS DRY CLEANERS - HICKORY CREEK SHOPPING CENTER
Cumberland County (6)		
026-0001	FAYETTEVILLE	MAYFLOWER LAUNDRY AND DRY CLEANING - W RUSSELL ST
026-0002	FAYETTEVILLE	EASY WASH DRY CLEANERS - BROADFOOT PLAZA SHOPPING
026-0003	FAYETTEVILLE	SMITTYS CLEANERS - OWEN DR
026-0004	FAYETTEVILLE	KORE-O-MAT LAUNDROMAT - BRAGG PLAZA SHOPPING CTR
026-0005	FAYETTEVILLE	DAVIS CLEANERS - OWEN DR
026-0006	FAYETTEVILLE	ONE HOUR KORETIZING CLEANERS – RAEFORD RD
Dare County (1)		
028-0001	MANTEO	ANGE SPEED WASH - BALLAST ROCK SHOPPING CENTER
Davie County (1)		
030-0001	MOCKSVILLE	FALLIES DRY CLEANING - S MAIN ST
Durham County (14)		
032-0001	DURHAM	ONE HOUR KORETIZING - N ROXBORO RD
032-0002	DURHAM	PLANTS UNLIMITED - HILLSBOROUGH RD
032-0003	DURHAM	TRIANGLE SQUARE CLEANERS - TRIANGLE SQUARE SHOPPING
032-0004	DURHAM	EAKES CLEANERS - W MORGAN ST
032-0005	DÜRHAM	AMERICAN DRY CLEANERS - WOODCROFT SHOPPING CENTER
032-0006	DURHAM	AMERICAN DRYCLEANERS - MALLARD AVE
032-0007	DURHAM	MODEL LAUNDRY - HOLLOWAY ST
052 0001		

DSCA ID	City	Site Name
Durham County (14)		WE BALLARD TRICTION DO
032-0008	DURHAM	W.P. BALLARD - JUNCTION RD
032-0009	DURHAM	TNT CLEANERS - N ROXBORO RD
032-0010	DURHAM	WEAVERS CLEANERS - FAYETTEVILLE ST
032-0011	DURHAM	SCOTT AND ROBERTS DRY CLEANERS – FOSTER ST
032-0012	DURHAM	SHANNON DRY CLEANING - SHANNON PLAZA SHOPPING CTR
032-0013	DURHAM	FORMER BB&T - WEST CLUB BLVD
032-0014	DURHAM	HOLLYWOOD CLEANERS - WILLOWDAILE SHOPPING CENTER
Edgecombe County (1)		
033-0001	ROCKY MOUNT	IMPERIAL CLEANERS INC - N RALEIGH ST
Forsyth County (17)		
034-0002	WINSTON-SALEM	SHORES CLEANERS - PAVILIONS SHOPPING CENTER
034-0003	WINSTON-SALEM	A CLEANER WORLD - W ACADEMY ST
034-0004	KERNERSVILLE	HOOKER FURNITURE - N MAIN ST
034-0005	WINSTON-SALEM	KLEAN RITE CLEANERS - S HAWTHORNE RD
034-0006	WINSTON-SALEM	YOUNG CLEANERS - OBGURN STATION SHOPPING CENTER
034-0007	KERNERSVILLE	CAMELOT CLEANERS - S MAIN ST
034-0008	WINSTON-SALEM	HOUR GLASS CLEANERS - UNIVERSITY PKY
034-0009	WINSTON-SALEM	SMITH DRY CLEANERS - N MARTIN LUTHER KING JR DR
034-0010	WINSTON-SALEM	C AND S CLEANING SERVICES - WAUGHTOWN ST
034-0011	WINSTON-SALEM	CAMELOT CLEANERS - FOOD TOWN PLAZA SHOPPING CENTER
034-0012	WINSTON-SALEM	A CLEANER WORLD - HEALY DR
034-0013	WINSTON-SALEM	A CLEANER WORLD #161 - S PEACEHAVEN RD
034-0014	WINSTON-SALEM	CAMEL CITY CLEANERS - REYNOLDA MANOR SHOPPING CTR
034-0015	WINSTON-SALEM	CAMEL CITY LAUNDRY - E 3RD ST
034-0016	WINSTON SALEM	\$2.50 KRYSTAL CLEANERS - CENTRE STAGE AT JONESTOWN SHOPPING CENTER
034-0017	WINSTON-SALEM	TRADE STREET CLEANERS - N TRADE STREET
034-0018	WINSTON-SALEM	U.S. \$2.09 CLEANERS – GORDON MANOR SHOPPING CTR
Gaston County (4)		
036-0001	BELMONT	UNTZ DRYCLEANERS - ROPERS SHOPPING CENTER
036-0002	GASTONIA	CARSONS DRYCLEANERS - HIGHLAND PLAZA SHOPPING CTR
036-0003	GASTONIA	DE-LUX CLEANERS - DIXIE VILLAGE SHOPPING CENTER
036-0004	GASTONIA	UNION ROAD CLEANERS - UNION HUDSON CROSSING
		SHOPPING CENTER
Granville County (1)		
039-0001	OXFORD	OXFORD DRY CLEANERS - HILLSBORO ST
Guilford County (28)		
041-0001	GREENSBORO	CLEANER IMAGE - LAWNDALE VILLAGE SHOPPING CENTER
041-0002	GREENSBORO	CINDERELLA CLEANERS - BENBOW SHOPPING CENTER
041-0002	GREENSBORO	U.S. \$1.75 CLEANERS - BENCHMARK SQUARE SHOPPING CTR
041-0004	GREENSBORO	COLUMBIA LAUNDRY CORP - BATTLEGROUND AVE
041-0005	HIGH POINT	DUTCH CLEANERS - S MAIN ST
041-0005	HIGH POINT	EASTGATE CLEANERS - EASTGATE SHOPPING CENTER
041-0007	GREENSBORO	MASTER KLEEN - FOREST OAKS SHOPPING CENTER
041-0008	JAMESTOWN	A CLEANER WORLD - W MAIN ST
041-0009	GREENSBORO	EVERHART DRY CLEANERS - NORTHEAST PLAZA SHOPPING
041-0010	GREENSBORO	GLAM-O-RAMA - CUMBERLAND SHOPPING CENTER
041-0011	GREENSBORO	O HENRY CLEANERS - SUMMIT AVE
041-0012	STOKESDALE	STOKESDALE FIRE DEPARTMENT - 158 HWY

	2.005 W.1002 - 1.5	
DSCA ID	City	Site Name
Guilford County (28)		
041-0013	HIGH POINT	BANNER LAUNDRY - N MAIN ST
041-0014	GREENSBORO	MASTER KLEEN CLEANERS - HIGH POINT RD
Guilford County (28)		
041-0015	GREENSBORO	A CLEANER WORLD - SPRING GARDEN ST
041-0016	HIGH POINT	\$2.50 PRO CLEANERS - N MAIN ST
041-0017	GREENSBORO	PREMIER CLEANERS - SUMMIT AVE
041-0018	GREENSBORO	DRY CLEAN AMERICA - SPRING VALLEY PLAZA SHOPPING CTR
041-0019	GREENSBORO	BURNETTS CLEANER AND LAUNDRY - E MARKET ST
041-0020	HIGH POINT	HISTORIC DRY-CLEANER LOCATION - N MAIN ST
041-0021	HIGH POINT	GINGISS FORMAL WEAR - N MAIN ST
041-0022	GREENSBORO	FORDHAMS CLEANERS - SPRING GARDEN ST
041-0023	GREENSBORO	A CLEANER CITY - BATTLEGROUND AVE
041-0024	GREENSBORO	A CLEANER WORLD #162 - HIGH POINT RD
041-0025	GREENSBORO	FORMER CLEANER - S EUGENE ST
041-0026	GREENSBORO	A CLEANER WORLD #168 – BATTLEGROUND AVE
041-0027	GREENSBORO	LEE'S CLEANERS - SOUTH ELM PLAZA SHOPPING CENTER
041-0028	GREENSBORO	COLUMBIA LAUNDRY - SUMMIT SHOPPING CENTER
041-0029	GREENSBORO	PRESTO CLEANERS – SEDGEFIELD CROSSING SHOPPING CTR
Henderson County (3)		
045-0001	HENDERSONVILLE	BLUE RIDGE CLEANERS - E SEVENTH AVE
045-0002	HENDERSONVILLE	VILLAGE ONE HOUR CLEANERS - E BARNWELL ST
045-0003	FLETCHER	FLETCHER CLEANERS - HENDERSONVILLE RD
Hoke County (1)		
047-0001	RAEFORD	SMITTY'S CLEANERS - N MAIN ST
Iredell County (4)	ICADI OIG	
	om a mega ku l E	SMITHS DRY CLEANERS - GORDON ST
049-0001	STATESVILLE	JOHNSON CLEANERS, INC E BROAD ST
049-0002	STATESVILLE	BROOKDALE CLEANERS - BROOKDALE SHOPPING CENTER
049-0003	STATESVILLE	CAMPBELL'S CLEANERS - WAGNER ST
049-0004	TROUTMAN	CAMPBELL'S CLEANERS - WAGNER'S I
Johnston County (1)		
051-0001	SMITHFIELD	GLAM O RAMA CLEANERS - E MARKET ST
Lee County (1)		
053-0001	SANFORD	DRYCLEAN EXPRESS - RIVERBIRCH CORNER SHOPPING CTR
Lenoir County (1)		•
054-0001	KINSTON	VICKS CLEANERS - PLAZA SHOPPING CENTER
Lincoln County (1)	KINDTON	
•	. D. GOL NEON!	LINCOLNICE FANIERS LINCOLNICHODDING CENTER
055-0001	LINCOLNTON	LINCOLN CLEANERS - LINCOLN SHOPPING CENTER
Martin County (2)		
059-0001	ROBERSONVILLE	WILLIFORD CLEANERS - E ACADEMY ST
059-0002	WILLIAMSTON	TOWN & COUNTRY CLEANERS - WASHINGTON ST
Mcdowell County (1)	*	
056-0001	OLD FORT	NICHOLS LAUNDRY AND DRY CLEANING - CATAWBA AVE
Mecklenburg County (47)		
060-0001	CHARLOTTE	A CLEANER - MONROE RD
060-0002	CHARLOTTE	AMERICAN DRY CLEANER - E MOREHEAD ST

DSCA ID	City	Site Name
Mecklenburg Cou	inty (47)	
060-0003	MATTHEWS	CROSSROADS DRY CLEANERS - HOODS CROSSROADS
060-0004	CHARLOTTE	MINUTE MAN CLEANERS - EASTWAY CROSSING SHOPPING CTR
060-0005	CHARLOTTE	MITCHELLS FORMAL WEAR WAREHOUSE - CROSLAND CENTRE
060-0006	CHARLOTTE	PEOPLES CLEANERS - BEATTIES FORD RD
060-0007	CHARLOTTE	QUAIL DRY CLEANERS - QUAIL CORNERS SHOPPING CENTER
060-0008	CHARLOTTE	SNO-WHITE CLEANERS AND LAUNDERERS - SOUTHPARK MALL
060-0009	CHARLOTTE	SPRINGFRESH CLEANER - SARDIS VILLAGE SHOPPING CENTER
060-0010	CHARLOTTE	BOGGS AND COMPANY - GLENWOOD DR
060-0011	CHARLOTTE	SNO-WHITE CLEANERS - CARMEL COMMONS SHOPPING CTR
060-0012	CHARLOTTE	DOMESTIC LAUNDRY - CAMDUS SITE - S MCDOWELL ST
060-0013	CHARLOTTE	CUNNINGHAM CLEANERS - COTSWALD MALL SHOPPING CTR
060-0014	CHARLOTTE	ONE PRICE DRYCLEANING - SOUTH SQUARE MARKETPLACE
060-0015	CHARLOTTE	CARRIAGE FINE DRY CLEANING - ARBORETUM SHOPPING CTR
060-0016	CHARLOTTE	60 MINUTE CLEANERS - STEELE CREEK COMMONS SHOPPING
060-0017	CHARLOTTE	GATEWAY VILLAGE DEVELOPMENT - W TRADE ST
060-0018	CHARLOTTE	SUDS N DUDS - N SHARON AMITY RD
060-0019	CHARLOTTE	CUNNINGHAM CLEANERS - N DAVIDSON ST
060-0020	CHARLOTTE	MIDTOWN SQUARE ONE HOUR VALET DRY CLEANERS - MIDTOWN SQUARE SHOPPING CENTER
060-0021	PINEVILLE	HEARTS DRY CLEANERS - PARK PLACE SHOPPING CENTER
060-0022	PINEVILLE	RAINBOW CLEANERS - COUNTRYSIDE SHOPPING CENTER
060-0023	CHARLOTTE	PRESTOWN LAUNDRY AND CLEANERS - INDEPENDENCE SHOPPING CENTER
060-0024	CHARLOTTE	60 MINUTE CLEANERS - PLAZA SHOPPING CENTER
060-0025	MATTHEWS	HO CLEANERS - PLANTATION MARKET SHOPPING CENTER
060-0026	CHARLOTTE	SNO-WHITE CLEANERS - E 4TH ST
060-0027	CHARLOTTE	CHARLIE BROWNS DRY CLEANERS - MAJOR ST
060-0028	CHARLOTTE	SHARON CLEANERS - SHARON CORNERS SHOPPING CENTER
060-0029	CHARLOTTE	ABRA COSTUMES - CENTRAL AVE
060-0030	CHARLOTTE	VILLAGE CLEANERS - ALBEMARLE RD
060-0031	CHARLOTTE	SNO-WHITE CLEANERS - FOUR SEASONS SHOPPING CENTER
060-0032	CHARLOTTE	EASTWAY QUICK CLEAN SERVICE - EASTWAY CROSSING
060-0033	CHARLOTTE	JONES DRY CLEANING - E 4TH ST HO CLEANERS - MATTHEWS FESTIVAL SHOPPING CENTER
060-0034	MATTHEWS	
060-0035	CHARLOTTE	IVORY CLEANERS - WESTERLY HILLS SHOPPING CENTER FAULK CLEANERS - WESTERLY HILLS SHOPPING CENTER
060-0036	CHARLOTTE	
060-0037	CHARLOTTE	DRYCLEAN CAROLINAS - SOUTH BLVD
060-0039	CHARLOTTE	PROVIDENCE CLEANERS - S SHARON AMITY RD PEOPLE'S DRY CLEANERS - UNIVERSITY PARK SHOPPING CTR
060-0040	CHARLOTTE	HOLIDAY CLEANERS - BEATTIES FORD RD
060-0041	CHARLOTTE	HOLIDAY CLEANERS - MONROE RD
060-0042	CHARLOTTE	ELIZABETH-INDEPENDENCE CLEANERS – E INDEPENDENCE BL
060-0043	CHARLOTTE	GAY LAUNDRY & CLEANERS – N BREVARD ST
060-0044	CHARLOTTE	CARILLON BUILDING – W TRADE ST
060-0045	CHARLOTTE	ARROW LAUNDRY & CLEANERS – MONROE RD
060-0046	CHARLOTTE	MATTHEWS-MINT HILL ROAD
060-0047	CHARLOTTE	DAN MEIGS CLEANERS – CENTRAL AVE
060-0048	CHARLOTTE	DAM MILIOS CELAMERO - CEMPIONE A TE

DSCA ID Moore County (5)	City	Site Name
063-0001 063-0002 063-0003 063-0004 063-0005 Nash County (2)	PINEHURST ABERDEEN SOUTHERN PINES ABERDEEN SOUTHERN PINES	PINEHURST HOTEL CLEANERS MCCASKILL RD CARTERS FABRICARE - TOWN AND COUNTRY SHOPPING CTR CARTERS LAUNDRY AND CLEANING - W NEW YORK AVE SOAPY BUBBLES - POPLAR ST DRY CLEAN EXPRESS - THE COMMONS SHOPPING CENTER
064-0001 064-0002 New Hanover County (7)	ROCKY MOUNT ROCKY MOUNT	CLEAN-CLEAN DRY CLEANERS - WESTRIDGE VILLAGE CLEAN-CLEAN DRY CLEANERS - TARRYTOWN MALL SHOPPING
065-0001	WILMINGTON	MODERN DRY CLEANERS AND LAUNDRY - INDEPENDENCE MALL
065-0002 065-0003	WILMINGTON WILMINGTON	COASTAL DRY CLEANERS - LONG LEAF MALL SHOPPING CTR COASTAL DRY CLEANERS AND COIN LAUNDRY - OLEANDER DR
065-0004 065-0005 065-0006 065-0007	WILMINGTON WILMINGTON WILMINGTON WILMINGTON	COASTAL DRY CLEANERS - CAROLINA BEACH RD WILLIAMS CLEANERS - MARKET ST WILLIAMS FABRICARE INC - CAROLINA BEACH RD COASTAL DRY CLEANERS - OGDEN PLAZA SHOPPING CENTER
Onslow County (6) 067-0001 067-0002 067-0003 067-0004 067-0005 067-0006	JACKSONVILLE JACKSONVILLE SWANSBORO JACKSONVILLE MIDWAY PARK JACKSONVILLE	ABC ONE HOUR CLEANERS - LEJEUNE SOUTHERN CLEANERS AND LAUNDRY - COURT ST COASTAL DRY CLEANERS - W CORBETT AVE COASTAL DRY CLEANERS - NEW MARKET SQUARE SHOPPING VILLAGE CLEANERS - PINEY GREEN SHOPPING CENTER NORTHWOODS CLEANERS - HENDERSON DR
Orange County (7) 068-0001	CHAPEL HILL	KSP CLEANERS - EASTGATE SHOPPING CENTER
068-0002 068-0003 068-0005 068-0006 068-0007	CHAPEL HILL CHAPEL HILL CHAPEL HILL CHAPEL HILL CARRBORO	AMERICAN DRY CLEANERS - UNIVERSITY MALL SHOPPING DELUXE CLEANERS - VILLAGE PLAZA SHOPPING CENTER MIDTOWN SHOPS - MIDTOWN SHOPS SHOPPING CENTER ONE HOUR KORETIZING CLEANERS - W FRANKLIN ST HANGERS CLEANERS - FIDELITY ST
Pasquotank County (1) 070-0001 Pitt County (5)	ELIZABETH CITY	SOUTHGATE KORETIZING - SOUTHGATE MALL SHOPPING CTR
Pitt County (5) 074-0001 074-0002 074-0003 074-0004 074-0005 Polk County (1)	GREENVILLE AYDEN GREENVILLE GREENVILLE GREENVILLE	KORETIZING CLEANERS - PLAZA MALL SHOPPING CENTER AYDEN PLAZA - AYDEN PLAZA SHOPPING CENTER BETTER LOOK GARMENT CARE - ARLINGTON PLAZA SHOPPING BOWENS CLEANERS - STANTON SQUARE SHOPPING CENTER BOWEN CLEANERS - S EVANS ST
075-0001 Randolph County (1)	TRYON	BROCKS CLEANERS - MAPLE ST
076-0001 Robeson County (1)	ASHEBORO	HILLSIDE LAUNDROMAT - HILLSIDE SHOPPING CENTER
078-0001	FAIRMONT	STEVENS DRY CLEANERS - CENTER ST

	Sites with 215 close	
DSCA ID Rockingham County (2)	City	Site Name
079-0001	REIDSVILLE	HICKS POLY CLEAN CENTER SELF SERVICE LAUNDRY - S SCALES ST
079-0002 Rowan County (3)	REIDSVILLE	PENROSE MALL - PENROSE MALL SHOPPING CENTER
080-0001	SPENCER	SHUPING CLEANERS - PARK PLAZA SHOPPING CENTER
080-0002	SALISBURY	AVALON CLEANERS - SALISBURY TOWNSHIP SHOPPING CTR
080-0003	SALISBURY	WMS CLEANERS - W JAKE ALEXANDER BLVD
Rutherford County (1)		
081-0001 Surry County (I)	FOREST CITY	CONE MILLS - DEPOT ST
086-0001 Union County (1)	MOUNT AIRY	MODERN LAUNDRY AND DRY CLEANERS - W LEBANON ST
090-0001 Wake County (38)	MONROE	PRESTOWN PRESTO CLEAN - SUTTON PARK SHOPPING CENTER
092-0001	RALEIGH	PRO CLEANERS - TOWNE NORTH SHOPPING CENTER
092-0002	RALEIGH	SHERRILLS DRY CLEANERS - PLAZA WEST SHOPPING CENTER
092-0003	RALEIGH	RAINBOW CLEANERS AND LAUNDRY - GLENWOOD VILLAGE
092-0004	CARY	MEDLIN-DAVIS CLEANERS - KILDAIRE PLAZA SHOPPING CTR
092-0005	RALEIGH	DJ CLEANERS - TOWER MERCHANTS VILLAGE SHOPPING CTR
092-0006	RALEIGH	HILKERS CLEANERS - EASTGATE SHOPPING CENTER
092-0007	RALEIGH	BROTHERS CLEANERS - NORTH RIDGE SHOPPING CENTER
092-0008	RALEIGH	JOHNSONS DRY CLEANERS - RIDGEWOOD SHOPPING CENTER
092-0009	KNIGHTDALE	KNIGHTDALE CLEANERS - KNIGHTDALE CROSSINGS SHOPPING
092-0010	RALEIGH	FULLER SUPPLY COMPANY - EBY DR
092-0011	CARY	MEDLIN-DAVIS CLEANERS - MACGREGOR VILLAGE SHOPPING
092-0012	RALEIGH	NEWTONS CLEANERS - CAMERON VILLAGE SHOPPING CENTER
092-0013	RALEIGH	MEDLIN-DAVIS CLEANERS - CAMERON VILLAGE SHOPPING
092-0014	RALEIGH	GLAM-O-RAMA CLEANERS - CAPITAL SQUARE SHOPPING CTR
092-0015	RALEIGH	EMPORIUM CLEANERS - EMPORIUM PLAZA SHOPPING CENTER
092-0016	RALEIGH	NEW HOPE CLEANERS AND TAILORS - TARRYMORE SQUARE
092-0017	RALEIGH	BROTHERS CLEANERS - THE LASSITER AT NORTH HILLS
092-0018	RALEIGH	ACE DRY CLEANERS - ATLANTIC AVE
092-0019	RALEIGH	SANITARY LAUNDRY - MCDOWELL ST
092-0020	RALEIGH	SHERRILL'S DRY CLEANING AND LAUNDRY - CELEBRATION A'T SIX FORKS SHOPPING CENTER
092-0021	RALEIGH	T AND J CLEANERS - GATEWAY PLAZA SHOPPING CENTER
092-0022	RALEIGH	MEDLIN DAVIS CLEANERS - KIDDS HILL PLAZA SHOPPING CTR
092-0023	RALEIGH	POPES DRY CLEANERS - GREYSTONE VILLAGE SHOPPING CTR
092-0024	RALEIGH	PLEASANT VALLEY CLEANERS - TOWNRIDGE SHOPPING CTR
092-0025	RALEIGH	HILKERS CLEANERS - SUTTON SQUARE SHOPPING CENTER
092-0026	RALEIGH	IDEAL CLEANERS - FALLS VILLAGE SHOPPING CENTER
092-0027	RALEIGH .	EAGLE CLEANERS - SPRINGFIELD COMMONS RETAIL SHOPPING
092-0028	RALEIGH	JOY CLEANERS - FAYETTEVILLE RD
092-0029	CARY	GALAXY CLEANERS - WAVERLY PLACE SHOPPING CENTER
092-0030	APEX	BEST DRY CLEANERS - PEAK PLAZA SHOPPING CENTER
092-0031	RALEIGH.	THE CLEANERS - AVENT FERRY SHOPPING CENTER

Appendix B.
Sites with Dry-cleaning Solvent Contamination

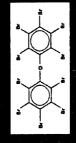
DSCA ID Wake County (38)	City	Site Name
092-0032	RALEIGH	GREENBRIER CLEANERS - FAYETTEVILLE RD
092-0033	RALEIGH	COURTESY CLEANERS - BRENNAN STATION SHOPPING CENTER
092-0034	RALEIGH	S & S CLEANING - FORMER PACK-N-SAVE SHOPPING CENTER
092-0035	RALEIGH	SHERRILL'S DRY CLEANERS - PLAZA WEST SHOPPING CENTER
092-0036	RALEIGH	NORTH BOULEVARD CLEANERS - MINI CITY MARKETPLACE TWO SHOPPING CENTER
092-0037	CARY	AVALON CLEANERS - CARY TOWNE BLVD
092-0038	CARY	MEDLIN DAVIS – SHOPPES AT KILDAIRE SHOPPING CENTER
Wayne County (1)		
096-0001 Wilson County (7)	GOLDSBORO	PENNY DRY CLEANERS - E ASH ST
098-0001	WILSON	KORETIZING CLEANERS - WARD BLVD
098-0002	WILSON	DISCOUNT CLEANERS - FIKEWOOD PLAZA SHOPPING CENTER
098-0003	WILSON	EXCLUSIVE CLEANERS - S GOLDSBORO ST
098-0004	WILSON	EXCLUSIVE CLEANERS - PARKWOOD MALL & PLAZA SHOPPING
098-0005	WILSON	FRIENDLY CLEANERS - S PENDER ST
098-0006	WILSON	EXCLUSIVE CLEANERS - PARKWOOD MALL AND PLAZA
098-0007	WILSON	EXCLUSIVE CLEANERS - CENTURA VILLAGE SHOPPING CTR

243 Identified Sites

Human Exposure to Brominated Flame Retardants

Heather M. Stapleton¹, Shannon Kelly¹, Joseph G. Allen², Michael M. McClean², and Thomas F. Webster².

- 1. Nicholas School of the Environment & Earth Sciences, Duke University Durham, NC, USA
 - 2. Boston University School of Public Health, Boston, MA, USA

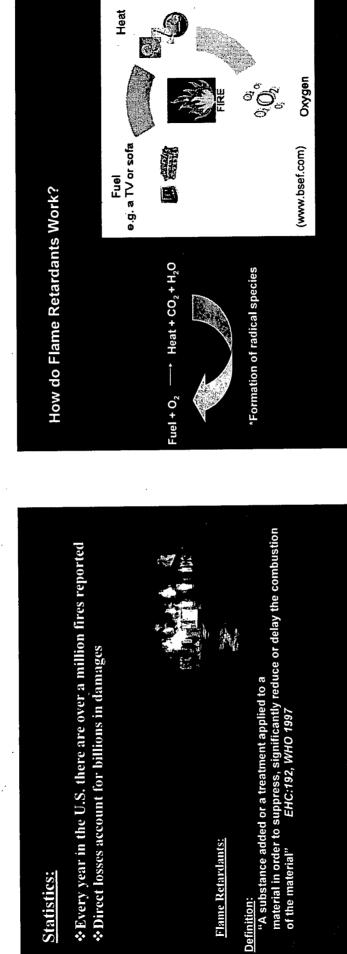




www.nicholas.duke.edu

Presentation Outline:

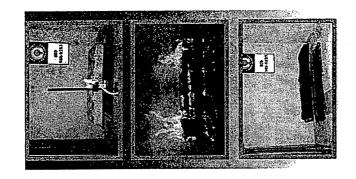
- Background on brominated flame retardants with a focus on polybrominated diphenyl ethers (PBDEs)
- types, use, commercial formulations
 toxicology
 trends in human body burdens in US
- 2. Exposure to PBDEs (current collaborative project)
- dietary exposure vs. indoor exposure
 estimating exposure to PBDEs from air and dust
 identifying sources of PBDEs in indoor environments
- 3. Exposure to New/Alternate BFRs
- 4. Summary and Conclusions

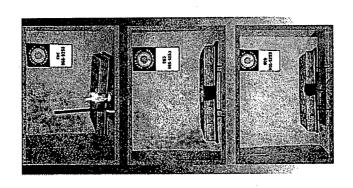


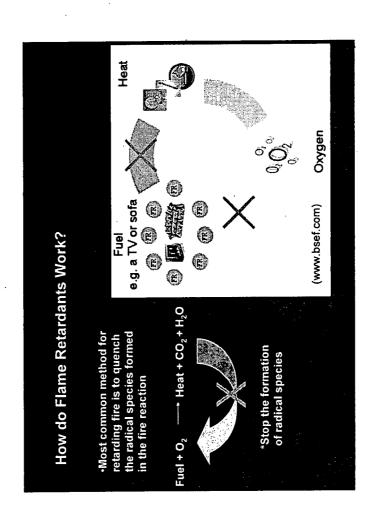
❖Direct losses account for billions in damages

Statistics:

Flame Refardants:







Types of Brominated Flame Retardants (BFRs)

REACTIVE BFRS:

- Chemically bound to the product they are flame retarding....less likely to leach out into the environment

ADDITIVE BFRS:

-Mixed in with the resin during extrusion process....more likely to leach out of products over time

Examples:

PentaBDE OctaBDE DecaBDE

Commercial Mixture Names

Types of Brominated Flame Retardants:

ADDITIVE BFRS

Decantomoliphenyl ethane
Decantomoliphenyl ethane
Decantomoliphenyl ethane
Otetahromoliphenyl ether
Cottahromoliphenyl ether
Pentahromoliphenyl ether
Bis-2.25-dibromopropyl ether)
bis-2.25-dibromopropyl ether)
bis-4.25-dibromopropyl ether)
bis-4.24-divoycethyl ether)
bis-4.34bromosyclayle ether
dimethyl ether
Hexabromosyclaylodecane
Bistirhomophenoxyl-ethane
Pentahromotolnene
Bonne-chlorimated paraffins
Di-(2-ethylhexythtetrabromophthalic ester
Ethylene-bis-(eterahromophthali mide)
Tetradecabromody phenoxyl-ethanochlorimated paraffins
Di-(2-bibromo-4)(1.2 dibromomethyl cyclohexane
Ethylene-bis-(5.6-dibromo-propoxyl-2.4-d-triazine
L;3-3-dicarbox imide

REACTIVE BFRS

bromobis phenol A

Tetrabromobispenol S 2.4-Di-, 2.4.6-Tri- and pentabomophenol Tribromomeopeutyl alcohol Vinylbromude

Tribromophenyt allyf ether 2.3-Dibromo-2-butens-1.4-diol Tetrabromophhalic acid Na salt Petrabromophhalic anbydride N.N.-Eftytene-bis-etertabromophhal imide)

Resins and Polymers				
	DecaBDE	OctaBDE	PentaBDE	
Acrylonitrile-butadiene styrene		X		
Epoxy-resin	X			
Phenolic resins	X		X	
Polyacrylonitrile	X			
Polyamide	×	X		
Polybutylene terephthalate	X	X		
Cross Linked Polyethylene	X			
Polyethylene terephthalate	X			
Polypropylene	×			
Polystyrene/H1PS	×	X		
Polyvinylchloride			X	
Polyurethane			×	
Unsaturated polyesters	×		×	,
Rubber	X		X	
Paints/Jacquers	X		X	
Textiles	X		X	
	From: FREETP	From: FREETP 1990 Bahman of al 2001	al 2001	

BDE 209

DecaBDE:

Congener (# Br) Percent of Total

Types of Products

ial Mixture	27	1.6	43	8.6	8.5	9.3	1.1
Penta-BDE Commercial Mixture	BDE-47 (4)	BDE-85 (5)	BDE-99 (5)	BDE-100 (5)	BDE-153 (6)	BDE-154 (6)	hexa-BDE

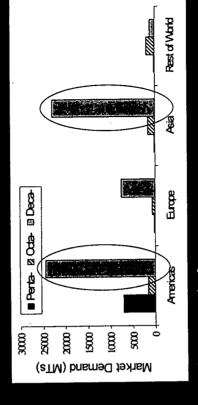
nercial Mixture	6.7	1.7	44	2.5	34
Octa-BDE Commercial Mixture	BDE-153 (6)	BDE-154 (6)	BDE-183 (7)	2 hepta-BDEs	3 octa-BDEs







Commercial Word Market Demand (2003) for PBDE Commercial Mixtures (Metric Tons)



Source: www.bsef.com

**Penta- and Octa-BDE commercial mixtures currently banned or phased out in U.S.

Potential Toxicity Observed in Laboratory Studies:

Evidence of developmental neurotoxicity (Viberg and Eriksson et al., 2002, 2003, 2005)

- PBDEs can pass the blood/brain barrier and accumulate
- neonatal exposure can induce persistent aberrations in spontaneous behavior, and also affect learning and memory functions in rodents - one time oral exposure during neonatal period results in

"Critical window of development associated with "Brain Growth Spurt" effects that worsen with age

**European study finds PBDE levels in mothers milk positively associated with Cryptorchidism (Main et al., 2007)

Observed thyroid toxicity:

- of circulating hormones (thyroxine and triiodothyronine, T4 and T3) induction of UDPGT enzyme activity (clearance of T4 and T3) In vivo exposure in fish, rodents and birds leads to reduced levels
- hydroxylated forms which are very potent competitors for transthyretin Activate PXR and steroid X receptors but not AhR - CYP 2B enriched liver microsomes can metabolize BDEs to

......however, debromination may lead to increased toxicity in environment In general, the lower the degree of bromination, the more potentially toxic the compound

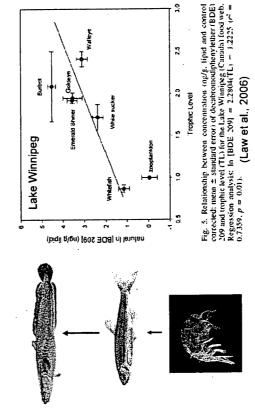
Hydroxylated PBDE Metabolites - Thyroid Hormone Mimics?

T₄-like HO-BDE

Thyroxine (f₄)

The control of the co Environmental Levels of BDE 209: Terrestrial vs Aquatic Contamination However, the terrestrial environment may be receiveing higher exposure to DecaBDE. Historically, there has been a stronger focus on POPs in aquatic systems.... The same of the sa ay deposite utheraces bealossib 71 era () era corent core squette environ 東西山東 Wildlife Exposure to PBDEs:

DecaBDE does accumulate in Aquatic Organisms and recent evidence Suggests Biomagnification



Grizzly Bears Along British Columbia
(Christensen et al., 2005);

EpentaBDEs: 0.2 to 5 ppb lipid

DecaBDEs: 0.1 to 42 ppb lipid

"Terrestrial feeding bears have higher BDE 209 concentrations in their tissues (as much as 90% of the burden was BDE 209)

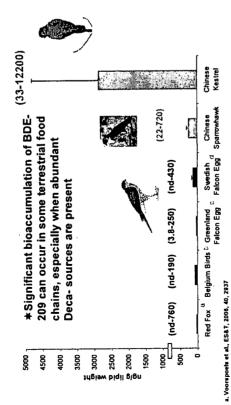
Red Foxes (Voorspoels et al., 2006); (sampled ~30 individuals)

EpentaBDEs: 2 to 3 ppb lipid

DecaBDEs: <DL to 760 ppb lipid

"*BDE 209 was the dominant congener (~80%) in almost half the foxes tested

Environmental Levels of BDE 209 in Birds



b. Voorspoels et al., Environ. Pollut. 2006, 114, 218

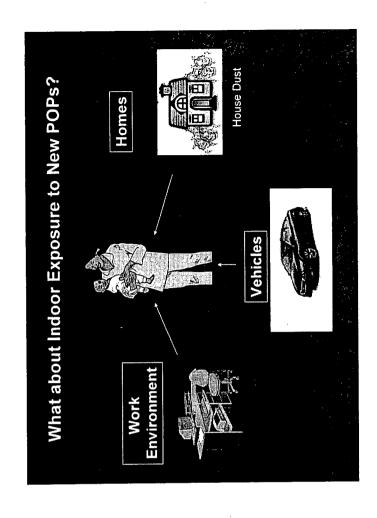
c. Vorkamp et al., ES&T, 2005, 39, 6199

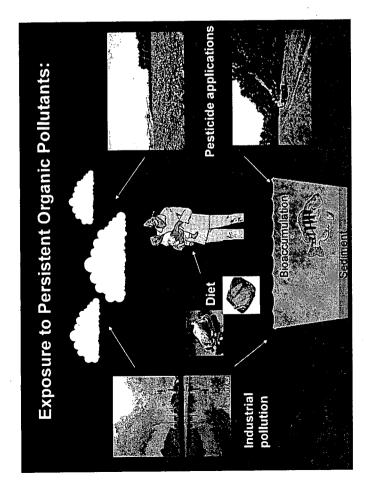
d. Lindberg et al., ES&T, 2004, 39, 93

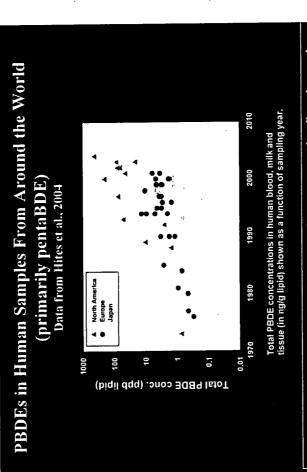
(Data from Chen et al., 2007)

Human Exposure to PBDEs:

What are the Issues?







Issue 1: PBDEs were doubling about every 5 years; recent leveling observed Issue 2: U.S. and Canadian populations have the highest accumulation of PBDEs

What Level	What Levels of DecaBDE Have Been Measured in People?	Have Beer	<u> Measured</u>	in People?
Me	Measured in ppb lipid		(<dl -less="" detection="" limits)<="" td="" than=""><td>on limits)</td></dl>	on limits)
Tissue	Population	∑Penta	<u> </u>	Reference
Breast Milk	U.S. adults (n=47)	6- 420 Mean 62	<dl 8<="" td="" to=""><td>2003 Schecter et al</td></dl>	2003 Schecter et al
Serum	U.S. Adults (n=2062)	<dl 3680<br="" to="">Median = 34</dl>	MN	2008 Sjodin et al.
Adipose	U.S. Adults (n=52)	17 to 10,000 Mean 400	WN	2005 Johnson-Restrepo et al.,
Serum	Swedish Workers	<dl 15<="" td="" to=""><td>1 to 140</td><td>1999 Sjodin et al.</td></dl>	1 to 140	1999 Sjodin et al.
Serum	Swedish Workers	WN	3 to 230	2005 Thuresson et al
Secur	U.S. Foam Workers And Carpet Installers	1 to 7000 Mean 212	7 0 >	2008 Stapleton et al. (In Press)
Blood	Japanese Adults	0.3 to 6.6	1.3 to 31	2004 Takasuga et al.

ren? nia	<u> </u>	87 74	120 146	390	651
Es in Child ley, Califor ກະໜັດ ຄຸນ lipid	<u> </u>	23	4 4	143	233
e the Levels of PBDEs in Cse Study from Berkeley, Ca Data from Hisher d'Alla 2005 Blood Levels Measured in ppb lipid	ΣPenta	64	106 142	247	418
What are the Levels of PBDEs in Children? A Case Study from Berkeley, California Definition Historical Pools Blood Levels Measured in ppb lipid	<u>Date</u> Measured	Sept. 04 Dec. 04	Sept. 04 Dec. 04	Sept. 04 Dec. 04	Sept. 04 Dec. 04
What A (Father Age 35	Mother Age 36	Daughter Age 5	Son Age: 18 mo

Exposure Modeling Suggest Children are Receiving 10X greater exposure to PBDEs (Jones-Otazo et al., 2005)

<DL -less than detection limits

**BDE 209 not typically
The most abundant congener
In U.S. A.
The most abundant congener
In U.S. Population...
Schecter et al. 2006
In U.S. A.

**However, Japan and China
Use Primarily DecaBDE in
Products and no PentaBDE.
Tissues in the Japanese and
Chinese populations have a Strong contribution from
BDE 209......

**Suggests U.S. may see shift in the Japanese shift in th

BDE 209 Measured in U.S. Food Items:

(Huwe et al., 2002 and Schecter et al., 2006)

Dairy Products

Cream Cheese Milk Cheese Eggs Butter

66 ppt 482 ppt <DL to 6 ppt <DL to 18 ppt 10 ppt

Wild Salmon Farmed Salmon Canned Tuna Fresh Tuna Shrimp Tilapia

Meats

48 ppt 300 to 3400 ppt

<DL to 28 ppt <DL to 485 ppt <DL to 50 ppt

Ground Meats Pork Sausage Chicken Breast Whole Chicken

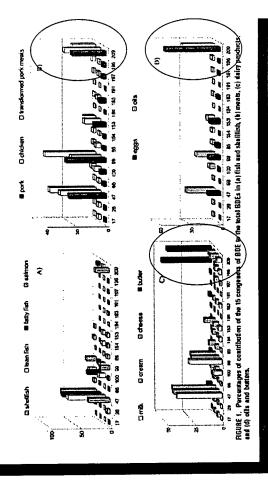
Bacon

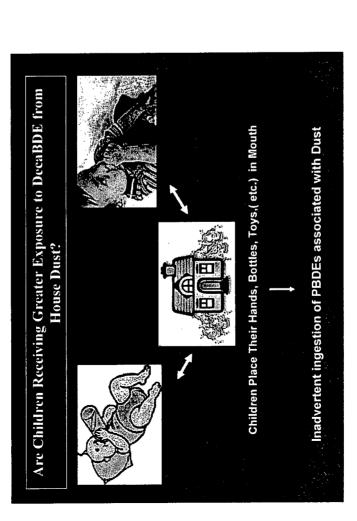
Fish

20 to 681 ppt 5 to 9 ppt 23 ppt ^ 0. 10, ¬o>

PBDEs Measured in Food Items: (Gomara et al., 2006)

Food Purchased in Spanish Supermarkets





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Measurement of PBDEs in Dust (ng/g dry weight, ppb)
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Gearhart et al., 2006	9500		NSA	Car
Gevao et al., 2006	0.8 - 340	1 - 390	Kuwait	House
Knoth et al., 2003	20 – 19,100	25 - 25,000	Germany	House
Wilford et al., 2005	74 – 10,000	170 -170,000	Canada (n=68)	House
Allen et al 2008*	60 - 544,000	200 -569,000	USA (n=60)	Honse
Stapleton et al., 2005	160 - 8750	780 - 31,000	USA (n=17)	House
Schecter et al., 2005	143 – 66,000	700 - 69,000	USA	House
	BDE 209	ΣPBDEs	Location	Dust
Reference	Range	Range	Study	Type of

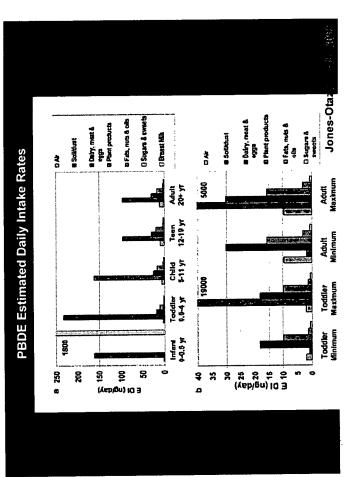
What are the Toxic Thresholds and Margins of Safety for **BDE 209**?

Evidence of Developmental Toxicity (Viberg et al., 2003):

- -BDE 209 can pass the blood/brain barrier and accumulate can result in altered behavior, memory and learning in mice
 - -one time oral exposure during neonatal period results in effects that worsen with age
- "Critical window of development associated with "Brain Growth Spurt"

-effects observed at doses of 20 mg/kg body weight
-National Academy of Sciences Reference Dose = 4 mg/kg body weight
-EPA IRIS Reference Dose for BDE 209 (2007) = 0.01 mg/kg/body weight/day

*Concentrations of BDE 209 measured in dust as high as 0.5 mg/g dust (assume ingest 100 mg/day in child = 0.05 mg/day)



Collaborative Research Project: Exposure to PBDEs in Indoor Environments

**Collaborative research project between H.M. Stapleton and colleagues at Boston University School of Public Health

Objectives:

- 1. Compare indoor air and personal air levels of BDEs
- 2. Examine differences in BDE levels in dust collected from different rooms, over seasons and using different collection methods
- 3. Use XRF technology to determine sources of BDEs in the home environment
- 4. Quantify relative exposure via inhalation, dust ingestion and hand to mouth contact.

PBDEs in Indoor Air

3DEs	
ling Pl	
e inha	or air
We ar	n indo
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Main living

GM PBDE Concentrations in Air (pg/m 3)

~ 3.5 ng/day of decaBDE ~10 ng/day of pentaBDE (assumed inhalation rate of 20 m³/day).

25.4 145.1 7.2 3.5 2.5 12.0 12.0 3.5 3

14.4

222

8.6 9.1 73.6

80E 100 80E 153 80E 154 80E 209

8.1 27.3 157.9 6.0 3.5 2.7 2.7 6.8

7.6 226.8 226.8 9.1 3.7 3.8 110.8

> 8DE 47 BDE 49 BDE 66 BDE 85/155 BDE 85/155

BDE 28/33

**Presence of personal "dust clouds" results in higher exposure than predicted by large volume air samplers





Published in ES&T

452.8 288.6

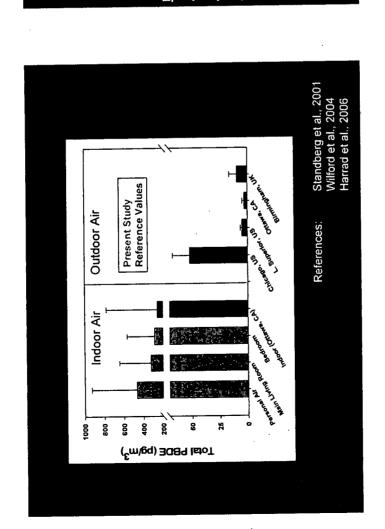
460.4

765.7

∑BDE

324.7

469.1



			Living Room	Bedroom	Vacuum Bag
	BFR Congener	ener	GM (GSD)	GW (GSD)	GM (GSD)
	Penta-product	ct			
	17 BDE 17	21	1.4 (12.8)	0.6 (8.7)	0.4 (11.2)
	BDE	BDE 28/33	16.3 (2.8)	10.5 (2.6)	6.4 (2.6)
	BDE 47		1,864.5 (2.9)	837.0 (3.3)	337.6 (4.2)
	BDE 49	84	29.6 (4.8)	23.6 (2.6)	12.4 (2.9)
	8DE 66	98	17.2 (4.9)	15.3 (2.9)	(3.9)
	80E 75	75	8.3 (3.1)	5.3 (2.8)	3.6 (3.1)
	BDE	BDE 85/155	124.0 (3.1)	51.8 (4.1)	19.2 (4.7)
	BDE 99	68	2,460.0 (3.0)	1,170.0 (4.0)	536.4 (3.6)
	BDE 100	5	436.3 (3.0)	204.0 (3.9)	76.9 (4.1)
Findings:	8DE 138	138	20.9 (5.8)	12.1 (5.4)	5.2 (4.3)
	8DE 153	153	234.4 (2.9)	124.2 (4.5)	47.0 (4.2)
	BDE 154	154	182.8 (2.9)	94.4 (4.3)	35.0 (4.8)
 Differences in collection method 	∑ Pe	∑ Penta-product BDEs	5,461.9 (2.9)	2,612.8 (3.8)	1,182.6 (3.5)
	Octa-product	+			
 Higher levels in living room 	BDE 183	163	27.9 (3.2)	32.9 (6.0)	15.1 (3.7)
	BDE 196	196	3.6 (9.0)	2.6 (11.8)	3.9 (6.1)
	BDE 197	197	2.7 (11.5)	3,3 (17.1)	5.6 (4.8)
• No significant seasonal	BDE 203	203	3.6 (6.4)	3.6 (10.0)	4.9 (4.7)
differences	20 ℃	∑ Octa-product BDEs	49.8 (3.5)	65.1 (5.8)	35.2 (3.4)
	Dog as prod	Deca-predict:			
	BDE	3DE 206	78.3 (4.3)	48.1 (3.8)	40.5 (5.5)
Concentration units: ppb	8DE 201	207	45.9 (5.0)	25.3 (7.8)	26.6 (6.4)
(100)	BDE 208	208	35.6 (5.7)	17.5 (7.1)	29.4 (7.1)
(ng/g)	BDE 209	209	4,502.1 (4.4)	1,702.8 (6.0)	1,811.2 (5.6)
	å₩	∑ Deca-product BDEs	4,702.0 (4.4)	1,865.6 (5.6)	1,938.9 (5.6)
	BTBPE	끮	16.1 (6.3)	8.2 (12.3)	11.3 (3.9)
(Currently in Review for Publication)	u)				
	l				

Characterizing PBDE Sources in the Home

XRF - X-Ray Fluorescence:

·Technology used to monitor lead in homes

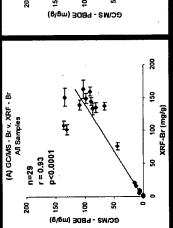
·Analysis specific to each element

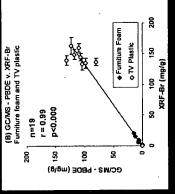
XRF Application to Identifying PBDE Sources:

- 1) Validate XRF method
- 2) Use to determine [Br] in products found within the home (e.g. TVs, electronics, furniture, carpets, mattresses, etc.)
- 3) Determine if dust PBDE levels correlate to [Br] measured by XRF

(Currently in Review for Publication)

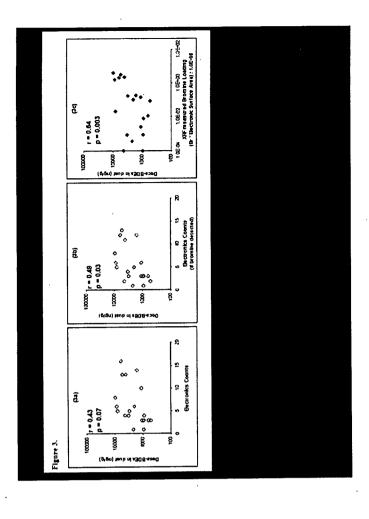
XRF Validation Pilot Study:

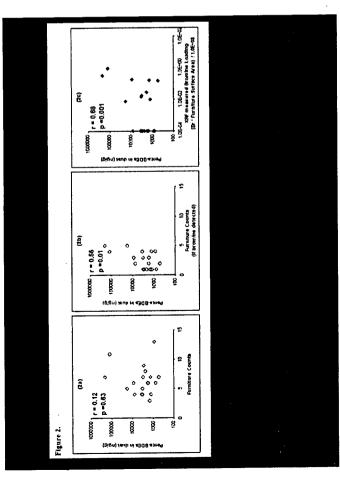




Results: XRF measured bromine was highly correlated with GC/MS measurd bromine

Red points indicate TBBPA measured bromine by GC/MS





Therefore.....items in our home are likely contributing to PBDE levels in dust......but how does that translate to exposure???

- Estimates of PBDE exposure from dust are poor and assume an ingestion rate of dust/day (e.g. 100 mg dust/day)
- However, PBDEs may be adsorbing directly to surface oils of skin from contact with PBDE laden products (i.e. remote controls, keyboards,)
- Better estimates are needed to quantify hand to mouth transfer of PBDEs

Objectives:

- 1. Determine if PBDEs were detectable on hand wipe samples
- 2. Examine distribution of PBDE mass present on hand surface area among 30 individuals
- 3. Estimate exposure to PBDEs via hand to mouth contact using hand wipe measurements.

Hand Wipe Sampling and Methods:



Wipe Sample From Top of Hand

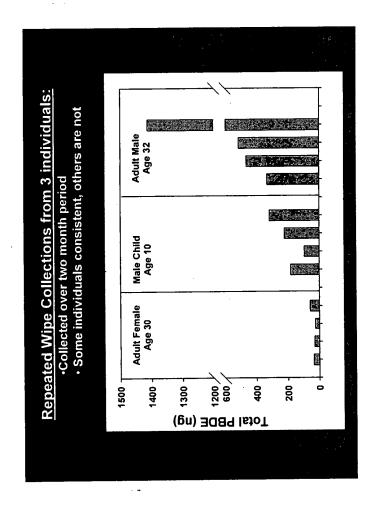


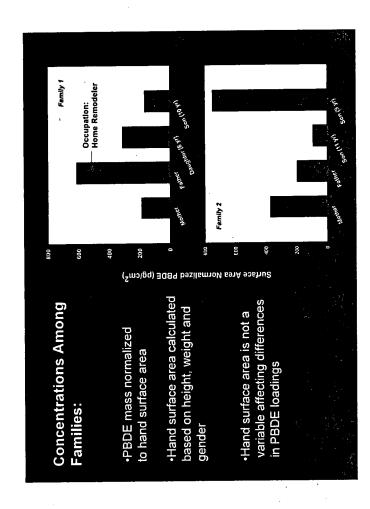
Wipe Sample From **Bottom of Hand**

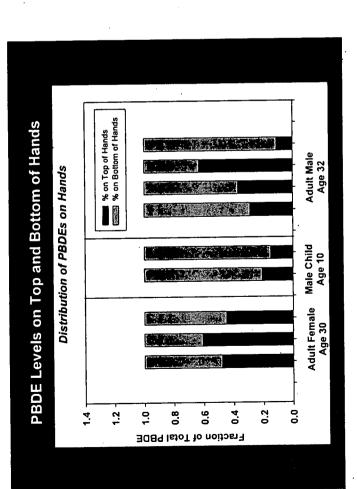
- 33 volunteers/participants 6 children (8-11 yrs), two families of four
- -Analyze by gas chromatography/electron capture negative ionization mass spectrometry (GC/ECNI-MS) for suite of 35 PBDE congeners - 3 individuals- repeated sampling & top/bottom comparison -Wipe entire surface area of hand from wrist to finger tips -Extract with 50 mL dichloromethane (3X by sonication) -Clean-up extract using 6% deactivated alumina resin -Sterile gauze pads soaked in 3 mL isopropyl alcohol

In one individual, 94% of XBDE was from BDE 209

Total PBDEs Normalized to Surface Area Total PBDEs Measured on Both Hands 2 \$ Median =136 Median =176 Mean= 226 Mean= 256 (gn) essM § § 909 1000 85 1500 Concentration (pg/cm²) average of 67% of total BDEs Children Only (n=6): Range: 59 to 560 ng total PBDE BDEs 47, 99 and 100 Contribute Range: 3 to 1980 ng total PBDE Median: 25.9 ng Mean: 42.2 ng Min: <DL Max: 270 ng Among all individuals Results: BDE 209 Levels: Median: 138 ng

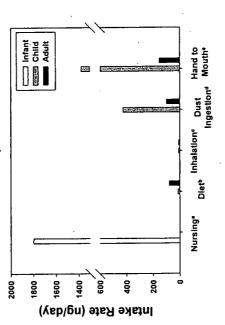






Exposure Parameters for Hand to Mouth Contact	th Contact	
	Child (1-4)	Adult
Mouthing events per hour*	18	2
Fraction of hand surface area mouthed**	0.1	0.1
Hand to mouth transfer efficiency**	10 - 90%	
Hours of Contact per day	12	12
Median PBDE Level on Hand (ng)	130 564	
55 reicennie rook kevel (119)		
Exposure Rates via Hand to Mouth Contact (ng/day)	ig/day)	
Assuming Transfer Efficiency of 50%:	1380	154
Wedlan Exposure 95th Percentile Exposure	0609	680
Assuming Median PBDE Levels on Hands:		
10% Transfer Efficiency	281	32
90% Transfer Efficiency	2530	280
• Factors taken from Tulve et al., 2002 • Factors Taken From SHED Model for CCA Treated Wood, Zarlarian 2005	สก 2005	

Estimates of Median PBDE Intake by Source In U.S. Population



a-assuming an infant weighs 5 kg and ingests 800 mL of breast milk/day (Schecter et al., 2005).

b-assuming adult weighs 65 kg and a child weighs 13 kg (Schecter et al., 2006).

c-assuming an inhalation rate of 20 m³/day (Allen et al., 2007).

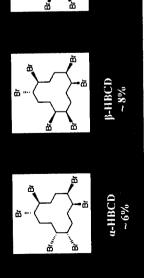
d-assuming that children ingest 100 mg of dust/day and an adult 20 mg dust/day (Stapleton et al., 2005).

e- Using model parameters estimates on previous slide and median BDE levels of 130 ng on hands.

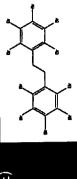
Alternative Flame Retardant Chemicals o Octyl tetrabromobeň zoate (OTB)

Hexabromocyclododecane (HBCD)

- High production volume chemical (#3 BFR)
- Additive flame retardant
- Used in polystyrene foams for thermal insulation in buildings (expanded and extruded Polysytrene, EPS and XPS), upholstery textiles, electrical equipment housings
 - \bullet Detected in human serum ranging from <DL to 850 ng/g lipid (Thomsen et al 2007).



 γ -HBCD $\sim 80\%$



Decabromodiphenylethane (DBDPE)

Application

Applications similar to Deca-BDE

Occurrence and Bioaccumulation

- Sewage sludge from Sweden and Canada (10-100 ng/g dry) (Werkegaared et al 2004, McCimidle et al 2004)
- Great Lakes air (нов 2006)
- Tree bark in North America (Zhu and Hites 2006)
- Lake Winnipeg food web (Law et al. 2006)
- Not measured in CA or any urbanized estuary

Toxicity? We don't know; aquatic acute/chronic studies not available

1,2-Bis(2,4,6-tribromophenoxy)ethane (BTBPE)

Application

- Additive flame retardant used in thermoplastics
 Replacement for Octa-BDE (Great Lakes Chemical)

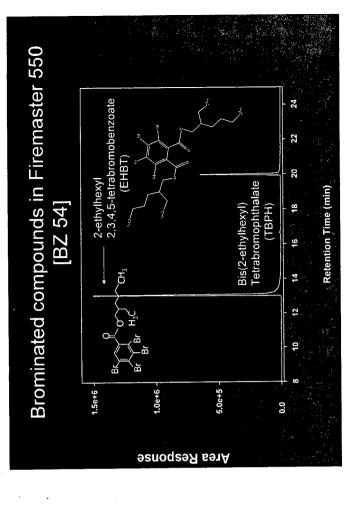
log K_{ow}?

Occurrence and Bioaccumulation

- U.S. air, in concentrations similar to PBDEs (Hob et al. 2005)
- · Great Lakes sediment (Hon et al. 2005)
- Tree bark in North America (Zhu and Hites 2006)
- Lake Winnipeg food web (Law ef al. 2006)
- Herring gull eggs from the Great Lakes (Gauthier et al. 2007),
- Northern Fulmar eggs from the Faroe Islands (Karlsson et al. 2006)
- Between 1979 and 1998, concentrations increased in Ontario lake trout (Torry at al. BFR 2007)

Toxicity

· Thyroid interference minimal (if any) in juvenile rainbow trout (Tony et al. 2007)



Summary and Conclusions:

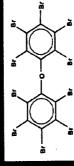
- PBDEs are found at greater concentrations in indoor environments relative to outdoor environments
- XRF analyses indicates foam is a likely source of PentaBDEs and TVs are likely a source of DecaBDE to indoor dust
- PBDEs are adsorbed to the surface of the skin and objects we come into contact with on a daily basis (e.g. remote controls, furniture, phones) may lead to increased adsorption of PBDEs to hands
- Hand to mouth contact is likely not an insignificant route of exposure and behavior that leads to increased hand to mouth contact (e.g. smoking, thumb sucking, finger foods) likely leads to increased exposure via inadvertent ingestion
- Alternate Brominated Flame Retardant chemicals are being detected in house dust, including BTBPE, DBDPE, HBCD and components of FM 550
- BDE 209 can be degrade to lower PBDE congeners via photolysis and metabolism

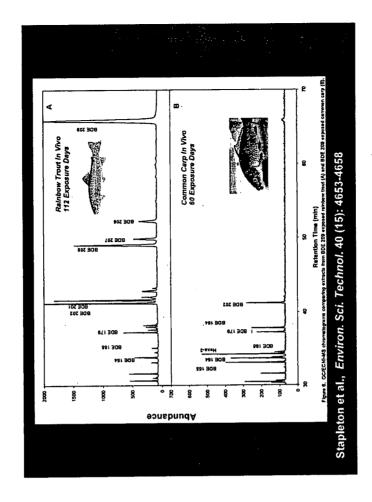
BDE 209 Exposure Studies With Both Carp and Rainbow Trout

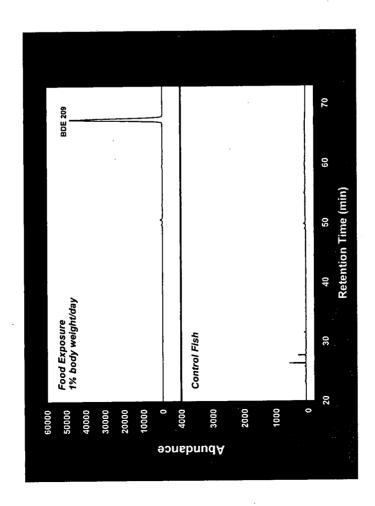


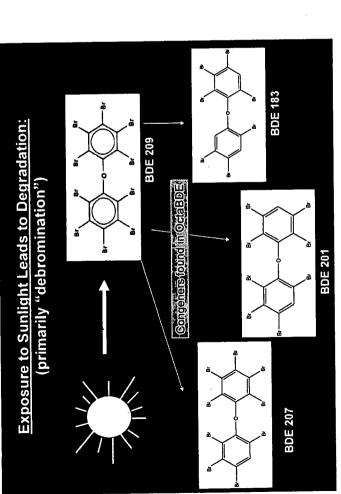
12 Fish

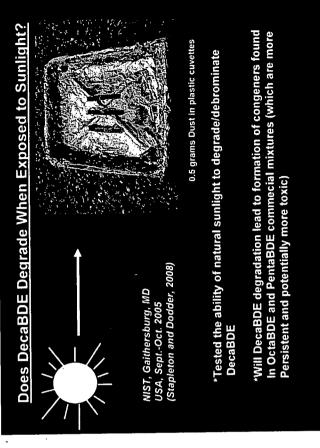
Dietary exposure to BDE 209 at ~1 ppm/day

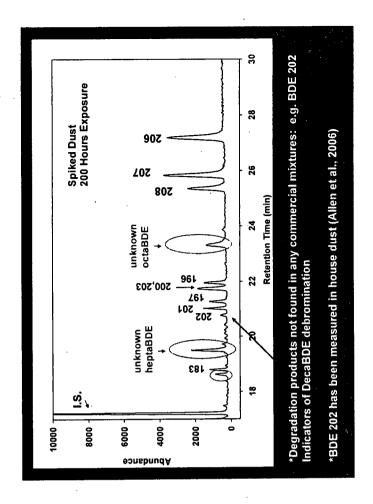


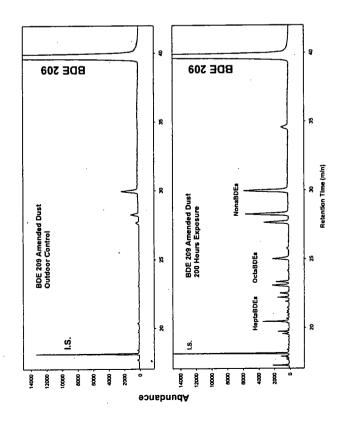












	Thirthesofoceanos Among Studies	30]3 /Among Studh	8
Study	Matrix	Light Source	Half-Life (hours)
Söderström	Silica qel	UV Lamp	<0.25
et al 2004	Sand	UV Lamp	12
	Sand	Sunlight	13
	Sediment	UV Lamp	40-60
	Sediment	Sunlight	30
	Soil	UV Lamp	150-200
Eriksson et al., 2004	MeOH/Water	UV Lamp	0.5
Ahn et al., 2005	Montmorillon	Montmorillonite UV Lamp	866
	Montmorillonite	ite Sunlight	5198
	Kaolinite		1052
	Kaolinite	Sunlight	9780
	Sediment	UV Lamp	3616
	Sediment	Sunlight	23,760
Stapleton and	Dust	Sunlight	(408
Dodder, 2008			

Is DecaDBE Debromination Environmentally Relevant?



Photolysis of DecaBDE requires wavelengths In the UV range.....some windows block UV Wavelengths....reduces energy to degrade DecaBDE.

However.....

- impossible to exclude all sunlight from homes, offices and automobiles (DecaBDE present in car dust)

-DecaBDE found in sewage sludge and biosolids (up to 5,000 ppb) which are land applied in many regions......will receive sunlight exposure

-DecaBDE found in E&E Waste...landfills receive sunlight exposure leaching from landfills (Danon-Schaeffer et al., 2006) will expose DecaBDE to sunlight.

Acknowledgments:

Funding: -Duke University, Nicholas School of the Environment & Earth Sciences

- CIREEH, Boston University

All study participants

Reviewers/Comments:

Dr. Linda Birnbaum, EPA
Dr. Nicolle Tulve, EPA



Policy Director, Clean New York PBDE Strategic Collaboration Campaign Coordinator, Environmental Health Fund

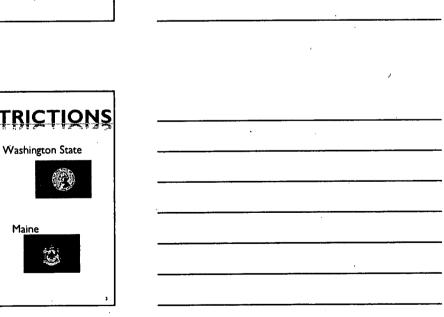
A Growing Trend

GOYERNMENT ACTION ON Decarde

NGO PBRE COLLABORATION

- * Leaders from more than ten states
- ★ Communicate via conference calls, listserve, website, annual meeting
- Share materials, messaging, research, contacts, strategy, industry trends
- × Includes:
 - + technical experts (CPA, HBN)
 - + market campaigns (ETBC, HCWH)
 - + advocates from EU and elsewhere
 - + scientific/medical/academic experts

DecaBDE	RESTRICTIONS
Sweden Norway	Washington State
* * * * * * * * * * * * * * * * * * *	Maine





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WASHINGTON STATE

- x 2004 DoE and DoH issue PBDE action plan, recommends development of proposal to ban deca
- x 2007 − Washington passes ESHB 1024, a ban on deca in certain products



MAIN

- 2005 Report from Bureau of Health and Department of Environmental Protection recommends deca ban
- × 2007 LD 1658 passes, bans deca
 - + In mattresses & upholstery January 2008
 - + In TVs & computer enclosures in 2010
- Requires ongoing reporting of deca use, continued evaluation of safer flame retardants
- Authorizes participation in multi-state safer flame retardants clearinghouse



ALASKA	
01×04(0)	
× HB217 by Rep. Andrea Doll \	
* One-house bill, seeking Senate sponsor	
× Bans Penta-\and Octa-BDE	
× Prohibits manufacture sale or distribution of mattresses	
pads or upholstery containing deca	
* Prohibits decath plastic housing of electronic products	
* Requires DEC to generate a list of PBTs	
CALIEODNIA	
SALIFORNIA SALIFORNIA	
× 2003 – passed first penta and octa ban	
× 2007 – AB 706, BFR and CFR ban passed the CA	
Assembly but failed to pass Senate	
* 2008 – Scheduled for 3 rd reading Feb. 13tt	·
* Bans BFRs@fid Rs in seats, mattresses, box springs, mattress sets, futons, other bedding	
products, and reupholstered furniture to which	
filling materials are added.	
* Takes effect January 2010	
	1
CONNECTICUT	
SUNIFOLISM PROFESSION	
 Governor Jodi Rell (R) introduced PBDE bill based on the ME model 	
* bans deca in mattresses & upholstery, TVs &	
computer enclosures	
* Requires ongoing reporting of deca use,	
continued evaluation-of-safer flame retardants	
 Authorizés participation in multi-state safer flame retardants clearinghouse 	
, com carros crea manease	

x 2004 HB 2013 restricted manufacture and distribution of penta and octaBDE. × Took effect Jan. 1st, 2006 x 2007 -- H.B. NO. 461 bans deca in TY & computer enclosures, mattresses; mattress pads, home furniture & textiles × Takes effect July 1st, 2010 × Includes regular reporting requirements ILLINOIS × 2006 – IL EPA issues_deca-report re: alternatives - Governor requested follow-up 2007 - report found: deca 'debrominates', causes illness, and alternatives are available, recommends deca-BDE phasebut × 2007 – HB 1421 (Nekritz) bans deca-BDE in TV. computer & electronic casings mattresses & pads, indoor home textiles Effective date: January 2011 MARYLAND House Bill 83 passed in 2005 Requires DoE-report to legislature on bfr use, human and environmental impact, redommendations on disposal restrictions and other public health protection Bans penta and octa on Oct. 1<2008 Exempts used and recycled materials HB1 of 2008 would simply incorporate deca into the bans on penta and octa.

М	ICHIGAN		
 MDEQ draft_study on deca recommend on deca_where safer_alternatives exist. 	led a ban		•
× 2006 - Penta and octa ban goes into eff	ect		
× 2007 - Pending bill to ban deca in resid mattresses and upholstered furniture in	ential		
TV/Computers in 2011			
(بر (
		·	
•			
MII	INIESOTA	· .	
	ANESOTA		
* 2007 - penta-and-octa-BDE ban passes + PBDE-free state purchasing	•		
+ January 2008 report to legislature from M	NPollution		
Control Agency. x 2008 – Seeking deca-BDE ban in TV &	computer		
enclosures, mattresses, mattress pads,	residential		
furniture and textiles ban × Would take effect in 2010	,		
* Authorizes participation in a multi-stat	e		
clearinghouse	arb does &		
 RTP Chemical makes polymers, uses b non-halogenated flame retardants. 	out deca &		
·			
r			
 	IONTANA		
x 2005 − PBDE resolution − did not pass			
× 2007 — deca ban in mattresses, and Ty	1		
computers if safer alternatives are available	lable		
× Provides for ongoing agency review an	d	•	
reportage	. woor		
× Did not pass, Session runs every other		<u> </u>	<u></u>
× 2009 – Next session, plan to revitalize			
1			

NEW YORK	<u>.,</u>
× 2004 – Penta- and Octa-BDE ban passes	•
× 2007 – Two-house deca in products ban passed Assembly	·
× Incorporated into Green Procurement EO	
× 2008 – 7977-B poised to re-pass Assembly, be reconsidered in Senate	
* Deca Alternatives Taskforce in formation	
	•
OREGON	
× 2005: penta and octaBDE ban	
* Requires state to track all BFRs and report to	
legislature on actions to protect public health, as well as emerging science.	
{	
	HR. F. C. C. C. C. C. C. C. C. C. C. C. C. C.
•	
BHQRE ISLAND	
i i i i i i i i i i i i i i i i i i i	
 2006 – HB 7917-A Enacted penta- and octaBDE ban Required study of decaBDE 	
Report back to the Legislature was due January 2007	
Report back to the Legislature was due january 2007	

× 2008 – HB589 SB260 × Beginning July 2009 – Covers any product containing Octa or Penta × By July 2009 – Removes Deca from mattresses, upholstered furniture × By July 2011 – Removes Deca from computers, TVs with plastic housings × Authorizes participation in substitution clearinghouse

SOVERNMENT REPORTS SONFIRM SOFER OFTERNOTIVES ORE OVOIL-OBLE

Maine DEP and CDC

 Findings: Safer alternatives are available for TV cabinets and textiles, the applications that consume most decaBDE.



× Conclusions:

- + The Legislature should ban the sale of televisions and other consumer electronics that have plastic casings containing decaBDE by January 1, 2012
- To prevent decaBDE use to meet new and pending national flammability standards, the Legislature should ban the sale of these products if they contain decaBDE.

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GOVERNMENT REPORTS CONFIRM SAFER ALTERNATIVES ARE AVAILABLE

Illinois EPA

Findings: Evidence continues to accumulate that DecaBDE can be broken down by light and organisms under certain conditions



- DecaBDE, certain DecaBDE breakdown products, and other PBDEs can cause thyroid, reproductive/developmental, and neurological effects
- Conclusions: Establish a realistic target, possibly by year-end 2010, for the phase-out of DecaBDE
- Explore creation of clearinghouse among state agencies as a central repository for information regarding flame retardants that can be made available to interested parties.

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MARKET REACTION

- Safer, cost- and performance-effective flame retardant solutions are in widespread use
- Product manufacturers are switching to safer flame retardants for their electronics and furnishings
- * Manufacturers that make PBDEs also make other, safer flame r etardants

SAFEB-AFFABRABLE FLAME BETABRANTS

Product	Alternatives Available?	Cost- Competitive?	Safer Atternatives Available?		
Electronic housings	Yes	Yes	Yes		
Furniture applications	Yes	Yes	Yes		

Washington State estimates that "about 57% of TVs and 95% of computer products are PBDE-free"

COSTS OF TY ALTERNATIVES

Flame Retardant	Resin Cost – average¹ TV front & rear	Resin cost as % of \$300 TV		
DecaBDE	\$11.21	3.7%		
Other BFRs	\$14.55	4.9%		
Bisphenol A diphosphate or RDP	\$18.18	6.1%		
Phosphate esters	\$22.00	7.3%		
RDP	\$23.03	7.7%		

Average TVs: 27.5" unit, \$300

Source: LCSP,

Progress towards PVC[1] and BFR[2] elimination by leading electronic manufacturers selling in the US Goal of BFR elimination for new products Goal of PVC elimination for new products DecaBDE* free Goal of partial BFR and PVC by end of 2008 by 2008 by 2008 by 2009 by 2009 by 2009 by 2008 by 2010 by 2010 LG Electronics (by 2010 by 2010 by 2010 by 2010 by 2012 by 2012 wiet i Packard[12] by 2009 for comp. prod. by 2011 for PVC-free wiring and BFR -free comp. & mobile phones Key: X means no publicly available data found on website and ✓ means goal has been set or accomplished *Some products still might contain trace amounts of decaBDE due to the use of recycled plastics. Data from Feb. 2007. BSEF MEMBERS MAKE PHOSPHATE FRA Chemtura (formerly Great Lakes Chemical) Manufactures phosphorous-based flame retardants for TV housings (www.e1.greatlakes.com) *Reofos RDP is recommended for use in modified polyphenylene oxide (mPPO), polycarbonate/ABS blends and polyurethane foams. Reofos RDP provides the following performance advantages: · High phosphorus content · High molecular weight and low volatility · Reduced plasticization" (www.e1.greatlakes.com/frebbommon/pdf/Redos_RDP_ds.pdf)

BSEF MEMBERS MAKE PHOSPHATE FRS

Albemarle Corporation

Manufactures phosphorous flame retardant for TV housings

They say:

"Phosphate basedFR's work efficiently in [Thermodastic aloys] and give good physical properties and good UV stability" (link from Albemane webpage: www.specialchem4polymers.com/c/phosphorus-flame-retardants/index.aspx)

"NcendX® P-30 liquid phosphorus (nonhalogen) flame retardant is an outstanding performer in PC/ABS and PPE/HIPS blends. It actually impro ves resin melt flow and exhibits outstanding thermal stability, excellent hydrolytic stability, low migration and low volatility."

(www.albemaris.com/Products and services/Polymer additives/Flame retar danis/Merkets/Ejectronic_enclosures/)

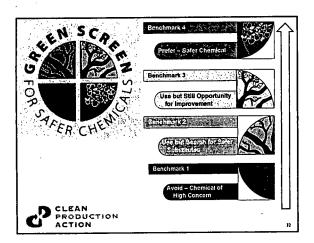
ALBEMARLE TO COMPLY WITH EU

Albemarle Introduces <u>Higher Purity</u> Decabromodiphenyl Ether Flame Retardant, SAYTEX(R)

This new product is designed to help Albemarle customers and their downstream users meet the strictest interpretation of the European Union (EU) Restriction on the Use of Hazardous Substances (RoHS) Directive and related EU Commission Decisions regarding the use of polybrominated diphenyl ethers, or PBDEs.

http://www.albemarle.com/Products_and_services/Polymer_additives/Inews=text&r eleaseID=952675

[emphasis added]



GREEN SCREEN: COMPARISON OF RECARRE & BRP

Chemical	Reasons for Benchmak	Benchmark Achieved
DecaBDE and its breakdown products	Issues with breakdown products OdaBDE = vPT Other lower brominated congeners with P, B and T characteristics	Benchmark 1: Avoid - Chemical of High Concern
RDP and its breakdown products	RDP constituents or breakdown products are not a PBT, vPvB, vPT, or vBT	Benchmark 2: Use but Search for Safer Substitutes

C CLEAN PRODUCT

DECA-FREE MATTRESS CHOICES

Mattress Alternatives

Fabric backcoating with phosphate

Cotton padding treated with boric acid

Inherently flame resistant materials used as fire barriers – aramides, melamine, glass fibers, etc.

Mattress Notes

Halogen-free alts are common & often labeled

Preferred alt of manufacturers: inherently flame resistant barriers

Sources: LCSP, 2005; WA Dept of Ecology, 2006

		PBDE?	Company	Rank
		No		
of	60%		Sealy	_1_
	U.S.	No	Simmons	2
ket	Mar	No	Serta	3
Γ	ly factory	. None applied at assemb	Spring Air	4
		No	Tempur-Pedic	5
		No	Select Comfort	6
		No	King Koil	7
j	ly factory	None applied at assemb	Therapedic	8
]		No	Kingsdown	9
]		No	Englander	10
Į		No	Int'l Bedding Corp	11
		No	Restonic	12
1	swer .	Didn't know the an	Symbol	13
1		No	Corsicana	14
j		No	Lady Americana	15

FURNITURE WITHOUT RESA

Upholstered Furniture Alternatives

Textile backings coated with phosphate material

Inherently flame resistant materials used as fire barrier

Furniture Notes

Very few manufacturers label their products as BFR-free



Source: LCSP, 2005

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		 _						 	
		 			-			 	
			•						
	_					-	_	 	
		 		_				 	

DRAPES WITHOUT DECA

Drapery Alternatives

Natural fibers (wool, cotton, linen) or natural/synthetic blends treated with phosphates

Inherently flame resistant materials or polymers w/phosphates



Drapery Notes

Natural/synthetic fiber blends are common Higher % natural = better treatment results

BEWARE OF BAD AMENDMENTS

Do not add the following:

- Requirements for agency rule-making before the Deca ban goes into effect
- * A narrow definition of "safer alternative" that makes it virtually impossible to implement ban.
- Requirements for the State Fire Marshal to adopt state fire safety standards

These rule-making requirements would have a negative fiscal impact on state government and contribute to budget crises faced by many states.

CONCLUSION

- × Common threads -
 - + Government reports prove availability of alternatives, recommend substitution
 - + Environmental advocacy/firefighter/health affected support is important
 - + Opposition largely restricted to out-of-state chemical industry
- * Momentum exists implementation is key
- * Tells our story about need for broad reform
- x 2008-2009 more states may come on line

Emergency Drinking Water Fund Overview of Bernard Allen

Department of Environment and Natural Resources **Assistant Secretary** Robin W. Smith

2006 Legislation

- Senate bill 1587, "Amend Env. and Natural Resource Laws" established Emergency Drinking Water Fund
- Budget bill appropriated \$300,000
- Authorized uses of Fund:
- 1) notification
- costs of testing private wells
- provision of alternative drinking water
- Disbursement based on financial need and risk to public health

2007 Legislation

- Significant modifications to Fund made in House bill 1473, 2007 Appropriations Act:
- 1) renamed for former Rep. Bernard Allen
- 2) risk level: federal drinking water standard
- 3) income threshold: less than 3X poverty level
- 4) indicates preference for permanent solution
- No authorization for technology upgrades, resident relocation or hiring of staff
- General Assembly appropriated \$615,000

DENR Implementation

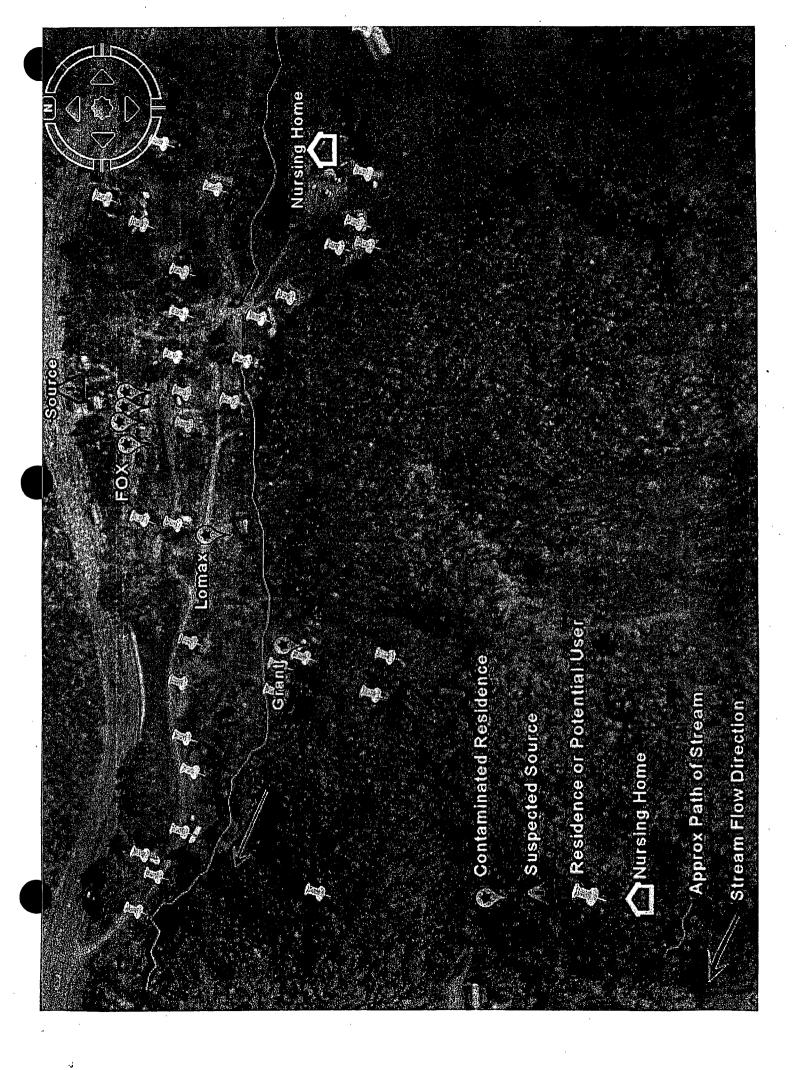
- Initiated working group to develop criteria households, expense of remedy. for funding: risk, income level, # of
- Working group identified an initial list of sites that might be eligible for funding and began to prioritize.
- Specific restrictions in the 2007 legislation removed a number of potential sites.

Jackson County Project

- One well serving four homes in Sylva was found to be contaminated (Fox well). Twelve people overall, including five children.
- Testing of Fox well showed high level of petroleum contamination (5X the federal drinking water standard for benzene).
- nearby rest home for contamination. DENR tested at-risk residences and

Jackson County Project (continued)

- contamination. Two residences (Lomax and Three additional households showed Grant) had benzene contamination.
- their water. in writing by NC DHHS not to drink or cook with Grant and Lomax residences have been advised
- contamination are not eligible for Bernard Allen However, these two households with Fund because of statutory limitations.



Jackson County Project (continued)

Funding Partners

Morningstar Rest Home Jackson County NC Rural Center DENR \$120,000 \$440,000 \$300,000 \$20,000

will be hooked up to the water line. Other Six households and rest home with 55 residents may be hooked up if they choose to pay the residences (approximately 25) in the community

Current Status of Fund

- project: Partnering with Underground Storage Fank Fund, NC Rural Center, Fayetteville. Committed \$26,786 in funding to another
- Buncombe and Cumberland sites. Well testing events planned for Montgomery & Stokes. \$13,400 spent on well testing at Jackson,
- Current Bernard Allen Fund balance is approximately: \$575,000
- DENR continuing to evaluate sites for eligibility under current statutory limits.

Where do we go from here?

- Statutory Modifications
- application that can be problematic. 1) Current eligibility requirements lead to Issues to consider:
- 2) What is the priority of this Fund?
- 3) Number of policy details that need to be considered (e.g. resident/landlord, naturally occurring contamination)

SECTION 11.1. G.S. 143-64.05(a) reads as rewritten:

"(a) The State agency for surplus property may assess and collect a service charge for the acquisition, receipt, warehousing, distribution, or transfer of any State surplus property and for the transfer or sale of recyclable material. The service charge authorized by this subsection does not apply to the transfer or sale of timber on land owned by the Wildlife Resources Commission. Commission or the Department of Agriculture and Consumer Services."

STUDY STRUCTURE AND MANAGEMENT PRACTICES OF AGRICULTURAL RESEARCH STATIONS AND RESEARCH FARMS

SECTION 11.4.(a) The Performance Evaluation Division of the General Assembly shall study the structure and management practices of the 18 agricultural research stations and research farms currently owned either by North Carolina State University or the Department of Agriculture and Consumer Services and currently managed by the Department of Agriculture and Consumer Services. This study shall consider ways to achieve efficiency savings and whether it is desirable and feasible to consolidate or transfer to another State department these research stations and research farms.

SECTION 11.4.(b) No later than May 1, 2008, the Performance Evaluation Division of the General Assembly shall prepare a report of the findings and recommendations of the study and submit this report to the House of Representatives and Senate Appropriations Subcommittees on Natural and Economic Resources and the Fiscal Research Division.

PART XII. DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

COMMERCIAL AND NONCOMMERCIAL LEAKING PETROLEUM UNDERGROUND STORAGE TANK PROGRAM ADMINISTRATIVE COSTS

SECTION 12.1.(a) G.S. 143-215.94B is amended by adding a new subsection to read:

"(g) The Commercial Fund may be used to support the administrative functions of the program for underground storage tanks under this Part and Part 2B of this Article up to the amounts allowed by law, which amounts may be changed from time to time. In the case of a legislated increase or decrease in salaries and benefits, the administrative allowance existing at the time of the increase or decrease shall be correspondingly increased or decreased an amount equal to the legislated increase or decrease in salaries

and benefits."

SECTION 12.1.(b) G.S. 143-215.94D is amended by adding a new

subsection to read:

"(g) The Noncommercial Fund may be used to support the administrative functions of the program for underground storage tanks under this Part and Part 2B of this Article up to the amounts allowed by law, which amounts may be changed from time to time. In the case of a legislated increase or decrease in salaries and benefits, the administrative allowance existing at the time of the increase or decrease shall be correspondingly increased or decreased an amount equal to the legislated increase or decrease in salaries and benefits."

BERNARD ALLEN MEMORIAL EMERGENCY DRINKING WATER FUND SECTION 12.2.(a) G.S. 87-98 reads as rewritten:

"§ 87-98. Bernard Allen Memorial Emergency Drinking Water Fund.

(a) The Bernard Allen Memorial Emergency Drinking Water Fund is established within under the control and direction of the Department. The Fund shall be a nonreverting, interest-bearing fund consisting of monies appropriated by the General

Assembly or made available to the Fund from any other source and investment interest credited to the Fund.

The Fund may be used to pay for notification, to the extent practicable, of persons aged 18 and older who reside in any dwelling unit, and the senior official in charge of any business, at which drinking water is supplied from a private drinking water well or improved spring that is located within 1,500 feet of, and at risk from, known groundwater contamination. The senior official in charge of the business shall take reasonable measures to notify all employees of the business of the groundwater contamination, including posting a notice of the contamination in a form and at a location that is readily accessible to the employees of the business. The funds may also be used by the Department to cover pay the costs of testing of private drinking water wells and improved springs for suspected contamination up to once every three years upon request by a person who uses the well for contamination and for the temporary or permanent provision of alternative drinking water supplies to persons whose drinking water well or improved spring is contaminated. Under this subsection, an alternative drinking water supply includes the repair or replacement of a contaminated well or the connection to a public water supply.

The Department shall disburse monies from the Fund based on financial need and on the risk to public health posed by groundwater contamination and shall give priority to the provision of services under this section to instances when an alternative source of funds is not available. The funds-Fund shall not be used for remediation of groundwater contamination. Nothing in this section expands, contracts, or modifies the obligation of responsible parties under Article 9 or 10 of Chapter 130A of the General Statutes, this Article, or Article 21A of this Chapter to assess contamination, identify receptors, or remediate groundwater or soil contamination. The Fund shall not be used to provide alternative water supply to households with incomes greater than three hundred percent (300%) of the current federal poverty level. The Fund shall not be used to provide alternative drinking water supplies unless the concentration of one or more contaminants in the private drinking water well or improved spring exceeds the Maximum Contaminant Level, or the federal drinking water action level as defined in 40 Code of Federal Regulations § 141.1 through § 141.571 (1 July 2006) and 40 Code of Federal Regulations § 143.3 (1 July 2006). The Fund shall not be used to provide temporary water supplies in any calendar quarter until all needs for permanent replacement water supplies that have been identified in that calendar quarter have been met through hookups to public water supplies, repair, or replacement of contaminated wells. In disbursing monies from the Fund, preference shall be given to providing permanent replacement water supplies by connection to public water supplies and repair or replacement of contaminated wells over the provision of temporary water supplies.

The Department shall establish criteria by which the Department is to evaluate applications and disburse funds-monies from this Fund and may adopt any

rules necessary to implement this section.

The Department, in consultation with the Commission for Health Services and local health departments, shall report no later than 1 October of each year to the Environmental Review Commission, the House of Representatives and Senate Appropriations Subcommittees on Natural and Economic Resources, and the Fiscal Research Division of the General Assembly on the implementation of this section. The report shall include the purpose and amount of all expenditures from the Fund during the prior fiscal year, a discussion of the benefits and deficiencies realized as a result of the section, and may also include recommendations for any legislative action."

SECTION 12.2.(b) The first report required by G.S. 87-98(e), as enacted by

subsection (a) of this section, shall be submitted on or before 1 October 2008.

FUNDS FOR PENDING CIVIL LITIGATION EXPENSES

SECTION 12.2A. Notwithstanding G.S. 143-215.3A, of the funds available in the Water and Air Quality Account for the costs of administering the air quality

Update on ABC Recycling Legislation

Scott Mouw

NC Division of Pollution Prevention and Environmental Assistance

Basic of ABC Permit Recycling Legislation

- HB 1518 (SL2005-348)
- · Requires certain ABC permit holders to recycle beverage containers
- · Also bans disposal of beverage containers from these establishments
- · Effective January 1, 2008

What Businesses Are Affected By The New Legislation

- Certain businesses that hold Alcohol Beverage Control Permits must separate, store, and provide for collection for recycling of all recyclable beverage containers.
- Only holders of:
 - on-premises malt beverage
 - on premises unfortified wine
 - on-premises fortified wine and
 - mixed beverages permits are affected by the bill.
- Recycling is only required for the containers that are sold at retail for on-premises consumption.

More Details on Who is Affected

- 8,000 plus establishments
 - Governed by 150+ local ABC boards.
 - 70% are in 20 counties.
 - Concentration in urban, university and tourism counties.
 - Mostly bars and restaurants but also some golf courses, AFW Halls, theaters, etc., with permanent permits.

What Containers are Affected?

- Aluminum Cans
- Plastic Bottles
- Glass Beverage Bottles (about 90% of materials by weight)

H 267 – 2007 Amendments

- Passed in last weeks of 2007 Session.
- Establishes that violations will not lead to loss of
- All new and renewing permit applications must be accompanied by recycling plan.
- Permit-holders can apply for a one-year exemption if they have difficulty finding recycling services.

How is the ABC law to be enforced?

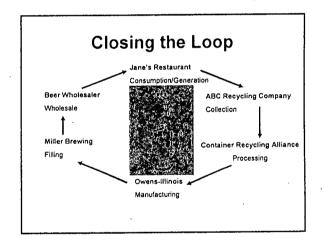
- A permittee has satisfied the requirements if it implements a recycling program that meets the minimum standards of the model recycling program developed by the Commission pursuant to G.S. 130A•309.14 (m)
- · ALE visits
- · ABC Commission review of recycling plans
- Warnings and fines

Exemptions

- ABC Commission/DPPEA starting to receive exemption requests – about 40 so far.
- Exemptions only allowed for those with no access to recycling.
- Certain rural areas of the state where services are not available and exemptions are appropriate.
- In most cases, no exemptions are made for aluminum cans.
- Exemptions will be fewer over coming years.

Some Local Governments Offering Service

- · Local Governments not required to offer services.
- Some have chosen to collect directly from bars and restaurants: Conover, Orange County, Pasquotank County, Greensboro, Washington, Hickory, Wilmington (some in central business district only).
- About 500 bars and restaurants served directly by local governments.
- About half of counties and some towns allow permitholders to use their drop-off centers.
- · Many have held workshops for their permit-holders.
- Other local governments may decide to provide services, but most permit-holders will rely on private haulers and recyclers.



Recycling Business Development

- Approximately 10 new businesses have started up to collect ABC materials.
- Major haulers offering recycling collection in most of their service areas but not all.
- Many small haulers and existing recycling companies have added ABC recycling to their services.
- Some markets very competitive e.g., Charlotte, Triangle, Wilmington, Triad.
- DPPEA has used some grant funding to encourage expansion of services.

Estimated Diversion

- 50 75,000 tons of additional recycling, across North Carolina.
- Approximately half percent (.5%) of all disposed waste.
- Law helps reinforce 1994 disposal ban on aluminum cans and 2009 disposal ban on plastic bottles.

Demand for Materials

- NC home to three glass plants, making containers served by permit-holders.
- Southeastern U.S. is home to major aluminum plants.



 Plastic bottles in demand by manufacturers in NC and in nearby states.

Energy and Greenhouse Gas Savings

- Using recycled glass requires 40 percent less energy than making products from all new materials.
- Energy costs drop about 2-3% for every 10% cullet used in the manufacturing process.
- For container glass, a 10% increase in cullet reduces particulates by 8%, nitrogen oxide by 4%, and sulfur oxides by 10%.
- For every six tons of recycled container glass used, one ton of carbon dioxide, a greenhouse gas, is reduced.
- ABC recycling requirements will reduce between 8,000 and 12,000 tons of CO2.

Common Issues for Permit-Holders

- · Finding a service provider
- · Material separation vs commingled collection
- · Space constrictions inside
- Space constrictions outside/frequency of collection
- Cost
- · Enforcement

What about costs?

- · Depends on size of facility and quantity of materials.
- Main costs are pickup and rental or purchase of containers.
- As low as \$50/month or as much as \$200/month or more
- The more volume of recyclables, the more opportunities for cost avoidance.
- The more facilities that recycle in a given area, the better the economics of service.

Cost Avoidance

- Permit-holders may take advantage of materials diversion to help pay for recycling services.
- · Opportunities for cost avoidance:
 - Reduced pickup
 - Reduced # or size of trash containers
- Permit-holders should closely review waste costs and service levels.

Recycling Example

- · Peppers Restaurant, Boone NC
- Deli sandwich shop recycling for 10 years.
- 180 customers/lunch; 300 to 400/day in summer
- Collects glass beer and wine bottles, steel and aluminum cans, cardboard.
 Uses picklé buckets inside/96 gallon carts
- Pickup once/week at cost of \$60/month by one of large haulers operating in NC



Recycling Example

- · Mellow Mushroom, Raleigh
- · 5,000 6,000 customers/week
- Recycles glass, plastics, metal, cardboard.
- If materials were not recycled, would need at least one additional trash collection each week
- \$120/month for weekly container recycling



Recycling Example

- Zambra, upscale bar in downtown Asheville, NC.
- Recycling glass, metal, cardboard since 1999.
- \$20 per month per can for weekly pick-up for beverage.



Storage inside and out







Not new volume – just volume re-arranged.

Possible Assistance to Permit-Holders

- Tax credit for permit-holders who have to pay for services, helping to partially "fund the mandate."
- Similar to Oyster Shell tax credit.
- Possible range of \$500-600 year, with auditable features.
- Total cost of between \$2 to \$3 million.

DPPEA Resources

Main ABC Page:

www.p2pays.org/BannedMaterials/ABCcontainer/

Recycling Services and Markets:

www.p2pays/DMRM/start.aspx

Division of Pollution Prevention and Environmental Assistance:

919-715-6500

2008

ENVIRONMENTAL REVIEW COMMISSION March 18

MINUTES

North Carolina General Assembly

ENVIRONMENTAL REVIEW COMMISSION MINUTES

March 18, 2008

The Environmental Review Commission was scheduled to meet at 9:30 a.m., Tuesday, March 18, 2008 in Room 544 of the Legislative Office Building. Co-Chairperson Lucy Allen presided. The meeting was called to order at 9:37 a.m.

Welcome and Attendance

Members present were Presiding Chairman Lucy Allen, Co-Chairman Charlie Albertson, Co-Chairman Pryor Gibson, III, Senator Stan Bingham, Senator Katie Dorsett, Senator James Forrester, Senator Ellie Kinnaird, Senator A. B. Swindell, Senator David Weinstein, Representative Jim Harrell, Representative Carolyn Justice, Representative Ruth Samuelson Representative Edith Warren, and advisory members Senator Fletcher Hartsell and Representative Russell Tucker. Commission staff present were Commission Counsel George Givens, Assistant Counsel Jeffrey Hudson, Assistant Counsel Jennifer McGinnis, Commission Analyst Jennifer Mundt, Research Assistant Mariah Matheson and Commission Clerk Jessica Kozma Bennett.

A meeting notice was distributed to staff, members and outside parties via regular mail and electronically. A reminder was sent electronically March 17. The meeting agenda and visitor's registration sheets are attachments to these minutes and referred as **Exhibit A and Exhibit B**, respectively.

Co-Chairwoman Allen recognized co-chairs of the Commission; she then recognized staff, thanking them for their work for the Commission.

Report to the Commission and Explanation of Agenda Items

Mr. Givens noted that there were three packets of reports, read only, for distribution and those held. Read only reports are attached to the minutes as **Exhibit C**. He added for the record that a public staff planning meeting was held March 7 at 10 a.m. in Room 605 of the Legislative Office Building. Mr. Givens reviewed the day's agenda, including two items on low level waste, and three agenda items on the drought, among other items. He also said that the Commission would continue to work on a flame retardants issue as well as House Bill 1756, the Safe Artificial Slope Construction Act. The April meeting will be both a Commission meeting and field trip to Hammock's Beach State Park, and Mr. Givens said that staff was currently working on a meeting

notice for the two-day trip. He lastly announced upcoming meetings regarding pervious pavement and underground storage tank cleanup.

Approval of the January 23, 2008 and February 14, 2008 Minutes

Senator Kinnaird moved for approval of the January and February minutes and asked if it was necessary for hard copy distribution of minutes at Commission meetings. Mr. Givens said that there were differing opinions on whether to send solely electronically or distributing both in hard copy and electronically. Minutes were approved by unanimous vote.

Report on the Management of Low-Level Radioactive Waste in North Carolina

Co-Chairwoman Allen recognized Mr. Walter "Lee" Co x, III, manager of the Radioactive Material Branch, Radiation Protection Section (DENR). A copy of his report is included in the minutes as **Exhibit D.** According to his report, because of the scheduled closure of the Barnwell Facility it may be necessary for a small amount of the State's generators to develop long term on-site storage contingency plans. This is to deal with Class B and C level radioactive waste, Class A waste is still accepted from the State by a Utah facility. After the Barnwell closure to outside states, on June 30, the facility will only accept waste from South Carolina generators. There had been 56 cubic feet of storage previously. According to Mr. Cox, commercial producers of radioactive waste—in the short term—the disposal issue is not yet detrimental. However, he said, producers are very concerned about the long terms consequences of "no-disposal." Producers are concerned with both costs and security of sources to use.

Mr. Cox then said that in the wake of the closure a new strategic plan had to be developed. A position to help licensees was created to inform changes in low-level radioactive waste "landscape" and works hand-in-hand with other branches. He added that the position had been very effective. To date, it is reported that there is 100 percent compliance.

Senator Kinnaird asked what has happened with the "compact," of which Mr. Cox answered that the State is not in a compact. Senator Kinnaird followed up that it is a "myth that they are functioning." Mr. Cox agreed. Senator Forrester asked if producers will start storing "on site." Mr. Cox said that producers would.

Update on Pending Litigation: State of Alabama, State of Florida, State of Tennessee, Commonwealth of Virginia and the Southeast Interstate Low-Level Radioactive Waste Management Commission v. State of North Carolina

Mr. John F. Maddrey, Assistant Solicitor General for the Department of Justice was recognized by Co-Chairwoman Allen to discuss litigation pending against North Carolina regarding the construction of a facility to house low level waste in North Carolina. He began saying that he was here on the fifth anniversary of the litigation and noted that there had not been a "whole lot of progress" toward ruling on litigation. The United States Supreme Court approved for the plaintiffs in the case five years ago.

During the 1980s and 1990s the State was developing a plan for a site. During that period South Carolina withdrew from the Southeastern Compact and constructed Barnwell. After South Carolina's withdrawal the compact, the compact withdrew funding for the North Carolina site. In July 1999, the Legislature also withdrew the State from the compact, begetting litigation. The lawsuit was filed in July 2003, and a special master is appointed to make recommendations on the case. The suit alleges that the State should return \$85 million to the compact and plaintiff states. Currently, the compact sought summary enforcement of a sanctions order, and the special master has agreed with the State that the sanctions order has no effect.

Senator Kinnaird was recognized and said that in Chatham County there was not a suitable place to construct a site. She then questioned how long it would take for a resolution. Mr. Maddrey said there were complex legal issues and that most other jurisdiction cases involve water rights, and primarily in the western United States. He added that he is aware of one case that lasted 40 years, but there is no time table as the Supreme Court is in charge of the process. The special master, he continued, has proceeded cautiously. Co-Chairman Gibson asked if we were heading toward lessening liability as the State answers seven questions posed in the case. Maddrey answered said that liability would come from contractually or equitable responsibility.

Report on the Controlled Releases from Falls Lake in Wake County

Co-Chairwoman Allen recognized Mr. Terry M. Brown, Water Control Manager for the Wilmington District of the United States Army Corps of Engineers. A copy of his report is included in the minutes as **Exhibit E**. Co-Chairwoman Allen said this agenda item would get into "some very timely issues."

Mr. Brown began profiling Falls Lake, saying that the Corps tracks both water supply storage and water quality storage. He then showed river basin levels starting in April, 2007 and projecting to January 2009. On Christmas Day only 19 percent of water supply in the lake remained. Because of this, the City of Raleigh asked the Corps to cut back on releases.

Reviewing deviation requests, flow targets in April dropped to 100cfs for Falls Dam and 254 for Clayton. Stakeholders met and created suggested Clayton Target flows. Benefits from the proposed course of action kept Falls Lake from falling to nine week levels. He then reported that because of recent rain events the City of Raleigh's water supply was at 73 percent.

During this presentation House Speaker Joe Hackney was recognized and was in attendance during the meeting.

Several utilities directors that have inflows to their communities from Falls Dam have responded that they did not experience any water quality or treatment issues from the deviations, including Smithfield, Johnston County and Goldsboro.

Mr. Brown then asked for questions. Co-Chairwoman Allen said that the presentation sounded like "good news." Mr. Brown thanked Co-Chairwoman Allen. Representative Samuelson was recognized and asked if the Commission was only seeing a presentation on one lake because others were okay. Mr. Brown said that levels at Jordan Lake had improved, but that it is difficult to predict what will happen in the future.

Representative Samuelson followed up asking whether the rest of the State is "okay." Mr. Brown deferred the question to Thomas Fransen, the next speaker.

<u>Update on Current Drought Conditions in Light of Conservation Efforts and Recent</u> Rain Events

Co-Chairwoman Allen recognized Mr. Thomas C. Fransen, Chief of the River Basin Management Section with the Division of Water Resources (DENR). A copy of his report is included in the minutes as **Exhibit F.** Mr. Fransen began saying that he was happy to have a good message rather than one of "doom and gloom." To note: for the first time since August of last year drought maps showed improvement. What was a 30 day rainfall deficit had returned to normal, and is actually at 102 percent of normal. However, the State is 14.36 inches below is average annual rainfall, making it the driest year in State history for rainfall averages.

Although there is improvement, the drought continues to persist, Fransen said. Among public water supply systems, 44.59 percent (280 systems) are not under restrictions and 27.87 percent (175 systems) remain under mandatory conservation restrictions. No public water systems are in a state of emergency, and 27.55 percent are under voluntary conservation (173).

Predictions from the National Weather Service show that from March 6 until May, 2008 the State remains in two categories, either for the drought to persist or intensity or that the drought is ongoing and may have some improvement. In asking for questions, Senator Forrester asked about restrictions on wells. Mr. Fransen said those are localized issues.

Presentation of the Governor's Recommendation to Respond to the Current and Future Droughts

Co-Chairwoman Allen recognized Mr. Franklin Freeman, Senior assistant for Governmental Affairs in the Governor's Office to discuss a package by the Governor regarding drought management. He introduced Secretaries Bill Ross from DENR and Brian Beatty of the Department of Crime Control and Public Safety. Mr. Freeman then reviewed a timeline of the Governor's work with drought issues, noting that all 100 counties had been directed by the Governor to conserve by August 23, one day before the Governor requested an agricultural State of Disaster declaration due to the loss of 30 percent of crops in 85 counties. The declaration was granted in early September. The Governor then asked local governments to activate their drought plans, and also asked the League the Municipalities to work to end outdoor water use, including a statewide burning ban. During the month of October, the Governor's office began working with a legislative program, and have spent six months working to create the plan.

One part of the Governor's legislative plan is for vulnerable water systems has made progress, Mr. Franklin continued, and work is currently underway to reconnect those systems to other water suppliers. As part of the Governor's plan, public systems are

also not conducting audits to detect and repair leaks as well as adopting water conservation pricing for customers.

Mr. Freeman recalled a drought of the 1950s, saying he remembered when his grandfather's farm well dried and when his grandfather took a mule and a sled to a spring to retrieve water for washing. In telling this story, Mr. Freeman said that we learn lessons from crisis. The Drought Management Advisory Council was created in response to the 2002 drought, but the current 2007/2008 drought "has shown us that we must have additional tools to cope with water shortages and manage our resources." He added that he hoped to prepare for future droughts, not just the current drought.

Mr. Freeman then announced the Governor's legislative package, adding that the governor said that the State can no longer be satisfied "to use a 19th century water system resources and equipment to serve 21st century communities."

Co-Chairwoman Allen then recognized Crime Control and DENR Secretaries Brian Beatty and Bill Ross to discuss the governor's plan. Secretary Ross thanked the Commission for their interest and time.

The Governor's plan, he said, was a three-part plan to improve a community's ability to manage water during the drought. Among concepts included in the plan are inner-connections between water systems, leak detection programs, metering systems and reuse facilities. He then said that the governor's office had realized that there was a need to do a better job of water use. Also included in the plan, he said, are guidelines to better report industrial water use and to identify large water users.

A copy of the press release is included in minutes as Exhibit G.

Co-Chairwoman Allen then recognized the Department of Crime Control and Public Safety Secretary Bryan E. Beatty to further discuss the Governor's plan. **Exhibit G** may be referred to as an attachment regarding his discussion.

Secretary Beatty told Commission members that steps needed to be taken before there is a crisis. He added that there are no proposals to meter wells, but that local governments can impose water restrictions within their respective planning and zoning jurisdictions.

Co-Chairwoman Allen clarified the Secretary's comments noting that the proposal suggests to restrict the use of well water rather than the metering of well water. Co-Chairman Gibson said that he was "100 percent" convinced that water issues needed to be addressed through the legislative process. He added that in the previous drought rains came and quelled public concern. But in this drought "tens of thousands of people were laid off and millions were lost." Co-Chairman Gibson followed up asking about rule timelines, which Ms. Smith answered that she did not know as details were still being worked on. Ms. Smith also said that she expected a draft prepared for review by early April.

Senator Clodfelter noted a water allocation study underway at the UNC School of Government, saying that two categories needed to be addressed regarding water allocation: one, short term drought measures and improvement of drought management response. Mr. Freeman said that he had been in touch with Mr. Richard Whisnant and Mr. Bill Holman, two principal investigators charged with the study, and that he did "not want to trespass on their work." Senator Albertson asked Ms. Smith about a state inspector who visits animal facilities and the potential health hazards of the inspector not

being able to wash his state issued truck. Ms. Smith said she would look into the matter and follow up. Senator Albertson thanked Ms. Smith and asked that she please follow up.

Representative Samuelson asked if consideration was given to ensure certain industries do not suffer because of drought restrictions. Ms. Smith said that concerns about the Green Industry were considered.

Regarding funding, Mr. Freeman said some funding may come through the Golden Leaf Foundation.

Co-Chairman Gibson asked that the issue not be "talked to death." Senator Hartsell commented that the governor's recommendations seemed like a "very useful framework from where we can begin," adding that he was glad to see an emphasis on interconnection.

The Commission recessed at 12 noon and reconvened at 12:59 p.m.

<u>Discussion of changes to the federal ozone standard</u> and the implications for North Carolina

After the Commission reconvened, Mr. Brock M. Nicholson, Deputy Director of the Division of Air Quality (DENR) was recognized by Co-Chairwoman Allen to report on changes to the federal ozone standard and the implications for North Carolina. A copy of his power point presentation is included in the minutes as **Exhibit H.**

Mr. Nicholson began explaining the two types of ozone—stratospheric which blocks UV radiation, and tropospheric, which causes lung irritations—and noted that this type of ozone is highest in the summer. Ozone is formed in the presence of "precursor pollutants" and "sunlight".

Discussing how ozone affects a person, Mr. Nicholson said that ozone can worsen acute respiratory problems, aggravate asthma, decrease lung capacity from 15 to 20 percent in some healthy adults, and impair immune systems. These factors contribute to increased hospital admissions and emergency room visits. Effects of repeated ozone exposure can create permanent "airway remodeling" in people, children may experience slower lung growth and quality of life for a person may be compromised. Persons most at risk are children and adults who are active outdoors and people sensitive to ozone, such as persons with asthma or bronchitis.

Currently, the ozone standard is set at .08 parts per million and is based on a 3-year average of the fourth highest daily maximum 8-hour average. Levels at or above .09 are a violation of the standard, and note that .085 rounds up to .09 ppm.

Mr. Nicholson then reviewed a state map that specifies what counties have ozone monitors in place. Currently the Charlotte area is the only area officially exceeding the ozone standard in the State. In reviewing the next two maps, which projected ozone in 2009 and in 2018, no counties showed excessive ozone. Regarding the new rules, the effective date of rule was March 12, 2008 and final designations are set for no later than March 12, 2010.

Report by the Utilities Commission on Implementation of the Promote Renewable Energy/Baseload Generation, the Swine Farm Methane Capture Pilot Program, and an Update on the Save-a-Watt proposal at Duke Energy

Mr. Jim Kerr, Commissioner of the North Carolina Utilities Commission was recognized to discuss Senate Bill 3, an act according to session law reads:

An act to promote the development of renewable energy and ENERGY EFFICIENCY in the state through implementation of a renewable ENERGY and ENERGY Efficiency portfolio Standard (REPS), (2) allow recovery of certain nonfuel utility costs through the fuel charge adjustment procedure, (3) provide for ongoing review of construction costs and for recovery of costs in rates in a general rate case, (4) adjust the public utility and electric membership corporation regulatory fees, (5) provide for the phaseout of the tax on the sale of energy to North Carolina farmers and manufacturers, and (6) allow a tax credit to contributors to 501(c)(3) organizations for renewable energy property.

A copy of Senate Bill 3 is included in the minutes as **Exhibit I.**

Mr. Kerr thanked the Commission and said the commission had been busy subsequent to the new legislation and that the commission was currently in process of monitoring the impact of the drought on utilities among other projects.

He reviewed the major provisions of the Senate Bill 3, including the bill's establishing an energy "portfolio" for renewable sources to be used by retail utilities, looking at solar energy, the use of swine and other waste. With the adoption of the bill, North Carolina because the first state in the southeast to ratify such legislation, though 25 other states have passed similar legislation. Upon enactment the bill begins in 2008 and "ramps up over time." By the year 2021, 12.5 percent of energy should come from a renewable source, and is only applied to retail electric companies. Also included are cost caps beginning in 2008 at \$10 per customer to \$12 in 2012 and in 2018 \$34 per customer. By 2018, Mr. Kerr said, more than \$330 million should be invested in renewable sources of energy. Both energy and cost define the market, he added.

All three major public utilities have filed requests for renewable energy programs and the Utilities Commission is currently in the process of reviewing those applications. Mr. Kerr also added that 250 megawatts of renewable energy are expected to be produced in the east by 2018.

Rule making began in August of 2007, and final rules have been issued. More than 100 rules issues. Highlights of rule include that all major utilities must file compliance plan and reports. Also, when it is implemented there will be third party renewable tracking systems, principally so not double counting generation more than once.

Mr. Kerr then discussed implementation of House Bill 1465, the Swine Farm Methane Capture Pilot Program. A copy of the bill is included in the minutes as **Exhibit J.** Fifty swine farm owners are allotted to participate in the program. The program, administered jointly by DENR and the Utilities Commission, has opened up registration for farmers. DENR and the Utilities Commission will report back to the Commission in January 2009.

Co-Chairwoman Allen asked the Commission for questions. Representative Samuelson said she hoped for incentives. Mr. Kerr said that Senate Bill 3 is an evolution, and a bill that gave the Utilities Commission discretion to provide incentives. Current discussion, he said, is to define what incentives should exist.

Senator Bingham asked whether there would be a strong rebuttal against wind energy at the coast and in the east. Mr. Kerr said that wind was popular in places where the building is acceptable, citing west Texas. He continued that there may be complications with this in North Carolina, concerning aesthetic and other issues. For example, Carteret County has placed a nine month moratorium on wind.

<u>Discussion of the implementation of energy conservation programs as directed by</u> the Energy Conservation in State Building legislation

Co-Chairperson Allen recognized Leonard Hoey, program manager for the State Energy Office of the Department of Administration to discuss recent legislation implementing conservation programs. A copy of Mr. Hoey's presentation is included in the minutes as **Exhibit K**.

This legislation requires reductions in energy use in existing state building of 20 percent by 2010 and 30 percent by 2015. He noted a \$5 million energy reserve for projects or products to "move the process along." Mr. Hoey's office queried state agencies with 34 responses for projects initially totaling more than \$110 million. Mr. Hoey noted that this far exceeds the \$5 million reserve funding. Working with the State Construction Office, projects were culled and roughly \$100 million was cut, leaving a total of \$18 million in project costs.

Among requests from agencies include 3000 LED exit signs, 7700 CFL lamps, 4500 sink aerators and 1600 low flow shower restrictors. Two hundred energy projects were reviewed, including 40 retro-commissioning projects, 72 new lighting systems, 16 boilers and steam traps, 10 water conservation projects, 18 HAVC projects ad 44 other projects. Projects are reviewed on basis of cost, payback time and diversity of geographical location. The total was reduced again, and 55 total projects were approved for funding within the \$5 million threshold. Monitoring and verification of the of the approved projects is important, he said. Remaining funds are earmarked to be used to survey community colleges for their energy improvement plans.

To achieve the 30 percent reduction by 2015 there will have to be a capital investment among state agencies. Currently there is \$32 million under contract, including the Museum of Art, legislative buildings and the University of North Carolina at Greensboro and the Department of Administration. Three agencies and 11 universities have expressed interest in beginning the Performance Contracting process. With no questions from the Commission, Co-chairperson Allen thanked Mr. Hoey and recognized the next speaker.

Report on the development of a proposed recycling program for fluorescent lamps

Co-Chairperson Allen recognized Mr. Scott Mouw, chief of the Community and Business Assistance Section of Division of Pollution Prevention and Environmental Assistance (DENR). A copy of Mr. Mouw's presentation is included in the minutes as

Exhibit L. A second report is included as **Exhibit M**. Mr. Mouw began saying that his report was from a legislative request to look into potential recycling of fluorescent lights.

All fluorescent lights contain some amount of mercury and the two main types of lights are tube lamps and compact fluorescents. Fluorescent lights are more energy efficient than incandescent bulbs and also have a much longer life, he said. Use of CFLs is growing among businesses and homeowners. Among large retailers, Wal-Mart sold 100 million in 2007 and a Progress Energy program through Home Deport sold an additional 200,000 in the same year. Tube lamps remain the majority of LCMs in use and CFLs currently hold 20 percent of the lighting market.

Among recycling rates, only two percent of residential LCMs are recycled, and 29 percent among commercial users. Effects from the low recycling rate include potential mercury release in the collection, hauling, and disposal of bulbs; landfill liners help controls mercury effects on groundwater. The presentation noted that LCMs are only one source of potential mercury air releases from landfills.

Addressing whether LCMs result in overall mercury emissions, Mr. Mouw reviewed that most CFLs contain three to four milligrams of mercury and that level is dropping but that tube lamps have twice as much mercury. He noted that it is imperative to recover as many tube lamps as possible.

Currently, Mr. Mouw added, households may dispose of LCMs as solid waste, but for non-households, disposal becomes more complicated. Fluorescent lights cannot be disposed of in solid waste landfills unless it is proven they are not hazardous. For industries and other non-household establishments, it is expensive to prove lights to be non-hazardous, so Mr. Mouw concluded this slide saying that recycling is the only practical option.

Twenty counties currently have household hazardous waste programs that accept LCMs and among recycling options for non-households Mr. Mouw noted that LCM recycling is highly feasible for all non-household generators.

Mr. Mouw's recommendations to the Commission included requiring the use of LEDs in state-owned facilities, eliminating or temporarily suspending sales taxes on LEDs, providing tax credits for businesses and industries that switch to LEDs and providing economic incentives to manufacturers of LEDs to develop Led products for the mass home market.

Presentation of the results of the study of the need for further regulation of hazardous waste transfer facilities, including whether to require the facilities to obtain a permit, pay permit fees, provide contingency plans, and demonstrate financial responsibility

Ms. Elizabeth W. Cannon, Chief of the Hazardous Waste Section of the Division of Waste Management (DENR) was recognized by Co-Chairperson Allen. A copy of a report received by the Commission is included in the minutes as **Exhibit N**.

Currently there are 35 transfer facilities in North Carolina located in 17 counties. Two are in Durham and Robeson counties, three in Randolph County, seven in Guilford County and nine are located in Mecklenburg County. More than 33,000 tons of waste was estimated to be managed over the past year. Estimated waste at one transfer facility ranges from one ton to 7090 tons, due to varying facility sizes and varied activities.

Seventy-two percent of tonnage managed by transfer facilities were in "sensitive land use" areas, areas near residential housing, churches, places of assembly, schools and day cares. Retail businesses are not considered as sensitive land use areas.

Twenty percent of transfer facilities have experienced an emergency incident, not including the EQ Apex facility that is no longer in operation and is therefore not included in the survey. Among incidents, five facilities have had at least one fire and three reported spills. Fires included one catastrophic fire, two vehicle engine fires, an arson office fire, a smoldering roll off fire and a dump trailer fire.

Ms. Cannon then reviewed inspections performed on facilities. Fifty percent of inspections are documented, she said, and 27 are performed daily.

For Ms. Cannon's department, future actions to continue fulfilling the requirement of the study include continued review of survey findings, involving external stakeholders in review and evaluation, investigating possible sources of revenue and providing specific statutory recommendations prior to the 2009 session.

Co-Chairperson Allen thanked Ms. Cannon.

Annual report on the previous year's activities, findings and recommendations of the North Carolina Water Quality Workgroup

Dr. William J. Showers, Associate Professor and RiverNet Program Director for North Carolina State University was recognized by Co-Chairperson Allen to discuss the North Carolina Water Quality Workgroup's annual report.

A copy of his presentation is included in the minutes as **Exhibit O.** Dr. Showers' program was designed to measure nitrogen flux in the Neuse River basin, a pilot project to see how water quality is measured over a series of years.

Dr. Showers noted that there is a challenge to find mechanisms to accurately measure nitrate flux, given that nitrate concentrations are not a good predictor of nitrate flux. He then reported that El Nino events were synchronous and that nitrate flux surges patterned themselves with El Nino events through the Gulf Stream.

No discussion ensued among members concluding Dr. Showers presentation and Co-Chairperson Allen called on the last presenter.

Annual report on the effectiveness of projects funded under the Agriculture Cost-Share Program for Nonpoint Pollution Control

Mr. David B. Williams, Chief of the Nonpoint Source Programs Section of the Division of Soil and Water Conservation (DENR) presented to the Commission on the Agriculture Cost Share Program for Nonpoint Pollution Control and a copy of his presentation is included in the minutes as **Exhibit P.**

The program was initiated in 1984 to address water quality concerns for Jordan and Falls lakes and the Chowan River. The program expanded statewide in 1990 and has more than 1200 contracts on agricultural lands. Contracts, he reported, are prioritized to benefit water quality.

Mr. Williams continued explaining the program's implementation, and said that the Soil and Water Conservation Commission establishes rules and sets eligible practices and costs. Total appropriation for the program for the 2007 is \$8,093,675. He then

expressed to the Commission that without additional funds, two local positions will be eliminated in fiscal year 2009. Mr. Williams then reviewed slides showing expenditures and appropriations, as included in **Exhibit Q.** Among the more than 1200 contracts, some 67,579 acres are affected and 165,358 tons of soil saved. More than 690,000 pounds of nitrogen is saved as well as 117,000 pounds of phosphorous.

Mr. Williams then presented cumulative benefits of the 24 years of the program's life. In all, 6.9 million tons of soil are saved, he reported, and 48,232 contracts implemented.

Again, with little discussion among Commission members the meeting was adjourned at 2:36 p.m.

Sergeants at arms present were Bob Rossi, Earl Coker, Martha Parrish, Reggie Sills Charles Marcell, Charles Harper, Ron Spain, Ernie Sherrelle and Leslie Wright.

Co-Chair Dan Clod

Co-Chair Lucy Allen

Presiding

Jessica Kozma Bennett Commission Clerk

11

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

MEMBERS

SENATOR STAN W. BINGHAM SENATOR KATIE G. DORSETT SENATOR JAMES S. FORRESTER SENATOR ELEANOR G. KINNAIRD SENATOR A.B. SWINDELL SENATOR DAVID F. WEINSTEIN

REPRESENTATIVE JAMES A. HARRELL REPRESENTATIVE PRICEY HARRISON REPRESENTATIVE CAROLYN H. JUSTICE REPRESENTATIVE RUTH SAMUELSON REPRESENTATIVE EDITH D. WARREN REPRESENTATIVE LARRY W. WOMBLE

Environmental Review Commission State Legislative Building Raleigh, Porth Carolina



AGENDA

9:30 a.m. Tuesday 18 March 2008 Room 544 Legislative Office Building Raleigh, North Carolina GEORGE F. GIVENS
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JENNIFER R. F. MUNDT COMMISSION ANALYST

MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

1. Call to order

Representative Lucy T. Allen, presiding

2. Introductory remarks by Cochairs (5 minutes)
Representative Lucy T. Allen
Representative Pryor A. Gibson

Senator Charles W. Albertson Senator Daniel G. Clodfelter

3. Report to the Commission and explanation of agenda items (15 minutes)
George F. Givens, Commission Counsel

Approval of the minutes of the 23 January 2008 and 14 February 2008 meetings of the Commission

- 4. Report on the management of low-level radioactive waste in North Carolina (10 minutes)

 Walter "Lee" Cox, III, Manager

 Radioactive Material Branch, Radiation Protection Section

 Division of Environmental Health, Department of Environment and Natural Resources (DENR)
- 5. Update on pending litigation: State of Alabama, State of Florida, State of Tennessee, Commonwealth of Virginia, and the Southeast Interstate Low-Level Radioactive Waste Management Commission v. State of North Carolina [U.S. Supreme Court, No. 132, Original] (10 minutes)

John F. Maddrey, Assistant Solicitor General Department of Justice

6. Report on the controlled releases from Falls Lake in Wake County (15 minutes)

Terry M. Brown, P.E., Water Control Manager

Wilmington District, United States Army Corps of Engineers

7. Update on current drought conditions in light of conservation efforts and recent rain events (15 minutes)

Thomas C. Fransen, Chief River Basin Management Section, Division of Water Resources, DENR

8. Presentation of the Governor's recommendations to respond to the current and future droughts (1 hour)

Franklin E. Freeman, Senior Assistant for Governmental Affairs Office of the Governor

William G. Ross, Jr., Secretary DENR

Bryan E. Beatty, Secretary Department of Crime Control and Public Safety

LUNCH BREAK (estimated for) 12:00 p.m. to 12:45 p.m.

9. Discussion of changes to the federal ozone standard and the implications for North Carolina (15 minutes)

Brock M. Nicholson, Deputy Director Division of Air Quality, DENR

10. Report by the Utilities Commission on implementation of the Promote Renewable Energy/Baseload Generation (S.L. 2007-397), the Swine Farm Methane Capture Pilot Program (S.L. 2007-523, Sec. 4), and an update on the Save-a-Watt proposal by Duke Energy (30 minutes)

James Y. Kerr II, Commissioner North Carolina Utilities Commission

Discussion of the implementation of energy conservation programs as directed by the Energy Conservation in State Buildings legislation (S.L. 2007-546, Sec. 2.1.(c)) (15 minutes)

Leonard Hoey, Program Manager State Energy Office, Department of Administration

12. Report on the development of a proposed recycling program for fluorescent lamps (15 minutes)

Scott B. Mouw, Chief Community and Business Assistance Section Division of Pollution Prevention and Environmental Assistance, DENR Environmental Review Commission Agenda – 18 March 2008 Page 3

13. Presentation of the results of the study of the need for further regulation of hazardous waste transfer facilities, including whether to require the facilities to obtain a permit, pay permit fees, provide contingency plans, and demonstrate financial responsibility (S.L. 2007-107) (15 minutes)

Elizabeth W. Cannon, Chief Hazardous Waste Section Division of Waste Management, DENR

14. Annual report on the previous year's activities, findings, and recommendations of the North Carolina Water Quality Workgroup (RiverNet) (G.S. 143-215.8D) (15 minutes)

Dr. William J. Showers, Associate Professor and RiverNet Program, Director North Carolina State University

15. Annual report on the effectiveness of projects funded under the Agriculture Cost-Share Program for Nonpoint Source Pollution Control (G.S. 143-215.74(e)) (15 minutes)

David B. Williams, Chief Nonpoint Source Programs Section Division of Soil and Water Conservation, DENR

- 16. Commission discussion and announcements
- 17. Adjourn

SCHEDULE OF FUTURE MEETINGS:

Below is a schedule of meetings of the Commission for April and May 2008. This schedule is tentative and subject to adjustment. To facilitate development of the agenda for meetings of the Commission and to receive input from interested persons regarding the future work of the Commission, the Commission Counsel holds informal public planning meetings for staff and interested parties. The schedule of these meetings is also set out below.

Commission Meeting	Location	Staff Planning Meeting	Location
Monday 7 April 2008	See below*	Friday 28 March 2008	605 LOB
Tuesday 8 April 2008	See below*		
Friday 9 May 2008	544 LOB	Tuesday 29 April 2008	605 LOB
Wednesday 14 May 2008	544 LOB		

^{*}The April meeting of the Commission will be held at Hammocks Beach State Park in Onslow County and will include additional site visits to other locations in the area. A specific agenda and itinerary will be included in the notice for the April meeting.

MEETINGS OF INTERESTED PARTIES:

The Commission Counsel will hold meetings of interested parties on specific topics as indicated below:

Impervious Parking Surfaces Working Group

10:00 a.m. Monday 24 March 2008 - 605 Legislative Office Building

Underground Storage Tank Working Group

2:00 p.m. Monday 31 March 2008 - 605 Legislative Office Building

Public Meeting on the Study of Issues Related to Construction on Artificial Slopes 30 April 2008 – Southwestern North Carolina (Time and location TBD)

ADDITIONAL INFORMATION:

Persons having questions about the Commission meeting or other matters related to the Commission may contact Commission Counsel or other Commission staff at (919) 733-2578 or may visit the Commission's website at:

http://www.ncleg.net/gascripts/DocumentSites/browseDocSite.asp?nID=12

ENVIRONMENTAL REVIEW COMMISSION

March 18, 2008

VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION ASSISTANT

NAME	FIRM OR AGENCY AND ADDRESS
Kelley O'Brien	unc sog
Christie Hinan	806
Manly Wilder	DENR
David Williams	DENR-DSWC
R ROSERS	CumTr
Sharon Straid	State Breezy Office
Mecca Trandra	NCACC
Lee Cox	DENR
Love, Ann Hanges	LATTH
Windy Schulte	Sampson County
Melinda Holland	Sampson aunta

ENVIRONMENTAL REVIEW COMMISSION

March 18, 2008

<u>VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION ASSISTANT</u>

NAME	FIRM OR AGENCY AND ADDRESS
JENBERN	EDF
Mitch Kokay	John Loke Foundation
RobinSmith	DENR
Stepe Wall	DENR
Hon Del	MUC
Ih heit	MWC
Matt Mould	PG.
Thomas Morre	Edwissen & Well
Bulfolne	Nocholas Fret / Dile
Dan Crawford	Conservation Council
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March 18, 2008

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James Markham	UNC School of Government
Will Lambe	WC-50G
Jeff Welty	UNC 506
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March 18, 2008

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Scott Morn	NC DPPEA
Tommy Stevens	NCPC
Ken Melton	Ken Melton & Assoc.
Jim dohno	Blount STreet Advisors

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18 March 2008

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MEMORANDUM

To:

Members of the Environmental Review Commission

From:

Mariah Matheson, Commission Assistant

Re:

Reports to the Commission

The following report has been submitted by the Department of Environment and Natural Resources (DENR) to the Environmental Review Commission (Commission) since the last reports distribution on 14 February 2008. This report is designated as read-only and is attached to this memorandum:

1) Annual report on the Community Conservation Assistance Program. 31 January 2008. Statutory Authority: G.S. 143-215.74M(e).

The following report has been submitted by the North Carolina Radiation Protection Commission and is being distributed in connection with today's Agenda Item # 4 as follows:

1) Report on Low-Level Radioactive Waste Management in North Carolina. April 2007. Statutory Authority: G.S. 120-70.33.

The following report has been submitted by the Department of Administration and is being distributed in connection with today's *Agenda Item #11* as follows:

1) Report on the implementation of energy conservation measures program and development or revisions of architectural or engineering standards consistent with an energy conservation measures program. 1 February 2008. Authority: S.L. 2007-546, Sec. 2.1(c).

The following report has been submitted by the North Carolina Water Quality Work Group (RiverNet) and is being distributed in connection with today's *Agenda Item* #14 as follows:

1) Annual report on RiverNet's previous year's activities, findings, and recommendations. 30 January 2008. Statutory Authority: G.S. 143-215.8D.

The following reports have been submitted by DENR to the Commission and will be distributed in connection with today's agenda as follows:

- 1) Report on the development of a proposed recycling program for fluorescent lamps. 1 March 2008. Authority: S.L. 2007-550, Sec. 17. *Agenda Item #12*
- Report on the need for further regulation of hazardous waste transfer facilities, including whether to require the facilities to obtain a permit, pay permit fees, provide contingency plans, and demonstrate financial responsibility. 1 February 2008. Authority: S.L. 2007-107, Sec. 1.8(d). Agenda Item #13
- Annual report on the effectiveness of projects funded under the Agriculture Cost-Share Program for Nonpoint Source Pollution Control. 31 January 2008. Statutory Authority: G.S. 143-215.74(e). Agenda Item #15

The following reports have been received and are being held for distribution either as read-only or for presentation at a future meeting of the Commission. If you would like a copy of one of these reports in advance of the next meeting, please contact Mariah Matheson at (919) 733-2578 or mariahm@ncleg.net for assistance.

- 1) Annual report on the Parks and Recreation Trust Fund, Fiscal Year 2006-2007. 1 October 2007. Statutory Authority: G.S. 113-44.15(c).
- 2) 2006 annual report on the NC Million Acre Initiative. 1 October 2007. Statutory Authority: G.S. 113A-241(c)).
- 3) Annual report on the implementation of the Clean Water Management Trust Fund. 1 December 2007. Statutory Authority: G.S. 113A-257.
- 4) Biennial report on acquisitions made from the Natural Heritage Trust Fund. Within 30 days after each revision. Statutory Authority: G.S. 113-77.9(e).
- 5) Annual report on the Conservation Easement Program. 1 November 2007. Statutory Authority: G.S. 113A-235(c).

Please contact George Givens, Jeff Hudson, Jennifer McGinnis, Jennifer Mundt, or Mariah Matheson at (919) 733-2578 if you have any questions or comments.

North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor Villiam G. Ross Jr., Secretary Patricia K. Harris, Director



TO:

Senator Charles Albertson

Senator Dan Clodfelter Representative Lucy Allen Representative Pryor Gibson

Chairs, Environmental Review Commission

FROM: Patricia K. Harris

Director, Division of Soil and Water Conservation

DATE:

Thursday, January 31, 2008

RE:

Annual Report on the Community Conservation Assistance Program

General Statue 143-215.74M(e), Section 1(e) of S.L. 2006-78, requires the Soil and Water Conservation Commission to submit annual reports on the Community Conservation Assistance Program no later than January 31 of each year beginning January 31, 2008, to the Environmental Review Commission and the Fiscal Research Division.

If you have any questions regarding this report, please contact Julie Henshaw, with the N.C. Division of Soil and Water Conservation, at (919) 715-9630.

Attachment

cc: Assistant Secretary Manly Wilder

Soil and Water Conservation Commission

Elizabeth Self George F. Givens

Report to the Environmental Review Commission and Fiscal Research Division of the N.C. General Assembly on the Community Conservation Assistance Program



ANNUAL REPORT January 31, 2008

In accordance with General Statue 143-215.74M(e), of S.L. 2006-78, the purpose of the Community Conservation Assistance Program (herein referred to as CCAP) is to reduce the delivery of nonpoint source (NPS) pollution into the waters of the State by installing best management practices on urban, suburban and rural lands. Through this voluntary, incentive-based conservation program, landowners are provided educational, technical and financial assistance.

In FY2008, the Division of Soil and Water Conservation received the first appropriated funds for CCAP, in the amount of \$200,000. These funds provided a full-time permanent employee to coordinate the program and funds for program implementation. The first CCAP coordinator starts work with the Division on Feb 25, 2008. The Soil and Water Conservation Commission will allocate remaining funds to interested districts by their March 19, 2008, meeting based on the parameters outlined in 15A NCAC 06I .0103(9).

This year, the Commission approved program rules 15A NCAC 06I .0101 - .0108 and 15 best management practices for CCAP (Appendix A). In addition to preparing for the allocation of appropriated funds, the Commission distributed over \$795,000 to 17 districts to install CCAP best management practices in July 2007 (Appendix B). These funds were obtained through two grants, one from the Clean Water Management Trust Fund and one from the Clean Water Act Section 319 Program. Additional resources were secured to develop a design manual and technical training program for district staff. Over half of the districts in the state completed technical training, and the Commission adopted a job approval authority policy.

The Division has now received an additional Clean Water Management Trust Fund grant for CCAP implementation in forty districts across the state. These funds, in combination with the recurring appropriation, allowed this program to address water quality concerns and reach citizens across the state.

Appendix A: Detailed Implementation Plan

All practices defined below are to be maintained by the landowner of a single-family residence for a five-year period; all other types of properties are to be maintained by the landowner for a 10-year period.

Definition of Practices

- (1) Abandoned well closure is the sealing and permanent closure of a supply well no longer in use. This practice serves to prevent entry of contaminated surface water, animals, debris or other foreign substances into the well. It also serves to eliminate the physical hazards of an open hole to people, animals and machinery.
- (2) Bioretention area is the use of plants and soils for removal of pollutants from stormwater runoff. Bioretention can also be effective in reducing peak runoff rates, runoff volumes and recharging groundwater by infiltrating runoff. Bioretention areas are intended to treat impervious surface areas of greater than 2500 ft².
- (3) A backyard rain garden is a shallow depression in the ground that captures runoff from a driveway, roof, or lawn and allows it to soak into the ground, rather than running across roads, capturing pollutants and delivering them to a stream. Backyard rain gardens are intended to treat impervious surface areas of less than 2500 ft².
- (4) Stormwater wetland means a constructed system that mimics the functions of natural wetlands and is designed to mitigate the impacts of stormwater quality and quantity. Stormwater wetlands are intended to treat impervious surface areas of greater than 2500 ft².
- (5) Backyard wetlands are constructed systems that mimic the functions of natural wetlands. They can temporarily store, filter and clean runoff from driveways, roofs and lawns, and thereby improve water quality. The wetland should be expected to retain water or remain saturated for two to three weeks. Backyard wetlands are intended to treat impervious surface areas of less than 2500 ft².
- (6) A cistern is a system of collection and diversion practices to prevent storm water from flowing across impervious areas, collecting sediment and reaching the storm drains. Benefits may include the reduction of storm water runoff thereby reducing the opportunity for pollution to enter the storm drainage system.
- (7) A critical area planting means an area of highly erodible land, which cannot be stabilized by ordinary conservation treatment on which permanent perennial vegetative cover is established and protected to improve water quality. Benefits may include reduced soil erosion and sedimentation and improved surface water quality.
- (8) A diversion means a channel constructed across a slope with a supporting ridge on the lower side to control drainage by diverting excess water from an area to improve water quality.

- (9) A grassed swale consists of a natural or constructed channel that is shaped or graded to required dimensions and established in suitable vegetation for the stable conveyance of runoff to improve water quality. Benefits may include reduced soil erosion, and sedimentation and improve the quality of surface water pollution from dissolved and sediment-attached substances.
- (10) Impervious surface conversion means the removal of impenetrable materials such as asphalt, concrete, brick and stone. These materials seal surfaces, repel water and prevent precipitation from infiltrating soils. Removal of these impervious materials, when combined with permeable pavement or vegetation establishment, is intended to reduce stormwater runoff rate and volume, as well as associated pollutants transported from the site by stormwater runoff.
- (11) Permeable pavement means materials that are designed to allow water to flow through them and thus reduce the imperviousness of traffic surfaces, such as patios, walkways, sidewalks, driveways and parking areas.
- (12) A pet waste receptacle means a receptacle designed to encourage pet owners to pick up after animals in parks, neighborhoods and apartment complexes so as to prevent waste from being transported off-site by stormwater runoff.
- (13) A riparian buffer means an area adjacent to a stream where a permanent, long-lived vegetative cover (sod, shrubs, trees or a combination of vegetation types) is established to improve water quality. Benefits may include reduced soil erosion, sedimentation, pathogen contamination and pollution from dissolved, particulate and sediment-attached substances.
- (14) A stream restoration system means the use of bioengineering practices, native material revetments, channel stability structures and/or the restoration or management of riparian corridors to protect upland BMPs, restore the natural function of the stream corridor and improve water quality by reducing sedimentation to streams from streambanks.
- (15) Streambank and shoreline protection means the use of vegetation to stabilize and protect banks of streams, lakes, estuaries or excavated channels against scour and erosion.

Appendix B: FY 2008 CCAP Allocation

Soil and Water Conservation District	CCAP BMF Request	Proposed BMPs	Allocation Explanation	FY 2008 Allocation (CWMTF)	FY 2008 Allocation (319)
Cabarrus	\$262,500	critical area planting	Requested funds for stream restoration. Worked with EEP and CWMTF to determine eligibility as a stand alone grant project.	\$450	\$0
Caldwell	\$73,800	critical area planting, grassed swale, stream restoration, streambank and shoreline protection	Maximum amount per BMP is \$50,000. 319 funds are tied to impaired watersheds, so there were fewer eligible districts and projects, but they receive more funds (depending on their initial request).	\$0	\$73,175
Carteret	\$210,000	riparian buffer, streambank and shoreline protection, bioretention area		\$48,600	\$0
Catawba	\$6,000	stormwater wetland, diversion, rain garden, cistern, pet waste receptacle	Will receive their requested allocation.	\$6,000	\$0
Chatham	\$273,750	stormwater wetland, rain garden	Requested funds for a large stream restoration project.	\$44,500	\$0
Craven	\$124,500	impervious surface conversion, permeable pavement, grassed swale, critical area planting, cisterns	Maximum amount per BMP is \$50,000. 319 funds are tied to impaired watersheds, so there were fewer eligible districts and projects, but they receive more funds (depending on their initial request).	\$0	\$92,000
Forsyth	\$165,450	grassed swale, pet waste receptacle, critical area planting	Maximum CWMTF allocation is \$48,600 per district due to the number of eligible districts participating in this grant.	\$48,600	\$0
Montgomery	\$1,933,287	critical area planting, streambank and shoreline protection, rain garden, diversion, stormwater wetland	Maximum CWMTF allocation is \$48,600 per district due to the number of eligible districts participating in this grant.	\$48,600	\$0
Nash	\$63,750		Maximum CWMTF allocation is \$48,600 per district due to the number of eligible districts participating in this grant.	\$48,600	\$0
New Hanover	\$99,081	shoreline protection, backyard wetland, impervious surface	Maximum CWMTF allocation is \$48,600 per district due to the number of eligible districts participating in this grant.	\$48,600	\$0

Soil and Water Conservation District	CCAP BMP Request	Proposed BMPs	Allocation Explanation	FY 2008 Allocation (CWMTF)	FY 2008 Allocation (319)
Onslow		streambank and shoreline protection, riparian buffer, impervious surface conversion, permeable pavement, rain garden	Maximum CWMTF allocation is \$48,600 per district due to the number of eligible districts participating in this grant.	\$48,600	\$0
Orange		abandonded well closure, critical area planting, grassed swale, rain garden	Maximum CWMTF allocation is \$48,600 per district due to the number of eligible districts participating in this grant.	\$48,600	\$0
Polk		stream restoration, streambank and shoreline stabilization	Will receive essentially their requested allocation.	\$33,637	\$0
Randolph		septic system repair and/or replacement	319 funds are tied to impaired watersheds, so there were fewer eligible districts and projects, but they receive more funds (depending on their initial request). This watershed is impaired due to fecal coliform and the district will work with the county health department to complete this project.	\$0	\$90,000
Rockingham	\$20,250	critical area planting, rain garden	Will receive their requested allocation.	\$0	\$20,250
Wake				\$48,600	\$0
Watauga	,	critical area planting, diversion,	Maximum CWMTF allocation is \$48,600 per district due to the number of eligible districts participating in this grant.	\$48,600	\$0
Total .	\$4,260,412		<u></u>	\$521,987	\$275,425

IEER

Classifications of Radioactive Waste

What's high? What's low? How are classifications decided?

For more information on radioactive waste, a critique of current policies, and suggestions for an alternative approach to radioactive waste management, see IEER's publication: <u>High-Level Dollars Low-Level Sense</u> on our publications page.

Radioactive Waste: In general, radioactive waste classes are based on the waste's origin, not on the physical and chemical properties of the waste that could determine its safe management. Other categories of radioactive waste not listed here include mixed waste and NARM wastes (Naturally-Occurring and Accelerator-Produced Radioactive Materials). One common factor for all categories of nuclear waste is the presence of at least some amount of long-lived radionuclides.

Some Classifications of Radioactive Waste

Category of Radioactive Waste	Definition				
High-Level Waste (HLW)	1) Spent Fuel: irradiated commercial reactor fuel 2) Reprocessing Waste: liquid waste from solvent extraction cycles in reprocessing. Also the solids into which liquid wastes may have been converted. NOTE: The Department of Energy defines HLW as reprocessing waste only, while the Nuclear Regulatory Commission defines HLW as spent fuel and reprocessing waste.				
Transuranic Waste (TRU)	Waste containing elements with atomic numbers (number of protons) greater than 92, the atomic number of uranium. (Thus the term "transuranic," or "above uranium.") TRU includes only waste material that contains transuranic elements with half-lives greater than 20 years and concentrations greater than 100 nanocuries per gram. If the concentrations of the half-lives are below the limits, it is possible for waste to have transuranic elements but not be classified as TRU waste.				
Low-Level Waste (LLW)	Defined by what it is not. It is radioactive waste not classified as high-level, spent fuel, transuranic or byproduct material such as uranium mill tailings. LLW has four subcategories: Classes A, B, C, and Greater-Than Class-C (GTCC), described below. On average, Class A is the least hazardous while GTCC is the most hazardous.				
Class A	On average the least radioactive of the four LLW classes. Primarily contaminated with "short-lived" radionuclides. (average concentration: 0.1 curies/cubic foot)				
Class B	May be contaminated with a greater amount of "short-lived" radionuclides than Class A. (average concentration: 2 curies/cubic foot)				
Class C	May be contaminated with greater amounts of long-lived and short-lived radionuclides than Class A or B. (average concentration: 7 curies/cubic foot)				
GTCC	Most radioactive of the low-level classes. (average concentration: 300 to 2,500 curies/cubic foot) (The 300 is based on the 1985 inventory. The higher figure represents anticipated inventory in 2020, including some decommissi wastes.)				

A Few Notes:

- Radioactive waste is produced by a number of sources, but by far the largest quantities -- in terms of both radioactivity and
 volume -- are generated by the commercial nuclear power and military nuclear weapons production industries, and by nuclear
 fuel cycle activities to support these industries such as uranium mining and processing.
- Although all elements up to and including uranium are found in nature, no elements with atomic numbers great than uranium -- that is, no transuranic elements -- are naturally occurring. (1) Thus, transuranic elements are the artificial elements. All transuranic elements are unstable (and thus radioactive), many of them are alpha-emitters, and many (although not all) have very long half-lives.
- Since "low-level" radioactive waste is defined by what it is not, it thus includes everything from slightly radioactive trash
 (such as mops, gloves, and booties) to highly radioactive activated metals from inside nuclear reactors. It includes both
 short-lived and long-lived radionucldes.
- In both the commercial and military sectors, some of the radioactive wastes generated are mixed with hazardous substances, such as organic solvents or other toxic chemicals. Much of this waste (especially the transuranic waste) contains substantial quantities of long-lived radionuclides, such as plutonium-239 and technetium-99. The radioactive components of mixed

wastes are regulated under the Atomic Energy Act by the Nuclear Regulatory Commission for commercial sources, and by the Department of Energy for military sources. The hazardous components, however, are subject to regulation by the Environmental Protection Agency according to an environmental law known as the Resource Conservation and Recovery Act (RCRA).



- NARM wastes (Naturally-Occurring and Accelerator-Produced Radioactive Materials) are orphan wastes not consistently
 regulated under any current federal standard. NARM includes such materials as radium-226 and thorium-230 produced
 outside the nuclear fuel-cycle, and radionuclides produced by particle accelerators. NARM wastes are generated by both
 federal and non-federal facilities.
- One of the major problems associated with radioactive waste is the fact that much of it will be radioactive -- and thus will require isolation from the human environment -- for hundreds of thousands, if not millions, of years. Since this is a time period far longer than all of recorded history, the problem of waste disposal presents an enormous challenge.

For more information on radioactive waste, a critique of current policies, and suggestions for an alternative approach to radioactive waste management, see <u>High-Level Dollars Low-Level Sense</u> on IEER's publications page.

Return to On-Line Classroom Main Page Return to IEER Home Page



Institute for Energy and Environmental Research

Comments to Outreach Coordinator Takoma Park, Maryland, USA

Last Updated April 29, 1996

1.Although at least one instance is known in which a small quantity of plutonium (long since decayed away) and fission products must have been created naturally about 2 billion years ago in a "natural' reactor at an underground location in what is now Gabon, West Africa. This phenomenon was made possible by a high concentration of uranium and by the fact that the percentage of uranium-235 was much higher so long ago than the 0.7 percent found in today's uranium ores. (Eisenbud 1987, p. 171.)

Low-Level Radioactive Waste Management in North Carolina

SUBMITTED TO THE

North Carolina General Assembly

BY THE

North Carolina Radiation Protection Commission

April 2008

Executive Summary					
Cur	Current Status of LLRW Disposal Facilities				
Current Status of LLRW Management and Activities Undertaken by the NC Radiation Protection Section					
Lessons Learned from 1995-2000 LLRW Storage					
North Carolina and Southeast Compact Commission Issues					
	Appendices	.*			
A.	Strategic Assessment of LLRW Regulatory Program by the Nuclear Regulatory Commission (SECY-07-0180)	6			
В.	2006 LLRW Annual Survey Report	7			
C.	Session Law 1999-357 – An Act Withdrawing North Carolina from the Southeast Interstate LLRW Management Compact	8			
D.	List of Members on the North Carolina Radiation Protection Commission & the Low-Level Radioactive Waste Management Committee	9			

Executive Summary

Based on the scheduled closure of Barnwell to out of compact generators including North Carolina on June 30, 2008, it may be necessary for a small number of North Carolina LLRW generators to develop long term on-site storage contingency plans for dealing with their Class B & C LLRW after June 30, 2008. This also applies to licensees needing to dispose of sealed sources.

NC facilities were successful in on-site storage of Class B and C LLRW and sealed sources during a five year period (1995-2000) of not having Barnwell as a disposal option. However, this was prior to 9/11/2001. Therefore, with new security concerns, NC facilities must address heightened security measures regarding storage of these materials.

Current Status of LLRW Disposal Facilities

North Carolina LLRW generators currently have several options for the management of their LLRW. Processing facilities throughout the United States are currently accepting LLRW and using a variety of management techniques for processing. The two disposal facilities, Barnwell and Clive, are operated by EnergySolutions, LLC. North Carolina LLRW generators currently have access to these facilities for disposal of their LLRW.

Barnwell, South Carolina

The Barnwell Facility in South Carolina is currently available for disposal of commercially generated LLRW. At this time, the Barnwell site accepts Class A, B & C wastes and sealed sources for disposal. After June 30, 2008, the site will only accept waste from Atlantic Compact generators located in South Carolina, Connecticut and New Jersey. Under South Carolina law, the Barnwell facility has limited the total annual volume received at the site. The maximum LLRW disposal volume that Barnwell will be allowed to receive for fiscal year 2008 is 35,000 cubic feet. No LLRW from out-of-compact generators, including those in North Carolina will be received after June 30, 2008.

Clive, Utah

The facility in Clive, Utah is licensed to accept Class A waste and uranium mill tailings for disposal. This Clive site can also accept some mixed waste within limits determined by specific activity and isotope. The Clive site does not accept Class B or Class C wastes, nor do they currently accept sealed sources for disposal. However, this site has requested state approval to accept sealed sources for disposal that meet Class A criterion.

Current Status of LLRW Management and Activities Undertaken by the NCRPS

In preparation for the closure of the Barnwell facility, the Radioactive Materials Branch of RPS recently sent notification letters to all North Carolina radioactive material licensees alerting them of the scheduled closure of the Barnwell disposal facility. Also, an administrative license amendment was added to about 70 licensees that require them to submit an annual LLRW management report in March of each calendar year. These annual reports are combined into a final report for LLRW Management in North Carolina each calendar year to monitor any changes that have occurred and to assess the overall climate of generation, storage, management and disposal of LLRW in North Carolina. The NC Radioactive Materials Branch plays an active role through helping all NC LLRW generators with storage and management options, security issues and helping with the fostering of reduction of waste.

Currently, the RPS has 1,960 radioactive material licensees, which encompass a wide variety of different types of licenses. Although the total number of active North Carolina licensees generating LLRW is 67, each radioactive material licensee may at sometime have the need to dispose of their radioactive material as LLRW or transfer the material to a new licensed owner. Currently, there are 10 North Carolina facilities that are licensed by the Nuclear Regulatory Commission (NRC), a federal agency. Four of the LLRW generators in North Carolina disposed of Class B or C waste during 2006.

Based on the scheduled closure of Barnwell to out of compact generators including North Carolina in 2008, it may be necessary for North Carolina generators of Class B and C wastes to develop long term on-site storage contingency plans for dealing with that portion of their LLRW after June 30, 2008. Licensees needing to dispose of sealed sources may also need to utilize long term on-site storage after June 30, 2008.

Lessons Learned from 1995-2000 LLRW Storage

One lesson learned during the closure of Barnwell was that many different types of LLRW were being generated throughout North Carolina. Most generators were using brokers to package their waste for shipment to out-of-state processing and/or disposal. LLRW generators stated that their existing management/processing/disposal options were sufficient for all of their LLRW with the exception of two types of waste, Class B & C waste. These generators were storing their Class B & C waste on-site awaiting disposal. The only disposal facility available to North Carolina generators for Class A waste at the time was Envirocare of Utah.

If access to out-of-state processing and disposal facilities were restricted, most generators would not be able to store their waste for very long before having to add more storage capacity. Some generators stated they could only store waste for several months before having to add more storage; however, others stated they could store indefinitely. Generators were questioned about their actions after South Carolina denied North Carolina generators access to the Barnwell, SC disposal facility, effective July 1995. Their actions included one or more of the following: changing radioactive material processes, minimizing waste, increasing storage capacity for LLRW, looking for other disposal options, employing volume reduction processes, buying waste compactors for on-site use and storing waste until another disposal option became available.

In summary:

- ▶ Between 1995 and 2000 the projected availability of facilities for the management of Class A waste was adequate as long as the generators continued to have access to the existing out-of-state processing and disposal facilities.
- There were four generators of Class B and C waste. They were able to safely store their waste without impact to public health and safety, as long as they continued to have access to the existing out-of-state processing facilities. However, these generators eventually would need a disposal option for their Class B and C waste.
- > Approximately six radioactive material licensees who wanted to terminate their radioactive materials license were required to maintain their license for storage of their radioactive material or radioactive waste while waiting for a disposal option to become available.
- A majority of the generators stated that the compact system should be abandoned and the disposal market opened to the private industry.

North Carolina and Southeast Compact Commission Issues

The Southeast Compact Commission, along with 4 member states, Alabama, Florida, Tennessee, and Virginia was granted leave to file a bill of complaint against North Carolina by the United States Supreme Court on June 16, 2003. The Supreme Court appointed Professor Bradford R. Clark of the George Washington University School of Law as its Special Master to consider the matters set forth in the Complaint. The Special Master issued a Preliminary Report on June 19, 2006 which recommended granting North Carolina's motion to dismiss the request for summary enforcement of the \$90 million monetary sanction imposed by the Southeast Compact Commission but allowing the remaining claims to proceed.

Since that time the parties have engaged in extensive discovery and have filed and briefed a second round of cross-motions for summary judgment focused on the questions of whether North Carolina breached the Southeast Compact by not licensing and constructing a waste disposal facility prior to withdrawing, and whether the Southeast Compact Commission and/or the member states have any non-contractual [equitable] basis for recovery of the monies provided by the Southeast Compact Commission to North Carolina in furtherance of North Carolina's siting and licensing efforts. The Special Master conducted a hearing in Washington, D.C. on the Motions for Summary Judgment in January 2008. He has taken the case under advisement and expects to request further briefing by the attorneys on points of law and issues to be addressed before he makes his decision.

Appendix A

Strategic Assessment of LLRW Regulatory Program by the Nuclear Regulatory Commission (SECY-07-0180)

November 2, 2007

The Nuclear Regulatory Commission has published the staff's strategic assessment of the agency's low-level radioactive waste (LLW) regulatory program, proposing several initiatives to meet impending challenges such as decreased disposal capacity and increased production of LLW as new reactors and other nuclear facilities come online.

Those challenges include the anticipated closure to most of the nation in 2008 of the Barnwell, S.C., LLW disposal facility. Barnwell is currently the nation's only commercial disposal option for certain wastes, and its closure could force licensees to store waste on-site until other disposal options become available. In addition, operation of new uranium enrichment facilities, potential nuclear fuel reprocessing facilities and commercial nuclear power plants will create additional demand for LLW disposal capacity.

The strategic assessment concludes that current NRC regulations on disposal of low-level radioactive waste fully protect the health and safety of workers and the public. However, the assessment identifies several measures that could improve the effectiveness of low-level waste management and regulation as disposal needs and circumstances change.

The strategic assessment identifies seven "high-priority" tasks the NRC intends to carry out to strengthen the agency's ability to ensure safe and secure LLW disposal, improve the effectiveness of its regulations, and assure regulatory stability and predictability while allowing flexibility in disposal options. These tasks include updating guidance for extended storage of LLW; developing new guidance for alternative disposal of low-activity waste; and developing guidance for classifying LLW according to the risk it poses to public health and safety.

The strategic assessment was developed with input from the NRC's Advisory Committee on Nuclear Waste and Materials as well as external stakeholders such as industry, state agencies, and public interest groups. It is currently before the Nuclear Regulatory Commission as an information paper (SECY-07-0180) and will be available on the NRC's Web site at this address: http://www.nrc.gov/reading-rm/doc-collections/commission/secys/2007/.

Appendix B

North Carolina Low-Level Radioactive Waste Management Report Calendar Year 2006

On June 30, 2008, the Barnwell, SC disposal facility will close its doors to North Carolina low-level radioactive waste (LLRW) generators. This closure will prompt on-site storage for Class B & C LLRW and the vast majority of unwanted radioactive material in the form of sealed sources. These specific wastes pose the greatest health risk due to higher radioactivity content and cause the greatest economic impact the longer disposal is not an option. In recognizing the importance of this closure, the Radiation Protection Section mandated that all North Carolina LLRW generators complete and submit an annual LLRW survey in order to evaluate this everchanging landscape.

This 2006 report is based on survey responses from 67 North Carolina LLRW generators. Four of the LLRW generators in North Carolina disposed of Class B or C waste during 2006. It is difficult to draw conclusions, due to differing facility activities driving waste generation and disposal from year to year. The only definitive and intuitive conclusion based on the numbers is that Class B and C waste along with unwanted sealed sources will increase in accumulation in NC due to no disposal options.

The tables below offer a glimpse into North Carolina LLRW disposal history. Fortunately, NC has experience in a previous Barnwell closing from 1995-2000. The 1999 table demonstrates the effect of that closing which forced several facilities to develop on-site storage for Class B & C waste and sealed sources. The 2006 table demonstrates the effect of utilizing Barnwell as an option for disposal with very little waste being stored on-site at facilities.

Calendar Year 1995

Barnwell an Option

Total Disposal A,B,C waste 25,244 ft³ with 3,311 Curies

Barnwell received >99%. Envirocare was beginning to accept Class A waste.

Class B & C Disposal 569 ft³ with 3,210 Curies

Class B & C in Storage 152 ft³ with 42 Curies Calendar Year 1999
Barnwell Not an Option

Total Disposal A waste 30,174 ft³ with 112 Curies

Barnwell received 0%.

Envirocare received >99%.

Class B & C Disposal

Class B & C in Storage 1,257 ft³ with 1,311 Curies Calendar Year 2006

Barnwell an Option

Total Disposal A,B,C waste 220,945 ft³ with 97,045 Curies

Barnwell received <1 % of ft³ and >99% of Curies.
Envirocare received >99% ft³

Class B & C Disposal 1,500 ft³ with 96,500 Curies

Class B & C in Storage 58 ft³ with 2 Curies

FACTS:

- ✓ On June 30, 2008, there will be no option for NC LLRW generators to dispose of Class B and C LLRW and most sealed sources.
- ✓ NC generators of Class B & C LLRW may need to create on-site long term storage options for these
 wastes.
- ✓ NC facilities engaged in long-term storage of Class B & C LLRW must address heightened security.
- ✓ The potential re-emergence of nuclear power in NC could generate an increased volume of LLRW including Class B & C LLRW.
- ✓ NC facilities were successful in on-site storage of Class B and C LLRW and sealed sources during a 5 year period of not having Barnwell as a disposal option. However, this was prior to 9/11/2001 and new security concerns.

Appendix C

1999 Session S.L. 1999-357

GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 1999

SESSION LAW 1999-357 SENATE BILL 247

AN ACT TO WITHDRAW NORTH CAROLINA FROM THE SOUTHEAST INTERSTATE LOW-LEVEL RADIOACTIVE WASTE MANAGEMENT COMPACT, TO LIMIT THE AUTHORITY OF THE LOW-LEVEL RADIOACTIVE WASTE MANAGEMENT AUTHORITY AND TO DIRECT THE RADIATION PROTECTION COMMISSION TO STUDY AND FORMULATE A PLAN FOR LOW-LEVEL RADIOACTIVE WASTE MANAGEMENT.

The General Assembly of North Carolina enacts:

Section 1. In accordance with the provisions of G.S. 104F-1, Article VII, Section (g) of the General Statutes, North Carolina hereby withdraws from membership as a party state in the Southeast Interstate Low-Level Radioactive Waste Management Compact.

Section 2. Chapter 104F of the General Statutes is repealed.

Section 3. Notwithstanding any provision of Chapter 104G of the General Statutes to the contrary, the sole function of the North Carolina Low-Level Radioactive Waste Management Authority shall be to take all necessary actions to complete the process of closure and restoration of the proposed Wake County low-level radioactive waste site, and to finalize all other responsibilities and business of the Authority relating to closure and restoration on or before June 30, 2000.

Section 4. Chapter 104G of the General Statutes is repealed effective July 1, 2000.

Section 5. The North Carolina Radiation Protection Commission is directed to review and study the current and projected availability and adequacy of facilities for the management of low-level radioactive waste produced by North Carolina generators, and to formulate a recommended plan for complying with North Carolina's responsibilities under the Low-Level Radioactive Waste Policy Act of 1980, Pub. L. No. 96-573, 94 Stat. 3347, and the Low-Level Radioactive Waste Policy Amendments Act of 1985, Pub. L. 99-240, 99 Stat. 1842, 42 U.S.C. 202 lb, et seq. The Commission shall report its findings and recommendations to the General Assembly on or before May 15, 2000. No license application for a low-level radioactive waste facility shall be issued or considered by the Department of Environment and Natural Resources prior to action by the General Assembly establishing a plan for future management of low-level radioactive waste.

Section 6. Sections 1, 2, 3, 5, and 6 of this act are effective when they become law. Section 4 of this act becomes effective July 1, 2000.

In the General Assembly read three times and ratified this the 20th day of July, 1999.

s/ Marc Basnight
President Pro Tempore of the Senate

s/ James B. Black Speaker of the House of Representatives

s/ James B. Hunt, Jr. Governor

Approved 10:15 a.m. this 26th day of July, 1999

Appendix D

North Carolina Radiation Protection Commission

Commission Members

Wayne R. Thomann, Dr.P.H., Chairman

Robert K. Andrews, Jr. Bernadine S. Ballance Charles Barry Burns, MSPH

Rhonda S. Cohen, D.P.M.

Holly J. Burge, M.D. Marion E. Deerhake

Eugene A. Lewis, D.C., M.P.H. David J. DeMaster, Ph.D.

Roy Ericson

Anthony B. Bonapart Robert J. Fitzgerald Beverly O. Hall

Larry E. Haynes, CHP

Doug Hoell Chris G. Hoke

John B. Ludlow, D.D.S. Allen M. Mabry, CHP

Carmine M. Plott, Ph.D., CHP Daniel D. Sprau, Dr.P.H.

Suzanne Taylor

Commission Counsel

Francis W. Crawley

Commission Position

Hospital Administrator Board of Transportation Industrial Commission Radiologic Technologist

Podiatrist

Physician, North Carolina Medical Society Environmental Management Commission North Carolina Chiropractic Association Faculty, Institution of Higher Learning

Utilities Commission
Department of Labor
Medical Care Commission
Radiation Protection Section
Nuclear Electric Utility

Division of Emergency Management Commission for Health Services Dentist, North Carolina Dental Society

Atomic Energy, Other Than Power Generation

Expert from the State-At-Large Environmental Protection Department of Insurance

Special Deputy Attorney General

Low-Level Radioactive Waste Management Committee

Allen M. Mabry, CHP, Chairman

Representing Atomic Energy, Other than Power Generation

Marion E. Deerhake

Representing the Environmental Management Commission

David J. DeMaster, Ph.D.

Representing Faculty of Institution of Higher Learning

Beverly O. Hall

Section Chief of Radiation Protection Section

Larry E. Haynes, CHP

Representing Nuclear Electric Utility

Suzanne Taylor

Representing the Department of Insurance

Alan Call, Committee Resource

United States Environmental Protection Agency

Ken Ritchie, Committee Resource

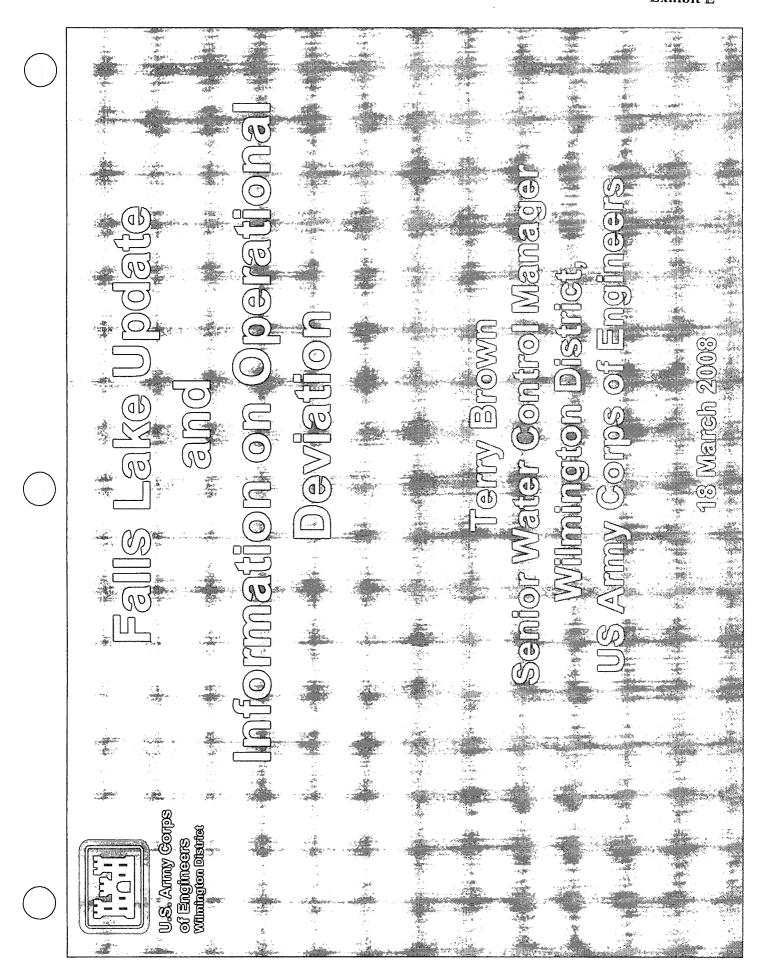
Research Triangle Institute

Francis W. Crawley

Counsel to Committee

Wendy B. Tingle

Staff to Committee, Radioactive Waste Coordinator





Neuse River Basin

Profile of Falls Lake

Falls Lake Project Profile

Elevation at Top of Dam is 291.5 Feet, msl

Feet, ms[264.8 Grest at Spillway

Controlled Flood Storage Televation 251.5 to 264.8 Feet, msl 82 yere-feet or 5.4 Inches of Runoff Storage

Vorinal Operating Level of 251.5 Feet

Conservation Storage

Water Supply Storage

45,000 Acre-Feet or % of Conservation Pool

Water Quality Storage

61,322 Acre-Feet or 57.7 % of Conservation Pool

Bottom of Conservalion Pool is 236.5 Feel, msl

feet, maior 25

Fæet, 900 <u>8</u> **Dam** Ç7 825 Elevation at

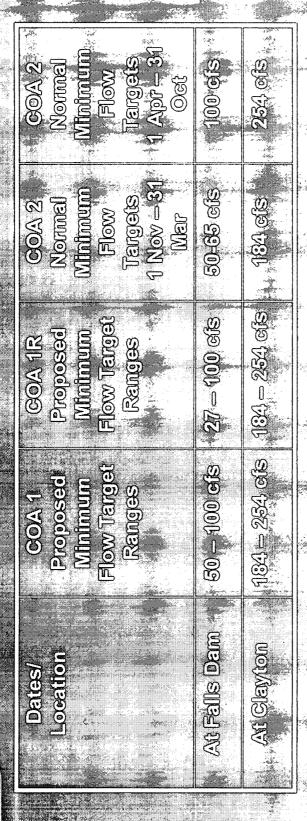
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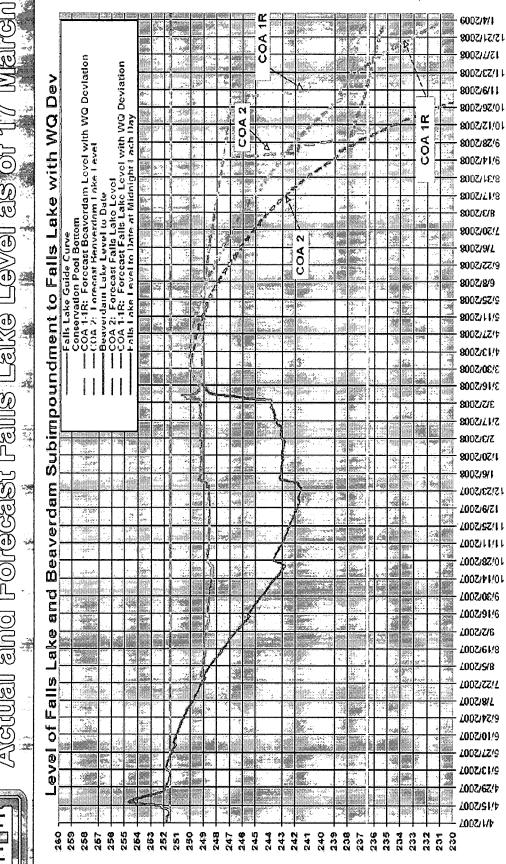
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Falls Lake Deviation Request



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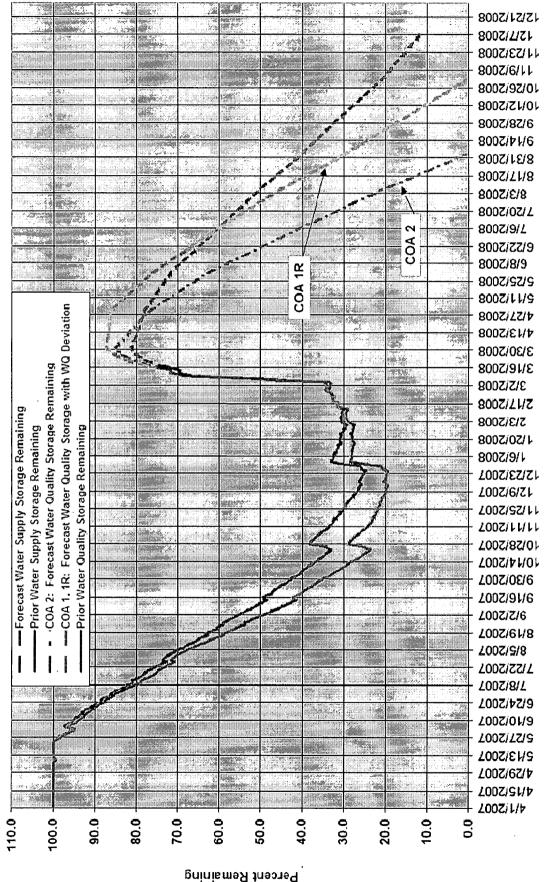
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Falls Lake Level.



WS and WQ Storage Accounts As of Neuse River Basi

Falls Lake Water Supply and Water Quality Storages Remaining with Deviation





Intake Condittions Downstream of Falls Dan 17 March 2008 Reports on Water Supply

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Johnston County has expertenced no issues on miner dep versus intelke sorten level or water quellty for drinking velter treatment

Im Brooms— Willithes Director-Johnston County

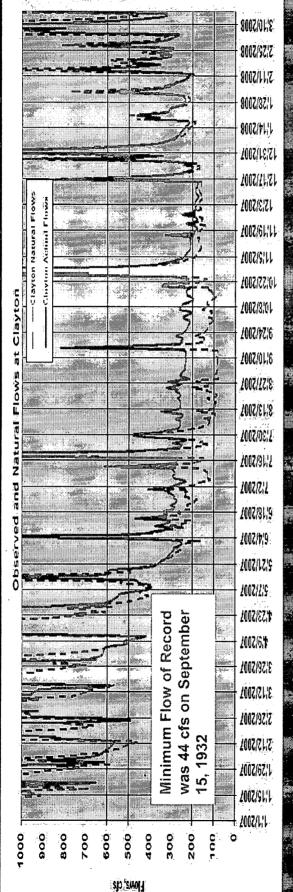
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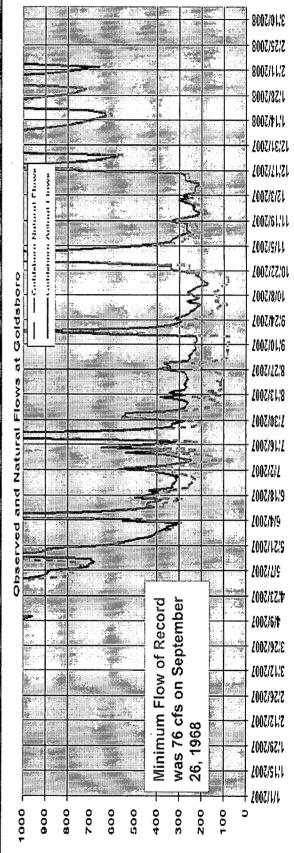
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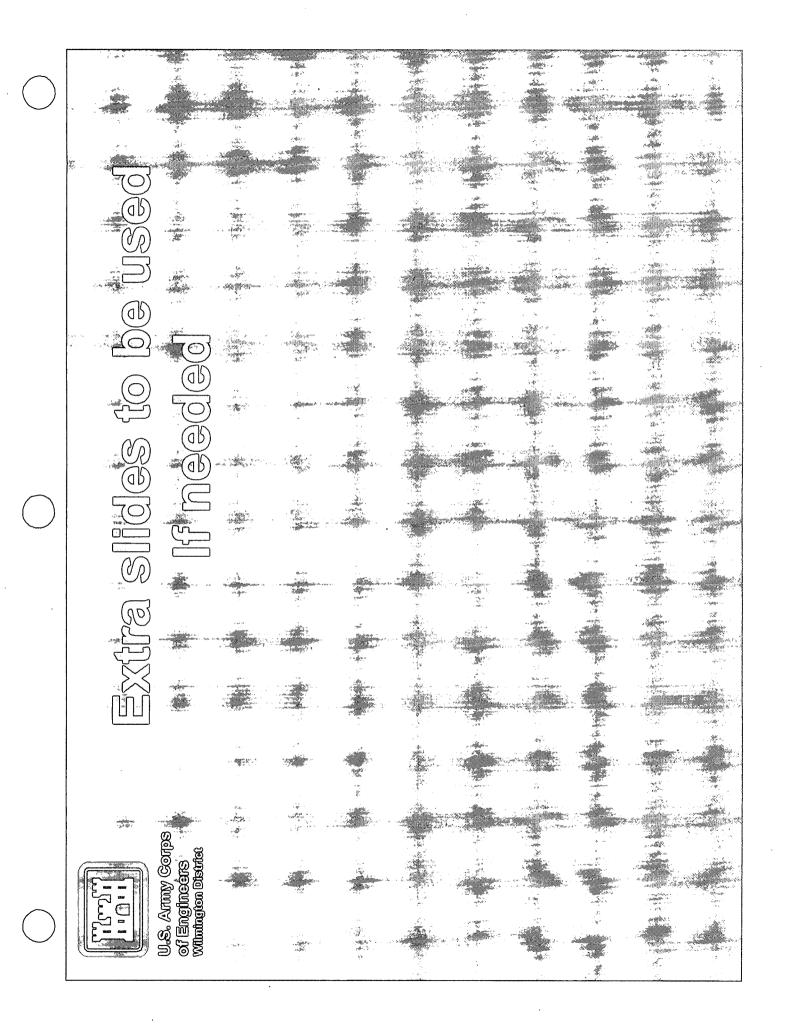


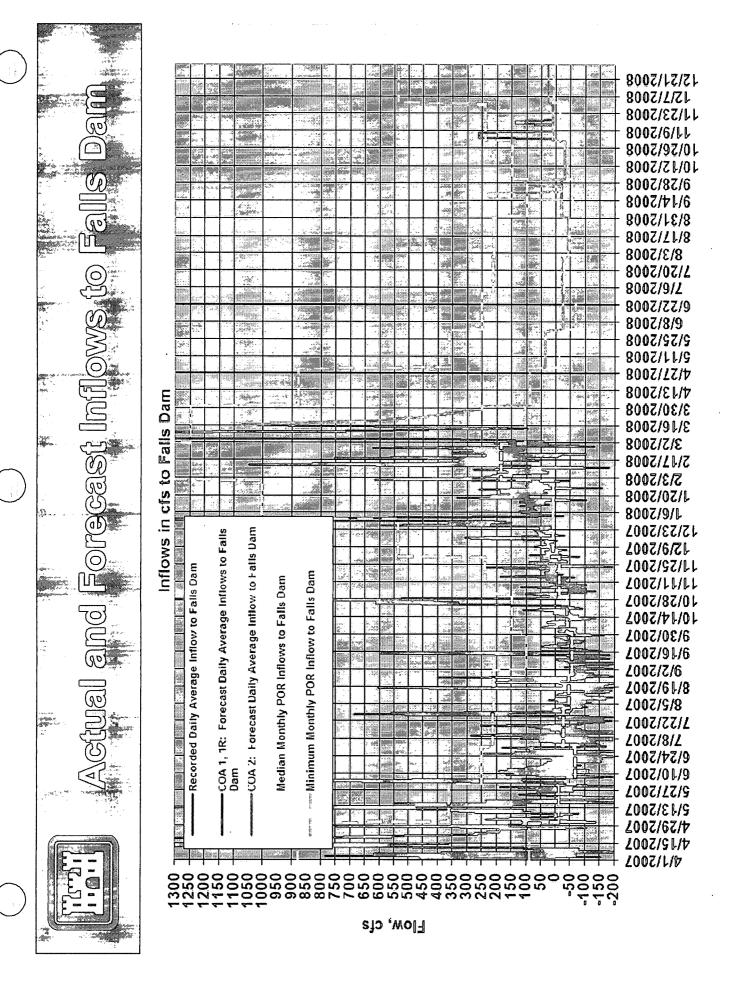
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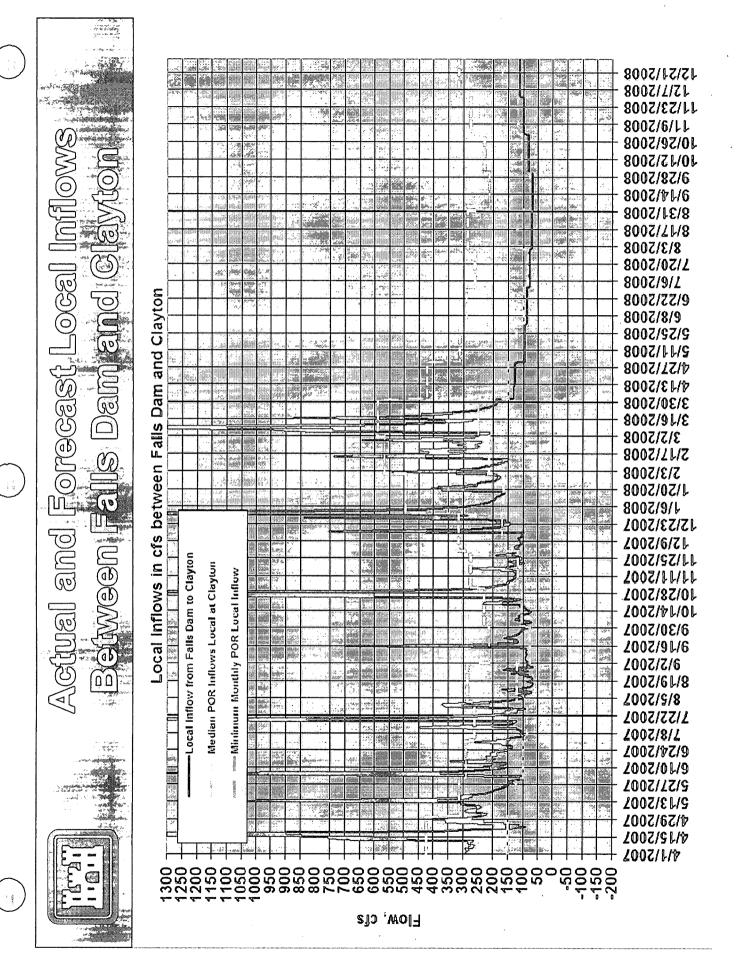




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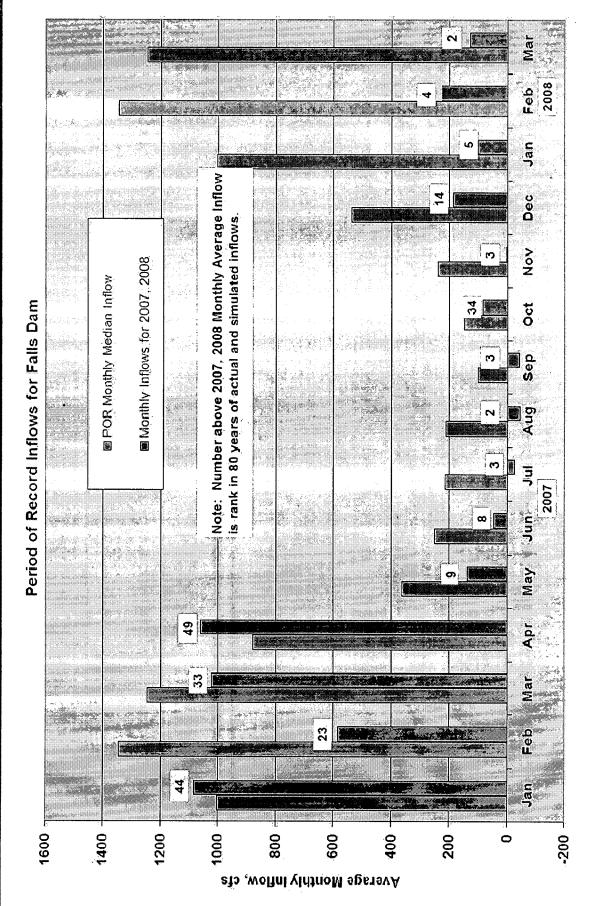




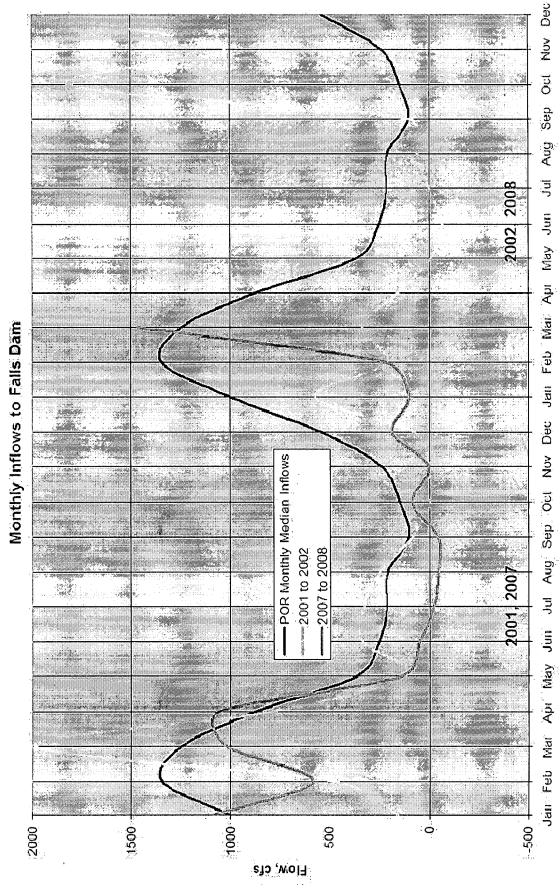


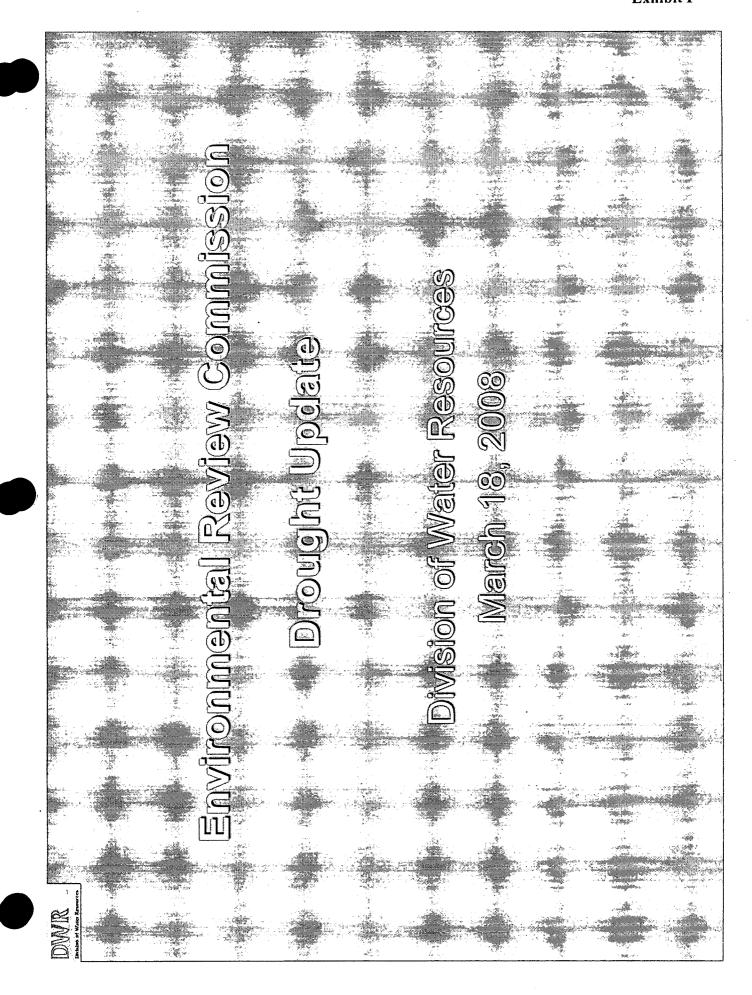


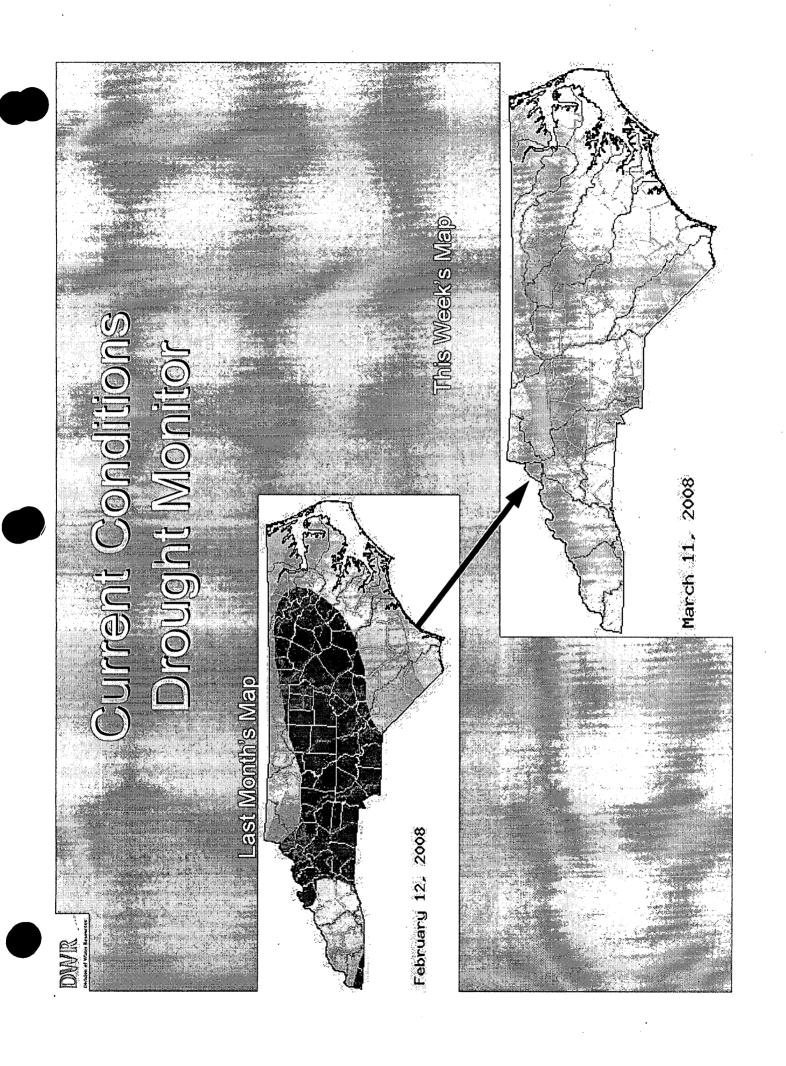
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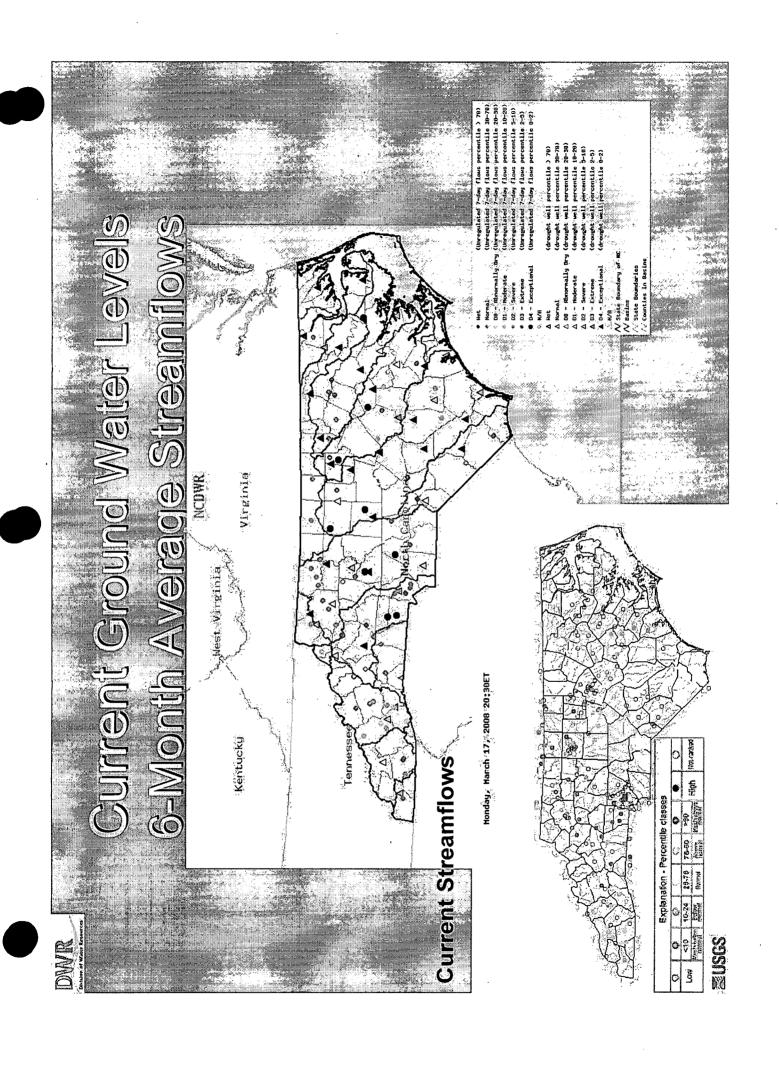
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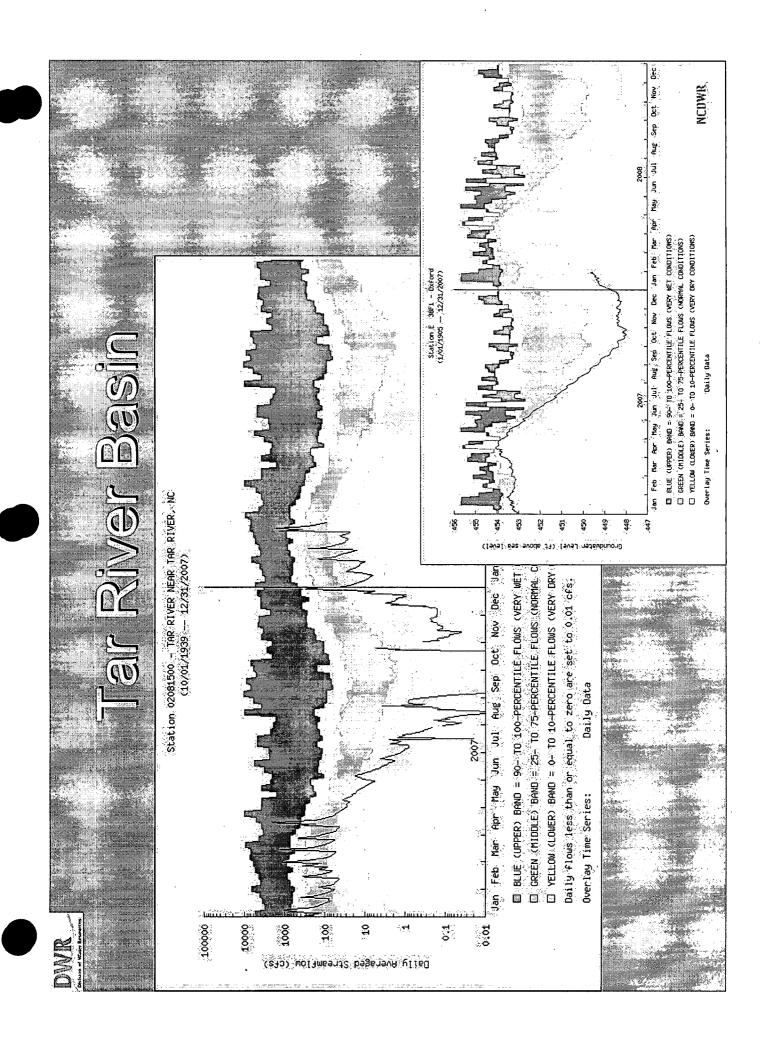


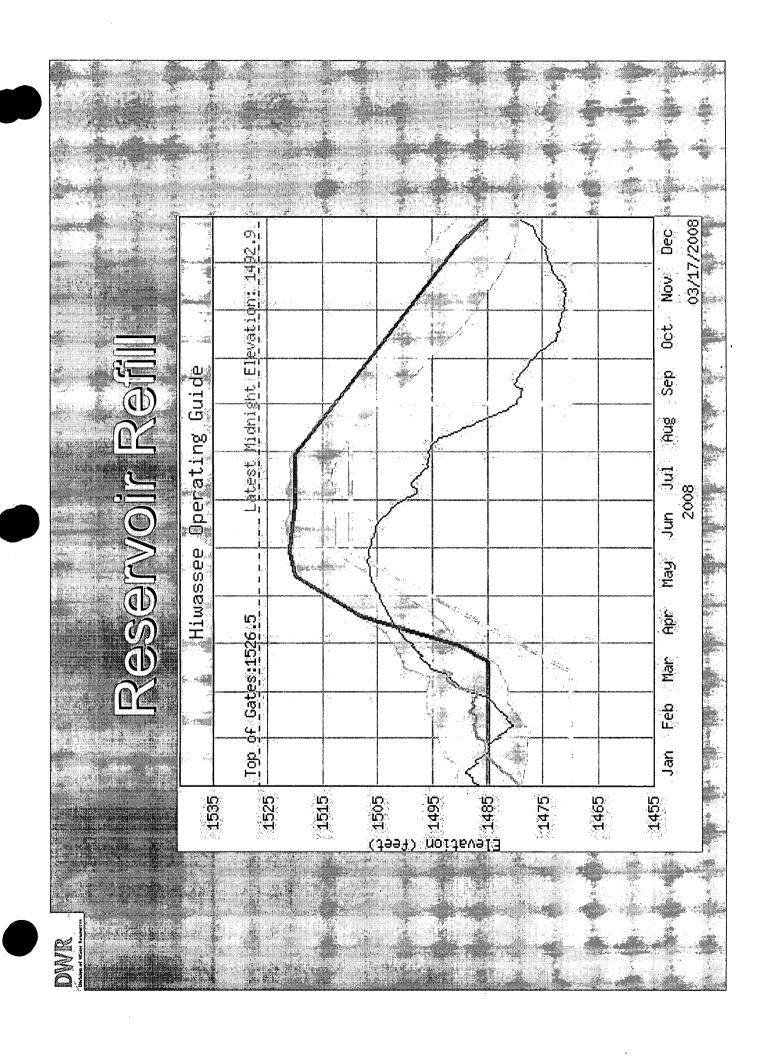




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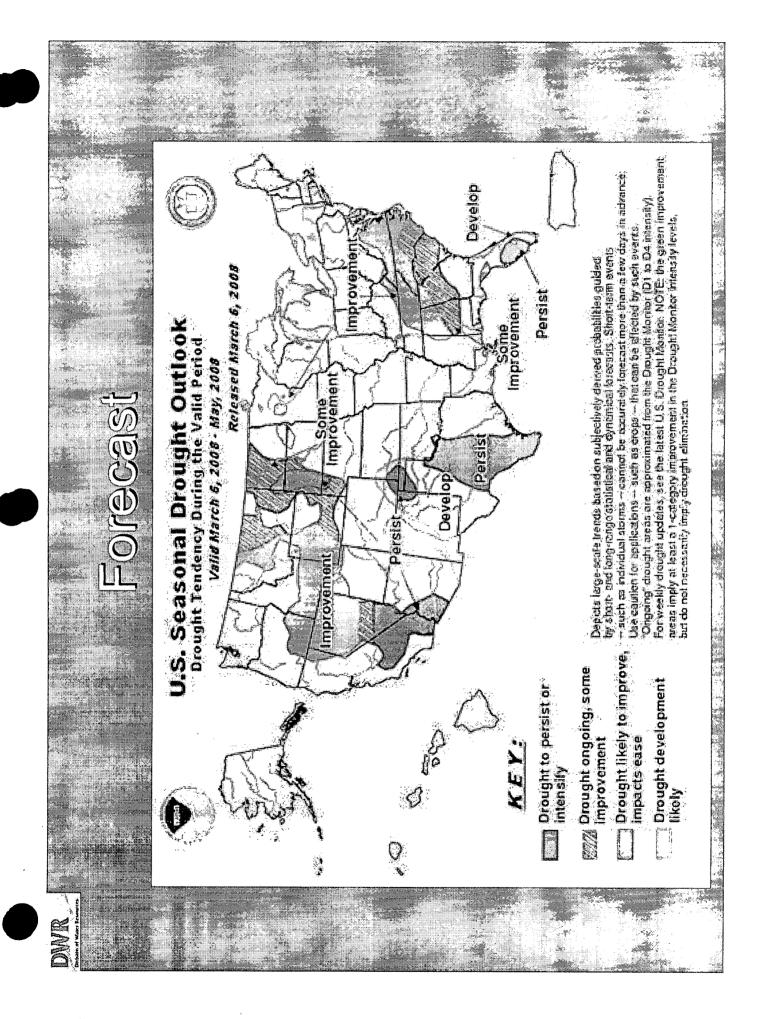


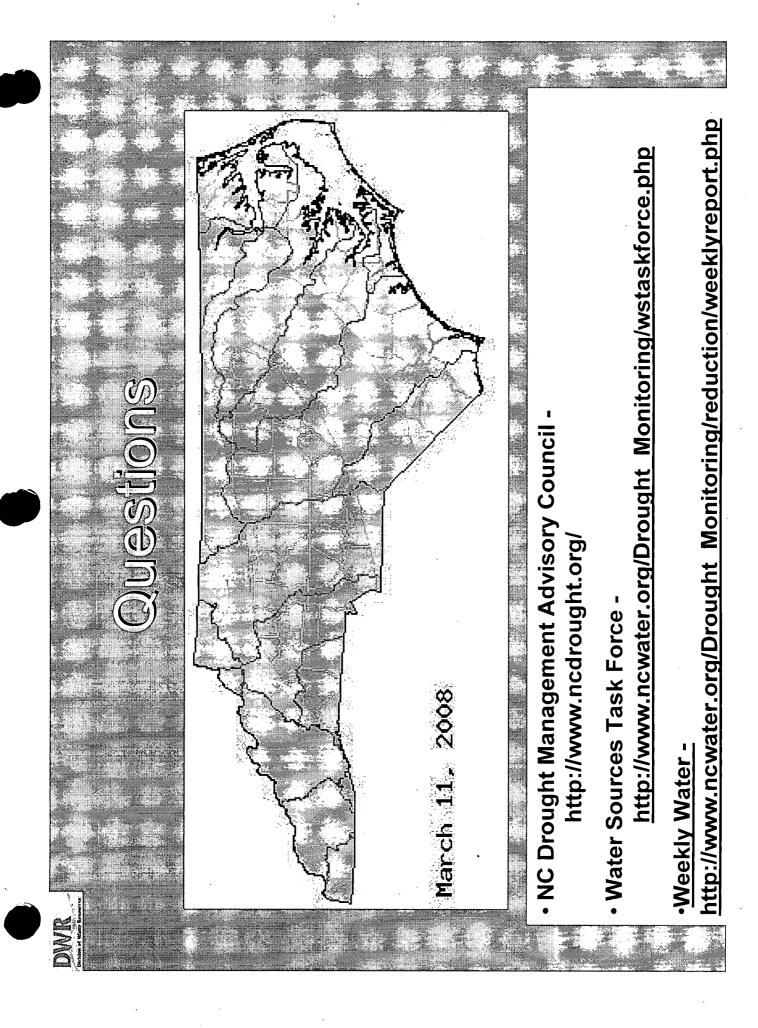
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Drought Response

- Commission approved drought response in September 2007, special allocation for:
 - Cover crops if harvesting crop residue
 - Temporary practice for pasture renovation
- Additional \$250,000 infusion from Council of
- Drought survey indicates additional \$8 million needed for pasture renovation, alternative water supplies (wells), and pond renovation



Community Conservation Assistance Program - CCAP

- SWCDs address natural resource conservation needs on residential and community sites
 - Erosion Control
 - Stormwater/Flooding/Drainage
 - Water Conservation
- Initial appropriation of \$200,000 received in
- Also funding from CWMTF and 319 grants
- 54 districts receiving some funding
- SWCC rules approved in December

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Innovative Poultry Waste Funds

- - \$200,000 appropriated in 2006-07 for innovative poultry mortality management (gasification systems)
 - 14 applications totaling \$407,000
 - Commission allocated funds to 7 districts (Chatham, Edgecombe, Harnett, Martin, Onslow, Pender, Wilkes)
 - Leveraged \$216,000 USDA grant to demonstrate innovative mortality management for cattle/swine.

Leveraging Other Funds



- ACSP part of match for Conservation Reserve Enhancement Program (\$221 million from USDA)
- 3 US EPA Section 319 grants totaling \$1,419,180 in Neuse and Tar-Pamlico basins.
- \$142,000 grant from CWMTF for French Broad River Basin
- Proposed grants for High Rock Lake watershed and Dan River watershed
- Cost-shared district employees enable delivery of over \$13 million of USDA funds

Water Conservation

- ACSP statutory authority only for water quality, BUT
- Many ACSP practices increase water availability in soil and groundwater
 - No-till/Conservation tillage/Cover crops
 - Agricultural Pond Restoration
 - Cropland Conversion to Trees/Grass
 - Conservation irrigation (evaluation)



Compliance with Maintenance Requirements

- Districts spot-checked 9.2% (1,186) of active contracts
- Results
 - 91.2% fully compliant
 - 5.8% need some repair
 - 3% non-compliant
 - Districts work with cooperator to restore BMPs
 - 2. Seek prorated repayment



- Increased cost of fuel, labor, and materials is diminishing the number of cooperators that can be assisted.
 - Fencing, gravel, concrete, pipe, lumber, heavy machinery, etc.
- FY 2003-04 assisted 2,053 cooperators vs. 1,297 in 2006-07
- Currently reviewing average costs with further increases likely for 2008-09



New for 2007-08

- New practices added
 - Agricultural pond restoration Manure composting
 - facility Portable agrichemical
 - mixing station
 - Streambank and shoreline protection
 - Controlled drainage for tile drains
- Evaluation practices
 - Precision nutrient management

 - Conservation Irrigation
- Programmatic Review
 - Technical evaluation
 - Feedback from cooperating farmers
 - Feedback from districts



2007 ACSP Measures of Success Summary

	2007	
Number of Contracts	1,297	
Acres Affected	67,579 acres	
Soil Saved	165,358 tons	-
Nitrogen Saved	696,669 lbs.	
Phosphorus Saved	117,203 lbs.	_

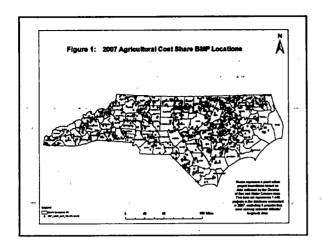


Targeting

- Approximately 10% of funds spent in 303(d) listed (impaired) watersheds
- 25% of funds used in Neuse and Tar-Pamlico Basins to help achieve and maintain 30% nutrient reduction
- PY-2007 SWCC earmarks
 - \$143,420 for addressing waters impaired due to agricultural sources
 - \$ 171,856 for installing buffers under CREP

Cumulative Benefits (1984-present)

- 6.9 million tons of soil saved
- 16,864,410 pounds of nitrogen reduced
- 5,191,469 pounds of phosphorus reduced
- 48,232 contracts implemented
- 615,000 acres of no-till/conservation tillage
- 3,901 water control structures affecting 300,000 acres
- 2,141 waste management structures
- 980 miles of livestock exclusion fencing
- 460 miles of forested riparian buffer



Frequently Used Practices - 2007



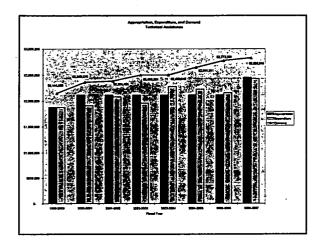
- Cropland Conversion to Grass
- Poultry Litter Storage Structures
- Livestock Mortality Management
- Livestock Exclusion/ Alternative Watering
- Conservation Tillage/ Long-Term No-Till
- Grassed Waterway
- Field Border
- Riparian Buffer
- Water Control Structure
- Lagoon Closure

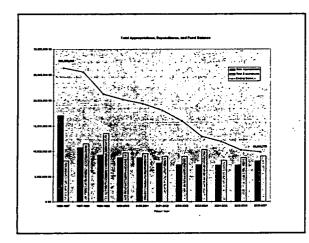
ACSP Funds by BMP Type 2007 VS 1999 Bedinent/Nutrient Buream Protection Waste Mgrrd. Bagri-Chemical



Technical Assistance

- \$2,208,708 appropriated + \$240,000 diverted from BMP funds
- 117 technical positions cost shared up to 50% in 94 districts (presently at 45% on average)
- No regular increases in appropriation to match local cost of living increases
- Commission allocation for 2 local positions will likely be eliminated in FY-2009 without added funds







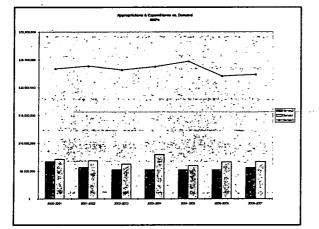
Program Implementation

- Soil and Water Conservation Commission:
 - Establishes program rules
 - . Sets eligible practices and predetermined costs
 - Allocates BMP and TA funds to conservation districts in accordance with its rules
- Local Soil and Water Conservation Districts
 - Establish local priorities
 - Solicit and rank applications for contracts
 - Develop conservation plans with farmers
 - Assist and certify BMP implementation
 - Conduct maintenance spot checks and respond



2007 Appropriation

- \$8,093,675 total
- \$5,644,897 appropriated for BMPs
 - Less \$240,000 transferred for TA.
 - \$22,332,502 requested by districts
- \$2,208,778 appropriated for TA
 - Plus \$240,000 transferred from BMPs





State of North Carolina Office of the Governor

For Release:

IMMEDIATE

Date:

March 11, 2008

Contact:

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GOV. EASLEY ANNOUNCES LEGISLATIVE PLAN TO MODERNIZE WATER SYSTEMS, MANDATE CONSERVATION AND UPGRADE EMERGENCY RESPONSE

Unveils SaveWaterNC.org Website to Raise Public Awareness on Drought

RALEIGH – Gov. Mike Easley today announced a three-part legislative package to modernize North Carolina's public water systems, mandate water conservation and efficiency, and upgrade the response to water emergencies. The governor also unveiled a new website, *SaveWaterNC.org*, aimed at continued water conservation.

"This legislation will help North Carolina's public water systems improve their services to customers and be better prepared to deal with future droughts, but we also need to change our attitude about using water in North Carolina," said Easley. "We can not let up on our conservation efforts and that is why today I am announcing a public awareness effort to encourage citizens to save as much water as possible now, make water conservation a way of life in North Carolina and make our state drought proof."

The governor was joined today by Sec. Bill Ross of the Dept. of Environment & Natural Resources and Secretary Bryan Beatty of the Dept. of Crime Control & Public Safety.

Legislative proposals to modernize the state's more than 600 public water systems include:

- Local water systems must develop thorough water shortage plans, conduct regular leak detection
 and repair audits, and move toward conservation based pricing in order to be eligible for state funds
 for water system improvement projects.
- Priority for state funding will go to projects that improve a community's ability to manage water supplies during a drought, such as interconnections for drought-prone communities; leak detection projects; upgrades to meters and metering systems to help homeowners and agencies more closely and accurately monitor water consumption; and water re-use facilities that use treated wastewater for landscape irrigation, industrial uses and for other appropriate purposes.
- DENR will get staff and funding to develop a detailed and up-to-date map that shows all water system interconnections, alternative water supplies, groundwater status and other information.
- New outdoor water uses, such as in-ground irrigation, will be required to have meters separate from meters that monitor indoor water use.
- Enhanced enforcement to be sure that business that use more than 100,000 gallons a day register with DENR as required, including penalties for willful non-compliance.
- Identification of all other large water users.
- Requiring monthly water use reports under the federal Safe Drinking Water Act to be submitted
 electronically instead of on paper and allowing the DENR Secretary to require additional reporting
 as necessary during periods of drought.

The governor's legislative package would also make changes that mandate water conservation and efficiency, to include:

- Prohibiting rate structures that cut the rates for users when they use more water.
- Directing DENR to develop guidelines for water rate structures that encourage people to use less water.
- Revising the building code to require water efficient fixtures in new commercial and residential construction
- Adopting water efficiency standards for new in-ground irrigation systems.
- Changing the rules so that household water, or "gray water," from sinks, bathtubs and showers can be used to hand-water trees, shrubs, and plants in a homeowner's yard.

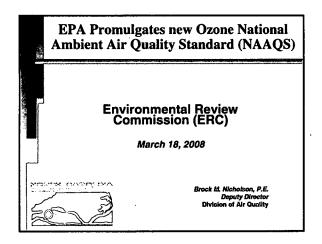
Finally, the legislation would improve the state's ability to respond to water emergencies, including giving the governor more power to take action prior to a declaration of a public health and safety emergency. Proposals include:

- Giving North Carolina governors the legal authority to order a water system to provide water to a neighboring community in an emergency.
- Requiring communities in extreme and exceptional drought to adhere to minimum water conservation standards developed by the DENR.
- Giving local water agencies in extreme and exceptional drought the authority to impose mandatory water conservation measures to all water users within their jurisdiction, including customers of privately owned water utilities regulated by the state Utilities Commission.
- Enacting a sales tax holiday for the purchase of water saving devices.
- Examining the possibility of incentives to promote efficient water use, which is usually done by local governments.
- Staffing and funding to create an Office of Water Conservation and Efficiency in DENR to more effectively oversee all our water policy, planning and conservation efforts.

The governor also announced a new website aimed at convincing the public to continue saving water to avoid a crisis in the current drought and to instill the need for continued water conservation even when the drought is over.

"We have had some good rains recently, more than we have had in a long time. But when that happens, people tend to forget about the drought," said Easley. "April is the month when water systems statewide begin seeing increased water use due to the growing season and rising temperatures that cause more evaporation, so we need to continue saving water every way we can."

The website, SaveWaterNC.org, was developed by the departments of Crime Control & Public Safety and Environment & Natural Resources. The website includes: conservation tips for specific audiences including businesses, homes and schools; examples of successful water saving efforts; links to water conservation information for the state's largest cities; a kid's page; educational links and materials; and interactive tools such as water conservation calculators so people can enter their personal water use and see how much they are saving. The site also gives residents the opportunity to participate in the water saving effort by sending in photos and success stories about water conservation going on in their hometowns.

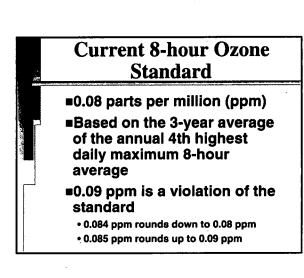


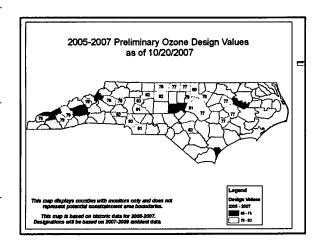
What is Ozone? ■Two types of ozone • Stratospheric ozone – Blocks UV radiation • Tropospheric ozone or low level ozone – causes lung irritation at higher concentrations ■ It is formed in the presence of "precursor pollutants" and sunlight • Highest in the summer • For NC – NOx is Primary Precursor • Combustion sources - e.g., power plants and motor vehicles are primary man-made source of precursors ■ EPA establishes national standards

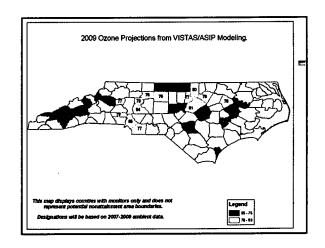
How Ozone Affects You... Acute respiratory problems Aggravates asthma Temporary decrease in lung capacity of 15% to over 20% in some healthy adults Inflammation of lung tissue Increased hospital admissions and emergency room visits Impairs immune system, making people more susceptible to respiratory illness, including bronchitis and pneumonia

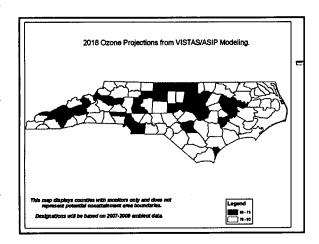
Effects of Repeated Ozone Exposures Cycles of injury and healing may lead to permanent structural changes - "airway remodeling" Children may experience slower lung growth Permanent changes may reduce the quality of life

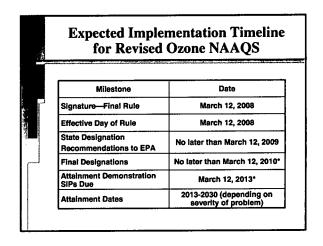
■ Children and adults who are active outdoors • People who are active outdoors are more likely to be exposed – Evan healthy persons • Children's lungs are growing, children breath more air per pound of body weight, and they are less likely to notice symptoms ■ People who are unusually sensitive to ozone and those with respiratory disease, such as asthma or bronchitis

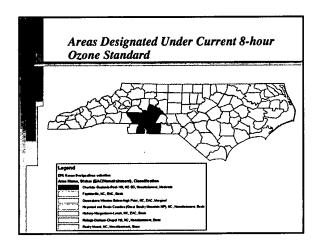


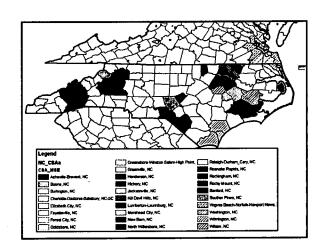


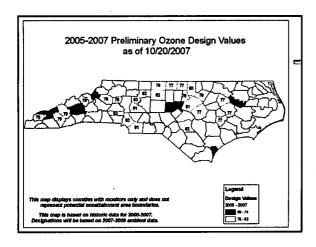


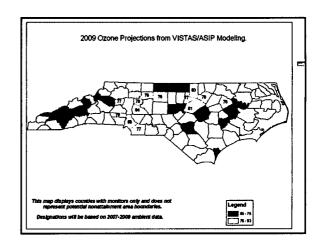


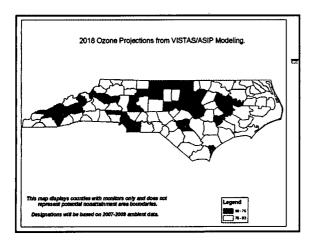


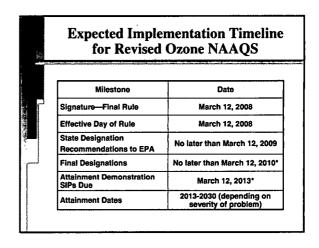


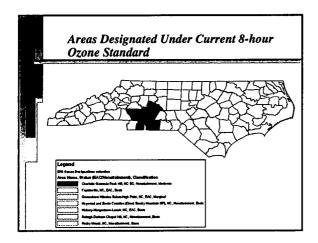


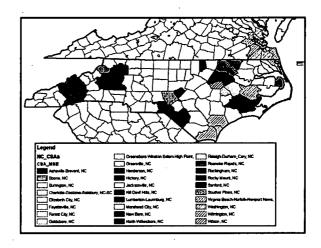












EPA Promulgates new Ozone National Ambient Air Quality Standard (NAAQS) Environmental Review Commission (ERC) March 18, 2008 Brock M. Nicholson, P.E. Deputy Director Division of Air Quality

What is Ozone? ■Two types of ozone • Stratospheric ozone – Blocks UV radiation • Tropospheric ozone or low level ozone – causes lung irritation at higher concentrations ■It is formed in the presence of "precursor pollutants" and sunlight • Highest in the summer • For NC – NOx is Primary Precursor • Combustion sources - e.g., power plants and motor vehicles are primary man-made source of precursors

■EPA establishes national standards

How Ozone Affects You... Acute respiratory problems Aggravates asthma Temporary decrease in lung capacity of 15% to over 20% in some healthy adults

 Increased hospital admissions and emergency room visits
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■ Inflammation of lung tissue

 Impairs immune system, making people more susceptible to respiratory illness, including bronchitis and pneumonia

Effects of Repeated Ozone Exposures Cycles of injury and healing may lead to permanent structural changes - "airway remodeling" Children may experience slower lung

■Permanent changes may reduce the

quality of life

Who is at Greatest Risk? ■Children and adults who are active outdoors • People who are active outdoors are more likely to be exposed – Evan healthy persons • Children's lungs are growing, children breath more air per pound of body weight, and they are less likely to notice symptoms ■People who are unusually sensitive to ozone and those with respiratory disease, such as

asthma or bronchitis

Current 8-hour Ozone Standard ■0.08 parts per million (ppm) ■Based on the 3-year average of the annual 4th highest daily maximum 8-hour average ■0.09 ppm is a violation of the standard •0.084 ppm rounds down to 0.08 ppm •0.085 ppm rounds up to 0.09 ppm

Exhibit I

GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2007

SESSION LAW 2007-397 SENATE BILL 3

AN ACT TO: (1) PROMOTE THE DEVELOPMENT OF RENEWABLE ENERGY AND ENERGY EFFICIENCY IN THE STATE THROUGH IMPLEMENTATION OF A RENEWABLE ENERGY AND ENERGY EFFICIENCY PORTFOLIO STANDARD (REPS), (2) ALLOW RECOVERY OF CERTAIN NONFUEL UTILITY COSTS THROUGH THE FUEL CHARGE ADJUSTMENT PROCEDURE, (3) PROVIDE FOR ONGOING REVIEW OF CONSTRUCTION COSTS AND FOR RECOVERY OF COSTS IN RATES IN A GENERAL RATE CASE, (4) ADJUST THE PUBLIC UTILITY AND ELECTRIC MEMBERSHIP CORPORATION REGULATORY FEES, (5) PROVIDE FOR THE PHASEOUT OF THE TAX ON THE SALE OF ENERGY TO NORTH CAROLINA FARMERS AND MANUFACTURERS, AND (6) ALLOW A TAX CREDIT TO CONTRIBUTORS TO 501(C)(3) ORGANIZATIONS FOR RENEWABLE ENERGY PROPERTY.

The General Assembly of North Carolina enacts:

SECTION 1. G.S. 62-2(a) reads as rewritten:

"§ 62-2. Declaration of policy.

- (a) Upon investigation, it has been determined that the rates, services and operations of public utilities as defined herein, are affected with the public interest and that the availability of an adequate and reliable supply of electric power and natural gas to the people, economy and government of North Carolina is a matter of public policy. It is hereby declared to be the policy of the State of North Carolina:
 - (8) To cooperate with other states and with the federal government in promoting and coordinating interstate and intrastate public utility service and reliability of public utility energy supply; and
 - (9) To facilitate the construction of facilities in and the extension of natural gas service to unserved areas in order to promote the public welfare throughout the State and to that end to authorize the creation of expansion funds for natural gas local distribution companies or gas districts to be administered under the supervision of the North Carolina Utilities Commission: Commission; and
 - (10) To promote the development of renewable energy and energy efficiency through the implementation of a Renewable Energy and Energy Efficiency Portfolio Standard (REPS) that will do all of the following:
 - a. Diversify the resources used to reliably meet the energy needs of consumers in the State.
 - b. Provide greater energy security through the use of indigenous energy resources available within the State.
 - c. Encourage private investment in renewable energy and energy efficiency.
 - d. Provide improved air quality and other benefits to energy consumers and citizens of the State."

SECTION 2.(a) Article 7 of Chapter 62 of the General Statutes is amended by adding a new section to read:

"§ 62-133.7. Renewable Energy and Energy Efficiency Portfolio Standard (REPS).

(a) Definitions. – As used in this section:

> 'Combined heat and power system' means a system that uses waste heat to produce electricity or useful, measurable thermal or mechanical energy at a retail electric customer's facility.

'Demand-side management' means activities, programs, or initiatives undertaken by an electric power supplier or its customers to shift the timing of <u>(2)</u> electricity use from peak to nonpeak demand periods. 'Demand-side management' includes, but is not limited to, load management, electric system equipment and operating controls, direct load control, and interruptible load.

<u>(3)</u> 'Electric power supplier' means a public utility, an electric membership corporation, or a municipality that selfs electric power to retail electric power

customers in the State.

<u>(4)</u> 'Energy efficiency measure' means an equipment, physical, or program change implemented after 1 January 2007 that results in less energy used to perform the same function. 'Energy efficiency measure' includes, but is not limited to, energy produced from a combined heat and power system that uses nonrenewable energy resources. 'Energy efficiency measure' does not include demand-side management.

'New renewable energy facility' means a renewable energy facility that either: **(5)**

Was placed into service on or after 1 January 2007.

<u>a.</u> <u>b.</u> Delivers or has delivered electric power to an electric power supplier pursuant to a contract with NC GreenPower Corporation that was entered into prior to 1 January 2007.

Is a hydroelectric power facility with a generation capacity of 10 megawatts or less that delivers electric power to an electric power

<u>c.</u>

(6)'Renewable energy certificate' means a tradable instrument that is equal to one megawatt hour of electricity or equivalent energy supplied by a renewable energy facility, new renewable energy facility, or reduced by implementation of an energy efficiency measure that is used to track and verify compliance with the requirements of this section as determined by the Commission. A 'renewable energy certificate' does not include the related emission reductions, including, but not limited to, reductions of sulfur dioxide, oxides of nitrogen. mercury, or carbon dioxide.

<u>(7)</u> 'Renewable energy facility' means a facility, other than a hydroelectric power facility with a generation capacity of more than 10 megawatts, that either:

Generates electric power by the use of a renewable energy resource. b. Generates useful, measurable combined heat and power derived from a renewable energy resource.

Is a solar thermal energy facility.

(8)'Renewable energy resource' means a solar electric, solar thermal, wind, hydropower, geothermal, or ocean current or wave energy resource; a biomass resource, including agricultural waste, animal waste, wood waste, spent pulping liquors, combustible residues, combustible liquids, combustible gases, energy crops, or landfill methane; waste heat derived from a renewable energy resource and used to produce electricity or useful, measurable thermal energy at a retail electric customer's facility; or hydrogen derived from a renewable energy resource. 'Renewable energy resource' does not include peat, a fossil fuel, or nuclear energy resource.

Renewable Energy and Energy Efficiency Standards (REPS) for Electric Public (b) Utilities. -

(1) Each electric public utility in the State shall be subject to a Renewable Energy and Energy Efficiency Portfolio Standard (REPS) according to the following schedule:

Calendar Year

REPS Requirement 3% of 2011 North Carolina retail sales 2012

2015 6% of 2014 North Carolina retail sales 2018 10% of 2017 North Carolina retail sales 2021 and thereafter 12.5% of 2020 North Carolina retail sales

(2) An electric public utility may meet the requirements of this section by any one or more of the following:

Generate electric power at a new renewable energy facility. <u>a.</u>

<u>b.</u> Use a renewable energy resource to generate electric power at a generating facility other than the generation of electric power from

waste heat derived from the combustion of fossil fuel.

Reduce energy consumption through the implementation of an energy <u>c.</u> efficiency measure; provided, however, an electric public utility subject to the provisions of this subsection may meet up to twenty-five percent (25%) of the requirements of this section through savings due to implementation of energy efficiency measures. Beginning in calendar year 2021 and each year thereafter, an electric public utility may meet up to forty percent (40%) of the requirements of this section through savings due to implementation of energy efficiency measures.

Purchase electric power from a new renewable energy facility. Electric power purchased from a new renewable energy facility located outside d. the geographic boundaries of the State shall meet the requirements of this section if the electric power is delivered to a public utility that provides electric power to retail electric customers in the State; provided, however, the electric public utility shall not sell the renewable energy certificates created pursuant to this paragraph to another electric public utility.

<u>e.</u> Purchase renewable energy certificates derived from in-State or out-of-state new renewable energy facilities. Certificates derived from out-of-state new renewable energy facilities shall not be used to meet more than twenty-five percent (25%) of the requirements of this section, provided that this limitation shall not apply to an electric public utility with less than 150,000 North Carolina retail jurisdictional customers as

of 31 December 2006.

f. Use electric power that is supplied by a new renewable energy facility or saved due to the implementation of an energy efficiency measure that exceeds the requirements of this section for any calendar year as a credit towards the requirements of this section in the following calendar year or sell the associated renewable energy certificates.

Renewable Energy and Energy Efficiency Standards (REPS) for Electric Membership

Corporations and Municipalities. –

Each electric membership corporation or municipality that sells electric power (1)to retail electric power customers in the State shall be subject to a Renewable Energy and Energy Efficiency Portfolio Standard (REPS) according to the following schedule:

> Calendar Year **REPS** Requirement

2012 3% of 2011 North Carolina retail sales 2015 6% of 2014 North Carolina retail sales 2018 and thereafter 10% of 2017 North Carolina retail sales

(2) An electric membership corporation or municipality may meet the requirements of this section by any one or more of the following:

Generate electric power at a new renewable energy facility.

Reduce energy consumption through the implementation of b.

demand-side management or energy efficiency measures.

<u>c.</u> Purchase electric power from a renewable energy facility or a hydroelectric power facility, provided that no more than thirty percent (30%) of the requirements of this section may be met with hydroelectric power, including allocations made by the Southeastern Power Administration.

- d. Purchase renewable energy certificates derived from in-State or out-of-state renewable energy facilities. An electric power supplier subject to the requirements of this subsection may use certificates derived from out-of-state renewable energy facilities to meet no more than twenty-five percent (25%) of the requirements of this section.
- e. Acquire all or part of its electric power through a wholesale purchase power agreement with a wholesale supplier of electric power whose portfolio of supply and demand options meets the requirements of this section.
- f. Use electric power that is supplied by a new renewable energy facility or saved due to the implementation of demand-side management or energy efficiency measures that exceeds the requirements of this section for any calendar year as a credit towards the requirements of this section in the following calendar year or sell the associated renewable energy certificates.
- (d) Compliance With REPS Requirement Through Use of Solar Energy Resources. For calendar year 2018 and for each calendar year thereafter, at least two-tenths of one percent (0.2%) of the total electric power in kilowatt hours sold to retail electric customers in the State, or an equivalent amount of energy, shall be supplied by a combination of new solar electric facilities and new metered solar thermal energy facilities that use one or more of the following applications: solar hot water, solar absorption cooling, solar dehumidification, solar thermally driven refrigeration, and solar industrial process heat. The terms of any contract entered into between an electric power supplier and a new solar electric facility or new metered solar thermal energy facility shall be of sufficient length to stimulate development of solar energy; provided, the Commission shall develop a procedure to determine if an electric power supplier is in compliance with the provisions of this subsection if a new solar electric facility or a new metered solar thermal energy facility fails to meet the terms of its contract with the electric power supplier. As used in this subsection, 'new' means a facility that was first placed into service on or after 1 January 2007. The electric power suppliers shall comply with the requirements of this subsection according to the following schedule:

<u>Calendar Year</u>
<u>2010</u>

<u>Requirement for Solar Energy Resources</u>
<u>0.02%</u>

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 2010 \\
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 2018 \\
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 0.02\% \\
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(e) Compliance With REPS Requirement Through Use of Swine Waste Resources. – For calendar year 2018 and for each calendar year thereafter, at least two-tenths of one percent (0.2%) of the total electric power in kilowatt hours sold to retail electric customers in the State shall be supplied, or contracted for supply in each year, by swine waste. The electric power suppliers, in the aggregate, shall comply with the requirements of this subsection according to the following schedule:

<u>Calendar Year</u>

<u>Requirement for Swine Waste Resources</u>

(f) Compliance With REPS Requirement Through Use of Poultry Waste Resources. – For calendar year 2014 and for each calendar year thereafter, at least 900,000 megawatt hours of the total electric power sold to retail electric customers in the State shall be supplied, or contracted for supply in each year, by poultry waste combined with wood shavings, straw, rice hulls, or other bedding material. The electric power suppliers, in the aggregate, shall comply with the requirements of this subsection according to the following schedule:

Calendar Year Requirement for Poultry Waste Resources

 2012
 170,000 megawatt hours

 2013
 700,000 megawatt hours

 2014
 900,000 megawatt hours

Control of Emissions. - As used in this subsection, Best Available Control Technology (BACT) means an emissions limitation based on the maximum degree a reduction in the emission of air pollutants that is achievable for a facility, taking into account energy, environmental, and economic impacts and other costs. A biomass combustion process at any new renewable energy facility that delivers electric power to an electric power supplier shall meet BACT. The Environmental Management Commission shall determine on a case-by-case basis the BACT for a facility that would not otherwise be required to comply with BACT pursuant to the Prevention of Significant Deterioration (PSD) emissions program. The Environmental Management Commission may adopt rules to implement this subsection. In adopting rules, the Environmental Management Commission shall take into account cumulative and secondary impacts associated with the concentration of biomass facilities in close proximity to one another. In adopting rules the Environmental Management Commission shall provide for the manner in which a facility that would not otherwise be required to comply with BACT pursuant to the PSD emissions programs shall meet the BACT requirement.

Cost Recovery and Customer Charges. –

For the purposes of this subsection, the term 'incremental costs' means all reasonable and prudent costs incurred by an electric power supplier to:

Comply with the requirements of subsections (b), (c), (d), (e), and (f) of this section that are in excess of the electric power supplier's avoided costs other than those costs recovered pursuant to G.S. 62-133.8.

Fund research that encourages the development of renewable energy, <u>b.</u> energy efficiency, or improved air quality, provided those costs do not exceed one million dollars (\$1,000,000) per year.

Comply with any federal mandate that is similar to the requirements of <u>c.</u> subsections (b), (c), (d), (e), and (f) of this section that exceed the costs that the electric power supplier would have incurred under those subsections in the absence of the federal mandate.

(2) All reasonable and prudent costs incurred by an electric power supplier to comply with any federal mandate that is similar to the requirements of subsections (b), (c), (d), (e), and (f) of this section, including, but not limited to, the avoided costs associated with a federal mandate that exceeds the avoided costs that the electric power supplier would have incurred pursuant to subsections (b), (c), (d), (e), and (f) of this section in the absence of the federal mandate, shall be recovered by the electric power supplier in an annual rider charge assessed in accordance with the schedule set out in subdivision (4) of this subsection increased by the Commission on a pro rata basis to allow for full and complete recovery of all reasonable and prudent costs incurred to

comply with the federal mandate. **(3)** Except as provided in subdivision (2) of this subsection, the total annual incremental cost to be incurred by an electric power supplier and recovered from the electric power supplier's retail customers shall not exceed an amount equal to the per-account annual charges set out in subdivision (4) of this subsection applied to the electric power supplier's total number of customer accounts determined as of 31 December of the previous calendar year. An electric power supplier shall be conclusively deemed to be in compliance with the requirements of subsections (b), (c), (d), (e), and (f) of this section if the electric power supplier's total annual incremental costs incurred equals an amount equal to the per-account annual charges set out in subdivision (4) of this subsection applied to the electric power supplier's total number of customer accounts determined as of 31 December of the previous calendar year. The total annual incremental cost recoverable by an electric power supplier from an individual customer shall not exceed the per-account charges set out in subdivision (4) of this subsection except as these charges may be adjusted in subdivision (2) of this subsection.

An electric power supplier shall be allowed to recover the incremental costs

(4) incurred to comply with the requirements of subsections (b), (c), (d), (e), and (f) of this section and fund research as provided in subdivision (1) of this subsection through an annual rider not to exceed the following per-account annual charges:

Customer Class	2008-2011	<u>2012-2014</u>	2015 and thereafter
Residential per account Commercial per account Industrial per account	\$10.00	\$12.00	\$34.00
	\$50.00	\$150.00	\$150.00
	\$500.00	\$1,000.00	\$1,000.00

The Commission shall adopt rules to establish a procedure for the annual assessment of the per-account charges set out in this subsection to an electric public utility's customers to allow for timely recovery of all reasonable and prudent costs of compliance with the requirements of subsections (b), (c), (d), (e), and (f) of this section and to fund research as provided in subdivision (1) of this subsection. The Commission shall ensure that the costs to be recovered from individual customers on a per-account basis pursuant to subdivisions (2) and (3) of this subsection are in the same proportion as the per-account annual charges for each customer class set out in subdivision (4) of this subsection.

i) Adoption of Rules. – The Commission shall adopt rules to implement the provisions

of this section. In developing rules, the Commission shall:

(1) Provide for the monitoring of compliance with and enforcement of the

requirements of this section.

(2) Include a procedure to modify or delay the provisions of subsections (b), (c), (d), (e), and (f) of this section in whole or in part if the Commission determines that it is in the public interest to do so. The procedure adopted pursuant to this subdivision shall include a requirement that the electric power supplier demonstrate that it made a reasonable effort to meet the requirements set out in this section.

(3) Ensure that energy credited toward compliance with the provisions of this section not be credited toward any other purpose, including another renewable energy portfolio standard or voluntary renewable energy purchase program in

this State or any other state.

Establish standards for interconnection of renewable energy facilities and other nonutility-owned generation with a generation capacity of 10 megawatts or less to an electric public utility's distribution system; provided, however, that the Commission shall adopt, if appropriate, federal interconnection standards.

Ensure that the owner and operator of each renewable energy facility that delivers electric power to an electric power supplier is in substantial compliance with all federal and state laws, regulations, and rules for the protection of the environment and conservation of natural resources.

(6) Consider whether it is in the public interest to adopt rules for electric public utilities for net metering of renewable energy facilities with a generation

capacity of one megawatt or less.

(7) Develop procedures to track and account for renewable energy certificates, including ownership of renewable energy certificates that are derived from a customer owned renewable energy facility as a result of any action by a customer of an electric power supplier that is independent of a program

sponsored by the electric power supplier.

(j) Report. – No later than 1 October of each year, the Commission shall submit a report on the activities taken by the Commission to implement, and by electric power suppliers to comply with, the requirements of this section to the Governor, the Environmental Review Commission, and the Joint Legislative Utility Review Committee. The report shall include any public comments received regarding direct, secondary, and cumulative environmental impacts of the implementation of the requirements of this section. In developing the report, the Commission shall consult with the Department of Environment and Natural Resources."

SECTION 2.(b) The Commission shall submit the first report required by

G.S. 62-133.7(j), as enacted by subsection (a) of this section, no later than 1 October

SECTION 2.(c) G.S. 143B-282(a) reads as rewritten:

"(a) There is hereby created the Énvironmental Management Commission of the Department of Environment and Natural Resources with the power and duty to promulgate rules to be followed in the protection, preservation, and enhancement of the water and air resources of the State.

The Commission may establish a procedure for evaluating renewable energy technologies that are, or are proposed to be, employed as part of a renewable energy facility, as defined in G.S. 62-133.7; establish standards to ensure that renewable energy technologies do not harm the environment, natural resources, cultural resources, or public health, safety, or welfare of the State; and, to the extent that there is not an environmental regulatory program, establish an environmental regulatory program to implement these protective standards."

SECTION 3. If the federal government imposes requirements similar to those set out in G.S. 62-133.7 on electric power suppliers in the State, the Utilities Commission shall determine the applicability of federal and State requirements so as to apply the more stringent requirements except to the extent that State requirements may be specifically preempted by federal law. The Commission shall adopt rules to establish a procedure as an alternative to the procedure set out in G.S. 62-133 to annually adjust the rates of electric public utilities to allow timely recovery of all reasonable costs of compliance with the federal and State requirements pursuant to G.S. 62-133.7(h), as enacted by Section 2 of this act. In adopting rules to establish the procedure, the Commission shall incorporate the provisions of this act in accordance with this section and the public interest.

SECTION 4.(a) Article 7 of Chapter 62 of the General Statutes is amended by new section to read:

adding a new section to read:

2008.

'§ 62-133.8. Cost recovery for demand-side management and energy efficiency measures.

(a) The definitions set out in G.S. 62-133.7 apply to this section. As used in this section, 'new,' used in connection with demand-side management or energy efficiency measure, means a demand-side management or energy efficiency measure that is adopted and implemented on or

after 1 January 2007, including subsequent changes and modifications.

(b) Each electric power supplier shall implement demand-side management and energy efficiency measures and use supply-side resources to establish the least cost mix of demand reduction and generation measures that meet the electricity needs of its customers. An electric membership corporation or municipality that qualifies as an electric power supplier may satisfy the requirements of this section through its purchases from a wholesale supplier of electric power that uses supply-side resources and demand-side management to meet all or a portion of the supply needs of its members and their retail customers, and that, by aggregating and promoting demand-side management and energy efficiency measures for its members, meets the requirements of this section.

(c) Each electric power supplier to which G.S. 62-110.1 applies shall include an assessment of demand-side management and energy efficiency in its resource plans submitted to the Commission and shall submit cost-effective demand-side management and energy efficiency

options that require incentives to the Commission for approval.

(d) The Commission shall, upon petition of an electric public utility, approve an annual rider to the electric public utility's rates to recover all reasonable and prudent costs incurred for adoption and implementation of new demand-side management and new energy efficiency measures. Recoverable costs include, but are not limited to, all capital costs, including cost of capital and depreciation expenses, administrative costs, implementation costs, incentive payments to program participants, and operating costs. In determining the amount of any rider, the Commission:

(1) Shall allow electric public utilities to capitalize all or a portion of those costs to the extent that those costs are intended to produce future benefits.

(2) <u>May approve other incentives to electric public utilities for adopting and implementing new demand-side management and energy efficiency measures.</u>

Allowable incentives may include:

<u>Appropriate rewards based on the sharing of savings achieved by the demand-side management and energy efficiency measures.</u>

b. Appropriate rewards based on capitalization of a percentage of avoided costs achieved by demand-side management and energy efficiency measures.

<u>c.</u> Any other incentives that the Commission determines to be appropriate.

(e) The Commission shall determine the appropriate assignment of costs of new demand-side management and energy efficiency measures for electric public utilities and shall assign the costs of the programs only to the class or classes of customers that directly benefit

from the programs.

- Mone of the costs of new demand-side management or energy efficiency measures of an electric power supplier shall be assigned to any industrial customer that notifies the industrial customer's electric power supplier that, at the industrial customer's own expense, the industrial customer has implemented at any time in the past or, in accordance with stated, quantified goals for demand-side management and energy efficiency, will implement alternative demand-side management and energy efficiency measures and that the industrial customer elects not to participate in demand-side management or energy efficiency measures under this section. The electric power supplier that provides electric service to the industrial customer, an industrial customer that receives electric service from the electric power supplier, the Public Staff, or the Commission on its own motion, may initiate a complaint proceeding before the Commission to challenge the validity of the notification of nonparticipation. The procedures set forth in G.S. 62-73, 62-74, and 62-75 shall govern any such complaint. The provisions of this subsection shall also apply to commercial customers with significant annual usage at a threshold level to be established by the Commission.
- (g) An electric public utility shall not charge an industrial or commercial customer for the costs of installing demand-side management equipment on the customer's premises if the customer provides, at the customer's expense, equivalent demand-side management equipment.

(h) The Commission shall adopt rules to implement this section.

(i) The Commission shall submit to the Governor and to the Joint Legislative Utility Review Committee a summary of the proceedings conducted pursuant to this section during the preceding two fiscal years on or before 1 September of odd-numbered years."

SECTION 4.(b) The Utilities Commission shall submit the first report required by G.S. 62-133.8(i), as enacted by subsection (a) of this section, no later than 1 September 2009.

SECTION 4.(c) The Utilities Commission shall prepare an analysis of whether rate structures, policies, and measures, including decoupling, in place in other states and countries that promote a mix of generation involving renewable energy sources and demand reduction should be implemented in this State. The Commission shall submit this analysis to the Governor, Environmental Review Commission, and the Joint Legislative Utility Review Committee no later than 1 September 2008.

SECTION 5. G.S. 62-133.2 reads as rewritten:

"§ 62-133.2. Fuel and fuel-related charge adjustments for electric utilities.

(a) The Commission may allowshall permit an electric utilities public utility that generates electric power by fossil fuel or nuclear fuel to charge a uniforman increment or decrement as a rider to their its rates for changes in the cost of fuel and the fuel component of purchased power and fuel-related costs used in providing their its North Carolina customers with electricity from the cost of fuel and the fuel component of purchased power established in their previous general rate case and fuel-related costs established in the electric public utility's previous general rate case on the basis of cost per kilowatt hour.

(a1) As used in this section, 'cost of fuel and fuel-related costs' means all of the following:

(1) The cost of fuel burned.

(2) The cost of fuel transportation.

The cost of ammonia, lime, limestone, urea, dibasic acid, sorbents, and catalysts consumed in reducing or treating emissions.

(4) The total delivered noncapacity related costs, including all related transmission charges, of all purchases of electric power by the electric public utility, that are

subject to economic dispatch or economic curtailment.

The capacity costs associated with all purchases of electric power from <u>(5)</u> qualifying cogeneration facilities and qualifying small power production facilities, as defined in 16 U.S.C. § 796, that are subject to economic dispatch by the electric public utility.

(6) Except for those costs recovered pursuant to G.S. 62-133.7(h), the total delivered costs of all purchases of power from renewable energy facilities and new renewable energy facilities pursuant to G.S. 62-133.7 or to comply with any federal mandate that is similar to the requirements of subsections (b), (c), (d), (e), and (f) of G.S. 62-133.7.

The fuel cost component of other purchased power.

(7) (8) Cost of fuel and fuel-related costs shall be adjusted for any net gains or losses resulting from any sales by the electric public utility of fuel and other

fuel-related costs components.

<u>(9)</u> Cost of fuel and fuel-related costs shall be adjusted for any net gains or losses resulting from any sales by the electric public utility of by-products produced in the generation process to the extent the costs of the inputs leading to that by-product are costs of fuel or fuel-related costs.

For those costs identified in subdivisions (4), (5), and (6) of subsection (a1) of this section, the annual increase in the aggregate amount of these costs that are recoverable by an electric public utility pursuant to this section shall not exceed two percent (2%) of the electric public utility's total North Carolina retail jurisdictional gross revenues for the preceding calendar year. The costs described in subdivisions (4), (5), and (6) of subsection (a1) of this section shall be recoverable from each class of customers as a separate component of the rider as follows:

For the costs described in subdivision (4) of subsection (a1) of this section, the (1)specific component for each class of customers shall be determined by allocating these costs among customer classes based on the electric public utility's North Carolina energy usage for the prior year, as determined by the Commission, until the Commission determines how these costs shall be allocated in a general rate case for the electric public utility commenced on or after 1 January 2008.

<u>(2)</u> For the costs described in subdivisions (5) and (6) of subsection (a1) of this section, the specific component for each class of customers shall be determined by allocating these costs among customer classes based on the electric public utility's North Carolina peak demand for the prior year, as determined by the Commission, until the Commission determines how these costs shall be allocated in a general rate case for the electric public utility commenced on or

after 1 January 2008.

Notwithstanding subsections (a1) and (a2) of this section, for an electric public utility that has fewer than 150,000 North Carolina retail jurisdictional customers as of 31 December 2006, the costs identified in subdivisions (1), (2), (6), and (7) of subsection (a1) of this section and the fuel cost component, as may be modified by the Commission, of electric power purchases identified in subdivision (4) of subsection (a1) of this section shall be recovered through the increment or decrement rider approved by the Commission pursuant to this section. For the costs identified in subdivision (6) of subsection (a1) of this section that are incurred on or after 1 January 2008, the annual increase in the amount of these costs shall not exceed one percent (1%) of the electric public utility's total North Carolina retail jurisdictional gross revenues for the preceding calendar year. These costs described in subdivision (6) of subsection (a1) of this section shall be recoverable from each class of customers as a separate component of the rider. For the costs described in subdivision (6) of subsection (a1) of this section, the specific component for each class of customers shall be determined by allocating these costs among customer classes based on the electric public utility's North Carolina peak demand for the prior year, as determined by the Commission, until the Commission determines how these costs shall be allocated in a general rate case for the electric public utility commenced on or after 1 January 2008.

(b) For each electric utility engaged in the generation and production of electric power by SL2007-0397 Page 10 of 22

fossil or nuclear fuels, the The Commission shall hold-conduct a hearing within 12 months of the each electric public utility's last general rate case order and to determine whether an increment or decrement rider is required to reflect actual changes in the cost of fuel and the fuel eost component of purchased powerand fuel-related costs over or under the cost of fuel and fuel-related costs on a kilowatt-hour basis in base rates established in the electric public utility's last preceding general rate case. Additional hearings shall be held on an annual basis but only one hearing for each such-electric public utility may be held within 12 months of the last general rate case.

(c) Each electric <u>public</u> utility shall submit to the Commission for the hearing verified annualized information and data in such form and detail as the Commission may require, for an historic 12-month test period, relating to:

Purchased cost Cost of fuel and fuel-related costs used in each generating

facility owned in whole or in part by the utility.

(2) Fuel procurement practices and fuel inventories for each facility.

Burned cost of fuel used in each generating facility.

(4) Plant capacity factor for each generating facility.
(5) Plant availability factor for each generating plant.

6) Generation mix by types of fuel used.

(1)

(7) Sources and fuel cost component of purchased power used.

8) Recipients of and revenues received for power sales and times of power sales.

(9) Test period kilowatt hourkilowatt-hour sales for the utility's total system and on the total system separated for North Carolina jurisdictional sales.

(10) Procurement practices and inventories for: fuel burned and for ammonia, lime, limestone, urea, dibasic acid, sorbents, and catalysts consumed in reducing or treating emissions.

(11) The cost incurred at each generating facility of fuel burned and of ammonia, lime, limestone, urea, dibasic acid, sorbents, and catalysts consumed in reducing or treating emissions.

(12) Any net gains or losses resulting from any sales by the electric public utility of

fuel or other fuel-related costs components.

Any net gains or losses resulting from any sales by the electric public utility of by-products produced in the generation process to the extent the costs of the inputs leading to that by-product are costs of fuel or fuel-related costs.

The Commission shall provide for notice of a public hearing with reasonable and adequate time for investigation and for all intervenors to prepare for hearing. At the hearing the Commission shall receive evidence from the utility, the public staff, Public Staff, and any intervenor desiring to submit evidence, and from the public generally. In reaching its decision, the Commission shall consider all evidence required under subsection (c) of this section as well as any and all other competent evidence that may assist the Commission in reaching its decision including changes in the price of fuel consumed and changes in the price of the fuel in the fuel component of purchased power occurring within a reasonable time (as determined by the Commission) after the test period is closed costs of fuel consumed and fuel-related costs that occur within a reasonable time, as determined by the Commission, after the test period is closed. The Commission shall incorporate in its fuel-cost of fuel and fuel-related costs determination under this subsection the experienced over-recovery or under-recovery of reasonable costs of fuel and fuel-related costs expenses prudently incurred during the test period, based upon the prudent standards set pursuant to subsection (d1) of this section, in fixing an increment or decrement rider. Upon request of the electric public utility, the Commission shall also incorporate in this determination the experienced over-recovery or under-recovery of costs of fuel and fuel-related costs through the date that is 30 calendar days prior to the date of the hearing, provided that the reasonableness and prudence of these costs shall be subject to review in the utility's next annual hearing pursuant to this section. The Commission shall use deferral accounting, and consecutive test periods, in complying with this subsection, and the over-recovery or under-recovery portion of the increment or decrement shall be reflected in rates for 12 months, notwithstanding any changes in the base fuel cost in a general rate case. The burden of proof as to the correctness and reasonableness of the charge and as to whether the cost

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of fuel charges and fuel-related costs were reasonably and prudently incurred shall be on the utility. The Commission shall allow only that portion, if any, of a requested cost of fuel and fuel-related costs adjustment that is based on adjusted and reasonable cost of fuel expenses and fuel-related costs prudently incurred under efficient management and economic operations. In evaluating whether cost of fuel expenses and fuel-related costs were reasonable and prudently incurred, the Commission shall apply the rule adopted pursuant to subsection (d1)-(d1) of this section. To the extent that the Commission determines that an increment or decrement to the rates of the utility due to changes in the cost of fuel and the fuel cost component of purchased powerfuel-related costs over or under base fuel costs established in the preceding general rate case is just and reasonable, the Commission shall order that the increment or decrement become effective for all sales of electricity and remain in effect until changed in a subsequent general rate case or annual proceeding under this section.

(d1) Within one year after ratification of this act, for the purposes of setting fuel rates, cost of fuel and fuel-related costs rates, the Commission shall adopt a rule that establishes prudent standards and procedures with which it can appropriately measure management efficiency in

minimizing fuel cost of fuel and fuel-related costs.

(e) If the Commission has not issued an order pursuant to this section within 120-180 days of a utility's submission of annual data under subsection (c) of this section, the utility may place the requested cost of fuel and fuel-related costs adjustment into effect. If the change in rate is finally determined to be excessive, the utility shall make refund of any excess plus interest to its customers in a manner ordered by the Commission.

(f) Nothing in this section shall relieve the Commission from its duty to consider the reasonableness of fuel expenses the cost of fuel and fuel-related costs in a general rate case and to set rates reflecting reasonable fuel expenses cost of fuel and fuel-related costs pursuant to G.S. 62-133. Nothing in this section shall invalidate or preempt any condition adopted by the Commission and accepted by the utility in any proceeding that would limit the recovery of costs by any electric public utility under this section.

(g) On July 1, 1993 and every two years thereafter, On 1 July of every odd-numbered year, the Utilities Commission shall provide a report to the Joint Legislative Utility Review Committee summarizing the procedures proceedings conducted pursuant to G.S. 62-133.2this

section during the preceding two years."

SECTION 6. G.S. 62-110.1 reads as rewritten:

"§ 62-110.1. Certificate for construction of generating facility; analysis of long-range needs for expansion of facilities. facilities; ongoing review of construction costs; inclusion of approved construction costs in rates.

(a) Notwithstanding the proviso in G.S. 62-110, no public utility or other person shall begin the construction of any steam, water, or other facility for the generation of electricity to be directly or indirectly used for the furnishing of public utility service, even though the facility be for furnishing the service already being rendered, without first obtaining from the Commission a certificate that public convenience and necessity requires, or will require, such construction.

(b) For the purpose of subsections (a), (c), and (d) of this section, "public utility" shall include any electric membership corporation operating within this State, and the term "public utility service" shall include the service rendered by any such electric membership corporation.

(c) The Commission shall develop, publicize, and keep current an analysis of the long-range needs for expansion of facilities for the generation of electricity in North Carolina, including its estimate of the probable future growth of the use of electricity, the probable needed generating reserves, the extent, size, mix and general location of generating plants and arrangements for pooling power to the extent not regulated by the Federal Power-Energy Regulatory Commission and other arrangements with other utilities and energy suppliers to achieve maximum efficiencies for the benefit of the people of North Carolina, and shall consider such analysis in acting upon any petition by any utility for construction. In developing such analysis, the Commission shall confer and consult with the public utilities in North Carolina, the utilities commissions or comparable agencies of neighboring states, the Federal Power-Energy Regulatory Commission, the Southern Growth Policies Board, and other agencies having relevant information and may participate as it deems useful in any joint boards investigating generating plant sites or the probable need for future generating facilities. In addition to such

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reports as public utilities may be required by statute or rule of the Commission to file with the Commission, any such utility in North Carolina may submit to the Commission its proposals as to the future needs for electricity to serve the people of the State or the area served by such utility, and insofar as practicable, each such utility and the Attorney General may attend or be represented at any formal conference conducted by the Commission in developing a plan for the future requirements of electricity for North Carolina or this region. In the course of making the analysis and developing the plan, the Commission shall conduct one or more public hearings. Each year, the Commission shall submit to the Governor and to the appropriate committees of the General Assembly a report of its analysis and plan, the progress to date in carrying out such plan, and the program of the Commission for the ensuing year in connection with such plan.

(d) In acting upon any petition for the construction of any facility for the generation of electricity, the Commission shall take into account the applicant's arrangements with other electric utilities for interchange of power, pooling of plant, purchase of power and other methods

for providing reliable, efficient efficient, and economical electric service.

(e) As a condition for receiving—such certificate a certificate, the applicant shall file an estimate of construction costs in such detail as the Commission may require. The Commission shall hold a public hearing on each such-application and no certificate shall be granted unless the Commission has approved the estimated construction costs and made a finding that such construction will be consistent with the Commission's plan for expansion of electric generating capacity. A certificate for the construction of a coal or nuclear facility shall be granted only if the applicant demonstrates and the Commission finds that energy efficiency measures; demand-side management; renewable energy resource generation; combined heat and power generation; or any combination thereof, would not establish or maintain a more cost-effective and reliable generation system and that the construction and operation of the facility is in the public interest. In making its determination, the Commission shall consider resource and fuel diversity and reasonably anticipated future operating costs. Once the Commission grants a certificate, no public utility shall cancel construction of a generating unit or facility without approval from the Commission based upon a finding that the construction is no longer in the public interest.

(e1) Upon the request of the public utility or upon its own motion, the Commission may review the certificate to determine whether changes in the probable future growth of the use of electricity indicate that the public convenience and necessity require modification or revocation of the certificate. If the Commission finds that completion of the generating facility is no longer

in the public interest, the Commission may modify or revoke the certificate.

(f) The Commission shall maintain an ongoing review of such construction as it proceeds and the applicant shall submit each year during construction a progress report and any revisions in the cost estimates for the construction. The public utility shall submit a progress report and any revision in the cost estimate for the construction approved under subsection (e) of this section during each year of construction. Upon the request of the public utility or upon its own motion, the Commission may conduct an ongoing review of construction of the facility as the construction proceeds. If the Commission approves any revised construction cost estimate and finds that incurrence of the cost of that portion of the construction of the facility under review was reasonable and prudent, the certificate shall remain in effect. If the Commission disapproves any part of the revised cost estimate or finds that the incurrence of the cost of that portion of the construction of the facility then under review was unreasonable or imprudent, the Commission may modify or revoke the certificate.

(f1) The public utility shall recover through rates in a general rate case conducted pursuant to G.S. 62-133 the actual costs it has incurred in constructing a generating facility in reliance on a certificate issued under this section as provided in this subsection, unless new evidence is discovered (i) that could not have been discovered by due diligence at an earlier time and (ii) that reasonably tends to show that a previous determination by the Commission that a material item of cost was just and reasonable and prudently incurred was erroneous. If the Commission determines that evidence has been submitted that meets the requirements of this subsection, the public utility shall have the burden of proof to demonstrate that the material item of cost was in

fact just and reasonable and prudently incurred.

(1) When a facility has been completed, and the construction of the facility has

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been subject to ongoing review under subsection (f) of this section, the reasonable and prudent costs of construction approved by the Commission during the ongoing review shall be included in the public utility's rate base without further review by the Commission.

(2) If a facility has not been completed, and the construction of the facility has been subject to ongoing review under subsection (f) of this section, the reasonable and prudent costs of construction approved by the Commission during the ongoing review shall be included in the public utility's rate base

without further review by the Commission.

(3) If a facility is under construction or has been completed and the construction of the facility has not been subject to ongoing review under subsection (f) of this section, the costs of construction shall be included in the public utility's rate base if the Commission finds that the incurrence of these costs is

reasonable and prudent.

If the construction of a facility is cancelled, including cancellation as a result of modification or revocation of the certificate under subsection (e1) of this section, and the construction of the facility has been subject to ongoing review under subsection (f), absent newly discovered evidence (i) that could not have been discovered by due diligence at an earlier time and (ii) that reasonably tends to show that a previous determination by the Commission that a material item of cost was just and reasonable and prudently incurred was erroneous, the public utility shall recover through rates in a general rate case conducted pursuant to G.S. 62-133 the costs of construction approved by the Commission during the ongoing review that were actually incurred prior to cancellation, amortized over a reasonable time as determined by the Commission. In the general rate case, the Commission shall make any adjustment that may be required because costs of construction previously added to the utility's rate base pursuant to subsection (f1) of this section are removed from the rate base and recovered in accordance with this subsection. Any costs of construction actually incurred, but not previously approved by the Commission, shall be recovered only if they are found by the Commission to be reasonable and prudent. If the Commission determines that evidence has been submitted that meets the requirements of this subsection, the public utility shall have the burden of proof to demonstrate that the material item of cost was just and reasonable and prudently incurred.

(f3) If the construction of a facility is cancelled, including cancellation as a result of the modification or revocation of the certificate under subsection (e1) of this section, and the construction of the facility has not been subject to ongoing review under subsection (f) of this section, the public utility shall recover through rates in a general rate case conducted pursuant to G.S. 62-133 the costs of construction that were actually incurred prior to the cancellation and are found by the Commission to be reasonable and prudent, amortized over a reasonable time as determined by the Commission. In the general rate case, the Commission shall make any adjustment that may be required because costs of construction previously added to the utility's rate base pursuant to subsection (f1) of this section are removed from the rate base and

recovered in accordance with this subsection.

(g) The certification requirements of this section shall not apply to a nonutility-owned generating facility fueled by renewable energy resources under two megawatts in capacity or to persons who construct an electric generating facility primarily for that person's own use and not for the primary purpose of producing electricity, heat, or steam for sale to or for the public for compensation; provided, however, that such persons shall, nevertheless, be required to report to the Utilities Commission the proposed construction of such a facility before beginning construction thereof."

SECTION 7. Article 6 of Chapter 62 of the General Statutes is amended by adding two new sections to read:

"§ 62-110.6. Rate recovery for construction costs of out-of-state electric generating facilities.

(a) The Commission shall, upon petition of a public utility, determine the need for and, if need is established, approve an estimate of the construction costs and construction schedule for an electric generating facility in another state that is intended to serve retail customers in this State.

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The petition may be filed at any time after an application for a certificate or license (b) for the construction of the facility has been filed in the state in which the facility will be sited. The petition shall contain a showing of need for the facility, an estimate of the construction

costs, and the proposed construction schedule for the facility.

The Commission shall conduct a public hearing to consider and determine the need for the facility and the reasonableness of the construction cost estimate and proposed construction schedule. If the Commission finds that the construction will be needed to assure the provision of adequate public utility service within North Carolina, the Commission shall approve a construction cost estimate and a construction schedule for the facility. In making its determinations under this section, the Commission may consider whether the state in which the facility will be sited has issued a certificate or license for construction of the facility and approved a construction cost estimate and construction schedule for the facility. The Commission shall issue its order not later than 180 days after the public utility files its petition.

G.S. 62-110.1(f) shall apply to the construction cost estimate determined by the Commission to be appropriate, and the actual costs the public utility incurs in constructing the facility shall be recoverable through rates in a general rate case pursuant to G.S. 62-133 as

provided in G.S. 62-110.1(f1).

(e) If the construction of a facility is cancelled, the public utility shall recover through rates in a general rate case conducted pursuant to G.S. 62-133 the costs of construction that were actually incurred prior to the cancellation and are found by the Commission to be reasonable and prudent, as provided in subsections (f2) and (f3) of G.S. 62-110.1.

§ 62-110.7. Project development cost review for a nuclear facility.

(a) For purposes of this section, "project development costs" mean all capital costs associated with a potential nuclear electric generating facility incurred before (i) issuance of a certificate under G.S. 62-110.1 for a facility located in North Carolina or (ii) issuance of a certificate by the host state for an out-of-state facility to serve North Carolina retail customers, including, without limitation, the costs of evaluation, design, engineering, environmental analysis and permitting, early site permitting, combined operating license permitting, initial site preparation costs, and allowance for funds used during construction associated with such costs.

At any time prior to the filing of an application for a certificate to construct a potential nuclear electric generating facility, either under G.S. 62-110.1 or in another state for a facility to serve North Carolina retail customers, a public utility may request that the Commission review the public utility's decision to incur project development costs. The public utility shall include with its request such information and documentation as is necessary to support approval of the decision to incur proposed project development costs. The Commission shall hold a hearing regarding the request. The Commission shall issue an order within 180 days after the public utility files its request. The Commission shall approve the public utility's decision to incur project development costs if the public utility demonstrates by a preponderance of evidence that the decision to incur project development costs is reasonable and prudent; provided, however, the Commission shall not rule on the reasonableness or prudence of specific project development activities or recoverability of specific items of cost.

All reasonable and prudent project development costs, as determined by the Commission, incurred for the potential nuclear electric generating facility shall be included in the public utility's rate base and shall be fully recoverable through rates in a general rate case

proceeding pursuant to G.S. 62-133.

"(b)

If the public utility is allowed to cancel the project, the Commission shall permit the public utility to recover all reasonable and prudently incurred project development costs in a general rate case proceeding pursuant to G.S. 62-133 amortized over a period equal to the period during which the costs were incurred, or five years, whichever is greater."

SECTION 8. G.S. 62-133(b) reads as rewritten:

In fixing such rates, the Commission shall:

Ascertain the reasonable original cost of the public utility's property used and useful, or to be used and useful within a reasonable time after the test period, in providing the service rendered to the public within the State, less that portion of the cost which that has been consumed by previous use recovered by depreciation expense plus the reasonable original cost of investment in plant

under construction (construction work in progress). In ascertaining the cost of the public utility's property, construction work in progress as of the effective date of this subsection shall be excluded until such plant comes into service but reasonable and prudent expenditures for construction work in progress after the effective date of this subsection may be included, to the extent the Commission considers such inclusion in the public interest and necessary to the financial stability of the utility in question, subject to the provisions of subparagraph (b) (4a) of this section expense. In addition, construction work in progress may be included in the cost of the public utility's property under any of the following circumstances:

a. To the extent the Commission considers inclusion in the public interest and necessary to the financial stability of the utility in question, reasonable and prudent expenditures for construction work in progress may be included, subject to the provisions of subdivision (4a) of this subsection.

b. For baseload electric generating facilities, reasonable and prudent expenditures shall be included pursuant to subdivisions (2) or (3) of G.S. 62-110.1(f1), whichever applies, subject to the provisions of

subdivision (4a) of this subsection.

(1a) Apply the rate of return established under subdivision (4) of this subsection to rights-of-way acquired through agreements with the Department of Transportation pursuant to G.S. 136-19.5(a) if acquisition is consistent with a definite plan to provide service within five years of the date of the agreement and if such right-of-way acquisition will result in benefits to the ratepayers. If a right-of-way is not used within a reasonable time after the expiration of the five-year period, it may be removed from the rate base by the Commission when rates for the public utility are next established under this section.

(2) Estimate such public utility's revenue under the present and proposed rates.
 (3) Ascertain such public utility's reasonable operating expenses, including ac

Ascertain such public utility's reasonable operating expenses, including actual investment currently consumed through reasonable actual depreciation.

(4) Fix such rate of return on the cost of the property ascertained pursuant to subdivision (1) of this subsection as will enable the public utility by sound management to produce a fair return for its shareholders, considering changing economic conditions and other factors, including, but not limited to, the inclusion of construction work in progress in the utility's property under sub-subdivision b. of subdivision (1) of this subsection, as they then exist, to maintain its facilities and services in accordance with the reasonable requirements of its customers in the territory covered by its franchise, and to compete in the market for capital funds on terms which that are reasonable and

which that are fair to its customers and to its existing investors.

(4a) Require each public utility to discontinue capitalization of the composite carrying cost of capital funds used to finance construction (allowance for funds) on the construction work in progress included in its rate based upon the effective date of the first and each subsequent general rate order issued with respect to it after the effective date of this subsection; allowance for funds may be capitalized with respect to expenditures for construction work in progress not included in the utility's property upon which the rates were fixed. In determining net operating income for return, the Commission shall not include any capitalized allowance for funds used during construction on the construction work in progress included in the utility's rate base.

(5) Fix such rates to be charged by the public utility as will earn in addition to reasonable operating expenses ascertained pursuant to subdivision (3) of this subsection the rate of return fixed pursuant to subdivisions (4) and (4a) on the cost of the public utility's property ascertained pursuant to subdivisions (1) and

(1a) of this subsection."

SECTION 9.(a) The percentage rate to be used in calculating the public utility

regulatory fee under G.S. 62-302(b)(2) is twelve one-hundredths of one percent (0.12%) for each public utility's North Carolina jurisdictional revenues earned during each quarter that begins on or after 1 July 2007.

SECTION 9.(b) The electric membership corporation regulatory fee imposed under

G.S. 62-302(b1) for the 2007-2008 fiscal year is two hundred thousand dollars (\$200,000).

SÈCTION 10.(a) G.S. 105-164.4(a)(1i) is repealed.

SECTION 10.(b) G.S. 105-164.4(a)(1f) reads as rewritten:

- "(a) A privilege tax is imposed on a retailer at the following percentage rates of the retailer's net taxable sales or gross receipts, as appropriate. The general rate of tax is four and one-quarter percent (4.25%).
 - (1f) The rate of two and eighty-three-hundredths percent (2.83%) applies to the sales price of electricity described in this subdivision and that is measured by a separate meter or another separate device and sold to a commercial laundry or to a pressing and dry-cleaning establishment for use in machinery used in the direct performance of the laundering or the pressing and cleaning service.
 - Sales of electricity to farmers to be used by them for any farm purposes other than preparing food, heating dwellings, and other household purposes. The quantity of electricity or gas purchased or used at any one time shall not be a determinative factor as to whether its sale or use is or is not subject to the rate of tax provided in this subdivision.

b. Repealed.

- e. Sales of electricity to commercial laundries or to pressing and dry-cleaning establishments for use in machinery used in the direct performance of the laundering or the pressing and cleaning service."
- SECTION 10.(c) G.S. 105-164.4(a) is amended by adding a new subdivision to read: "(a) A privilege tax is imposed on a retailer at the following percentage rates of the retailer's net taxable sales or gross receipts, as appropriate. The general rate of tax is four and one-quarter percent (4.25%).
 - (1j) The rate of one and eight-tenths percent (1.8%) applies to the sales price of electricity described in this subdivision and measured by a separate meter or another separate device:

Sales of electricity to manufacturing industries and manufacturing plants for use in connection with the operation of the industries and

plants.

b. Sales of electricity to farmers to be used by them for any farming purposes other than preparing food, heating dwellings, and other household purposes."

SECTION 10.(d) G.S. 105-164.4(a)(1j), as enacted by subsection (c) of this section,

reads as rewritten:

"(1j) The rate of one and eight-tenths percent (1.8%) one and four-tenths percent (1.4%) applies to the sales price of electricity described in this subdivision and measured by a separate meter or another separate device:

Sales of electricity to manufacturing industries and manufacturing plants for use in connection with the operation of the industries and

plants.

b. Sales of electricity to farmers to be used by them for any farming purposes other than preparing food, heating dwellings, and other household purposes."

SECTION 10.(e) G.S. 105-164.4(a)(1j), as enacted by subsection (c) of this section

and amended by subsection (d) of this section, reads as rewritten:

"(1j) The rate of ene and four tenths percent (1.4%) eight-tenths percent (0.8%) applies to the sales price of electricity described in this subdivision and measured by a separate meter or another separate device:

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a. Sales of electricity to manufacturing industries and manufacturing plants for use in connection with the operation of the industries and plants.

b. Sales of electricity to farmers to be used by them for any farming purposes other than preparing food, heating dwellings, and other

household purposes."

SECTION 10.(f) G.S. 105-164.4(a)(1j), as enacted by this section, is repealed.

SECTION 10.(g) G.S. 105-164.13(1) reads as rewritten:

"§ 105-164.13. Retail sales and use tax.

The sale at retail and the use, storage, or consumption in this State of the following tangible personal property and services are specifically exempted from the tax imposed by this Article:

Agricultural Group.

(1) Any of the following items sold to a farmer for use by the farmer in the planting, cultivating, harvesting, or curing of farm crops or in the production of dairy products, eggs, or animals. A "farmer" includes a dairy operator, a poultry farmer, an egg producer, a livestock farmer, a farmer of crops, and a farmer of an aquatic species, as defined in G.S. 106-758.

. Commercial fertilizer, lime, land plaster, plastic mulch, plant bed

covers, potting soil, and seeds.

- b. Farm machinery, attachment and repair parts for farm machinery, and lubricants applied to farm machinery. The term "machinery" includes implements that have moving parts or are operated or drawn by an animal. The term does not include implements operated wholly by hand or motor vehicles required to be registered under Chapter 20 of the General Statutes.
- c. A horse or mule.

d. Fuel other than electricity. Fuel."

SECTION 10.(h) G.S. 105-164.13 is amended by adding two new subdivisions to read:

"§ 105-164.13. Retail sales and use tax.

The sale at retail and the use, storage, or consumption in this State of the following tangible personal property and services are specifically exempted from the tax imposed by this Article:

(1b) Electricity sold to a farmer to be used for any farming purpose other than preparing food, heating dwellings, and other household purposes.

(56) Fuel and electricity sold to a manufacturer for use in connection with the

operation of a manufacturing facility."

SECTION 10.(i) Subsections (a), (b), and (c) of this section become effective 1 October 2007 and apply to sales occurring on or after that date. Subsection (d) of this section becomes effective 1 July 2008 and applies to sales occurring on or after that date. Subsection (e) of this section becomes effective 1 July 2009 and applies to sales occurring on or after that date. Subsections (f), (g), and (h) of this section become effective 1 July 2010 and apply to sales occurring on or after that date. The remainder of this section is effective when it becomes law.

SECTION 11.(a) G.S. 105-187.41 reads as rewritten:

"§ 105-187.41. Tax imposed on piped natural gas.

(a) Scope. – An excise tax is imposed on piped natural gas received for consumption in this State. This tax is imposed in lieu of a sales and use tax and a percentage gross receipts tax

on piped natural gas.

(b) Rate. – The tax rate is set in the table below. The tax rate is based on monthly therm volumes of piped natural gas received by the end-user of the gas. If an end-user receives piped natural gas that is metered through two or more separate measuring devices, the tax is calculated separately on the volume metered through each device rather than on the total volume metered through all measuring devices, unless the devices are located on the same premises and are part

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of the same billing account. In that circumstance, the tax is calculated on the total volume metered through the two or more separate measuring devices.

Monthly Volume of Therms Received
First 200 \$.047
201 to 15,000 .035
15,001 to 60,000 .024
60,001 to 500,000 .015
Over 500,000 .003

(c) Gas City Exemption. – The tax imposed by this section does not apply to piped natural gas received by a gas city for consumption by that city or to piped natural gas delivered

by a gas city to a sales or transportation customer of the gas city.

(d) Reduced Rate. – Piped natural gas received by a manufacturer for use in connection with the operation of a manufacturing facility or by a farmer to be used for any farming purpose other than preparing food, heating dwellings, and other household purposes is taxable at a reduced rate as provided in this subsection. To be eligible for the reduced tax rate, a person must have a manufacturer's certificate or a farmer's certificate issued under G.S. 105-164.28A. A person who uses piped natural gas for an unauthorized purpose is liable for any tax due on the gas.

Monthly Volume of	Rate Per Therm
Therms Received	
First 200	\$.032
201 to 15,000	.024
15,001 to 60,000	.016
60,001 to 500,000	$\overline{.010}$
Over 500,000	.002"

SECTION 11.(b) G.S. 105-187.41(d), as enacted by subsection (a) of this section, excitten:

reads as rewritten:

"(d) Reduced Rate. – Piped natural gas received by a manufacturer for use in connection with the operation of a manufacturing facility and by a farmer to be used for any farming purpose other than preparing food, heating dwellings, and other household purposes is taxable as provided in this subsection. To be eligible for the reduced tax rate, a person must have a manufacturer's certificate or a farmer's certificate issued under G.S. 105-164.28A. A person who uses piped natural gas for an unauthorized purpose is liable for any tax due on the gas.

Monthly Volume of Therms Received
First 200 \$\frac{.025}{.024.019}\$
15,001 to 60,000 \$\frac{.016.013}{.010.008}\$
Over 500,000 \$\frac{.002}{.002}.002"

SECTION 11.(c) G.S. 105-187.41(d), as enacted by subsection (a) of this section

and amended by subsection (b) of this section, reads as rewritten:

"(d) Reduced Rate. – Piped natural gas received by a manufacturer for use in connection with the operation of a manufacturing facility and by a farmer to be used for any farming purpose other than preparing food, heating dwellings, and other household purposes is taxable as provided in this subsection. To be eligible for the reduced tax rate, a person must have a manufacturer's certificate or a farmer's certificate issued under G.S. 105-164.28A. A person who uses piped natural gas for an unauthorized purpose is liable for any tax due on the gas.

 Monthly Volume of Therms Received
 Rate Per Therm

 First 200
 \$.025.014

 201 to 15,000
 .019.010

 15,001 to 60,000
 .013.007

 60,001 to 500,000
 .008.004

 Over 500,000
 .002.001"

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> **SECTION 11.(d)** G.S. 105-187.41(d), as enacted by this section, is repealed. SECTION 11.(e) G.S. 105-187.41(c) reads as rewritten:

Gas City Exemption. Exemptions. – The tax imposed by this section does not apply to piped any of the following:

Piped natural gas received by a gas city for consumption by that eity or to

<u>(2)</u> Piped natural gas delivered by a gas city to a sales or transportation customer

of the gas city.

(3) Piped natural gas received by a manufacturer for use in connection with the operation of the manufacturing facility. To be eligible for the exemption, a person must have a manufacturer's certificate issued under G.S. 105-164.28A. A person who uses piped natural gas for an unauthorized purpose is liable for any tax due on the gas.

Piped natural gas received by a farmer to be used for any farming purpose (4) other than preparing food, heating dwellings, and other household purposes. To be eligible for the exemption, a person must have a farmer's certificate issued under G.S. 105-164.28Å. A person who uses piped natural gas for an unauthorized purpose is liable for any tax due on the gas."

SECTION 11.(f) Subsection (a) of this section becomes effective 1 October 2007 and applies to bills issued on or after that date. Subsection (b) of this section becomes effective 1 July 2008 and applies to bills issued on or after that date. Subsection (c) of this section becomes effective 1 July 2009 and applies to bills issued on or after that date. Subsections (d) and (e) of this section become effective 1 July 2010 and apply to bills issued on or after that date. The remainder of this section is effective when it becomes law.

SECTION 12.(a) G.S. 105-187.51A reads as rewritten:

"\\$ 105-187.51A. Tax imposed on manufacturing fuel.

A privilege tax is imposed on a manufacturing industry or plant that purchases fuel to operate the industry or plant. The tax is one percent (1%) seven-tenths percent (0.7%) of the sales price of the fuel. The tax does not apply to electricity or piped natural gas."

SECTION 12.(b) G.S. 105-187.51A, as amended by subsection (a) of this section,

reads as rewritten:

"§ 105-187.51A. Tax imposed on manufacturing fuel.

A privilege tax is imposed on a manufacturing industry or plant that purchases fuel to operate the industry or plant. The tax is seven-tenth's percent five-tenths percent (0.5%) of the sales price of the fuel. The tax does not apply to electricity or piped natural gas."

SECTION 12.(c) G.S. 105-187.51A, as amended by subsection (a) of this section,

reads as rewritten:

"§ 105-187.51A. Tax imposed on manufacturing fuel.

A privilege tax is imposed on a manufacturing industry or plant that purchases fuel to operate the industry or plant. The tax is five-tenths percent (0.5%)-three-tenths percent (0.3%) of the sales price of the fuel. The tax does not apply to electricity or piped natural gas."

SECTION 12.(d) G.S. 105-187.51A is repealed.

SECTION 12.(e) Subsection (a) of this section becomes effective 1 October 2007 and applies to fuel purchased on or after that date. Subsection (b) of this section becomes effective 1 July 2008 and applies to fuel purchased on or after that date. Subsection (c) of this section becomes effective 1 July 2009 and applies to fuel purchased on or after that date. Subsection (d) of this section becomes effective 1 July 2010. The remainder of this section is effective when it becomes law.

SECTION 13.(a) Article 3B of Chapter 105 of the General Statutes is amended by adding a new section to read:

"§ 105-129.16G. Credit for donating funds to a nonprofit organization to enable the

nonprofit to acquire renewable energy property.

<u>Credit. – A taxpayer who donates money to a tax-exempt nonprofit organization for</u> the purpose of providing funds for the organization to construct, purchase, or lease renewable energy property is allowed a credit under this section if the nonprofit organization uses the donation for its intended purpose. A tax-exempt nonprofit organization is an organization that is

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exempt from tax under section 501(c)(3) of the Code.

The amount of the credit allowed in this section is the taxpayer's share of the credit the nonprofit organization could claim under G.S. 105-129.16A if the nonprofit organization were subject to tax. The taxpayer's share of the credit is calculated by dividing the taxpayer's donation by the cost of the renewable energy property constructed, purchased, or leased by the nonprofit organization and placed in service during the taxable year and then multiplying this percentage by the amount of the credit the nonprofit organization could claim if it were subject to tax. A taxpayer must take the credit allowed by this section in the year in which the property is placed in service. The installment requirements in G.S. 105-129.16A for nonresidential property do not

apply to the credit allowed in this section.

(b) Records. – A nonprofit organization must keep a record of all donations it receives for the purpose of providing funds for the organization to construct, purchase, or lease renewable energy property and of the amount of the donations used for this purpose. If a nonprofit organization places renewable energy property in service that is purchased in whole or in part from donations made for this purpose, the nonprofit organization must give each taxpayer who made a donation a statement setting out the amount of the credit for which the taxpayer qualifies under this section. The statement must describe the renewable energy property placed in service and state the cost of the property, the amount of the credit the nonprofit organization could claim under G.S. 105-129.16A if it were subject to tax, and the taxpayer's share of the credit allowed in this section. If the donations made for the renewable energy property exceed the cost of the property, the nonprofit organization must prorate each taxpayer's share of the credit. The sum of the credits allowed under this section to taxpayers who make donations to a nonprofit organization may not exceed the amount of the credit the nonprofit organization could claim under G.S. 105-129.16A if it were subject to tax.

(c) No Double Benefit. – A taxpayer who claims a credit under this section based on a donation to a nonprofit organization is not allowed to deduct this donation as a charitable

contribution.'

SECTION 13.(b) G.S. 105-130.5(a) is amended by adding a new subdivision to read:

- "(a) The following additions to federal taxable income shall be made in determining State net income:
 - (19) The amount of a donation made to a nonprofit organization for which a credit is claimed under G.S. 1105-129.16G."
- SECTION 13.(c) G.S. 105-134.6(c) is amended by adding a new subdivision to read: "(c) Additions. The following additions to taxable income shall be made in calculating North Carolina taxable income, to the extent each item is not included in taxable income:
 - (5b) The amount of a donation made to a nonprofit organization for which a credit is claimed under G.S. 105-129.16G."

SECTION 13.(d) G.S. 105-259(b) is amended by adding a new section to read:

- "(b) Disclosure Prohibited. An officer, an employee, or an agent of the State who has access to tax information in the course of service to or employment by the State may not disclose the information to any other person unless the disclosure is made for one of the following purposes:
 - (38) To verify with a nonprofit organization information relating to eligibility for a credit under G.S. 105-129.16G."

SECTION 13.(e) This section is effective for taxable years beginning on or after 1 January 2008.

SECTION 14. The Utilities Commission shall submit to the Governor, the Environmental Review Commission, and the Joint Legislative Utility Review Committee a report on the actual results of the cost allocations established pursuant to G.S. 62-133.7(h), as enacted by Section 2 of this act, G.S. 62-133.8(e) and G.S. 62-133.8(f), as enacted by Section 4 of this act, and G.S. 62-133.2(a2) and G.S. 62-133.2(a3), as enacted by Section 5 of this act, during the preceding two fiscal years on or before 1 October of odd-numbered years. The

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Utilities Commission shall submit the first report required by this section no later than 1 October 2009.

SECTION 15. If any section or provision of this act is declared unconstitutional or invalid by the courts, the unconstitutional or invalid section or provision does not affect the validity of this act as a whole or any part of this act other than the part declared to be unconstitutional or invalid.

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SECTION 16. Sections 1, 2, 6, 7, and 8 of this act become effective 1 January 2008. The provisions of Section 2 of this act that provide for the recovery of costs incurred under Section 2 apply only to costs that are incurred on and after 1 January 2008. Sections 3, 4, 14, 15, and 16 of this act become effective when this act becomes law. The provisions of Section 4 of this act that provide for the recovery of costs incurred under Section 4 apply only to costs that are incurred on and after the date that this act becomes law. Section 5 of this act becomes effective 1 January 2008 provided that (i) the provisions of G.S. 62-133.2, as amended by Section 5 of this act, apply only to fuel and fuel-related costs incurred on and after 1 January 2008 regardless of the test period established by the Utilities Commission, and (ii) the costs described in G.S. 62-133.2(a1)(3) that are incurred on and after the date this act becomes law shall be recoverable as provided in G.S. 62-133.2 as amended by Section 5 of this act. Sections 10, 11, 12, and 13 of this act become effective as provided in those sections. Section 9 of this act becomes effective 1 July 2007.

2007. In the General Assembly read three times and ratified this the 2nd day of August,

s/ Beverly E. Perdue President of the Senate

s/ Joe Hackney Speaker of the House of Representatives

s/ Michael F. Easley Governor

Approved 3.20 nm this 20th day of August 2007

Exhibit J

GENERAL ASSEMBLY OF NORTH CAROLINA **SESSION 2007**

SESSION LAW 2007-523 SENATE BILL 1465

AN ACT TO (1) CODIFY AND MAKE PERMANENT THE SWINE FARM ANIMAL WASTE MANAGEMENT SYSTEM PERFORMANCE STANDARDS THAT THE GENERAL ASSEMBLY ENACTED IN 1998, (2) PROVIDE FOR THE REPLACEMENT OF A LAGOON THAT IS AN IMMINENT HAZARD, (3) ASSIST FARMERS TO VOLUNTARILY CONVERT TO INNOVATIVE ANIMAL WASTE MANAGEMENT SYSTEMS, AND (4) ESTABLISH THE SWINE FARM METHANE CAPTURE PILOT PROGRAM.

The General Assembly of North Carolina enacts:

SECTION 1.(a) Performance Standards. – Part 1A of Article 21 of Chapter 143 of the General Statutes is amended by adding a new section to read:

"§ 143-215.10I. Performance standards for animal waste management systems that serve swine farms; lagoon and sprayfield systems prohibited.

As used in this section: (a)

- 'Anaerobic lagoon' means a lagoon that treats waste by converting it into carbon dioxide, methane, ammonia, and other gaseous compounds; organic acids; and cell tissue through an anaerobic process.
- 'Anaerobic process' means a biological treatment process that occurs in the absence of dissolved oxygen. (2)

'Lagoon' has the same meaning as in G.S. 106-802.

- 'Swine farm' has the same meaning as in G.S. 106-802.
- The Commission shall not issue or modify a permit to authorize the construction, operation, or expansion of an animal waste management system that serves a swine farm that employs an anaerobic lagoon as the primary method of treatment and land application of waste by means of a sprayfield as the primary method of waste disposal. The Commission may issue a permit for the construction, operation, or expansion of an animal waste management system that serves a swine farm under this Article only if the Commission determines that the animal waste management system will meet or exceed all of the following performance standards:

 (1) Eliminate the discharge of animal waste to surface water and groundwater

through direct discharge, seepage, or runoff.
Substantially eliminate atmospheric emission of ammonia.

- Substantially eliminate the emission of odor that is detectable beyond the boundaries of the parcel or tract of land on which the swine farm is located.
- <u>(4)</u> Substantially eliminate the release of disease-transmitting vectors and airborne pathogens.

(5) Substantially eliminate nutrient and heavy metal contamination of soil and groundwater."

SECTION 1.(b) Continued Operation. – An animal waste management system that serves a swine farm for which a permit was issued prior to 1 September 2007 and that does not meet the requirements of G.S. 143-215.10I, as enacted by subsection (a) of this section, may continue to operate under, and shall operate in compliance with, that permit, including any renewal of the permit.

SECTION 1.(c) Lagoon Replacement. – Notwithstanding G.S. 143-215.10I, as enacted by subsection (a) of this section, the Environmental Management Commission may SL2007-0523

modify a permit that was initially issued prior to 1 September 2007 for an animal waste management system that serves a swine farm to authorize the replacement of a lagoon that is a component of the animal waste management system if the Commission finds all of the following:

> (1) The permit holder has operated and maintained the animal waste management system in substantial compliance with the permit and all applicable federal and State laws, regulations, and rules.

(2) The lagoon constitutes or will constitute an imminent hazard as defined in G.S. 130A-2.

Repair of the lagoon will not abate the imminent hazard.

(3) (4) Replacement of the lagoon will abate the imminent hazard and allow the permit holder to operate and maintain the replacement lagoon in compliance with all applicable requirements of federal and State laws, regulations, and

(5) Design and construction of the replacement lagoon shall meet all applicable requirements of federal and State laws, regulations, and rules; comply with the most recent Conservation Practice Standard published by the Natural Resources Conservation Service; and employ the best available technology that is economically and technically feasible. In determining best available technology and economic and technical feasibility, the Commission may consult with the Animal and Poultry Waste Management Center of North Carolina State University and with other persons who have specialized training or experience related to animal waste management systems.

The replacement lagoon shall not be located in the 100-year floodplain.

All equipment associated with operation of the replacement lagoon and with land application of waste from the lagoon shall be upgraded to meet all applicable requirements of federal and State laws, regulations, and rules and to comply with the most recent Conservation Practice Standard published by the Natural Resources Conservation Service.

(8) The replacement will not result in an increase in the permitted capacity, stated

as steady state live weight, of the animal waste management system.

(9) The lagoon to be replaced shall be closed in accordance with all applicable requirements of federal and State laws, regulations, and rules and with the most recent Conservation Practice Standard published by the Natural Resources Conservation Service.

SECTION 1.(d) Rule Making. – The Environmental Management Commission shall adopt rules to implement G.S. 143-215.10I, as enacted by subsection (a) of this section. Until rules to implement G.S. 143-215.10I become effective, the Commission, in implementing G.S. 143-215.10I, shall refer to the report entitled "Development of Environmentally Superior Technologies – Phase 3 Report: for Technology Determinations per Agreements Between the Attorney General of North Carolina and Smithfield Foods, Premium Standard Farms, and Frontline Farmers" dated 8 March 2006. The Commission shall consult with the Animal and Poultry Waste Management Center of North Carolina State University regarding the application and modification of technical standards required to implement G.S. 143-215.10I.

SECTION 2.(a) Definitions. – The definitions set out in G.S. 143-215.10I(a), as enacted by Section 1 of this act, apply to this section. As used in this section, an "innovative animal waste management system" means an animal waste management system that serves a swine farm that may be permitted under G.S. 143-215.10I(b), as enacted by Section 1 of this act.

SECTION 2.(b) Lagoon Conversion Program. - The Lagoon Conversion Program is hereby established. The Program shall provide grants to assist in the conversion of animal waste management systems that serve swine farms in operation on or before 1 September 2007 that employ anaerobic lagoons as the primary method of treatment to innovative animal waste management systems. Grants under the Program may also be used to:

Assist in the closure of sprayfield and lagoon systems that are replaced by innovative animal waste management systems if the closure is performed in accordance with applicable federal and State laws, regulations, and rules.

(2) Establish centralized waste collection and treatment systems that serve

innovative animal waste management systems.

SECTION 2.(c) Program Administration. – The Program shall be administered by the Division of Soil and Water Conservation in the Department of Environment and Natural Resources through the Agriculture Cost Share Program for Nonpoint Source Pollution Control established pursuant to G.S. 143-215.74. The Division shall administer the Program as provided in this section and Part 9 of Article 21 of Chapter 143 of the General Statutes.

SECTION 2.(d) Program Functions. – Under the Lagoon Conversion Program, the Division of Soil and Water Conservation in the Department of Environment and Natural Resources, through the Agriculture Cost Share Program for Nonpoint Source Pollution Control,

shall:

Within funds available to the Swine Farm Waste Management System Conversion Account established by Section 3 of this act, provide grants subject to all of the following limitations and requirements:

For grants approved on or before 30 June 2012, State funding shall be

limited to:

Ninety percent (90%) of the average cost for each practice with the assisted person providing ten percent (10%) of the cost, which may include in-kind support of the practice.

2. A maximum of five hundred thousand dollars (\$500,000) per

year to each applicant.

b. For grants approved on or after 1 July 2012 and on or before 30 June

2017, State funding shall be limited to:

Eighty percent (80%) of the average cost for each practice with the assisted person providing twenty percent (20%) of the cost, which may include in-kind support of the practice.

2. A maximum of four hundred fifty thousand dollars (\$450,000)

per year to each applicant.

c. For grants approved on or after 1 July 2017, State funding shall be limited to:

Seventy-five percent (75%) of the average cost for each practice with the assisted person providing twenty-five percent (25%) of the cost, which may include in-kind support of the practice.

2. A maximum of four hundred thousand dollars (\$400,000) per

year to each applicant.

d. All other limitations and requirements set out in Part 9 of Article 21 of

Chapter 143 of the General Statutes, as modified by this section.

(2) Establish criteria to prioritize the installation of innovative animal waste management systems that serve swine farms. Priority shall be given to systems that are affordable, easily maintained, produce marketable by-products, reduce or eliminate the emission of ammonia and greenhouse gases, and are capable of being connected to a centralized waste collection and treatment.

Establish criteria for the selection of applicants who are eligible for participation in the Program. Priority shall be given to applicants whose (3) participation in the Program will result in the removal of animal waste management systems from floodplains; who have substantially complied with federal and State laws, regulations, and rules for the protection of the environment, natural resources, and public health; and who have a limited ability to pay for or finance an innovative swine waste management system through private or cooperative credit at reasonable rates and terms.

(4) Develop a process for soliciting and reviewing applications and for selecting

persons to participate in the Program.

(5) Investigate and pursue other funding sources to supplement State funds,

including federal, local, and private funding sources.

Provide technical assistance to participating persons to assist with (6) modifications of waste management systems and facilitate the timely transfer

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of technology among participating persons.

SECTION 2.(e) Advisory Committee. - The Director of the Division of Soil and Water Conservation may establish an advisory committee to assist the Division with the implementation of this act. If the Director establishes an advisory committee, the Director may direct the advisory committee to evaluate:

Markets for by-products derived from swine waste and make recommendations for development of the markets, including identification of

regulatory obstacles.

(2) Methods to encourage growers, integrators, and electric power suppliers to cooperate in the production and use of renewable energy or other marketable by-products derived from swine waste, including an examination of tax

incentives, carbon sequestration credits, and trading mechanisms.

SECTION 2.(f) Report. – No later than 1 October of each year, the Division of Soil and Water Conservation in the Department of Environment and Natural Resources shall prepare a comprehensive report on the implementation of Sections 1, 2, and 3 of this act. The report shall be submitted to the Environmental Review Commission as a part of the report required by G.S. 143-215.10M. The first report required by this subsection shall be submitted to the Environmental Review Commission no later than 1 October 2008.

SECTION 3. Account. - There is hereby established the Swine Farm Waste Management System Conversion Account within the Division of Soil and Water Conservation of the Department of Environment and Natural Resources. Funds in the Account shall be used only as provided in subsection (b) of Section 2 of this act. The Account shall consist of funds appropriated to the Account by the General Assembly; any federal funds available for this purpose; and any grants, gifts, or contributions to the State for this purpose. Funds in the Account shall not revert.

SECTION 4.(a) Definitions. – The definitions set out in G.S. 143-215.10B and the following definitions apply to this section:

"Commission" means the Utilities Commission.

(2) (3) "Department" means the Department of Environment and Natural Resources.

"Electric public utility" means an investor-owned public utility as defined in

G.S. 62-3(23)a.1.

(4) "Permit holder" means a person who holds a permit issued under Article 21 of Chapter 143 of the General Statutes by the Environmental Management Commission for an animal waste management system that serves a swine farm.

"Public Staff" means the Public Staff of the North Carolina Utilities (5)

Commission established pursuant to G.S. 62-15.

"Swine farm" has the same meaning as in G.S. 106-802.

SÉCTION 4.(b) Program Established. – The Swine Farm Methane Capture Pilot Program is hereby established as a voluntary program to be administered jointly by the Department and the Commission.

SECTION 4.(c) Participant Selection. – An owner or operator of a swine farm who wishes to participate in the Swine Farm Methane Capture Pilot Program shall register with the Department and the Commission. From among those swine farms that are registered, the Department and the Commission may select a total of up to 50 swine farms for participation in the pilot program over the life of the program. The Department and the Commission shall select swine farms for participation in the pilot program so as to achieve as nearly as possible a representative sample of the types and locations of swine farms in the areas served by electric public utilities in the State, types of methane capture and electric power generating systems, and in the order in which they register. In selecting swine farms for participation in the pilot program, the Department and the Commission may also consider the ability of the methane capture system to reduce the emissions of other pollutants, including ammonia. The Department and the Commission may select a swine farm for participation only if the swine farm meets or will meet all the following criteria:

> (1) The permit holder has operated and maintained the animal waste management system in substantial compliance with the permit and all applicable federal and

State laws, regulations, and rules.

(2) The lagoon is covered, partially covered, or otherwise modified in a manner that captures a significant portion of the methane emitted by the lagoon.

The captured methane is used to generate electricity.

(3) (4) The swine farm generates electric power that is available for purchase by the electric public utility that serves the swine farm on or before 1 September 2010.

(5) The electricity generated by the swine farm can be supplied to the distribution system of the electric public utility that serves the swine farm through an interconnection that meets the standards established by the Commission.

SECTION 4.(d) Implementation. – Each electric public utility that serves a swine farm that is selected for participation in the pilot program is required to purchase all electricity generated by the use of captured methane as a fuel by pilot program participants for seven years. The total of all electric power purchases under the program shall not exceed 25 megawatts at any point in time. The seven-year period begins on the date the swine farm first sells electricity to the electric public utility and ends seven years after the date on which the period begins. The Commission shall set a suggested purchase price that would allow program participants to recover reasonably and prudently incurred capital and operating costs and that would minimize the impact of the pilot program on ratepayers. The price of power purchased under the program shall be determined by agreement between each program participant and the electric public utility. Each purchase price agreement shall take into account the extent to which any capital or operating costs are paid to the program participant from any other source, including grants. A purchase price agreement may be revised at any time by agreement between the parties. In the event that a program participant and an electric public utility cannot agree on a purchase price, the Commission, with the advice of the Public Staff, shall set the purchase price. In no event, shall the suggested purchase price, an agreed upon purchase price, or a purchase price set by the Commission in the event that a program participant and an electric public utility cannot agree on a purchase price exceed eighteen cents (18¢) per kilowatt hour. The Commission, with the advice of the Public Staff, may review any agreement between a program participant and an electric public utility. All costs incurred by an electric public utility to comply with the provisions of this section may be recovered as costs of fuel pursuant to G.S. 62-133.2.

SECTION 4.(e) Adoption of Rules. - The Commission may adopt rules to implement this section as provided in Chapter 62 of the General Statutes. The Department may adopt rules to implement this section as provided in Chapter 150B of the General Assembly.

SECTION 4.(f) Effect of Section. – It is the intent of the General Assembly that this section applies only to the particular circumstances that are the subject of this section. This section does not establish a precedent with respect to purchase or sale of renewable energy.

SECTION 4.(g) Report. - The Department and the Commission shall jointly report to the Environmental Review Commission and the Joint Legislative Utility Review Committee on or before 1 January of each year on the implementation of this section. The report shall include a program evaluation based on an assessment of the costs and benefits of the program and any specific findings and recommendations, including any legislative proposals, that the Department and the Commission determine to be appropriate. The first report will be due 1 January 2009.

SECTION 5. Certain Agreements Not Affected. – This act shall not be construed to

alter the obligations of any party to any of the following agreements:

The agreement among the Attorney General of North Carolina; Smithfield Foods, Inc.; Brown's of North Carolina, Inc.; Carroll's Foods, Inc.; Murphy Farms, Inc.; Carroll's Foods of Virginia, Inc.; and Quarter M Farms, Inc., of 25 July 2000.

(2) The agreement between the Attorney General of North Carolina and

Smithfield Foods, Inc., of 30 September 2000.

(3) The agreement among the Attorney General of North Carolina and Premium Standard Farms, Inc.; The Lundy Packing Company, Inc.; Dogwood Farms, Inc.; Dogwood Farms II, LLC; L&S Farms, a partnership; and L&H Farms, LLC, of 29 September 2000.

(4) The agreement between the Attorney General of North Carolina and Frontline

Farmers, Inc., of 13 March 2002.

(5) The agreement among North Carolina State University, the Attorney General of North Carolina, and Smithfield Foods, Inc., of 30 September 2000, including an amendment of 12 February 2004.

SECTION 6. Effective Dates. – Section 3 of this act becomes effective 1 July 2007. All other sections of this act become effective 1 September 2007. Section 4 of this act expires 1 September 2017.

In the General Assembly read three times and ratified this the 26th day of July, 2007.

- s/ Beverly E. Perdue President of the Senate
- s/ Joe Hackney Speaker of the House of Representatives
- s/ Michael F. Easley Governor

Approved 11.30 am this 31st day of August 2007



North Carolina Department of Administration

Michael F. Easley, Governor Britt Cobb, Secretary

Larry E. Shirley, Director State Energy Office

February 22, 2008

To:

Senator Charles W. Albertson Senator Daniel G. Clodfelter Representative Lucy T. Allen Representative Pryor A. Gibson

From: Larry Shirley

Re:

Report on Energy Efficiency Implementation Activities re SL2007-546

Session Law 2007-546, Section 2.1 (a) to (d) requires the Department of Administration (DOA) to prepare for implementation of energy conservation measures in existing state, university, and community college buildings. Specific energy areas are noted in this legislation and also in the funding provision [SL2007-323, Section 19.3(b)]. DOA's State Construction Office (SCO) and State Energy Office (SEO) developed project selection criteria and a needs assessment form which were sent to eligible entities in December. (See Attachment A1 and Attachment A2).

Thirty-four (34) state agencies, universities, and community colleges responded. Estimated cost of these projects totaled \$18M, far exceeding the \$5M Energy Efficiency Reserve funding.

There were twenty-one (21) Needs Assessment Form responses which requested specific products. These will be purchased from Energy Efficiency Reserve funds by SEO and delivered to the participants for installation. Installation must be completed by agency in-house staff by December of 2008.

LED Exit Signs	3,000
CFL Lamps (60w, 75w and 100w)	7,700
Sink Aerators (0.5 gpm)	4,500
Shower Flow Restrictors (1.5gpm)	1,600

Funding requests for 200 energy efficiency projects were received. These are categorized as follows:

Mailing Address: 1340 Mail Service Center Raleigh, NC 27699-1340 Telephone (919) 733-2230
Fax (919) 733-2953
www.energync.net
An Equal Opportunity/Affirmative Action Employer

Location: 1830A Tillery Place Raleigh, North Carolina 27604



ſ	Retro-Commissioning Lighting Systems Boilers and Steam Traps Water Conservation HVAC	40 72 16 10 18
	HVAC	18
	Other (i.e., motors, motor drives, windows, insulation)	44

SEO/SCO will evaluate submitted project proposals based on cost, payback time, and diversity of geographical location and agencies until the Energy Efficiency Reserve funds are depleted. Contracts for these projects will be executed by DOA and overseen by SEO/SCO. Monitoring and Verification (M&V) of project savings will be included as a component of larger projects. The SEO's Utility Savings Initiative funds will be used to contract for separate M&V of smaller projects.

Supporting Activities through Utility Savings Initiative Funding

Also, through the SEO's Utility Savings Initiative funding, several additional energy efficiency programs are underway. These services are available to personnel in state agencies, universities, community colleges, local governments, and K-12 public schools and include:

- Basic energy surveys for approximately 150 buildings (with preference given to community colleges) to identify and recommend energy conservation measures in public buildings;
- Technical workshops on energy modeling, energy code, commissioning, and energy auditing—4 topics x 1 day-long class each at 2 locations = 8 workshops;
- Energy Management Diploma classes—a series of 14 days of cumulative training on topics including bill analysis, equipment operation and troubleshooting, geared to facility operators and managers;
- Strategic Energy Planning workshops—one-day class to help energy managers, facility operators, and other staff formulate a plan to reduce energy consumption, track results, and encourage behavioral changes;
- Advanced Technology Seminars such as the one-day water conservation conference held December 14, explaining new technologies now available;
- Training in ASHRAE criteria at various levels of detail for capital project coordinators, designers (architects and mechanical engineers), facility managers, and chief financial officers involved in development of new State-funded buildings; and
- Detailed operational assessments of specific systems (such as HVAC, chillers, boilers, etc.) and monitoring and verification of efficiency measures that have been installed.

Performance Contracting Support

In addition, the Utility Savings Initiative umbrella of services includes technical assistance for public agencies which are interested in performance contracting projects. Information is provided for development of requests for proposals, assessment of subsequent responses, points to include in contracts, measurement and verification, and other aspects of energy efficiency and conservation.

Five contracts have been executed or are in process:

Museum of Art	\$4,966,763	
DOA Downtown Complex	\$18,863,659	
Downtown Amendment (LOB/LB)	\$2,572,348	
UNC Greensboro	\$5,808,994	
DOC	\$14,136,827	(estimated)
Total	\$46,348,591	

Additionally, 11 universities and 3 agencies have expressed interest in beginning the Performance Contracting process. The current \$100M debt ceiling will likely be reached before many of these projects get to the Request for Proposal stage.

These Utility Savings Initiative projects and programs provide tools and targeted funding to help agencies to achieve the energy efficiency objectives of SL2007-546.

Please contact me at 733-1889 or Len Hoey at 733 1891 if there are questions.

cc: Speros Fleggas
George Givens
Len Hoey
Michael Hughes

Notice of Funding Availability for Energy Efficiency Projects

Governor Easley recently signed into law SB 668, which requires state agencies and universities to reduce energy consumption 20 percent by 2010 and 30 percent by 2015. As one element of meeting that goal, SB 668 requires energy conservation measures in designated areas, including lighting, water use, HVAC systems and minor equipment, to be fully implemented in all state buildings by December 31, 2009.

To assist with meeting this mandate, Governor Easley has established a \$5 million Energy Efficiency Reserve Fund. Funds will be made available in two categories: a small building program focused on single story buildings with relatively simple energy systems and a large building program focused on buildings greater than 20,000 gross square feet (GSF) with more complex energy systems.

Selection Criteria and Project Schedule

To initiate projects for funding from the Energy Efficiency Reserve Fund, participants should submit a request for funding by Form OC-25 no later than **December 31, 2007**. OC-25 forms should be submitted to Michael Hughes, State Construction Office, at Michael.Hughes@ncmail.net. Projects will be selected by January 31, 2008.

Contracts for these projects will be executed by the Department of Administration and overseen through a collaborative effort of the State Energy Office and the State Construction Office.

On receipt of the proposals submitted with Form OC-25, the State Energy Office will work jointly with the State Construction Office to select projects for funding. Several criteria will be used for selection:

- The project must be feasible, with a strong, demonstrated economic return on investment.
- The applicant must have submitted a current Strategic Energy Plan to the State Energy Office. The goals identified in the plan should include the energy conservation items requested under this proposal. Training and on-site technical assistance in the preparation of a plan is available from the State Energy Office.
- The applicant must provide a statement confirming that the systems upgraded under this program will be operated to prevent reversion to the condition of energy waste. Key maintenance staff must receive appropriate training to maintain the systems installed or upgraded.
- Applicants that commit to use in-house labor without reimbursement for implementing the energy conservation measures will be given preference.

The OC-25 form submitted for this project should show one-year duration for the project, with completion no later than December 2008. All projects must be submitted with an OC-25 form, including those that fall below the usual minimum \$100,000 threshold. Instead of OC-25

worksheets, participants should attach a narrative scope of work, as well as the following information about each building included in the application:

- Building asset number (as assigned by the State Property Office)
- Building gross square footage (GSF)
- Building original year of construction
- Dates of any major renovations to the building
- Energy Management System manufacturer and date of installation (if applicable)
- Energy Management System local representative contact (if applicable)
- Boiler and chiller capacity, manufacturer, and installation year (if applicable)
- Metering capability to measure energy use
- A statement of the economic return for the energy efficiency investment (e.g. 3-year payback) and back up calculation/analysis to support this statement.

Description of Funding Categories

Support from the Energy Efficiency Reserve Fund will be available in two categories, the large building program and the small building program.

The Large Building Program supports large scale energy efficiency initiatives in buildings greater than 20,000 GSF. Funding in this category is expected to range widely, but is capped at \$150,000 per project.

Eligible projects include, but are not be limited to:

- lighting retrofits, such as switching T-12 to T-8 or T-5
- building envelope retrofit including insulation and window replacement
- boiler tune up and repair
- steam trap survey and replacement
- retro-commissioning of HVAC equipment and energy management systems

Applicants are particularly encouraged to submit proposals for retro-commissioning. Studies have shown that incorrectly programmed HVAC controls and energy management systems can cause extreme energy waste. "Retro-commissioning" – or correction of these wasteful settings in such areas as schedule of operation, temperature and air flow, along with minor repairs – can be an excellent investment with a payback of between six and 18 months.

Applicants are not encouraged to submit proposals for buildings with major repair and renovation needs under this program, as funds required to complete these projects will be much greater and should be requested from the State Repair and Renovation Fund.

The Small Building Program supports smaller scale energy efficiency initiatives in buildings greater than 1,500 GSF and less than 20,000 GSF. Funding is capped at \$15,000 per project.

The focus of this initiative will be small building retrofits, with elements of the retrofit including, but not limited to:

- basic weatherization,
- heating and air conditioning analysis, optimization and repair, and

• lighting retrofits, such as switching T-12 to T-8 or T-5.

In both the large and small building programs, preference will be given to state-owned buildings supported by General Fund appropriations. Cost sharing by agencies and universities in these projects is strongly encouraged.

Applicants are free to submit more than one application for both the large and small building programs.

Guidelines for Retro-Commissioning Projects

A significant amount of energy can often be saved by correcting deficiencies in HVAC equipment and direct digital control systems in buildings and energy plants that are less than 15 years old. The process of restoring these systems to their intended, efficient operating conditions is known as retro-commissioning.

The scope of work for such retro-commission projects is complicated and requires a project designer ("commissioning agent") and contractors. The commissioning agent will be responsible for directing and managing the work of the contractors. The primary contractor on each project is expected to be a controls vendor. Due to the proprietary nature of direct digital control energy management systems (EMS), the vendor representing the manufacturer of the EMS will typically be the only contractor fully qualified to modify and repair it. The Department of Administration intends to convene key control vendors operating in North Carolina to negotiate an appropriate hourly rate for qualified technicians that can apply for all commissioning projects.

Costs for retro-commissioning are expected to run from \$50,000 and \$150,000 per project – at a rate of between \$.50/ft² and \$.75/ft². This cost includes equipment and installation costs, as well as commissioning agent and contractor fees. Preference will be given to projects for which the facility owner agrees to use in-house controls technicians as labor for the retro-commissioning project. This preference will be stated on the request for proposals prepared by the Department of Administration.

The Department of Administration, in consultation with the agency or institution, will select a qualified commissioning agent. A percentage of the retro-commissioning project costs should be allocated for repair and replacement of defective devices and equipment. Once these deficiencies are identified by the commissioning agent in order of priority, an informal bid process should be initiated and the repairs completed by the mechanical contractor with the lowest informal bid.

Project Measurement and Verification by an independent third party should also be included in project cost. Upon completion of the retro-commissioning modifications, the commissioning agent will be responsible for issuing a measurement and verification report documenting the cost and savings of the project.

If the contractor refuses to follow the directions of the commissioning agent or otherwise fails to perform up to reasonable expectations, the Department of Administration, in consultation with the project applicant and commissioning agent, will stop work until the dispute is resolved and payment to the contractor may be withheld.

ENERGY EFFICIENT PRODUCT NEEDS ASSESMENT FORM

Agency/University/Community Col	lege
(Please list below all included build	<i>G</i> ,
	· · · · · · · · · · · · · · · · · · ·
,	
(Please include below only the items	that are in need of replacement)
Number of exit signs	
Number of incandescent light bulbs:	60 watt
	75 watt
	100 watt
Number of sink faucets	
Number of shower heads	_
utilized. Areas where occupancy ser kitchen areas and conference rooms. lights being left on when empty. (Ac	ities where you feel occupancy or optical sensors should be asors are most effective include: rest rooms, break rooms, These areas have low occupancy with a high incidence of ditional information for each location, including room type, rs per day the room is used, would also be helpful.)
	•

Report on the Generation and Potential Recycling of Fluorescent Lights

NC DENR

Division of Pollution Prevention and Environmental Assistance Division of Waste Management

Introduction

Session Law 2007-550, Section 17 requires the Division of Waste Management and the Division of Pollution Prevention and Environmental Assistance within the Department of Environment and Natural Resources to report its findings and recommendations on the recycling of fluorescent lamps to the Environmental Review Commission. This report has been prepared in accordance with this requirement. Because fluorescent lights are substantially more energy efficient than incandescent bulbs, it is anticipated that their use will grow dramatically in the coming years, a trend encouraged by energy policies passed by the General Assembly in 2007, by the U.S. Congress, and by the actions of utilities, large retailers, and other parties. However, fluorescent lights all contain at least some amount of mercury, leading to the use of the term "Lamps Containing Mercury" or LCMs to describe these products. For shorthand, "LCMs" will be used in this report to refer to the full spectrum of fluorescent lights. An excellent overview of mercury use in lighting is available on the Website of the Northeastern Waste Management Officials Association (NEWMOA) at:

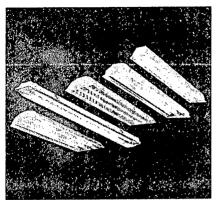
http://www.newmoa.org/prevention/mercury/imerc/FactSheets/lighting.cfm

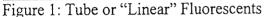
Use and Generation of LCMs

Two main kinds of fluorescent lights are used in North Carolina:

- Long tubes, commonly found in commercial, institutional, and industrial applications in fixtures that include an exterior ballast (see Figure 1 below) typically, these lamps come in 4 and 8-foot lengths.
- Compact fluorescent lights, or CFLs, that have a self-contained ballast (see Figure 2 below). Because CFLs are designed to be screwed into incandescent lamp fixtures, they are more often used in homes, and increasingly in commercial applications such as hotels.

Additional variations of LCMs are also sold and used, including circle and U-shaped lamps and high intensity discharge (HID) lamps. Although these LCMs also are subject to the same regulatory status and recycling situation as other LCMs, they represent a small portion of lamps. It is anticipated that any collection infrastructure, incentives or mandates that may affect tube lamps and CFLs will also benefit the diversion of other LCMs. Thus, the focus of this study is on tube lamps and CFLs. Figure 1 below shows a picture of typical tube LCMs and Figure 2 shows examples of CFLs.





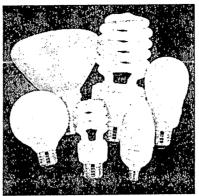
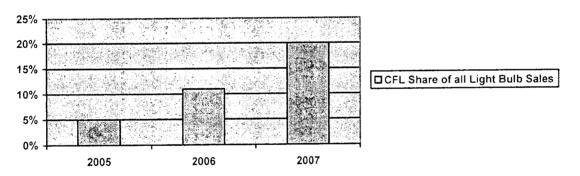


Figure 2: Compact Fluorescent Lights - CFLs

CFLs in particular are increasing in use due to their promise of energy savings in lighting. The three largest CFL manufacturers reported an increase in CFL sales of 65 percent in 2006. That growth accelerated in 2007. Wal-Mart's goal of selling 100 million CFLs in 2007 was met three months early. Other large retailers like Home Depot and Lowes have also seen a dramatic rise in CFL sales, a trend they have encouraged with special promotion programs - Progress Energy supported such a program with Home Depot in 2007, offering \$1 discounts on CFLs until 200,000 were sold. According to a U.S. EPA estimate, total sales of CFLs increased to 290 million bulbs in 2007, rising to a record 20 percent of all U.S. light bulb sales. The graph below shows the EPA estimates of CFL market share over the past three years.

Graph 1: CFL Share of Light Bulb Sales



The transition to greater use of CFLs will be pushed further by the U.S. Energy Bill signed into law in December 2007. The bill does not outright ban the use of incandescent light but sets standards for bulbs to use 25-30 percent less energy by the years 2012-2014, and to be 70 percent more efficient by 2020. Currently, the predominant lighting technologies that can meet those standards are CFLs and LEDs, or light-emitting diodes. However, LEDs have almost no household market penetration at this point, leaving widespread use of CFLs as the most likely immediate choice to meet the Energy Bill standards. The U.S. follows Ireland, China, and Australia in passing measures that may effectively phase out the use of incandescent bulbs.

The table below extrapolates from national data the amount of LCMs sold, in use, and ready to be discarded each year in North Carolina.

¹ Conversation with Paul Abernathy, Association of Lighting and Mercury Recyclers (ALMR), 2/2/08.

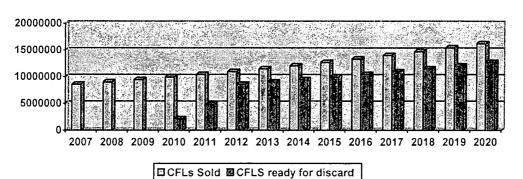
Table1: Estimated Sale and Use of LCMs, including CFLs

	National	North Carolina
Total LCMs sold	670 million ²	20 million
Total CFLs sold, 2007	290 million	8.6 million
Total Incandescent Bulbs Sold	1.45 billion*	43.5 million
Projected total of CFLs sold at	725 million*	21.5 million
50 percent of all bulb sales		
Number of LCMs in use	4 billion	120 million
Number of LCMS ready for	514 million ³	15 million
discard annually		
Residential	142 million	4 million
Commercial	372 million	11 million

^{*} Calculated extrapolating from EPA estimate of 2007 CFL sales reaching 20 percent of all bulb sales.

One of the beneficial features of CFLs is their relative durability, lasting 5 to 7 years in use life, much longer than a standard incandescent bulb. Because of this durability, it is difficult to accurately project actual discard rates. However, Graph 2 below shows one scenario based on the estimated sales of CFLs in North Carolina with an assumed 5-year use life per bulb. The data assumes a 5 percent growth rate per year in CFL sales, although recent sales trends exceed that growth rate. As the graph shows, by 2020, North Carolina will have approximately 12.7 million CFLs ready to be discarded on an annual basis.

Graph 2: Estimate of the Sale of CFLs and Generation of Discarded CFLs



Mercury in LCMs

All fluorescent lights require some amount of mercury to be able to function. Manufacturers of LCMs are making strides in reducing the amount of mercury in the lights but will not be able to eliminate it altogether. The disposal of LCMs thus poses a risk of release of mercury into the environment. The recycling of LCMs helps reduce these potential releases.

² E-mail from Paul Abernethy of ALMR.

³ ALMR, "National Mercury-Lamp Recycling Rate and Availability of Lamp Recycling Services in the U.S." Available at: http://www.lamprecycle.org/.

Members of the National Electrical Manufacturers Association (NEMA), which includes all four of the leading manufacturers of LCMs, have agreed to a 5-milligram ceiling for CFLs of 25 watts or less. According to NEMA, CFLs currently average between 3 and 4 mg per unit. For tube LCMs, NEMA reported in 2001 the average amount of mercury in a four-foot tube lamp was 8.3 milligrams. Figure 3 below shows the amount of mercury in a typical CFL relative to the size of a dime.



Figure 3: Amount of mercury in an average CFL

Manufacturers of LCMs have been successful in reducing the mercury used in their products and continue to try to decrease mercury levels. GE has said that it would like to bring the mercury content down from 5 milligrams per bulb to just 1 mg per bulb.⁶ Philips has announced that the 19 CFL products it sells through Wal-Mart contain 40 to 60 percent less mercury than the suggested NEMA level of 5 milligrams. Thus, over time, discarded CFLs will contribute less mercury per unit to potential environmental releases.

The numbers in Table 2 below multiply these average amounts of mercury by the estimates from Table 1 above for the number of lamps used, sold, and entering the waste stream. The table provides a projection of the amount of mercury in LCMs generated as discards in North Carolina, using an assumption that all of the tube lamps represented are 4-foot bulbs.

⁴ NEMA, "Recycling Household CFLs," September 2007. Retrieved from: http://www.nema.org/gov/env_conscious_design/upload/Recycling%20Household%20CFLs.%2009%2007.pdf.
⁵ NEMA, "Fluorescent and Other Mercury-Containing Lamps and the Environment," March 2005.

⁶ Planet Ark.org Web article, October 25, 2007. The article states that GE is "working to make incandescent bulbs more efficient. A more efficient incandescent bulb would introduce a new option for reducing energy use, as CFLs do, without the added risk of mercury contamination."

Table 2: Estimate of Mercury Content of LCMs in Use and Sold in North Carolina

	Number of	Amount of Mercury	Amount of
	LCMs in NC	in Milligrams	Mercury in Lbs.
Estimated Current Annual LCMs	15 million	105,000,000	231.5
Ready for Discard			
Residential Portion	4 million	28,000,000	61.7
Non-Residential (Commercial) Portion	11 million	77,000,000	169.8
Estimated Current LCMs in Use	120 million	840,000,000	1,851.9
CFLs Sold, 2007	8.6 million	34,400,000*	75.8
Projected total of CFLs sold at 50	21.5 million	64,500,000**	142.2
percent of all bulb sales			

^{*} Includes CFLs and tubes lamps together. For purpose of analysis, with tube lamps containing 8.3 mg and CFLs about 4 mg per bulb but tube lamps more prevalent, an average of 7 mg per LCM is used for mercury estimates.

Predominant Non-Household Generation of LCMs

Non-residential (commercial, industrial, and institutional) sources use and discard the vast majority of LCMs in North Carolina. As seen in the table above, non-residential sources account for almost 75 percent of LCMs. In addition, because they use more tube lamps, which contain roughly twice as much mercury as CFLs, non-household sources generate by far the most LCM-related mercury. This ratio will likely change over time as more commercial and institutional sources and households buy more CFLs. But commercially generated tube lamps will continue to be the largest source of potential LCM mercury releases for at least the next decade.

Regulatory Status of LCMs

LCMs generated by households are not subject to hazardous waste rules in North Carolina, and therefore may be disposed of legally in solid waste landfills. LCMs generated by non-households, such as businesses, industries, and institutions (like schools and government entities), face a more complicated picture. According to hazardous waste and solid waste regulations, non-household generators cannot legally dispose of LCMs in a solid waste landfill unless they can provide documentation to show the waste LCMs are non-hazardous. However, it is expensive to conduct a hazardous waste test for LCMs and many, if not all of them, would likely fail. Thus, non-household generators have little practical choice except to not dispose of LCMs and recycle them instead.

To avoid subjecting non-households to costly and complex hazardous waste rules, EPA and North Carolina categorize LCMs as a "universal waste." If generators follow some simple rules, they can manage universal wastes such as LCMs at much lower costs – in effect, this means using legitimate recycling services for LCMs and not allowing them to accumulate over time.

The Division of Waste Management and Division of Pollution Prevention and Environmental Assistance believe there is little awareness of the regulatory status or of recycling options for LCMs among many non-household generators. Therefore, many, if not most, generators across the state, particularly small businesses and institutions that have only small amounts or

^{**} Assumes 4 mg mercury per bulb.

^{***} Assumes 3 mg per bulb as manufacturers reduce mercury content over time.

occasional spent bulbs, are disposing of LCMs in their solid waste on a regular basis. While over the past five years the Division of Waste Management has cited 59 facilities for violations of LCM management standards and assessed more than \$35,000 in penalties, there remain probably thousands of businesses and institutions, such as schools and government agencies, who are in violation of state environmental regulations in how they handle their LCMs.

Disposal of LCMs in North Carolina

According to 2004 data from ALMR, national recycling rates are substantially higher for commercially generated LCMs than those generated by households. As indicated in Table 3 below, an estimated 98 percent of residential LCMs are disposed; by contrast, 71 percent of business-generated LCMs are disposed. Because non-households generate the vast majority of LCMs and the recycling rate for those materials is higher, it draws the total national recycling rate up to an estimated 24 percent.

Table 3: Estimated Recycling Rates By Source of LCM⁷

Source of LCM	Estimated Recycling Rate	Percentage Disposed
Residential	2%	98%
Commercial	29%	71%
All Generators	24%	76%

Although there is no specific data source for North Carolina, it is likely that these national estimates reflect the situation here or possibly overestimate the amount of current LCM recovery in the state. With a limited recycling infrastructure available to households in North Carolina (see "Recycling Options" below), the vast majority of spent residential CFLs and tube fluorescents are disposed. Additionally, as stated above, given the regulatory status of the materials, almost 3 out of every 4 non-household LCMs are disposed, indicating widespread technical violation of state hazardous and solid waste rules.

Mercury Releases from Disposal of LCMs

Disposed LCMs can release mercury into the environment in a number of ways. It is possible for mercury to leach from solid waste into groundwater, but landfill liners make this much less likely to occur (all municipal solid waste landfills are lined in North Carolina). Researchers with Oak Ridge National Laboratories found two main sources of mercury releases from solid waste disposal: 1) at the "working face" of the landfill as LCMs are crushed when dumped and compacted with trash, and 2) through landfill gas vents.⁸

As stated in a report by NEWMOA: "Once buried, some of the inorganic mercury in the landfill is converted by bacteria living there into a more toxic form, called organic or methylated mercury. Researchers have measured one organic mercury compound, dimethyl mercury, from gas destined for landfill venting at levels 1,000 times higher than what has been measured in open air (Lindberg, 2001)." The study notes that there can be a high degree of variability in

⁷ ALMR, "National Mercury-Lamp Recycling Rate and Availability of Lamp Recycling Services in the U.S." Available at: http://www.lamprecycle.org/.

⁸ Northeast Waste Management Officials Association mercury fact sheet: www.newmoa.org/prevention/mercury/landfillfactsheet.doc.
⁹ Ibid.

how much and in what ways landfills can be sources of mercury. It should also be pointed out that LCMs are not the only mercury-containing products disposed of in solid waste – the waste stream also likely includes products such as mercury thermostats and thermometers, among other sources.

Recycling Options Available to Non-Households

The North Carolina Recycling Markets Directory lists 32 companies offering collection and recycling services for LCMs – about half of these companies are outside of North Carolina but include the state in their service area. Many of these collection companies offer on-site pick-up of materials (suitable mostly for large generators) and many also offer pre-paid mailing kits, which are especially practical for small generators. Some small quantity generators are also allowed to use a few of the local household hazardous waste (HHW) programs in North Carolina. In effect, there is no lack of commercial recycling service available to non-household LCM generators in the state and the markets are relatively competitive.

Recycling Options Available to Households in North Carolina

For some North Carolina citizens, physical recycling opportunities for LCMs are most readily available through HHW collection programs. Most HHW programs, which collect toxic and other materials such as pesticides, paint, cleaning chemicals, etc., will accept LCMs from the public. Eighteen HHW programs take fluorescent lights – see Figure 4 below showing a map of HHW programs in the state accepting LCMs. However, due primarily to the expense of HHW collection (at a statewide average of about \$1,226/ton), only a minority of counties in North Carolina have HHW programs.

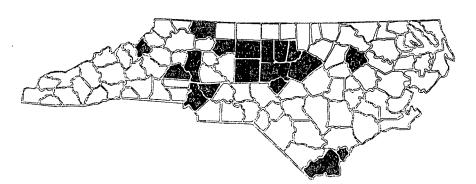


Figure 4: Counties collecting LCMs in their HHW programs

For North Carolinians with no access to HHW programs, the only other identified option is the use of recycling kits supplied by LCM recyclers and other parties. For example, the U.S. Postal Service has recently announced a partnership with a leading manufacturer and a leading recycler of CFLs, Osram Sylvania and Veolia Environmental Services, to offer a kit called RECYCLEPAK for consumers to send in CFLs for recycling. The kit holds up to 12 CFLs. Consumers buy the kit on-line for a cost of \$15, pack the bulbs in the package's plastic liner, and then send it to Veolia via the USPS. At 12 bulbs per pack, the cost per bulb is \$1.25. Kits are also available for tube LCMs, with information on the service posted at: http://www.sylvania.com/Recycle/RecyclePak/

One community in North Carolina, Buncombe County, has initiated a unique program using fire stations as collection points for LCMs. Fire stations were chosen because they are more conveniently located than the county's HHW center at the landfill and because they have the ability to address hazardous materials (HAZMAT) spills in case LCMs break during handling. From July 2007 through February 2008, 12 fire stations in Buncombe County have collected 3,675 LCMs, about 80 percent of them 4-foot tubes. There is no available cost data yet from the program, but Buncombe County originally budgeted \$60,000 for the program.

Other Potential Collection Methods

To date, there are no known alternatives for households in North Carolina other than HHW programs and self-mailed kits. A few other options may develop in the state over time, possibly encouraged by legislation, incentives, national product stewardship agreements, or other mechanisms.

One such potential option is for LCM retailers to offer collection programs to their customers. This method is being tried in a few other states, often through partnerships between a number of parties, such as state and local governments, utilities, utility commissions and certain retail stores. ¹⁰

One example of such a program is in Vermont where, since August 2005, the state has conducted collection through True Value Hardware Stores and other retailers who voluntarily set up collection containers in their businesses. The program has collected 5,800 CFLs and 170,000 linear feet of LCMs at a cost of \$.35/CFL and \$.05/linear foot of bulb. It is financed through Supplemental Enforcement Program (SEP) monies. With two years of funding left, Vermont is currently looking for other long-term funding for this program. The returned bulbs do not result in additional liability for retailers as they already are selling the bulbs in their stores.

Maine's program is led by an arm of the state's Public Utilities Commission, called Efficiency Maine, in partnership with the Department of Environmental Protection (DEP). It uses retail stores as drop-off points for consumers to recycle CFLs for free – to date more than 200 retail sites are participating. Recycling costs per CFL are around \$1.00, which is financed by Efficiency Maine.

In Minnesota, a program is run through a partnership between independent hardware stores and a major lamp recycler, financed largely through fees charged to consumers using the system. Some of the utilities in Minnesota provide coupons to consumers to cover part of the costs.

At least one major chain store, IKEA, has made a corporate commitment to collect bulbs brought in by customers. To date, no retailers in North Carolina have been identified as accepting LCMs from the public for recycling. IKEA does not have a store in the state, and none of the other large retailers such as Lowes, Wal-Mart, or Home Depot, nor any smaller chains such as ACE Hardware, have offered collection.

¹⁰ For a good overview of programs in various states, see Alexandra Behringer's article on the Energy Pulse Web site: http://www.energypulse.net/centers/article/article_display.cfm?a_id=1646.

Costs to Recycle LCMs

LCM recycling is an established industry with a number of different kinds of firms, including hazardous waste management companies that offer LCM recycling as part of a full range of services, small regional collection companies that specialize in materials like LCMs, and large national mercury recyclers that provide both collection and full processing of LCMs. The two main methods of collection for non-household or commercial generators are pick-up at the generator's facilities and use of self-mailing, pre-paid kits that generators fill and send to recyclers. In this respect, for small generators in particular, the LCM recycling service industry has provided a convenient way to avoid disposal of bulbs, albeit at a cost.

DPPEA conducted Web-based and phone research of LCM recyclers on the costs charged to manage the materials through use of kits, which depend on a number of variables, including the amount and kind of LCMs being generated. Table 4 shows a summary of this research.

Table 4: Price of Recycling LCMs Using Vendor-Provided Kits

Type of Lamp	Median Cost/Lamp	Average Cost/Lamp	Lowest Cost	Highest Cost
4 ft. tube	\$1.77	\$1.62	\$.55	\$3.27
8 ft. tube	\$3.13	\$3.03	\$1.10	\$5.93
CFLs	\$1.13	\$1.49	\$.75	\$2.80

Price can be less for larger quantities, and recycling costs for "T8" tube lamps tend to be roughly 30 percent cheaper than "T12" lamps, both for 4 and 8-foot variations (T8 lamps are smaller in diameter). As noted above, the new U.S. Postal Service program has a calculated cost of \$1.25 for CFLs. Figure 5 below shows a picture of a typical set of mail-in kits offered by LCM recyclers.



Figure 5: Example of LCM mail-in recycling kits.

Large generators of discarded LCMs can achieve a much lower cost because they can accumulate sufficient quantities for efficient handling and transport of the materials. Statewide systems that achieve economies-of-scale also can be less costly. The Maine statewide program

reportedly costs about 69 cents per lamp. ¹¹ Massachusetts has established a statewide contract that can be used by state and local agencies, which helps support the state's statutory disposal ban on LCMs. In the Massachusetts contract, the cost to recycle CFLs is \$.36 per lamp, and about \$.06 per foot for tube lamps, or about \$.24 for a 4-foot lamp and \$.48 for an 8-foot lamp.

HHW programs should also be able to achieve efficiencies that make the price of recycling LCMs more affordable. As part of this study, a number of the HHW programs around the state were contacted to get data on what they are currently being charged for LCMs captured in their collection efforts. From the information gathered, it appears that HHW programs experience recycling costs half or less than the cost of the kit recycling options in Table 4 above. Table 5 shows some examples of these costs for specific communities across the state.

Table 5: Sample prices paid by Local Government HHW programs for recycling LCMs

Community	Cost for 4-foot lamp	Cost for 8-foot lamp	Cost per CFL
City of Albemarle	\$.62	\$.90	
Avery County	\$.59	\$.98	
Brunswick County	\$.86*		\$1.08
Cabarrus County	\$.16	\$.33	\$.30
Catawba County	\$.65	\$.90	
Chatham County	\$.45	\$.65	
City of Greensboro	\$.65		
Iredell County	\$.65	\$.85	
Mecklenburg County	\$.58		
New Hanover County	\$.60	\$.70	
Wake County	\$.44	\$.62	

^{*} Brunswick County's cost is an average per lamp with no differentiation between lamp types.

With only two jurisdictions reporting widely divergent specific costs for CFLs, DPPEA called one of the main HHW vendors in North Carolina to check pricing. The company reported that it is seeing very few CFLs so far in HHW programs, so costs are currently being absorbed in general HHW program charges. However, if the number of CFLs starts to increase, the vendor believes the cost per bulb would be about \$.40, which is close to the price in the Massachusetts statewide contract.

A projection is made in Table 6 on the cost to recycle all of the CFLs sold in North Carolina in 2007 and projected to be sold if CFLs reached 50 percent of all bulb sales. This estimate represents the possible expense that local governments would experience if all the CFLs flowed through HHW programs that cover the whole state. In that respect, the "Total Cost" column constitutes the highest possible costs because not all counties have such programs, not all households participate in HHW programs and some households will choose other options (like the U.S. Postal Service mail back). In other words, it is highly unlikely that HHW programs will achieve 100 percent recovery, so Table 6 also shows scenarios of 50 percent and 25 percent of recovery.

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¹¹ Conversation with Paul Abernathy, 1/28/08.

Table 6: Projection of Recycling Costs for CFLs recovered through HHW programs in NC

	Amount of	Price/	Total Cost,	Cost, 50%	Cost, 25%
	CFLs	CFL	100% Recovery	Recovery	Recovery
CFLs Sold, 2007	8.6 million	\$.40	\$3.44 million	\$1.72 million	\$.86 million
Projected total of	21.5 million	\$.40	\$8.6 million	\$4.3 million	\$2.15 million
CFLs sold at 50%					
of all bulb sales					

It is important to note that if North Carolina succeeded in capturing a large portion of LCMs generated annually, it is quite conceivable that economies-of-scale, collection efficiencies, and the attraction of recyclers to the state would lower the cost over time. As noted above, the Massachusetts contract costs 10 percent less than the 40-cent/CFL figure used in Table 6.

Mercury Reduction Benefits from LCMs

Does the possible widespread disposal of LCMs mean that North Carolina is doing more harm than good in using these products? This question is difficult to answer, but it has long been pointed out that the energy efficient nature of LCMs means less burning of coal in electrical power plants, which is one of the chief sources of mercury emissions.

To help address this issue for North Carolina and for purposes of this report, the Division of Air Quality (DAQ) has estimated the amount of mercury generated from coal-burning power plants, taking into account the beneficial affects of the Clean Smokestacks Act. By 2010, DAQ projects that coal-related mercury emissions will be 37,549 ounces per year, or a little over 1 billion milligrams. Using these figures to calculate mercury emissions per kilowatt-hour and the estimate that 60.5 percent of all electrical generation is from coal, DAQ finds that a 15-watt CFL (equivalent to a 60-watt incandescent bulb) will reduce 3.73 milligrams of mercury emissions over its useful life. A 23-watt CFL (equivalent to a 100-watt incandescent) will reduce 6.38 milligrams of mercury emissions.

Combining and then averaging these two figures produces an estimate of 5.06 milligrams of mercury reduction per CFL. This number is slightly higher than the manufacturer ceiling of 5 milligrams of mercury per CFL and 40-60 percent higher than the NEMA estimate of between 3 and 4 mg per currently produced CFL. One conclusion based on this calculation is that if all CFLs used or sold in North Carolina were disposed and subsequently released all of their mercury in the disposal process, there would still be a net reduction in mercury emissions from using these energy efficiency products. If CFLs are then recovered in any substantial way in North Carolina, the mercury emission gap would be even more favorable toward use of the lamps. Thus, it appears that the potential disposal of mercury-bearing CFLs should not deter the state from encouraging their use.

However, it is also important to note that because tube fluorescents contain 2 to 3 times the amount of mercury as CFLs, the disposal/emissions balance may not be as favorable. This further reinforces the priority of maximizing recovery of non-household tube LCMs.

Role of Utilities in the LCM issue

Both Duke Energy and Progress Energy were contacted for this report to explore their perspectives on LCMs and to identify any plans or recommendations they have in regard to the recycling and disposal issue.

Because of the energy efficiency aspects of fluorescent lights, both utilities are involved in promoting the use of CFLs. Duke has extensive experience with programs in Indiana and Ohio, including partnerships with Wal-Mart and Sam's Club to boost the sale of CFLs. The company includes CFLs in its Energy Efficiency Starter kits. Progress Energy also wants to see wider use of CFLs and, as noted above, recently partnered with Home Depot to provide coupons for purchase of the lamps.

In regard to the management of end-of-life LCMs, the utilities have slightly differing perspectives. Duke Energy sees its primary role as encouraging its customers to use existing local government HHW programs. For Duke, the issue of financing a collection infrastructure is one that is national in scope and that may require solutions on that level. Progress Energy posts information on the benefits of CFLs on it Web site, which in turn refers to EPA information on recycling options. The company also refers customers to the national recycling information network, Earth 911. For its Wake County customers, Progress provides basic information on the County's HHW collection program. Like Duke Energy, Progress has not been actively involved in addressing recycling issues, but supports the development of a network of recycling options that in turn helps facilitate the greater use of CFLs.

Both Duke and Progress are also exploring the possible expanded use of LEDs. Duke is testing use of LEDs in parking lot lights, but sees limited availability and current expense as a barrier to their use in the mass market. Progress Energy is having preliminary discussions with LED manufacturers to explore how to increase use of LED lighting and sees a role for the state in encouraging wider adoption of LED products.

Examples of Utility Involvement in LCM Recycling in the U.S.

The approach of Duke Energy and Progress Energy are similar to most utilities in the U.S. However, some utilities have taken proactive steps in regard to LCM recycling. A number of small utilities in Wisconsin and Illinois have helped sponsor public collection programs with hardware stores. ComEd, a large Midwest utility, conducted a collection program in late 2007 in partnership with Illinois EPA and Ace Hardware Stores. In Minnesota, XCel Energy partners partnered with retailers to help subsidize LCM collection through county collection centers. In Oregon, a 2005 pilot collection program involving counties, utilities, and retailers was successful enough to be continued into a permanent program in which (because of the volume being collected) overall bulb recycling costs have dropped over time. In a variation of direct utility involvement and as noted above, Efficiency Maine, the energy division of the state Public Utilities Commission, runs a statewide program in cooperation with retailers.

Clean Up of Broken LCMs

When an LCM is broken, mercury may be released as a vapor and be potentially harmful to anyone who is exposed. A number of agencies and other organizations have specified different

variations of clean-up protocols, and the work on this issue is continuing - for example by many of the states in EPA Region 1 in the northeastern U.S. It will be important for North Carolina to monitor developments on this issue and provide information to its citizens on how to properly clean up broken LCMs. For now, North Carolinians can be referred to the EPA Web site for recommendations on what to do if a fluorescent lamp breaks: http://www.epa.gov/mercurv/spills/index.htm#flourescent.

Other Mercury Problems with LCMs

The problem of mercury in discarded LCMs is only one element of the mercury dilemma with fluorescent lights. China is by far the largest manufacturer of fluorescent lights, using 64 tons of mercury each year to make 30 billion lamps, including 14 metric tons of mercury to make 1.7 billion CFLs. However, according to one expert, because of the manufacturing methods that China employs, a great deal of mercury does not actually make it into the bulbs themselves and is instead released as emissions or pollution.¹²

Other Common Consumer Product Sources of Mercury

LCMs are not the only commonly-used consumer products that contain mercury. For example, mercury thermostats are still used in North Carolina and contain 500 times the amount of mercury as a typical CFL.¹³ Similarly, typical mercury thermometers use at least .5 grams of mercury, 100 times more than a CFL.¹⁴ For many consumer products like thermostats and thermometers, non-mercury alternatives are widely available and affordable. A number of states have taken steps to ban the sale of the mercury-bearing types of these products, and North Carolina could consider similar measures – for a list of state laws on mercury products, see the EPA Web site at: http://www.epa.gov/epaoswer/hazwaste/mercury/laws.htm.

The major manufacturers of thermostats have set up a third-party organization – the Thermostat Recycling Corporation – to collect mercury thermostats back through HVAC installers and wholesalers. The Product Stewardship Institute, of which North Carolina is a member state, has conducted a number of projects on this issue, including assisting with successful public collection programs in Indiana and Oregon.

One area of concern for both fluorescent lights and thermostats is the generation of these materials in building demolition and remodeling. Most construction and demolition (C&D) debris in North Carolina goes to unlined C&D landfills with fewer environmental controls than lined municipal solid waste (MSW) landfills. North Carolina may want to consider steps to ensure mercury-containing thermostats and fluorescent lights generated in building demolition and remodeling are properly removed and handled to avoid disposal.

¹² Dave Lennett, Fluorescent Light conference call convened by the Mercury Policy Project, December 10, 2007.

¹³ Calculated using thermostat fact sheet from NEWMOA:

http://www.newmoa.org/prevention/mercury/imerc/FactSheets/thermostats.doc.

http://www.epa.gov/epaoswer/hazwaste/mercury/con-prod.htm.

Recommendations

If North Carolina's main goal is to reduce the amount of mercury released from LCM disposal, the state should first concentrate on ensuring widespread recovery from non-household sources. This approach is best pursued through two complementary strategies:

- 1) Increased outreach and educational efforts to make non-households fully aware of their regulatory obligations and recycling options for LCMs.
- 2) Increased enforcement of hazardous and solid waste regulations on non-household generators of LCMs and on the landfills that accept non-household LCMs for disposal.

If North Carolina can increase the recovery of LCMs from non-households from the current recycling rate of about 29 percent to 80 percent, the state will prevent approximately 37 million milligrams or 85 pounds of mercury from disposal each year. However, positions dedicated to this purpose do not currently exist in the Department of Environment and Natural Resources and to accomplish these tasks, the General Assembly would need to consider establishing positions within DENR focused on the non-household LCM issue.

To boost the recovery of household-generated LCMs, North Carolina should encourage the expansion of HHW programs. Permanent HHW programs provide a baseline option for households to properly manage their discarded fluorescent lights.

However, because HHW programs tend to have low public participation rates, North Carolina should also identify methods to increase the convenience of fluorescent light recycling by spreading services to other venues, e.g., household use of kits and possibly retailer take-back programs. In particular, due to the success of such efforts in other states, North Carolina should provide incentives to encourage partnerships between utilities and retailers to provide fluorescent light recycling opportunities to citizens.

To help foster these partnerships, the General Assembly should also consider convening a workgroup involving the Utilities Commission, the utilities, and representatives of the retail, local government and environmental communities to identify and recommend measures and funding sources to expand fluorescent light recycling in North Carolina.

The General Assembly should also require all state agencies, including universities, community colleges, and schools to begin recycling of all their spent LCMs and to submit a one-time report on their efforts by March 1, 2009.

In addition, because many of the solutions may best be on a national scale, North Carolina should support the efforts of the Product Stewardship Institute and others to conduct a dialogue with manufacturers, retailers, state and local governments and other stakeholder on a national system for recovery of LCMs.

To address other consumer products with larger amounts of mercury, the General Assembly should consider a ban on the sale of mercury-containing thermostats and thermometers in North Carolina. All mercury containing products, including fluorescent lights should also be banned from disposal in *unlined* landfills – i.e., C&D landfills. Alternatively or in conjunction, the

General Assembly should consider legislation that requires the removal of all fluorescent lights and thermostats before a building is demolished.

Encouraging the Use of LEDs

The long-term challenge of managing the mercury in LCMs may be at least partially met through an accelerated use of even more efficient, mercury-free lighting in the form of LEDs. The measures North Carolina could consider include:

- Requiring use of LEDs in state-owned facilities where applications are feasible.
- Eliminating or temporarily suspending sales taxes on LEDs.
- Providing tax credits for businesses and industries that switch to LEDs for example, for up to half the cost of installation.
- Providing economic incentives to manufacturers of LEDs to develop LED products for the mass home market.

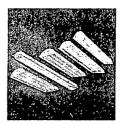
Appendix A: Requirement for Development of Program Proposal on Fluorescent Lights by NC DENR

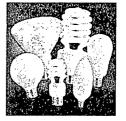
SECTION 17. The Division of Waste Management and the Division of Pollution Prevention and Environmental Assistance of the Department of Environment and Natural Resources shall jointly develop a proposal for a recycling program for fluorescent lamps. The program will be developed so as to ensure that substantially all of the mercury contained in fluorescent lamps will be recovered so as to facilitate a phase-out of incandescent lamps without damage to public health and the environment from the increased use of mercury lamps as replacements for fluorescent lamps. The Department of Environment and Natural Resources shall report its findings and recommendations, including legislative proposals and cost estimates, to the Environmental Review Commission on or before 1 March 2008.

Fluorescent Lights – Lamps Containing Mercury (LCMs)

- All fluorescent lights contain some amount of mercury to make them work – hence the term: Lights Containing Mercury or LCMs.
- LCMs widely used in many applications and come in many different forms.
- Two main forms are linear or tube lamps and compact fluorescents, or CFLs.
- Fluorescent lights are energy efficient CFLs 3-4 times more efficient than incandescent bulbs.
- Fluorescent lights are also durable CFLs should last five years or more, 6 to 10 times longer than incandescents.

Two Main Kinds of Fluorescent Lights





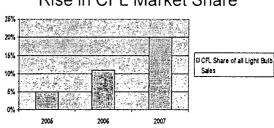
Tube or "Linear" Fluorescent Lights

Compact Fluorescent Lights, or CFLs

Use of CFLs Growing

- Homeowners, businesses and institutions are buying increasing quantities of CFLs.
- · Large retailers and utilities helping push CFL use:
 - Wal-Mart sold 100 million in 2007.
- Progress Energy and Home Depot program sold 200,000 in 2007.
- U.S. Energy bill sets lighting efficiency standards that may phase out incandescents by 2014.
- Other nations phasing out incandescents: China, Ireland, Australia.

Rise in CFL Market Share

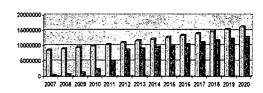


- 290 million CFLs sold in 2007 20 percent of market.
- · However, CFL sales are less than half of all LCM sales
- · Tube lamps are still vast majority of LCMs in use.

Estimated Sale and Use of LCMs

	National	North Carolina
Total LCMs sold	670 million	20 million
Total CFLs sold, 2007	290 million	8.6 million
Total Incandescent Bulbs sold	1.45 billion*	43.5 million
Projected total of CFLs sold at 50 percent of all bulb sales	725 million*	21.5 million
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Number of LCMs in use	4 billion	120 million
Number of LCMS ready for discard annually	514 million	15 million
Residential	142 million	4 million
Commercial	372 million	11 million

Generation of Discarded CFLs



☐ CFLs Sold ■ CFLS ready for discard

- · Assumes 5% growth in market share over time.
- 12.7 Million CFLs ready to be discarded annually by 2020

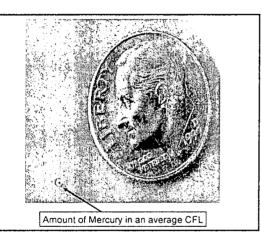
Recycling Rates for LCMs

Source of LCM	Estimated Recycling Rate	Percentage Disposed
Residential	2%	98%
Commercial	29%	71%
All Generators	24%	76%

- · Recovery rates are for the nation as a whole.
 - · North Carolina rates probably lower.

How Much Mercury is in LCMs

- Manufacturers have set a voluntary limit of 5 milligrams per 25 watt CFL.
- Most CFLs at 3 4 milligrams and manufacturers are seeking further reductions.
- Tube lamps contain about twice as much mercury as CFLs: about 8.3 milligrams.
- By comparison, other mercury-containing products have much higher levels:
 - Mercury thermostats have 500 times more mercury
 - Mercury thermometers, 100 times more



Mercury Content in LCMs in NC

	Number of LCMs in NC	Amount of Mercury in Milligrams	Amount of Mercury in Lbs.
Estimated Current Annual LCMs Ready for Discard	15 million	105,000,000	231.5
Residential Portion	4 million	28,000,000	61.7
Non-Residential (Commercial) Portion	11 million	77,000,000	169.8
Estimated Current LCMs in Use	120 million	840,000,000	1,851.9
CFLs Sold, 2007	8.6 million	34,400,000*	75.8
Projected total of CFLs sold at 50 percent of all bulb sales	21.5 million	64,500,000**	142.2

* Includes CFLs and tubes tamps together. For purpose of analysis, with tube lamps containing 8.3 mg and CFLs about 4

** Assumes 4 mg mercury per bulb.
*** Assumes 3 mg per bulb as manufacturers reduce mercury content over time

What Happens to Mercury Disposed from LCMs

- Mercury can be released in collection, hauling, and disposal of LCMs.
- Landfill liners help control LCM mercury effects on groundwater.
- LCM mercury in organic or methlyated form can be released from the working face and gas vents of landfills.
- LCM just one source of potential mercury air releases from landfills.

Do LCMs result in overall increased mercury emissions?

- Average CFL will reduce over 5 milligrams of coalsource mercury emissions.
- Most CFLs only contain 3 4 milligrams of mercury, and level is dropping.
- Even if all CFL mercury was released, there is still a net mercury benefit.
- Increased recycling of CFLs will enhance the mercury reduction benefits of the product.
- Tube lamps have twice as much mercury imperative to recover as many as possible.

What Is The Regulatory Status of Fluorescent Lights?

- Households may dispose of LCMs as solid waste.
- · Non-households more complicated:
 - Cannot dispose of hazardous waste in solid waste landfills.
 - Can dispose of fluorescent lights if they show the lights are <u>not</u> hazardous.
 - Expensive to test lights to prove they are nonhazardous.
 - Recycling is the only practical option.

Recycling Options - Households

Two main options:

- Local household hazardous waste (HHW) programs.
 - Cover only a minority of communities in NC
 - Not all collect LCMs
 - Buncombe County collection at fire stations
- Mail-back through a manufacturer, recycler or U.S. Postal Service program: RecyclePak
 - Self-mailing kit costs \$15 or about \$1.25/bulb

Counties with HHW programs accepting LCMs

Recycling Options for Non-Households

- · Many available commercial recycling services
 - 35 listed in NC Recycling Markets Directory.
 - Range from general hazardous waste handlers to specific bulb recyclers.
 - Many offer on-site pick-up, appropriate for large generators.
 - Most also offer self-mailing kits, appropriate for small generators.
- LCM recycling highly feasible for all nonhousehold generators.

Examples of LCM Mail-in Kits



Costs for Recycling LCMs

- · Mail-in Kits:
 - \$1 to \$1.50 per CFL
 - Between \$.55 and \$3.27 for 4 foot tubes average about \$1.60.
- Pick-up services cheaper but require greater volume:
 - As low as \$.06 per foot of lamp
 - Tube lamps average cost \$.40 to \$.70/lamp
 - CFLs average cost around \$.40/bulb
- · Statewide program or contract can lower costs

Projected Cost of CFL Recovery

	# of CFLs	Total Cost at 100% Recovery	Total Cost at 50% Recovery	Total Cost at 25% Recovery
CFLs sold - 2007	8.6 million	\$3.44 million	\$1.72 million	\$.86 million
CFLs at 50% of market share	21.5 million	\$8.6 million	\$4.3 million	\$2.15 million

What Are Other Parties Doing?

- Utilities want to see more CFLs used but have no plans at this time to be involved in recycling.
 - Support household use of HHW programs.
- See need for state or federal leadership on this issue.
- Retailers not yet accepting LCMs in any program in North Carolina.
- Only IKEA has made a corporate take-back commitment but no IKEA stores in NC
- Examples of successful partnership programs between utilities, utility commissions, retailers, and local governments in Maine, Vermont, and Minnesota.
- Product Stewardship Institute starting a national dialogue on LCM management in April.

Recommendations

- Increase efforts and resources to educate and enforce on non-household disposal of LCMs.
- 2. Encourage expansion of household hazardous waste programs.
- 3. Encourage development of additional recycling outlets for CFLs e.g., retail stores.
- 4. Convene a workgroup to identify long-term funding and solutions for LCM recycling.
- Require all state agencies to recycle all LCMs and to report on their efforts by March 1, 2009.

Recommendations, cont.

- 6. Support efforts of Product Stewardship Institute to conduct dialogue on national recovery system.
- To address larger sources of mercury, ban the sale of mercury thermostats and mercury thermometers.
- 8. Ban disposal of all mercury-containing products from unlined landfills (e.g., C&D landfills).
- Require removal of fluorescent lights and mercury thermostats in all demolition projects in NC.

Long-term Alternative To Both Incandescent and Fluorescent Lights: LEDs

- LEDs more durable and more efficient.
- Growing applications and use of LEDs.
- Very little household market use.
- Cost and availability issues.







Recommendation

- Encourage greater manufacture and use of LEDs potential policy examples:
 - Require use of LEDs in state-owned facilities where applications are feasible.
 - Eliminate or temporarily suspend sales taxes on LEDs.
 - Provide tax credits for businesses and industries that switch to LEDs.
 - Provide economic incentives to manufacturers of LEDs to develop LED products for the mass home market.
- Encourage use of day-lighting in new and retrofitted buildings.



North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor William G. Ross Jr., Secretary

TO:

Senator Charles Albertson

Senator Dan Clodfelter Representative Lucy Allen Representative Pryor Gibson

Chairs, Environmental Review Commission

FROM:

Elizabeth Cannon

Chief, Hazardous Waste Section

DATE:

February 15, 2008

RE:

Hazardous Waste Transfer Facility Survey Summary Report

Session Law 2007-107, s.1.8 (d) requires the Hazardous Waste Section in the Division of Waste Management to submit the Hazardous Waste Transfer Facility Survey Summary Report on February 15, 2008 to the Environmental Review Commission.

If you have any questions regarding this summary, please contact Elizabeth Cannon, Section Chief, Hazardous Waste Section, Division of Waste Management, at 919-508-8534.

Attachment

Cc: William G. Ross Jr., Secretary
Dexter Matthews, Division Director
Environmental Review Commission
Elizabeth Self
George F. Givens

Hazardous Waste Transfer Facility Survey Summary Report

Presented to
The Environmental Review Commission
Feb. 15, 2008



North Carolina Department of Environment and Natural Resources

Michael F. Easley Governor

William G. Ross Jr.
Secretary
Department of Environment and Natural Resources

Dexter R. Matthews
Director
Division of Waste Management

Elizabeth W. Cannon Chief Hazardous Waste Section

DENR
Division of Waste Management
Hazardous Waste Section
1646 Mail Service Center
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(919) 508-8400

Introduction

As required by Section 1.8(d) of Session Law 2007 - 107 (House Bill 36), the Department of Environment and Natural Resources has begun its study of the need for further regulation of hazardous waste transfer facilities, as defined in G.S. 130A-290(a)(13a). This law to improve the oversight of hazardous waste facilities, as recommended by the Governor's Hazardous Materials Task Force, was a direct result of the October 2006 fire at the Environmental Quality (EQ) storage facility located in Apex, N.C. The Division of Waste Management's Hazardous Waste Section contacted hazardous waste transporters registered in North Carolina in order to identify facilities operating as transfer facilities. The facilities identified were surveyed on operational parameters to help evaluate the need for this type of facility to obtain a permit under Part 2 of Article 9 of Chapter 130A of the General Statutes, pay permit fees, provide contingency plans and demonstrate financial responsibility. Demonstrating financial responsibility would ensure that sufficient funds are available for the facility closure, post-closure maintenance and monitoring, corrective action that may be required if a facility becomes bankrupt, and to satisfy any potential liability for sudden and nonsudden accidental occurrences.

The department presents the following initial findings and recommendations to the Environmental Review Commission for consideration.

¹ Hazardous Waste Transfer Facilities are facilities that store hazardous waste in vehicles or containers for more than 24 hours but less than 10 days.

Findings of Survey of North Carolina Hazardous Waste Transfer Facilities

The survey results indicate that 35 facilities in North Carolina are operating as transfer facilities as defined in G.S. 130A-290(a)(13a). They are located in 17 counties as indicated below:

One is located in each of the following 12 counties: Alamance, Cabarrus, Caldwell, Catawba, Forsyth, Granville, Haywood, Iredell, Lee, New Hanover, Rockingham and Wake.

Two are located in Durham and Robeson counties.

Three are located in Randolph County.

Seven are located in Guilford County.

Nine are located in Mecklenburg County.

The estimated total volume of waste managed at these facilities over the past year is more than 33,000 tons. The estimated volume of waste managed at a single transfer facility over the past year ranges from one ton to 7,090 tons. This wide range is reflective of the variation in facility size and in the variety of activities that take place at these transfer facilities.

Ten of the 35 transfer facilities are co-located at Commercial Hazardous Waste Treatment Storage and Disposal (TSD) facilities. In addition, 26 transfer facilities also generate hazardous waste during the course of other types of operations conducted at their sites. The generator status of the 26 transfer facilities that generate hazardous waste is as follows:

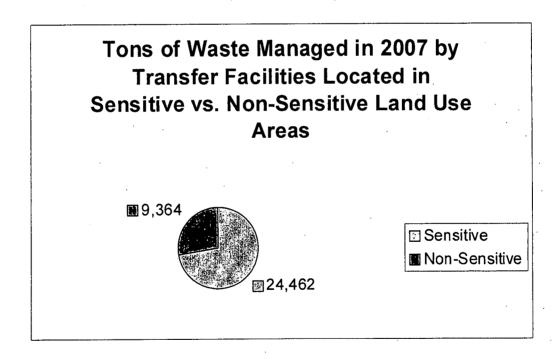
16 Large Quantity Generators (>2,200 lbs/month)

Five Small Quantity Generators (between 220 lbs and 2,200 lbs/month)

Five Conditionally Exempt Small Quantity Generators (<220 lbs/month)

Thirty of the transfer facilities also operate as transporters of hazardous waste. Of the five that do not transport hazardous waste, four indicate being transfer facilities only.

Seventy-two percent of an estimated 33,826 tons of waste managed by transfer facilities in 2007 was managed by facilities that have sensitive land use within one-fourth mile. Sensitive land use, as defined in SL 2007-107, includes residential housing, places of assembly, places of worship, schools, day care providers and hospitals. Sensitive land use does not include retail businesses.



Twenty-nine or 83 percent of the transfer facilities indicate one or more forms of sensitive land use within one-fourth mile of the facility. A breakdown of

the number of facilities in this category and the types of sensitive land use are as follows:

26 indicate residential housing within one-fourth mile of the facility;

Four indicate day care centers within one-fourth mile;

Four indicate schools within one-fourth mile;

Four indicate places of assembly located within one-fourth mile; and,

10 indicate places of worship located within one-fourth mile.

Fourteen of the transfer facilities indicate having a well within one-fourth mile of the facility. No distinction was made as to type of well so as to include any well that may act as a preferential pathway for the contamination of groundwater in the event of a release. Six indicate a well within two miles.

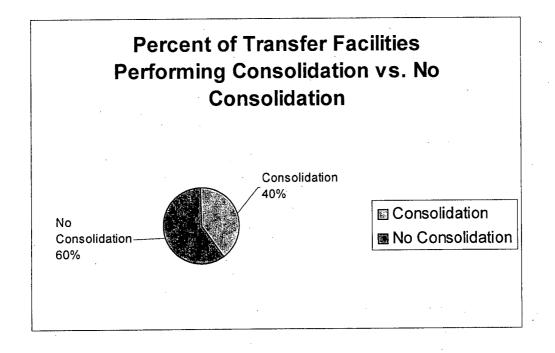
Eleven or 31 percent of the transfer facilities indicate having no secondary containment for the facility. Twenty-four facilities indicate some form of secondary containment.

Thirty-three of the transfer facilities indicate having a contingency plan. Of the two facilities without a contingency plan, both indicate that they have made arrangements with the local fire department.

Twenty percent of the transfer facilities indicate experiencing an emergency incident in the past. This does not include the EQ Apex facility, which was not operating at the time of the survey and was therefore not included. Five of the transfer facilities indicate they have had one or more fires and three indicate having a spill. The fires include a catastrophic fire, two vehicle engine fires, an arson office fire, a smoldering roll-off and a dump trailer fire. The spills

include a hydrochloric acid release, a release caused by a flood and contamination discovered during a Phase 1 environmental investigation.

Fourteen of the transfer facilities indicate performing waste consolidation activities such as household hazardous waste consolidation, universal waste consolidation, used oil consolidation, non-hazardous waste solidification and consolidation of fuels onto railcars. Six of these facilities are located at Commercial TSDs.



Thirty-three of the transfer facilities indicate having some form of training for transfer facility personnel. An indication of the type of training is as follows:

77 percent of facilities provide RCRA training;

94 percent provide OSHA training;

88 percent provide DOT training;

74 percent provide Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) training;

8 percent provide security training; and,

8 percent provide spill response training.

Other safety-related training is provided by 43 percent of transfer facilities.

All but one of the transfer facilities indicate inspections are performed. Fifty percent of these facilities document their inspections. Of the inspections performed:

27 are performed daily;

Four are performed weekly;

Two are performed upon receipt of waste;

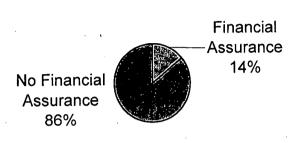
One indicated no inspections performed; and,

One did not indicate the frequency of inspections.

All 10 of the Commercial TSDs with a transfer facility indicate they have a closure plan as required by their RCRA Permit, but five of these Commercial TSDs indicate that the transfer facility is not included in the plan. One of the Small Quantity Generators with a transfer facility indicates having a closure checklist.

All 10 of the Commercial TSDs with transfer facilities have financial assurance as required by their RCRA permit. However, five of these facilities indicate that their Financial Assurance does not include the transfer facility area.

Percent of Transfer Facilities with Financial Assurance vs. No Financial Assurance



FinancialAssuranceNo FinancialAssurance

Thirty-four of the transfer facilities indicate having some form of liability insurance. The amount of liability insurance ranges in type and amount. Amounts of coverage range from \$1 million to \$25 million. Twelve (34 percent) of the transfer facilities indicate having some type of pollution control or environmental liability insurance.

As part of the transfer facility evaluation process, the department determined that 130 hazardous waste transporters are operating within North Carolina state lines with headquarters outside the state. These transporters are engaged in either picking-up or dropping-off hazardous waste within the state, but are not registered with the department and do not pay an activity fee.

Actions:

To complete the study of regulation of hazardous waste transfer facilities, the department needs to carry out the following actions:

- 1) Continue to review the findings of the survey of hazardous waste transfer facilities, and seek any additional information needed to determine the need for further regulation;
- 2) Initiate a process to involve external stakeholders in review and evaluation of the survey findings;
- 3) Investigate possible sources of revenue to fund a program for enhanced regulatory oversight of transfer facilities;
- 4) Provide specific statutory and/or regulatory recommendations to the Environmental Review Commission prior to the 2009 legislative session.

NC Water Quality Workgroup Initiative

50319	50321	50320	50318	50317	50316	50301	50300	50299	50298	50297	50296	Project Number
Effect of Riparian Buffer Zones on Water Quality and Biodiversity in Piedmont Urban Streams	Application of DRAINMOD Based Nitrogen Loading Models to Lower Coastal Plain Watersheds	Evaluation of Watershed Change and Small Marina Impacts on Bacterial Contamination of Estuarine Waters	Determining the Effectiveness of Shrub Buffers to Reduce Nitrate-Nitrogen from Agricultural Fields in a Coastal Plain Setting	Neuse River	Urbanization and Decline in Water Quality: Do Statistically Identifiable Thresholds Exist?	An Environmental Water Quality Date Visualization System for Private Ground Water Supplies	Method Development to Determine Fecal Contaminant Source Information for TMDL Assessments	Field Study of Bio-Retention Pollutant Removal Ability	Harmful Algal Species from the New River and Cape Fear Estuaries	Impact of Hurricane Floyd on Sediment Deposition, Erosion and Benthic Nutrient Fluxes in Pamlico Sound, NC	Movement of Pollutants from Septic Systems and Performance of Riparian Buffers in Suburban Settings	Title
\$60,000.00	\$60,000.00	\$60,000.00	\$60,000.00	\$75,000.00	\$75,000.00	\$60,000.00	\$60,000.00	\$60,000.00	\$60,000.00	\$74,794.00	\$75,000.00	Budget
2002-05-01	2001-07-01	2001-04-01	2001-10-01	2001-12-01	2002-01-01	2000-09-01	2000-09-01	2000-09-01	2000-09-01	2000-07-01	2000-07-01	Beginning Date
2004-04-3	2004-03-3	2003-06-30 White	2003-12-3	2003-02-2	2004-06-30 Gilliam	2002-02-28 Devine	2003-12-31 Hilger	2002-09-30 Hunt	2003-06-30 Tomas	2002-05-3	2003-06-3	Ending Date
2004-04-30 Hershey	2004-03-31 Chescheir	0 White	2003-12-31 Osmond	2003-02-28 Palmquist	0 Gilliam	8 Devine	1 Hilger	0 Hunt	0 Tomas	2002-05-31 Benninger	2003-06-30 Amoozegar	Principal Investigator
UNC-G	NCSU	NCSU	NCSU	NCSU	NCSU	NCSU	UNCC	NCSU	UNCW	UNCCH	N C	r University

h#p://www.	50352	50337	50336	50335	50334	50362	50365
	Stream Fish as Bioindicators of Water Quality: Assessing Threshold Responses to Urbanization and Correlations with Invertebrate Indices	Harmful Algal Species from the New River - Composition and Nutrient Dynamics	Ferry Mon: Ferry-based Monitoring and Assessment fo Water Quality for North Carolina's Pamilco Sound	Impact of Microbial-Particle Interaction on Microbial Fate and Transport in Stormwater	Hydrologic, Biologic, and Geomorphic Character of Headwaters Streams in North Carolina	The Necessity of Starter Fertilizer Phosphorus on Soils Testing Very High for Phosphorus	Endocrine & Reproductive Effects of the Pharmaceutical Fluoxetine on Native Freshwater Mussels: Proximity to Measured Environmental Concentrations
\$1,102,285.00	\$49,996.00	\$40,000.00	\$48,350.00	\$75,000.00	\$20,000.00	\$39,145.00	\$50,000.00
	2004-07-01	2003-07-01	2003-07-01	2003-07-01	2003-07-01	2005-03-01	2005-03-01
	2006-12-31 Gilliam	2004-12-31 Tomas	2004-06-30 Paerl	2004-12-31 Characklis	2005-06-30 Gregory	2007-12-31 Osmond	2006-02-28 Cope
	NCSU	UNC-W	UNC-CH	UNC-CH	NCSU	NCSU	NCSU

http://www.ncsu.edu/wrri/

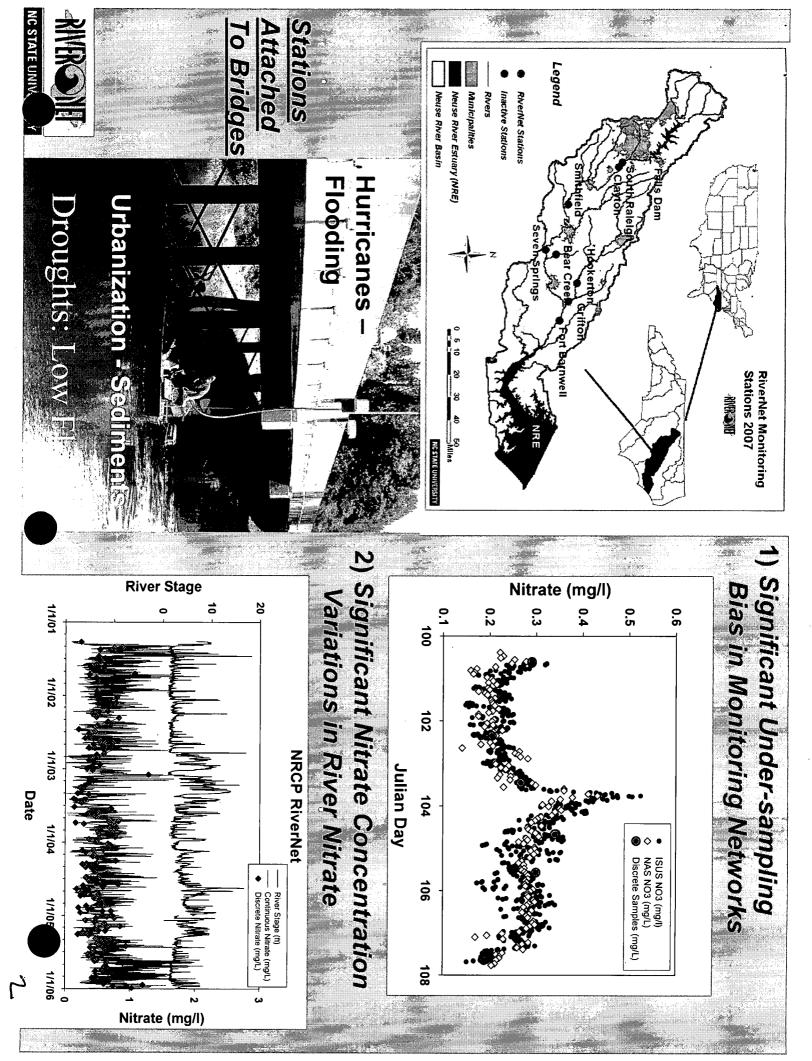


The RiverNet Program Tuesday March IRCYTEW (18, 2008

of Marime Rardh & Athm

Dept. of Marine, Earth, & Atm. Sciences W Showers NCSU IIDU http://riy4met.ncsu.edu





Why are there Good and Bad Water Q ty Years?





Surveying in Low Flow Conditions

Nitrate Flux to

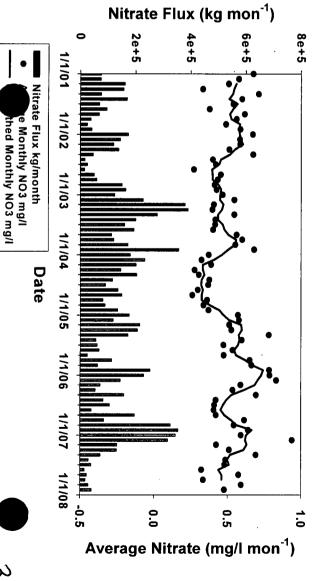
Estuary

➤ Variable on a 3-5 Year

Cycle

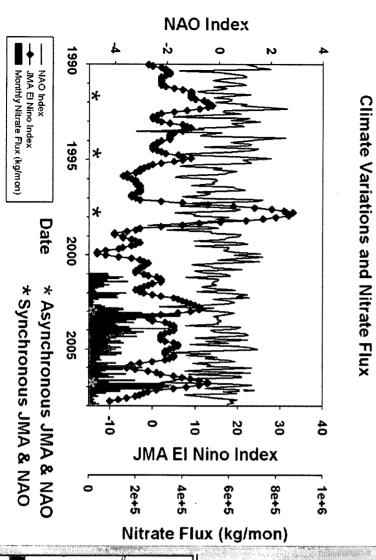
Nitrate Flux is a poor predictor of ➤ Nitrate Concentration

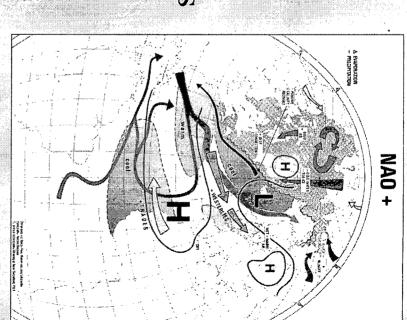
Neuse River Basin

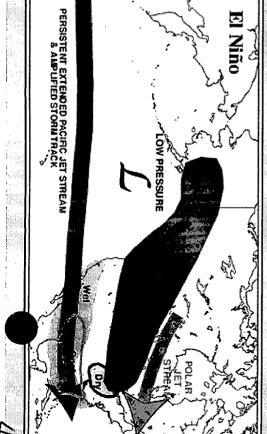


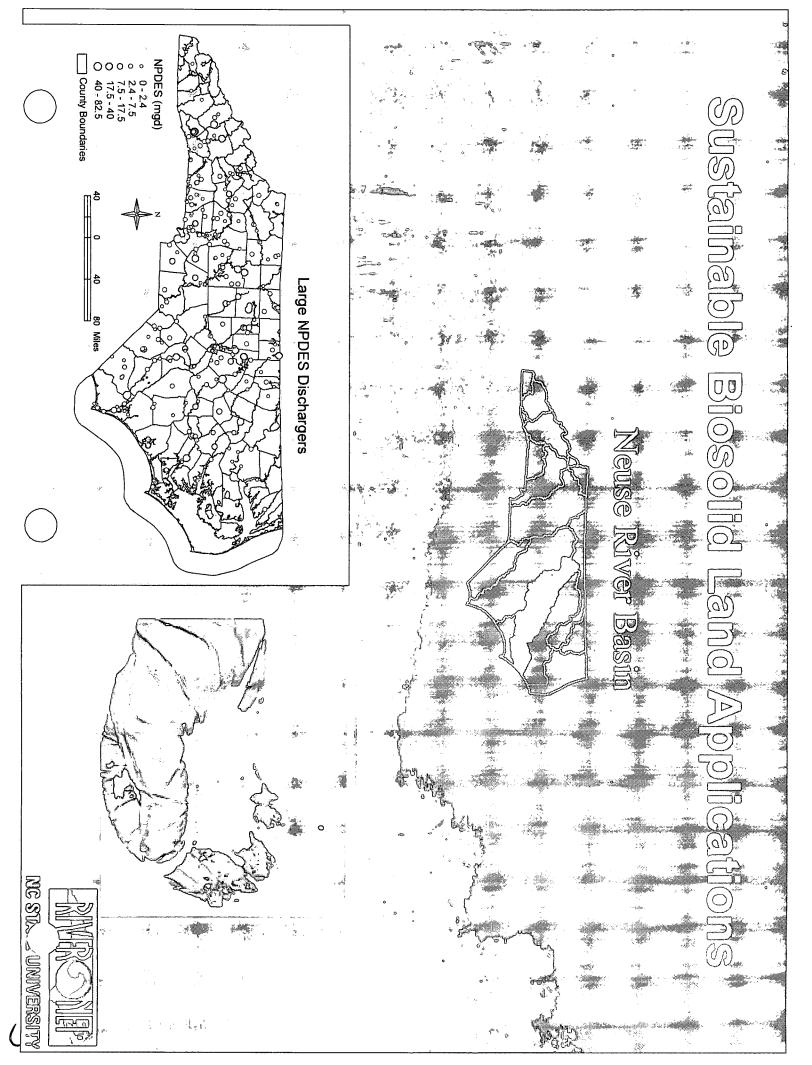
Global Climate Oscillations Control Water Quality and Availability in NC

- El Nino influences Souther Jet Stream
- NAO Controls Sea Surface Temperature
- High Nitrate Flux when both are synchronous









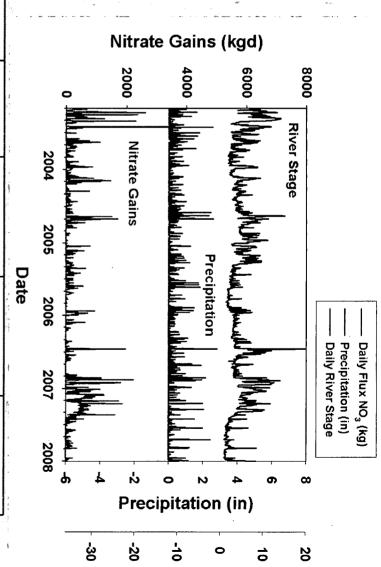
Measuring NPS Nitrate im Rivers

Biosolid Application Fields Nitrate Transferred to River? News: Fiver Wasia Water NRCP اهار بالمعرب العالم pulabal Streets Waste Appl. Fields Monitoring Wells

Event Driven Fluxes

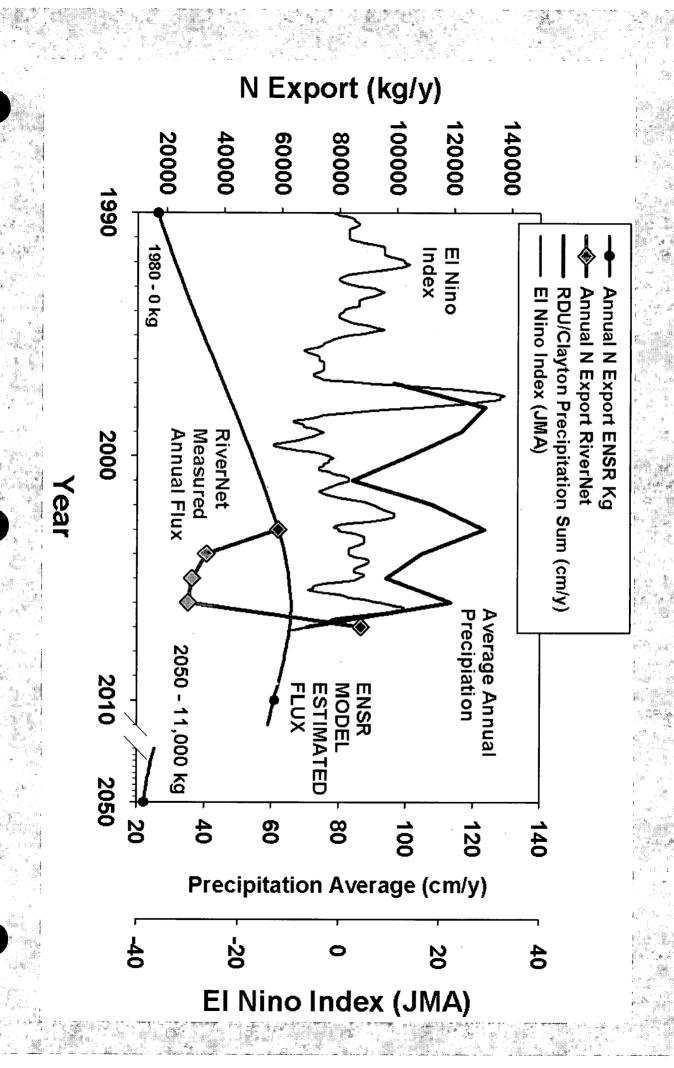
•Effluent N Flux Decreasing

•Waste Application Field Runoff Variable



River Stage (ft)

	,			r'		₁ 21 	
Average	2007	2006	2005	2004	2003	Calender Year	
47543	87806	27819	29065	34072	58950	Daily Integrate d NO3 Gains	-
58	134	33	30	. 3 N	59	% Total NO3 Output NRWWTP	
4(3 0	œ	œ		3	% Total NO3 Output NRCP	
40	32	44	ယ	* 4	43	RDU Precipitatio n Average (in)	Clayton &
98785	65,610	84,579	96,390	107,262	140,082	NRWWTP Flux NO3 kg/yr	
159480	106514	143066	163178	182390	202253	NRWWTP Flux Total N kg/yr	·
	14 · · · · · · · · · · · · · · · · · · ·			**	,		



Stream Monitoring: Nitrate flux from Biosolid Waste Application Fields

- concentrations Streams Have High Nitrate
- Cut Across Buffers to River
- •Flow is controlled by Groundwater Elevation

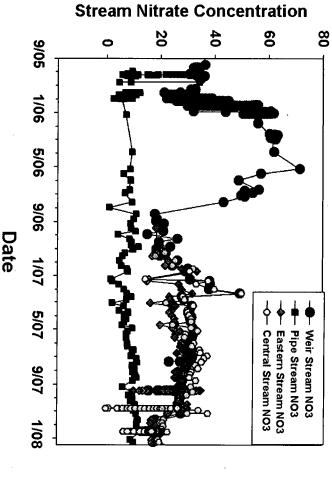
Stream	Nitrate kg/6 mon	Discharge cf/6 mon	% NO3	N Flux Ave kgd	Discharge Average cfd
Weir	717	1325523	5.50	7	8816
Central	645	908463	4.95	4	5447
Eastern	6686	8041442	51.34	39	51494
Pipe	4975	16487331	38.20	37	137022

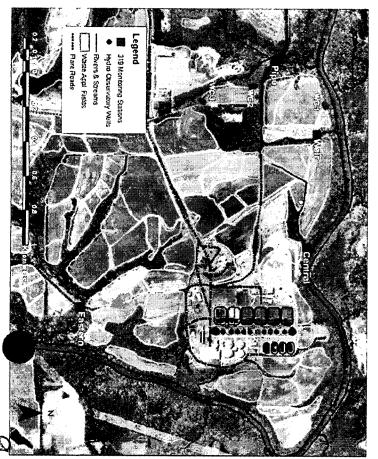
Total

13023

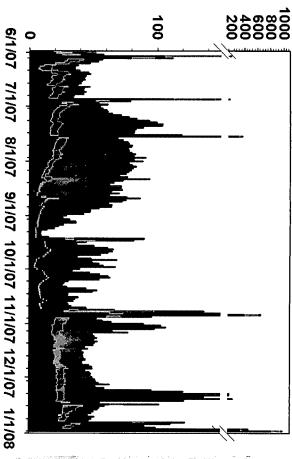
26762760

NRWWTP Streams





NRWWTP Streams



NO₃ Flux (kg/d)

0 1	100	24680 2000
1/07		- Luthulinia
0 6/1/07 7/1/07 8/1/07 9/1/07 10/1/07 11/1/07 12/1/07		•
8/1/07	-	
9/1/07		
10/1/07		
11/1/07		***************************************
12/1/07		
1/1/08		- \
er i i i i i i i i i i i i i i i i i i i		

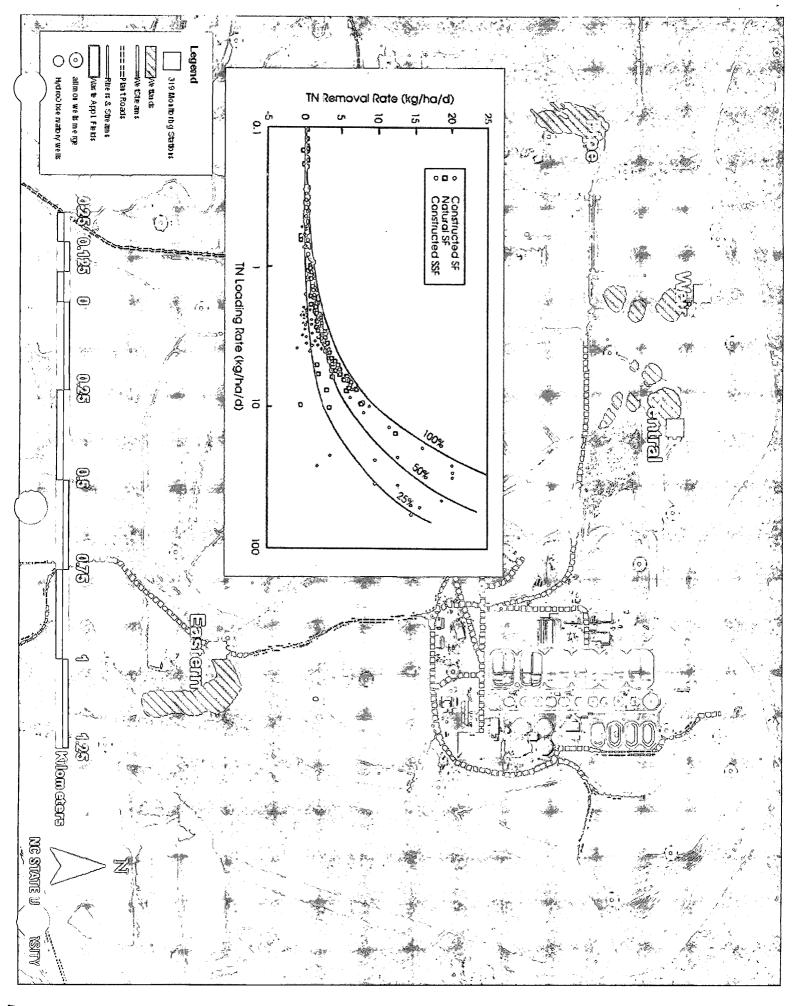
River Nitrate Gains Under-Estimate Stream N Flux

■ Pipe NO3 Flux (kg/d)
■ Central NO3 Flux (kg/d)
■ Weir NO3 Flux (kg/d)
■ Eastern NO3 Flux (kg/d)

Date



	Eastern	Weir	Central	Pipe	Stream
	39	7	4	37	N Flux Ave kgd
100 mm	51494	8816	5447	137022	Q Avera ge cfd
	206	199	30	833	NO3 Flux kg/d Max



EXECUTIVE SUMMARY LEGISLATIVE REPORT January 2007



RIVERNET: Continuous Monitoring of Water Quality in the Neuse River Basin

Dr. William J. Showers Dept. of Marine, Earth & Atmospheric Sciences, North Carolina State University

PURPOSE OF PROGRAM

Agricultural and urban land use has increased the fluxes of nutrients, sediments and different organic/inorganic chemicals into surface water and ground waters. As a consequence, many estuaries and wetlands are under various levels of environmental pressure as a result of diminished water quality (e.g., high nutrient concentrations, sediment loading, low levels of dissolved oxygen). The increased nitrogen flux to estuaries and coastal waters has affected water quality by enhancing phytoplankton blooms as part of the overall eutrophication process. This enhanced production modifies coastal food webs, reduces commercial species abundance, and in extreme cases produces zones of hypoxia and anoxia. Although extensive research has been done to understand nitrate contamination and attenuation processes in ground water, discharge rates of nitrate in streams are commonly not matched to different types of land use or to field application rates. To promote the long-term sustainability of natural and managed watersheds and to develop successful remediation strategies, fundamental processes that control water quality on a watershed scale must be investigated. RiverNet is a program that is designed to understand nitrogen fluxes in watersheds with different land uses.

BACKGROUND

The 2001 Session of the General Assembly appropriated \$300,000 to the Department of Environment and Natural Resources (DENR) for transfer to North Carolina State University (NCSU) for the continued operation of the RiverNet Program. Due to budget reductions, \$285,000 was available to operate the RiverNet program in 2007. The RiverNet Monitoring network has been operated over the past seven years. During this past year we have phased out the chemical nitrate analyzers and replaced them with UV nitrate analyzers, and converted the data loggers to digital cell phone transmissions. The UV nitrate analyzers can make nitrate measurements every 15 minutes with less cost than the chemical analyzers, which took readings every hour. Digital data transmission will allow real time monitoring during storm events in the future. Last year we began a co-operative program with the USGS and DENR with a 319 monitoring program to quantify biosolid nitrogen being transported by surface streams into the Neuse River adjacent to the NRWWTP (Neuse River Waste Water Treatment Plant). This project will finish in June of 2008, but important preliminary results are presented in this report. Six stations are operating in the basin from Raleigh to Fort Barnwell, with one station in the Contentnea watershed, and five are along the Neuse Mainstem (Figure 1). Physical water quality property measurements with nitrate concentrations are made every 15 minutes. The data is transferred to a server at the NCSU Raleigh campus via a

digital cell phone network, and mounted on a web site for public access (http://rivernet.ncsu.edu). This monitoring will continue for the next year with nutrient watershed mapping and groundwater monitoring at the Raleigh WWTP.

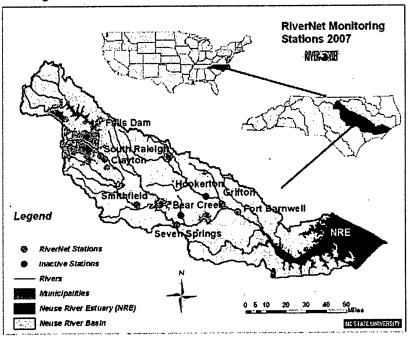


Figure 1. The RiverNet monitoring network with stations located above and below the Neuse River Waste Water Treatment Plant (NRWWTP) to investigate the relationship of groundwater flux from biosolid waste application fields to the river. Due to continued budget restrictions, two lower basins stations were temporarily closed down.

RiverNet: Results 2007

Previous years results have shown that there are very rapid nitrate concentration changes in the Neuse River in the upper, middle and lower basin. In 2006 an El Nino began to build in the equatorial Pacific that peaked in Fall 2006. The 2006 El Nino event and was slightly larger in magnitude than the 2003 El Nino event, and has been followed by the cold phase La Nina that continues to decrease temperatures in the equatorial Pacific. In 2007, the N flux in the Neuse Basin increased with discharge levels similar to the fluxes observed in 2003 (Figure 2). In 2007 the El Nino transitioned in late Spring to the La Nina cold phase and fluxes dramatically decreased. There has not been a significant La Nina event since 1975, so the extent of the La Nina effects are unknown. Rainfall has decreased, and River discharge, groundwater levels, and N flux fell in the second half of 2007 while the SE United States experiences severe drought conditions. Over the past seven years there is a trend of increased N flux in the Neuse River basin, and the inter-annual N flux variations are significant and are related to large scale climate oscillations. However, nitrate concentration in the river is a poor predictor of water quality trends (Figure 3). During low flux intervals the nitrate concentrations tend to be higher that during high flux intervals, due to the dilution effect. Flux measurements are better indicators of potential eutrophication events in the NRE estuary and coastal waters.

The two large scale climate oscillations that affect North Carolina precipitation and hydrology are El Nino and the North Atlantic Oscillation. Nitrate flux increases with positive El Nino oscillations. Warmer waters in the equatorial Pacific intensify the southern jet stream, which brings Gulf of Mexico moisture to North Carolina. This causes i ncreased precipitation, higher groundwater elevations, and increased N flux in watersheds. North Carolina precipitation is also affected by the

North Atlantic Oscillation. The North Atlantic oscillation (NAO) is a climatic phenomenon in the Atlantic Ocean where conditions are controlled by the difference of sea-level pressure between the Icelandic Low and the Azores high. This difference controls the strength and direction of westerly winds and storm tracks across the North Atlantic. When the North Atlantic Oscillation Index is positive, the westerly flow across the North Atlantic and western Europe is enhanced. In this NAO phase, warm ocean waters occur off the eastern US, and rainfall is enhanced in our region. During Neuse River Basin

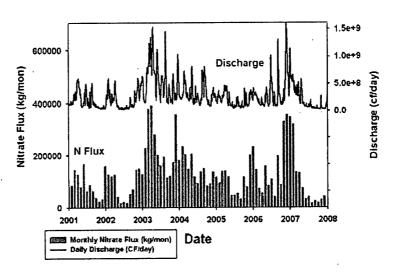


Figure 2. Daily discharge and Monthly N flux at Fort Barnwell North Carolina at the bottom of the Neuse River Basin. This graph represents over 178,000 individual measurements at this one station.

Neuse River Basin

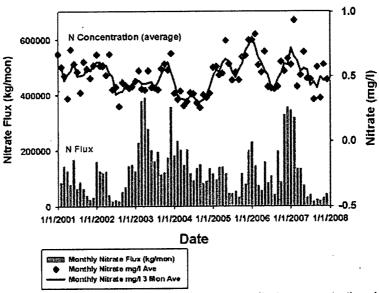


Figure 3. Monthly N flux at Fort Barnwell North Carolina versus nitrate concentration. Nitrate concentration is a poor predictor of water quality trends, during high flux periods concentrations tend to be lower that during low flux intervals.

the negative phase storm tracks are forced further south and northern Europe and the east coast of the US is dry. The 2007 RiveNet flux data document this trend through a full ENSO cycle (Figure 4). In 2008 the effects of the La Nina cold phase will be monitored.

Neuse River Basin, North Carolina

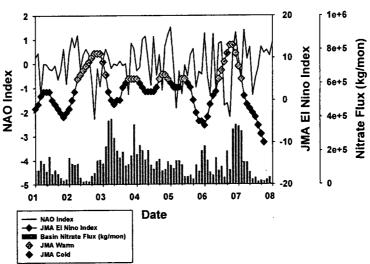


Figure 4. Monthly N flux at Fort Barnwell North Carolina versus two climate oscillations, El Nino and the North Atlantic Oscillation. There has not been a significant La Nina cold phase since 1975.

During the two periods of positive El Nino oscillations (2003 and 2007), enhanced rainfall and nutrient fluxes were moderated by a negative North Atlantic Oscillation index. Nutrient flux did not increase until the NOA became positive. In these two periods of moderate El Nino, the increased flux of nitrate was modulated by the negative NOA phase (Figu re 4). During the hypoxic and anoxic Climate Variations and Nitrate Flux

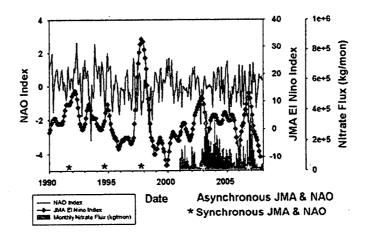


Figure 5. Monthly N flux at Fort Barnwell North Carolina versus two climate oscillations, El Nino and the North Atlantic Oscillation were synchronous in the 1990's and asynchronous after 2000. The nitrate fluxes measured during the El Nino warm phases by the RiverNet program in 2003 and 2007 would be smaller than warm phase fluxes during the 1990's when the NRE experienced large fish kills.

events of the 1990's this was not the case. Positive El Nino and NAO phases occurred synchronously during the 1990's, which would have enhanced nutrient transport in the basin and led to the negative water quality events, fish kills, hypoxia and anoxia observed in the Neuse River Estuary at this time (Figure 5).

CONTAMINATED GROUNDWATER FLUX OF NITRATE TO THE NEUSE RIVER

Waste application fields accumulate nitrate, but the movement of nitrate from under these fields to surface waters is not well understood. We have investigated the movement of groundwater nitrate from under the Neuse River waste water treatment plant application fields into the Neuse River over the past four years. RiverNet Monitoring Stations have been operated above and below the plant. Groundwater levels were monitored by the USGS in well clusters in the north-western part of the

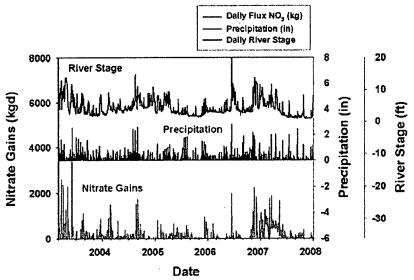


Figure 6. River stage and Nitrate gains at the Neuse River Wastewater Treatment Plant near Clayton, NC. Nitrate gains are not directly correlated to precipitation trends or river stage.

TABLE 1. Nitrate gains in the Neuse River Reach next to the NRWWTP

Calendar Year	Daily Integrated NO3 Gains	% Total NO3 Output NRWWTP	% Total NO3 Output NRCP	Clayton & RDU Precipitation Average (in)	NRWWTP Flux NO3 kg/yr
2003*	58950	59	13	43	140,082
2004	34072	32	11	41	107,262
2005	29065	30	8	38	96,390
2006	27819	33	8	44	84,579
2007	87806	134	30	32	65,610
Average	47543	58	14	40	98785

^{*} data collected for 9 months from March-December only, note this summary is for calendar years Jan-Dec and not monitoring years (Mar-Mar) as previously reported.

plant near the Neuse River. Biosolids have been land applied at this site for the past 24 years, but applications ceased in 2 002. The amount of nitrate entering the river from contaminated groundwater is 58% the flux of nitrate released from the plant via the discharge pipe over a 4.75 year period (Figure 6, Table 1). This contaminated groundwater flux is significant to river nitrate flux, and is not directly related to precipitation or river discharge. In the 2007 calendar year, nitrate gains in the reach exceeded the amount of nitrate discharge in the treated effluent from the plant (Table 1). The nitrate gains and river discharge are related to the El Nino conditions. During late 2006, there was an El Nino warm phase climate event, and nitrate gains in the river reached an all time high in 2007. The nitrate gains could come from surface drainages or groundwater flowing into the river. To understand how climate cycles affect river discharge and to develop sustainable biosolid waste application practices at this site, the flux of nitrate has been monitored in streams at the site for the past year in co-operation with the USGS.

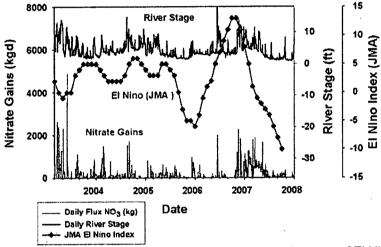


Figure 6. River stage and Nitrate gains at the NRWWTP are related to the state of El Nino in the Pacific ocean, which has a controlling relationship to stream flow and water quality in the Neuse River basin.

NRWWTP STREAM NITRATE FLUX RESULTS

Monitoring the stream nitrate flux at the NRWWTP has shown that the nitrate concentrations in the streams are related to the groundwater levels in the mid-slope area. The lower well cluster groundwater levels are tied to the river stage and do not correlate to nitrate flux in the streams (Figure 7). In the summer of 2007, after the high flux El Nino period, groundwater levels were high and the stream nitrate concentrations fell to lower levels than observed during the previous summer period. As part of this years effort, nitrate fluxes were measured in the four streams at the plant that had high nitrate concentrations. Two streams were measured during the entire year, and the other two streams were monitored for six months after June 1, 2007 after the USGS built monitoring stations at the site (Figure 8). The streams have different response times and levels to rainfall events, and stream discharge is modulated by groundwater levels (Figure 9). The total stream flux varies from 600 to 800 kg/month, which represents 100 % of the river nitrate gains during low flow conditions and from 20 to 50% of the river nitrate gains during high flow conditions. The average nitrate flux per day varies from 3 to 14 kg/day (Table 2), while maximum nitrate fluxes can reach over 40 kg/day. Treatment wetlands constructed onsite should be able to attenuate a large portion of this surface water nitrate flux, which will have a significant impact during low flow conditions on river water quality when downstream conditions are most affected by biosolid nitrate flux from the

NRWWTP. During low flow conditions nitrate is flux is reduced in the river because water is lost from the river to the groundwater. Nitrate gains in the river is therefore an underestimate of how much nitrate is exported from the biosolid application fields to the river.

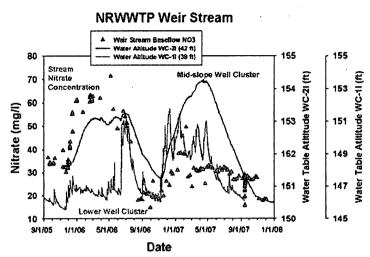


Figure 7. Stream nitrate concentration and water levels at the Neuse River Wastewater Treatment Plant near Clayton, NC. Concentrations and nitrate flux to the Neuse vary with mid-slope water levels, in summer 2007 the water table was elevated and nitrate concentrations dropped in the stream.

NRWWTP Streams

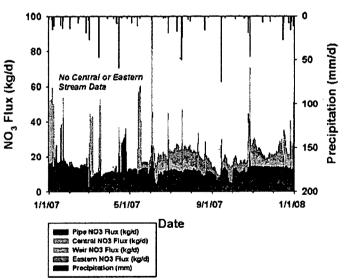


Figure 8. Stream nitrate flux in four streams at the Neuse River Wastewater Treatment Plant near Clayton, NC measured every 15 minutes. Each stream behaves differently to rainfall events.



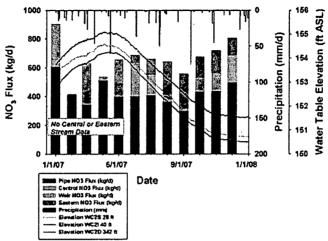


Figure 9. Stream nitrate flux in four streams at the Neuse River Wastewater Treatment Plant near Clayton, NC. Stream flux changes with different groundwater elevations, at lower elevations the smaller streams show large flux variations.

TABLE 2. Daily Average and Maximum Nitrate Flux from NRWWTP Streams

Stream	N Flux Ave kgd	Q Average cfd	NO3 Flux kg/d Max
Pipe	14	50283	45.86
Central	3	4260	16.84
Weir	3	3303	12.70
Eastern	5	7053	42.81

NUTRIENT RIVER MAPPING RESULTS

Using the new optical nitrate analyzers with GPS location we can map where the deeper groundwater flux into the river occurs at the NRWWTP. River nitrate concentrations incre ase where basaltic dike cross the river (Figure 10). There are two large basaltic dike complexes that bisect the NRWWTP biosolid waste application fields in the northeast and northwestern portions of the plant. These are areas where the USGS has measured high nitrate concentrations in groundwater beneath the river and high electrical conductivity in river sediments. More work needs to be completed on the deep groundwater flow paths at this site. These results indicate that the deeper flow paths can account for a significant percentage of the nitrate gains in this reach of the Neuse River. Other areas of the river that are not bisected by basaltic dike complexes may behave differently.

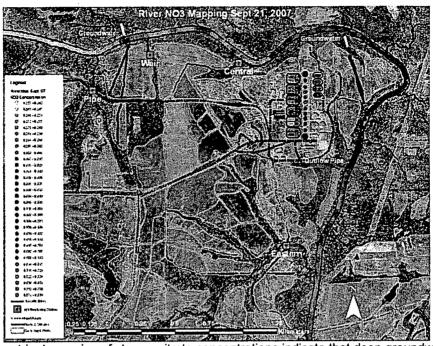


Figure 10. River nutrient mapping of stream nitrate concentrations indicate that deep groundwater contaminated with nitrate enters the Neuse River where large basaltic dikes cross the river. These deep groundwater inputs are minimal at low flow, but increase during high flow conditions.

MONITORING AND MODELING COMPARISON

The City of Raleigh Public Utilities Division has relied upon a Groundwater Nitrate Transport Model to estimate nitrate flux offsite for fifty years into the future. The model was developed by Eagle Resources under contract to ENSR in 2003. The model predicted that nitrate transport offsite would peak in 2005 and then decrease exponentially to 11,000 kg/year in 2053. After 4.75 years of river monitoring we can compare the simplified MODFLOW model predictions with the measured nitrate gains in the river (Figure 11). The initial monitoring year agreed very well with the model estimates (2003). In subsequent years, measured river nitrate gains did not follow the model predictions of declining groundwater nitrate transport over a 50 year period. The problem may be the assumptions the model makes regarding the homogenous underlying rock structure, no nitrate in recharge waters, or groundwater nitrate concentrations that are invariant at 30 mg/l. monitoring results indicate that the river nitrate gains are influenced by climate oscillations and vary significantly year to year. The Eagle-ENSR model has a basic flaw in not taking the varying climatic and groundwater chemistry and elevation conditions in account. Until more complicated spatial and temporal GIS groundwater models are developed and employed with the associated high resolution data sets to put into the models, stream and river nutrient flux monitoring are likely the best way to determine nitrate flux off of the biosolid waste application fields to the Neuse River.

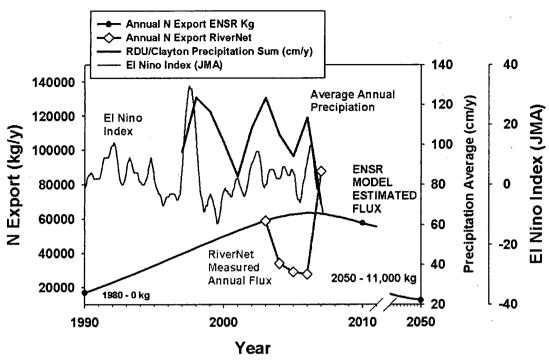


Figure 11. Model versus monitoring comparison of nitrate flux from the biosolid waste application fields into the Neuse River at the NRWWTP>

Summary:

RiverNet is a river water quality monitoring system that has significantly evolved and given researchers, policy makers, and water quality regulators a new understanding of fundamental processes affecting water quality on a watershed scale. At the present time we are combining RiverNet monitoring efforts with the USGS/NC DENR Piedmont Groundwater Observatory at the Neuse River Waste Water Treatment Plant near Clayton NC to understand groundwater nitrate fluxes into the Neuse River. We are also mapping where contaminated groundwater enters the river with a new optical nitrate sensor. These efforts have so far proven to be very successful. These efforts will help design treatment wetlands to remediate some of the groundwater nitrate to protect downstream Neuse River water quality.

Major findings of the program to date include:

- Nitrate and sediment concentrations in the Neuse River Basin change rapidly with and without stage changes. These variations are correlated to discharge and precipitation variations that are controlled by large scale climate cycles. These climate cycles are the El Nino/La Nina oscillation, which has a 5-7 year time period, modulated by the NAO (North Atlantic Oscillation) which has a 1-2 year cycle. These climate cycles must be considered when planning for water quality and water availability.
- 15 minute RiverNet flux measurements are significantly more accurate than flux estimates made from daily concentration measurements because they take into account the natural nitrate concentration and discharge variations of hydrographic storm events and wastewater treatment plant conditions.

- Daily flux estimates have a 10 to 40% error depending upon the location in the river basin.
- Measurement of groundwater nitrate fluxes with the RiverNet technology has shown that groundwater N additions are episodic with time periods of hours to days.
- Groundwater nitrate flux at the Raleigh WWTP is about 58% the nitrogen flux from the discharge pipe over a five year period, demonstrating that N groundwater flux is important and cannot be ignored. There are large interannual variations that can not be successfully modeled at this point.
- New optical measurement techniques are less expensive than the chemical measurement techniques and will allow the RiverNet program to expand statewide for reasonable costs. With the advent of digital cell phone services continuous monitoring of river conditions is now possible similar to the GOES satellite technology used by the USGS.
- Nutrient mapping on a watershed scale can identify where contaminated groundwater enters the river. The groundwater quality in these groundwater discharge zones has a direct effect upon surface water quality downstream from these regions.
- Identification of the location and processes that discharge contaminated groundwater into the river is the crucial first step towards remediation of contaminated surface and ground waters.

The progress towards watershed N flux and N mapping that the RiverNet program made this year is an important next step in evaluating and designing remediation strategies to protect our surface, estuarine and coastal water quality. By wisely using state and national resources and by emphasizing results focused on the systematic application of research-based knowledge, we can expedite the timely resolution of our water quality problems and protect our invaluable water resources without economic impairment. By combining research efforts with educational outreach programs, we can train the scientists, regulators and policy makers of the future. In the end we will improve the public's understanding of water resource issues and the essential social, economic, and environmental value of local water resources for all persons and sectors of society.

TITLE PAGE

Project Title: Evaluation and Remediation of Nitrate Flux from Biosolid Application

Fields to Surface Waters in the Neuse River Basin

Sponsor: Section 319 Non-Point Source Pollution Control Grant

Project Number: NPS 319 Contract EW07015- FY06

Contract Period: 9/25/06-12/25/2007

FY2007 Funds: \$101,838

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Reporting Period: Fifth Quarter 2007 FINAL REPORT

Report Date: February 15, 2007

ACKNOWLEDGEMENTS

This project was supported by EPA Section 319-h Non Point Source Pollution Control Grant EW07015, FY2006. The CO-PI's are Richard Bolich and Jay Zimmerman, NC DENR Division of Aquifer Protection; Tim Woody, Reuse Division, City of Raleigh Public Utilities Division (CORPUD), Tim Spruill and Melinda Chapman, USGS North Carolina Division, and Robert Evans and John Fountain from North Carolina State University in the Departments of Biological and Agricultural Engineering and Marine, Earth and Atmospheric Sciences, respectively. Stream gauging was completed by Douglas Smith of the USGS North Carolina Division and John Harris from MEAS, NCSU to whom we are gratefully indebted for their consistent and persistent efforts. John Harris, Jeff Siceloff, and Bernie Genna gave assistance in field sample collection and lab analysis. Brian Usry, Matthew Fountain, Micah Reyes, Katherine Doll, Robert Luckadoo, and Harold Henion helped with the RiverNet flux measurements and calculations. The Department of Marine, Earth and Atmospheric Sciences and the College of PAMS provided administrative / logistical assistance and support for this project. We would also like to thank the City of Raleigh, Public Utilities Division for their support and co-operation during this phase of the project.

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EXECUTIVE SUMMARY

This project is located in the Upper Neuse River Basin at the Neuse River Wastewater Treatment Plant (NRWWTP). The NRWWTP is located on the Neuse River just north of the Wake County/Johnston County boundary. (SubBasin 03-04-02, HUNC 0302021100030, Figure 1). Biosolids have been land applied at the NRWWTP since 1980 on ~1030 acres of farmland owned or leased by The City of Raleigh Public Utilities Division (CORPUD). Previous studies have indicated that the river is receiving non-point source nitrogen from biosolid applications fields. The amount of nitrate entering the river from deep groundwater pathways or from streams draining the fields was not known. This study measured the flux of nitrate in four streams which flow directly into the Neuse River and that drain biosolid application fields. These streams were monitored because of elevated nitrate concentrations (20-80 mg/l NO₃). The surface drainage nitrate fluxes were then compared to the non-point source nitrate gains measured in the river and the elevation of groundwater in the fields to better understand the flow paths and processes that control the movement of nitrate from the biosolid application fields into the river.

Over a five year period the amount of Non-point source (NPS) nitrate gains in the 7 mile river reach adjacent to the wastewater treatment plant varied from 28,000 kg/year to over 87,000 kg/year. Nitrate gains in the river are related to the phase of El Nino/La Nina and to the groundwater elevation in the mid-slope fields. Lower slope groundwater elevations are controlled by river stage and are not diagnostic of NPS nitrate fluxes into the river. The warm El Nino phase is associated with higher groundwater elevation levels in mid-slope fields and increased NPS nitrate gains in the river. The colder La Nina phase is associated with lower groundwater elevations, decreased NPS nitrate gains in the river and persistent drought in the area. The total nitrate flux in the streams draining the biosolid application fields measured during the cold La Nina phase varies from 1500 to 5000 kg/month. During the low flow La Nino phase, the stream nitrate flux can account for 100% of the NPS nitrate gains in the river adjacent to the biosolid application fields. During the high flow El Nino phase, stream nitrate flux accounts for 50% of the river NPS nitrate gains. Over a 5 year period, on average 734 kg/NO₃/day_{ave} enters the reach, and 1004 kg/NO₃/day_{ave} leaves the reach below the plant. The plant, on average over the past 5 years, has discharged 256 kg/NO₃/day_{ave} into the river. Streams draining the biosolid application fields transport ~101 kg/NO₃/day_{ave} into the river (last six months of 2007, La Nina phase). Using this data, the daily average nitrate gains into the reach are equal to ~58% of the amount of nitrate discharged in effluent from the plant, and the stream nitrate flux is ~39% of the amount of nitrate discharged in effluent from the plant. This data suggests that constructing treatment wetlands in the drainages to prevent the stream nitrate flux from entering the river would have a significant impact on downstream water quality.

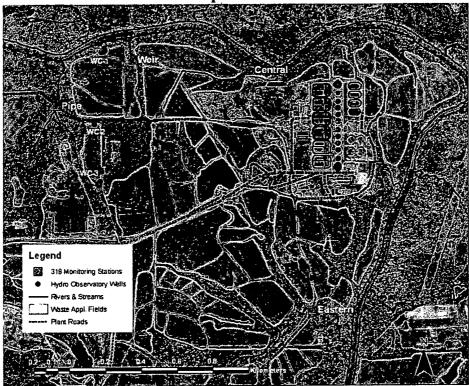


Figure 1. Neuse River Waste Water Treatment Plant in south eastern Wake County North Carolina and the four stream monitoring stations and three groundwater monitoring well clusters used in this study.

INTRODUCTION AND BACKGROUND: Municipal biosolid sludge is a product of wastewater treatment. Biosolids can be burned, placed in a land fill, or land applied to croplands. Land application of biosolids is a common practice in many countries, and is a cost effective reuse of material produced at sewage treatment facilities in areas of rapidly growing urban populations. Original errors in the estimation of the PAN at the NRWWTP which serves the City of Raleigh and surrounding municipalities, resulted in biosolid over-application on city owned or leased biosolid Waste Application Fields (WAFs). Biosolid over application occurred primarily during the early 1980's in the northern fields, and from the mid 1990's to 2001 at fields in other areas of the plant (ENSR, 2002). The City of Raleigh paid a fine of \$73,937 to NC DENR for biosolid application permit violations, and ceased spreading biosolids in 2002. Public concern about groundwater contamination increased in Fall 2002, when a number of private drinking wells along Mial Plantation Road next to the WAFs were found to have nitrate levels about 10 mg/l. CORPUD connected the private residences to municipal water supply, joined the National Biosolids Partnership's (NBP) Biosolids Environmental Management System (EMS) program to remediate the groundwater in the southeastern part of the plant. CORPUD has applied for a NPDES permit variance to resume biosolid applications at the site. This application is pending with the Environmental Review Commission (ERC). CORPUD has co-operated with researchers from North Carolina State University, North Carolina Department of the Environment and Natural Resources, Division of Aquifer Protection, and the US Geological Survey, North Carolina Division to better understand nitrate transport offsite. This project is part of this ongoing effort.

Project Purpose and Goals: To evaluate the nitrate flux in surface streams and groundwater draining into the Neuse River from the biosolid application fields at the NRWWTP (operated by the City of Raleigh Public Utilities Division- CORPUD; Figure 1). These results are then combined with river monitoring data (RiverNet, http://rivernet.ncsu.edu) and groundwater monitoring results (Piedmont Hydrogeological Observatory) to evaluate nitrogen transported from biosolid applications fields into the Neuse River.

Project Deliverables (from Proposal)

- 1. Install stream monitoring stations, USGS and NCSU
 - > Two stream gauges were installed by NCSU and USGS, and were operational in January 2007.
 - > Two stream gauges required more extensive bank protection and were installed by the USGS with equipment and material supplied by CORPUD, these stations were operational in June 2007.
- 2. Monitor stream nitrate concentrations and discharge, calibrate stream stage / discharge curves, USGS and NCSU.
 - > Stream grab samples were collected weekly at all four sites and analyzed for nutrients, major ions, and specific conductivity by NCSU
 - > Temperature, specific conductivity, and depth were measured at two sites for 12 months, and two sites for 6 months.
 - > Stage discharge curves were determined with Acoustic Doppler Current Profilers with wading rods after the stations were installed. Drought conditions in the latter part of 2007 prevented enough high flow measurements to be made.
 - ➤ High flow estimates were made with the HEC RAS model and topographic surveys of the drainages below the stations. HEC RAS models were verified by the USGS, and model comparisons to measured data were favorable.
 - > Stream monitoring will continue until June 2008 to obtain high flow discharge measurements to compare to the HEC RAS mode.
- 3. Monitor river nitrate fluxes, NCSU
 - > Nitrate fluxes were monitored in the river by the RiverNet program, NCSU.
- 4. Monitor groundwater levels at lower slope and mid slope wells, USGS and NCDENR
 - > Groundwater levels in the Piedmont Hydrogeological Observatory was monitored by the USGS and NC DENR.
- 5. Conduct tour of monitoring stations
 - ➤ A tour of the monitoring stations was conducted for 319 managers in June 2007 after the stations were installed.
- 6. Submit Final Report
 - > Enclosed

METHODOLOGY AND EXECUTION:

Contract agreements between the 319 NPS program and NCSU were completed in April, 2007, while subcontract agreements between NSCU and the USGS NC Division were completed in May, 2007.

Construction of Steam Monitoring Stations

Four small streams were monitored for discharge and nitrate flux, and each presented a unique challenge to obtain quality stage and water chemistry data. The stream basins vary in size from 70 to 1390 acres, with 43 to 219 acres of biosolid application fields in each drainage (Figure 2a). The eastern and pipe drainage basins have the most PAN applied. The pipe basin has the lowest surface water nitrate concentrations, and the largest amount of buffer (forested) area. The central

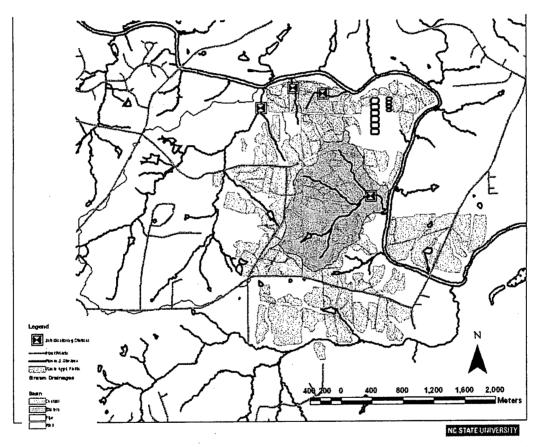


Figure 2a The four streams and drainage basins monitored by this project. The Pipe basin (yellow) is the largest, the eastern basin (rose) has the highest nitrate surface water concentrations, the weir (green) and central (orange) are the smallest and have nitrate concentrations that vary and discharge that is seasonal.

and weir basins have the lowest relief, the smallest size drainage basins, but both have elevated surface water nitrate concentrations. Discharge was intermittent in the central basin during the summer drought of 2007. The other streams had discharge throughout the year.

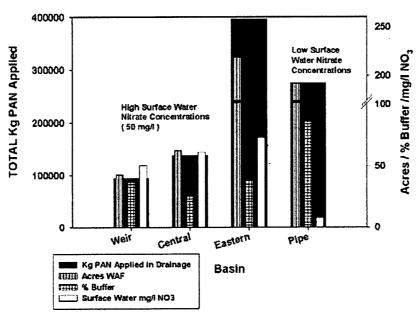


Figure 2b. Drainage basins with size, surface water NO₃ concentrations and amount of PAN applied in each basin.

The largest stream draining the plant flows through a large corrugated drainage pipe (Figure 3). This drainage pipe is located under the sewage lines that come into the plant from Raleigh, and the monitoring station was placed upstream from this pipe. Beavers periodically built dams in the pipe, but these are easily removed. The stage discharge relationship was modeled as

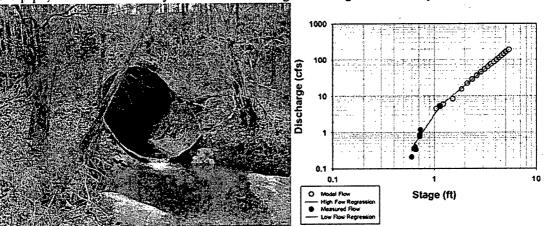


Figure 3. Drainage pipe under the sewage lines coming into the NRWWTP from Raleigh, NC

Manning flow through the pipe at higher stage. Sediment fill is not a problem at this site because flow maintains a pool at both ends of the pipe. This site has lower nitrate stream concentrations, but higher discharge resulting in a fairly high nitrate flux to the river.

The eastern site has high stream nitrate concentrations and drains under a road before entering the river. The monitoring station was placed on the upstream side of the drainage pipes (Figure 4). Beavers have been a problem at this site, and dams were destroyed frequently in the summer of 2007. The beavers began to stuff debris into the pipes to prevent dam destruction, and the City of Raleigh brought in a professional trapper to remove the beavers from this site.

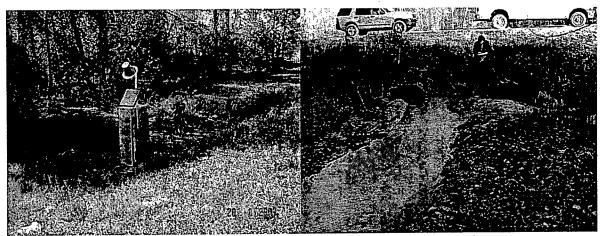


Figure 4. Eastern stream monitoring site with drainage under a road at the plant.

The weir stream site is a smaller intermittent stream with nitrate concentrations that vary from 20 to 80 mg/l. A temporary plastic lined weir was destroyed by tropical storm Alberto in June 2006 when large logs were transported down the drainage (Figure 5). Profiting from this experience, a low cement weir was anchored to an existing rock outcrop with rebar cemented into holes that were drilled into the rock outcrop. (Figure 5). Sediment needs to be cleaned from the pool during low flow, but is not a problem during high flows because the pool is scoured clean. Logs and large debris is not caught by the low lying weir during high flow events. The stage

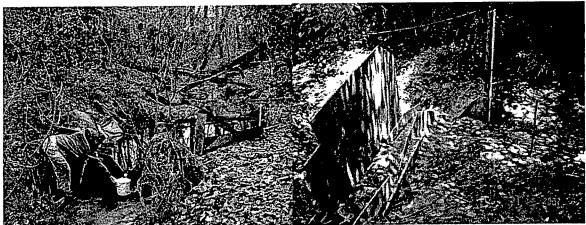


Figure 5a. Temporary (2005) and cement weirs (2007) used to measure flow in this intermittent flashy stream. The temporary weir was destroyed by flooding in June 2006. Rebar was cemented into holes drilled into the rock outcrop. The measured stage discharge curve fit well with the HEC-RAS model results

discharge relationship has a break when the water level goes over the top of the cement weir during storm events (Figure 5b).

Weir Discharge

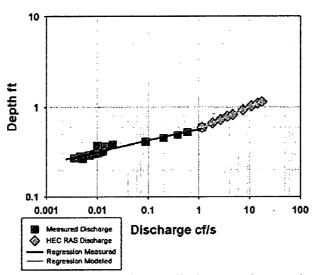


Figure 5b. Measured and HEC-RAS model stage discharge estimates show good agreement. The break in the exponential relationship is the stage where the water is over the weir top.

The central monitoring station was the most difficult to construct. The central stream is the smallest drainage basin and is an un-buffered drainage between two fields that goes into a wooded area. Beavers are a problem in the lower areas of this drainage, but the weir was constructed upstream from the river to avoid the flooding problems (Figure 6).

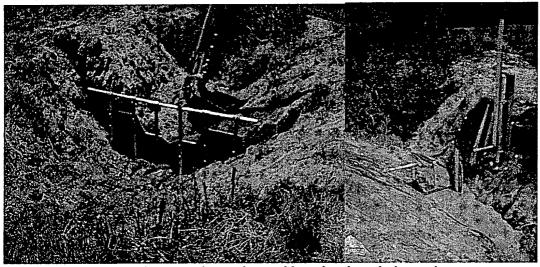


Figure 6. At the central stream site, a plywood board and steel pipe weir was constructed and pushed into the ground with a backhoe. The backhoe can also remove the structure by pulling up on cables attached to the pipes.

OUTPUTS AND RESULTS:

Stream Monitoring

Temperature, specific conductivity, and depth were monitored at the Pipe and Weir sites for 12 months and at the Eastern and Central sites for 6 months after installation of the monitoring stations (see appendix). Weekly grab samples for over the past two years indicate that large seasonal nitrate concentration changes observed in 2006 were not observed in 2007 in the smaller streams (Weir and Central). The changes in the nitrate concentration in the streams are similar to the water table changes in the mid-slope hydro-observatory wells and not the lower hydro-observatory wells (Figure 8). It is likely that the water table elevation in the lower slope wells is controlled by river stage, because there is a good correlation of groundwater elevation to river stage in these wells. To calculate the flux of nitrate from the streams, the discharge computed from the stage/discharge curves was multiplied, on a 15 minute interval, by the nitrate concentrations computed from the specific conductivity calibrated by the discrete grab samples. After the monitoring stations were installed the SE United State entered a drought phase and rainfall events became very rare. To estimate the discharge a higher stages, topographic surveys were complete downstream from all the monitoring sites and the US Army Corp of Engineers HEC-RAS model was used to estimate stream flow according to USGS protocol. Monitoring will continue until June 2008 to measure higher flows in the streams to validate the HEC-RAS estimates of flow.

The daily nitrate flux varies with stream size (Figure 9). The larger Pipe and Eastern streams have average daily nitrate fluxes of 37 and 39 kg/d with maximum fluxes of 833 and 206 kg/d. The Central and Weir streams are smaller and have average nitrate fluxes of 4 and 7 kg/d with maximum fluxes of 30 and 199 kg/d (Table 1). Over the six month period that all four streams were monitored, the Eastern stream contributed 51% of the total nitrate flux, the Pipe stream contributed 38% of the total nitrate flux, and the Weir and Central streams each contributed

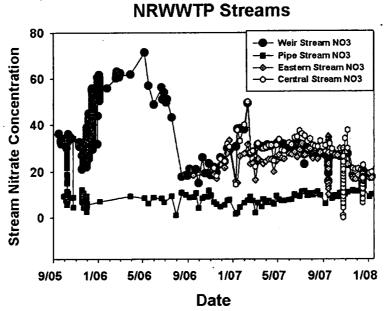


Figure 7. Nitrate concentrations from weekly grab samples in the streams draining the biosolid application fields. Note the differences between Spring 2006 and Spring 2007.

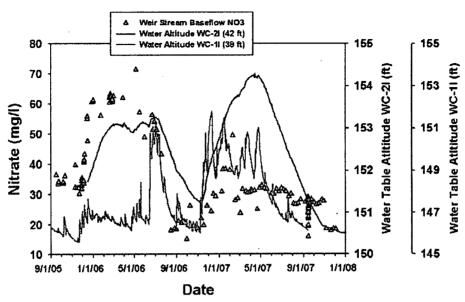


Figure 8. Weir stream nitrate concentrations from weekly grab samples compared to the water table elevation in the mid-slope wells (blue) and the lower slope wells near the river (red). See figure 1 for well locations.

NRWWTP Streams

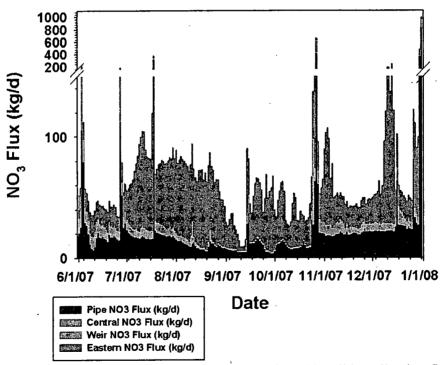


Figure 9. Daily stream nitrate flux into the Neuse River from biosolid application fields measured on a 15 minute interval. Daily nitrate fluxes average 37-39 kg/d for the large streams (Pipe and Eastern) and 4-7 kg/d for the small streams (Central and Weir).

TABLE 1 Nitrate Flux and Discharge from Biosolid Application Fields - 6 months

Stream	Nitrate kg/6 mon	Q cf/6	% NO3 Flux	N Flux Ave kgd	Q Average cfd
Weir	717	1325523	5.50	7	8816
Central	645	908463	4.95	4	5447
Eastern	6686	8041442	51.34	39	51494
Pipe	4975	16487331	38.20	37	137022
Total	13023	26762760			

about 5%. The flux in the Pipe stream is fairly constant, while the other streams are flashy and have rapid increases and decreases in discharge and nitrate flux (Figure 9).

RiverNet Monitoring Results

The amount of NPS nitrate entering the Neuse River was quantified using CORPUD discharge data from the NRWWTP, and RiverNet station data in the Neuse River above and below the plant biosolid application fields (Showers et al., 2005). The amount of NPS nitrate gains in the reach varies from year to year (Table 2). The NPS nitrate gains do not follow the Modflow model that predicted offsite nitrate transport until 2050 that has been used by CORPUD (Figure 10, ENSR 2003). The amount of nitrogen entering the Neuse River from the biosolid application fields was approximately 58% of the effluent nitrogen released from the plant over a five year period (Table 2). While the amount of nitrogen released from the plant in treated waste water has dropped over the study period, the amount of nitrate entering the river from streams draining the biosolid waste application fields and the amount of NPS nitrate entering the river reach has varied on a three to four year time scale. (Figures 10 & 11). This correlates to the oscillation of the El Nino/La Nina index over the past two cycles. 2003 and 2006 were weak El Nino (warm phase) years and nitrate fluxes were higher than non-El Nino years. In 2007 a La Nino (cold

TABLE 2 NPS Nitrate Gains in the Neuse River Adjacent to the NRWWTP

Calender Year	Daily Integrated NO3 Gains	% Total NO3 Output NRWWTP	% Total NO3 Output NRCP	Clayton & RDU Precipitation Average (in)	NRWWTP Flux NO3 kg/yr	NRWWTP Flux Total N kg/yr
2003	58950	59	13	43	140,082	202253
2004	34072	32	. 11	41	107,262	182390
2005	29065	30	8	38	96,390	163178
2006	27819	33	8	44	84,579	143066
2007	87806	134	30	32	65,610	106514
Average	47543	58	14	40	98785	159480

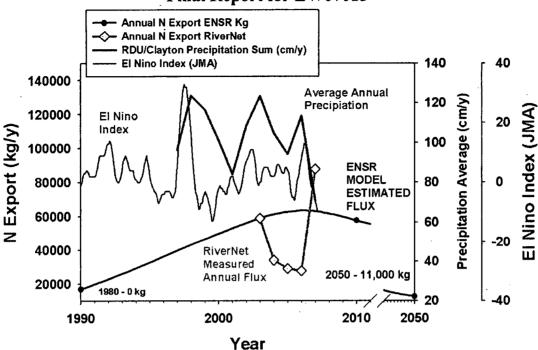


Figure 10. Model versus monitoring comparison of NPS nitrate gains in the Neuse River adjacent to the NRWWTP. Measured results indicate a 3-4 year oscillation like the El Nino variations, but longer records are needed. Model from ENSR 2002, 2003.

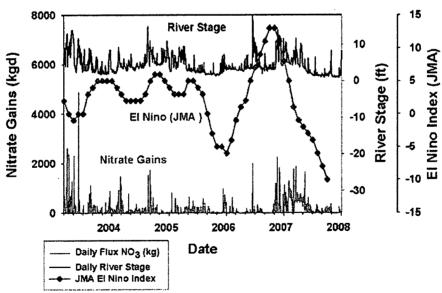


Figure 11. River stage and NPS nitrate gains at the NRWWTP vary on a 3-4 year time scale like the El Nino oscillation.

phase) developed and the southeastern United States has been in a significant drought. The stream nitrate flux can account for over 100% of the NPS nitrate gains in the river during low

flow conditions, and for ~50% of the NPS nitrate gains in the river during high flow. This suggests that deep groundwater pathways become active at higher flows when water table elevations are higher.

Nutrient River Mapping and River Nitrate "Hotspots"

In addition nutrient concentration changes in the river, river "hotspots" or areas where deep groundwater contaminated with nitrate enters the river has been mapped with the same optical nitrate analyzers employed in the RiverNet stations (Figure 12). These nitrate "hotspots" are located where large basaltic dike systems cross the river. Contact metamorphic zones in the country rock next to the dike complex may be highly fractured zones of enhanced permeability that permits water to enter the river during times of high groundwater elevations, and where water is lost from the river during periods of low groundwater elevation. This deep groundwater - fractured dike pathway would be highly variable time. NPS river nitrate gains are related to the elevation of the water table (Figure 12). Monthly discharge and nitrate flux in the pipe stream is also controlled by groundwater elevation modulated by the amount of rainfall during the month (Figure 13). This data suggests that NPS nitrate gains in the river is an underestimate of how much nitrate is exported from the biosolid application fields into the river. During low flow conditions the amount of water and nitrate flowing into the reach from the river and streams can exceed the amount of water and nitrate leaving the reach. During high flow conditions ~ 30-50% of the nitrate leaving the reach is comes from sources other than the surface streams. The source of this other nitrate is most likely deep groundwater entering at the "hotspot" locations.

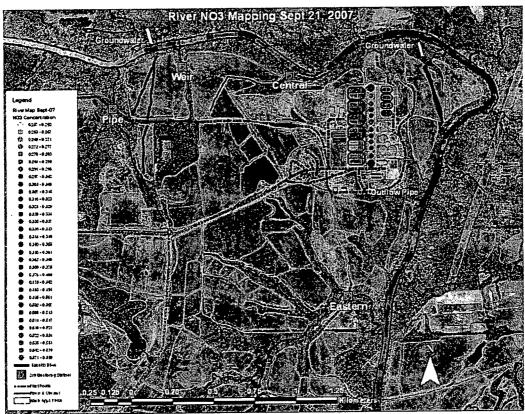


Figure 12. River nutrient mapping of stream nitrate concentrations indicate that deep groundwater contaminated with nitrate enters the Neuse River at "Hotspots" where large basaltic dikes cross the river.

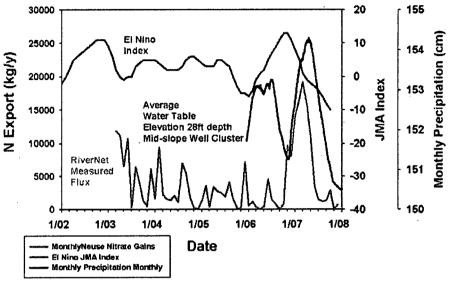


Figure 13. NPS nitrate gains in the Neuse River at the NRWWTP are related to mid-slope groundwater elevation changes. Groundwater elevation may be the link between climate oscillations and stream flux.

NRWWTP Streams

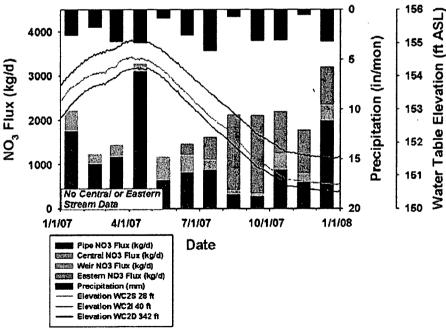


Figure 14. Monthly stream nitrate flux is related to groundwater elevation in the mid-slope wells. There is no data for the central or eastern stream in the first half of 2007 when groundwater elevations are high, but the highest flux from the pipe stream correlates to groundwater elevation and amount of precipitation.

Outcomes and Conclusions

Managing surface water quality will be crucial in the future as population growth in the Research Triangle area which will increase sewage discharge into surface waters. Surface waters will become more important sources of drinking water as groundwater resources are over-committed or contaminated. The groundwater/surface water nitrogen transport from biosolid waste application fields to the Neuse River described here is a new source of nitrogen to our watersheds that has not been previously quantified. These results suggest that the amount of nitrogen released to the environment by these waste water treatment plants has been seriously underestimated. Accurately measuring this new offsite N flux is the first step in designed remediation systems to protect river water quality.

At the NRWWTP, the mechanism for nitrate contaminated groundwater transport to the river is a combination of surface drainages and deeper groundwater flowpaths. The groundwater pathways and smaller stream nitrate fluxes are intermittent. The larger streams transport ~90% of the surface water nitrate, and would logically be the first areas to begin remediation efforts. However, these surface water nitrate fluxes in these streams are large on an event flow basis. The effectiveness of a treatment wetlands to remediate nitrate is determined by the size of the wetland and nitrate flux, type of plants, and the water retention time which is dependent upon the flow (Kadlec & Knight 1995). The Pipe and Eastern streams have 1-2 hectare areas that could be flooded and turned into treatment wetlands with minimal costs. If we assume that a 1 Ha wetland in this area can be designed to effectively treat a 10 kg/d stream N flux, these new wetlands could effectively treat stream nitrate flux in the Weir and Central streams, and reduce the N flux during low to medium stage flows in the Pipe and Eastern stream. CORPUD has constructed a large storm water overflow basin at the plant as part of several recent major improvements and upgrades. If wetlands of sufficient size cannot be constructed to remediate the nitrogen flux in the larger streams, then perhaps the excess storm water flow in the streams could be directed into the overflow basin and could be treated by the plant before it is released into the river.

Land application of biosolids produced from waste water treatment in areas of rapidly growing urban populations is a cost effective reuse of nitrogen and phosphorus, as well as an effective disposal method of the sediment and sludge produced during the treatment process. Land application of biosolids may increase significantly in the future as treatment plants expand and other disposal practices such as landfills, incineration, and ocean dumping become too expensive or are banned. The accumulation and export of nutrients from biosolid waste application fields must be considered for sustainable biosolid management. The results from this project are the first important steps in the design and implementation of sustainable biosolid management programs at the NRWWTP.

References

ENSR Consulting and Engineering, Inc. 2002. Comprehensive Site Assessment Report. 62 pp. ENSR Consulting and Engineering, Inc. 2003. Supplemental Site Assessment Report. 108 pp. Kadlec, RH, Knight, RL. 1995 Treatment Wetlands, Boca Raton, Lewis Publishers, 893 p Showers, WJ, Usry, B, Fountain, M, Fountain, JC, McDade, T, DeMaster, D. 2005 Nitrate Flux from Ground to Surface Waters Adjacent to the Neuse River Waste Water Treatment Plant. Univ. of North Carolina WRRI, Report No 365a, 38 pp.

BUDGET:

FUNDED REQUEST

Budget Categories (itemize all categories)	Section 319	Non-Federal Match *	Total	Justification
Personnel/Salary	22500	24570	47070	Student Salary, Faculty/Tech Match
Fringe Benefits	2925	5651	8576	23% Faculty/Tech. 13% Student
Supplies	21737	. 0	21737	Water Chem Anal., Field and Lab Supplies
Equipment	0	0	0	
Travel	800	0	800	To Field Site
Contractual - USGS	34920	0	34920	3 Stream Gauges Install & Operate USGS
Other (Student Tuition 1 yr)	8314		8314	Student Tuition
Total Direct	91196	30221	121417	
Indirect	10133	37332	47465	10% of TDC, 46% MTDC – 10% TDC Match
	101329	67553	168882	
Total	60%	40%	100%	

*Note: Non-Federal match must be a minimum of 40% of the total project budget

ACTUAL EXPENDITURES:

NC STATE UNIVERSITY

Contracts and Grants Menu

Project To Date Budget Summary

Project To Date as of February 26, 2008

Project: 526561

Description: Evaluation and Remediation of Nitrate Flux from Biosolid Application Fields in

Surface Waters in the Neuse River Basin

PI Name: SHOWERS, W. J.

Sponsor: N C DEPT ENV NR

Department: 178640: Marine Earth Atmospheric Sci

Budget Period: 09/25/2006 - 12/31/2007 Project Period: 09/25/2006 - 12/31/2007

Status: Active

F&A Rate: 11.11% (TotDirCost)

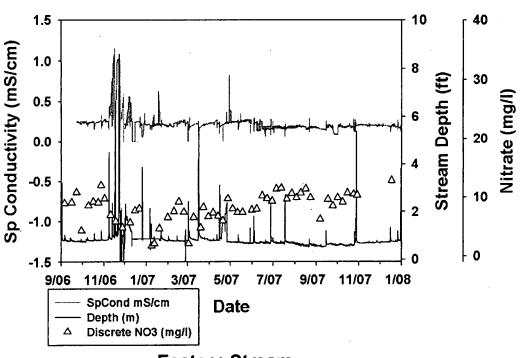
Description	Budget	Current Month Activity	Project To Date Activity	Encumbrances	Budget Balance Available
	420 520 201	÷0.00	4-0.305.36	00.02	\$8,704.64
EPA Non-Teaching Salaries	\$22,500.00	\$0.00	\$13,795.36		
SPA Employee Salaries	\$0.00	\$0.00	\$0.00	\$0.00 \$0.00	\$0:00 50:00
EPA Teaching Salaries	\$0.00	\$0.00	\$0.00		\$0.00 \$0.00
Temporary Wages	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Personnel Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$1,300.06
Fringe Benefits	\$2,925.00	\$0.00	\$1,624.94	\$0.00	
Total Personnel Costs	\$25,425.00	\$0.00	\$15,420.30	\$0:00	\$10,004.70
Contracted Services	\$0.00	\$0.00	š0.00	\$0.00	\$0.00
Supplies and Materials	\$21,737.00	\$0.00	\$31,830.78	\$0.00	(\$10,093.78)
Travel - Domestic	\$800.00	\$0.00	\$0.00	\$0.00	\$800.00
Travel - Foreign	\$0.00	\$0.00	\$0,00	\$0.00	\$0.00
Current Services	\$0.00	\$0.00	\$5,005.45	\$0.00	(\$6,005.45)
Fixed Charges	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Equipment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Student Aid	\$8,314.00	50.00	\$3,019.00	\$0.00	\$5,295.00
Subcontractors	\$34,920.00	\$0.00	\$34,920.00	\$0.00	\$0.00
Other Charges	\$0.00	\$0.00	\$0.00	\$0.00	\$0,00
Budget Pool	(\$.47)	\$0.00	\$0.00	\$0.00	(\$0.47)
Total Non-Personnel Costs	\$65,770.53	\$0.00	\$75,775.23	\$0.00	(\$10,004.70)
Total Direct Costs	691,195.53	\$0.00	\$91/195.53	\$0.00	\$0.0 0
Total Indirect Costs		.\$0.06	\$10,13182	\$0.00	\$0.00
Total Costs	\$101,327.35	\$0.00	§101,327,3 5	\$0.00	\$0.00

Supplies and Materials and Current Services costs to construct and maintain the monitoring stations where higher than expected. Salaries and student aid were budgeted from other sources to make up the difference.

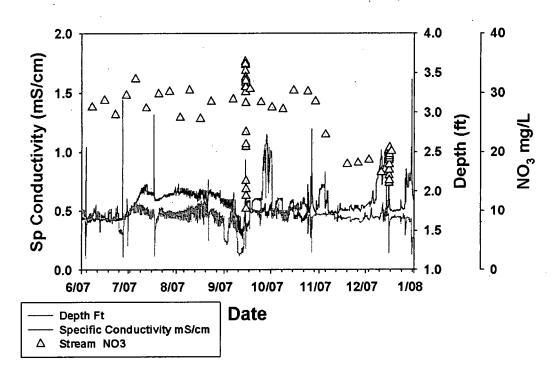
John Harris, the graduate student funded by this project, will graduate in June 2008 with an MS in Marine, Earth and Atmospheric Sciences. He already has several job offers in the environmental private consulting sector.

Appendix: Monitoring Station Data

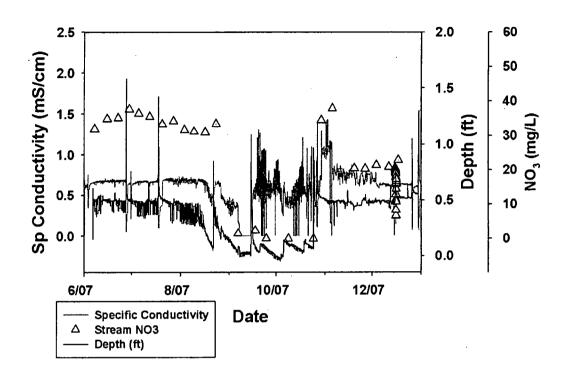
Pipe Stream



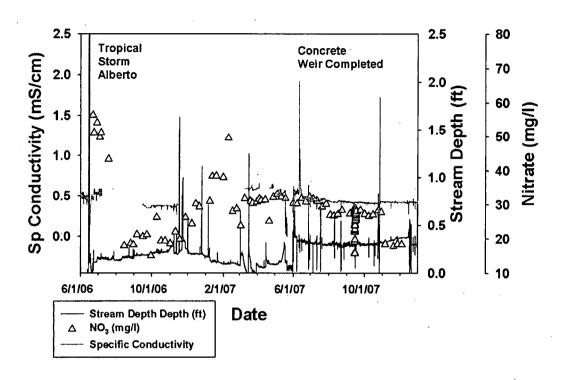
Eastern Stream



North Carolina's Section 319 NPS Program Final Report for EW07015 Central Stream



Weir Stream



Agriculture Cost Share Report

Presented to Environmental Review Commission March 18, 2008

- concerns for Jordan Lake, Falls Lake, and the Initiated in 1984 to address water quality Chowan River
- Expanded Statewide in 1990
- of the state. Assist agricultural producers and non-point source pollution into watercourses practices to protect water quality and to Purpose: Reduce the input of agricultural landowners to install best management comply with regulatory requirements

Todan Indication

- Annually 1,200+ contracts on agricultural lands
- Contracts prioritized to benefit water quality
- Cost share rate:
- 75% of predetermined average cost
- Up to 90% for new/limited resource farmer & Enhanced Voluntary Ag District participants
- years (some agronomic practices less than Most practices must be maintained for 10

2007 Approbration

- \$8,093,675 total
- \$5,644,897 appropriated for BMPs
- Less \$240,000 transferred for TA
- \$22,332,502 requested by districts
- \$2,208,778 appropriated for TA
- Plus \$240,000 transferred from BMPs

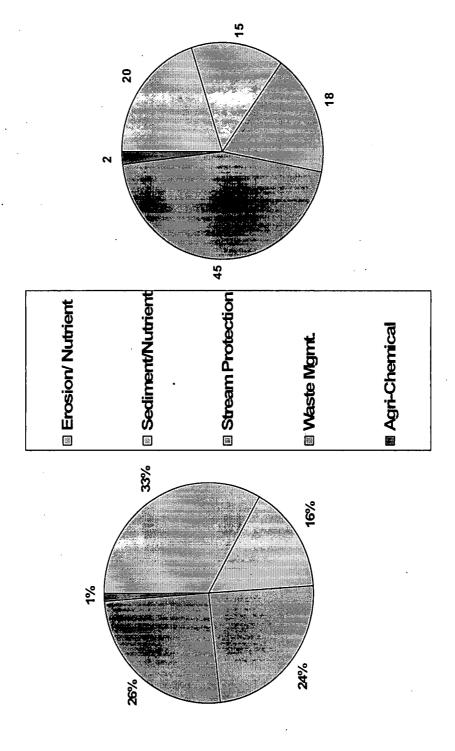
Series2

Series1

Series3 2006-2007 2005-2006 2004-2005 2003-2004 2002-2003 2001-2002 2000-2001 \$30,000,000 \$25,000,000 \$20,000,000 \$15,000,000 \$5,000,000 \$10,000,000

Appropriations & Expenditures vs. Demand . BMPs

ACSP FUNGS by BNP Type 2007 (S by BNP Type 2007 (S by BNP Type

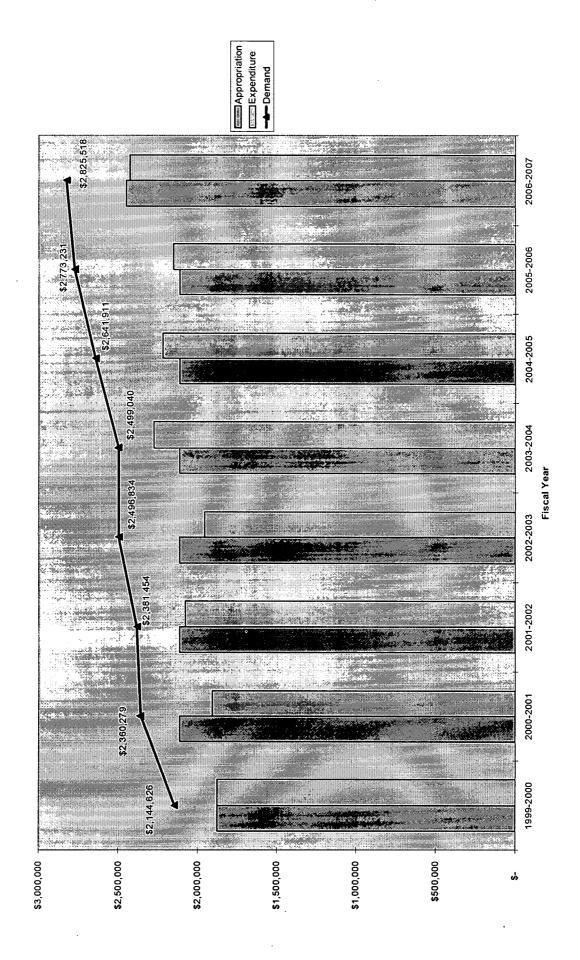


Frequently Used Practices 7007

- Cropland Conversion to Grass
- Poultry Litter Storage Structures
- Livestock MortalityManagement
- Livestock Exclusion/ Alternative Watering

- Conservation
 Tillage/ Long-Term
 No-Till
- Grassed Waterway
- Field Border
- Riparian Buffer
- Water Control Structure
- Lagoon Closure

Appropriation, Expenditure, and Demand Technical Assistance

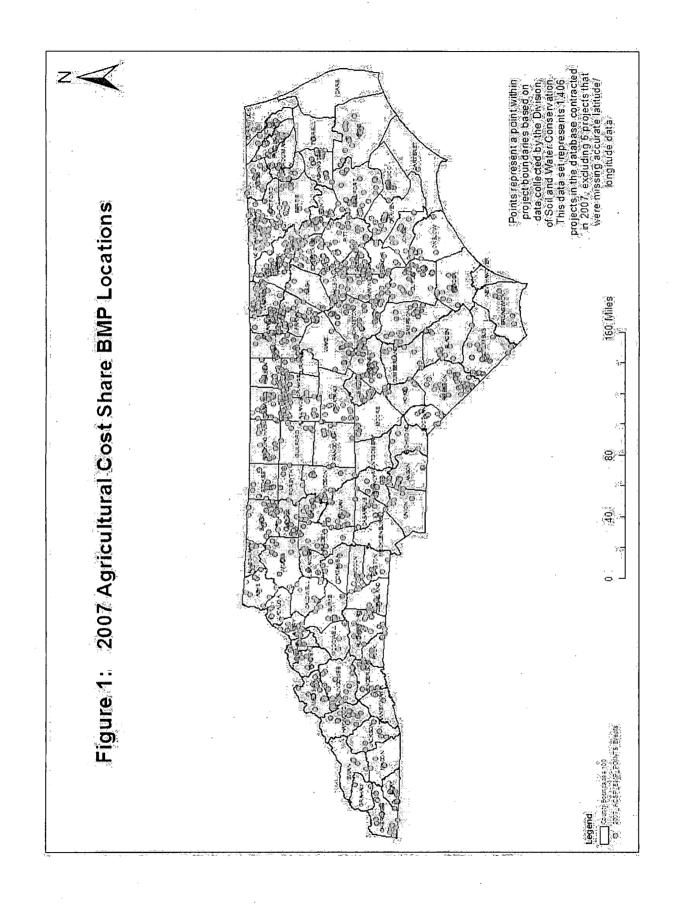


Pechnical Assistance

- \$2,208,708 appropriated + \$240,000 diverted from BMP funds
- 117 technical positions cost shared up to 50% in 94 districts (presently at 45% on average)
- No requiar increases in appropriation to match local cost of living increases
- will likely be eliminated in FY-2009 without Commission allocation for 2 local positions added funds

\$9,903,776 2006-2007 Total Expenditures Total Appropriation --- Ending Balance 2005-2006 2004-2005 2003-2004 2002-2003 2001-2002 Fiscal Year 2000-2001 1999-2000 1998-1999 1997-1998 1996-1997 30,000,000,00 0.00 15,000,000.00 20,000,000.00 10,000,000,00 25,000,000.00 5,000,000,00

Total Appropriations, Expenditures, and Fund Balance



2007 ACSP Measures of Success Summary

	2007
Number of Contracts	1,297
Acres Affected	67,579 acres
Soil Saved	165,358 tons
Nitrogen Saved	.sql 699'969
Phosphorus Saved	117,203 lbs.

- Approximately 10% of funds spent in 303(d) listed (impaired) watersheds
- 25% of funds used in Neuse and Tar-Pamlico Basins to help achieve and maintain 30% nutrient reduction
- PY-2007 SWCC earmarks
- \$143,420 for addressing waters impaired due to agricultural sources
- \$ 171,856 for installing buffers under CREP

Cum ative Benefits

(1984-present)

- 6.9 million tons of soil saved
- 16,864,410 pounds of nitrogen reduced
- 5,191,469 pounds of phosphorus reduced
- 48,232 contracts implemented
- 615,000 acres of no-till/conservation tillage
- 3,901 water control structures affecting 300,000 acres
- 2,141 waste management structures
- 980 miles of livestock exclusion fencing
- 460 miles of forested riparian buffer

Complenance with Vaintenance

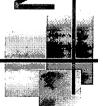
- Districts spot-checked 9.2% (1,186) of active contracts
- Results
- 91.2% fully compliant
- 5.8% need some repair
- 3% non-compliant
- 1. Districts work with cooperator to restore **BMPs**
- 2. Seek prorated repayment

Increased Costs Pewer Contracts



Fencing, gravel, concrete, pipe, lumber, heavy machinery, etc. FY 2003-04 assisted 2,053 cooperators vs. 1,297 in 2006-07

Currently reviewing average costs with further increases likely for 2008-09



New for 2007-08

- New practices added
- Agricultural pond restoration
- Manure composting facility
- Portable agrichemical mixing station
- Streambank and shoreline protection
- Controlled drainage for tile drains

Evaluation practices

- Precision nutrient management
- Conservation IrrigationProgrammatic Review
- Technical evaluation
 - Feedback from cooperating farmers
- Feedback from districts

Innovative Poultry Waste **Funds**

- innovative poultry mortality management \$200,000 appropriated in 2006-07 for (gasification systems)
- 14 applications totaling \$407,000 ***
- Commission allocated funds to 7 districts (Chatham, Edgecombe, Harnett, Martin, Onslow, Pender, Wilkes)
- Leveraged \$216,000 USDA grant to demonstrate innovative mortality management for cattle/swine.

Leveraging Other Funds

- ACSP part of match for Conservation Reserve Enhancement Program (\$221 million from JSDA)
- \$1,419,180 in Neuse and Tar-Pamlico basins. 3 US EPA Section 319 grants totaling
- \$142,000 grant from CWMTF for French **Broad River Basin**
- watershed and Dan River watershed Proposed grants for High Rock Lake
- delivery of over \$13 million of USDA funds Cost-shared district employees enable

Water Conservation

- ACSP statutory authority only for water quality, BUT
- Many ACSP practices increase water availability in soil and groundwater
- No-till/Conservation tillage/Cover crops
- Agricultural Pond Restoration
- Cropland Conversion to Trees/Grass
- Conservation irrigation (evaluation)



- Commission approved drought response in September 2007, special allocation for:
- Cover crops if harvesting crop residue
- Temporary practice for pasture renovation
- Additional \$250,000 infusion from Council of State
- Drought survey indicates additional \$8 million water supplies (wells), and pond renovation needed for pasture renovation, alternative

Assistance Program - CCAP Comment Conservation

- SWCDs address natural resource conservation needs on residential and community sites
- Erosion Control
- Stormwater/Flooding/Drainage
- Water Conservation
- Initial appropriation of \$200,000 received in 2008
- Also funding from CWMTF and 319 grants
- 54 districts receiving some funding
- SWCC rules approved in December

REPORT TO THE ENVIRONMENTAL REVIEW COMMISSION AND FISCAL RESEARCH DIVISION OF THE N.C. GENERAL ASSEMBLY ON WATER QUALITY ACCOUNTABILITY FOR THE AGRICULTURE COST SHARE PROGRAM



Submitted by

The N.C. Dept. of Environment and Natural Resources
Division of Soil and Water Conservation
N.C. Soil and Water Conservation Commission





INTRODUCTION

In 1983, the North Carolina Agriculture Cost Share Program (ACSP) was authorized by the General Assembly to improve water quality associated with agriculture in three nutrient sensitive areas of the state covering 16 counties. In 1990, it was expanded to include all 96 Soil and Water Conservation Districts (districts) which cover all 100 counties.

While the Soil and Water Conservation Commission (Commission) has the statutory responsibility to create, implement and supervise the ASCP, it is delivered at the local level by 492 elected and appointed district supervisors who are assisted by their staff and partners in natural resource conservation. These partners include technical and professional employees of the district or county, the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS), the Division of Soil and Water Conservation (Division), the Cooperative Extension Service, and the North Carolina Department of Agriculture and Consumer Services.

The Commission continues to adapt the program to respond to changing needs and technology. For program year 2007, there were 52 approved BMPs in the ACSP. BMPs include both short-term and long-term practices. The definitions of approved BMPs for the ACSP are provided in the Detailed Implementation Plan found in Attachment A.

For a BMP to be approved by the Commission for the ACSP, there must be an NRCS technical standard addressing that BMP and sufficient cost information to determine the appropriate cost share amount. Occasionally, BMPs are approved on a limited scale for evaluation purposes. These are referred to as district BMPs.

For most practices, the amount provided in cost share is based on 75 percent of a predetermined average cost for the practice up to a maximum of \$75,000 per cooperating farmer per year. However, some practices are cost shared on 75 percent of actual cost due to the variable nature of the practice. (In the 2003-04 Budget Bill, the General Assembly approved a special budget provision that modified N.C.G.S 143-215.74(b) to allow beginning farmers and limited resource farmers to receive up to 90 percent cost share up to \$100,000 per year beginning in the 2004 program year.) The Commission conducts a wholesale review of its cost share rates every three years, but it can make necessary corrections when presented with information that one of its predetermined costs is inaccurate.

Report to the Environmental Review Commission and the Fiscal Research Division February 2008

Page 2

Districts spot check a minimum of 5 percent of randomly selected active contracts each year to ensure that practices are being maintained properly. The Division and NRCS also spot check contracts as part of regular reviews of district office implementation of the ACSP. As shown in Table 1, spot checks for 2007 showed excellent compliance with maintenance requirements by participating farmers. Only 3 percent of contracts were out of compliance. When practices are discovered to need additional maintenance, the district is usually able to assist the cooperator to restore the practice to its intended function.

Table 1: Number of site visits in FY2007

DISTRICTS	CPOs	VISITS	PERCENT VISITED	COMPLIANT	NEED REPAIR	NON- COMPLIANT	PARTICIPATING SUPERVISORS
ALAMANCE	350	23	6.6%	22	1	0	4
ALEXANDER	63	14	22.2%	8	2	4	3
ALLEGHANY	130	15	11.5%	15	0	0	5
ANSON (BROWN CREEK)	59	20	33.9%	19	0	1	5
ASHE (NEW RIVER)	130	10	7.7%	10	0	0	4
AVERY	73	5	6.8%	5	0	0	5
BEAUFORT	54	7	13.0%	7	0	0	5
BERTIE	201	10	5.0%	9	1	0	1
BLADEN	145	18	12.4%	18	0	0	. 1
BRUNSWICK	91	6	6.6%	6	0	0	2
BUNCOMBE	108	8	7.4%	6	2	0	2
BURKE	44	13	29.5%	9	3	1	5
CABARRUS	44	8	18.2%	8	0	0	2
CALDWELL	54	9	16.7%	7	2	0	3
CAMDEN (ALBEMARLE)	20	4	20.0%	4	0	0	3
CARTERET	3	3	100.0%	3	0	0	2
CASWELL	383	20	5.2%	20	0	0	2
CATAWBA	38	3	7.9%	3	0	0	4
CHATHAM	156	40	25.6%	35	1	4	5
CHEROKEE	125	7	5.6%	7	0	0	1
CHOWAN (ALBEMARLE)	68	10	14.7%	10	0	0	4
CLAY	125	11	8.8%	11	0	0	3
CLEVELAND	43	5	11.6%	5	0	0	4
COLUMBUS	159	8	5.0%	8	0	0	2
CRAVEN	126	8	6.3%	5	0	3	· 2
CUMBERLAND	89	18	20.2%	17	1		1
CURRITUCK (ALBEMARLE)	5	1	20.0%	1	0	0	4
DAVIDSON	84	25	29.8%	24	0	1	2
DAVIE	48	14	29.2%	14	0	0	2
DUPLIN	240	12	5.0%	12	0	0	1

Page 3

DURHAM	58	3	5.2%	3	о	0	3
EDGECOMBE	309	15	4.9%	11	4	0	. 2
FORSYTH	61	4	6.6%	3	1	0	2
FRANKLIN	191	10	5.2%	9	1	0	4
GASTON	84	6	7.1%	6	0	0	2
GATES	159	15	9.4%	15	0	0	4
GRAHAM	26	5	19.2%	5	0	0	2
GRANVILLE	308	17	5.5%	17	0	0	3
GREENE	204	16	7.8%	16	0	0	4
GUILFORD	239	20	8.4%	14	5	1	5
HALIFAX (FISHING CREEK)	188	10	5.3%	9	1	0	2
HARNETT	443	24	5.4%	17	7	0	5
HAYWOOD	208	12	5.8%	12	0	0	2
HENDERSON	116	14	12.1%	14	0	0	1
HERTFORD	164	12	7.3%	12	0	0	2
HOKE	70	11	15.7%	11	0	0	3
HYDE	240	12	5.0%	12	0 .	0	4
IREDELL	94	8	8.5%	5	2	1	2
JACKSON	22	5	22.7%	5	0	0	2
JOHNSTON	308	30	9.7%	28	1	1	5
JONES	73	16	21.9%	15	0	1	2
LEE	111	8	7.2%	7	1	0	1
LENOIR	251	16	6.4%	16	0	0	2
LINCOLŃ	73	5	6.8%	5	0	0	5
MACON	50	4	8.0%	3	1	0	1
MADISON	132	9	6.8%	9	0	0	3
MARTIN	284	14	5.0%	10	4	0	5
MCDOWELL	40	6	15.0%	6	0	0	1
MECKLENBURG	3	1	33.3%	1	0	0	2
MITCHELL	119	16	13.4%	15	1	0	2
MONTGOMERY	37	19	51.4%	19	0	0	2
MOORE	114	47	41.2%	46	0	1	1
NASH	188	20	10.6%	18	0	2	4
NEW HANOVER	2	1	50.0%	1	0	0	4
NORTHAMPTON	342	20	5.8%	15	5	0	1
ONSLOW	110	8	7.3%	7	1	0	2
ORANGE	245	24	9.8%	23	1	0	2
PAMLICO (BAY RIVER)	165	9	5.5%	5	1	3	1
PASQUOTANK (ALBEMARLE)	35	9	25.7%	9	0	0	3
PENDER	145	17	11.7%	16	0	1	3
PERQUIMANS (ALBEMARLE)	63	4	6.3%	4	0	0	3
PERSON	230	13	5.7%	10	3	0	5
PITT	279	16	5.7%	16	0	0	2
POLK	30	2	6.7%	2	0	0	2

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RANDOPLH*	1						
RICHMOND	55	11	20.0%	11	0	0	2
ROBESON	121	6	5.0%	6	0	0	2
ROCKINGHAM	226	12	5.3%	9	2	1	3
ROWAN	95	7	7.4%	7	0	0	1
RUTHERFORD	152	8	5.3%	7	1		1
SAMPSON	171	20	11.7%	15	5	0	1
SCOTLAND	85	11	12.9%	11	0	0	1
STANLY	109	23	21.1%	22	0	1	2
STOKES	172	14	8.1%	13	0	1	4
SURRY	259	23	8.9%	22	0	1	5
SWAIN	20	2	10.0%	2	0	0	2
TRANSYLVANIA	43	9	20.9%	9	0	0	1
TYRRELL	19	1	5.3%	1 ,	0	0	1
UNION*							
VANCE	188	9	5.0%	9	0	0	3
WAKE	117	8	6.8%	8	0	0	2
WARREN	232	15	6.5%	6	5	4	2
WASHINGTON	103	9	8.7%	7	0	2	1
WATAUGA	51	6	11.8%	4	1	1	4
WAYNE	167	13	7.8%	13	0	0	1
WILKES	111	32	28.8%	32	0	0	5
WILSON	196	11	5.6%	10	1	0	4
YADKIN	138	16	11.6%	15	1	0	3
YANCEY	129	12	9.3%	12	0	0	2
TOTALS	12,830	1,186	9.2%	1081	69	36	260
PERCENT				91.2%	5.8%	3.0%	

^{*} Due to LT outbreaks, spot checks could not be performed in these districts.

PROGRAM ACCOMPLISHMENTS

Since the first ACSP contracts were issued in 1984, there have been 48,232 contracts approved for installing BMPs (through the end of program year 2007, which ended on June 30, 2007). Most BMPs have a life expectancy of ten years, which is how long participating farmers must agree to maintain the practices.

Early in the program, the major factor used for determining success was tons of soil saved because the program funded predominantly sediment and erosion control practices. It is estimated that an average of 6.9 million tons of soil have been saved annually during the life of the program. Since the mid-1990s, while continuing its attention on minimizing soil loss and erosion, the program has increased its attention on reducing and managing nutrients from cropland and livestock production. Part of the impetus for this new attention was the promulgation of the 15A NCAC 2H.0200 (now 15A NCAC 2T) animal waste

management rules and the nutrient sensitive waters strategies for the Neuse and Tar-Pamlico River Basins.

Highlights of additional accomplishments include the following:

- 127,995 acres of marginal or environmentally sensitive cropland have been converted to trees, grass, or wildlife habitat
- 2,141 waste management structures have been constructed to properly store and manage dry and wet animal waste
- 861 mortality management systems have been installed to properly manage livestock mortalities to minimize water quality impacts.
- 3,901 water control structures have been installed improving water management on and reducing nutrient loss from approximately 299.660 acres
- 980 miles of fencing have been erected, in combination with other practices (e.g., watering sources) to exclude livestock from streams
- 615,198 acres of cropland acres have been converted to no-till or conservation tillage to reduce sediment loss associated with traditional practices
- 460 miles of forested riparian buffer have been established to reduce nutrient loss from nearly 36,100 acres of cropland

A complete list of program accomplishments is included as Attachment B.

Special Appropriation for Innovative Poultry Waste Management
The General Assembly appropriated \$200,000 to the Division to fund innovative
poultry waste management technology (e.g., mortality gasification systems for
poultry operations). The Commission approved a process for allocating the

special funds to districts to maximize the demonstration opportunity for this innovative technology, both geographically and for different types and sizes of operations.

Eight districts submitted a total of 14 requests to the Division totaling more than \$407,000. This included applications from 11 broiler producers, 2 poultry breeders, and 1 turkey producer. The Commission allocated the funds to 7 soil and water conservation districts for projects affecting 5 broiler farms, 1 breeder farm, and 1 turkey farm. Three different sizes of gasification units will be demonstrated in 7 different counties (Edgecombe, Martin, Chatham, Harnett, Onslow, Pender, and Wilkes).

It is apparent that this technology holds great promise for widespread adoption in the poultry industry, and potentially for swine and cattle/dairy operations, particularly as rendering capacity continues to diminish in North Carolina. The Division was able to leverage this appropriation to qualify for a \$216,000 USDA Conservation Innovation Grant to demonstrate innovative mortality management technologies for swine and cattle operations.

It is expected that demand for this technology will continue to increase as more farmers are able to see a working system in use. This will likely increase demand for ACSP funds by \$400,000 to \$600,000 per year.

REPORTING REQUIREMENTS

Projects Receiving State Funds

Participating farmers have up to three years to complete the work included in ACSP contracts. Therefore, cost share payments made each year may be for contracts written in the current program year or in the two previous program years. For this reason the fund balance for the program will always exceed the amount appropriated in a given year.

Each contract is considered a "project." Each project may include only one BMP or a system of practices that include several BMPs. Cost share payments are made only when installation of the BMP is completed and certified to be in accordance with current NRCS or Commission standards.

Cost Share payments were applied to 1,226 projects statewide between July 1, 2006 and June 30, 2007. These contracts received total payments of \$6,351,5351. A list of individual contracts to which Cost Share funds were applied in program year 2007 is available upon request.

New Contracts for Program Year 2007

For program year 2007, districts requested \$22,332,502 to address identified water quality needs. The General Assembly appropriated \$5,644,897 in recurring general funds for BMP installation. Current appropriations do not enable districts to meet demand for financial assistance for installing BMPs to protect water quality in North Carolina.

In program year 2007, the Commission allocated \$7,733,770 to districts. In addition to the 2007 appropriation, the Commission also had available for allocation (1) funds allocated to districts in 2006 which districts were unable to execute contracts with farmers prior to the end of the program year and (2) funds recovered from completed and expired contracts from program years 2004 through 2006. Despite the Commission's actions to improve efficiency of the ACSP (discussed on pp. 12-13), districts still must turn away three out of every five farmers requesting cost share assistance.

Districts obligated \$7,282,697 to 1,297 new contracts with farmers in program year 2007. Table 2 presents the number and value of 2007 contracts by the districts and each district's allocation of cost share funds for 2007. Figure 1 shows the distribution of ACSP contracts within each county. A map of projects by river basin can be found in Attachment E.

Table 2: 2007 ACSP Contracts and Allocations by County

County	Number of 2007 Contracts	Amount Contracted	2007 Allocation	County	Number of 2007 Contracts	Amount Contracted	2007 Allocation
Alamance	22	\$83,162	\$85,311	Jones	10	\$52,053	\$57,053
Alexander	7	\$74,623	\$74,623	Lee	13	\$42,967	\$44,883
Alleghany	7	\$84,152	\$84,152	Lenoir	13	\$52,456	\$67,708
Anson	9	\$61,290	\$79,597	Lincoln	8	\$47,862	\$52,000
Ashe	10	\$132,001	\$142,876	Macon	4	\$57,170	\$57,452
Avery	17	\$71,247	\$71,247	Madison	17	\$83,506	\$92,012
Beaufort	24	\$120,981	\$121,862	Martin	20	\$76,567	\$87,427
Bertie	15	\$78,021	\$81,524	McDowell	3	\$24,009	\$40,000
Bladen	13_	\$69,346	\$69,346	Mecklenburg	0	\$0	\$11,500
Brunswick	5	\$45,674	\$54,132	Mitchell	9	\$76,805	\$77,480
Buncombe	22	\$128,974	\$141,581	Montgomery	3	\$36,734	\$55,312
Burke	10	\$72,105	\$90,000	Moore	8	\$67,033	\$87,505
Cabarrus	14	\$42,805	\$51,092	Nash	5	\$70,119	\$74,780
Caldwell	8	\$75,000	\$75,000	New Hanover	0	\$0	\$17,006
Camden	7	\$43,884	\$44,092	Northampton	33	\$80,645	\$89,067
Carteret	1	\$29,274	\$30,000	Onslow	13	\$55,961	\$66,730
Caswell	21	\$59,902	\$61,072	Orange	21	\$102,811	\$101,398
Catawba	7_	\$53,687	\$58,179	Pamlico	6	\$53,847	\$53,847
Chatham	14	\$121,566	\$123,028	Pasquotank	11	\$52,036	\$52,109
Cherokee	16	\$87,780	\$97,755	Pender	11	\$58,807	\$58,821
Chowan	11	\$55,363	\$55,363	Perquimans	7	\$56,143	\$67,936
Clay	11	\$55,817	\$55,849	Person	19	\$66,007	\$69,874
Cleveland	8	\$38,670	\$50,370	Pitt	14	\$106,708	\$122,697
Columbus	19	\$61,049	\$58,920	Polk	5	\$54,384	\$65,322
Craven	31	\$65,764	\$84,147	Randolph	9	\$104,312	\$99,675
Cumberland	11	\$46,903	\$49,956	Richmond	3	\$47,987	\$55,887
Currituck	2	\$14,960	\$25,000	Robeson	25	\$100,404	\$103,478
Dare	0	\$0	\$0	Rockingham	13	\$67,054	\$80,148
Davidson	9	\$97,056	\$107,022	Rowan	11	\$81,575	\$99,071
Davie	14	\$89,066	\$89,197	Rutherford	24	\$83,689	\$87,804
Duplin	29	\$120,019	\$120,102	Sampson	21	\$102,438	\$103,469
Durham	5	\$43,806	\$54,252	Scotland	9	\$42,854	\$54,721
Edgecombe	29	\$142,627	\$152,189	Stanly	15	\$81,057	\$82,792
Forsyth	9	\$76,616	\$76,616	Stokes	8	\$66,589	\$77,970
Franklin	25	\$74,464	\$90,171	Surry	9	\$123,130	\$123,130
Gaston	8	\$46,765	\$46,765	Swain	4	\$27,339	\$38,188
Gates	8	\$67,492	\$70,214	Transylvania	4	\$55,639	\$64,289
Graham	2	\$30,199	\$50,000	Tyrrell	2	\$59,206	\$59,206
Granville	26	\$64,059	\$64,817	Union	7	\$132,413	\$135,922
Greene	22	\$83,979	\$135,235	Vance	19	\$50,275	\$51,153
Guilford	8	\$97,235	\$89,494	Wake	19	\$74,952	\$86,320

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Halifax	31	\$88,339	\$98,629	Warren	30	\$75,040	\$85,940
Harnett	32	\$73,032	\$82,747	Washington	19	\$118,030	\$132,365
Haywood	15	\$58,641	\$102,579	Watauga	7	\$87,576	\$95,474
Henderson	10	\$93,311	\$93,838	Wayne	25	\$155,133	\$166,842
Hertford	12	\$72,734	\$80,916	Wilkes	10	\$140,770	\$144,981
Hoke	3	\$18,027	\$46,795	Wilson	30	\$96,170	\$124,203
Hyde	14	\$58,206	\$84,769	Yadkin	15	\$76,986	\$77,471
Iredell	10	\$79,404	\$95,780	Yancey	7	\$75,086	\$75,086
Jackson	6	\$47,332	\$48,300				
Johnston	30	\$100,779	\$110,199				

Estimated Water Quality Benefits of ACSP Contracts Initiated in 2007

N.C.G.S 143-215.74(b)(7) requires that each project's benefits to water quality be estimated before funding is awarded. To meet this requirement, the Commission chose three indicators of water quality benefits: (1) tons of soil saved, (2) pounds of nitrogen saved or managed, and (3) pounds of phosphorus saved or managed.

Soil savings estimates have been required on all ASCP contracts since the beginning of the program. Beginning with the 1997 program year, estimates of nitrogen and phosphorus savings were required. The Division continues to work with the Division of Water Quality, NRCS, and North Carolina State University to improve and refine our method to estimate and account for nutrient reductions.

These estimates have allowed the Division to track progress made by agriculture relative to the nutrient reduction requirements in the Neuse and Tar-Pamlico Nutrient Reduction Rules for agriculture. The ACSP is playing a key role in helping farmers achieve the 30 percent nutrient reduction required by these rules.

Local districts determine which projects are eligible for funding in their areas according to a required priority ranking process The priority ranking is tailored to each district's water quality concerns. The water quality evaluations on each project are carried out at the district level, and the water quality benefit estimates are provided to the Division on each contract form. The data are entered from the contract form into the Division's cost share database and tracked by Division staff. The estimated sediment and nutrient reduction benefits for program years 2005-2007 are summarized in Table 3.

Some BMPs standing alone will not directly result in sediment or erosion reductions or nitrogen or phosphorus savings, but are used in conjunction with other practices. These BMPs are called "facilitating practices" and are necessary to facilitate and ensure that other practices in the BMP system are effective at reducing nutrient or sediment loading to a water resource. Therefore, their reduction credit is linked to the facilitated practice. An example of a facilitating practice is a water tank, which must be installed for livestock drinking water purposes before fencing can be put up to keep livestock out of a stream.

Table 3: Sediment and Nutrient Reduction Benefits for Program Years 2005

through 2007			
	2005	2006	2007
Number of Contracts	1,532	1,498	1,297
Acres Affected	67,621 acres	78,085 acres	67,579 acres
Soil Saved	172,378 tons	171,633 tons	165,358 tons
Nitrogen (N) Saved	1,392,754 pounds	926,743 pounds	696,669 pounds
Phosphorus (P) Saved	262,404 pounds	156,766 pounds	117,203 pounds
Waste-N Managed	3,709,391 pounds	4,004,181 pounds	3,690834 pounds
Waste-P Managed	3,483,287 pounds	4,483,211 pounds	4,684,716 pounds

Effectiveness of Each Project to Accomplish Its Primary Purpose

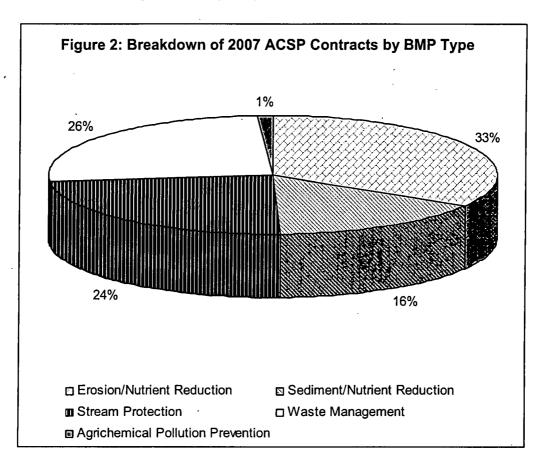
The statutory purpose of the program and each project is to improve water quality by reducing the input of agricultural non-point source pollution into the water courses of the state. Each BMP approved for the Cost Share program is designed for at least one of five major purposes to protect the water resources of the state:

- (1) sediment/nutrient delivery reduction through reduction of applied nutrients, reduction of soil loss, or interception of nutrients from fields;
- (2) erosion reduction/nutrient loss reduction in fields through reduction of applied nutrients or prevention of soil detachment;
- (3) prevention of agricultural chemical pollution of ground or surface water from improper handling or accidents;
- (4) reduction of nutrient loading through proper management of animal waste; and
- (5) stream protection measures to reduce the delivery of sediment and nutrients by animals and stabilize streambanks to minimize further erosion and sediment contribution.

As shown in Figure 2, 33 percent of the 2007 funds were directed toward erosion and nutrient-reducing BMPs (e.g., conservation tillage, cropland conversion to grass or trees); 16 percent were directed toward sediment and nutrient-reducing BMPs (e.g., riparian buffers, field borders, grassed waterways); 24 percent were

directed toward stream protection systems (e.g., livestock exclusion); 26 percent were directed toward animal operations for waste management BMPs (e.g., poultry litter storage structures, closure of inactive lagoons, livestock feeding/waste storage structures); and 1 percent were directed toward agrichemical pollution prevention measures (e.g. agrichemical handling facilities). Attachment C includes charts showing the approved BMPs in these categories and their relationship to water quality improvement.

Projects for which program funds have been expended are verified by staff to ensure that the practices are installed in accordance with program standards and that is it accomplishing its primary purpose.



TARGETING ACSP FUNDS TO WATERSHEDS OF IMPAIRED WATERS

The Commission continues to exercise leadership in allocating ACSP resources to local districts containing impaired waters. This is best illustrated by the fact that the Commission targeted \$143,420 of funds available in 2007 for the specific purpose of installing erosion and sediment-reducing BMPs into watersheds listed on the State's 303(d) list of impaired waters due to sediment from nonpoint source pollution. Agriculture was identified as a potential source of sediment to impaired waters in 15 counties.

In 2007, about 10 percent of ACSP funds were used to implement BMPs in watersheds of impaired waters. Considering that only 2.4 percent of North Carolina's stream miles are attributed to being impaired by agricultural sources this demonstrates that the ACSP funds are being significantly targeted toward improving streams that do not fully meet their uses.

Approximately 25 percent of funds contracted in program year 2007 were contracted with farmers in the Neuse and Tar-Pamlico River Basins to help them achieve the required 30 percent reduction in agricultural nitrogen losses. Districts in the Neuse and Tar-Pamlico Basins will continue to use ACSP to sustain the reductions already achieved and to attain further voluntary reductions in these nutrient sensitive watersheds. ACSP funds are also being used to reduce phosphorus losses from agriculture to help achieve the goal of no net increase in phosphorus loading to the Tar-Pamlico Basin. Participating farmers continue to assess phosphorus losses using the Phosphorus Loss Assessment Tool (PLAT). The Commission also targeted \$171,856 of program year 2007 funds to 14 districts to assist with implementation of riparian buffers in nutrient sensitive watersheds under the Conservation Reserve Enhancement Program (CREP).

<u>Incorporating Information from the Basinwide Water Quality Plans Published by</u> the Division of Water Quality (DWQ)

In 2005, the Commission established a policy relating District Strategy Plans to the DWQ's Basinwide Water Quality Plans which requires that all strategy plans for ACSP include a section describing waters listed as impaired or with notable water quality problems and concerns as documented in the most recent basinwide water quality plan(s), and for which agriculture is a potential source or stressor. The district should also list any waters of local concern for which agriculture has been identified as a potential source or stressor. This section of the strategy plan should also describe how the district intends to address agricultural nonpoint source problems impacting these waters.

This policy became effective for the program year 2007. All 96 Districts completed this new section of the strategy plan and did an exceptional job with documenting the impaired waters in their county and the actions the District plans to take to address the problems impacting these waters.

NEW PROGRAM ENHANCEMENTS TO IMPROVE EFFICIENCY AND PROGRAM DELIVERY

Because of the need to continually improve the ACSP's cost effectiveness and recurring budget reductions in the appropriation, the Commission is moving forward on several enhancements for the 2007-2008 program year. These enhancements were designed to improve the efficiency by which program funds are used by agricultural cooperators to install BMPs and to improve the responsiveness of the program to state and local water quality priorities.

Programmatic Review

The Division has initiated a Programmatic Review of the ACSP to evaluate the effectiveness of the ACSP with special emphasis on ensuring the program and cost shared BMPs are meeting the conservation needs on the private working agricultural lands of North Carolina. Leadership for the program assessment shall reside with the Technical Review Committee (Committee). The Committee established a subcommittee to complete an assessment of the ACSP. TRC representatives from the Division, NRCS, NCDA, Farm Bureau, the Grange, Wildlife Resources Commission, and the District Employees Association have agreed to participate in the process along with others so named by the TRC.

The objectives of the program review are to (1) assess the efficiency and effectiveness of program implementation at the state and local level, (2) determine the degree to which the program is meeting the needs of working lands conservation and water quality protection, and (3) evaluate the relationship of dollars expended to resource problems addressed.

To address objective one, the subcommittee will distribute surveys to district supervisors and staff through the Division's cost share training sessions, program reviews, and electronic mailing lists. These surveys are designed to solicit feedback from districts to assess opportunities to improve program delivery.

For objective two, the subcommittee will distribute a survey to a random number of program participants statewide. The objective is to receive feedback from our customers on their experiences with our program and how we can improve the program to better serve the private working lands of North Carolina. The subcommittee will also review the current set of approved practices to determine if additional practices are necessary or if modification are needed to improve practice effectiveness.

Objective three will be addressed by on-site farm visits to assess the extent to which the installed practices address the resource problems and the cost effectiveness of the installed BMP as compared to other alternatives. These visits were completed in late 2007, and the final report is under development.

The Subcommittee will compile the results of the assessment and will present the findings to the TRC and to the Commission in the Summer of 2008.

Database Development

The Division has also initiated an upgrade to the existing ACSP database. The Division has worked with the DENR Information Technology Services (ITS) to upgrade the current ACSP database. Initial funding for the new database was provided by Clean Water Act Section 319 grant funds administered by DWQ. The Division is seeking additional funding to complete the programming and testing for the upgrade. The proposed upgraded system will utilize the DENR-Integrated Build Environment for Application Management (IBEAM) approach to permit more efficient on-line contracting and contract approval to eliminate duplicative data entry and to shorten contract review and approval time. The proposed system will also include mechanisms to attach GPS and GIS information and digital photographs to better present the benefits and outcomes associated with BMP implementation. The proposed system will coordinate with the federal Pro-Tracks system to allow a more complete accounting for agricultural BMP implementation and progress reporting in North Carolina.

This database will provide real-time ACSP information that can easily be updated by the Division, DENR Regional Office, and local district staff, with minimal errors, and be used to generate standard reports on program use and water quality benefits. Non-sensitive information will be accessible for public view on the internet in a read-only format.

It is hoped that the project will be ready for evaluation by districts by the Fall of 2008.

Program Changes

For program year 2008 the Commission has made several changes to the program including:

Adding a practice for installing portable agrichemical mixing stations. This practice is intended to be used in the field to prevent the unintentional release of agrichemicals during mixing and transferring. The mixing station is intended to be installed as a complete system to include check-valves, gauges, mixing cones, vacuum breakers, and drains, as needed for the individual application.

- Modifying the water control structure practice to include applications in tile drainage systems. Research at NCSU and elsewhere has confirmed the water quality and production benefits of controlled drainage for tile drains.
- Approving a new BMP to restore or repair agricultural ponds with corroded metal overflow pipes to restore the water quality benefits provided by the ponds.
- Approving a new BMP for constructing manure composting facilities patterned after the existing mortality composting structure practice. Although the practice would is applicable to all types of livestock manures, the primary motivator for establishing the practice would be to address manure from horse operations.
- Approving a new BMP for Streambank and Shoreline Protection, and renaming the existing Streambank Stabilization practice as Stream Restoration.

COST-EFFECTIVENESS CONSIDERATIONS

The ACSP is a cost-effective program from both a state expenditure perspective and the farmer's perspective. This program has been credited with helping the state to achieve considerable success in protecting and improving water quality. Many farmers could not afford to implement BMPs (many of which are required by regulations) without cost share assistance. Because a farmer must invest at least 25 percent of the cost for BMPs, the farmer has ownership in the practice and is more likely to maintain it. The educational value of local farmers participating in the program is substantial in helping to change local practices.

Leveraging Additional BMP Implementation Funds from Other Sources
The Commission's 2007 allocation to districts included \$143,420 for the intended purpose of installing BMPs in watersheds of streams on the state list of impaired waters. Because of this targeted allocation the Division and districts were able to obtain an additional \$142,000 in grant funds from the Clean Water Management Trust Fund (CWMTF) to implement BMPs in these watersheds.

ACSP funds are an essential part of the state match for the Conservation Reserve Enhancement Program (CREP), a federal/state partnership. ACSP and other state programs (CWMTF) are providing a total of \$54 million over eight years to match \$221 million in federal payments to North Carolina landowners participating in CREP.

ACSP funds for BMP implementation and technical assistance also provide the required state match for three EPA-319 grants for accelerating BMP implementation in the Neuse and Tar-Pamlico river basins. The total of the three grants is \$1,419,180.

Whenever possible, the districts use the ACSP in conjunction with other programs, such as the federal Environmental Quality Incentive Program (EQIP) and the Conservation Reserve Enhancement Program (CREP), to stretch scarce resources as far as possible. Districts also partner to meet the needs of cooperating producers and landowners.

<u>Leveraging of Local and Federal Resources for Technical Assistance and Local Delivery</u>

The ACSP is delivered locally by 492 elected and appointed volunteer district supervisors and by over 400 local staff of districts and NRCS. District supervisors receive no state salary, yet are responsible for seeing that state funds are spent where they are most needed to improve water quality. District supervisors are required to develop a prioritization ranking system for administering the ACSP in their respective district to maximize the water quality benefits of the program. Applications to each district are evaluated and prioritized according to this system. District supervisors also must inspect at least five percent of all cost share contracts in their district every year to ensure the BMPs are properly maintained.

The ACSP is heavily dependent on the technical resources of the local districts and the NRCS. District and federal employees develop conservation plans, design BMPs, and provide engineering assistance for water quality improvements at no cost to the farmers whose applications are accepted for cost share assistance. The staff also assist farmers and other landowners in implementing water quality projects using other funding sources such as EQIP, the U.S. Environmental Protection Agency's Section 319 Nonpoint Source Program, and North Carolina's Clean Water Management Trust Fund.

A critical portion of the General Assembly's appropriation for ACSP provides a state match for salaries for many of these district technical employees and for their operating expenses to carry out the cost share program. For 2007, the General Assembly appropriated \$2,448,778 in recurring funds for cost sharing technical assistance positions in local districts. County commissions provide more than 50 percent match for salaries and operating expenses, including office space and administrative support for these technical assistance positions. In program year 2007, the cost share technical assistance program cost shared on 115 technical positions in 91 counties to assist farmers in designing and installing BMPs. These state technical assistance cost share funds maintain a local conservation infrastructure and are critical to sustain local county support and funding for local delivery of the program.

NRCS engineers and conservation specialists are also available to each district. These federal employees carry out a portion of the cost share work support without cost to the state, and they provide additional technical resources and

expertise to ensure that cost-shared practices are properly installed and maintained for the expected life of the practice.

In addition, NRCS allows district staff in some districts to use federal vehicles for use on state cost share work. NRCS also provides computers and sophisticated natural resources materials and computer software in all 100 county field offices, and develops the technical standards for most of the BMPs used in the cost share program. This state program leverages a much greater amount of federal funding for water quality improvements in North Carolina.

PROGRAM MANAGEMENT

Attachment D is an overview of the funding and compliance process used for implementing the ACSP.

A Division staff of four full time employees review approximately 1,300 contracts annually and processes about 2,000 requests for payment each year. The E ivision also maintains the ACSP Manual, trains local personnel, provides daily technical assistance to the districts, and conducts oversight through district program reviews to ensure proper record keeping and BMP maintenance for continued water quality protection.

Because the state specifies that the purpose of the program is to assist agricultural operations in addressing an existing water quality problem, the program does not assist new operations to go into business. It is the policy of the Commission that new producers or companies constructing new agricultural operations should be aware of the existing environmental requirements and technical standards and should be prepared to meet them without state funding assistance. This is especially important when existing operations are struggling to comply with new requirements that were not in place when they began operating. Therefore, the Commission has restricted eligibility for Cost Share funds to those operations, which have been in existence for three years prior to the date of cost share application. Operations that were not in existence for three years prior to application date may still be eligible for cost-share if changes in environmental statutes or regulations create new requirements that could, without assistance, make the facility out of compliance. These exceptions require Commission approval.

IMPACT OF INCREASED COSTS TO THE ACSP

The ACSP has experienced many challenges due to the increased costs of fuel, labor, and materials over the past few years. Since the ACSP is based on 75 percent of a predetermined average cost for each practice it has been almost impossible to keep up with the cost changes in areas such as gravel, pipe, fencing, lumber, and the cost of operating heavy machinery to install many of the

BMPs in the program. In program year 2004, the ACSP was able to contract with 2,053 projects statewide encumbering \$6,827,880 compared to only 1,297 projects statewide in the 2007 program year encumbering \$7,282,697. Because of the price increase the soil and water conservation districts are not able to help as many farmers install conservation practices on the ground.

The ACSP continues to monitor the established average costs list for the program and receives feedback from the local soil and water conservation districts on any adjustments that are needed. Division staff plan on completing a total review of the current average cost manual in the Spring of 2008 and making the correct adjustments to be effective for the 2009 program year.

CONCLUSIONS AND RECOMMENDATIONS

Based on the above considerations, the Commission believes the ACSP is being administered cost-effectively and that considerable water quality benefits are being realized for the investment made with state funds. The program aids agricultural operations in making essential water quality improvements, the cost of which cannot be passed on to the consumer in the price of the food or fiber product, and thereby contributes both to water quality and to sustaining a strong state agricultural economy. The Commission continues to emphasize prioritizing, targeting, accountability, leveraging, and adaptability in managing these public funds to further improve the water quality benefits intended by the General Assembly.

Increased costs of fuel, labor, and materials have significantly impacted the amount of conservation the program can effect and the number of cooperating farmers who can be assisted. The Commission has taken actions to improve program efficiencies that have helped to partly offset these impacts in the short-term. The ACSP continues to play a vital role in assisting farmers and ranchers with voluntary water quality protection and with compliance with state and federal regulatory requirements. The program is our state's cornerstone in efforts to support private working lands stewardship for the benefit of water quality and all the citizens of North Carolina.

ATTACHMENT A DETAILED IMPLEMENTATION PLAN – PROGRAM YEAR 2007* May 2006 (Revised)

Definition of Practices

- (1) An agrichemical handling facility means a permanent structure that provides an environmentally safe means of mixing agrichemicals and filling tanks with agrichemicals for application and storage to improve water quality. Benefits may include prevention of accidental degradation of surface and ground water. Cost share for this practice is limited to \$25,000 per facility.
- (2) Agricultural road repair/stabilization means repair or stabilization of existing access roads utilized for agricultural operations, including roads to existing crop fields, pastures, and barns.
- (3) A fertigation or chemigation backflow prevention system means a system for preventing backflow of fertilizers or chemicals from contaminating water sources in fertigation and or chemigation applications. It can include retrofitting or installing injection equipment, check valves, gauges, drains, and vacuum breakers. It does not include items unrelated to backflow prevention (e.g., tanks, mixers, or filters). Cost share for this practice is limited to \$1,500 per system.
- (4) A Christmas Tree Conservation Cover practice means to establish and maintain a conservation cover of grass, legumes, or other approved plantings on fields previously with no groundcover established, to reduce soil erosion and improve water quality. Other benefits may include reduced offsite sedimentation and pollution from dissolved and sediment-attached substances.
- (5) A Concentrated Nutrient Source Management System is a system of vegetative and structural measures used to manage the collection, storage, and/or treatment of areas where agricultural products may cause an area of concentrated nutrients. (DIP)
- (6) A three-year conservation tillage system means any tillage and planting system in which at least (60) sixty percent of the soil surface is covered by plant residue for the same fields for three consecutive years to improve water quality. Benefits may include reduction of soil erosion, sedimentation and pollution from dissolved and sedimentattached substances. The three-year conservation tillage incentive is broken down into two categories depending on the crop(s) to be grown:
 - a. Grain crops and cotton
 - b. Vegetables, Tobacco, Peanuts, and Sweet Corn

Cost share for each category of this practice is limited to \$15,000 per cooperator in a lifetime.

(7) A cover crop means a crop of grasses, legumes, or small grain grown primarily for seasonal protection, erosion control and soil improvement. It usually is grown for one year or less. The major purpose is water and wind erosion control, to cycle plant nutrients, add organic matter to the soil, improve infiltration, aeration and tilth, improve

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soil quality, reduce soil crusting, and sequester carbon. Benefits may include reduction of soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. Cost share for this incentive practice is limited to \$15,000 per cooperator in a lifetime.

- (8) A critical area planting means an area of highly erodible land that cannot be stabilized by ordinary conservation treatment on which permanent perennial vegetative cover is established and protected to improve water quality. Benefits may include reduced soil erosion and sedimentation.
- (9) A cropland conversion practice means to establish and maintain a conservation cover of grasses, trees, or wildlife plantings on fields previously used for crop production to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances.
- (10) A diversion means a channel constructed across a slope with a supporting ridge on the lower side to control drainage by diverting excess water from an area to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances.
- (11) A field border means a strip of perennial vegetation established at the edge of the field that provides a stabilized outlet for row water to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sedimentationattached substances.
- (12) A filter strip means an area of permanent perennial vegetation for removing sediment, organic matter, and other pollutants from runoff and waste water to improve water quality. Benefits may include reduced soil erosion, sedimentation, pathogen contamination and pollution from dissolved, particulate, and sediment-attached substances.
- (13) A grade stabilization structure means a structure (earth embankment, mechanical spillway, detention-type, etc.) used to control the grade and head cutting in natural or artificial channels to improve water quality. Benefits may include reduced soil erosion and sedimentation.
- (14) A grassed waterway means a natural or constructed channel that is shaped or graded to required dimensions and established in suitable vegetation for the stable conveyance of runoff to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances.
- (15) A heavy use area protection means an area used frequently and intensively by animals, which must be stabilized by surfacing with suitable materials to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved, particulate, and sediment-attached substances.
- (16) A land smoothing practice means reshaping the surface of agricultural land to planned grades for the purpose of improving water quality.

- (17) A livestock feeding area is a sized concrete pad where feeders are located, surrounded by a Heavy Use Area. The Livestock Feeding Area is designed for the purpose of improving the lifespan of the heavy use area and to reduce the runoff of nutrients and fecal coliform to adjacent water bodies. The practice is to be used to address water quality concerns where livestock feeding areas are in close proximity to streams and where relocation or rotation of feeding areas is infeasible due to physical limitations (e.g., slope) and where other stream protection measures are insufficient to protect water quality. Cost share for the concrete pad for this practice is limited to \$3,000.
- (18) A livestock exclusion system means a system of permanent fencing (board or barbed, high tensile or electric wire) installed to exclude livestock from streams and critical areas not intended for grazing to improve water quality. Benefits may include reduced soil erosion, sedimentation, pathogen contamination and pollution from dissolved, particulate, and sediment-attached substances.
- (19) A long term no-till practice means planting all crops for five consecutive years with at least 80 percent plant residue from preceding crops to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. Cost share for this incentive or this incentive combined with 3-year conservation tillage for grain and cotton is limited to \$25,000 per cooperator in a lifetime.
- (2⁽⁻⁾) A nutrient management practice means a definitive plan to manage the amount, form, placement, and timing of applications of nutrients to minimize entry of nutrients to surface and groundwater and improve water quality.
- A nutrient scavenger cover crop means a crop of small grain grown primarily as a seasonal nutrient scavenger. The purpose is to scavenge and cycle plant nutrients, add organic matter to the soil, improve infiltration, aeration and tilth, improve soil quality, reduce soil crusting, provide residue for conservation tillage and sequester carbon. Benefits may include reduction of soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. Cost share for this incentive practice is limited to \$25,000 per cooperator in a lifetime. (DIP)
- (22) A pastureland conversion practice means establishing trees or perennial wildlife plantings on excessively eroding land with a visible sediment delivery problem to the waters of the state used for pasture that is too steep to mow or maintain with conventional equipment to improve water quality. Benefits may include reduced soil erosion and sedimentation.
- (23) A rock-lined outlet means a waterway having an erosion-resistant lining of concrete, stone or other permanent material where an unlined or grassed waterway would be inadequate to improve water quality. Benefits may include safe disposal of runoff, reduced erosion and sedimentation.
- (24) A sediment control basin means a basin constructed to trap and store waterborne sediment where physical conditions or land ownership preclude treatment of a sediment source by the installation of other erosion control measures to improve water quality.

- (25) A sod-based rotation practice means an adapted sequence of crops, grasses and legumes or a mixture thereof established and maintained for a definite number of years as part of a conservation cropping system which is designed to provide adequate organic residue for maintenance or improvement of soil tilth to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. Cost share for this incentive practice is limited to \$25,000 per cooperator in a lifetime.
- (26) A stock trail or walkway means to provide a stable area used frequently and intensively for livestock movement by surfacing with suitable material to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved, particulate, and sediment-attached substances.
- (27) A stream protection system means a planned system for protecting streams and stream banks that eliminates the need for livestock to be in streams by providing an alternative-watering source for livestock to improve water quality. Benefits may include reduced soil erosion, sedimentation, pathogen contamination, and pollution from dissolved, particulate and sediment-attached substances. System components may include:
 - (A) A spring development means improving springs and seeps by excavating, cleaning, capping or providing collection and storage facilities.
 - (B) A stream crossing means a trail constructed across a stream to allow livestock to cross without disturbing the bottom or causing soil erosion on the banks.
 - (C) A trough or tank means devices installed to provide drinking water for livestock a stabilized location.
 - (D) A well means constructing a drilled, driven or dug well to supply water from an underground source.
 - (E) A windmill means erecting or constructing a mill operated by the wind's rotation of large vanes and is used as a source of power for pumping water.
- (28) A Streambank Stabilization system means the use of bioengineering practices, native material revetments, channel stability structures, and/or the restoration or management of riparian corridors in order to protect upland BMPs, restore the natural function of the stream corridor and improve water quality by reducing sedimentation to streams from streambank erosion and decreasing the delivery of nitrogen, phosphorus and other pollutants to the stream from adjacent pasture or cropland. Cost share for this practice is limited to \$25,000 per cooperator per year.
- (29) A stripcropping practice means to grow crops and sod in a systematic arrangement of alternating strips or bands on the contour to improve water quality. Benefits may include reduced soil erosion, sedimentation, and pollution from dissolved and sediment-attached substances. The crops are arranged so that a strip of grass or close-growing crop is alternated with a strip of clean-tilled crop, fallow, or no-till crop, or a strip of grass is alternated with a close-growing crop.

- (30) A riparian buffer means an area adjacent to solid blue line streams as shown on 7.5 minute USGS maps where a permanent, long-lived vegetative cover (sod, shrubs, trees, or a combination of vegetation types) is established to improve water quality. Benefits may include reduced soil erosion, sedimentation, pathogen contamination and pollution from dissolved, particulate and sediment-attached substances.
- (31) A terrace means an earth embankment, a channel, or a combination ridge and channel constructed across the slope to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances.
- (32) A waste management system means a planned system in which all necessary components are installed for managing liquid and solid waste to prevent or minimize degradation of soil and ground and surface water resources. System components may include:
 - (A) A Closure of Waste Impoundment means the safe removal of existing waste and waste water and the application of this waste on land in an environmentally safe manner. Cost share for this practice is limited to \$75,000 per cooperator.
 - (B) A constructed wetland for land application practice means an artificial wetland area into which liquid animal waste from a waste storage pond or lagoon is dispersed over time to lower the nutrient content of the liquid animal waste.
 - (C) A controlled livestock lounging area means a planned, stabilized and vegetated area in which livestock are kept for a short duration.
 - (D) A drystack means a fabricated structure for temporary storage of animal waste. Cost share for drystacks for poultry and non-.0200 animal operations are limited to \$30,000 per structure.
 - (E) A feeding/waste storage structure means a fabricated structure for the combined purpose of animal feeding and temporary storage of animal waste. Cost share for this practice is limited to \$25,000 per structure.
 - (F) An insect control system means a practice or combination of practices (planting windbreaks, pre-charging structures, incorporation of waste into soil, etc.) which manages or controls insects from confined animal operations, waste treatment and storage structures, and waste applied to agricultural land.
 - (G) A livestock mortality management system is a facility for managing livestock mortalities such as to minimize water quality impacts or to produce a material that can be recycled as a soil amendment and fertilizer substitute. Cost shareable mortality management system components include: composter, rotary drum composter, forced aeration static pile composter, mortality freezer, mortality incinerator, and mortality gasification.
 - (H) An odor control management system means a practice or combination of practices (planting windbreaks, pre-charging structures, incorporation of waste into soil, etc.)

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which manages or controls odors from confined animal operations, waste treatment and storage structures and waste applied to agricultural land.

- (I) An offsite or an alternative poultry dry litter waste utilization means applying, processing and/or transporting poultry dry litter such that it is properly utilized to reduce nutrient impacts. Payments for this incentive shall be limited to \$15,000 per farm per year for no more than 3 years.
- (J) A Retrofit of On-Going Animal Operations means modification of structures to increase storage or to correct design flaws to meet current standards. This practice may also be used to close waste impoundments on on-going operations, including the safe removal of existing waste and waste water and the application of this waste on land in an environmentally safe manner.
- (K) A solids separation from tank-based aquaculture production means a facility for the removal, storage and dewatering of solid waste from the effluent of intensive tank-based aquaculture production systems. The system is used to capture organic solids from the effluent stream of intensive fish production systems that would otherwise flow to effluent ponds for storage and further treatment. This waste comes from uneaten feed and feces generated by fish while being fed within a tank-or raceway based fish farm.
- (L) A storm water management system means a system of collection and diversion practices (guttering, collection boxes, diversions, etc.) to prevent unpolluted storm water from flowing across concentrated waste areas on animal operations.
- (M) A waste application system means an environmentally safe system (such as solid set, dry hydrant, mobile irrigation equipment, etc.) for the conveyance and distribution of animal wastes from waste treatment and storage structures to agricultural fields as part of an irrigation and waste utilization plan. Cost share for this practice is limited to \$25,000 per cooperator in a lifetime.
- (N) A waste storage pond means an impoundment made by excavation or earthfill for temporary storage of animal waste, waste water and polluted runoff.
- (O) A waste treatment lagoon means an impoundment made by excavation or earthfill for biological treatment and storage of animal waste.
- (33) A water control structure means a permanent structure placed in farm canals and ditches which provides control of surface and subsurface drainage to improve water quality. The primary benefit is to reduce nutrient pollution. Other benefits may include reduced pollution from other dissolved and sediment-attached substances, reduced sedimentation and reduced stormwater surges of fresh water into estuarine areas.
- (34) A wetland restoration system means a system of practices designed to restore the natural hydrology of an area that had been drained and cropped.

*To be used in conjunction with the most recent version of the APA Rules for the North Carolina Agriculture Cost Share Program for Nonpoint Source Pollution Control and the NC-ACSP Manual.

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ATTACHMENT B

NC Agriculture Cost Share Program **Practice Log Summary**

Year:

2007

Program: CS, CE, II

		Planned		lm	olemen	ted
Best Management Practice	Units	Msr.	Cost	Units	Msr.	Cost
Erosion/Nutrient Reduction						
Conservation Tillage (3 Yr.)	2,178.96	Acre	\$155,317	1,692.29	Acre	\$128,410
Long Term No-Till	3,303.59	Acre	\$293,342	3,092.09	Acre	\$270,240
Cover Crop	11,942.99	Acre	\$296,459	9,468.44	Acre	\$248,736
Sod-Based Rotation	2,032.49	Acre	\$295,201	1,610.71	Acre	\$235,556
Cropland Conversion - Grass	3,577.13	Acre	\$797,781	2,818.63	Acre	\$642,639
Cropland Conversion - Trees	1,161.53	Acre	\$104,273	894.54		\$80,376
Cropland Conversion - Wildlife	1.30	Acre	\$293	1.30	Acre	\$293
Conservation Cover	89.08	Acre	\$9,865	59.38	Acre	\$6,632
Critical Area Planting	24.35	Acre	\$49,760	12.89		\$26,673
Diversion	20,057.00	Feet	\$31,424	9,217.00		\$16,479
Land Smoothing	1,352.66	Acre	\$174,046	753.70		\$96,129
Terraces	24,537.00	Feet	\$29,542	15,987.00		\$20,047
Abandoned Well Closure	1.00	Units	\$723		Units	\$723
Pastureland Conversion To Trees	12.00	Acre	\$1,845		Acre	\$1,384
Stripcropping	29.00	Acre	\$3,263	29.00		\$3,263
Ag Road Repair-Stabilization	25,352.00	Feet	\$205,732	14,478.00	Feet	\$128,417
Sediment/Nutrient Reduction						
Grassed Waterway	131.21	Acre	\$332,607	74.21	Acre	\$181,033
Field Border	177.85	Acre	\$344,735	110.60		\$201,357
Filter Strip	64.60	Acre	\$18,925		Acre	\$11,322
Riparian Buffer	490.50	Acre	\$41,141	405.90		\$33,222
Water Control Structure	75.00	Units	\$155,886	23.00		\$60,911
Nutrient Management	5,067.47	Acre	\$84,642	2,627.70		\$57,842
Rock-Lined Outlet	7.00	Units	\$13,987		Units	\$9,822
Streambank Stabilization	7,195.00	Feet	\$83,167	5,670.00		\$61,536
Grade Stabilization Structure	43.00	Units	\$67,520	39.00		\$49,545
Wetlands Restoration System	1.00	Units	\$2,413		Units	\$2,413
Run-Off Management System	1.00	Units	\$4,355	1.00	Units	\$4,355
Stream Protection						
Trough Or Tank	371.00	Units	\$567,477	173.00		\$255,455
	280,456.00	Feet	\$376,885	85,083.00		\$123,186
Heavy Use Area Protection	117.00	Units	\$239,276	65.00		\$117,207
Stream Crossing	41.00	Units	\$65,131	14.00		\$26,179
Stock Trail	35.00	Units	\$112,996	14.00		\$40,891
Spring Development	37.00	Units	\$48,112	16.00		\$26,247
Well	78.00	Units	\$300,163	42.00		\$161,044
Livestock Feeding Area	10.00	Units	\$26,032	6.00	Units	\$14,800
Waste Management						-
Dry Stack	40.00	Units	\$581,411	23.00		\$267,022
Incinerator	45.00	Units	\$339,074	24.00	Units	\$184,159
Feed/Waste Storage	13.00	Units	\$139,016		Units	\$55,299
Gasifier	5.00	Units	\$127,216		Units	\$34,194
Hydrants	9.00	Units	\$46,259		Units	\$34,998
Closure - Waste Impoundments	10.00	Units	\$184,547		Units	\$115,297
Waste Application Equip	42.00	Units	\$296,886	32.00		\$236,756
Retrofit	5.00	Units	\$48,610		Units	\$14,178
Waste Storage Pond	0.00	Units	\$14,250		Units	\$0
Composter	5.00	Units	\$28,733		Units	\$0
Solid Set	1.00	Units	\$17,967	0.00	Units	\$0

				Planned		J	mplem	ented		
est Manager	nent Practice		Units	Msr.	Cost	Units	Msr.		Cost	
quaculture/Geotu	ıbe		1.00	Units	\$39,000	0.00	Units		\$0	
sect Control			8.00	Units	\$540	0.00	Units		\$ 0	
dor Control			1.00	Units	\$38	0.00	Units		\$0	
	sportation Incentive	22	2,940.00	Poun	\$1,147	22,940.00			\$1,147	
torm Water Mana	•		1.00	Units	\$2,051	1.00	Units		\$2,051	
gri-Chemica	l Pollution Preve	<u>ention</u>								
gri-Chemical Har	ndling Facility		5.00	Units	\$78,435	2.00	Units		\$6,753	
hemigation Back			1.00	Units	\$1,500	1.00	Units		\$1,500	
ertigation Backflo			1.00	Units	\$1,701	1.00	Units		\$1,701	,
ontracts: 1	,297	0200	0	Total:	\$7,282,697			Total:	\$4,299,419	
	Value	Expe	nded	Dairy	1,845	Acres Affected		Acre	67,578.6	5
ontract \$:	\$7,276,610	\$4,30	03,019	Beef	8,582	Soil Saved		Tons	165,245.7	2
on-ACSP	\$6,087		\$0	Hogs	142,673	Nitrogen Saved	1	Pounds	696,668.5	8
				Horses	314	Phosphorus Sa	ıved	Pounds	117,202.5	9
otal \$:	\$7,282,697	\$4,30	03,019	Broilers	4,756,232	Waste-N Mana	ged	Pounds	3,690,834.3	1
				Layers Turkeys Poultry Sheep Goats	168,000 225,000 1,136,800 60 492	Waste-P Mana	ged	Pounds	4,684,715.5	8

ATTACHMENT C NC AGRICULTURE COST SHARE PROGRAM WATER QUALITY IMPROVEMENT PURPOSES OF APPROVED BMPs

Purpose: Sediment/Nutrient Delivery Reduction from Fields

ВМР	Reduction of applied nutrient	Reduction of soil loss	Nutrient interception	Facilitating BMP	Life of BMP (yrs)
Field Border	-	V		-	10
Filter Strip	-	√	√	-	10
Grade Stabiliz. Structure	-	-	-	$\sqrt{}$	10
Grassed Waterway	-	√.	√	-	10
Nutrient Mgmt.	√	-	-	-	3
Riparian Buffer	-	V	V	-	10
Rock-lined Outlet	-	•	-	\checkmark	10
Sediment Control Basin	-	<u>-</u> .	V	-	10
Water Control Structure	-		V	-	10
Streambank Stabilization	-	√	V	-	10
Agricultural Road Repair/Stabilization	-	1	-	-	10

Purpose: Erosion Reduction/Nutrient Loss Reduction in Fields

ВМР	Reduction of applied nutrient	Reduction of soil loss	Life of BMP (yrs.)
Conservation Tillage 3-yr	-		3
Critical Area Planting	-	$\sqrt{ }$	10
Cropland Conversion	V	$\sqrt{}$	10
Water Diversion	•	$\sqrt{}$	10
Land Smoothing			10
Long Term No-till	•	$\sqrt{}$	5
Pastureland Conversion	√	√.	10
Sod-based Rotation	V	√	4 or 5
Stripcropping	√	$\sqrt{}$	5
Terraces	•	√.	10
Wetlands Restoration		,	10
Christmas Tree Conservation Cover	√	√.	6
Nutrient Scavenger Cover Crop	V	√,	10

Purpose: Agricultural Chemical Pollution Prevention

ВМР	Interception Of chemicals	Life of BMP (yrs.)
Agri-chemical Handling Facility	V	10
Chemigation Back Flow Prevention	V	10
Fertigation Back Flow Prevention	√	10

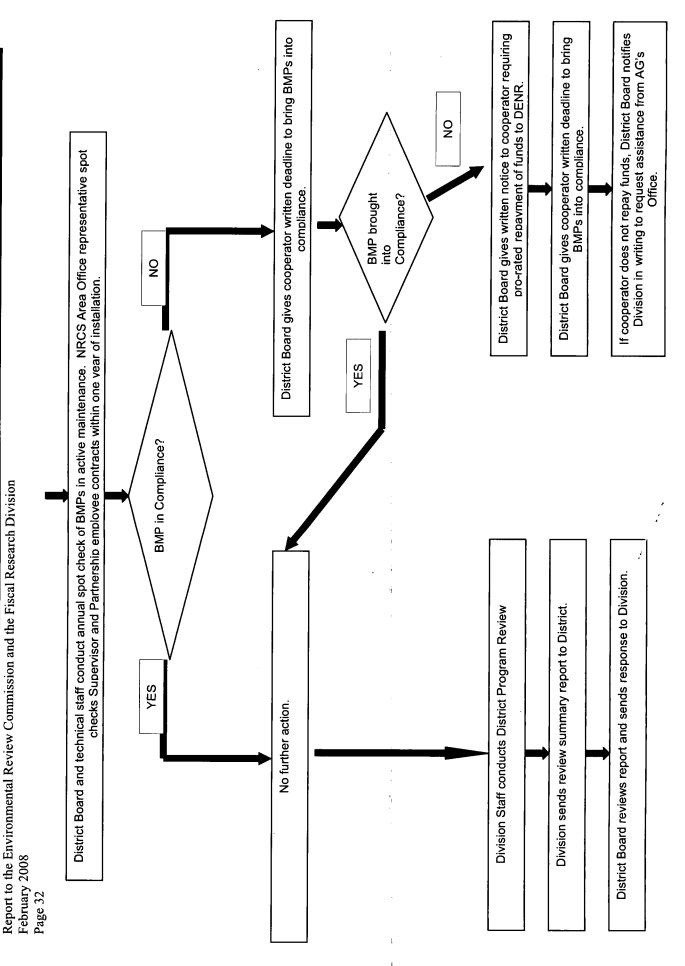
Purpose: Proper Animal Waste Management

ВМР	Proper mgmt. of nutrients	Reduction of soil loss	Nutrient interception	Facilitating BMP	Life of BMP (yrs.)
Animal Waste Lagoon Closure	√	-	-	-	5
Constructed wetlands	7	-	V	-	10
Controlled Livestock Lounging Area	-	V	-	1	10
Dry Manure Stack	V	-	-	-	10
Feeding/Waste Storage					10
Heavy Use Area Protection	-	1	-	•	10
Insect Control	-	-	-	-	5
Odor Control	-	-	•	-	1-10
Storm Water Management	7	_	-	-	10
Waste Treatment Lagoon/Storage Pond	√	-	-	-	10
Mortality Management Systems	V	-	-	-	10
Incinerators	\checkmark	-	-	-	5
Waste Application System	1	-	-	V	10
Offsite/Alternative Dry Litter Incentive	V	-	-	-	1
Solids Separation from Tank Based Aquaculture Production	√ √				10
Concentrated Nutrient Source Management System	√				10

Purpose: Stream Protection from Animals

ВМР	Reduction of applied nutrient	Reduction of soil loss	Facilitating BMP	Life of BMP (yrs.)
Heavy Use Area Protection	-	√	-	10
Livestock Exclusion System	V	√ √	-	10
Spring Development	-	<u>-</u>		10
Stock Trail	-	V	-	10
Stream Crossing		√ √	-	10
Trough or Tank	-	<u>-</u>	V	10
Well	-	-	V	10
Windmill	-	<u>-</u>	√	10
Livestock Feeding Area	-	-	V	10

District technical staff checks BMP and certifies installation has been Approved requests for payment are forwarded to DENR Controller's Office for payment to be issued. among the State, District, and cooperators, if program requirements Request for payment is completed and signed by cooperator and a District technical staff person with job approval authority for BMP. Each plan is reviewed by Division Staff and approved as a contract Request for Payment is approved by the District Board during an Best Management Practices (BMPs) are installed to NRCS and Cooperator receives payment for installed BMPs and District are met; Division notifies District of contract approval before completed according to NRCS and SWCC specifications Division staff reviews and approves request for payment. Cost Share Plans are sent to Division for approval official meeting and forwarded to the Division. SWCC standards and specifications. receives notification of payment installation begins. NC Agriculture Cost Share Program Funding and Compliance Process ATTACHMENT D Report to the Environmental Review Commission and the Fiscal Research Division District technical staff conducts conservation planning and writes Cost Share contracts from approved applications. Annual Strategy Plans from all Districts are evaluated by Division staff and District rankings are determined based on parameters adouted by the Soil and Water Conservation Commission District accepts applications; District Board reviews, ranks, and District conducts water quality assessments to determine needs. District Board reviews and approves contracts during an official Cost Share funds are allocated to Districts by the Commission. District develops and approves an Annual Strategy Plan and Strategy Plan is sent to Division of Soil and Water Conservation. prioritization ranking form based on water quality priorities. approves applications during an official meeting. District advertises the Cost Share Program Districts receive their annual allocation. meeting February 2008



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AMLICO **PASQUOTANK** projects in the database contracted in 2007, excluding 6 projects that were missing accurate latitude/ This data set represents 1,406 Points represent a point within data collected by the Division of Soil and Water Conservation NEUSE project boundaries based on longitude data. WHITEOAK CHOWAN CAPE FEAR 2007 Agricultural Cost Share BMP Locations 160 Miles within NC River Basins ROANOKE ATTACHMENT E 8 YADKIN 4 CATAWBA NEW 0 BROAD WATAUGA FRENCH BROAD ◆ 2007_ACSP_BMP_POINTS Events SAVANNAH County Boundaries 100 LITTLE TENNESSEE HIWASSEE Legend

N.C. Soil and water Conservation Commission

2008

ENVIRONMENTAL REVIEW COMMISSION April 7

MINUTES

North Carolina General Assembly

ENVIRONMENTAL REVIEW COMMISSION MINUTES

April 7, 2008

The Environmental Review Commission met at 1:30 p.m. in Soundside Hall of the North Carolina Aquarium at Pine Knoll Shores. Co-Chairman Dan Clodfelter and Charlie Albertson presided.

Members present were Co-Chairman Charlie Albertson, Co-Chairman Dan Clodfelter, Co-Chairwoman Lucy Allen, Co-Chairman Pryor Gibson, Representative Carolyn Justice, Representative Edith Warren and Representative Russell Tucker.

Also recognized in attendance were Representative William Wainwright and Representative Alice Graham Underhill, who attended a meeting at the aquarium prior to the Commission meeting. Staff in attendance was Commission Counsel George Givens, Assistant Counsel Jeff Hudson, Assistant Counsel Jennifer McGinnis, Commission Analyst Jennifer Mundt and Commission Clerk Jessica Kozma Bennett.

An advanced notice was distributed electronically to interested parties on March 26, and a second notice was distributed on April 1. Both are included as attachments to the minutes as **Exhibits A and B**, respectively. A copy of the meeting agenda and visitor registration forms are also included in the minutes as **Exhibits C and D**, again, respectively.

Co-Chairman Albertson then recognized Mr. Jay Barnes, director of the aquarium. Mr. Barnes welcomed Commission members and staff and extended an invitation to a "back of the house" tour. He also complimented the recent remodel of the aquarium.

Commission Counsel was then recognized by Co-Chairman Albertson to review the day's agenda. It is noted for the record that a planning meeting was held March 28 and that the day's meeting agenda is dedicated to parks and recreation reports. Mr. Givens added that there have been three meetings regarding pervious pavement and that investigation into possible flame retardant legislation is currently under study and the subject will be revisited at future Commission meetings.

Update on current drought conditions in light of conservation efforts and recent rain events

Concluding Mr. Givens comments Co-Chairman Albertson recognized Ms. Elizabeth S. Biser, Director of Legislative and Intergovernmental Affairs for the Department of Environment and Natural Resources (DENR). A copy of her presentation as attached to the minutes as **Exhibit E**.

Ms. Biser began by stating that she is filling in for Mr. Thomas Fransen and noted that although there had been a generous amount of rain recently, the State remained in a drought. Statewide, she said, water levels remain 14 to 15 inches below normal.

Regarding an outlook for the drought, she reported, a La Nina pattern is predicted. The current rains have aided reservoirs but have not recharged groundwater levels.

Co-Chairman Gibson asked to be informed of what counties are in better or worse shape. Ms. Biser was then thanked by the Chair for her report.

Annual report on allocations from the Parks and Recreation Trust Fund from the prior fiscal year

Mr. Lewis Ledford was recognized by Co-Chairman Albertson. A copy of his power point presentation and a copy of the North Carolina Parks and Recreation Trust Fund annual report are included as attachments to the minutes as **Exhibits F and G**, respectively.

The trust fund was established in July of 1994 and since its inception, has funded the purchase of land by local authorities with maximum grants of \$500,000. Allocated money is as follows: 65 percent for the State's Parks System for capital projects, repairs and renovations of facilities to acquire land; 30 percent to provide grants for local governments on a dollar for dollar basis to create or improve parks and recreational projects; and, five percent for the Coastal and Estuarine Water Beach Access Programs. No more than three percent may be used by DENR for the operating expenses associated with managing capital improvement, acquiring land and administering the grants program for local governments.

Mr. Lewis reported that since 1996 more than 3,550 acres of land have been acquired, including a skate park in Rocky Mount. In 2007 there were 12 capital projects with a total price of \$17.6 million. This includes a Ford Macon State Park visitor center and renovations for a park in Haw River, among other projects. In the past 10 years, 30,000 acres were added with a total cost of \$11 million.

Addressing future needs Mr. Ledford said that State parks are experiencing record attendance and that there will be needs for additional lands and "protections." Capital improvements at existing parks total \$334 million and a potential 43,700 acres may potentially be purchased. He said that the State park system was important for the lives of future generations and that other states were creating similar models to the State's trust fund.

Co-Chairman Albertson thanked Mr. Ledford and his staff and asked the Commission to compose a letter thanking Mr. J. K. Sherron—an arbiter of the trust fund—for his efforts. Co-Chairman Clodfelter asked if historic sites ware eligible for funding, of which Mr. Ledford replied that historic sites were not eligible. Discussion ensued and DENR Secretary Ross said that combinations of parklands and cultural sites have been discussed. Co-Chairman Gibson said the Commission may need to address a park fee schedule.

Co-Chairman Albertson then recognized the next presenter.

Annual report on allocation from the Natural Heritage Trust Fund from the prior fiscal year

Ms. Lisa Riegal, Executive Director of the North Carolina Natural Heritage Trust Funds began her presentation discussing the mission of the trust fund. That is, to protect natural and cultural heritage lands. A copy of her presentation is included as an

attachment to the minutes as **Exhibit H**. The program works to identify the most important natural areas in the state and has finished projects in 83 counties with an additional six counties in ongoing projects.

In the 20 years of the funds existence, land values for lands acquired by the program have appreciated 300 percent. She then reviewed projects (see attachment) including an archeological site in Contentnea, the Stagville State Historic Site Land Acquisition in Durham County, New Hope Valley Forest and the Mast General Store.

Co-Chairperson Clodfelter asked how many cultural projects are taken on compared to natural sites. Ms. Riegel answered that 25 percent are cultural because of a statutory limit to focus on natural areas.

Co-Chairman Albertson thanked Ms. Riegel.

Report on the North Carolina Naturally conservation initiative

Ms. Linda P. Pearsall, Director of the Natural Heritage Program with the Office of Conservation and Community Affairs (DENR) presented on two annual reports that are included as attachments to the minutes as **Exhibits I and J**. A copy of her presentation to the Commission is included in the minutes as **Exhibit K**.

Ms. Pearsall reviewed data for the 2006 year and Co-Chairman Clodfelter asked about data from 2007. Ms. Pearsall answered that such information is not released until September. Co-Chairman Clodfelter followed asking if it took nine months to compile such information, of which Ms. Pearsall said it took six months and that there is an effort to compile and release the information more quickly.

Ms. Pearsall reviewed slides in her presentation including discussing progress toward obtaining a million acres, conservation incentives. One grant fund, she noted, successfully funded 16 projects and another conservation tax credit program as of 2006 had affected 168,000 acres.

Because of increasing population growth there is added pressure on land and water, Ms. Pearsall said. Local planners need to have effective information to be able to access and insure the most important properties. She continued her presentation and then Co-Chairman Albertson asked for questions from Commission members. Co-Chairman Clodfelter asked if it was possible to map properties with their tax values. Co-Chairman Albertson thanked Ms. Pearsall for her time.

Annual report on implementation of the Clean Water Management Trust Fund

Agenda Item 9 was deferred until later in the meeting. Co-Chairman Albertson recognized Mr. Richard E. Rogers, Executive Director of the Clean Water Management Trust Fund, Item 10 of the agenda. A copy of his presentation is included in the minutes as **Exhibit L.**

Mr. Rogers said that the trust fund's mission is to restore and enhance degraded waters, conserve unpolluted waters, eliminate water pollution, create a network of riparian buffers and greenways, and fund innovative systems. Accomplishments for the fund include 4,560 miles of buffers preserved, 435,573 acres protected, more than \$443.4 million invested in land and water conservation and 135 buffer, stream and wetlands restoration projects.

Moving to another slide, Mr. Rogers said that since 1997, 1,148 grants were funded with a total of \$832.7 million awarded. He then showed a map depicting where projects were. He then discussed projects with local governments. Co-Chairwoman Allen asked what the difference is between county versus city projects. Mr. Rogers said that the difference is management of wastewater systems.

Among key projects, one project Mr. Rogers noted was a wastewater project in Harnett County. That particular local wastewater system was regionalized and as a result the Little River (Cape Fear River basin) was projected. The awarded grant for that project was \$500,000.

He then reviewed other key projects including a \$335,000 grant to protect Hawkins Creek and the White Oak River in Swansboro. The project targets stormwater management in three drainage areas and will allow construction of two small wetlands areas and a retention pond.

Upon finishing his presentation, Co-Chairperson Albertson asked if his organization had a relationship with the State agricultural extension service. Mr. Rogers replied that they did and he believed the relationship to be a "good opportunity."

Presentation by Land for Tomorrow

Mr. David Knight, Director of Government Relations with The Nature Conservancy was recognized by Co-Chairman Albertson. Mr. Knight began by stating that Land for Tomorrow had developed more than 240 partners and 60 ambassadors since its inception in 2004. A copy of his presentation is included in the minutes as **Exhibit M**.

Three years ago, Land for Tomorrow issued a "Five year plan for investing in North Carolina's Land, Water, History and Future." The report stated that the State needed to invest \$200 million a year for five years to protect important natural areas before being lost to development. In 2008, he reported that the challenges are greater. Three hundred thousand acres have been developed and the cost of land has increased 300 percent in 10 years. He then spoke of the impacts of drought and noted that the number of miles of streams not meeting state water quality standards has grown.

Mr. Rogers then expressed concern that the Million Acres goals established by the General Assembly in 2000 had only achieved 50 percent of the charge in eight years.

Mr. Reid Wilson then addressed the Commission. He is the executive director of the Conservation Trust of North Carolina.

Drought issues will recur because of the growing demand for water by an increasing population, he said. Land conservation is an important part of a long term strategy, and he added that in such conservation, groundwater recharge needs to occur.

His organization is in discussions with officials from DENR to target conservation funds for lands with real impact on water supplies. The conversation has been positive so far, he said.

Annual report on the activities of the North Carolina Agricultural Development and Farmland Preservation Trust Fund and Advisory Committee

Mr. Dewitt Hardee, Environmental Program Manager for the Department of Agriculture and Consumer Services was recognized by the Chair. A copy of his presentation is included in the minutes as **Exhibit N**. His report is Item 9 of the agenda.

Mr. Hardee began by reporting that between 2003 and 2006 the State lost 300,000 acres to development and is leading the country in farmland loss. His fund tries to protect farmland because agriculture is still the State's leading industry at \$66 billion in revenues a year. His fund promotes sustainable agriculture and is working to make family farms more viable. He also explained the Voluntary Agricultural Districts. He then showed a map in his presentation showing such districts throughout the State.

Co-Chairman Albertson thanked Mr. Hardee and the meeting was adjourned at 3:28 p.m.

Sentor Dan Gollelfor Presid	ng Chairman
Jessica Kozma Bennett, Romr	nission Clerk
Usice Corne	Burt
Representative To or Gibson.	Co Chairman
Senator Charle Albertson, Co	-Chairman Male V Milleton -

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

MEMBERS

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REPRESENTATIVE JAMES A. HARRELL REPRESENTATIVE PRICEY HARRISON REPRESENTATIVE CAROLYN H. JUSTICE REPRESENTATIVE RUTH SAMUELSON REPRESENTATIVE EDITH W. WARREN REPRESENTATIVE LARRY W. WOMBLE

Environmental Review Commission State Legislative Building Raleigh, North Carolina



26 March 2008

TO:

Members of the Environmental Review Commission

Interested Parties

FROM:

George F. Givens, Commission Counsel

Jessica Bennett, Commission Clerk

RE:

Preliminary Notice of Commission Meeting and Site Visits

Schedule of Future Meetings

Meetings of Interested Parties (605 Working Groups)

Additional Information

GEORGE F. GIVENS COMMISSION COUNSEL 545 LEGISLATIVE OFFICE BUILDING 300 NORTH SALISBURY STREET RALEIGH, NORTH CAROLINA 27603 (919) 733-2578 FAX: (919) 715-5460

SUSAN S. IDDINGS ASSISTANT COMMISSION COUNSEL

JEFF W. HUDSON ASSISTANT COMMISSION COUNSEL

JENNIFER L. McGINNIS ASSISTANT COMMISSION COUNSEL

JENNIFER R. F. MUNDT COMMISSION ANALYST

MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

PRELIMINARY NOTICE OF COMMISSION MEETING AND SITE VISITS:

The Environmental Review Commission (Commission) will meet at 1:30 p.m. Monday 7 April 2008 in the Soundside Hall meeting room at the North Carolina Aquarium at Pine Knoll Shores, 1 Roosevelt Blvd., Pine Knoll Shores, North Carolina. The business meeting will be followed immediately by a tour of the Aquarium. On the morning of Tuesday 8 April 2008 the Commission will tour Hammocks Beach State Park. Other site visits are being planned. A subsequent Notice of Commission Meeting that includes an itinerary for the business meeting and site visits and information about lodging will be published shortly.

At this meeting, the Commission will begin or continue studies for which the Commission is responsible, hear reports from State agencies, discuss topics to be considered at future meetings, and attend to other matters. This meeting will focus on parks, recreation, and land conservation. Listed below are potential agenda topics for this meeting and for future meetings. More specific information regarding the agenda for the 7 April meeting of the Commission will be developed at the staff planning meeting discussed below. Commission Staff may publish a further notice/draft agenda following the staff planning meeting if circumstances permit.

STUDIES

- 1) Issues related to the use of pervious surfaces for vehicle parking areas, including associated costs, impact to the environment of stormwater runoff, and practices of other states with regard to stormwater best management practices. (S.L. 2007-323, Sec. 6.22.(b))
- 2) Allocation of surface water resources and their availability and maintenance in the State, including issues related to the transfer of water from one river basin to another, the withdrawal of

- water for consumptive use, and the accuracy and tolerance of equipment used to measure the flow of water transferred from one river basin to another river basin. (S.L. 2007-518, Sec. 1.(a))
- 3) Preparation of a revised map entitled "Major River Basins and Sub-basins in North Carolina" as a recommended replacement for the map referenced in G.S. 143-215.22G. The revised map shall define the extent to which any river basin that encompasses any river that flows from another state into North Carolina or that flows from North Carolina into another state extends into an adjacent state. (S.L. 2007-518, Sec. 1.(b))
- 4) Other studies undertaken by the Commission

REPORTS (Report due dates are indicated in parentheses)

Parks and Recreation / Land Conservation:

- 5) Parks and Recreation Trust Fund Annual Report, Fiscal Year 2007-2008. (G.S. 113-44.15(c)) (1 October)
- 6) North Carolina Natural Heritage Trust Fund Award Report, Fiscal Year 2005-2006. (G.S. 113-77.9(e)) (Semi-annually, within 30 days of each revision)
- 7) Biennial report on the Natural Heritage Program. (G.S. 113A-164.4) (15 February of odd-numbered years)
- 8) Annual report on progress towards attaining the State's goal of protecting one million acres of farmland, open space, and conservation lands. (G.S. 113A-241(c)) (1 October)
- 9) Annual report on implementation of the Conservation Easements Program and inventory of all conservation easements held by DENR. (G.S. 113A-235(c)) (1 October)
- Annual report on the activities of the North Carolina Agricultural Development and Farmland Preservation Trust Fund and Advisory Committee, the agriculture easements purchased, and agricultural projects funded during the previous year. (S.L. 2007-495, Sec. 23) (1 May)

Water Quality:

Annual report on the implementation of the Clean Water Management Trust Fund; projects and awarded grants. (G.S. 113-145.6A(a) and S.L. 2002-148, Sec. 3) (1 December)

OTHER MATTERS

12) Update on the current drought.

PLANNING MEETING:

To facilitate development of the agenda for the 7 April meeting of the Commission, to begin planning for subsequent meetings of the Commission, and to receive input from interested persons regarding the work of the Commission, the Commission Counsel will hold an informal planning meeting at 10:00 a.m. on Friday 28 March 2008 in Room 605 of the Legislative Office Building. Persons who wish to participate in the development of the agenda for meetings of the Commission, or who are interested in any matter before the Commission, are invited to attend.

SCHEDULE OF FUTURE MEETINGS:

Below is a schedule of meetings of the Commission for May 2008. This schedule is tentative and subject to adjustment. To facilitate development of the agenda for meetings of the Commission and to receive input from interested persons regarding the future work of the Commission, the Commission Counsel holds

informal public planning meetings for staff and interested parties. The schedule of these meetings is also set out below.

Commission Meeting	<u>Time</u>	Location	Staff Planning Meeting	Location
Friday 9 May 2008	9:30am	544 LOB	Tuesday 29 April 2008	605 LOB
Wednesday 14 May 2008	TBD	544 LOB	•	

MEETINGS OF INTERESTED PARTIES (605 WORKING GROUPS):

The Commission Counsel will hold meetings of interested parties on specific topics as indicated below:

Underground Storage Tank Working Group

10:00 a.m. Monday 31 March 2008

Impervious Parking Surfaces Working Group

10:00 a.m. Wednesday 2 April 2008 - 605 Legislative Office Building

Public Meeting on the Study of Issues Related to Construction on Artificial Slopes 30 April 2008 – Southwestern North Carolina (Time and location TBD) (Subject to rescheduling or cancellation)

ADDITIONAL INFORMATION:

If you have questions related to the Commission, please feel free to contact the Commission Counsel or other Commission staff at (919) 733-2578.

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

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Environmental Review Commission State Legislative Building Raleigh, Porth Carolina



1 April 2008

GEORGE F. GIVENS
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545 LEGISLATIVE OFFICE BUILDING
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JENNIFER R. F. MUNDT COMMISSION ANALYST

MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

TO:

Members of the Environmental Review Commission

Interested Parties

FROM:

George F. Givens, Commission Counsel

Jessica Bennett, Commission Clerk

RE:

Notice of Commission Meeting

Notice of Site Visits

Schedule of Future Meetings

Meetings of Interested Parties (605 Working Groups)

Additional Information

NOTICE OF COMMISSION MEETING:

The Environmental Review Commission (Commission) will meet at 1:30 p.m. Monday 7 April 2008 in the Soundside Hall meeting room at the North Carolina Aquarium at Pine Knoll Shores, 1 Roosevelt Blvd., Pine Knoll Shores, North Carolina. At this meeting, the Commission will begin or continue studies for which the Commission is responsible, hear reports from State agencies, discuss topics to be considered at future meetings, and attend to other matters. This meeting will focus on parks, recreation, and land conservation.

NOTICE OF SITE VISITS AND OTHER ACTIVITIES:

April 7:

Prior to the business meeting, members will have an opportunity to attend a lunch at the Aquarium with members of the Joint Legislative Commission on Seafood and Aquaculture. The lunch will begin at approximately 12:00 p.m. It will be provided at a cost of ten dollars (\$10.00) per person. The Commission Clerk will contact members regarding their desire to attend the lunch.

The business meeting will be followed immediately by a tour of the Aquarium.

April 8:

On the morning of Tuesday 8 April 2008 the Commission will tour Hammocks Beach State Park. The tour will begin at 9:00 a.m. and continue until approximately 12:30 p.m. Members should arrive at the Park

promptly at 9:00 a.m. (A map of the Park and driving directions are enclosed) Dress appropriately for an outdoor tour and the weather.

Following the tour there will be an optional lunch. We expect the lunch to cost approximately ten dollars (\$10.00) per person. The Commission Clerk will contact members regarding their desire to stay for lunch.

<u>Accommodations:</u> Enclosed, please find a list of potential accommodations in the vicinity of the meetings and site visits.

LISTED BELOW ARE POTENTIAL AGENDA TOPICS FOR THE APRIL 7 MEETING AND FOR FUTURE MEETINGS:

STUDIES

4

- 1) Issues related to the franchise of solid waste management facilities by units of local government. (S.L. 2007-550, Sec. 18)
- 2) Issues related to the transportation of solid waste by rail or barge, including the extent to which regulation of the transportation of solid waste by rail or barge may be preempted by federal law. (S.L. 2007-550, Sec. 18)
- 3) Issues related to the use of pervious surfaces for vehicle parking areas, including associated costs, impact to the environment of stormwater runoff, and practices of other states with regard to stormwater best management practices. (S.L. 2007-323, Sec. 6.22.(b))
- 4) Allocation of surface water resources and their availability and maintenance in the State, including issues related to the transfer of water from one river basin to another, the withdrawal of water for consumptive use, and the accuracy and tolerance of equipment used to measure the flow of water transferred from one river basin to another river basin. (S.L. 2007-518, Sec. 1.(a))
- Preparation of a revised map entitled "Major River Basins and Sub-basins in North Carolina" as a recommended replacement for the map referenced in G.S. 143-215.22G. The revised map shall define the extent to which any river basin that encompasses any river that flows from another state into North Carolina or that flows from North Carolina into another state extends into an adjacent state. (S.L. 2007-518, Sec. 1.(b))
- 6) Other studies undertaken by the Commission

REPORTS (Report due dates are indicated in parentheses)

General/Miscellaneous:

- 7) Quarterly report on the activities of the Environmental Management Commission (G.S. 143B-282(b)) (15 April)
- 8) Final Report on the findings and recommendations of the Legislative Commission on Global Climate Change (S.L. 2006-79) (15 April 2008)
- Peport by the North Carolina Building Code Council on its findings of the study of the extent to which hot waterlines should be insulated to achieve greater energy efficiency and actions taken to amend the State Building Code as necessary to achieve those ends (S.L. 2007-542, Sec.2) (1 April 2008)

Hazardous Waste Management:

- 10) Report of Superfund cost share fund expenditures for cleanup of sites on the National Priorities List (S.L. 1999-237(15.6)(b)) (Floating, within 30 days of expenditure)
- 11) Report by the Regulation of Hazardous Materials Task Force on its study of issues related to the treatment, storage, and disposal of hazardous materials and review of all current fire code regulations related to the commercial treatment, storage, and disposal of hazardous materials to ensure the Code addresses the needs and safety of citizens. (S.L. 2007-107, Sec. 4.1.(j)) (1 April 2008)

Parks and Recreation / Land Conservation:

- 12) Parks and Recreation Trust Fund Annual Report, Fiscal Year 2007-2008 (G.S. 113-44.15(c)) (1 October)
- North Carolina Natural Heritage Trust Fund Award Report, Fiscal Year 2005-2006 (G.S. 113-77.9(e)) (Semi-annually, within 30 days of each revision)
- 14) Biennial report on the Natural Heritage Program (G.S. 113A-164.4) (15 February of odd-numbered years)
- Annual report on progress towards attaining the State's goal of protecting one million acres of farmland, open space, and conservation lands (G.S. 113A-241(c)) (1 October)
- Annual report on implementation of the Conservation Easements Program and inventory of all conservation easements held by DENR (G.S. 113A-235(c)) (1 October)
- Annual report on the activities of the North Carolina Agricultural Development and Farmland Preservation Trust Fund and Advisory Committee, the agriculture easements purchased, and agricultural projects funded during the previous year. (S.L. 2007-495, Sec. 23) (1 May)

Water Quality:

- 18) Semiannual report on the pilot program for inspection of animal waste management systems including a comparison of the costs of conducting operations reviews and inspections under the pilot program with the costs of conducting operations and inspections under G.S. 143-215.10D and G.S. 143-215.10F (15 April)
- Annual report on the status of leaking petroleum underground storage tanks, the State cleanup funds, and the Groundwater Protection Loan Fund (G.S. 143-215.94M) (1 September)
- 20) Annual report on the implementation of the Clean Water Management Trust Fund; projects and awarded grants. (G.S. 113-145.6A(a) and S.L. 2002-148, Sec. 3) (1 December)
- Annual report by the EMC on its progress in developing and implementing nutrient management strategies for water supply reservoirs identified in the Drinking Water Supply Reservoir Protection Act (S.L. 2005-190, Sec. 3 as amended by S.L. 2006-259, Sec. 31.(c)) (1 April)

OTHER MATTERS

- 22) Update on the current drought.
- 23) Discussion of issues related to the use of flame retardants that contain polybrominated diphenylethers (PBDE).
- Discussion of issues related to the implementation of a low emission vehicle program that is the functional equivalent of the low-emission vehicle program established under the laws of the State of California as set forth in final regulations issued by the California Air Resources Board pursuant to Title 13 of the California Code of Regulations and promulgated under the authority of Division 26t of the California Health and Safety Code as amended.

Discussion of possible amendments to S.L. 2007-546 (SB 668, Energy Conservation in State Buildings)

SCHEDULE OF FUTURE MEETINGS:

Below is a schedule of meetings of the Commission for April and May 2008. This schedule is tentative and subject to adjustment. To facilitate development of the agenda for meetings of the Commission and to receive input from interested persons regarding the future work of the Commission, the Commission Counsel holds informal public planning meetings for staff and interested parties. The schedule of these meetings is also set out below.

Commission Meeting	Location	Staff Planning Meeting	Location
Friday 9 May 2008	544 LOB	Tuesday 29 April 2008	605 LOB
Wednesday 14 May 2008	544 LOB	·	

MEETINGS OF INTERESTED PARTIES (605 WORKING GROUPS):

The Commission Counsel will hold meetings of interested parties on specific topics as indicated below:

Impervious Parking Surfaces Working Group 10:00 a.m. Wednesday 2 April 2008 – 605 Legislative Office Building

Public Meeting on the Study of Issues Related to Construction on Artificial Slopes 30 April 2008 – Southwestern North Carolina (Time and location TBD)

ADDITIONAL INFORMATION:

If you have questions related to the Commission, please feel free to contact the Commission Counsel or other Commission staff at (919) 733-2578.

General Assembly of Aorth Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

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AGENDA
1:30 p.m. Monday 7 April 2008
Soundside Hall
North Carolina Aquarium
Pine Knoll Shores, North Carolina

GEORGE F. GIVENS COMMISSION COUNSEL 545 LEGISLATIVE OFFICE BUILDING 300 NORTH SALISBURY STREET RALEIGH, NORTH CAROLINA 27603 (919) 733-2578 FAX: (919) 715-5460

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JENNIFER L. McGINNIS
ASSISTANT COMMISSION COUNSEL

JENNIFER R. F. MUNDT COMMISSION ANALYST

MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

1. Call to order

Senator Daniel G. Clodfelter, Presiding

2. Introductory remarks by Cochairs

Senator Daniel G. Clodfelter Senator Charles W. Albertson-Representative Pryor A. Gibson Representative Lucy Allen

3. Welcome and introduction

Jay Barnes, Director North Carolina Aquarium at Pine Knoll Shores, Division of Aquariums Department of Environment and Natural Resources (DENR)

- 4. Report to the Commission and explanation of agenda items George F. Givens, Commission Counsel
- 5. Update on current drought conditions in light of conservation efforts and recent rain events
 Elizabeth S. Biser, Director of Legislative and Intergovernmental Affairs
 DENR
- 6. Annual report on allocations from the Parks and Recreation Trust Fund from the prior fiscal year (G.S. 113-44.15(c))

Lewis R. Ledford, Director Division of Parks and Recreation, DENR

SCHEDULE OF FUTURE MEETINGS:

Below is a schedule of meetings of the Commission for April 2008 through May 2008. This schedule is tentative and subject to adjustment. To facilitate development of the agenda for meetings of the Commission and to receive input from interested persons regarding the future work of the Commission, the Commission Counsel holds informal planning meetings for staff and interested parties. The schedule of these public Commission staff planning meetings is also set out below.

Tuesday 8 April 2008 – Tour of Hammocks Beach State Park

Time: 9:00 a.m.

Commission Meeting	Location	Staff Planning Meeting	Location
Friday 9 May 2008	544 LOB	Tuesday 29 April 2008*	605 LOB
Wednesday 14 May 2008	544 LOB		

^{*}Staff Planning Meeting: 10:00 a.m. Tuesday 29 April 2008 – 605 LOB (This meeting will serve as the Commission staff planning meeting for the Commission meetings scheduled for 9 and 14 May 2008.)

MEETINGS OF INTERESTED PARTIES:

The Commission Counsel will hold meetings of interested parties on specific topics as indicated below:

Coastal Stormwater Rules Working Group

2:00 p.m. Wednesday 23 April 2008 - 605 Legislative Office Building

Underground Storage Tank Working Group

2:00 p.m. Thursday 24 April 2008 – 605 Legislative Office Building

Impervious Parking Surfaces Working Group

2:00 p.m. Monday 28 April 2008 – 605 Legislative Office Building

Public Meeting on the Study of Issues Related to Construction on Artificial Slopes

Postponed until a date and time to be determined

ADDITIONAL INFORMATION:

Persons having questions about the Commission meeting or other matters related to the Commission may contact Commission Counsel or other Commission staff at (919) 733-2578 or may visit the Commission's website at:

http://www.ncleg.net/gascripts/DocumentSites/browseDocSite.asp?nID=12

SCHEDULE OF FUTURE MEETINGS:

Below is a schedule of meetings of the Commission for April 2008 through May 2008. This schedule is tentative and subject to adjustment. To facilitate development of the agenda for meetings of the Commission and to receive input from interested persons regarding the future work of the Commission, the Commission Counsel holds informal planning meetings for staff and interested parties. The schedule of these public Commission staff planning meetings is also set out below.

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Friday 9 May 2008	544 LOB	Tuesday 29 April 2008*	605 LOB
Wednesday 14 May 2008	544 LOB		

^{*}Staff Planning Meeting: 10:00 a.m. Tuesday 29 April 2008 – 605 LOB (This meeting will serve as the Commission staff planning meeting for the Commission meetings scheduled for 9 and 14 May 2008.)

MEETINGS OF INTERESTED PARTIES:

The Commission Counsel will hold meetings of interested parties on specific topics as indicated below:

Coastal Stormwater Rules Working Group

2:00 p.m. Wednesday 23 April 2008 – 605 Legislative Office Building

Underground Storage Tank Working Group

2:00 p.m. Thursday 24 April 2008 – 605 Legislative Office Building

Impervious Parking Surfaces Working Group

2:00 p.m. Monday 28 April 2008 – 605 Legislative Office Building

Public Meeting on the Study of Issues Related to Construction on Artificial Slopes Postponed until a date and time to be determined

ADDITIONAL INFORMATION:

Persons having questions about the Commission meeting or other matters related to the Commission may contact Commission Counsel or other Commission staff at (919) 733-2578 or may visit the Commission's website at:

http://www.ncleg.net/gascripts/DocumentSites/browseDocSite.asp?nID=12

VISITOR REGISTRATION SHEET

ENVIRONMENTAL REVIEW COMMISSION

April 7, 2008

North Carolina Aquarium, Pine Knoll Shores

<u>VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION ASSISTANT</u>

NAME	FIRM OR AGENCY AND ADDRESS
LISA SCHEU	CwmTF
Scott Chappell	NC DIV. of Marine Fish, MHC
MANLA WILDER	DENR.
LISA RIEGEL	NHTF
Thomas Caves, Jr.	NC Dept. of Crime Control ! Public Sate
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Rep Tunen Dramwaght	NC House - Diet 13
Elizabeth Biser	DENR
Bill Ross	NC DENR
LEWIS LEDFORD	MEDENR Parks
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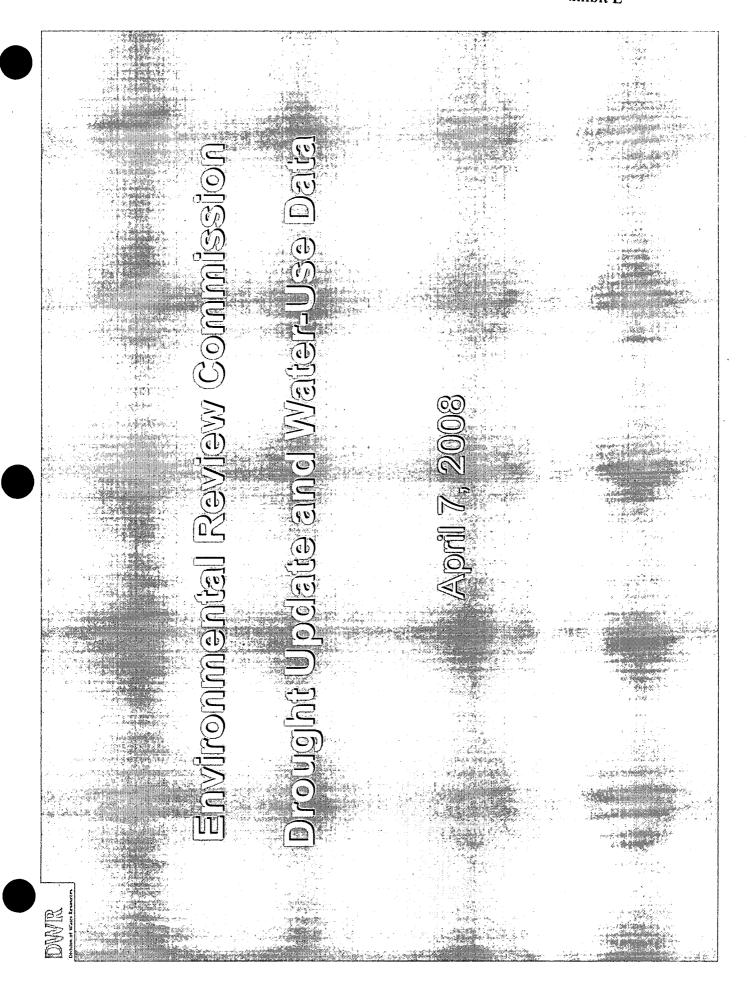
ENVIRONMENTAL REVIEW COMMISSION

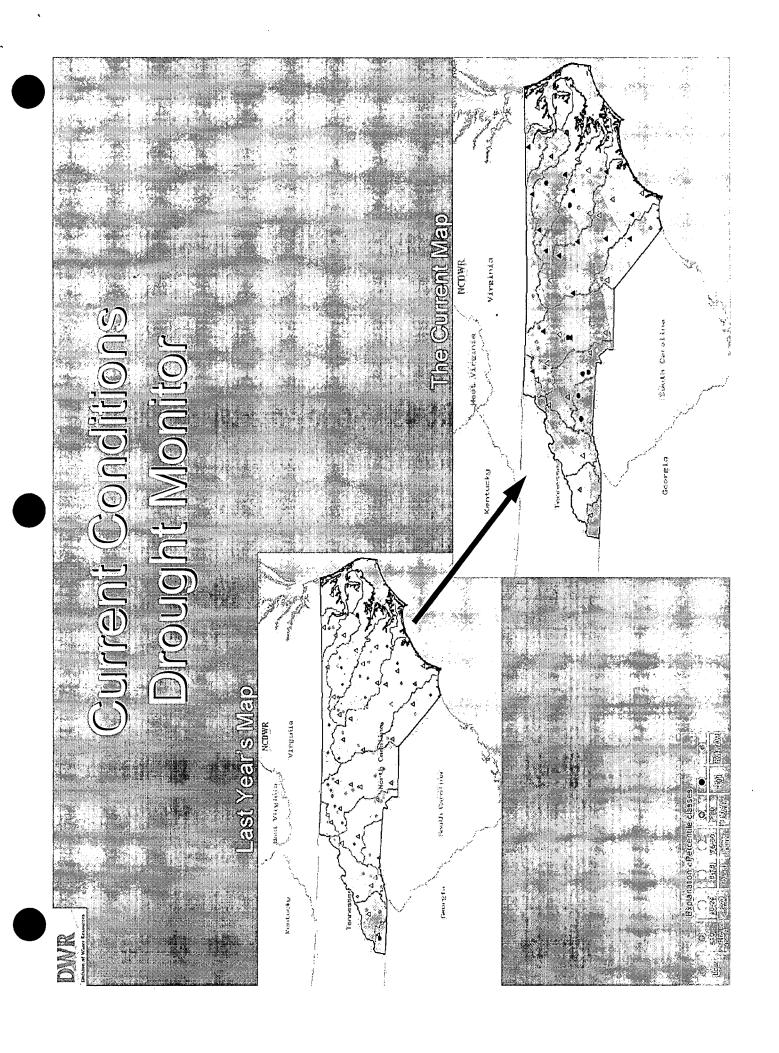
April 7, 2008

North Carolina Aquarium, Pine Knoll Shores

VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION ASSISTANT

NAME	FIRM OR AGENCY AND ADDRESS
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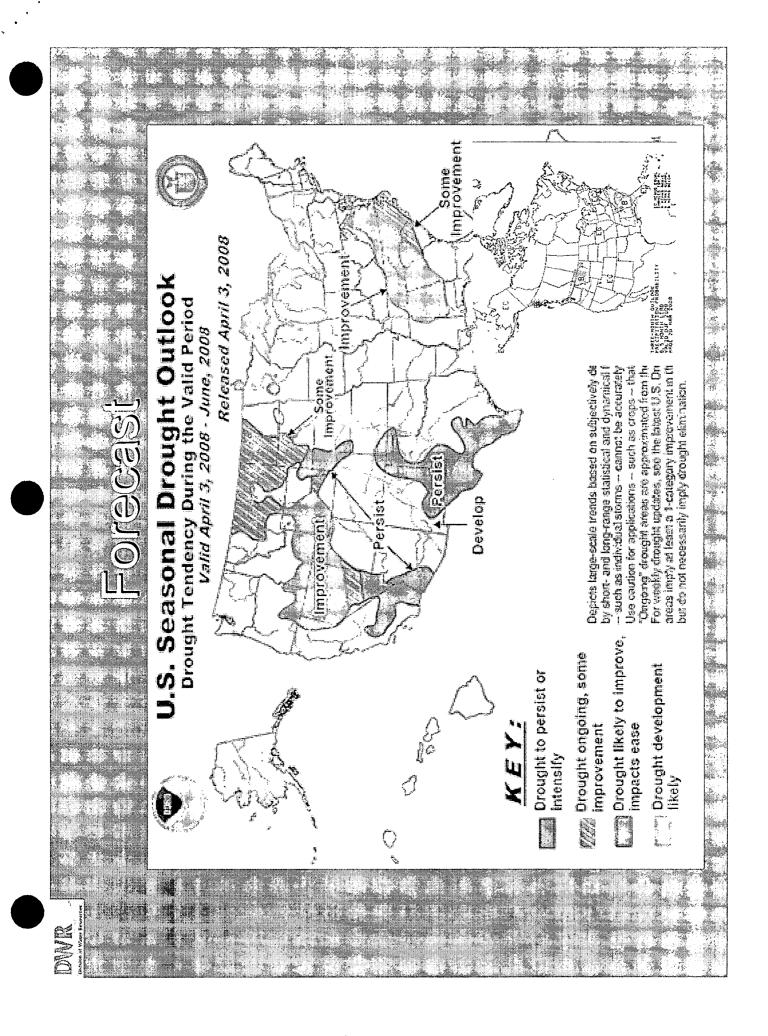
Unofficial Rainfall Estimates

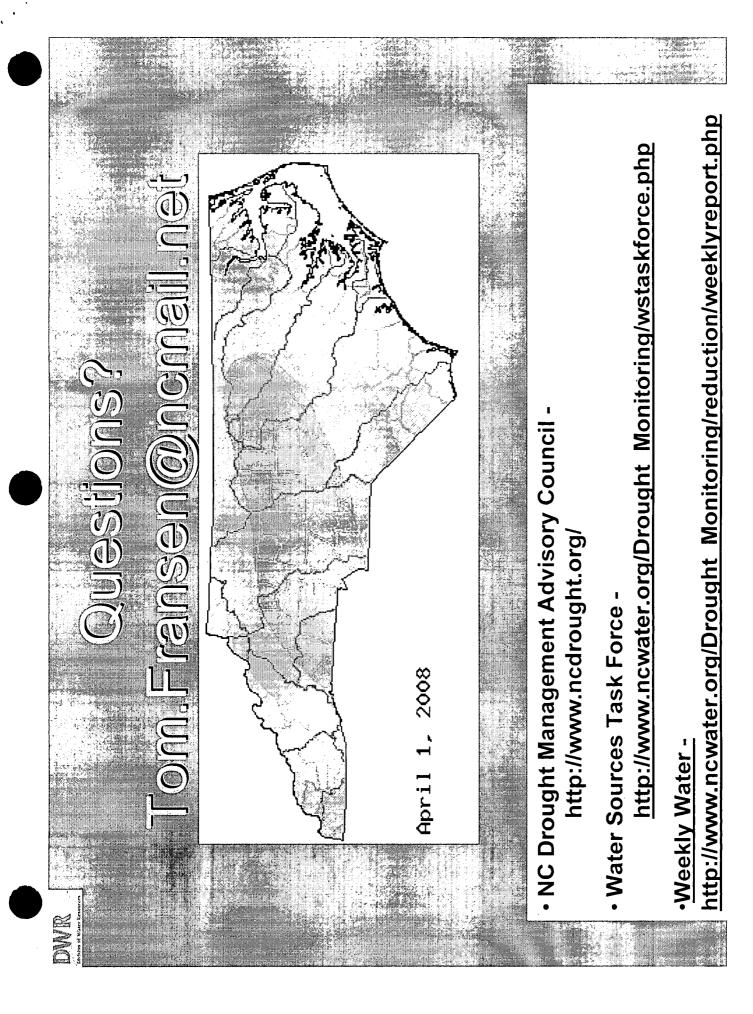
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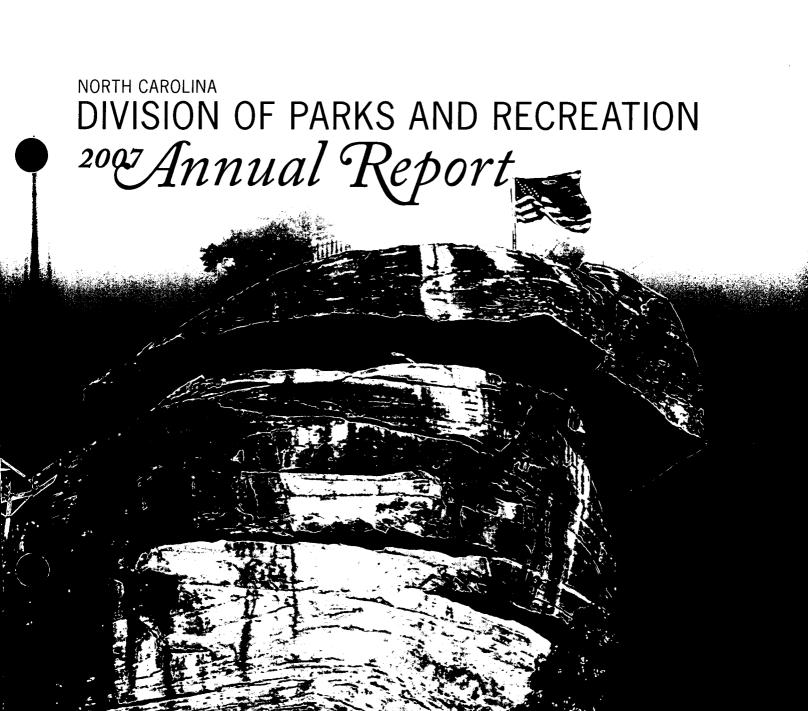
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Message from Director

The past 12 months have been a whirlwind for the North Carolina state parks system as we enjoyed accomplishments, reached milestones and overcame several obstacles and challenges. I will briefly touch on some of them, but I hope you will take the time to read about them in detail elsewhere in this annual report.

In 2007, the state parks system brought 8,042 acres of land into conservation at 16 units with support from the Parks and Recreation. Clean Water Management and Natural Heritage trust funds. A premier partnership effort involving the trust funds, the General Assembly, land conservancies and local communities resulted in the acquisition of the 996-acre, private nature attraction Chimney Rock Park to be integrated into Chimney Rock State Park now in development.

The General Assembly authorized the Deep River State Trail as a network of conservation and recreation lands along the river. And, the division established the Mountain Bogs and Sandy Run Savannahs state natural areas with acquisitions of 91 acres and 2,357 acres respectively.

Other results from more than 200 active acquisition projects included expanding Medoc Mountain State Park with 1,507 acres of former International Paper Corp. land, 10 properties containing 301 acres added to the developing Mayo River State Park and, 249 acres in an important watershed added to Lake Norman State Park.

Improvements to the US 221 Access at New River State Park, including a 14,000-square-foot visitor center, campground, picnic grounds and maintenance complex were dedicated. The division has more than 50 active design and development projects including new visitor centers being developed at Dismal Swamp, Merchants Millpond and Raven Rock state parks, a new observation platform at Mount Mitchell State Park and development of infrastructure at Gorges State Park. In addition, master plans were completed for a 3,000-acre addition at Lake James State Park and for South Mountains State Park.

A total of \$17 million was channeled into local park acquisition and development projects through 54 matching grants from the Parks and Recreation Trust Fund, administered by the division. In the 13-year history of the fund, more than \$108 million has been awarded through 531 matching grants.

FY07

ELK KNOB STATE PARK



Trail in the western-piedmont from Stone Mountain State Park through Guilford County and continued to fine tune corridor plans for the piedmont and eastern sections of the 1,000-mile route. A 15.1-mile segment of the trail along the Blue Ridge Parkway was dedicated.

The division established a Natural Resource Research Advisory Committee to open dialogue with universities and scholars about potential research projects in the state parks. The parks system partnered with five public and private organizations to inaugurate the eastern North Carolina Birding Trail; 14 of its 102 sites are state parks.

The division teamed with conservation organizations to initiate oyster reef construction at Jockey's Ridge and Hammocks Beach state parks and to create stormwater mitigation and erosion protection projects at Hammocks Beach. Through our association with the National Association of State Park Directors, this year, Mike Leonard and Dick Ludington of The Conservation Fund and Sen. Walter Dalton were honored with national conservation awards.

Sixty state park rangers and division employees earned environmental education certification through the Office of Environmental Education, representing nearly one third of the state's annual certifications. To further define its identity, the division began a program to issue state parks license plates and redesigned and expanded its Web site to include more data-based descriptions and more descriptions about such programs as state trails, resource management and employment opportunities.

There are so many things that make the North Carolina state parks system special. They include the highest peak east of the Mississippi River at Mount Mitchell and the tallest sand dune on the East Coast at Jockey's Ridge, unique and regionally distinctive Carolina Bays, clean running streams and rivers, mountain peaks, beaches, unique piedmont area ecosystems and outstanding new campgrounds and visitor centers. We are extremely proud of the 200,000 acres entrusted to us for stewardship, management and interpretation.

But what really sets our system apart is the N.C. Division of Parks and Recreation's professional and dedicated staff. These highly qualified public servants are committed to offering safe, fun and educational experiences to all our visitors. During 2008, visit a state park, reconnect with the world outside and take in and enjoy the magnificent natural resources that make North Carolina state parks Naturally Wonderful.

Sincerely, Lewis R. Ledford

North Carolina Purchases Natural Icon

North Carolina kicked off 2007 in style, announcing plans to acquire Chimney Rock Park, one of the most significant preservation actions in North Carolina history.

Then, Gov. Mike Easley announced May 21 that the state of North Carolina closed on the \$24 million purchase, adding the natural attraction in Rutherford County to the new state park under development in the Hickory Nut Gorge.

The 2007 General Assembly authorized naming the new park as Chimney Rock State Park. It is traditional for North Carolina state parks to be named after a dominant natural feature, and the acquisition made the name change practical.

"Chimney Rock is a cherished landmark in North Carolina, and this represents a landmark acquisition for the state parks system and the cause of conservation in our state," Easley said. "The state is honored to accept the stewardship of this important natural resource."

North Carolina purchased Chimney Rock Park from the Morse family descendents of the attraction's founder, Lucius B. Morse.

The acquisition was made possible through a \$15 million appropriation from the General Assembly, \$4.85 million from the Parks and Recreation, Natural Heritage and Clean Water Management trust funds and \$2.35 million from a private donor.

The transfer of the 996-acre property was accompanied by an agreement under which the Morse family, through its Chimney Rock Company Management LLC, will continue to operate the park through 2009 in a manner similar to its current operation, including charging an admission fee, offering special events and staying open on a year-round basis.

Beginning in 2008, the state will receive a licensing fee based on a percentage of gross revenues. During that period, the Division of Parks and Recreation will continue land acquisition efforts and develop an operations plan for the larger state park that encompasses Chimney Rocks.

The state parks system will also to work with the local community, the trust funds and the legislature to create a state park that will be a legacy. The short-term goal is to ensure a seamless transfer of Chimney Rock into the state parks system with no interruption to the public's access or to the tourism economy of that area.

The parkhas grown to more than 3,200 acres spanning both sides of the gorge and includes the World's Edge property southwest of Chimney Rock. It may eventually include properties on Rumbling Bald Mountain now held by The Nature Conservancy. Easley applauded the decision by the Morse family and Todd Morse, president and general manager of the attraction, to continue to be involved in the process.

DPR Division Director Lewis Ledford met with Lucius Morse at a 2004 national conference held in St. Louis and initiated talks about the state's possible acquisition of Chimney Rock. The pair held numerous discussions about the purchase between that time and the actual acquisition in May 2007.

Chimney Rock Park began as a private nature attraction in 1902. Its dominant feature is a 315-foot-tall rock spire that offers 75-mile views. The park also has a nature center and a network of hiking trails leading to unusual geologic features and the 404-foot Hickory Nut Falls. It has also been featured in a number of motion pictures, including Last of the Mohicans.

...continued on next page

The state has received significant help in piecing together the new state park from The Conservation Fund, The Nature Conservancy, The Carolina Mountain Land Conservancy and The Foothills Conservancy as well as supporters in the local community.

Gov. Mike Easley signed legislation in August authorizing the establishment of the Deep River State Trail as a unit of the state parks system. Simultaneously, the Triangle Land Conservancy and the N.C. Division of Parks and Recreation announced a 75-acre land acquisition that will enlarge the first principal component of the state trail.

The Deep River State Trail will eventually be a network of conservation lands and recreation amenities stretching along the river corridor from its headwaters in Guilford County through Randolph, Chatham and Moore counties to the confluence of the Deep and Haw rivers in Lee County.

The authorization allows the state parks system to set aside land and actively coordinate the project with other agencies, local governments land conservancies, nonprofit organizations, private landowners and recreation interests.

Director Lewis Ledford said the Triangle Land Conservancy has been an invaluable partner in developing this innovative state trail concept, and Sen. Bob Atwater's generous and tireless support has been crucial as well. This authorization allows the division to nurture other partnerships all along the river corridor.

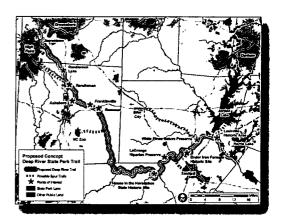
Long popular with paddlers and anglers, the Deep River corridor offers tremendous potential for linking conservation lands, cultural resources and recreation opportunities and building destination tourism.

The Deep River State Trail would likely begin as a canoe/paddle trail with a series of public access sites. Ultimately, it could become the backbone of a regional land and water trails system with connections to Greensboro, Asheboro, the N.C. Zoological Park and Jordan Lake, and could eventually be extended down the Cape Fear River to Raven Rock State Park and beyond.

The river is considered nationally significant for its biological resources including a globally rare species of fish (Cape Fear shiner) and mussel (Atlantic pigtoe). Along the river's edge, scenic bluffs and rock outcrops alternate with high quality floodplain forests. The Deep River was significant in the history and development of piedmont North Carolina. Historic points of interest include the House in the Horseshoe State Historic Site, an 18th century plantation, a 19th century canal/lock system for navigation, the Lindor iron furnace and the Deep River coal field.

The Triangle Land Conservancy manages 720 acres along the corridor including the White Pines Nature Preserve, the La Grange Riparian Reserve and the McIver Landing canoe access, with some projects funded by the Glean Water Management and Natural Heritage trust funds.

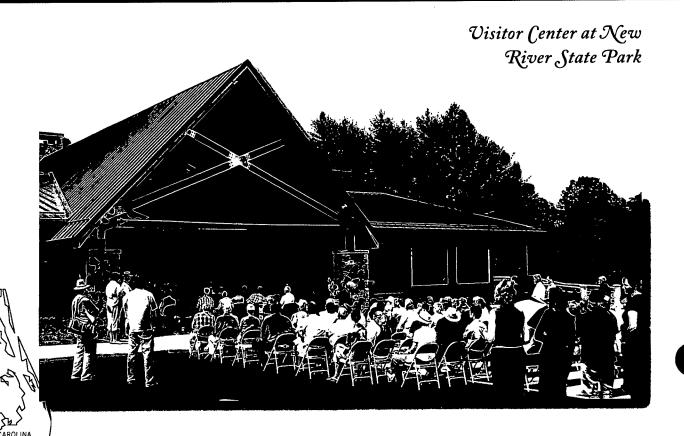
Governor Easley Signs Bill Authorizing Deep River State Trail



The Parks and Recreation Trust Fund has been the most significant source of funding for visitor facilities in state parks, providing more than \$137 million since 1997. Prior to PARTF, decades of minimal funding created a shortage of visitor facilities and a backlog of deferred repair projects. As shown in the chart at right, PARTF capital improvement projects have addressed the repair needs of parks across the state.

Perhaps more importantly, the new construction funding has allowed state parks to enhance environmental education efforts. In addition to The Summit Environmental Education Center at Haw River State Park, PARTF has provided funds for nine new visitor centers (Cliffs of the Neuse, Dismal Swamp, Fort Macon, Hammocks Beach, Jones Lake, Merchants Millpond, New River, Raven Rock, and South Mountains). Exhibit halls in six other state parks have also been provided (Carolina Beach, Crowders Mountain, Lake Waccamaw, Medoc Mountain, Mount Mitchell, and William B. Umstead).

PARTF Supports Variety



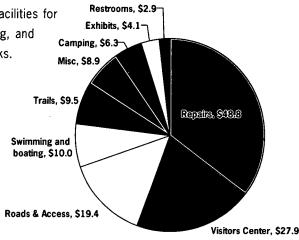
DWISION OF PARKS AND RECREATION

^{ov}Annual Report

PARTF Expenditures for State Parks System Capital Improvements 1997-2007

Land Acquisition 2001-2007

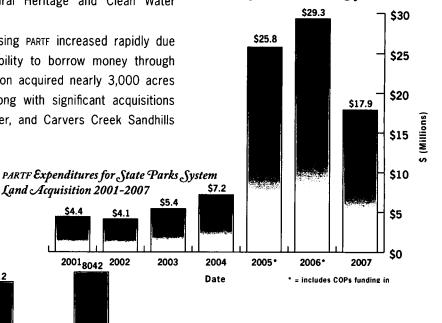
Other funds have provided access to new parks and visitor facilities for popular activities, such as swimming, boating, hiking, camping, and learning about the significant natural resources in our state parks.

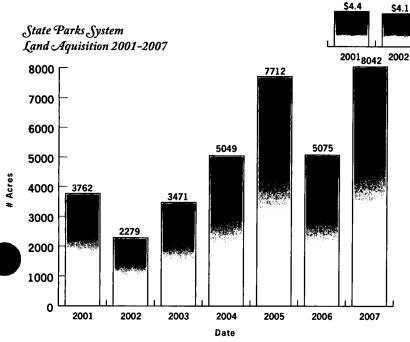


Nearly 32,000 acres have been added to the system using over \$111 million in PARTF funding since 1997. The funds have been frequently combined with grants from the Natural Heritage and Clean Water Management trust funds.

Beginning in 2004, land acquisition using PARTF increased rapidly due to acquisition opportunities and the ability to borrow money through Certificates of Participation. The division acquired nearly 3,000 acres to expand Lake James State Park, along with significant acquisitions at Chimney Rock, Mayo River, Haw River, and Carvers Creek Sandhills state parks.

Land Acquisition Funding in the State Parks System





North Carolina Department of Environment and Natural Resources

PARTF Supports Variety (continued)

Parks and Recreation Authority Expands to 15 Members

The 2007 General Assembly expanded the Parks and Recreation Authority from 11 to 15 members, with five members each being appointed by the governor, speaker of the house, and the president pro tem of the senate. The current members of the Authority are:

Mr. Jonathan B. Howes, Chairman

Mr. Daryle Bost

Mr. Hollis Wild

Ms. Cynthia Tart

Dr. Philip K. McKnelly

Mr. Thomas Blue

Mr. Wendell Begley

Ms. Lisa Weston

Mr. Eddie Holbrook

Mr. Robert Epting

Mr. Cody Grasty

Mr. Ron Kincaid

Mr. Timothy L. Aydlett

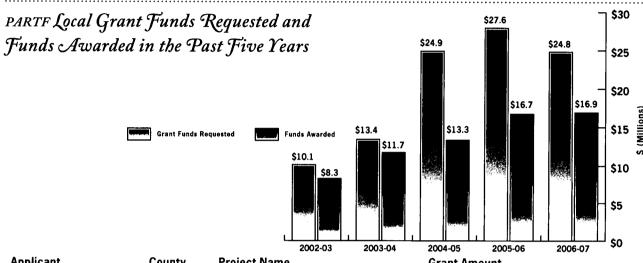
Mr. Edward W. Wood

Mr. Boyd Lee

PARTF Grants to Local Governments 2007

Applicant	County	Project Name	Grant Amount
Apex	Wake	Beaver Creek Parkway - Phase 1B	\$277,865
Archdale	Randolph	Creekside Park Expansion	\$464,469
Ashe	Ashe	Family Central Recreation Complex Expansion	\$499,968
Asheboro	Randolph	Zoo City Park	\$500,000
Black Creek	Wilson	Town Park Redevelopment II	\$82,123
Blowing Rock	Watauga	Robbins Memorial Pool Park Enhancement	\$500,000
Clinton	Sampson	Sampson Center Improvements	\$52,967
Columbus	Columbus	Riegelwood Park	\$49,823
Cornelius	Mecklenburg	Westmoreland Athletic Complex	\$500,000
Cramerton	Gaston	Goat Island	\$500,000
Currituck	Currituck	Carova Beach Park	\$254,905
Dare	Dare	Kitty Hawk Park Land Acquisition	\$500,000
Elizabeth City	Pasquotank	South Park Sports Complex	\$482,000
Erwin	Harnett	Municipal Park Renovations	\$395,000
Faison	Duplin	Faison Park and Recreation Center	\$250,000
Franklin	Franklin	Pilot Lion's Community Park	\$131,959
Graham	Alamance	Graham Civic Center	\$280,000
Greensboro	Guilford	Keeley Park	\$500,000
Hoke	Hoke	Hoke Community Forest	\$500,000
Lewisville	Forsyth	Jack Warren Park - Phase I	\$500,000
Liberty	Randolph	Freedom Park Improvements	\$38,278
Louisburg	Franklin	Joyner Park Phase II Acquisition	\$426,300
Marion	McDowell	Mt. Ida Wilderness Area	\$165,000
Morrisville	Wake	Indian Creek Greenway Trailhead	\$355,500
Mount Airy	Surry	Ararat Riverside Park - Phase I	\$500,000
Mount Pleasant	Cabarrus	McAllister Park Ballfield Lighting	\$7,700
New Bern	Craven	Stanley White Center Renovation	\$500,000

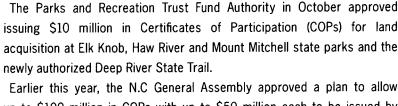
DWISION OF PARKS AND RECREATION



Applicant	County	Project Name	Grant Amount
Oak Island	Brunswick	Oak Island Teen Center	\$99,000
Orange	Orange	Cedar Grove Community Park	\$500,000
Oxford	Granville	Oxford Athletic Park Phase II	\$405,776
Pasquotank	Pasquotank	River Road Sports Complex	\$500,000
Perquimans	Perquimans	County Community Center Phase II	\$431,125
Person-Caswell Lake Authority	Person	Nature Learning Area	\$19,687
Pittsboro	Chatham	Pittsboro Town Park	\$450,000
Pittsboro	Chatham	Pittsboro Recreation Complex	\$341,541
River Bend	Craven	River Bend Town Commons	\$30,533
Rolesville	Wake	Main Street Park Expansion	\$250,000
Rutherfordton	Rutherford	Rutherfordton Clubhouse Renovation	\$305,749
Sawmills	Caldwell	Veterans Memorial Park	\$427,637
Snow Hill	Greene	Greene Community Center	\$211,575
Southport	Brunswick	Lowe White Memorial Park	\$194,404
Spindale	Rutherford	House Gym Renovation	\$43,736
Statesville	Iredell	Statesville Recreation Center	\$500,000
Summerfield	Guilford	Summerfield Community Park Phase II	\$492,120
Surry	Surry	Mountain Park Community Park	\$230,500
Tabor City	Columbus	Athletic Park Expansion	\$52,500
Teachey	Duplin	Teachey Town Park	\$30,000
Wadesboro	Anson	Wadesboro Park	\$174,798
Warsaw	Duplin	Community Recreation Complex	\$500,000
Wilkesboro	Wilkes	Cub Creek Park Enhancement	\$128,425
Wilson	Wilson	Burt Gillette Athletic Complex	\$500,000
Yadkinville	Yadkin	Community Park	\$399,463
Youngsville	Franklin	Bill & Angie Luddy Recreational Facility	\$154,579
Zebulon	Wake	Zebulon Community Center	\$500,000

North Carolina Department of Environment and Natural Resources

Authority Uses COPs to Fund Key Land Acquisitions



Earlier this year, the N.C General Assembly approved a plan to allow up to \$100 million in COPs with up to \$50 million each to be issued by the Parks and Recreation and Natural Heritage trust funds. Similar to bonds, the certificates will be repaid over 20 years by future revenues of the trust funds.

The authority also approved allocations for fiscal 2007-08 of \$7.15 million for land acquisition at seven other state parks and state natural areas and \$18 million for capital projects throughout the system.

Sixty-five percent of the trust fund is reserved for state park land acquisition and capital improvements. The remainder is used for grants for park projects by local governments and for a coastal beach access program.

Part of the \$10 million in new certificates will target about 300 acres in various tracts at Haw River. The parks system also hopes to use the certificates to acquire 180 acres at Elk Knob. A portion of that land may help eventually link park areas in Watauga and Ashe counties. And at Mount Mitchell, 65 acres in two tracts near could be acquired.

The Deep River State Trail was authorized by the General Assembly this year, and the parks system has acquired land on the river in Chatham County. Up to \$500,000 in COPs will be issued for other tracts near that site.

The \$7.15 million set aside for land acquisition may purchase up to 1,206 acres in multiple tracts that are either under option by the parks system or in the appraisal stage.

They include 459 acres at South Mountains State Park that may be used to improve opportunities for camping facilities as well as properties at Eno River, Mayo River, Medoc Mountain, New River and Raven Rock state parks and Mount Jefferson State Natural Area.

Some of these acquisitions are likely to be augmented by grants from the Natural Heritage and Clean Water Management trust funds.

The approved capital projects are planned for 11 state park units and include \$3.58 million for a new visitor center at Raven Rock State Park and \$3.3 million for a visitor center and eastern district office at Cliffs of the Neuse State Park. Funds for design of both projects were set aside earlier.

The project list also includes a significant renovation of the marina and boat ramp facilities at Carolina Beach State Park, campground improvements at Kerr Lake State Recreation Area and a new boathouse and shoreline improvements at Morrow Mountain State Park.





DWISION OF PARKS AND RECREATION

ocAnnual Report

General Management Plans

The State Parks Act directs that general management plans (GMPs) be developed to guide individual parks. GMPs provide a multi-disciplinary, thorough and logical approach to planning. The plans include:

- A statement of park purpose, including identification of the park's significant resources;
- · A summary of interpretive themes;
- · An analysis of demand and trends;
- · Summary of laws and policy guiding park management;
- An analysis of natural and cultural resource management, including external and internal threats and research needs;
- · Physical plant inventory, needs and priorities:
- · Capital improvement needs, priorities, and proposed facility locations;
- Operations and management issues and recommendations; and
- · Land acquisition needs.

Development and revisions of GMPs have documented needs and set priorities. These plans help ensure funds are spent effectively and that projects are designed and constructed to serve their intended purposes. Park advisory committees review park plans and provide valuable feedback.

During 2007, four GMPs were completed: Fort Fisher State Recreation Area, Lake Waccamaw State Park, Carolina Beach State Park, and Raven Rock State Park. These four are currently pending final approval and 12 others are underway. Once approved, the plans are posted on the division's Web site.

Construction Program

In 2007, the division continued its ongoing efforts to promote planning and construction practices of infrastructure and buildings that are environmentally responsible and healthy places to live, work and enjoy. The agency adopted a policy requiring the pursuit of LEED (Leadership in Energy and Environmental Design) certification through the U.S. Green Building Council's LEED Green Building Rating System for all new, or significantly renovated, buildings having 5,000 square feet or more.

For buildings less than 5,000 square feet, project team members are to be familiar with the use of LEED as a tool to help guide the project. Sustainable and green buildings typically require some additional services and result in additional deliverables. In most cases, additional costs are recovered within a few years based upon energy savings and other factors.

Aggressive efforts, such as qualifying for gold or platinum LEED certification, or other certifications deemed appropriate, may require longer-term payback analyses. While multiple types of environmentally sound innovative building technology may be considered, the division is particularly interested in technologies that address the following:

- Ecological site design: on-site erosion control, water purification/ pollution reduction, and stormwater management.
- Transportation: promoting bicycle, pedestrian and transit use where possible.
- · Waste reduction: building reuse, job site recycling and efficient use of materials.
- On-site management of sewage and organic wastes, such as gray water systems and biological wastewater treatment.

...continued on page 12

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Construction Program (continued)



- Energy efficiency: efficient thermal envelopes, efficient space and water heating, lighting, controls and monitoring and appliances.
- Renewable energy: photovoltaics, geothermal pumps, and wind turbines.
- Water efficiency, both domestic and irrigation, including rainwater harvesting for irrigation and toilet flushing.
 Consider waterless urinals in all applications.
- Materials and resources: durable building envelopes and long-lived
 materials or assemblies, recycled-content materials, safer, less
 toxic materials, such as alternatives to CCA-treated wood, innovative
 application of natural materials (characterized by low embodied
 energy, local availability, good performance, biodegradable,
 safe, esthetic) such as straw, earth and other composites.
- Indoor environmental quality, pollution reduction, worker and occupant safety, air cleaning, humidity control, and thermal comfort.
- Operations and maintenance: monitoring energy, water, waste, air quality, and transportation use along with resource-efficient operation practices.

Leadership in Energy and Environmental Design certification projects now under construction contract are the Fort Macon coastal education center and the Merchants Millpond visitor center. Other LEED projects soon to be bid are the Raven Rock visitor center, the Lake James phase I development project, and the Cliffs of the Neuse visitor center.

Typically, the construction program administers 40-50 ongoing capital improvement projects ranging in value from \$300,000 to \$7.5 million maintaining a total active project value of \$70-80 million.

In addition to large planning and design efforts that span thousands of acres, design and development staff also focus on site-specific small-scale needs, such as the recent completion in September of a LEED-based landscape plan for the planned Fort Macon State Park coastal education center.

Landscape plans that follow LEED principles adhere to standards such as using native vegetation, avoiding the need for irrigation, minimizing site disturbance and impervious surfaces, and identifying appropriate sites. That includes avoid sensitive matural resources.



Continued Planning Efforts at New and Existing Units

South Mountains State Park Master Plan

Completed in November, the new South Mountains State Park master plan will guide development while carefully balancing recreation demands with the protection of the valuable natural resources.

At over 18,000 acres, the park has historically focused on rugged backcountry experiences. The master plan preserves this focus while establishing a blueprint for compatible long-term development of recreation and environmental education opportunities. The master plan outlines specific projects within three designated park sections: Jacob Fork, Henry Fork, and Clear Creek. The relatively recent addition to the park of the Clear Creek watershed on the western edge of the park offers the possibility of opening another gateway. This Clear Creek section of the park has the potential to support an environmental education center and related activities that would allow all citizens, and especially populations with special needs, to connect with nature in a very special way.

Following DENR's Green Building Policy, all components of the master plan have been evaluated and designed based on principles of sustainable design/green design with reference to Leadership in Energy and Environmental Design.

Growth and Change at Elk Knob

A name change in 2007 from Elk Knob State Natural Area to Elk Knob State Park recognizes the potential of this unit in Watauga and Ashe counties to support a wider array of recreational opportunities.

Design and development staff collaborated with park staff in the layout and construction of interim facilities that include a visitor contact station opened to the public in September 2007, trailhead facilities, and continuing work on a new summit trail, day-use/picnic area and maintenance facility.



New State Park Units Taking Shape

Progress continues on development of six new state parks as part of the system's New Parks for a New Century initiative. Chimney Rock, Haw River, Mayo River and Carvers Creek Sandhills state parks were authorized by the N.C. General Assembly over the past four years. Elk Knob and Dismal Swamp state parks -- formerly state natural areas - were given state park status by the 2007 General Assembly.

Chimney Rock State Park

The park initially authorized as Hickory Nut Gorge State Park in 2005 was re-named in last year's legislative session and now encompasses more than 3,200 acres including the 996-acre Chimney Rock Park, the former private nature attraction, which was purchased as part of the state park early in the year. That portion of the state park is open to the public and operating under a contract with Chimney Rock Management LLC.

Land acquisition efforts continue on both sides of Hickory Nut Gorge with the help of land conservancies. In recent months, the Carolina Mountain Land Conservancy acquired three tracts that will improve a corridor linking the Chimney Rock area with the 1,600-acre World's Edge tract to the southwest. And, The Nature Conservancy announced land acquisitions that also will improve corridors and the potential for rock climbing facilities.

Haw River State Park

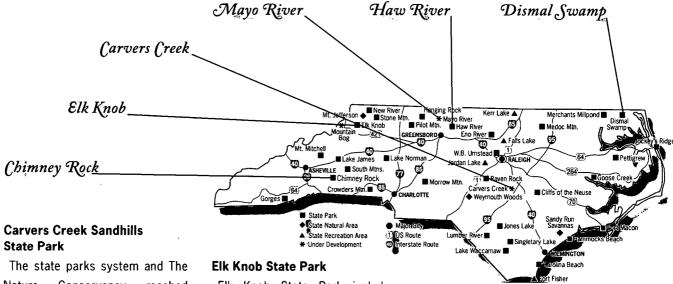
Improvements to facilities at The Summit environmental education and conference center at Haw River State Park in Guilford County continue with funding from the Parks and Recreation Trust Fund. In addition, negotiations continue on acquiring several key tracts adjoining the 300-acre conference center campus. These include a 700-acre tract to the west in the river corridor that would provide land for recreation facilities and includes high quality hardwood forest.

In October, the Parks and Recreation Trust Fund Authority agreed to issue up to \$7 million in certificates of participation for land acquisition at Haw River. These instruments, similar to bonds, were authorized by the 2007 General Assembly and will be repaid over 20 years by revenues into the trust fund.

Mayo River State Park

Construction is expected to begin in the spring on interim facilities and historic preservation at Mayo River State Park in western Rockingham County. Development will include a ranger contract station, entrance road, parking area, picnic grounds and a restroom building on a 398-acre site formerly know as the Old Mayo Park. In addition, the project includes historic renovation of a picnic shelter and cooking shelter designed by Antonin Raymond a noted architect and disciple of Frank Lloyd Wright.

Meanwhile, land acquisition continues at several points along the river confidor north of Mayodan to the Vinginia state line, with the park now encompassing 1.922 agres



The state parks system and The Nature Conservancy reached an agreement under which a 1,380-acre former Rockefeller family estate in Cumberland County will be donated as part of Carvers Creek Sandhills State Park. It is several miles south of about 1,400 acres acquired for the park in 2006. The conservancy intends to complete some stream and long leaf pine forest restoration projects on the property before the transfer late in 2008.

The Rockefeller property includes an old estate house and several outbuildings of historic value as well as a 100-acre lake adjoining a cypress swamp.

During the next year the parks system hopes to devise a plan for operating interim facilities at the park and to establish core park staff.

Elk Knob State Park includes property at the summit of the tallest peak in Watauga County as well as the summit of The Peak, one of the highest points in neighboring Ashe County. The park is now at more than 2,600 acres, with land acquisition efforts focused on a corridor linking the two peaks.

The Parks and Recreation Trust Fund Authority approved \$1.5 million in Certificates of Deposit to be issued for further land acquisition at Elk Knob.

The park is open to the public and construction continues on interim facilities to include a ranger contact station parking area and picnic grounds. Work continues by the park staff and volunteers to renovate a trail to the Elk Knob summit.

Dismal Swamp State Park

A 7,050-square-foot visitor center and related facilities was completed early in 2008 at this 14,344-acre state park in Camden County. The visitor center is surrounded by a gazebo, decks and a wooden boardwalk to add to the visitor experience. An exhibit hall within the center explores the swamp's rich natural and cultural history.

An 85-foot-long, swing-span pedestrian bridge across the Dismal Swamp Canal north of Elizabeth City was completed in 2007 allowing access to the site.

Core park staff was established

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developing hilding and paddling

opportunities and interpretive

programs and materials.

State Park License Tag Unveiled



Friends and supporters of North Carolina's state parks and of conservation will soon be able to publicize that support with a "Naturally Wonderful" state parks license plate.

The Division of Parks and Recreation continues to accept applications and payment for the first 300 license plates that feature an outdoor recreation design theme in blue, green and black.

There is a \$30 fee for the plate in addition to regular license fees of the Division of Motor Vehicles. The fee is \$60 for a personalized state parks plate. The additional fee will be evenly divided between North Carolina's Parks and Recreation Trust Fund and Natural Heritage Trust Fund.

Once the minimum 300 initial applications are received, processing and mailing of the new plates should begin within 90 days, and thereafter, plates will be produced and mailed directly from the Division of Motor Vehicles.

Applications and complete information can be found on the division's Web site (www.ncparks.gov) or write: N.C. Division of Parks and Recreation, 1615 Mail Service Center, Raleigh, NC 27699-1615

New Park Designations for Dismal Swamp, Elk Knob, Chimney Rock

State natural areas at Dismal Swamp in Camden County and Elk Knob in Watauga County have been re-designated as state parks as a result of 2007 legislative action.

Alterations to the State Nature and Historic Preserve Act also changed the name of Hickory Nut Gorge State Park in Rutherford County to Chimney Rock State Park.

The changes better reflect the status of those units of the state parks system.

Dismal Swamp at 14,344 acres and Elk Knob at 2,316 acres are of sufficient size to be state parks, and they are likely to develop in such a way that suits state park status. In the case of Chimney Rock, it is traditional for our state parks to be named after a dominant natural feature, and our acquisition of Chimney Rock this year made the name change practical.

State parks and state natural areas are sometimes managed in similar fashion. But, the broad category of state natural areas includes some tracts not suitable for traditional state park facilities because of their fragile natural resources or because they are too small for development.

There are now 37 state parks, two of which remain under development and not open to the public. There are 17 state natural areas and four state recreation areas.

DIVISION OF PARKS AND RECREATION

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To the land, they're guardians and stewards.

To the people visiting state parks every year, they're a source of security, help and knowledge.

What's It Like To Be A Park Ranger?

For nearly 200 professionals in the state parks system, being a ranger means contributing to something bigger than themselves and something that's enduring.

"The job's very rewarding in teaching visitors, especially the children, about the cultural and natural history of the park," said Randy Newman, a 20-year veteran ranger at Fort Macon State Park.

"I also take great pleasure in protecting the native flora and fauna of the park to ensure their survival for future generations."

They're sentiments frequently expressed whenever a ranger reflects on his or her life working in the woods, the lakes or the beaches of the state parks system.

Park rangers are truly the backbone of North Carolina's state parks system, responsible for the protection of the state's most precious natural resources and for the safety of millions of visitors.

The profession has changed dramatically in just a generation or two. Once, near-forgotten forest "wardens," rangers now are law enforcement officers and highly trained multi-specialists, with greater stresses and demands on their time and skills than ever.

The park ranger now is an important component of that thin line of interface between urban life and the so-called "protected" natural world – the world to which so many people these days seem to want to reconnect.

And, as threats to our natural resources increase and intensify and, urban populations demand more ready access to the natural environment, park rangers are looked upon not just as stewards of the environment, but as the community's representatives for law and order in the forest.

As part of the "thin green line," they are on the front line between conservation and voracious development. And, they're on the front line in protecting people, resources and each other in what, by it's nature, is already a dangerous environment.

A typical day for a park ranger rarely ever is. It can include leading a busload of school kids on a hike or finding and patching up an injured hiker. It can include calming a domestic dispute, ticketing a speeding driver, monitoring a patch of rare plants, designing a trailside display or battling a wildfire.

Also atypical is the extensive training rangers need to hone skills so varied. Rangers are required to have at least two -year degree – and most have a four-year degree – in a curriculum such as parks management, outdoor recreation or resource protection.

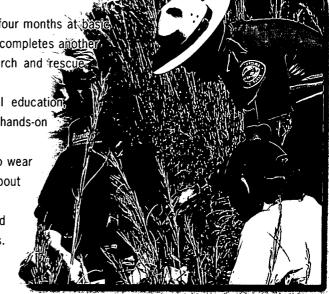
Within the first two years on the job, a ranger spends about four months at training to be commissioned as a law enforcement officer and completes anothe 200 hours of training in emergency medical techniques, search and rescue wildfire suppression and interpretation and education skills.

They must also work toward certification in environmental education involving yet another 200 hours of workshops, research and hands-on projects.

It's only then, that they're considered to have what it takes to wear the distinctive campaign hat of a park ranger. All told, it takes about \$15,000 to train and equip a state park ranger.

The ranks of park rangers are now more diverse than ever, and the profession is continually attracting better quality candidates. Gradually, competition for the jobs has grown stronger, and

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DPR Launches New Web Site

The Division of Parks and Recreation in November unveiled a redesigned and expanded Web site and established a new Web address at www.ncparks.gov.

The new site retains all the information about the state parks system and related programs of the division as well as new features that should appeal to visitors and parks system partners and stakeholders. The division's site was last redesigned in 2002. The new site was developed by Ed King, who retired in 2005 from the Information Technology program of the Department of Environment and Natural Resources, and Tom Howard, a retired interpretation and education specialist with the division who was largely responsible for developing and maintaining the site since its launch in 1995. Howard has created ways to integrate the site with several of the division's existing databases, and that has resulted in more sophisticated Web-based tools. Individual parks can make "real time" changes to select areas of the Web site for such information as trail closures and changes in operating hours. New portions of the site are meant to offer a broader picture of all the division's work, giving higher profile to such programs as trails, natural resource management, federal and state grants, long-range planning and the design and development of new parks and park facilities.

There is new information about jobs in the state parks system and in the administrative branches of the division. And, there are "Frequently Asked Question" sections aimed at park visitors and the media.

The individual state park sites also include a "Sights and Sounds" feature where parks can post photos, video and audio segments and detailed information about park-specific features and programs.

Connecting Nature Across Generations



Connecting young people with nature is an essential way to sustain the state parks system mission. There is growing concern among parents and educators that children are spending far less time outdoors and more time "wired" to video games, televisions and computers. Research indicates children are more physically fit and score higher on tests of concentration when they spend more time in natural settings.

The division made major strides towards reconnecting children with nature in 2007.

Eighteen staff members earned their environmental education certification in 2007. The 188 certified environmental educators in the state parks system represent the largest group of such educators outside of the public school system. The certification requires more than 200 hours of training and an action partnership. Interpretation and education programs provided by these environmental educators reached over 300,000 people during the year.

Partnerships with are an important way that park staff spread the division's conservation message. State parks staff trained more than 600 educators during workshops in 2007. The outreach efforts of these trained educators reached an additional 90,000 youth.

The division continues to develop junior ranger programs through collaboration with the Friends of State Parks. Junior ranger programs engage elementary age children in meaningful learning by participating

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in park educational programs, completing an activity booklet, conducting a park stewardship project, and learning about career opportunities in natural resources.

North Carolina State Parks proudly served as the partner organization to promote the first annual Take A Child Outside Week, in September. This international initiative was sponsored by the North Carolina Museum of Natural Sciences to help families and educators engage children in outdoor discovery.

A residential environmental education program at Haw River State Park completed its inaugural year. School students and youth groups visited the outdoor school to be fully immersed in outdoor education. Over 5,000 students and adults participated in the Haw River Program this year.

"One thing we focus on is the comfort level of students outdoors. Youth need to overcome their fears of nature first in order to learn from and appreciate it", says Education Director Kathryn Royall.

Natural Resource Protection Highlights

The division's resource management team stepped up efforts to protect the state parks' natural resources, particularly in the areas of prescribed burns, invasive species and stream restoration.

A 105-acre prescribed burn was conducted at Crowders Mountain State Park, the largest ever at the park and one of the largest ever in a mountain region. Increased mountain burning is planned for 2008. The division hired an environmental specialist to direct its prescribed burn program.

In fighting invasive species, the staff neared completion of a four-year eradication effort for tree of heaven at Pilot Mountain State Park and completed the second year of treatments for an extensive privet population at Lake Norman State Park. Eradication efforts continue at Stone Mountain State Park for bamboo and New River State Park for multiflora rose.

At Stone Mountain State Park, the first phase of restoration of Big Sandy Creek was completed with funding from the Clean Water Management Trust Fund, and upgrades were completed to climbing routes on the mountain's south face. Similar upgrades were done on climbing routes at Pilot Mountain State Park.

At Fort Fisher State Recreation Area, the team wrote a plan to protect nesting shorebirds and sea turtles by controlling red fox predation and by implementing a trash-free beach zone.

During 2007, the staff was also involved in completing an archaeological survey at Lake James State Park, identifying nature preserve boundaries at Chimney Rock, Elk Knob and New River state parks and developing a program with N.C. State University for a three-year study of trout streams.

What's It Like To Be A Park Ranger?s
...continued from page 17

in North Carolina, salaries have improved significantly.

Beyond all the training, park rangers today are required to be resourceful and adaptable. They're encouraged to seek new tools, new methods of working and even new ways of thinking about the job they do.

The job is more demanding than in the past, but in many ways it's also more rewarding.

A park ranger is still able to work day-to-day in the natural environment, something that fewer and fewer people are able to do in the modern world.

As the public yearns to be in the natural world and becomes more aware of the threats to our natural resources, it also becomes more aware of the importance of the job that rangers perform. This helps to raise the ranger's standing in the community

And, park rangers are still in a position to do work that makes a difference in the world and in peoples' lives. There's more reason than ever to take pride in their accomplishments as a part of that "thin green line."

North Carolina Department of Environment and Natural Resources

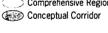
The North Carolina Trails Committee and the staff of the State Trails Program share a vision, a statewide network of trails for all users—hikers, bikers, equestrians, canoeists, and off-road vehicle enthusiasts. Across this network, the citizens of North Carolina and visitors can experience and enjoy the state's natural, cultural, and recreational resources. Whether the trails are close to home, pass through the rural countryside, or scale a rugged mountain, they should be available to all citizens for their enjoyment.

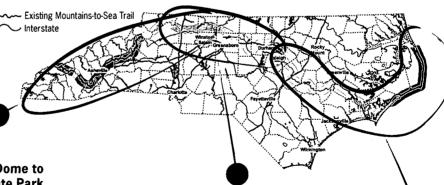
The Division of Parks and Recreation strongly supports the North Carolina Trails System Act, which established the goal of a state trails system. Trails are an essential part of the state's infrastructure and a part of the ordinary responsibility of our governments. Trails need to be seen in the larger environmental context of protecting the state's air and water quality, and wildlife. The trails program strives to promote the recreational, cultural and transportation benefits of trails to a community and increase recognition of the positive economic impact on tourism and business recruitment that trails have demonstrated.

State Trails Program



Completed Trail
Comprehensive Regional Plan





Western Region

Clingman's Dome to Stone Mountain State Park

Total Distance: 332 miles
Miles Open to Public: 284 miles

Included in Comprehensive
Regional Plan: 48 miles

Central Region

Stone Mountain State Park to the Falls Lake Dam In Wake County

Total Distance: 255 Miles
Miles Open to Public: 45 miles
Included in Comprehensive

Regional Plan: 96 miles

Further Study Needed to Complete a

Comprehensive Plan: 114 miles

Eastern Region

Falls Lake Dam to Jockey's Ridge State Park

Total Distance: 313 miles
Miles Open to Public: 81 miles
Comprehensive
Regional Plans: 232 miles

DIVISION OF PARKS AND RECREATION

₂₀ ²⁰ Annual Report

North Carolina's Mountains-To-Sea Trail Effort

North Carolina's Mountains-to-Sea Trail, an effort to link by trail Clingman's Dome in the Great Smoky Mountains National Park to Jockey's Ridge State Park (a distance of over 900 miles) is the flagship project of the developing state trails system. Today, over 450 miles of this trail are open for use. Completion of this trail has been hampered by the absence of public lands in the remaining sections.

Secretary Designates a 15.5-Mile Segment of the Mountains-to-Sea Trail

In 2007, Department of Environment and Natural Resources Secretary Bill Ross designated as a component of the State Trails Program, a 15.5-mile segment of the MST in Ashe and Alleghany counties. This trail resulted from the cooperative efforts of the Ashe County Task Force, the Friends of the Mountains to Sea Trail, the National Park Service, Blue Ridge Parkway and the State Trails Program.



Trails community representatives **Allen deHart** and **Jim Hallsey** join others in celebrating the new 15.5-mile MST designation

Greenways, trails, boardwalks, kiosks and bridges are among the many projects made possible in 2007 through grants of the federally funded Recreational Trails Program.

Program funding comes from federal gas taxes for off-highway vehicles. Grants can be used for new trail construction, trail repair and renovation and trailside facilities.

North Carolina awarded 13 such grants in 2007, totaling \$827,744.

The state also awarded 27 Adopt-A-Trail grants totaling \$108,000. Adopt-A-Trail Grants are part of a state-funded program to provide funding to governmental agencies, non-profit organizations and volunteers to build, maintain and promote all types of trails.

The grant program was established by the 1987 General Assembly to provide grassroots funding for planning, developing and managing trails across North Carolina. Funding for this program was increased to \$108,000 by the General Assembly in 1996.

Trail Grants

North Carolina Department of Environment and Natural Resources

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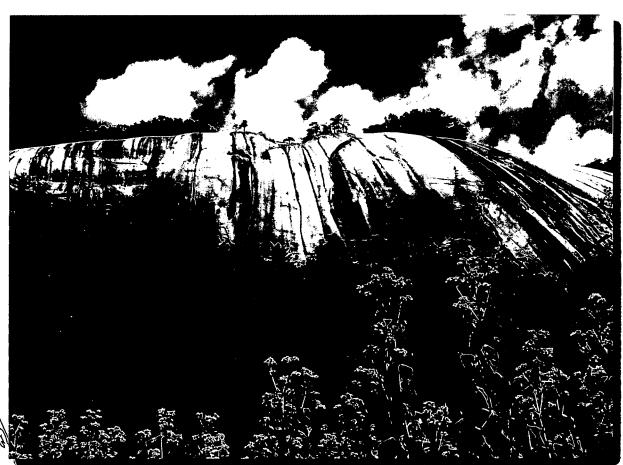
State Trails Program (continued)

Regional Trail Plans - MST Western Piedmont Plan

The comprehensive planning for the MST is now complete. A plan for this final segment of the MST from Stone Mountain State Park to the city of Greensboro was developed in 2007. The Division of Parks and Recreation lead this effort that involved representatives from the counties of Alleghany, Wilkes, Surry, Yadkin, Stokes, Forsyth, Rockingham and Guilford and the cities and towns of Elkin, Winston-Salem and Greensboro.

French Broad River Regional Trails Plan

The division also led a comprehensive effort to develop a regional trails system plan for counties and cities surrounding the French Broad River in western North Carolina. It included representatives from the counties of Madison, Buncombe, Henderson, and Transylvania and the cities and towns of Asheville, Hendersonville and Brevard. The planning goal is to find a possible connector trail route that will link the Appalachian Trail in the area of Hot Springs to the Mountains-To-Sea Trail in the Asheville area.



DIVISION OF PARKS AND RECREATION 2002 Annual Report

2006

Park Contact Information

- Carolina Beach 910-458-8206 denr. dpr.carolina.beach@lists.ncmail.net
- Chimney Rock 800-277-9611 visit@chimneyrockpark.com
- Cliffs of the Neuse 919-778-6234 denr.dpr.cliffs.neuse@lists.ncmail.net
- Crowders Mountain
 704-853-5375 denr.dpr.crowders.mountain@lists.ncmail.net
- Dismal Swamp 252-357-5224 denr.dpr.dismal.swamp@lists.ncmail.net
- Elk Knob 828-297-7261 denr.dpr.elk.knob@lists.ncmail.net
- Eno River 919-383-1686 denr.dpr.eno.river@lists.ncmail.net
- Falls Lake 919-676-1027 denr.dpr.falls.lake@lists.ncmail.net
- Fort Fisher 910-458-5798 denr.dpr.fort.fisher@lists.ncmail.net
- Fort Macon 252-726-3775 denr.dpr.fort.macon@lists.ncmail.net
- Goose Creek 252-923-2191 denr.dpr.goose.creek@lists.ncmail.net
- Gorges 828-966-9099 denr.dpr.gorges@lists.ncmail.net
- Hammocks Beach 910-326-4881 denr.dpr.hammocks.beach@lists.ncmail.net
- Hanging Rock 336-593-8480 denr.dpr.hanging.rock@lists.ncmail.net
- Haw River (please contact The Summit) 336-342-6163 denr.dpr.summit.center@lists.ncmail.net
- Jockey's Ridge 252-441-7132 denr.dpr.jockeys.ridge@lists.ncmail.net
- Jones Lake 910-588-4550 denr.dpr.jones.lake@lists.ncmail.net
- Jordan Lake 919-362-0586 denr. dpr.jordan.lake@lists.ncmail.net
- Kerr Lake 252-438-7791 denr.dpr.kerr.lake@lists.ncmail.net
- Lake James 828-652-5047 denr.dpr.lake.james@lists.ncmail.net
- Lake Norman 704-528-6350 denr.dpr.lake.norman@lists.ncmail.net
- Lake Waccamaw 910-646-4748 denr.dpr.lake.waccamaw@lists.ncmail.net
- Lumber River 910-628-4564 denr.dpr.lumber.river@lists.ncmail.net
- Medoc Mountain 252-586-6588 denr.dpr.medoc.mountain@lists.ncmail.net
- Merchants Millpond 252-357-1191 denr.dpr.merchants.millpond@lists.ncmail.net
- Morrow Mountain 704-982-4402 denr.dpr.morrow.mountain@lists.ncmail.net
- Mount Jefferson 336-246-9653 denr.dpr.mount.jefferson@lists.ncmail.net
- Mount Mitchell 828-675-4611 denr.dpr.mount.mitchell@lists.ncmail.net
- New River 336-982-2587 denr.dpr.new.river@lists.ncmail.net
- Pettigrew 252-797-4475 denr.dpr.pettigrew@lists.ncmail.net

NC State Park	2007	2006
Carolina Beach	532,086	495,682
Cliffs of the Neuse	128,073	106,347
Crowders Mountain	404,143	368,422
Eno River including Occoneechee Mountain	406,905	367,932
Falls Lake	888,173	943,149
Fort Fisher	834,544	623,849
Fort Macon	1,214,866	1,210,080
Goose Creek	170,707	154,318
Gorges	140,495	114,353
Hammocks Beach	117,966	122,070
Haw River	24,516	3,491
Hanging Rock	474,455	410,241
Jones Lake	69,974	67,390
Jordan Lake	1,190,973	1,052,256
Jockey's Ridge	1,515,734	1,058,251
Kerr Lake	1,148,632	1,162,636
Lake James	383,566	680,110
Lake Norman	523,008	445,392
Lake Waccamaw	85,657	89,274
Lumber River	80,548	83,986
Merchants Millpond	150,019	253,669
Medoc Mountain	57,615	55,185
Mount Mitchell	316,708	289,087
Morrow Mountain	401,800	356,522
New River including Mount Jefferson	287,133	277,873
Pettigrew	66,551	72,317
Pilot Mountain	404,360	396,522
Raven Rock	100,426	98,151
Singletary Lake	33,035	35,421
South Mountains	198,845	205,814
Stone Mountain	467,214	409,376
Weymouth Woods	49,770	46,719
William B. Umstead	612,411	596,793

2007

SYSTEMWIDE TOTAL

NC State Park

Pilot Mountain 336-325-2355 denr.dpr.pilot.mountain@lists.ncmail.net

- Raven Rock 910-893-4888 denr.dpr.info.ravenrock@lists.ncmail.net
- Singletary Lake 910-669-2928 denr.dpr.singletary.lake@lists.ncmail.net
- South Mountains 828-433-4772 denr.dpr.south.mountains@lists.ncmail.net
- Stone Mountain 336-957-8185 denr.dpr.stone.mountain@lists.ncmail.net

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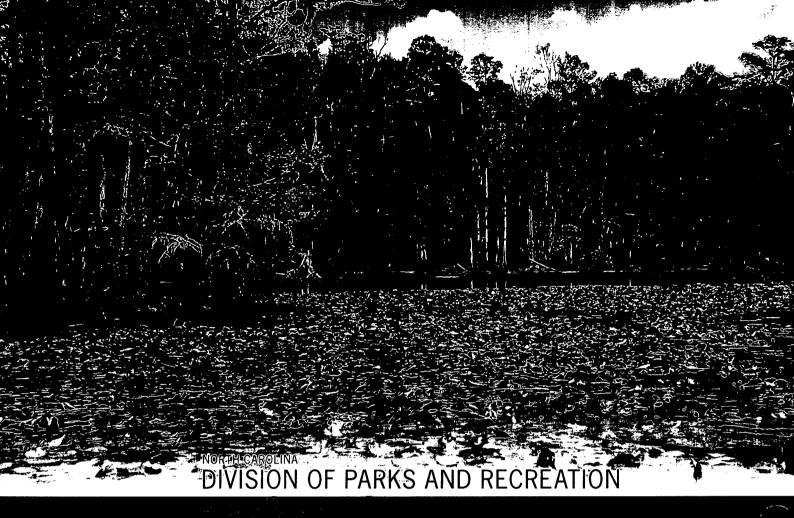
- The Summit at Haw River State Park 336-342-6163 denr.dpr.summit.center@lists.ncmail.net
- Weymouth Woods 910-692-2167 denr.dpr.weymouth.woods@lists.ncmail.net
- William B. Umstead 919-571-4170 denr.dpr.william.umstead@lists.ncmail.net

Designed by Brandon Whitesell, Creative Services, DENR Front Cover and page 4 photograph of Chirnney Rock courtesy of NC Division of Tourism, Film and Sports Development

North Carolina Department of Environment and Natural Resources

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North Carolina Parks and Recreation Trust Fund 2006–2007 ANNUAL REPORT



Division of Parks and Recreation Department of Environment and Natural Resources

Michael F. Easley

Governor

William G. Ross Jr.

Secretary Department of Environment and Natural Resources

Parks and Recreation Trust Fund Annual Report 2006–2007

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1.0 Introduction

The North Carolina General Assembly established the North Carolina Parks and Recreation Trust Fund (PARTF) on July 16, 1994. The General Assembly made an initial appropriation of \$1 million to the PARTF to fund improvements in state parks, to fund grants for local governments and to increase public access to the state's beaches. In 1995, the General Assembly dedicated funds from the excise stamp tax to the trust fund starting in FY 1996-97. The Parks and Recreation Authority, an eleven-member board, was also created to allocate funds from the PARTF to projects in state parks and to grants for local governments.

The excise tax is the primary funding source for the PARTF. The tax is levied on each "deed, instrument, or writing by which interest in real property is conveyed to another person." The tax is levied at the rate of one dollar on each \$500 of the interest or property conveyed. Each county remits one-half of the proceeds, less the county's allowance for administrative expenses, to the state. Effective July 1996, the General Assembly (G.S. 105-228.30) stipulated that part of the state's share would be allocated to the PARTF. Of the funds remitted, the Department of Revenue credits 75% to the Parks and Recreation Trust Fund and 25% to the Natural Heritage Trust Fund.

Pursuant to G.S. 113-44.15, the money from the Parks and Recreation Trust Fund is to be allocated as follows:

- (1) Sixty-five percent (65%) for the State Parks System for capital projects, repairs and renovations of facilities and to acquire land.
- (2) Thirty percent (30%) to provide grants to local governments on a dollar-for-dollar basis to create or improve parks and recreational projects.
- (3) Five percent (5%) for the Coastal and Estuarine Water Beach Access Program.
- (4) No more than three percent (3%) may be used by the Department of Environment and Natural Resources (DENR) for the operating expenses associated with managing capital improvements projects, acquiring land, and administering the grants program for local governments.

2.0 North Carolina Parks and Recreation Authority

The North Carolina Parks and Recreation Authority, an 11-member board which oversees the Parks and Recreation Trust Fund, was created by the General Assembly with the Authority's powers and duties becoming effective July 1, 1996. The Governor appoints three members, including the chairperson. The General Assembly appoints four members upon the recommendation of the President Pro Tempore of the Senate. The General Assembly appoints four members upon the recommendation of the Speaker of the House.

The Authority is charged with six powers and duties: 1) to receive public and private donations and funds for deposit into the trust fund; 2) to allocate funds for land acquisition; 3) to allocate funds for capital projects; 4) to solicit financial and material support; 5) to develop effective support for parks and recreation; 6) and to advise the Secretary of DENR on any matter he may refer to the body.

Members are appointed for three-year terms and may serve no more than two consecutive three-year terms. After serving two consecutive three-year terms, a member is not eligible for appointment to the Authority for at least one year after the expiration of the member's last term. The Parks and Recreation Authority held four meetings during fiscal year 2006-2007.

The 2006-2007 Parks and Recreation Authority members are:

Jonathan Howes Chapel Hill

Wendell Begley Black Mountain

Timothy L. Aydlett Elizabeth City

Lydia Boesch Pinehurst

Cody Grasty Maggie Valley

Eddie Holbrook Shelby Walt Israel Belmont

Ron Kincaid Mount Gilead

Dr. Kenneth M. Sadler

Lewisville

Cynthia Tart ... Oak Island

Lisa Weston Belmont

3.0 Parks and Recreation Trust Fund Summary

The Parks and Recreation Trust Fund (PARTF) is housed within the Division of Parks and Recreation, which operates the North Carolina State Parks System. The Parks and Recreation Authority allocates PARTF revenue to the state parks capital improvement and land acquisition projects. This board also selects the recipients of the grants to local governments to create or improve parks and recreational projects. The Division of Parks and Recreation, under Lewis Ledford, Division Director, develops priorities for the state parks system and recommends projects for the board's approval. Once the board has allocated the PARTF funds, the Division manages the projects for state parks and for the grants program.

The Division of Parks and Recreation transfers 5% of PARTF revenue to the Division of Coastal Management (DCM) for the Coastal and Estuarine Water Beach Access Program. The Division of Coastal Management, under the direction of Charles Jones, administers these funds and offers matching grants to local governments throughout the 20 coastal counties.

Table 3-1 shows the revenues received into the Parks and Recreation Trust Fund and the allocation of revenues by program for fiscal year 2006-2007.

Table 3-1 Parks and Recreation Trust Fund (PARTF) Deposits and Distribution of Revenues Fiscal Year 2006-07

Déposits	Añ Añ	nount
Total 2006-2007 PARTF Revenues	\$	57,009,842
Personalized Registration Plates	\$	1,379,497
Excise Tax	\$	55,630,345
Distribution	An	nount:
Public Beach and Coastal Waterfront		
Access Program	\$	2,850,492
Local Governments Matching Grants		
Program	\$	16,868,744
State Parks System		
Land Acquisition	\$	17,927,500
Capital Improvements	\$	17,601,760
COPs Repayment	\$	1,019,686
Administrative Expenses		
Contract with NCSU		
Recreation Resources Service	\$	231,038
Division of Parks & Recreation		
staff and Authority members	\$	510,622

4.0 Grants Program for Local Governments

4.1 Program Description

The Parks and Recreation Trust Fund (PARTF) program provides dollar-for-dollar grants to local governments. All counties, incorporated municipalities and public authorities (as defined in N.C.G.S. 159-7) are eligible for funding. Two or more local governments may apply jointly. Recipients can acquire land to use for public recreation or to protect the natural or scenic resources of the property. Recipients can also use a grant to build or renovate recreational and support facilities. All facilities must serve the general public.

In September, the Division of Parks and Recreation (DPR) mails a description of the PARTF program and a schedule to local governmental officials and parks and recreation directors. A local government can request a maximum grant amount of \$500,000 in PARTF assistance with its grant application. The approved value of land that is donated to a local governmental unit or public authority may be applied to the 50% matching requirement.

The DPR provides assistance to local governments in several ways. In October, the PARTF staff conducts a workshop where local governments can learn about the program and how to complete an application. The workshop is presented simultaneously at University of North Carolina video conference sites. The DPR has a contract with the Recreation Resources Service (RRS) at North Carolina State University. The staff of RRS can provide technical assistance to local governments who request help in planning projects and preparing grant applications. RRS has six consultants in regional offices across the state.

The members of the Parks and Recreation Authority select which applicants will receive a grant. The factors considered by the Authority as it selects recipients include, but are not limited to, the criteria contained in the PARTF scoring system, the population of the applicant, the geographic distribution of projects across the state, the presence or absence of other funding sources and compliance with prior grant agreements.

Applications are due January 31. The Parks and Recreation Authority meets in May to select recipients from PARTF revenues received for the first three-quarters of the fiscal year. The Authority meets in early July to select grant recipients from PARTF revenues received during the fourth quarter of the fiscal year.

4.2 Description of Applications and Grants

The PARTF allocated to local grants for fiscal year 2006-2007 were \$16,868,744. Eighty units of local government submitted PARTF applications requesting a total of \$24.8 million in PARTF assistance. The Authority awarded 54 grants for \$17,087,005. The difference between the amount awarded and the fiscal year revenues is \$497,141. The additional funds are \$278,880 from the balance reverted from FY2006-07 PARTF administrative portion, and \$218,261 is from various cancelled projects or reductions in the scope of work or projects completed under budget.

Table 4-1 shows a list of the projects approved for fiscal year 2006-2007. The table is organized alphabetically by recipient.

4.3 Geographic Distribution of Grants

The members of the Parks and Recreation Authority consider the geographic distribution of funds across the state as one of the factors used in selecting grant recipients. After ten funding cycles, the Authority has awarded over \$107 million in PARTF grants to 542 projects in 99 counties across North Carolina. Figure 4-1 (page 7) are maps showing the distribution of PARTF grants by county across North Carolina from 1995-2007.

Table 4-1 North Carolina Parks and Recreation Trust Fund Grants Approved Fiscal year 2006-07			
	County ::	Project	Grant Amount
,		Beaver Creek Parkway - Phase	
Apex	Wake	1B	\$277,865
Archdale	Randolph	Creekside Park Expansion	\$464,469
		Family Central Recreation	
Ashe	Ashe	Complex Expansion	\$499,968
Asheboro	Randolph	Zoo City Park	\$500,000
Black Creek	Wilson	Town Park Redevelopment II	\$82,123
		Robbins Memorial Pool Park	
Blowing Rock	Watauga	Enhancement	\$500,000
Clinton	Sampson	Sampson Center Improvements	\$52,967
Columbus	Columbus	Riegelwood Park	\$49,823
Cornelius	Mecklenburg	Westmoreland Athletic Complex	\$500,000
Cramerton	Gaston	Goat Island	\$500,000
Currituck	Currituck	Carova Beach Park	\$254,905
Dare	Dare	Kitty Hawk Park Land Acquisition	\$500,000
Elizabeth City	Pasquotank	South Park Sports Complex	\$482,000
Erwin	Harnett	Municipal Park Renovations	\$395,000
		Faison Park and Recreation	
Faison	Duplin	Center	\$250,000
Franklin	Franklin	Pilot Lion's Community Park	\$131,959

Graham	Alamance	Graham Civic Center	\$280,000
Greensboro	Guilford	Keeley Park	\$500,000
Hoke	Hoke	Hoke Community Forest	\$500,000
Lewisville	Forsyth	Jack Warren Park - Phase I	\$500,000
Liberty	Randolph	Freedom Park Improvements	\$38,278
	Franklin	Joyner Park Phase II Acquisition	\$426,300
Louisburg	L	Mt. Ida Wilderness Area	·
Marion	McDowell		\$165,000
Morrisville	 Wake	Indian Creek Greenway Trailhead	\$255 500
		Ararat Riverside Park - Phase I	\$355,500
Mount Airy	Surry	Ararat Riverside Park - Phase I	\$500,000
Mount	Caharrus	Madiliator Dark Ballfield Lighting	¢7 700
Pleasant	Cabarrus	McAllister Park Ballfield Lighting	\$7,700
New Bern	Craven	Stanley White Center Renovation	\$500,000
Oak Island	Brunswick	Oak Island Teen Center	\$99,000
Orange	Orange	Cedar Grove Community Park	\$500,000
Oxford	Granville	Oxford Athletic Park Phase II	\$405,776
Pasquotank	Pasquotank	River Road Sports Complex	\$500,000
		County Community Center	0404 405
Perquimans	Perquimans	Phase II	\$431,125
Person-			
Caswell Lake	5		
Authority	Person	Nature Learning Area	\$19,687
Pittsboro	Chatham	Pittsboro Town Park	\$450,000
Pittsboro	Chatham	Pittsboro Recreation Complex	\$341,541
River Bend	Craven	River Bend Town Commons	\$30,533
Rolesville	Wake	Main Street Park Expansion	\$250,000
	.	Rutherfordton Clubhouse	
Rutherfordton	Rutherford	Renovation	\$305,749
Sawmills	Caldwell	Veterans Memorial Park	\$427,637
Snow Hill	Greene	Greene Community Center	\$211,575
Southport	Brunswick	Lowe White Memorial Park	\$194,404
Spindale	Rutherford	House Gym Renovation	. \$43,736
Statesville	Iredell	Statesville Recreation Center	\$500,000
•	:	Summerfield Community Park	
Summerfield	Guilford	Phase II	\$492,120
Surry	Surry	Mountain Park Community Park	\$230,500
Tabor City	Columbus	Athletic Park Expansion	\$52,500
Teachey	Duplin	Teachey Town Park	\$30,000
Wadesboro	Anson	Wadesboro Park	\$174,798
Warsaw	Duplin	Community Recreation Complex	\$500,000
Wilkesboro	Wilkes	Cub Creek Park Enhancement	\$128,425
Wilson	Wilson	Burt Gillette Athletic Complex	\$500,000
Yadkinville	Yadkin	Community Park	\$399,463
		Bill & Angie Luddy Recreational	Control Contro
Youngsville	Franklin	Facility	\$154,579
Zebulon	Wake	Zebulon Community Center	\$500,000
		Total	\$17,087,005

Figure 4-1- The distribution of PARTF Grants by county 1995-2007

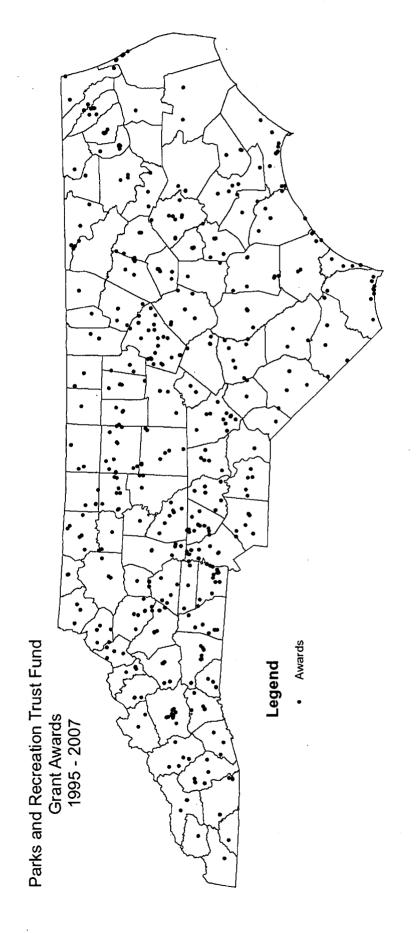
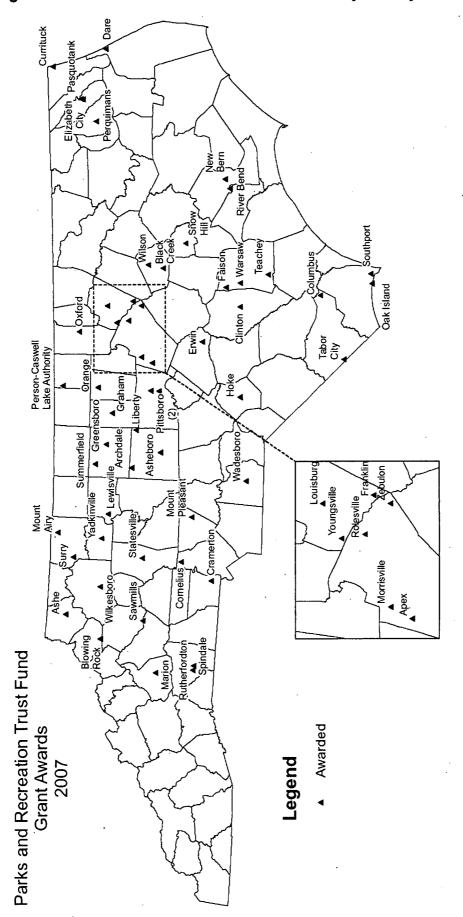


Figure 4-2- The distribution of PARTF Grants by county from 2007 Grant Cycle



5.0 State Parks Program

5.1 Land Acquisition

For fiscal year 2006-2007, the Parks and Recreation Authority approved \$17,927,500 for land acquisition projects in the state parks system (Table 5-1). These projects will help address the need for additional acreage at 15 state parks. However, it will cost an estimated \$176 million to purchase the 43,752 acres needed to complete all of the current state park units. Additionally, through its "New Parks for a New Century" initiative, the Division of Parks and Recreation has identified over 40 sites across the state that could be added as potential state park units. These areas are some of the most treasured and threatened natural resources in North Carolina and have been identified as high priority acquisitions to the state parks system. Purchasing these new units would require an estimated \$454 million to acquire 113,625 acres.

Table 5-1 North Carolina Parks and Recreation Trust Fund Land Acquisition Projects Approved for FY 2006–07

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	Acres	Description Description	्रे- Cost
Crowders Mountain State Park	57	Tracts on the slopes of Crowders Mountain for resource protection	\$450,000
Sandy Run Savannas State Natural Area	43	Property on Sandy Run to protect natural resources and buffer Camp Lejuene and a ranger residence	\$252,500
Elk Knob State Natural Area	800	Multiple tracts for resource protection on the slopes of Elk Knob and at The Peak	\$1,220,000
Eno River State Park	11	Tracts at the Cabelands and along the river	\$1,080,000
Hickory Nut Gorge State Park	194	Chimney Rock Park, Rumbling Bald tracts, Worlds Edge tracts for the protection of resources	\$8,500,000
Lake Norman State Park	54	Tract to expand land base for trails and to protect water quality	\$1,000,000
Lea Island State Natural Area	20	Property at the southern most end of Topsail Beach for the protection of natural resources and public recreation	
Lower Haw River State Natural Area	50	Tracts for the protection of the Haw River corridor in Chatham County	\$500,000
Medoc Mountain State Park		Three tracts along Little Fishing Creek for resource protection (former International Paper tracts)	
Mount Mitchell State Park	10	Tract with park on two sides to protect natural resources and view from Mount Mitchell	\$100,000
New River State Park	22	River corridor tracts for resource protection and public access	\$500,000
Pettigrew State Park	200	Multiple tracts along the Scuppernong River for resource protection	\$250,000
South Mountains State Park	1 1 1 1 1	Multiple tracts in Jacobs Fork and on the west side of the park for resource protection	\$600,000
Stone Mountain State Park	75	Tracts on the escarpment for natural resource protection	\$800,000
William B Umstead State Park	5	Small acreage tract on the eastern side of the park to protect natural resources with house	\$525,000
Totals	2,566	·	\$17,927,500

5.2 Construction and Renovation

During fiscal year 2006-2007, the Parks and Recreation Authority approved state park construction and renovation projects totaling 17,601,778 (Table 5-3). With PARTF funds, the Division continues to address a lengthy backlog of construction and renovation projects in the state parks system. However, approximately \$335.4 million is required to meet all of the needs for new construction and renovation for state parks.

	Table 5-2 North Carolina Parks and Recreation Trust Fund Capital Improvement Projects for Fiscal Year 2006-07			
	Park Park	Project	Cost(\$)	
1	Park System	Major Maintenance Funds	\$1,200,000	
2	Park System	Trail Maintenance Funds	\$500,000	
3	Park System	Exhibit Maintenance Funds	\$250,000	
4	Park System	Statewide Construction Reserve	\$785,803	
5	Cliffs of the Neuse	Visitor Center & EADI Office (Design)	\$500,000	
6	Carolina Beach	Marina Dredging & Facility Design Improvements	\$200,000	
7	Fort Macon	Coastal Education Center & Exhibits	\$2,203,477	
8	Gorges	Phase I, Roads, Parking Lots, UG Utilities	\$4,672,749	
9	Haw River	Brown Summit Repairs/Renovations	\$1,149,886	
10	Lake James	Paddy's Creek Development – Phase I	\$5,153,792	
11	Stone Mountain	Group Camp Development, Areas 3, 4, & 5	\$836,053	
	Park System	Natural Resources Fund – Stone Mountain State Park Trout Management Study and Lake James State Park Archaeological Resource Study	\$150,000	
TOTAL	TOTAL FOR FY 2006-2007 \$17,601,760			

5.3 Special Financing for Projects in State Parks

Previous Legislation

The General Assembly passed House Bill 1264 in July 2004. Governor Easley signed the bill on August 5, 2004. The law authorizes the State to use special indebtedness, commonly referred to as "certificates of participation" or COPS, to finance land acquisitions for conservation purposes. The law also authorized the use of COPS to finance health and education projects in the University of North Carolina system and for youth development centers.

Specifically, the law authorizes the State to issue or incur special indebtedness to finance the acquisition of property for three programs:

- The Parks and Recreation Trust Fund to buy land and build park facilities for the State Parks System;
- The Natural Heritage Trust Fund to acquire land that represents the ecological diversity of the state and land for state parks, wildlife areas, and similar public purposes;
- The Clean Water Management Trust Fund to acquire buffers that help to conserve surface water and drinking water supplies as well as to restore wetlands.

The law authorizes the governing body of each fund to allocate a portion of its stream of income for debt service on debt incurred to acquire property. The three trust funds must work together to keep the total debt below the maximum dollar amounts for the authorized projects. The authorization is limited to a total of \$45 million as follows:

- \$20 million to acquire up to 17,000 acres near North Carolina military bases in order to prevent encroachment by incompatible development.
- \$25 million to acquire up to 6,000 acres to expand an existing state park, provide game lands to help protect North Carolina's rivers, provide two new state parks along North Carolina's rivers and to provide capital improvements to an existing state park as part of its expansion.

The Parks and Recreation Authority may allocate up to 50% of the portion of the Parks and Recreation Trust Fund dedicated for projects in state parks to repay the debt. The PARTF revenue designated for grants to local governments cannot be used to repay debt. This year's principal plus interest payment is \$1,019,686.

6.0 Public Beach and Coastal Waterfront Program

6.1 Program Description

North Carolina's Public Beach and Coastal Waterfront Access Program was established by the General Assembly in 1981. In fiscal year 1996-97, the program began receiving 5% of the revenues from the Parks and Recreation Trust Fund. The program enabling legislation (GS 113A-134.1) states that public purpose would be served by providing increased access to coastal waters, public parking facilities, or other related public uses.

The program provides matching grants to local governments for low-cost capital projects designed to improve pedestrian access to the state's beaches and waterways. The program, administered by the Division of Coastal Management (DCM), offers matching grant funds to local governments throughout the 20 coastal counties. Since 1981, over 300 public access sites have been either constructed or improved at a cost of over \$30 million (\$18 million state/federal and \$12 million local funds). Local governments are responsible for construction, operation and long-term maintenance of the facilities. While most of the early projects were located along the oceanfront, more and more projects are now designed to improve access to estuarine shorelines, coastal rivers, and urban waterfronts.

The Division of Coastal Management sends pre-application requests for proposals (RFP) to local governments in the 20 coastal counties in the late fall of every year. Select communities are then invited to submit a final application with communities prioritized for funding being accomplished in May of every year. Recipients are usually selected in July and contracts are awarded in between September and January. Grant recipients have eighteen months to complete their projects. However, extensions are granted for un-foreseen events and delays such as hurricanes.

The division uses criteria developed by the Coastal Resources Commission to select grant recipients. Local governments are required to match from 10% to 25% of the project costs depending on whether the request is for acquisition of land or improvements, as well as the communities' economic status.

The match rates are based on recent rule changes that also allow Federal and other State funds to be used as the local government cash contribution provided such funds are not already being used as matching funds for other state and federal programs. Economic status is based on the North Carolina Department of Commerce's Tier designations, as outlined by the Lee Act (G.S. 105-129.3). Counties designated as Tier 1 and Tier 2 and the municipalities located within them are considered economically distressed. Projects that are listed on Table 6.1 are the first to be able to take advantage of these rule changes.

6.2 Types of Projects Funded

Communities can apply for five different types of water access sites: local, neighborhood, regional, multi-regional and urban waterfront redevelopment projects.

- Local access sites include public access points, offering minimal, or no facilities.
 Pedestrians who reside within a few hundred yards of the site primarily use them.
 Generally, these access ways are a minimum of ten feet in width providing only a
 dune crossover or pier. Vehicle parking is generally not available at these access
 sites. Bicycle racks may be provided as well as litter receptacles and access
 signs.
- Neighborhood access sites are public access areas offering parking, usually for five to twenty-five vehicles, a dune crossover or pier, litter receptacles and public access signs. Such accesses are typically 40 to 60 feet in width and are primarily used by individuals within the immediate subdivision or vicinity of the site. Restroom facilities may be installed.
- Regional access sites serve the public throughout an island or community including day visitors. These sites normally provide parking for 25 to 80 vehicles, restrooms, a dune crossover, pier, foot showers, litter receptacles, and public access signs. Where possible, one-half acre of open space in addition to all required setback areas should be provided for buffering, day use, nature study or similar purposes.
- Multi-regional access sites are generally larger than regional accessways but smaller than state parks. Multi-regional facilities provide parking for 80 to 200 cars, restrooms with indoor showers and changing rooms, and concession.
- Urban waterfront redevelopment projects improve public access to urban waterfronts. Such projects include the establishment or rehabilitation of boardwalk areas, shoreline stabilization measures such as the installation or rehabilitation of bulkheads, and the placement or removal of pilings for the purpose of public safety and/or increased access and use of the urban waterfront.

Additionally as part of recent rule changes, boat ramps and motorized boating facilities may be funded provided the pedestrian access is also part of the project.

6.3 PARTF Revenues and Awards Based on 2006-2007 Fiscal Year Deposits

Historically DCM has pre-determines funds available, by using PARTF revenues from the last quarter of the previous fiscal year (ex: 2005-06), and the first three quarters of the more current (2006-07) fiscal year. Beginning this reporting cycle, multiple fiscal year deposits will not be used as the basis for awards only deposits from the past fiscal year along with remaining funds not previously awarded and other un-encumbered funds from earlier contracts.

The actual amount transferred from the PARTF fund to DCM during fiscal year 2006-2007 was \$2,850,492. For this year's report the total funds available was \$3,715,492. (see Table 6-1).

The DCM received 41 pre-applications from 24 local governments requesting over \$7,139,000 in funds. Table 6-2 is the list of local governments prioritized to receive funding following review of final applications. DCM has prioritized \$3,018,248 for grant contracts to begin the fall of 2007.

TABLE 6-1 Division of Coastal N Distribution of PARTE Revenues fi	lanagement rom 2006/2007
PARTF 1 st quarter 2006-2007 deposit received	\$817,521
PARTF 2 nd quarter 2006-2007 deposit received	\$744,390
PARTF 3 rd quarter 2006-2007 deposit received	\$662,471
PARTF 4 th quarter 2006-2007 deposit received	\$626,625
Annual Fiscal Total 2006-07	\$2,850,492
Estimated reserve carryover funds not awarded during last grant cycle and from canceled projects and projects completed under budget as well as PARTF 4 th quarter deposit from 2005-2006	\$865,000
Total Funds Available for fiscal year (Contracts are intended to be awarded November 1, 2007)	\$3,715,492
Prioritized Awards	\$3,018,248
Note a reserve is kept to pay for both replacements of existing weathered access signs as well as new sites.	(\$15,000)
Projected Balance	\$682,244

TABLE 6-2 Communities Prioritized for 2007-2008 Funding Based on 2006-2007

Deposits

1 1 0	ACTION OF THE PROPERTY OF METALORISM PORT OF THE PROPERTY OF T	Grant	Total Cost
Local Government	Project Name	Requests	w/Match
Ahoskie	Recreational Land Acquisition	\$51,626	
Bayboro	Bayboro Waterfront Park Phase III	\$16,750	\$23,398
	Cape Fear Blvd. Beach Restroom		
Carolina Beach	Renovation	\$15,000	\$20,000
Emerald Isle	McLean Park Pier & Bathhouse	\$108,750	\$145,000
Kure Beach	Atlantic Ave. Boardwalk Extension	\$222,356	\$296,475
Leland	Mill Creek Land Acquisition	\$255,000	\$300,000
Morehead City	Newport River Access Boatramp	\$600,000	\$767,000
New Bern	Queen Street Water Access	\$28,635	\$36,935
New Bern	Pollack Street River Access	\$12,559	\$16,199
New Hanover	Ft. Fisher Basin Regional Access		
County	Improvements**	\$200,000	\$264,500
Oak Island	SE 59 th Street Beach Access Parking	\$6,500	\$13,950
Oak Island	61st Street Beach Access Parking	\$6,500	\$13,950
	Shallotte Blvd. Recreation Area		
Ocean Isle Beach	w/Parking	\$278,891	\$371,855
Ocean Isle Beach	Durham Ave. Dune Crossover	\$19,583	\$26,111
Pamlico County	Styrontown Beach Access Pier	\$25,376	\$33,837
Perquimans	Perquimans Community Center		
County	Pier/Kayak Acc	\$81,000	\$108,000
	Plymouth Waterfront Restoration Phase		
Plymouth	#I	\$113,085	\$125,650
Southport	Fort Johnston Waterfront Boardwalk	\$400,000	\$680,000
Surf City	Surf City Family Park Pier	\$216,000	\$288,000
Swansboro	Dockwalk Observation Deck	\$68,349	\$90,963
Topsail Beach	Trout Ave. Acquisition	\$61,625	\$82,050
Topsail Beach	Catherine Ave. Beach Access	\$23,971	\$33,537
Tyrrell County	Eastern 4-H Center Wetland Boardwalk	\$136,500	\$152,225
Wilmington	River Road-Barnards Creek Access	\$70,192	\$93,589
	Totals	\$3,018,248	\$4,040,086

The above totals may be adjusted during the final contract process.

^{**} Project expected to include participation with the Wildlife Resources Commission. Note that this project originally expected to be awarded last year (2006/2007) however additional design work was necessary to ensure cost estimates were appropriate.



Annual Update for Environmental Review Commission Lisa Riegel Executive Director (919) 715-8014 April 7, 2008

MISSION protect natural & cultural heritage lands

- Recreation, scientific, education, cultural and aesthetic purposes
- Additions to state parks, trails, forests, wildlife areas
- Historic properties program
- Other beneficial use and enjoyment by the public



Natural Heritage Program

- ID most important natural areas in state
- 83 of 100 Counties complete; 6 ongoing
- Statewide Conservation Planning Tool (Map)

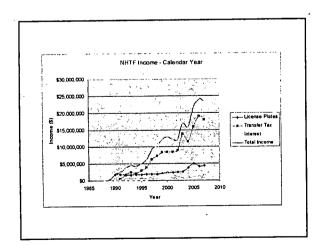


One NC Naturally Conservation Planning Tool January 2008 Biodiversity / Wildlife Habitat Assessment

Program Overview

- Established 1987
- 12 member citizen board
- Accepts applications from 4 state agencies: DENR, DoACS, DCR, WRC
- Awards twice a year





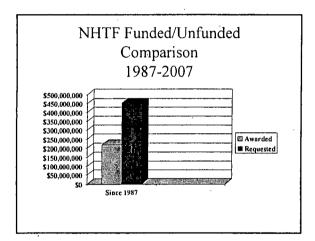
NHTF 2007 Income

 Real Estate Tax
 \$17,913,062

 License Plate Fee
 \$ 4,317,063

 Interest
 \$ 1,317,692

 Total
 \$23,547,817



2007 Awards

- 44 Projects
- >20,000 Acres
- \$36,149,061

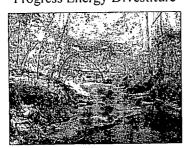


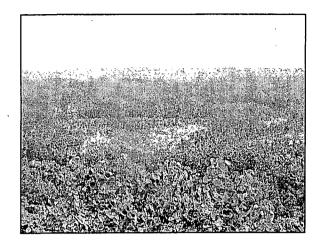
NHTF Funded/Unfunded Comparison 2007 \$59,000,000 \$40,000,000 \$33,000,000 \$33,000,000 \$22,000,000 \$15,000,000 \$15,000,000 \$15,000,000 \$51,000,000 \$51,000,000 \$50,000 \$50,000 \$50,000 \$50,000 \$50,000 \$50,000 \$50,000 \$50,000

2007 COPS

- · Cedar Cliff, Jackson
- Eastwood, Moore
- · Tater Hill, Watauga
- Chimney Rock, Rutherford
- Elk Knob, Ashe, Watauga
- Deep River, Lee Co.
- · Pettigrew, Tyrrell
- Juniper Creek IP, Brunswick & Columbus
- · Kassab, Onslow
- McCotter-Bordeaux, Onslow
- TOTAL \$11 million

WRC – Diggs Property Progress Energy Divestiture





WRC - Kassab Tract Military Buffer

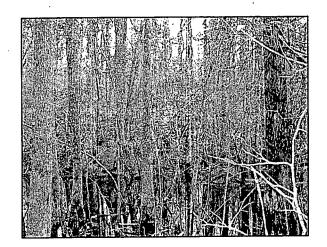
- 50% Military Match (\$375,000)
- Provide linking habitat for RCW, Bachman's sparrow; wellands
- 55 acres adjacent to Stones Creek Game Land and Camp Lejeune training area



WRC – Juniper Creek International Paper

- Nationally Significant Aquatic Habitat
- \$6,555,883 (plus previous grant of almost \$1 million)
- 7,236 acres
- CWMTF





WRC – New Hope Valley Forest

- Chatham & Durham Counties
- Bald Eagle Nesting Habitat
- Easily accessible to urban population
- · Protect water resource



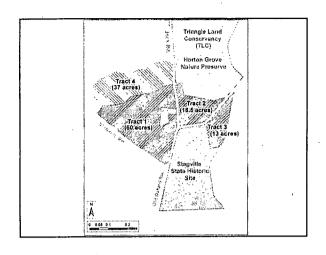
Stagville State Historic Site Land Acquisition

Durham County



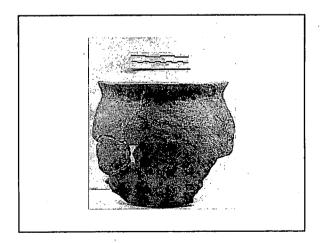
Bennehan House

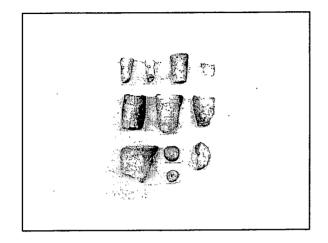








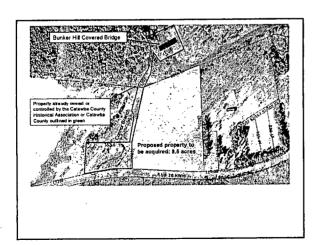






Dept. of Cultural Resources
Bunker Hill Covered Bridge
Claremont, Catawba County





DCR - Valle Crucis Mast General Store

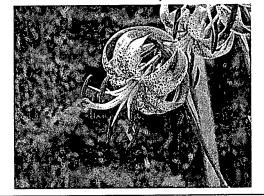


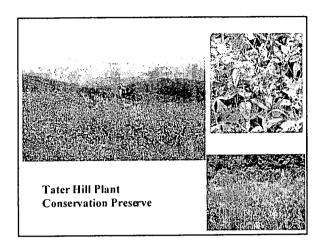
Ag's Plant Conservation Program Eastwood Plant Preserve

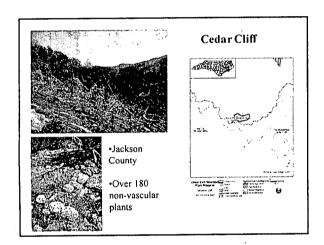


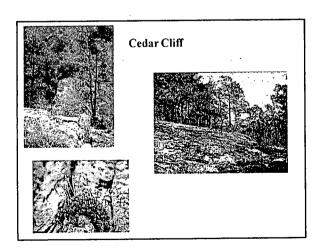
- First Preserve in Moore County
- Additional 127 acres
- High quality, scenic longleaf pine forests
- Rare, threatened and endangered species

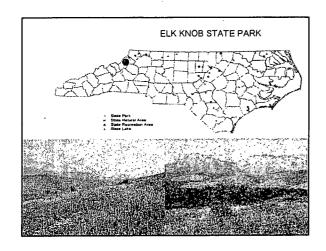
Sandhills Lily

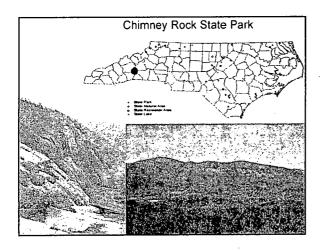


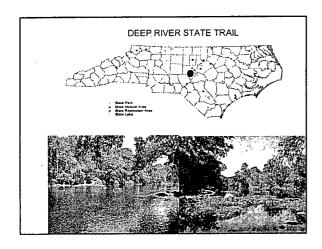


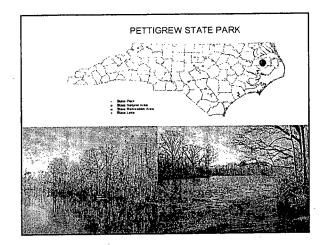












Partnerships

- Project coordination with Clean Water Management Trust Fund, and Park & Recreation Trust Fund
- Frequent coordination with applicant agencies, private donors and conservation groups
- Most projects have matching funds or landowner gifts
- Leverage Federal Funds





Additional Information

Lisa.riegel@ncmail.net (919) 715-8014

Goordlinated Serfes of Natural Resource Assessments will address:

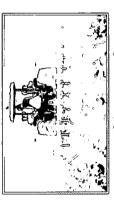
- Biodiversity of aquatic and terrestrial species and communities
- Large scale landscapes, including core wildlife habitats and habitat connectors
- Lands important to ecosystem processes, such as riparian buffers and wetlands
- Existing and planned permanent conservation lands that are actively managed by a public entity
- · Water quality
- Watter quantity
- Water consumption
- Farm and forestry priority areas, including lands and agricultural support infrastructure
- Coastal Habitett Protection Plan prilority
- High value forest resources that provide forest products and ecosystem services
- Threatened forest resources that are at risk from willdfilm, pests, disease or forest fragmentation

10,300 capars of the public stocament wave printed at a cost of \$1,200,005 or \$6,120 each.



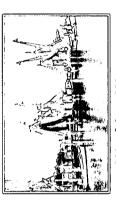
Forever Natural

Conserving Natural Areas for Future Generations



Workling Lands

Stewardship of Workling Farms and Forests



Workling Waters

Protectling and Restorling Coastal Habitats

For more information:

www.oneNCnaturally.org

or

Kim Douglass - DENR Conservation Planner

Kim.Douglass@ncmail.net

(919) 715-7807



North Carolina's Population ls Growing Fast . . .

- 21 people move to N.C. every hour that's more than 500 people per day.
- By 2030, North Carolina population will increase 50 percent to 12 million.

Water is NOT! But Our Supply of Land and

- At least 383 acres per day are converted developments. to new roads, shopping malls and housing
- North Carolina leads the U.S. in lost farm in 10 years. and forest land - more than 1 million acres
- The pressure on our natural resources will continue to increase.

Benefiks Provided by Our Natwral Resources

- Clean and abundant water supply
- Native wildliffe and plants
- Scenic beauty and outdoor recreation
- Mittigattion of droughts an
- ood and wood page to the

and a supporting framework. Decision makers need accurate information Develop . . . or leave naturai?

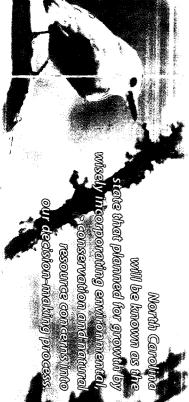


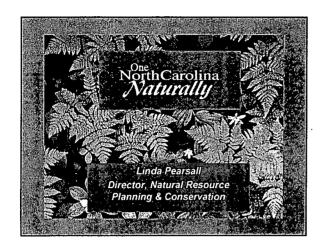
planning efforts accurate information to support land use A comprehensive reference that provides

- NOT a regulatory tool to direct growth
- resource information Integrated source of high quality natural
- independently or in combination Six assessment maps can be used
- benefits for compatible uses identification of lands that provide multiple
- conservation and restoration opportunities Ranking system helps prioritize

Environmentally Sensitive Way Planning for Growth in an

- Helps local governments plan future water avoiding sensitive areas. wastewater and transportation projects while
- Reduces the need for expensive stormwater management, flood control and restoration
- a unifying vision for the future, for win-win Informs future growth patterns and provides scenarios.
- 4 Coordinates and guides compatible land use planning across jurisdictions - local, regional
- 5 Coordinates existing conservation programs and increases overall effectiveness and
- 9 Enables cost-effective investment of tax vulnerable remaining lands. dollars towards our most precious and
- ٧ Ensures that ecosystems in each region continue to provide clean air and water







Overview

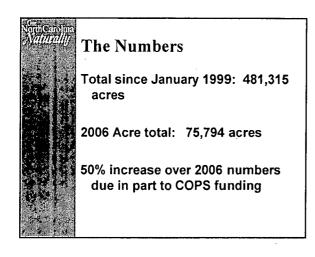
- Million Acres Report
- Conservation Easement Programs
- Natural Heritage Program

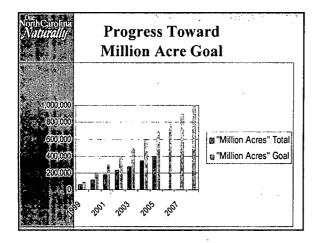


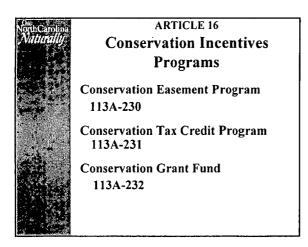
Million Acres Report 2006 Data

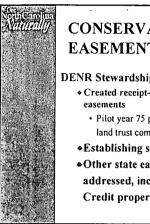
General Assembly established Million Acres Initiative in 1999

- *Requires permanent conservation
- 10 years allowed to acquire additional million acres 1999 -2009.









CONSERVATION **EASEMENT PROGRAM**

DENR Stewardship Program

- Created receipt-funded position for EEP
 - · Pilot year 75 projects monitored with help of land trust community
- ·Establishing standard processes
- Other state easements need to be addressed, including Conservation Tax Credit properties



Conservation Grant Fund

Military Support Act 2006

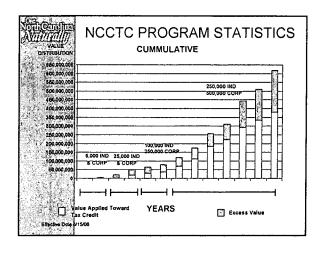
• successfully funded 16 projects Benefiting Camp Butner, Ft. Bragg, Camp Lejeune, Pope Field

Stewardship Endowment



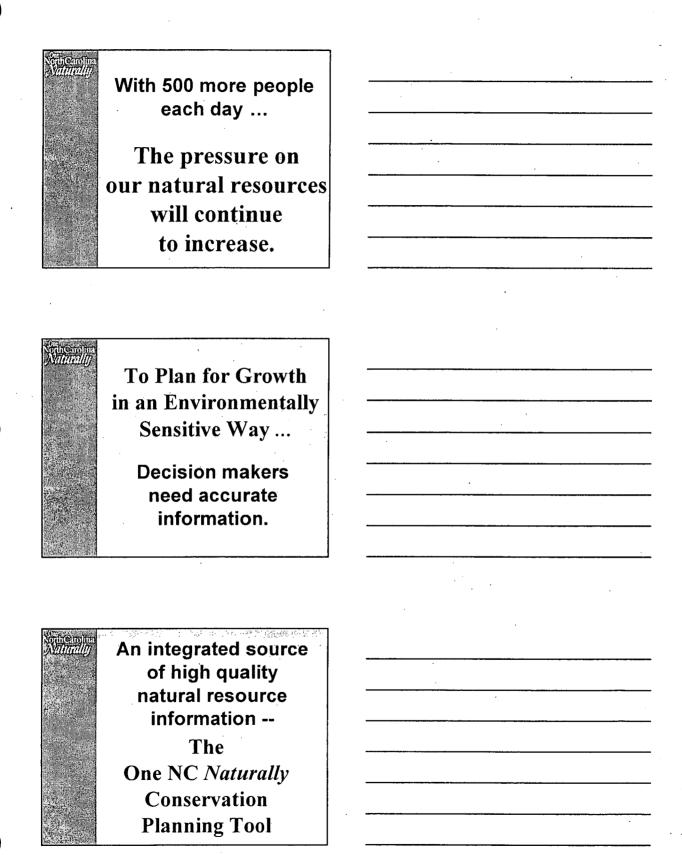
CONSERVATION TAX CREDIT PROGRAM

- •As of 2006 tax year:
 - •168,000 acres
 - •valued in excess of a reported \$732 million
- •Program is undergoing review of all procedures and policies



Conservation Planning with the One NC Naturally Conservation Planning Tool

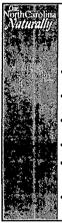
NC's population is
growing fast
But our supply of
land and water
is NOT!





Conservation Planning Tool can be used to:

- Coordinate conservation efforts
- Inform funding decisions
- Guide future conservation and compatible land use planning



6 Coordinated Natural Resource Assessments

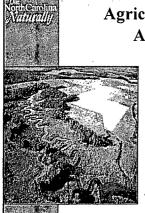
- Water Services
- Agricultural Lands
- Marine / Estuarine Ecosystems
- Forest Lands
- Open Space & Conservation Lands
- Biodiversity / Wildlife Habitat



Water Services Assessment

- Water quality
- Water quantity
- Water consumption

*available June 2008



Agricultural Lands Assessment

- Farm & Forestry priority areas
- Includes both agricultural land & support infrastructure for agribusiness

*available June 2008

Marine / Estuarine Ecosystems Assessment



- Coastal Habitat Protection Plan (CHPP) priority areas
- Includes 6 fish habitats –
 e.g. oyster beds, submerged
 vegetation, wetlands
- Water quality protection from sediment, stormwater, wastewater

*available 2009

Forest Lands Assessment



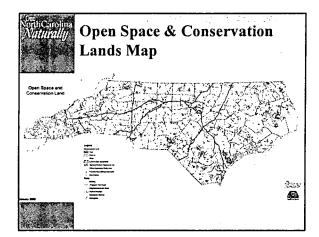
- Economically sustainable forestry industry
- High value forest resources that provide forest products & ecosystem services
- Threatened forest resources at risk from wildfire, pests, disease or forest fragmentation

*available June 2008

Open Sp La

Open Space & Conservation Lands Assessment

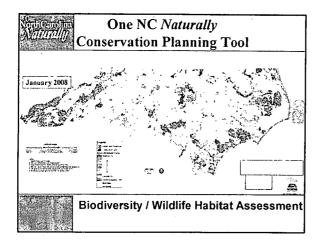
- Conservation lands both existing and planned
- Managed for conservation by public agencies

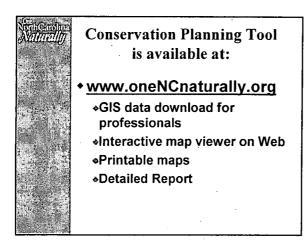


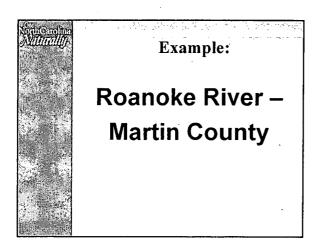
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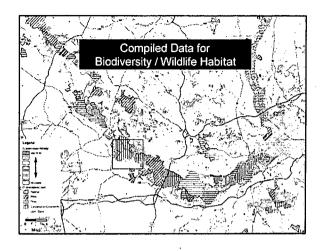
Biodiversity / Wildlife Habitat Assessment

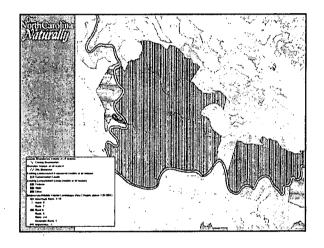
- Aquatic & terrestrial species and communities
- Large scale landscapes –
 Core habitats and connectors
- Lands important to ecosystem processes e.g. wetlands, riparian buffers

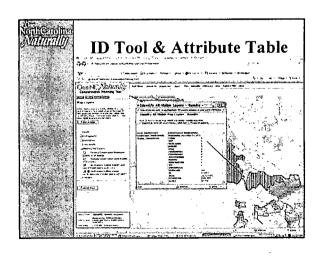


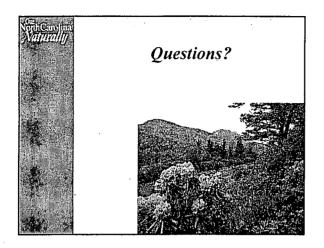












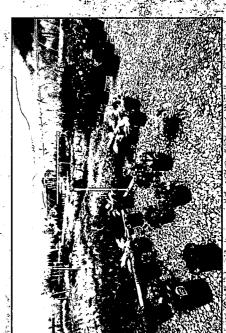
Public Benefits of Agricultural Districts

In addition to providing direct benefits to landowners, Voluntary Agricultural Districts offer the following advantages for the general public:

- providing a voluntary way to support the conservation of rural communities;
- conserving rural lands without adding significant expenses to local government or impacting the tax base;
 - supporting each community's rural heritage and economy, and providing local jobs and tax income;
 - maintaining scenic views and tourismbased economic activity;
- providing fresh food, flowers, and other local farm products for residents and visitors;
- supporting clean air and water;
- providing wildlife habitat;
- · maintaining lower levels of traffic and

county and local government.





For More Information

The exact provisions of each VAD and EVAD ordinance may vary from one county or municipality to the next. North Carolina State University and North Carolina Cooperative Extension maintain a website with links to existing VAD and EVAD ordinances in each participating county and municipality in North Carolina, as well as model ordinances and other related information:

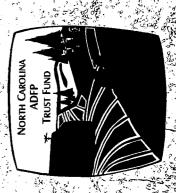
www.cals.ncsu.edu/wq/lpn/modelordinances.htm

For more information or to apply to enroll your land in an agricultural district, please contact your local Soil and Water Conservation District office or your local Cooperative Extension office.

The Southwestern NC Resource Conservation and Development Sound and the Bethel Rural Community Organization Trecognize and thank the Washing Community Organization Development and

Farmland Preservation Trust Fund for providin funding to develop this brochure.

developmen



All photos @Don Magoowan

Exhibit K Exhibit K Farmland Protection for North Carolina Landowners

Why is farmland protection important to North Carolina?

- Agriculture and related businesses in North Carolina are worth more than \$68 billion annually, making it North Carolina's #1 industry.
- In recent years, North Carolina has led the nation in the loss of farms. This trend threatens to impact our agricultural heritage in many different ways, from the loss of farm-related income to reduced availability of fresh food, wildlife habitat, and much more.

Voluntary Agricultural Districts

/ Voluntary agricultural districts (VADs)
recognize the importance of agriculture to the economic and social wellbeing of North Carolina by encouraging the voluntary preservation and profection of formulance from 1001-farm

Thanks to the North Carolina General
Assembly, North Carolina counties and
municipalities now have both a basic VAD
program and an enhanced VAD program to he
protect our farming heritage and in the

The information in this brochure will help you learn more about these options, what they might thean for you can participates.

Voluntary Agricultural Districts and Enhanced Voluntary Agricultural Districts: A Comparison

Enhanced Voluntary Agricultural Districts (EVAD)	Voluntary Agricultural Districts (VAD)	
Same eligibility requirements as VAD.	Farmland, forestland, and horticultural lands must meet the following criteria: the land must be part of the present-use-value taxation program or be determined eligible for present use value; and the land must be managed in accordance with USDA Natural Resources Conservation Service guidelines with respect to highly erodible land. Local governments may also require a minimum acreage and/or a minimum number of farms within a certain area to establish a new district.	Eligibility
 Landowners are eligible to receive a higher percentage of cost-share funds under the Agricultural Cost Share Program – as high as 90% assistance. State agencies, departments, and institutions that award grants to farmers are encouraged to give priority consideration to landowners participating in Enhanced Districts. All utility assessments may be suspended or waived if the land is in EVAD but not connected to the utility in question. The farm may receive up to 25% of gross sales from the sale of non-farm products and still maintain its zoning exemption as a bona fide farm. Landowners may experience fewer unsolicited requests from developers to sell the land, due to the 10-year irrevocable conservation agreement. Landowners can stabilize the use of their land while considering longer-term options, such as permanent working land conservation easements. 	 Increased protection from nuisance lawsuits if notice is provided through computerized county land records systems Public hearings for proposed condemnation of enrolled land Water and sewer assessments may be suspended or waived if the land is in VAD but not connected to the utility in question. Possible signage to publicize the land's enrollment in the program Possible flexibility in city ordinances related to farming operations within a city's planning jurisdiction Greater public awareness of the local agricultural community and increased pride in its way of life. 	Benefits
• Same conservation agreement requirement as VAD, except that the agreement cannot be revoked during the term of the agreement. • At the end of its initial term of at least 10 years, the EVAD conservation agreement automatically renews for 3 more years, unless the landowner provides a timely written notice to the county or municipality (usually a 30-day notice). Ending the agreement will result in the property no longer qualifying for the EVAD program and its benefits.	 The land must be subject to a conservation agreement between the landowner and the county or local municipality that prohibits non-farm use or development for a period of at least 10 years, except for the creation of not more than three lots that meet applicable county zoning and subdivision regulations. This agreement may be revoked by the landowner at any time, usually with only a short period of advanced notice, such as a 30-day notice. Ending the agreement will result in the property no longer qualifying for the VAD program and its benefits. 	Requirements

and 310,000 acres of farmland have been lost farmland during the last six years occurred since 2000. The largest decline in farms and In North Carolina the number of farms and farmland is steadily declining. 5,500 farms between 2004 and 2005 with number of farms dropping by 2,000 and farmland declining by 100,000 acres. *

resources needed to reinvest in their operations. their area of the state. Each year new ideas and With each loss of an acre, North Carolina loses products that once contributed to our economy. challenges. The NC Agricultural Development programs that promote sustainable agriculture, The flexibility of these funds allows counties ADFP Trust Fund will be on the forefront of new problems will face agriculture. The NC North Carolina needs a flexible farmland and nonprofits to tailor unique programs to agriculture during these times of transition: agricultural agreements, and conservation & Farmland Preservation Trust Fund will conservation program to meet today's easements; giving farm businesses the help secure these farms with grants for



* Source data provided by USDA.

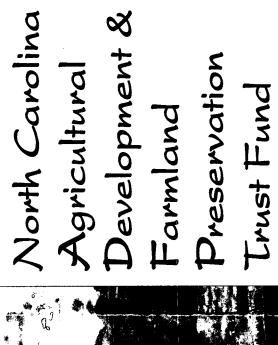


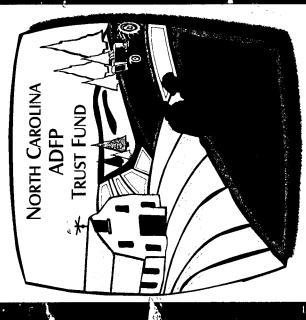
North Carolina Agricultural Development & Farmland Preservation Trust Fund

1001 Mail Service Center Raleigh, NC 27699-1001

Phone: (919) 733-7125

Online: http://www.ncagr.com E-mail: ncadfp@ncmail.net





"Preserving North Carolina's working family farms."



2,000 copies of this document were printed at a cost of

\$134.10 or \$.06 per copy.

North Carolina Department of Agriculture & Consumer Services

Steve Troxler, Commissioner



areas for the growth and development of family and allocation of funds, the development of criteria Commissioner of Agriculture on the prioritization Trust Fund Advisory Committee to advise the Fund. The legislation also established a 19-member Development and Farmland Preservation Trust House Bill 607 establishing the NC Agricultural In September 2005, the General Assembly passed farms in North Carolina. for awarding funds, program planning, and other

How can the funds be used?

- Fund public and private enterprise programs of food, fiber and value-added products, and implementing plans for the production of agricultural products produced on the agritourism activities, marketing and sales farm, and other agriculture-related business farms by assisting farmers in developing that will promote profitable and sustainable
- and other agricultural products. targeted at the active production of food, fiber Fund farmland conservation agreements
- Support the purchase of agricultural transaction costs conservation easements, including

Who is eligible to submit proposals?

- matches 30 percent of the Trust Fund monies it NC Agricultural Development and Farmland receives with funds from sources other than the -Any nonprofit conservation organization that Preservation Trust Fund
- shall match 15 percent of the Trust Fund monies Fund monies it receives with county funds. funds. Any county without a countywide farmland match the Trust Fund monies it receives with county farmland protection plan will not be required to one county (G.S. 143B-437.08) with a countywide it receives with county funds. An enterprise tier 437.08) with a countywide farmland protection plan protection plan shall match 30 percent of the Trust -An enterprise tier two or three county (G.S. 143B-

Additional Considerations:

Priorities of funds will be given to projects that

- Counties with Farm Protection Plans
- Goodness Grows farmers
- **Enhanced Voluntary Agricultural District**
- Voluntary Agricultural District farmers
- Farms with Farm Transition Plans
- Farms with Conservation Plans
- Farms with Forest Management Plans
- Limited-resource farmers
- Beginning farmers
- agricultural affiliations Groups and individuals with other

All applicants must provide documentation of membership or status.

- Preserving North Carolina's Number 1 Industry: North Carolina agricultural economy

well as increase public awareness about the and retain/create agriculture-related jobs as is an over \$68 billion business annually. The NC importance of farm families to North Carolina's the program will maintain farm family income these products for our economy. The success of economy by preserving the lands that produce ADFP Trust Fund plans to sustain this agricultural

and thus an economic benefit for any county to farmland is a net gain of revenue for the tax base of \$1.15 per dollar of taxes received. Therefore pay only 34 cents in services. However, services in taxes received from working land, governments Farmland Trust study showed that for every dollar preserve working lands. paid to residential development are an average -Countywide Economic Benefit: An American

each North Carolinian enjoys every day. Kura agricultural areas we will destroy the rustic working landscapes are an integral part of our agriculture it maintains the quality of life that industry to North Carolina. landscapes that attract and retain people and for future generations. If we do not save our heritage and economy that must be preserved -Quality of Life: When farms are kept in



What is an Agricultural District?

The purpose of the Agricultural District Program is to encourage the preservation and protection of farmland from non-farm development. This is in recognition of the importance of agriculture to the economic and social well being of North Carolina.

In Chapter 106, Article 61 of the Nőrth Carolina General Statutes, the North Carolina General Assembly authorized counties to undertake a series of programs to encourage the preservation of farmland. As a result, counties throughout the state of North Carolina have begun to adopt Voluntary Agricultural District Ordinances (VAD) and Enhanced Voluntary Agricultural District Ordinances (EVAD).

The ordinance provides for the creation of an Agricultural Advisory Board to administer this program. The Board reviews and approves applications for qualifying farmland as well as establishing the agricultural district.

What are the responsibilities of the Agricultural Advisory Board?

An Agricultural District Ordinance shall provide for the establishment of an agricultural advisory board, organized, and appointed as the country or city, that adopted the ordinance shall deem appropriate. The county or city may confer upon this advisory board authority to:

-Review and make recommendations concerning the establishment and modification of agricultural districts. -Reviewand make recommendations concerning, any ordinance on amendmentadopted or proposed for adoption.

-Hold public hearings on public projects likely to have an impact on agricultural operations, particularly if such projects involve condemnation of all or part of any qualifying farm:

-Advise the governing board of the county or city on projects, programs, or issues affecting the agricultural economy or way of life within the

-Perform other related tasks or duites assigned by the governing board of the county of city.

For more information please contact:

NC Department of Agriculfure & Consumer Services

Attn: Maximilian Merrill

1001 Mail Service Center

Raleigh, NC27699-1001

Phone: (919) 133-7625 28 Online: http://www.ncagi.com E-mail: maximilian.merrill@ncmailmet

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Theodore A. (Jed) Feitshans.

North Carolina State University

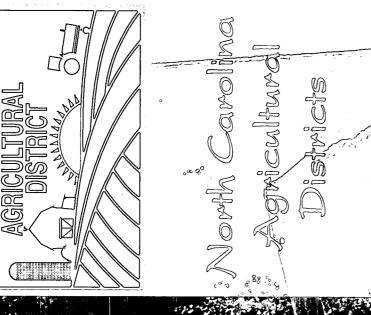
Department of Agriculture & Resource Economics

Rm 3340 Nelson Hall

Campus Box 8109 Raleigh, NC 27695-8109

S. Rhone: (919) 515-5195 E-mail: ted-feitshans@ncsu.edu

WUF ALL DEED



"A program for landowners that recognizes the importance of agricultural North Carolina and fosters the growt development. & sustainability of the growth of



2,000 copies of this document were printed at a cost of

\$134.10 or \$.06 per copy

North Carolina Department of Agriculture & Consumer Services

Steve Troxler, Commissioner

Eligibility

For Voluntary Agricultural Districts. (As defined in G.S. 106-737):

-Farm participating in the farm present-use-value taxation program (G.S. 105-277.2 – 105-277.7) or is otherwise determined by the county to meet all the qualification of this program set forth in G.S. 105-277.3.

-Farm managed in accordance with the Soil Conservation Service defined erosion control practices that are addressed to highly erodable land.

-Farm is the subject of a conservation agreement, as defined in G.S. 121-35, between the county and the owner of such land that prohibits nonfarm use or development of such land for a period of at least 10 years, except for the creation of not more than three lots that meet applicable county zoning and subdivision regulations. By written notice to the county, the landowner may revoke this conservation agreement (if a VOLUNTARY Agricultural District) Such revocation shall result in the loss of qualifying farm status.

-Other eligibility requirements required by the individual county.

For Enhanced Voluntary Agricultural Districts:

(As defined in G.S. 106-737 & G.S. 106-743):

Includes all terms of a VAD agreement plus:

- -Conservation agreement as defined in G.S. 121-35, between the county and the landowner prohibits nonfarm use or development of such land for an irrevocable period of 10 years.
- -Automatic renewal of conservation agreement for 3 years absent a written notice to the county revoking the conservation agreement as required by the ordinance.

Benefits for Farmers

For Voluntary Agricultural District:

-Recognition & public education about agriculture. Members of the program will be given signs to post, identifying their farm as a member of a preservation district, indicating to any potential neighbors and passersby that your land is committed to the preservation of the agriculture way of life.

-Increased protection from nuisance suits.

Notice on the property signaling Agricultural District membership and a notice in the computerized land record system making those within a ½ mile of an Agricultural District farm aware of the potential for noise, odor, dust, or slow moving farm vehicles associated with farming.

-Waiver of water and sewer assessments.

Landowners within Agricultural Districts who are not connected to water or sewer systems operated by the county can have water & sewer assessments waived.

-Public hearings required for proposed condemnation.

Public hearing held by the Agricultural Advisory Board if the land in an Agricultural District is considered for a public project that may condemn land.

-Eligibility for funding.

District members may be eligible for farmland preservation funds as local, state, or federal funds become available.

-Official role in county or city government.

The Agricultural Advisory Board acts as advisor to the governing board of the county or city on projects, program, or issues affecting the agricultural economy or way of life within the county or city.

For Enhanced Voluntary Agricultural District:

-All VAD Benefits Plus:

-May receive up to 25% of its gross sales from the sale of nonfarm products and still qualify as a bona fide farm that is exempt from zoning regulations under G.S. 153A-340(b).

-Eligible to receive a higher percentage of costshare funds under the Agriculture Cost Share Program pursuant to Part 9 of Article 21 of Chapter 143 of the General Statutes.

Benefits for the Public

-Preserving North Carolina's Number 1 Industry:

North Carolina agriculture is an over \$68 billion business annually. The success of the program will foster the growth, development, and sustainability of family farms as well as increase public awareness of agriculture in North Carolina.

-County-wide Economic Benefit:

An American Farmland Trust study showed that for every dollar in taxes received from working land only 34 cents in services is paid by the government. However, services paid to residential development are an average of \$1.15 per dollar of taxes received. Therefore, it is a net gain of revenue for the tax base and thus an economic benefit for any county to preserve working lands.

-Quality of Life:

When farms are kept in agriculture it maintains the quality of life that each North Carolinian enjoys everyday. Fields and woodlands are both a visual pleasure and contribute to clean air and water. Rural working landscapes are an integral part of our heritage that must be preserved for future generations. If we do not save our agricultural areas we will destroy the rustic landscapes that attracts and retains people and industry to North Carolina.

-Ability to buy locally grown products.

Maintaining the agriculture industry in North Carolina allows consumers to purchase and consume products from local agricultural producers.

Clean Water Management Trust Fund 2008 Annual Report

Environmental Review Commission

Richard Rogers Executive Director, CWMTF April 7, 2008

The Clean Water Mission

- Restore/enhance degraded waters
- Protect/conserve unpolluted waters
- · Eliminate water pollution
- Create a network of riparian buffers and greenways
- Fund innovative systems as demonstrations
- Not strictly conservation



Alligator River



The Trust Fund's Accomplishments - by the Numbers

- •4,560 miles of buffers preserved
- •435,573 acres protected
- •Over \$443.4 million invested in land and water conservation
- •135 buffer, stream and wetlands restoration projects funded totaling over \$82.5 million

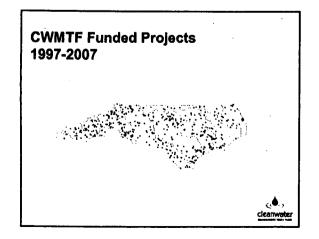


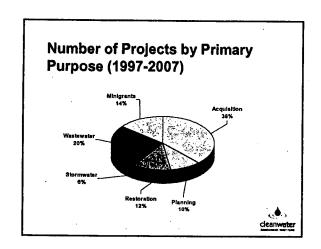
Waynesville Watershed

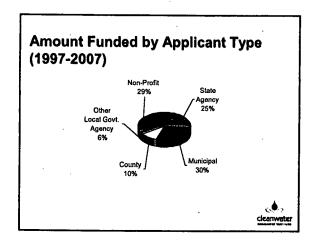


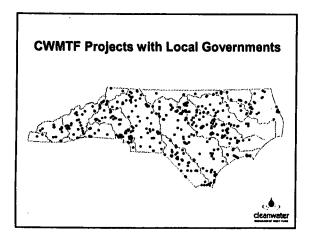
Matching Funds CWMTF has leveraged over \$1.4 billion in public and private funds Matching Funds Summary (1997A-2007 Cycles) 37% 63% Total Amount CWMTF Funded Total Amount Match

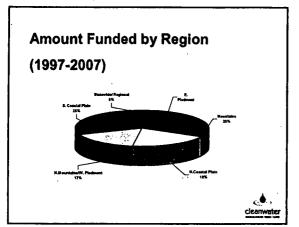
CWMTF Funded Projects 1,148 grants since 1997 Over \$832.7 million awarded Funded Projects by Project Type Whateverslaw 1915 Acquisition 1915 Programs 54 Ceromates Programs 54 Ceromates Programs 54 Ceromates Programs 54 Ceromates Programs 54 Ceromates Programs Ceromates Programs Ceromates Ceromates Programs Ceromates Cero

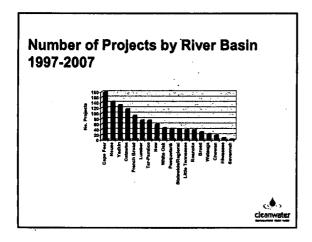












2007 Key Projects

Acquisitions - NC Division of Parks and Recreation

- $\fine \$5.4$ million to help purchase additional parklands across the state
- •Additions to:
 - ·South Mountain
 - •Eno River
 - •Stone Mountain
 - •Lake Norman
 - Pettigrew
 - •Deep River

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2007	Key	Pro	ect
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Wastewater: Harnett County

-\$500,000

- •Regionalization of wastewater treatment system
- •Protection of the Little River in the Cape Fear River Basin.





2007 Key Projects

Stormwater - Swansboro \$335,000 grant from CWMTF

- •Protects Hawkins Creek and the White Oak River
- •Implements recommendations from the Hawkins Creek Restoration Planning Study, also funded by CWMTF
- •Target stormwater management in three drainage areas
- •Construct two small wetland areas and a retention pond





2007 Key Projects

Restoration - Southwestern Resource Conservation and Development, Animal Operation Buyout

- •\$504,000 grant from CWMTF
- •Protects Hyatt Creek
- •Buy-out of two farms in the watershed
- •Reduces the amount of non-point source pollution flowing into the creek





CWMTF Focus...

- Innovative Stormwater Management
 - SB 1468
- · Organizational Assessment
 - Acquisition
- Greenways



North Carolina Clean Water Management Trust Fund

Website: www.cwmtf.net
 Application forms
 Funding criteria
 Press releases

- · Project highlights
- Meeting schedules



LAND for TOMORROW

Greater Needs, Higher Costs, More Urgency: The 2008 Land Conservation Report

The Needs are Greater, the Costs are Higher

Three years ago, Land for Tomorrow issued a "Five-Year Plan for Investing in North Carolina's Land, Water, History and Future," a report on land and water conservation needs in North Carolina. The report concluded that the state needed to invest \$200 million a year for five years to preserve and protect important natural areas before they were lost forever to development, and to strengthen our communities. Last year, the Joint Legislative Commission on Land and Water Conservation agreed with the Land for morrow conclusions, stating that "many opportunities for conservation will be lost if the state does not t quickly to secure land now ... at lower prices than in the future."

Today, in 2008, the challenges are even greater, the costs are even higher, and the opportunities to conserve land are even fewer.

- Since Land for Tomorrow's 2005 report, more than 300,000 acres of farms, forests, stream banks, scenic vistas and wildlife areas have been lost to development. That's equal to the area of Winston-Salem and High Point combined, lost each year.
- The cost of land has increased almost 300 percent in the last 10 years.
- A sustained drought has focused attention on how fragile drinking water supplies are and how important land conservation is in ensuring long-term plentiful supplies of both surface water and groundwater.
- The number of miles of streams that do not meet state water quality standards has grown even higher.

What Must be Done in 2008

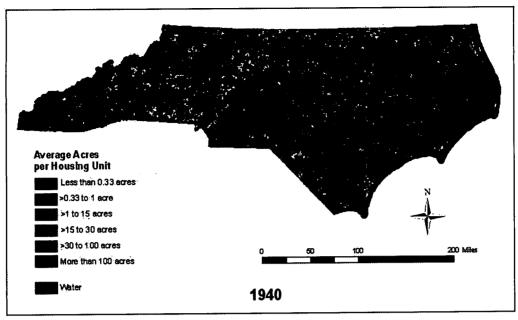
In 2007, the General Assembly provided an additional \$108 million in one-time conservation funding for land and water conservation, but this falls short of the \$200 million needed per year. Needs continue to outpace available funding in the state's four natural resource Trust Funds. For example:

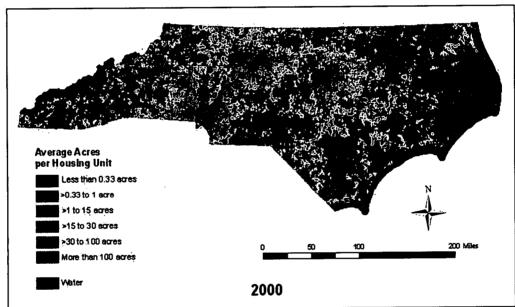
- The legislature appropriated substantial funding for the Agricultural Development and Farmland Preservation Trust Fund for the first time ever, but requests for the funds were nearly four times more than the \$8 million available.
- While the General Assembly has consistently supported the Clean Water Management Trust Fund, with \$100 million per year, roughly \$77 million worth of projects will go unfunded.
- The legislature provided no funding for the "Landing Jobs" program, which will invest in conservation projects that both protect land and create jobs in low-income and rural areas.

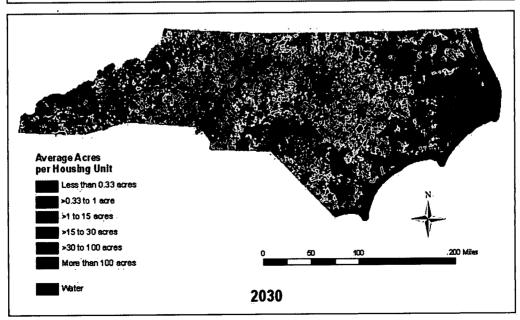
The additional \$108 million will be allocated by July 1, but the need to protect other threatened tural areas will still be great. Unfortunately, the window of opportunity to conserve more land and waterways will only grow narrower as the costs get higher.

That's why Land for Tomorrow is asking the General Assembly to approve an additional \$200 million annually for five years for land and water conservation through bonds, appropriations or a dedicated source of revenue.

Changes in Housing Density, 1940 to 2000 to 2030 (projected)







Growth and Development Continue to Build Pressure

Our state's population continues to surge. North Carolina has now surpassed New Jersey to become the 10th most populous state. Every hour, another 21 people move here. That's 504 new people every day, 4,000 people every single year.

At the same time, North Carolina continues to lose an estimated 100,000 acres of farms, forests and wetlands to development every year. North Carolina has lost one million acres of forest land, almost another million acres in farmland, and 14,000 farms since 1990. North Carolina now leads the nation in the number of farms lost.

The rapid pace of development is causing land prices to continue to skyrocket. The price of lands that the state has purchased for conservation has risen 285 percent in the last 10 years.

The crush of growth and development also seriously jeopardizes water quality, which affects entire ecosystems, as well as important industries. For example, the North Carolina Division of Water Quality has recently indicated that stormwater runoff has the largest impact on water quality in the coastal area. More than 76,000 acres of shellfish waters are closed because they do not meet public health standards.

In spite of the state's efforts to improve water quality, the miles of streams that do not meet water quality standards has actually risen from 3,000 to 3,300 miles—the distance from Wilmington to Seattle. Thirty-six percent of the state's lakes and reservoirs—including Jordan Lake, Falls Lake, High Rock Lake, and lakes Wylie and Rhodhiss—are degraded.

Our surge in development also threatens upland ecosystems, which require adequate supplies of freshwater, diverse habitats, and unbroken corridors for survival. As a result, nearly one in five of North Carolina's native species are either threatened or in danger of extinction.

The Drought and its Relation to Land Conservation

Land conservation plays a major role in protecting the quantity of water supplies available, a point made all the more important due to the state's prolonged exceptional drought.

Half of North Carolina's citizens, and 90 percent in the coastal region, depend on groundwater for their drinking water. Rain water seeps deep into the ground to recharge shallow and deep aquifers, so the state must protect these areas that replenish this essential water supply. In addition, a significant percentage the rain water that infiltrates the ground returns to streams that feed reservoirs. Either way, preserving pen spaces helps maintain a plentiful water supply to withstand periods of little rain.

Furthermore, increased runoff caused by development has silted drinking water reservoirs to the point of significantly reducing their capacities to store water. This reduced reservoir volume has made it clear how important it is to protect stream banks, wetlands, and upland areas that help filter silt and pollution from water supplies.

Why Land Conservation Makes Economic Sense

As North Carolina's population and economy continue to grow, land use patterns will play a key role in the quality of life of all our citizens.

The state's two largest industries, agriculture and tourism, depend on healthy natural resources. When managed properly, these lands provide significant economic benefits, preserve the natural resource base, protect sensitive areas such as wetlands and streams, and support important wildlife habitat. Sustainable management of such lands requires protection of high-quality productive soils in amounts that can support adequate levels of production and a solid base of support for agriculture, as well as sufficient investment in agricultural operations.

The most pervasive threat to water quality is from polluted runoff, and the most effective way to protect water resources is to preserve undeveloped buffer zones around rivers, lakes, and streams, and to minimize impervious surface cover. Conserving land near waterways to reduce runoff is more cost-effective than cleaning up polluted water.

Investing in land conservation in rural and low-income areas can be especially beneficial to local economies because jobs can be created in eco-tourism, parks, and other land-related endeavors.

The benefits of parks and natural areas in urban and suburban areas are numerous. Parks provide opportunities for physical activity and outdoor recreation. Trees and natural areas provide clean air, recharge water supplies, and safeguard wildlife habitat. Well-managed parks improve communities' onomic bottom line by increasing the value of nearby property and attracting businesses and tourists.

North Carolina's Conservation Legacy

North Carolina has a long and remarkable history of land conservation. However, the rate of land preservation has not nearly matched the rate at which natural and agricultural lands have been converted by development.

In 2000, the North Carolina General Assembly voted overwhelmingly in support of a goal to preserve one million acres by Dec. 31, 2009. At the end of the eighth full year of the initiative (Jan. 1, 1999–Dec. 31, 2006), private and public partners have protected approximately 481,000 acres — a little more than half of the million acre goal with only two years remaining under the initiative.

Building on the Million Acre Initiative, Land for Tomorrow—a statewide partnership of citizens, civic leaders, community groups, businesses, and local governments—analyzed conservation needs, funding options, and public support for land protection. In its 2005 report, Land for Tomorrow concluded that the best approach to preserving the land and resources needed to protect drinking water supplies, create jobs tied to natural resources, and improve recreational opportunities and our quality of life was to make substantial new investments in the state's successful natural resource Trust Funds.

Land for Tomorrow found that the best option for accomplishing this goal was to secure \$200 million a year, for five years, from the General Assembly. These funds would in turn leverage private, local and federal dollars for a total close to \$4 billion.

In early 2007, the General Assembly's Joint Legislative Commission on Land and Water Conservation agreed with Land for Tomorrow's findings. The Commission also recommended that the General Assembly provide an additional \$1 billion in funding over current levels for a five year period.

The General Assembly made additional allocations for conservation in the 2007-08 state budget, including one-time funding of \$108 million for land and water conservation. The budget included:

- \$100 million in COPs (Certificates of Participation) to be distributed equally between the Natural Heritage Trust Fund and the Parks and Recreation Trust Fund (to be paid back through those same funds).
- \$8 million appropriated to the Agricultural Development and Farmland Preservation Trust Fund.

Local governments are bringing additional funds to the table for parks and conservation. Since 2000, 20 North Carolina communities have approved ballot measures to dedicate public funds to create parks, trails and recreation areas, and to protect wildlife habitat, natural areas and water resources. Voters in these communities have approved 26 measures, generating more than \$400 million for conservation efforts.

Still, the work remains unfinished and the Million Acre goal unmet. We continue to lose ground as the rate of development exceeds the rate lands are being protected—and the cost of land rises with each passing year.

More funding for conservation must be found. During the Short Session, the General Assembly should increase its critical investments in protecting our land, our waterways, and our communities.

The time to act is NOW. We will not have a second chance to do the right thing for future generations of North Carolinians.



LAND for TOMORROW

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Chair, Steve Troxler

Bruce Andrews

NC DEPT. OF COMMERCE

Andrew Branan

Gerry Cohn

AMERICAN FARMLAND TRUST

Jimmy Gentry

THE NC STATE GRANGE

Billy Guillet rural economic development center, inc.

William Holbrook

OFFICE OF THE PRESIDENT PRO TEMPORE

Bobby Stanley

NC ASSOC. OF SOIL & WATER CONSERVATION DISTRICTS

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CONSERVATION TRUST FOR NC

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NC A&T STATE UNIVSERITY

Manly Wilder

NC DIV. OF SOIL & WATER CONSERVATION

Steve Woodson

NC FARM BUREAU

North Carolina Agricultural Development & Farmland Preservation Trust Fund

ADFP Trust Fund Report To
The Environmental Review Commission

April 7, 2008

Steven W. Troxler
North Carolina Commissioner of Agriculture

2007-2008 AGRICULTURAL DEVELOPMENT & FARMLAND PRESERVATION TRUST FUND GRANT CYCLE

In 2005, the General Assembly passed House Bill 607 establishing the Agricultural Development and Farmland Preservation Trust Fund. The purpose of the fund is to support the farming, forestry, and horticulture communities within the agriculture industry by:

- supporting the purchase of agricultural conservation easements (on farm, forest, and horticulture lands), including transaction costs,
- developing and implementing plans for the production of food, fiber, and value-added products, agritourism activities, marketing and sales of funding public and private enterprise programs that will promote profitable and sustainable family farms through assistance to farmers in agricultural products produced on the farm, and other agriculturally related business activities, and
- funding agricultural agreements (on farm, forest, and horticulture lands) targeted at the active production of food, fiber and other

The legislation also established a 19 member Trust Fund Advisory Committee to advise Commissioner Troxler on the prioritization and allocation of funds, the development of criteria for awarding funds, program planning, and other areas for the growth and development of family farms in North Carolina. In the fall of 2006, the trust fund awarded its first grants to support projects intended for agricultural development and farmland

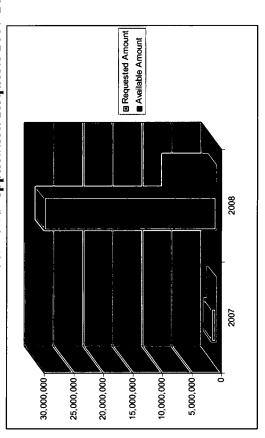
requesting proposals from October 2, 2007 until December 14, 2007. The second round of grant requests is currently being reviewed and evaluated. Recipients for these grants are to be announced in the early summer of 2008. The following is information pertaining to the grant applications The ADFP Trust Fund received an \$8 million legislative allocation by the 2007 General Assembly and began its second round of grants by

2007-08 Trust Fund Grant Applicants

Annlication Type	Number of Applications	Dogwooted Cront Amount	Fetimated Draiset Value
Approximent Jpc	ramori of Applications	Wednesday of all Allicant	Estimated 110 oct 7 and
Conservation Easement	55	Over \$21.5 million	Over \$55.5 million
Agricultural Agreement	4	Over \$1 million	Over \$1.5 million
Enterprise Program	34	Over \$6.5 million	Over \$15.5 million
TOTAL	93	Over \$29 million	Over \$72.5 million

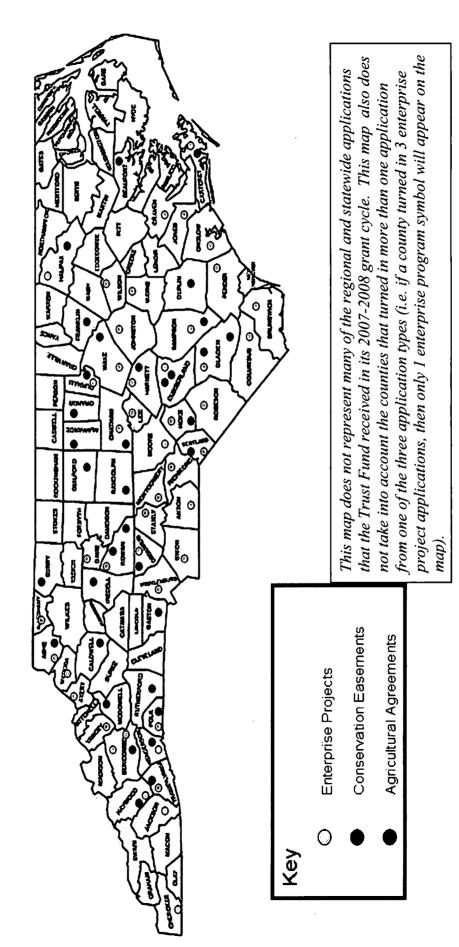
The Trust Fund received applications from 27 counties and 22 non-profit organizations.

ADFP Trust Fund Application Requests 2007-2008



2008 Grant Applicants

The following counties have the potential to be effected by the applications submitted to the ADFP Trust Fund for its 2008 grant cycle. This list contains only specific counties named in the applications and does not include regional or state-wide



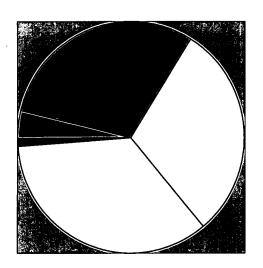
2007-2008 Grant Applicants			
County Associated With Application	Number of Enterprise	Number of Agricultural	Number of
	rrogram Applications	Agreement Applications	Conservation Easement
			Applications
Alamance County			3
Ashe County	1		2
Alleghany County	1		
Avery County	1		
Beaufort County			1
Bladen County	2	1	
Brunswick County	1		
Buncombe County	1		2
Cabarrus County	2		2
Caldwell County			1
Carteret County	1		1
Chatham County	1		1
Cherokee County	1		
Columbus County	2		
Craven County	1		
Cumberland County	1	1	1
Davie County	1		
Duplin County			2
Durham County	1		3
Franklin County			1
Gaston County			
Guilford County			1
Halifax County	1		2
Harnett County	1		1
Haywood County	1		2
Henderson County	2		1
Hoke County	1		1
Hyde County			1
Iredell County			1
Jackson County	1		
Johnston County	2		
Jones County			

Lee County	1		
McDowell County			1
Montgomery County	1		
Moore County	1		
Onslow County	1		
Orange County	1		1
Pender County	1		
Polk County	3		8
Randolph County			2
Richmond County	1		
Robeson County	1		
Rowan County		2	3
Rutherford County			1
Sampson County	1		1
Scotland County	1		1
Stanly County	1		
Surry County			1
Transylvania County	1		1
Union County	1		
Wake County	1		9
Watauga County	1		
Wayne County	1		
Wilson County	1		
Yancey County	1		
Regional & Statewide Projects			
Eastern NC	2		
Central NC	2		
Western NC	3		
Statewide	1		

Calendar

February 2007	Agricultural Development & Farmland Preservation Trust Fund Advisory Committee Meeting
May 2007	ADFP Trust Fund Advisory Committee Meeting
July 2007	ADFP Trust Fund Advisory Committee Meeting
September 2007	ADFP Trust Fund Advisory Committee Meeting
October 2007	Grant Application Announcement
November 2007	Nine Farmland Preservation Workshops Conducted Throughout the State
December 2007	Grant Application Deadline in mid-December
	ADFP Trust Fund Advisory Committee Meeting
January 2008	Log in, Registration, and Initial Ranking of Grant Applications
	Trust Fund Rules Implemented
	Temporary, Full-time Program Assistant Hired
February 2008	Further Information Collected from Grant Applicants
	ADFP Trust Fund Advisory Committee Meeting
	Three Temporary, Part-time Agricultural Marketing Specialists Hired
March 2008	Interviews with Enterprise Program, Agricultural Agreement, & Conservation Easement Applications that Require
	Further Information
April 2008	Interviews with Agricultural Agreements & Conservation Easement Applications that Require Further Information
May 2008	Final Grant Application Review
	Trust Fund Advisory Committee Meeting
June 2008	Review of Grant Applications with the ADFP Trust Fund Advisory Committee and Announcement of Selected
	Applicants
July 2008	Issuing of Grant Contracts to 2008-2009 Grant Recipients
August 2008	Regional Meetings with Awarded Contract Recipients
September 2008	Initial Grant Money Distributed

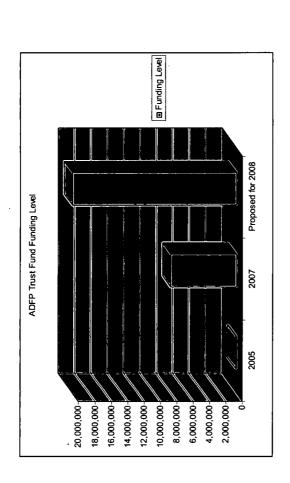
FY 2007-08 Trust Fund Budget



Administrative Cost for 2007- 09	
■Agricultural Developmennt Program Grants	
☐Agricultural Agreement Grants	
☐Conservation Easement Grants	
Reserve	

FY-2007-08 ADFP Trust Fund Budget		FY08
Administrative Cost for 2007-2008		\$160,000.00
Administrative Cost for 2008-2009 (reserve)		\$160,000.00
Agricultural Development Program Grants		\$2,400,000.00
Agricultural Agreements Grants		\$2,400,000.00
Conservation Easements Grants		\$2,800,000.00
Reserve		\$80,000.00
	TOTAL	\$8,000,000.00

ADFP Trust Fund Funding Level 2005-2008



Year	Funding Level
2005	\$45,000
2006	80
2007	\$8,000,000
Proposed for 2008	\$20,000,000

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Type of Funds	Amount	Use
Recurring	\$172,944.00	3 positions – Administrative Assistant I,
		Real Property Agent II,
		Agricultural Marketing Specialist II
Non-Recurring	Non-Recurring \$19,827,056.00	Agricultural Development Program Grants,
		Conservation Agreement Grants,
		Conservation Easement Grants, & Administrative Cost

North Carolina Agricultural Development & Farmland Preservation Trust Fund Advisory Committee

Flust Name	Lest Name	e nn	Organization Nama 🐪 💮	Olfy
Bruce	Andrews	Senior Economic Development Representative	NC Department of Commerce	Raleigh
Andrew	Branan	Director	NCFTN	Hillsborough
Gerry	Cohn	Regional Director	American Farmland Trust -Southeast Regional Office	Hillsborough
Jimmy	Gentry	President	The NC State Grange	Statesville
Billy	Guillet	Director, Agricultural Advancement Consortium	NC Rural Economic Development Center	Raleigh
Bill	Holbrook	Farmer	Office of President Pro Tempore	Waynesville
Jane	Iseley	Farmer	Office of Speaker of the House of Representatives	Burlington
Ed	Jones	State Program Leader	College of Agriculture & Life Sciences -NCSU	Raleigh
Paul	Meyer	Assistant General Counsel	NCACC	Raleigh
Edgar	Miller	Government Relations Director	Conservation Trust for North Carolina	Lexington
Erica	Peterson	Executive Vice President	NC Agribusiness Council	Cary
Gilistine	Richardson	President	NC Black Farmers & Agriculturists Association	Wendell
Robert	Slocum	Executive Vice President	NC Forestry Association	Raleigh
Bobby	Stanley	President	NC Assoc. of Soil & Water Conservation Districts	Clarendon
Jackie	Thompson	Farmer	Office of the Governor	Wake Forest
Alton	Thompson	Dean	NC A&TSU	Greensboro
Steve	Troxler	Commissioner	NC Department of Agriculture	Raleigh
Manly	Wilder	Assistant Secretary	NC DENR	Raleigh
Steve	Woodson	Associate General Counsel and Legislative Liaison	NC Farm Bureau	Raleigh

Agricultural Development & Farmland Preservation Trust Fund Staff

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Lindsay Balance			Δ		John D Tom E Dewitt H			lian

The NC ADFP Trust Fund has 5 part-time staff members who have other responsibilities within the NC Department of Agriculture & Consumer Services, 3 part-time temporary staff members, and 1 full-time temporary staff member.

Additional Farmland Preservation Efforts

Voluntary Agricultural District = The purpose of the Agricultural District Program is to encourage the preservation and protection of farmland from non-farm development. This is in recognition of the importance of agriculture to the economic and social well being of North Carolina.

Agricultural District ordinances provide for the creation of a county or local Agricultural Advisory Board to administer the program. The Board reviews and approves applications for qualifying farmland as well as establishing the agricultural district. Members of the Agricultural District agree not to develop for a period of at least ten year (this is a voluntary requirement of the Voluntary Agricultural District and a mandatory requirement of the Enhanced Voluntary Agricultural District). In exchange for remaining in farming Agricultural District members receive:

- signs identifying them as a member, increased protection from nuisance suits,
 - waiver of water and sewer assessments (varies from county to county),
 - required public hearings for proposed condemnation,
 - eligibility for funding, and
- an official role in county or city government.

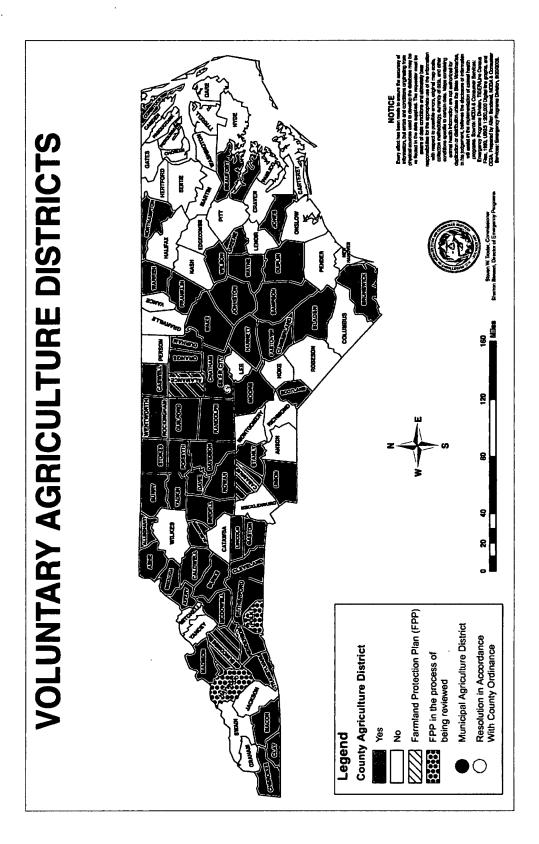
Enhanced Voluntary Agricultural District = In addition Enhanced Voluntary Agricultural District members may receive to 25% of their gross farm receive a higher percentage of cost-share funds under the Agriculture Cost Share Program pursuant to Part 9 of Article 21 of Chapter 143 of the General Statutes. sales from the sale of nonfarm products and still quality as a bona fide farm that is exempt from zoning regulations under G.S. 153A-340(b) and are eligible to

Countywide Farmland Protection Plan = Described in N.C.G.S. § 106-744 (e) a countywide farmland protection plan means a plan that satisfies all of the following requirements:

- The countywide farmland protection plan shall contain a list and description of existing agricultural activity in the county.
- The countywide farmland protection plan shall contain a list of existing challenges to continued family farming in the county.
- The countywide farmland protection plan shall contain a list of opportunities for maintaining or enhancing small, family-owned farms and the local agricultural economy.
- technical assistance, such as farm infrastructure financing, farmland purchasing, linking with younger farmers, and estate planning; the desirability and The countywide farmland protection plan shall describe how the county plans to maintain a viable agricultural community and shall address farmland preservation tools, such as agricultural economic development, including farm diversification and marketing assistance; other kinds of agricultural feasibility of donating agricultural conservation easements, and entering into voluntary agricultural districts.
 - The countywide farmland protection plan shall contain a schedule for implementing the plan and an identification of possible funding sources for the long-term support of the plan. Ś

In the last 2 years the farmland preservation program has seen the following growth...

- ... from 1 county with an Enhanced Voluntary Agricultural District to 7 counties.
 - ...2 municipal Voluntary Agricultural District ordinances.
- ... from 47 counties with Voluntary Agricultural District ordinances to 59 counties.
 - ...5 countywide farmland protection plans written and 3 approved.



NORTH CAROLINA ADMINISTRATIVE CODE

DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES TITLE 02

AGRICULTURAL DEVELOPMENT AND FARMLAND PRESERVATION TRUST FUND **CHAPTER 58**

SECTION .0100 - GENERAL PROVISIONS

PURPOSE

FUNDING PRIORITIES

DEFINITIONS 0103

(Reserved for Future Codification) .0104

EVALUATION OF APPLICATIONS .0105

GRANT AGREEMENT 0106

REPORTING 0107

RECORDS 0108

CHAPTER 58 - AGRICULTURAL DEVELOPMENT AND FARMLAND PRESERVATION TRUST FUND

SECTION .0100 - GENERAL PROVISIONS

02 NCAC 58 .0101 PURPOSE

the Chair under the guidance of the North Carolina Department of Agriculture and Consumer Services implementing the Agricultural Development and Farmland Preservation Trust Fund for continuation and preservation of agriculture in North Carolina. Procedures and guidelines for This Chapter describes the operating procedures for the Agricultural Development and Farmland Preservation Trust Fund Advisory Committee and participating applicants are also described. The purpose of the program is to fund projects to encourage the preservation of qualifying agricultural, horticultural, and forestlands to foster the growth, development, and sustainability of family farms.

History Note: Authority G.S. 106-744; Eff. December 1, 2007.

FUNDING PRIORITIES 02 NCAC 58 .0102

The Commissioner, with the advice of the Advisory Committee shall:

- annually publish a list of funding priorities which he will follow in awarding grants for agricultural, horticultural and forestland preservation projects and agricultural development programs that meet the requirements of G.S. 106-744 and the rules in this Chapter:
 - request proposals to address specific funding priorities or to encourage specific farmland preservation projects or agricultural development programs intended to encourage farmland preservation and protect the State's agricultural economy, stabilize and maintain local tax bases, and optimally use natural resources; and (2)
- work cooperatively with other government agencies as well as agricultural, conservation, and rural entities to develop plans to naximize agricultural, horticultural, and forestland preservation efforts. 3

History Note: Authority G.S. 106-744; Eff. December 1, 2007.

02 NCAC 58 .0103 DEFINITIONS

The following terms used in this Chapter have the following meanings:

- "Advisory Committee" means the Agricultural Development and Farmland Preservation Trust Fund Advisory Committee. £8
 - (E)
- "ADFPTF," "ADFP Trust Fund," or "Trust Fund" means the Agricultural Development and Farmland Preservation Trust Fund. "Agricultural conservation easement" is defined in G.S. 106-744(b).
 - "Chair" or "Commissioner" means the Chair of the Advisory Committee who is also the Commissioner of Agriculture. 'Applicant" means a nonprofit conservation organization or county who applies for funds from the ADFP Trust Fund.
 - "Department" or "NCDA&CS" means the North Carolina Department of Agriculture and Consumer Services. 4666
- "Landowner" means any natural person or other legal entity, including a governmental agency, who holds either an estate or freehold such as a fee simple absolute or a life estate) or an estate for years or from year to year in land, but does not include an estate at will or by sufferance in land.
- "Nonprofit conservation organization" is any nonprofit organization that provides assistance to landowners to protect their lands and can legally hold agricultural conservation easements. 8
- "Project" means an agricultural conservation easement, conservation agreement, or an agricultural development program for which an applicant is requesting funds to complete. 6

History Note: Authority G.S. 106-744;

Eff. December 1, 2007.

(Reserved for Future Codification) 02 NCAC 58 .0104

EVALUATION OF APPLICATIONS 02 NCAC 58 .0105

- (a) Applicants for funding from the ADFPTF shall submit two unbound complete applications suitable for photocopying. Applications must be sent by Fed-Ex, UPS, certified mail, or hand-delivered to: NCDA&CS, NCADFP Trust Fund at 2 West Edenton Street, Raleigh, NC 27601
- (c) To be eligible for consideration for funding for agricultural conservation easements or agricultural agreements, applicants shall complete the Agricultural Development and Farmland Preservation Application Form for Conservation Easements and Agricultural Agreements which contain the (b) Two separate applications are online at http://www.ncadfp.org/ or available from the Department as noted in Paragraphs (c) and (d) of this Rule.
- identifying information;

following information:

- a description of the type of organization of the applicant;
- project affiliations, matching funds, and partnerships;
- whether funds are for an agricultural conservation easement or an agricultural agreement and the term years;
- current land value assessment, requested amount of funds, estimated easement value, project completion date;
 - 6.0
- values relevant to the easement;
- agricultural, horticultural, or forestry property inventory;
- what transition plans are in place to continue operations for the future;
- threats of conversion;
- conservation and environmental concerns; and $\overline{11}$
- listed attachments.
- (d) To be eligible for consideration for funding for agricultural development programs, applicants shall complete the Agricultural Development and Farmland Preservation Application Form for Public and Private Enterprise Programs, which contain the following information:
 - identifying information;
- a description of the type of organization of the applicant; (NE)
 - project affiliations, matching funds, and partnerships;
- a description of goals, target audience, and success measurements; and
 - listed attachments. **4** (3)
- (e) Each completed application shall be evaluated by the staff based on the information provided in the application and in accordance with the ADFPTF criteria described in this Rule.
 - (f) The staff shall review all applications for completeness. If an application is incomplete after the application deadline, the applicant may be asked (g) During the review and evaluation of proposals, the staff shall report to the Commissioner on any site visits that may be required for full to reapply for the next grant cycle, which will be publicly announced by the Commissioner on an annual basis.
 - consideration of the grant proposal
- (h) The Advisory Committee shall review the project evaluations and other relevant data prepared by the applicant and by ADFPTF staff. Advisory Committee shall make recommendations to the Commissioner on projects for funding.

- (i) The Commissioner and Advisory Committee shall consider the relative needs of the farmland preservation project and determine the proportion of available funds to be allocated for each eligible project.
- (j) Grants shall be awarded contingent on the availability of sufficient funds to do so. Funds shall be conveyed to grantees through contracts with may cease making payments under the grant schedule until the problem has been resolved or may demand immediate return of any unspent money and interest from the grant. Grantees must reimburse the Trust Fund any funds that are determined to have not been spent for the purpose for which they were granted. Grantees must return any grant money which remains unspent at the conclusion of the grant project, with any interest the Trust Fund. If the Commissioner determines that grant funds are not being used for the purpose for which they were awarded, the Trust Fund earned on grant money.
- (k) The following general criteria shall be used to evaluate conservation easement or agricultural agreement projects only:
 - 1) parcel information;
- planning for the future; and
- (2) planning factors (3) site visits.
- (I) The following general criteria shall be used to evaluate agricultural development programs only:
 - project description;
- project implementation; and
- applicant interview.
- missioner and Advisory Committee shall also consider the following factors when evaluating projects:
 - 1) the geographic distribution of projects;
- the presence or absence of other funding sources;
- the level of compliance with prior grant agreements;
 - the amount of funds available;
- the amount of funds requested;
- priority funding map; and
- other relevant information in the application.

History Note: Authority G.S. 106-744;

Eff. January 1, 2008.

02 NCAC 58 .0106 GRANT AGREEMENT

- (a) Upon approval, a written agreement shall be executed between the grant recipient(s) and the Commissioner.
- (b) The agreement shall define the Commissioner's and grant recipient's responsibilities and obligations, the project period, project scope and the
- (c) The approved application and support documentation shall become a part of the grant agreement.
- The grant (d) The grant agreement may be amended upon mutual consent and approval by the Commissioner and the grant recipient(s). recipient(s) shall submit a written request to the Commissioner.
 - (e) Projects may not begin until the Commissioner and grant recipient(s) sign the agreement.
- (f) The agreement shall include a requirement that, in any agricultural conservation easement funded by the ADFPTF, the State of North Carolina shall have the right to enforce the easement if the grantee of the easement fails to do so.

History Note: Authority G.S. 106-744; Eff. January 1, 2008.

02 NCAC 58 .0107 REPORTING

- (a) Grant recipients shall submit written progress reports at six-month intervals or upon completion of the project, whichever is sooner. Written reports shall describe the status of the project, progress toward achieving program objectives, notable occurrences and any problems encountered and steps taken to overcome the problems. Upon completion of the project, the successful applicant must make a final written report to the Commissioner which shall include project accomplishments and benefits, all expenditures by line item as established in the project budget, and verification of the number of hours or money in matching funds.
 - performance standards. If the staff finds that the report is deficient in showing how the project is meeting its stated goals and performance standards, the grantee shall be notified of the deficiency and must provide a changed and corrected report within 30 working days. If a corrected or (b) The staff shall review the progress reports for completeness, which shall include a showing of how the project is meeting its stated goals and changed report is not received within 30 working days, the Trust Fund may withhold the next grant payment.

History Note: Authority G.S. 106-744;

Eff. January 1, 2008.

02 NCAC 58 .0108 RECORDS

Successful applicants must keep financial and other records of the project for a period of three years, following completion of the project, or until audited. The records shall be made available to the Commissioner at his request. Recipients shall contact Trust Fund staff at the North Carolina Department of Agriculture and Consumer Services before destroying records or in the event that records are destroyed.

History Note: Authority G.S. 106-744;

Eff. December 1, 2007.



Applicant Organization:



Name of Contact:

Depa	rtmental Use Only
Application Contract #:	
•••••	

Agricultural Development & Farmland Preservation Trust Fund (ADFPTF)

Public & Private Enterprise Programs Option

For Agricultural, Horticultural, & Forestry Programs

Administered by the North Carolina Department of Agriculture & Consumer Services

Raleigh NC

Part It E Project Description

Period of time this project will operate:	Peri	od of time this grant	will be used:	
Area covered by project:				
ADFP Funds Requested: \$	Esti	mated Project Value	:\$	
Partners:				
Brief Description of Project:		·		
				7 69 100
Number of Participants Number of people that this project will target		RELATE IN THE CONTRACTOR	total been mereminental lectal bear 4 2/2 (15.	
>100 people	50 points			
100-50 people	40 points	•		
49-25 people	30 points			
25-10 people	20 points			
<10 people	10 points			points
Geographic Area Area that this project will cover:				
Statewide (20+ counties, in all 3 regions of NC)		i0 points		
Regional (4-20 counties)		30 points		
Local (1-3 counties)		10 points	<u> </u>	points
Priority Area Is this project located in an ADFP Trust Fund priority a				
Yes.	30 points		•	!
No.	0 points			points
Beginning Farmers: Does project target beginning farmers?	00 1 :			
Yes.	30 points			
No.	0 points		=	points
Limited Resource Farmers: Does this project target limited resource				
Yes.	30 points 0 points		_	points
No.	o politis	-		poilts
Century Farm Members: Does this project target Century Farm members?				
Yes.	30 points			
No.	0 points		= ,	points
Goodness Grows in NC Farmers or American Tree Farm/ Farm		ogram Members:		
Does this project target Goodness Grows in NC farmers or American	Tree Fam/Fam	n Stewardship Progra	m Members?	
Yes.	30 points			
No.	0 points		=	points

points

(use in Part 5)

Total Entity Points (Part 2)

(maximum points = 250)

· 高型空气器组织器型的发生; 企业型强度的发生的企业。 (2.25) (1.25)	IN TOTAL BUT SARRESSENDE TRANSPORTE (1998 FV) (1998 FV) (1998 FV)	
Partia: Project implementation Partnerships How many organizations will you partner with to ad		
5+	50 points	
3-4	30 points	
2	20 points	
1	10 points	
0	0 points	=points
Matching Funds The percentage of matching funds above the re		
>75% 75%-65%	50 points 40 points	
64-50%	30 points	
49-25%	20 points	
24%-5%	10 points	= points
Closing Schedule - Can staff and financial resources be committed		
Yes 30 points	• • •	
No 0 points	•	=points
	Total Entity Points (Part 3)	= points
·	(maximum points = 130)	(use in Part 5)
Part 4 Applicantunterview		
TOTAL APPLICANT INTERVIEW PO (maximum points = 32)		=POINTS (use in Part 5)
TOTAL APPLICANT INTERVIEW Po (maximum points = 32)	20)	
TOTAL APPLICANT INTERVIEW Po (maximum points = 32)	20)	
TOTAL APPLICANT INTERVIEW PO (maximum points = 32)	ONTE	
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TOTAL APPLICANT INTERVIEW PO (maximum points = 32) PARTIS: TOTAL RIBBUIC A PRIVATE EN LE PRISE PROGRAMIA Total Audience Points + Total Implementation Points	CINIS _ + Total Applicant Interview Points	(use in Part 5)
TOTAL APPLICANT INTERVIEW PO (maximum points = 32 PART 5: TOTAL RUBUIC A PRIVALLE EN EN EN EN EN EN EN EN EN EN EN EN EN	CINIS _ + Total Applicant Interview Points	(use in Part 5)
TOTAL APPLICANT INTERVIEW PO (maximum points = 32 PART 5: TOTAL RUBUIC A PRIVALLE EN EN EN EN EN EN EN EN EN EN EN EN EN	CINIS _ + Total Applicant Interview Points	(use in Part 5)
TOTAL APPLICANT INTERVIEW PO (maximum points = 32 PART 5: TOTAL RUBUIC A PRIVALLE EN EN EN EN EN EN EN EN EN EN EN EN EN	CINIS _ + Total Applicant Interview Points	(use in Part 5)
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TOTAL APPLICANT INTERVIEW PO (maximum points = 32) PART 5. 1.0 1.4 RUBUC & PRIVALE EN PRISE PROGRAMB Total Audience Points + Total Implementation Points (From Part 2 above) (From Part 3 above) PART 6. N. PADEP TRUST FUND S. A. F. CONCURRENCE (we) concur with the points awarded to this offered land on this ADF	- + Total Applicant Interview Points (From Part 4 above)	(use in Part 5) points aximum =/700 points) eviewed the Farmland
TOTAL APPLICANT INTERVIEW PO (maximum points = 32) PARTIS: 19 TAY RUBUIC & PRIVALE EN PERPRISE PROGRAMING Total Audience Points + Total Implementation Points (From Part 2 above) (From Part 3 above) PARTIS: 19 TAY RUBUIC & PRIVALE EN PERPRISE PROGRAMING (From Part 3 above) PARTIS: 19 TAY RUBUIC & PRIVALE EN PERPRISE PROGRAMING (From Part 3 above) PARTIS: 19 TAY RUBUIC & PRIVALE EN PERPRISE PROGRAMING (From Part 3 above) PARTIS: 19 TAY RUBUIC & PRIVALE EN PERPRISE PROGRAMING (From Part 3 above) PARTIS: 19 TAY RUBUIC & PRIVALE EN PERPRISE PROGRAMING (From Part 3 above) PARTIS: 19 TAY RUBUIC & PRIVALE EN PERPRISE PROGRAMING (From Part 3 above) PARTIS: 19 TAY RUBUIC & PRIVALE EN PERPRISE PROGRAMING (From Part 3 above) PARTIS: 19 TAY RUBUIC & PRIVALE EN PERPRISE PROGRAMING (From Part 3 above) PARTIS: 19 TAY RUBUIC & PRIVALE EN PERPRISE PROGRAMING (From Part 3 above) PARTIS: 19 TAY RUBUIC & PRIVALE EN PERPRISE PROGRAMING (From Part 3 above) PARTIS: 19 TAY RUBUIC & PRIVALE EN PERPRISE PROGRAMING (From Part 3 above) PARTIS: 19 TAY RUBUIC & PRIVALE EN PERPRISE PROGRAMING (From Part 3 above) PARTIS: 19 TAY RUBUIC & PRIVALE EN PERPRISE PROGRAMING (From Part 3 above) PARTIS: 19 TAY RUBUIC & PRIVALE EN PERPRISE PROGRAMING (From Part 3 above) PARTIS: 19 TAY RUBUIC & PRIVALE EN PERPRISE PROGRAMING (From Part 3 above)	- + Total Applicant Interview Points (From Part 4 above)	(use in Part 5) points aximum =700 points) eviewed the Farmland
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TOTAL APPLICANT INTERVIEW PO (maximum points = 32) PARTIS: 19 TAY RUBUIC & PRIVALE EN JERRISE PROGRAMB Total Audience Points + Total Implementation Points (From Part 2 above) (From Part 3 above) PARTIS: 19 TAY RUBUIC & PRIVALE EN JERRISE PROGRAMB Protection Program eligibility guidelines and, to the best of my (our) keeping to the points awarded to this offered land on this ADF Protection Program eligibility guidelines and, to the best of my (our) keeping to the points awarded to this offered land on this ADF Protection Program eligibility guidelines and, to the best of my (our) keeping to the points awarded to this offered land on this ADF Protection Program eligibility guidelines and, to the best of my (our) keeping to the points awarded to this offered land on this ADF Protection Program eligibility guidelines and, to the best of my (our) keeping to the protection Program eligibility guidelines and the protection Program eli	+ Total Applicant Intervew Points (From Part & above) P Trust Fund ranking worksheet. I (we) have removedge, believe this land meets the eligibility	points (use in Part 5) points (aximum = 700 points) eviewed the Farmland criteria.
TOTAL APPLICANT INTERVIEW PO (maximum points = 32) PARTIS TOTAL RUBLIC & PRIVALE BUILD PRINTS PROGRAM POINTS (From Part 2 above) PARTIS NO ADEPTRUST FUNDS ALT SONCURRENCE [(we) concur with the points awarded to this offered land on this ADF Protection Program eligibility guidelines and, to the best of my (our) king the points awarded to the points	- + Total Applicant Interview Points (From Part 4 above)	points aximum =/700 points) eviewed the Farmland criteria.



Departmental Use Only Application #:	
Contract #:	

Agricultural Development & Farmland Preservation Trust Fund (ADFPTF)

Conservation Easement & Agricultural Agreement Grant Option For Agricultural, Horticultural, and Forestry Lands

For Agricultural, Horticultural, and Forestry Lands

Administered by the North Carolina Department of Agriculture & Consumer Services

Raleigh NC

Part 1: Earcal Information						
Agricultural Conservation Easement or Agricultural Agreement		(circle one)F erm =	10 20 30	40 50	Perpetual	(circle one)
Landowner Name: Applicant Name:						
County:		Acres:				
Period of time this grant will be used	Period of time this grant will be used: Projected completion date:					
Value of Easement: \$	Purchase Price of Easemen	t: \$	ADFP Fund	ds Requeste	d: \$	
Can project be completed in 12 month	hs? Yes No	30 points 0 points			=	points
Efficiency Score						
Easement Value +Transaction Cost Ba ADFP Grant Requ + \$20,000		÷ Easement Acres	x Easement I	Length Factor	x 100 points 100 po	Score
Agricultural Districts	-				=	points
Is the agricultural, horticulture, or foresti EVAD Member	and located within a county ap	proved voluntary a 50 point		an enhanced	voluntary ag	district?
VAD Member		30 poin				
No county ag distric	t program.	10 poin				
	ity ag district program.	0 point	s		=	points_
Producer Information Is the producer a: "Goodness Grows in NC" member or "A		"Century Farr "Limited Resou "Beginn	n" member	30 points 30 points 30 points 30 points	= <u> </u>	points
Percentage of income from agricultur						
	100-70%	50 points				
	50-69 % 25-49%	40 points 30 points				
	25-49% <25%	10 points			=	points
Percentage of Property with Prime or	•					Pour
	100-70% 50-69 % 25-49% <25%	50 point 40 point 30 point 10 point	s S		=	points

Perpetual	50 points	
50+ years	40 points	
30-49 years	30 points	
20-29 years	20 points	
20-10 years	10 points	points
	Total Entity Points (Part 1) (maximum points = 450)	= points (use in Part 4)
	50+ years 30-49 years 20-29 years	50+ years 40 points 30-49 years 30 points 20-29 years 20 points 20-10 years 10 points

Part 21 Stanning to the Future		四、	
Operation Management Plans:	10-0 00 noi-to		
Does operation have a Conservation P			
Does operation have a Forest Manage	ment Plan? 30 points		
Does operation have a Waste Manage	ment Plan? 30 points		
Does operation have a Transition/Busin	ness plan? 50 points	=	points
County Land Use Plan			
Property is in accordance with the Coun			
No County Land Use Plan	20 points	<u> </u>	points
Probability of Conversion			
Property subject to potential forced sale	or estate settlement sale 30 points	=	points
Proximity to Urban/Commercial Development			•
Property more than ¾ mile but within 1 ½ miles of planned or existing u			
Property more than 1 ½ miles but within 3 miles of planned or existing u			
Property more than 3 miles of planned or existing urban/commercial de-			
Property not adjacent to but within % miles of planned or existing urbar	/commercial development 20 points		
Property adjacent to planned or existing urban/commercial developmen			points
Property Proximity to Military Base or State or Federal Property	used for the preservation of agriculture, pla	ints, and/or wild	life.
< 1 mile	50 points	•	
1-2 miles	40 points		
2-5 miles	20 points		
5-7 miles	10 points		
>7 miles	0 points	· =	points
Property Proximity to Other Protected Agricultural, Horticultural	and Forestry Lands		•
adjacent	50 points		
< 1 mile	40 points		
1-2 miles	20 points		
>2 miles	0 points	=	points
Is property identified on ADFP Trust Fund Priority Map?-	- Family		
Viability Level 5	50 points		
Viability level 4	40 points		
Viability Level 3	30 points		
Viability Level 2	20 points		
Viability Level 1	10 points	_	points
Capital Investment in Agricultural, Horticultural, or Forestry Ope		for employee h	
Substantial capital investments made within:	rauori – doos not include dwellings except	ioi empioyee ii	ousing.
Last 0-5 years	50 points		
Last 5-10 years	30 points		
Last 5-10 years	20 points	_	points
Last 10-10 years	zo points		points
	Total Entity Points (Port 3)	_	points
	Total Entity Points (Part 2)	= (use in l	
	(maximum points = 450)	(use in	rail4)

Part 3 She Visit			
		SIT POINTS (PART 3) Total Entity Points (Part 3) (maximum points = 500)	= points (use in Part 4)
	•		
PARTIA TOTAL FARMINAND P		AD SCHOOL STATE OF ST	
(From Part 1 above)	(From Part 2)	above) (FromPart3 above)	= points naximum = 1400 points)
PAGIS MELANTERUS (SUS)	isikiya ©oyo yiqiatida		
		ADFP Trust Fund ranking worksheet. I (we) have review dge, believe this land meets the eligibility criteria.	red the Farmland Protection
(Signature of NCDA&CS Staff M	lember) (Date)	(Signature of NCDA&CS Environmental Program	s Director) (Date)



Agricultural Development & Farmland Preservation Trust Fund (ADFPTF)

Public & Private Enterprise Programs Option INTERVIEW RANKING SHEET

Administered by the North Carolina Department of Agriculture & Consumer Services Raleigh, NC

F	art 1 Project Description		
F	pplicant Organization:	Name of Contact:	
F	eriod of time this project will operate:	Period of time this grant will be used:	
F	rea covered by project:		
	DFP Funds Requested: \$	Estimated Project Value: \$	
F	artners:		
l			
E	rief Description of Project:		
_	art 4: Applicant Interview	20.0 -4-	
"	id the application materials correctly describe the project?	30-0 pts.	
١	otes:		
┝	as the applicant identified and received commitments from the ap	propriate partners? 50-0 pts.	points
(i	e. County Commissioners, other organizations, etc.)	proprieto partiforo.	
	lotes:		
	•		
L		=	points
	oes this project have well-defined and obtainable goals? (timeline otes:	e, budget, scope of work) 70-0 pts.	
L		==	points
1	ow well organized and knowledgable are the project mangers?	50-0 pts.	
'	NIGG.		
L.		=	points
	the applicant responsible for other "succesful" farmland preserve otes:	ation or agriculutral development projects?	20-0 pts.
		. =	points
_			-



tal Interview Points aximum points = 320)	= = (use in F	points points Part 5)
	=_ (use in F	
nking worksheet. I (we) have reviewe this land meets the eligibility cri		armland
A&CS Environmental Programs Directo	or) (Date)
*	eve this land meets the eligibility cri	eve this land meets the eligibility criteria.





Agricultural Development & Farmland Preservation Trust Fund (ADFPTF)

SITE VISIT EVALUATION SHEET

Agricultural Conservation Easement or Agricultural Agreement Grant Option Administered by the North Carolina Department of Agriculture & Consumer Services Raleigh, NC

Part 1. Project Information			
Agricultural Conservation Easement or Agricultural Agreement (circle one)	Term of Years = 10 15 20 25 30 40 50	Perpetual (ci	rcle one)
Landowner Name		• • • • • • • • • • • • • • • • • • • •	<u> </u>
Applicant Name:	County:		
Value of Easement: \$ Purchase Price of Easement:	\$ ADFP Funds Requested	l: \$	
Did the application materials correctly describe farm operation? Notes:	30-0 pts.		
		=	_ points
Was the producer's information correct? Notes:	50-0 pts.		nainta
How does this project strengthen the area's overall farm and forestland pr Notes:	otection goals? 50-0 pts.	=	_ points
		=	points
Transition Information: Strength of the Farm/Forest Transition Plan? Notes:	50-0 pts.	=	_ points
Is the farm/forestland in active production?	50-0 pts.	points	Notes:
Does the operation appear to be following Management Plans? (Conservation		50-0 pts.	
Notes:		=	_ points



What is the working condition of the farm or forest operation? Notes:	50-0 pts.		
		=	_ points
Are there any other historical or natural resources that this easement would protect or buffer? Notes:	20-0 pts.		
Is the agricultural infrastructure in place to make this a sustainable farm? Notes:	30-0 pts.	=	_ points
		=	points
Does this parcel seem to be a part of a working lands community: Notes:	20-0 pts.	-	<u>_ poe</u>
		=	_ points
Does this project meet the objectives of Article 61: Agricultural Development and Preservation of Farmland? Notes:	100-0 pts.		
		=	_ points
PART 3: TOTAL FARMLAND PROTECTION PROGRAM RANKING PO	DINTS		
Total Site Evaluation Score	(maxir	= num = 500	_ points points)
PART & CONCURRENCE		75	<u> </u>
I (we) concur with the points awarded to this offered land on this ADFP Trust Fund ranking worksheet. I (we) have re Program eligibility guidelines and, to the best of my (our) knowledge, believe this land meets the eligibility criteria. I (we) that this tract should not be accepted into this program.			
(Signature of NCDA&CS Staff Member) (Date) (Signature of NCDA&CS Env. Progr	_ ams Director)	(Date)	



General Assembly of North Carolina

Environmental Review Commission CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER REPRESENTATIVE LUCY T. ALLEN

P.

State Legislative Building Raleigh, Rorth Carolina

7 April 2008

GEORGE E GIVENS COMMISSION COUNSEL 545 LEGISLATIVE OFFICE BUILDING 300 NORTH SALISBURY STREET RALEIGH, NORTH CAROLINA 27603 (919) 733-2578 FAX: (919) 715-5460

SUSAN'S IDDINGS ASSISTANT COMMISSION COUNSEL

JEFF W. HUDSON ASSISTANT COMMISSION COUNSEL

JENNIFER L. McGINNIS ASSISTANT COMMISSION COUNSEL

JENNIFER R. F. MUNDT COMMISSION ANALYST

MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

MEMBERS

SENATOR STAN W. BINGHAM SENATOR KATIE G. DORSETT SENATOR JAMES S. FORRESTER SENATOR ELEANOR G. KINNAIRD SENATOR A.B. SWINDELL SENATOR DAVID F. WEINSTEIN

REPRESENTATIVE PRYOR A. GIBSON

REPRESENTATIVE JAMES A. HARRELL REPRESENTATIVE PRICEY HARRISON REPRESENTATIVE CAROLYN H. JUSTICE REPRESENTATIVE RUTH SAMUELSON REPRESENTATIVE EDITH D. WARREN REPRESENTATIVE LARRY W. WOMBLE

MEMORANDUM

To:

Members of the Environmental Review Commission

From:

Mariah Matheson, Commission Assistant

Re:

Reports to the Commission

The following reports have been submitted by the Department of Environment and Natural Resources to the Commission and are attached to this memorandum:

- Annual report on the Parks and Recreation Trust Fund, Fiscal Year 2007-2008. 1 October 2007. 1) Statutory Authority: G.S. 113-44.15(c).
- Semi-annual report on acquisitions made from the Natural Heritage Trust Fund. Within 30 days 2) after each revision. Statutory Authority: G.S. 113-77.9(e).
- Biennial report on the Natural Heritage Program. 15 February of odd-numbered years. Statutory 3) Authority: G.S. 113-164.4.
- Annual report on the Conservation Easement Program. 1 October 2007. Statutory Authority: G.S. 4) 113A-235(c).
- Annual report on the NC Million Acre Initiative. 1 October 2007. Statutory Authority: G.S. 113A-5) 241(c)).

The following report has been submitted by the Clean Water Management Trust Fund to the Commission and is attached to this memorandum:

Annual report on the implementation of the Clean Water Management Trust Fund. 1 December 1) 2007. Statutory Authority: G.S. 113-145.6A.

Environmental Review Commission Reports Distribution – 7 April 2008 Page 2

The following report has been submitted by the Agriculture Development and Farmland Preservation Trust Fund and Advisory Committee and will be distributed in connection with today's agenda:

1) Annual report on the activities of the Committee, the agriculture easements purchased, and agricultural projects funded during the previous year. 1 May 2008. Authority: S.L. 2007-495.

The Commission staff is not holding any reports at this time.

Please contact George Givens, Jeff Hudson, Jennifer McGinnis, Jennifer Mundt, or Mariah Matheson at (919) 733-2578 if you have any questions or comments.



North Carolina Parks & Recreation Trust Fund

March 16, 2008

Jonathan B. Howes. Chair

Timothy L. Aydlett

M. Wendell Begley

Thomas Blue

Daryle L. Bost

Robert Epting

Cody Grasty

Eddie Holbrook

Ron Kincaid

H. Boyd Lee

Philip K. McKnelly

Cynthia Tart

Lisa Weston

Hollis Wild

Edward Wood

The Honorable Joe Hackney

North Carolina House of Representatives

Room 2304

Legislative Building

Raleigh, North Carolina 27601-2808

Dear Representative Hackney:

As chair of the Parks and Recreation Authority, I am pleased to submit the Parks and Recreation Trust Fund (PARTF) Progress Report for fiscal year 2007-2008.

Through PARTF, the state continues to address the tremendous needs in North Carolina's state parks system. This report shows allocations for land acquisitions, capital improvements, renovation projects, emergency repairs, trails and maintenance in the state parks.

Thanks to PARTF, the Division of Coastal Management is able to give greater assistance to coastal communities in their endeavors to provide the public's access to the state's beaches and waterways.

The PARTF grants program for local governments for 2007-08 is underway. Ninety-three communities have submitted applications seeking over \$29 million in PARTF assistance. The Parks and Recreation Authority is scheduled to select grant recipients in May and July.

If you have any questions or comments about the report, please call me at (919) 962-1558.

Sincerely,

Jonathan N. Howes, Chairman

North Carolina Parks and Recreation Authority

Enclosure

Cc: (see next page)

Department of Environment and Natural Resources Division of Parks and Recreation Parks and Recreation Trust Fund (PARTF) Progress Report March 15, 2008

This progress report for the Parks and Recreation Trust Fund (PARTF) shows activities of and allocations from the Trust Fund for July 1 to December 31, 2007. The Division of Parks and Recreation submits this report as required under G.S. §14.6. 113-44.15(c).

General Program Description

The North Carolina Parks and Recreation Trust Fund (PARTF) established by the North Carolina General Assembly on July 16, 1994. The General Assembly gave an initial appropriation of \$1 million to PARTF for state parks and for a local government's matching grants program. In 1996, the General Assembly authorized legislation to direct a portion of the funds collected from the excise stamp tax on deed transfers to fund the trust fund. The Parks and Recreation Authority, an 11-member board, was also created to allocate funds from PARTF to state parks and to the local government grants programs.

Pursuant to G.S. 113-44.15, the Parks and Recreation Trust Fund is to be allocated as follows:

- 1. Sixty-five percent (65%) for the State Parks System for capital projects, repairs and renovations of parks facilities, and land acquisition.
- 2. Thirty percent (30%) to provide matching funds to local government units on a dollar-for-dollar basis for local park and recreation purposes.
- 3. Five percent (5%) to the Division of Costal Management for the Coastal and Estuarine Water Beach Access Program.
- 4. No more than three percent (3%) for operating expenses associated with managing capital improvements projects, acquiring land, and administering the local grants program.

State Parks Land Acquisition

The Parks and Recreation Authority approved land acquisition at eight state parks and one state natural area for a total of \$15.3 million. (Table 3 and 4) The amount is 80 percent of the anticipated revenues of the \$18 million to be allocated in 2008 to acquire land in the state parks system. The Authority approved the acquisition of more than 1,600 acres.

Coastal and Estuarine Water Beach Access Program

The Division of Parks and Recreation transferred \$1,518,882, 5 percent of PARTF revenues, to the Division of Coastal Management. The Division of Coastal Management distributes these funds to grant recipients according to criteria approved by the Coastal Resources Commission. Grants are awarded for the Coastal and Estuarine Water Beach Access Program.

Local Government Grants Program

Thirty percent of PARTF revenues are to provide matching funds to local governments on a dollar-to-dollar basis for local park and recreational purposes. The division sent letters to all eligible applicants in September 2007 notifying them of the upcoming grant cycle. Staff conducted a PARTF application workshop, attended by 124 participants, in October 2007 via video conferencing at seven UNC sites across the state. The deadline to submit a grant application was January 31, 2008. The division received 93 grant applications from local governments asking for \$30 million in assistance. The Authority will meet in early May and July to select grant recipients. Prior to awarding grants, the members will review project evaluations and other relevant data prepared by the applicant and by division staff.

Program Administrative Expenditures

As established in G.S. 113-44.5, up to 3 percent of PARTF money may be used by the Department of Environment and Natural Resources for operating expenses associated with managing capital improvements projects, acquiring land, and administering the grants program for local governments. The administrative costs of the trust fund are reported annually in the year end report. During the past three fiscal years, administrative costs have been held to approximately 2 percent.

LAND FOR TOMORROW AND WATERFRONT ACCESS AND MARINE INDUSTRY FUND

In the 2007 session, the General Assembly authorized \$120 million in Certificates of Participation funding (COPS). The Land for Tomorrow and Waterfront Access and Marine Industry Fund authorizes the issuance or incurrence of special indebtedness in the maximum principal amount of \$120,000,000 to be used to

Table 1: Parks and Recreation Trust Fund (PARTF) Distribution of Revenues as of December 31, 2007 and FY 2007-20008 Revenue Projections

Item	Year-to-Date Distribution	FY 2007-2008 Revenue Projections
Total Revenues	\$30,377,840	\$57,197,357
Public Beach and Coastal Waterfront Access Program (5%)	\$1,518,882	\$2,859,868
Local Governments Matching Grants (30%)	\$8,839,951	\$16,644,431
State Parks System (65%)	\$19,153,228	\$36,062,934
Administrative Expenses (Up to 3%)	\$856,768	\$1,630,125

Table 2: Parks and Recreation Trust Fund Capital Projects for Fiscal Year 2007-08

Park	Description	Costs
Park System	Major Maintenance Funds	\$1,200,000
Park System	Trail Maintenance Funds	\$500,000
Park System	Statewide Construction Reserve	\$864,550
Carolina Beach	Marina Dredging/Facility Improvements	\$2,300,000
Chimney Rock	Trail Structure, Cistern, & Emergency Generator Improvements	\$865,550
Cliffs of the Neuse	Visitor Center & Eastern District Office	\$3,299,260
Gorges	Phase I-B: Visitor Center, Sewer, Picnic Area, Maintenance Area (Design Only)	\$695,900
Haw River	Brown Summit Center Repairs/Renovations (Cottage 400)	\$450,000
Kerr Lake	Henderson Point Campground Improvements	\$1,769,639
Morrow Mountain	Shoreline Improvements & Boathouse Replacement	\$1,152, 596
Mount Mitchell	Water System Improvements	\$450,000
Pettigrew	New Maintenance Area & Conversion of Existing Area to Staff/Public Space	\$844,889
Pettigrew	Pocosin Natural Area Improvements	\$101,970
Raven Rock	Visitor Center & Picnic Area	\$3,588,966
	TOTAL	\$18,083,320

Table 4: North Carolina Division of Parks and Recreation Land Acquisition Projects for FY 2007 - 2008 Indebtedness Approved using Certificates of Participation October 2007

Unit	Acres	Cost Up To	Description
Deep River State Trail	73	\$500,000	Two tracts across from White Pines
Elk Knob State Park	180	\$1,500,000	Ney tracts in the state park study area
Haw River State Park	300	\$7,000,000	River corridor tracts and core area tracts in the study area for Haw River State Park. Includes a key tract adjacent to The Summit Environmental Education Center that has been subdivided.
Mount Mitchell State Park	65	\$1,000,000	Privately held tracts in the Black Mountains from willing sellers. Currently two tracts in appraisals.
Totals	618	\$10,000,000	appraisais,



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

March 31, 2008

MEMORANDUM

TO:

Senator Charles Albertson, Senator Daniel Clodfelter,

Representative Pryor Gibson, III, Representative Lucy Allen

FROM:

William G. Ross, Secretary, Department of Environment and Natural Resources

SUBJECT:

Natural Heritage Trust Fund Annual Report – Calendar Year 2007

As required by G.S. 113-77.9(e), we are pleased to present to the Environmental Review Commission the calendar year 2007 grant award report for the N.C. Natural Heritage Trust Fund. During the calendar year 2007, the Board of Trustees for the Natural Heritage Trust Fund awarded \$36,149,061 for 44 projects to help protect over 20,000 acres of land with outstanding natural and/or cultural heritage value. In order to fund many of these high-priority, timesensitive projects, we used \$11,297,400 in Certificates of Participation (COPS). When the Trustees meet on April 14, 2008, we expect to need to use the remaining funds from the original \$50,000,000 in COPS authorization granted by the General Assembly in the 2007 Legislative session.

I've also enclosed a copy of the N.C. Wildlife Resources Commission's magazine as it has an excellent article commemorating the 20th Anniversary of the Natural Heritage Trust Fund.

If you have any questions, please contact the Natural Heritage Trust Fund's Executive Director, Lisa Riegel, at (919) 715-8014.

Attachment





ANNUAL REPORT

CALENDAR YEAR 2007

A Report to the Governor and General Assembly



William G. Ross, Jr., Secretary N.C. Department of Environment and Natural Resources

J. Robert Gordon, Chairman Board of Trustees NC Natural Heritage Trust Fund

NORTH CAROLINA NATURAL HERITAGE TRUST FUND AWARD REPORT – CALENDAR YEAR 2007

Origins and Mission

The North Carolina Natural Heritage Trust Fund (NHTF) was established by the 1987 General Assembly (G.S. 113-77, effective July 1, 1987) as a supplemental funding source for state agencies to acquire lands and to pay for the inventory of natural areas by the North Carolina Natural Heritage Program. A twelve-member board of trustees administers the Trust Fund.

Board of Trustees

NHTF is delegated the authority to grant funds to eligible state agencies pursuant to applications which meet statutory criteria and board guidelines. The governing authority for the Trust Fund is a 12 member board of Trustees. This number was increased from nine members during the 2001 legislative session. Four members are appointed by the Governor who also designates the chairman. Eight members are appointed by the General Assembly with four recommended by the President Pro Tempore of the Senate and four recommended by the Speaker of the House. Appointments are made effective January 1 and are for staggered six-year terms. Persons appointed are to be knowledgeable in the acquisition and management of natural areas.

BOARD OF TRUSTEES

Governor Appointees Charles E. Clement Watauga County 2002-2008	Senate Appointees J. Robert Gordon, Chairman Scotland County 2002-2007	House Appointees Alan D. Briggs Wake County 2006-2011
Thomas D. "Bud" Hunter	Lois McIver Winstead	William Joslin
Henderson County	Person County	Wake County
2004-2009	2005-2009	2002-2007
R. Michael Leonard	Portia Hawes	Henry L. Kitchin
Forsyth County	Warren County	Richmond County
2006-2011	2006-2011	2002-2007
Elizabeth D. Taft, Ph.D.	Dewey W. Wells	Thomas W. Reese
Pitt County	Avery County	Catawba County
2002-2007	2002-2007	2004-2010

Board of Trustee Membership Changes

At the end of 2007, two long-serving Trustees retired. William Joslin, a Raleigh attorney, was instrumental in working with the legislature to get the original NHTF statute passed in 1987. He was appointed to the board in 1989 and had served for 19 years when he retired. Dewey W. Wells, an attorney residing in Blowing Rock was appointed to the first board of the NHTF in 1988 and served for almost 20 years before retiring. The General Assembly, at the recommendation of the President Pro Tempore, appointed Samuel P. Douglas from Wilson County to replace Mr. Wells; and, at the recommendation of the Speaker of the House, Dr. Alan S. Weakley replaced Mr. Joslin.

Natural Heritage Trust Fund Staff

Since September 2005, the Board has been supported by an Executive Director:

Lisa D. Riegel 521 N. Salisbury St., MSC 1601 Raleigh, NC 27699-1601 (919) 715-8014 lisa.riegel@ncmail.net

The NHTF also supports a real estate agent housed in the Department of Administration's State Property Office (SPO) to assist applicant agencies in developing and implementing NHTF-funded land acquisitions. This real estate agent has been instrumental in ensuring that acquisitions comply with state requirements. Operating expenses for personnel, producing and distributing grant materials, meeting expenses, etc., continue to be below 1% of the program.

Funding Sources

Since 1987, and as of December 31, 2007, NHTF has received over \$199 million dollars including an initial appropriation of \$275,000 (Table 1). The primary source of funding for the NHTF is the state excise tax on real estate conveyances. NHTF receives 25% of the state's portion of the \$2 per \$1,000 value deed stamp tax. The County retains half of this tax while the state receives 50% less allowable administrative costs. The second major source of funding is a portion of the additional fee charged for personalized license plates. The state charges an additional fee of \$30 for each personalized license plate; \$15 of this additional fee is credited to the NHTF. NHTF also receives a portion for specialty license plates in some cases: \$10 for each "First in Forestry" license plate and \$15 for each out-of-state college specialty license plate. Monies not expended remain in the interest-accumulating Natural Heritage Trust Fund account and do not revert to the General Fund. The final source of funding is interest from funds in this account.

Grant Criteria

Grants are awarded for the purposes of acquiring lands that

- represent the state's ecological diversity to ensure their preservation and conservation for recreation, scientific, education, cultural and aesthetic purposes;
- add to the system of parks, State trails, aesthetic forests, wild and scenic rivers, fish and wildlife management areas and other natural areas for the beneficial use and enjoyment of the public; and
- help to develop a balanced state program of historic properties.

Funds are also allocated to the N.C. Natural Heritage Program for natural area inventories and conservation and protection planning of natural areas. These data are then used to help guide land management and conservation decisions by state and federal agencies, and also by private groups and businesses, ensuring that conservation dollars are spent to strategically protect the highest quality areas.

In 2004, the General Assembly also authorized the NHTF to be used to retire debt incurred by granting funds for land acquisitions for the purposes listed above.

Eligible Agencies

State agencies authorized to apply for grant awards are:

- Department of Environment and Natural Resources,
- Wildlife Resources Commission,
- Department of Cultural Resources, and
- Department of Agriculture and Consumer Services.

Priority consideration is given to protection of land having outstanding natural or cultural heritage values. Land with outstanding natural heritage values is land that is identified by the N.C. Natural Heritage Program as having state or national significance. Land with outstanding cultural heritage value is land that is identified, inventoried or evaluated by the Department of Cultural Resources.

Income and Awards

As shown in Table 1, income for calendar year 2007 was \$23,547,817. Income from the deed stamp tax (real estate transfer tax) was down over \$1 million (6%) from the previous year as might be expected given the current national real estate market. The decrease was slightly offset by an increase in interest earned and from the sale of personalized license plates. Overall, income was down about 2% from the previous year.

Since 1987, and as of December 31, 2007, NHTF has contributed to the protection of over 264,000 acres through 420 grants totaling over \$218 million in funding (Tables 2 and 3). The locations of these projects are shown on Figure 1. Grants exceed total income due to re-granting of returned funds and the issuance of Certificates of Participation (COPs) as discussed below. Due to insufficient funds, the NHTF is typically unable to fund about 52% of the high quality eligible requests. In 2007, NHTF received over \$73 million in requests.

Awards are higher in some years than the income because in 2004 the General Assembly authorized the three natural resource trust funds (NHTF, Clean Water Management Trust Fund and Parks and Recreation Trust Fund) to incur debt up to a combined total of \$45 million through special financing, referred to as Certificates of Participation (COPs), to acquire property meeting specified criteria. NHTF used this special financing mechanism (COPs) to fund projects several projects between 2004 and 2005, at which point the authorized amount (\$45 million) of COPs financing was completed between the three trust funds. Now NHTF repays the debt and interest using annual receipts.

Another reason for award levels exceeding income is that some grants are returned to NHTF to be re-granted because the properties were unable to be acquired and/or the final acquisition costs were less than the grant. Refer to Table 2.

During the calendar year 2007, NHTF awarded 44 grants totaling \$36,149,061 which contributed to the protection of over 20,000 acres (Table 4). The awards in excess of income were made possible by new enabling legislation. In the 2007 Legislative session, the General Assembly again provided NHTF with the authority to use COPS – this time up to \$50 million. At the Fall 2007 award meeting, the Trustees began to use some of this special indebtedness financing to fund high quality, high priority projects that would otherwise be lost to development. A total of \$11,297,400 of the 2007 awards were made using COPS. The Trustees plan to allocate the remaining COPS authorization in the coming cycles for similar high priority projects.

Detailed summaries of the Spring 2007 and Fall 2007 awards are included as Tables 5 and 6 respectively. Project locations are shown in Figure 2 (Spring 2007 projects) and Figure 3 (Fall 2007 projects). Important to note in the project descriptions is the leveraging of NHTF funds; many, if not most, include matching funding from federal, private, and/or other state sources.

Conclusions and Recommendations

The Natural Heritage Trust Fund celebrates its 20th anniversary this year. To commemorate this milestone, an anniversary report is currently being prepared to document the history and highlight some of the remarkable accomplishments made possible through grants from the Natural Heritage Trust Fund.

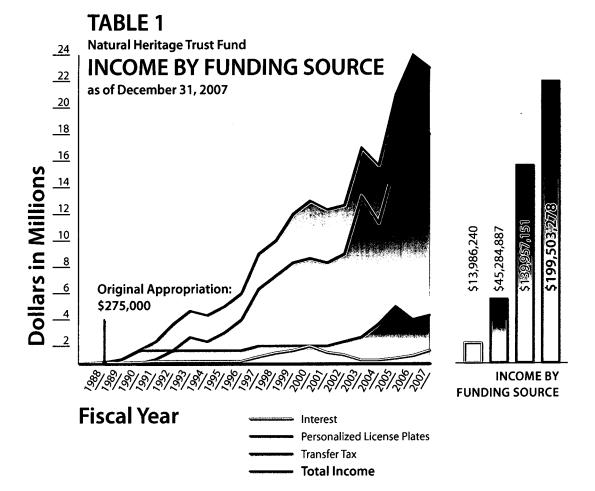
NHTF continues to see more demand for funding than can be provided. Our applicants have compiled a list of land acquisition projects for the near future that show need far outpacing funding. The recently developed statewide conservation planning tool (developed in large part with NHTF funds) clearly shows the need for additional land acquisitions to provide the needed network of natural systems to sustain the quality of life the citizens of North Carolina expect. However, rather than increasing income, once COPs debt repayment begins, the annual NHTF funds available will be decreased by approximately 25%.

NHTF must continue to encourage creative funding of projects through matching other grant programs or private donations. The conservation plan is helping NHTF and other organizations insure that the state's limited resources are used most effectively on the highest priority areas.

LIST OF TABLES AND FIGURES

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Spring 2007 Grant Awards Summary	Table 5
Map of Spring 2007 Project Locations	Figure 2
Fall 2007 Grant Awards Summary	Table 6
Map of Fall 2007 Project Locations	Figure 3





Fiscal Year	Personalized	Transfer Tax	Interest	TOTAL
	License Plates			INCOME
Original				\$275,000
Appropriation				
1988			\$31,091	\$31,091
1989	\$183,899		\$17,541	\$201,440
1990	\$1,798,712		\$89,992	\$1,888,704
1991	\$1,713,063	\$430,747	\$199,333	\$2,343,142
1992	\$1,663,382	\$1,792,224	\$264,976	\$3,720,582
1993	\$1,685,086	\$2,488,339	\$332,429	\$4,505,854
1994	\$1,745,402	\$2,108,936	\$398,623	\$4,252,961
1995	\$1,817,824	\$2,966,118	\$352,204	\$5,136,146
1996	\$1,841,361	\$3,925,536	\$350,826	\$6,117,723
1997	\$1,929,377	\$6,235,300	\$909,096	\$9,073,773
1998	\$1,921,397	\$7,288,799	\$1,249,495	\$10,459,691
1999	\$2,149,821	\$8,435,312	\$1,579,600	\$12,164,733
2000	\$2,271,658	\$8,542,866	\$2,181,016	\$12,995,540
2001	\$2,304,127	\$8,471,697	\$1,348,659	\$12,124,484
2002	\$2,475,324	\$8,969,100	\$849,152	\$12,293,576
2003	\$2,593,762	\$13,872,797	\$439,952	\$16,906,511
2004	\$3,741,921	\$11,597,598	\$440,806	\$15,780,325
2005	\$4,964,969	\$15,937,416	\$662,851	\$21,565,235
2006	\$4,166,738	\$18,981,304	\$970,907	\$24,118,949
2007	\$4,317,063	\$17,913,062	\$1,317,692	\$23,547,817
Total Income	\$45,284,887	\$139,957,151	\$13,986,240	\$199,503,278

Table 2
Natural Heritage Trust Fund
INCOME and AWARD SUMMARY
as of December 31, 2007

Calendar	Incomo	Funds	Funds	Funds Awarded
Year	Income	Returned	Requested	
1987	\$275,000	\$0	\$0	\$0
1988	\$31,091	\$0	\$494,000	\$270,000
1989	\$201,440	\$0	\$1,383,000	\$136,500
1990	\$1,888,704	\$21,892	\$2,121,892	\$946,792
1991	\$2,343,142	\$221,068	\$6,519,385	\$2,769,180
1992	\$3,720,582	\$1,157,400	\$7,826,700	\$4,013,425
1993	\$4,505,854	\$210,084	\$7,688,259	\$4,569,259
1994	\$4,252,961	\$30,302	\$14,260,282	\$5,389,291
1995	\$5,136,146	\$48,000	\$16,023,050	\$6,122,199
1996	\$6,117,723	\$9,670	\$18,806,218	\$4,639,473
1997	\$9,073,773	\$684,111	\$17,058,459	\$8,387,003
1998	\$10,459,692	\$2,153,819	\$12,702,410	\$11,554,810
1999	\$12,164,733	\$1,470,910	\$23,856,006	\$13,752,006
2000	\$12,995,540	\$1,085,982	\$26,282,825	\$13,499,293
2001	\$12,124,484	\$516,099	\$23,253,591	\$11,471,188
2002	\$12,293,576	\$263,337	\$24,520,903	\$9,688,240
2003	\$16,906,511	\$10,889	\$37,542,616	\$13,422,487
2004	\$15,780,325	\$1,798,769	\$32,582,226	\$16,858,150
2005	\$21,565,235	\$2,840,000	\$50,596,522	\$28,030,103
2006	\$24,118,949	\$1,541,958	\$55,510,660	\$26,643,982
2007	\$23,547,817	\$3,258,826	\$73,289,835	\$36,149,061
Total 1987-2007	\$199,503,278	\$17,323,116	\$452,318,839	\$218,312,442

TABLE 3

Natural Heritage Trust Fund

GRANTS AWARD SUMMARY

1987 — December 2007

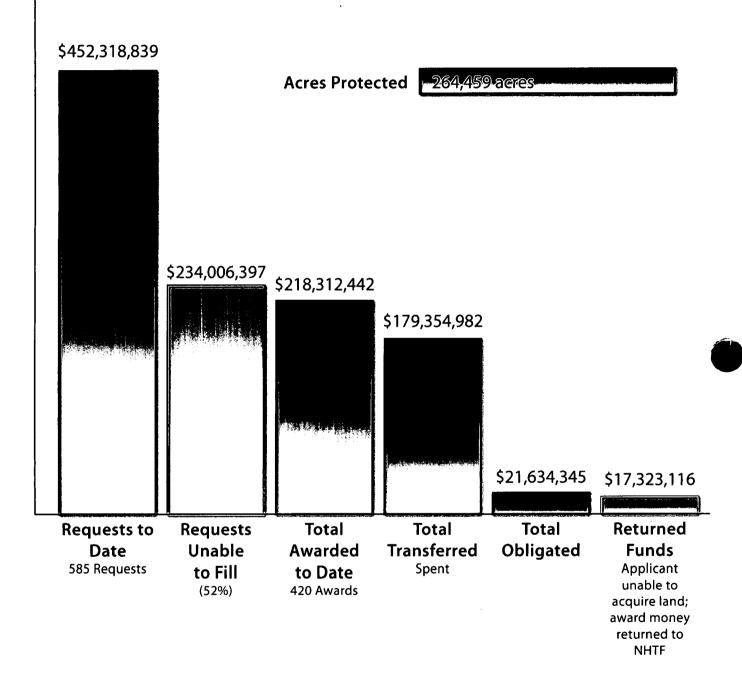


Figure 1
Natural Heritage Trust Fund
Project Locations
1988-2007

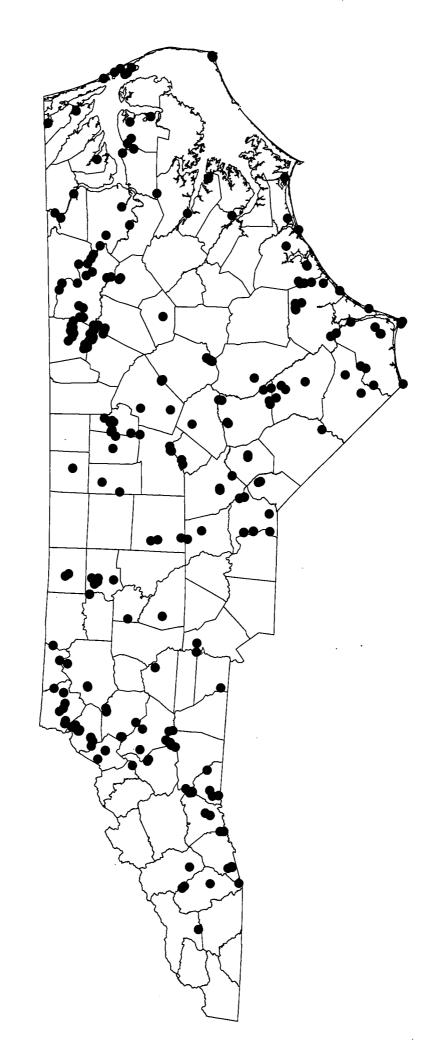
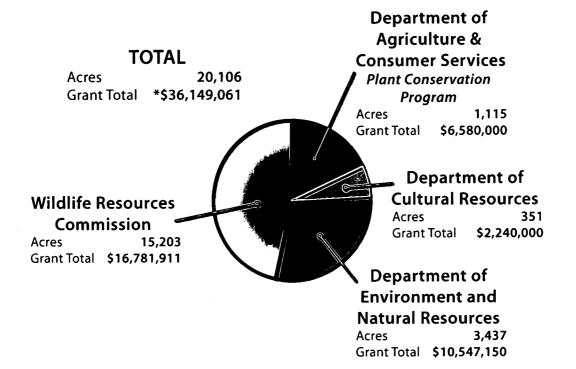


TABLE 4

Natural Heritage Trust Fund

GRANTS AWARD TOTALS BY AGENCY

Calendar Year 2007



*NOTE: \$11,297,400 funded using COPS

TABLE 5
Natural Heritage Trust Fund
Spring 2007 Awards Summary

Š	No. Agency	Project Title	County	Award	Acres	Description
-	DACS/ PCP	Eastwood Plant Conscrvation Preserve	Moore	\$500,000	47	Requesting funds to add approximately 46 acres to the recently established Eastwood Plant Conservation Preserve (formerly NC 73 Power line). This tract is a key portion of the Preserve design which features upland longleaf pine and streamhead seepage wetlands, as well as the Sandhills Lily, a globally rare & state endangered species. NOTE: the location of this plant 47 is "data sensitive" due to potential for poaching and theft. Please be cautious with information regarding this location.
2	DACS/ PCP	Dulany Bog Plant Conservation Preserve	Jackson	8650,000	39	Requesting funds to purchase and protect a recently discovered population of Fraser's Loosestrife (a globally rare, state endangered species). Tract also supports a portion of Southern Appalachian Bog and wetlands along the East Fork of the Chattooga River, a National Wild & Scenic River. Tract is a key inholding within the Dulany Bog SNHA and Nantahala 39 National Forest and protection of the tract is supported by several agencies. Option expires 4/30/07.
ю	DACS/ PCP	Schulkens Savanna Plant Conservation Preserve	Columbus	\$716,000	631	Requesting funds for fee simple acquisition of 2 Keystone Properties (former Plum Creek Timber Co.) tracts which represent the majority of the Schulkens Savanna SNHA. This proposed preserve supports at least 4 state listed plant species & one of the few known examples of a very rare longleaf pine savanna community type. The primary objective will be to restore longleaf pine savanna as habitat for the rare species through reintroduction of fire & other means as necessary. Only partial 631 funding awarded for the northern tract of 308 acres. Original request was for \$2,050,000.
	DACS/ PCP		SUBTOTAL	\$1,866,000	716	
4	DENR/ DPR	Hickory Nut Gorge State Park-Phase IV	Rutherford	\$2,500,000	138	Request funds for the acquisition of 138 acres for the recently authorized Hickory Nut Gorge State Park. Acquisition will preserve much of the nationally important Chimney Rock Park natural heritage areas. Acreage is part of the Southeastern Escarpment Megasite and the Hickory Nut Gorge Macrosite; project is part of a larger effort including The Nature 138 Conservancy's Bat Cave and Rumbling Bald Preserves. Matching funds committed \$22,200,000 and \$1,500,000 requested.
8	DENR/ NHP	Continuation of County- & Protection Focused Natural Area Inventories	Multiple	\$300,000		Request funds to support the county-wide and protection-focused natural area inventories. Funds will be used to support existing NHP staff during 2008-2010 & to contract with local land trusts. Information/data gained from these inventories will be provided to land conservation agencies, local governments & other organizations for site specific & regional conservation planning initiatives. Covers a 3-year project. Due to limited funds, only 1st YEAR committed at this time. Original grant request - \$900,000.
9	DENR/ NHP	Continuation of Inventory of Aquatic Significant Natural Areas	Statewide	\$81,000		Requesting additional funding of \$243,000 to fund the inventory & conservation planning of NC aquatic natural areas. Aquatic ecosystems are the most threatened of NC natural systems. The quality of our aquatic ecosystems is so degraded that nearly 30% of our native species of fishes, mussels and craylishes are threatened with extinction. This project will continue to identify and facilitate conservation of the most significant aquatic natural heritage areas, thus slowing further decline of aquatic species. Covers 3 years and is matched by \$48,000 per year by WRC. Due to limited funds, only 1st YEAR committed at this time. Original grant request - \$243,000.

TABLE 5 Natural Heritage Trust Fund Spring 2007 Awards Summary

Š	Agency	No. Agency Project Title	County	Award	Acres	Description
7	DENR/ DPR	Sandy Run Savannas Statc Natural Arca-RMK Tract	Onslow	\$172,500		Request funds for the acquisition of 48 acres at Sandy Run Savannas State Natural Area. Acquisition of this property would help protect water quality in the Cape Fear River basin, conserve unique coastal plain habitats & buffer Camp Lejeune from encroaching development. According to EEP, Sandy Run lies within one of the largest nearly contiguous natural areas in NC. Matching funds committed \$135,000; requested \$200,000. Remaining funds (\$27,500) to come from Military Support 48 Grant.
∞	DENR/ DFR	Rendezvous Mountain Educational State Forest - McElwee Acquisition	, Wilkes	\$480,000		To acquire and conserve the 315 acres of the McElwee tracts. This would be an opportunity for the State to permanently protect 266 acres of the high public use & historic portion of Rendezvous Mountain Educational State Forest (RMESF)'s main ridgetop with its natural communities on the northern boundary. The landowner approached DFR with a proposal to sell due to his desire to see the property permanently protected and as an inclusion to RMESF. RMESF is managed as a living laboratory where visitors leam about sustainable forest management & the natural resources it provides. DFR is also seeking a match of \$194,200 from CWMTF. Granted half of request (\$959,246) due to limited fund available. DPR will 266 need to reapply in Fall for remaining funds.
6	DENR/ DPR	Elk Knob Statc Natural Area Land Acquisitions	Southwestern Ashe & Northern Watauga	\$780,000		The acquisitions will help protect several of the peaks that ring Long Hope Valley including the southeastern side of Elk Knob, Rittle Knob & Big Knob. Three high quality natural communities, including the rare Beech Gap subtype of the Northern Hardwood Forest natural community, have been identified in the project area. Two rare animals & ten rare plants have also been documented across the project area. Matching funds committed \$756,000; requested \$620,000. Partially 363 funded the \$3,280,000 request.
	DENR		SUBTOTAL	\$4,313,500	815	
10	DCR	Contentnea Creck Archaeological Preserve Land Acquisition	Wilson	\$175,000		DCR, working jointly with the Archaeological Conservancy, will purchase the 63 acre site in fee simple & establish it as a permanently protected archaeological research preserve, accessible to the public by permission only and to archaeologists for research. This project will preserve a significant Native American archeological site and cultural resource in Wilson county. Site may also have natural area significance - TBD. Additional funding to be raised by the Archaeological Conservancy 63 (\$101,000). Note savings of \$70,000 through bargain sale by owner.
=	DCR	Valle Crucis-Mast General Store & Mission Ridge	Watauga	000'088\$		DCR will acquire 34.8 acres of highly visible ridgeline property known as Mission Ridge, overlooking the Valle Crucis National Register Historic District, as part of a long-term project to protect and preserve the scenic character of this rural community. This phase builds on the collaborative efforts of DCR, the High Country Conservancy, The Conservation Fund, and the Natural Heritage Trust Fund, which has to date resulted in the acquisition of easements and/or ownership of approximately 400 acres in the surrounding upper valley of Valle Crucis. The successful completion of this property acquisition will result in the donation of a preservation easement to the state on the historic Mast General Store in Valle 35 Crucis. Additional funds at \$220,000 will come from High Country Conservancy and The Conservation Fund.



TABLE 5 Natural Heritage Trust Fund Spring 2007 Awards Summary

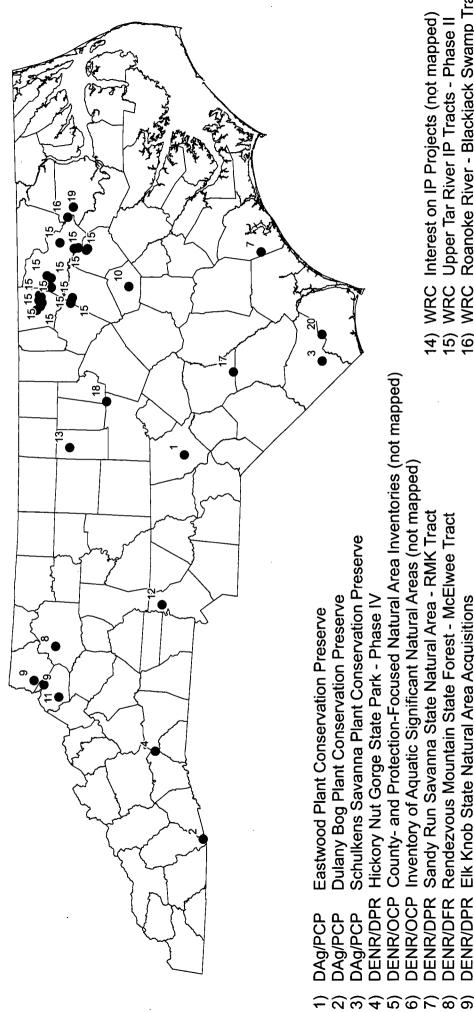
Š.	Agency	No. Agency Project Title	County	Award	Acres	Description
12	DCR	Cedar Grove Land Acquisition	Mccklenburg	\$150,000		To acquire 4 acres surrounding the historic Cedar Grove House, as part of a collaborative project with the Trust for Public Land, the Clean Water Management Trust Fund, and Mecklenburg County to acquire and protect the remaining 38 acres of the original 1400 acre plantation. Built 1831-1833, the house is one of the Piedmont's most architecturally significant dwellings. Its historic agricultural setting is now seriously threatened by rapid suburban growth north of Charlotte. CWMTF (pending grant request \$636,800) will acquire 18 acres along McDowell Creek, while Mecklenburg Co. (proposed \$551,500) will acquire 16 acres of upland property. The owner will retain the house and a 1-acre lot, and place an historic easement on 4 the house and lot.
13	DCR	Glencoc Mill Village Historic District Land Acquisition	Alamance	\$170,000		DCR proposes to purchase 33 acres of undeveloped land located within the Glencoe Mill Village in Alamance County. DCR would then lease the land to Alamance county to manage as a public park with passive recreation opportunities such as trails, picnic areas and canoe/kayak access to the Haw River. The Glencoe Mill & Mill Village, built in 1880-82 is one of the most intact historic industrial sites in NC. The area is now rapidly developing and its historic tural character is threatened. Protecting this land will preserve Glencoe's rural context, while providing public recreational and educational opportunities.
	DCR		SUBTOTAL	81,375,000	135	
14	WRC	Interest on International Paper Projects		\$213,375		4 Project Areas were funded in Fall 2006 to acquire lands previously-owned by International Paper (Upper Tar, Lower Roanoke, Chowan River and Johnson's Landing). Total award was \$4,263,698. Requested funding did not include interest charges. This request is for interest charges for these projects assuming a June 2007 close date. This represents 12% of the actual interest, proportional to NHTF share of the acquisition. Proposed CWMTF match of \$771,804 and Confirmed WRC match of \$732, 936.
15	WRC	Upper Tar River International Paper Tracts-Phase II	Upper Tar- Pamlico River Basin; Warren, Halifax, Franklin, Nash, and Edgecombe Counties	\$1,779,482		To acquire SNHA land: Fishing Creek Aquatic Habitat, Little Fishing Creek/Odell Hardwood Forest, Shocco Creek Aquatic Habitat, Little Floodplain Forest, Shocco Creek/Lickskillet Hardwood Forest and Lower Shocco Creek Bluffs and Floodplain Forest. Acquisition will expand protected land holdings in the upper Tar-Pamlico River Basin and SNHA while contributing to the WRC Game Land Program. Proposed CWMTF 1103 match of \$4,400,000 and confirmed WRC match of \$6,220,000.
16	16 WRC	Roanoke River International Paper - Blackjack Swamp Tract	Northwest of Lewiston; Bertic County	\$124,149		Purchase tract and incorporate into a larger landscape protection project. Enact land management activities on the complex which will benefit water quality and the unique natural communities by incorporating it into the NC WRC Game Lands Program. Provide research, hunting, fishing, trapping and wildlife observation opportunities. Proposed CWMTF match of \$1,56,900,000 and confirmed WRC match of \$1,981,215.

TABLE 5 Natural Heritage Trust Fund Spring 2007 Awards Summary

Ž	Agency	No. Agency Project Title	County	Award	Acres	Description
17	17 WRC	Jessups Mill Pond Tract	Cumberland	\$931,741		Acquire lands which are part of the Jessups Mill Pond State Significant Area; adjoins the Bushy Lake State Natural area which is of national significance; create a larger landscape wetland protection project; contribute toward linking the tract to Which is of national Significance, create a larger landscape wetland protection high quality Carolina Bay habitat. Confirmed CWMTF match of \$648,000.
82	WRC	NCSU New Hope Valley Forest	Durham and Chatham	\$370,000		Acquire tract to permanently protect this area known to have an established history of high bald eagle use; supporting active nests and summering populations. Management plans will be designed to maintain and enhance the area's habitat for bald eagles. Tract also provides access to the State Historic Mason Farm House, owned and managed by DCR. Acquisition will prevent sub-division of the tract which would greatly complicate management efforts by state and federal land managers. 216 (Total project 342 acres; proposed CWMTF match of \$1,279,480).
19	WRC	Weyerhaeuser Roquist Pocosin Tract Bertie	Bertie	\$398,650		Tract contains rare nonriverine wet hardwood forest habitat in and near the Roquist Pocosin. Acquisition of important components w/i the Roquist Wetland Restoration site will protect several rare animals and plants, a variety of landform 315 features and a natural community. Will be part of WRC Game Land. No match at present.
20	WRC	Juniper Creck International Paper Tract - Phase 1	Brunswick & Columbus	\$941,736		Incorporate into a much larger landscape wetland protection project. Protect several rare plants and animals and a variety of landform features and natural communities. The tracts contain a varied set of blackwater floodplain features that are habitat to 23 plant and animal species that are considered rare to varying degrees including 7 species of Federal lists. Enact land management activities on 3 tracts which will benefit water quality and unique natural communities by incorporating them into the NC WRC Game Lands Program and managing the property with the NC WRC professional staff. No match at 2284 present.
	WRC		SUB-TOTAL	\$4,759,133	5181	
	ALL APPs.		GRAND TOTAL	\$12,313,633	6847	
		NC - North Constinu				
	DACS/PC	DACS/PCP = NC Department of Agriculture and Consumer Services - Plant Conservation Program	l nsumer Services - P	lant Conservation P	rogram	
	DENR =	DENR = NC Department of Environment and Natural Resources	1 Resources			
	DPR = D	DPR = Division of Park Resources				
	DFR = D	DFR = Division of Forest Resources				
	NHP = N	NHP = Natural Heritage Program				
	OCP = 0	OCP = Office of Conservation & Planning				
	WRC = }	WRC = NC Wildlife Resources Commission				
	SNHA =	SNHA = Significant Natural Heritage Area				
	CWPT =	CWPT = Civil War Preservation Trust				
	DOT=L	DOT = Department of Transportation				
	CWMTF	CWMTF = Clean Water Management Trust Fund				



Natural Heritage Trust Fund Spring 2007 Awards Project Locations Figure 2



Dulany Bog Plant Conservation Preserve DAg/PCP

Schulkens Savanna Plant Conservation Preserve DAg/PCP

Hickory Nut Gorge State Park - Phase IV **DENR/DPR**

County- and Protection-Focused Natural Area Inventories (not mapped) DENR/OCP

Inventory of Aquatic Significant Natural Areas (not mapped) DENR/OCP

Sandy Run Savanna State Natural Area - RMK Tract **DENR/DPR**

Rendezvous Mountain State Forest - McElwee Tract **DENR/DFR**

Contentnea Creek Archaeological Preserve Land Acquisition Elk Knob State Natural Area Acquisitions **DENR/DPR** 10) DCR

Valle Crucis - Mast General Store and Mission Ridge 11) DCR 12) DCR 13) DCR

Glencoe Mill Village Historic District Land Aquisition Cedar Grove Land Aquisition

Interest on IP Projects (not mapped) 14) WRC |

Upper Tar River IP Tracts - Phase I WRC

Roanoke River - Blackjack Swamp Tract Jessup Millpond Tract WRC 16)

NCSU New Hope Valley Forest

Weyerhaeuser Roquist Tract Juniper Creek (IP) - Phase I

No.	Agency	No. Agency Project Title	County	Acres	Award	COPS Award Description	Description
-	DACS/ PCP	Hebron Road Plant Conservation Preserve - Phase II	Durham	29	\$625,000		Funding would complete acquisition of tract partially funded by NHTF and currently under contract with the Trust for Public Land. This tract complements efforts to protect one of NC's federal and state endangered species, the Smooth Coneflower, in a rapidly developing area of Durham.
7	DACS/	DACS/ Cedar Cliff Plant Conservation PCP Preserve - Holbrook tract	Jackson	7.5		\$80,000	Fee simple acquisition of tract know to support an excellent assemblage of natural community and rare plant elements. A purchase option, expiring December 20, was secured by the Highlands-Cashiers Land Trust on behalf of PCP. The tract has a rare plant list few other sites can match. State endangered Ammon's tortula (Tortula ammonsiana) has been reported here, and the site had been described as one of the best sites in the state for this globally imperiled species. The site also has the only occurrences in North Carolina of the rosette lichen (Physcia pseudospeciosa) and fragile tortula (Tortula fragilis), an historic record, as well as one of only four occurrences in the state of old man's beard \$880,000 (Usnea angulata).
m	DACS/	Eastwood Plant Conservation Preserve - Tufts tract	Мооге	127		Funding Eastwoo tract, un longleaf species i and the I \$1,300,000 location	Funding would add approximately 127 acres to the recently established Eastwood Plant Conservation Perserve (formerly NC 73 Powerline). This tract, under contract which expires October 31, 2007, includes upland longleaf pine and streamhead seepage wetlands. At least one of the rare species in the total project area is a known target for poaching and theft and the Program is trying to be cautious with information regarding this location.
4	DACS/	Boiling Spring Lakes Plant Conservation Preserve - Phase VII	Brunswick	TBD	\$500,000		Funding would support continued acquisition efforts by the Plant Conservation Program and TNC which have been supported by NHTF since 1999 and now total over 6,000 acres. This grant would allow for continued acquisitions within priority areas to consolidate Preserve ownership. The Preserve design features an outstanding complex of natural communities as well as a large collection of rare plant and animal species. It is one of the largest intact pine savanna-pocosin landscapes in North Carolina and in the entire Southeastern US, and hosts over half of the world's distribution of 2 natural community types.



TABLE 6 N.C. Natural Heritage Trust Fund Fall 2007 Award Summary

No.	No. Agency	Project Title	County	Acres	Award	COPS Award	Description
5	DACS/	DACS/ Tater Hill Plant Conservation PCP Preserve - Eason tract	Watauga	168		\$1,409,000	PCP is requesting funds to purchase one of the most significant remaining inholdings within the Tater Hill Preserve. The project area and this tract have been a priority for protection efforts since March 2000. The Preserve is one of the keystone Natural Heritage areas within the Amphibolite Mountains and protects a number of rare plants and natural communities. The Trust for Public Land has made an offer which has been verbally accepted by the owners. The offer is contingent upon the value being supported by appraisals and State Property Office approval. The tract is \$1,409,000 being actively marketed by a real estate agent.
	DACS/ PCP		SUBTOTAL	399	\$1,125,000		\$3,589,000 Total award to DACS/PCP = \$4,714,000
9	DCR	Bunker Hill Covered Bridge Land	Catawba	8.	\$115,000		To acquire 8.5 acres of wooded land adjacent to and overlooking the Bunker Hill Covered Bridge, built ca. 1895 and which is now the state's sole surviving original covered bridge. Bridge is listed on the National Register of Historic Places. The purpose is to preserve the rural wooded character of the bridge setting and prevent inappropriate residential development. In addition to protecting one of the state's rarest cultural resources, the site is located entirely within the Lyle Creek Corridor Significant Natural Heritage Area of Catawba Co, as identified by a Natural Heritage Inventory in 2002, and will thus protect important plants, animals, and the water quality of the associated streams. The property will be managed by Catawba County as part of the bridge park.

So.	Agency	No. Agency Project Title	County	Acres	Award	COPS Award	Description
7	DCR	Stagville Statc Historic Site Land Acquisition	Durham	100.0	\$400,000		Acquire approximately 100 acres of wooded and open land adjacent to the Stagville State Historic Site in northern Durham Co., in a joint project with the Triangle Land Conservancy. The proposed property surrounds a group of the state's finest mid-19th century agricultural buildings, including 4 slave houses and the largest antebellum barn still standing, as well as providing protection for the Bennehan House, built 1787-1800. This property would allow DCR to more than double the size of the existing 71 acres that now comprises the Stagville State Historic Site and eliminate a long-standing threat of intensive residential and industrial development that had been planned for that portion of the Treyburn property. The sale price of \$4,000 per acre represents a significant bargain sale being proposed by the present owners (total of \$700,000). In addition, \$55,000 in proposed funding from Upper Neuse Clean Water Initiative. The property would be managed by the DCR site staff now stationed at Stagville State Historic Site.
∞	DCR	Alamance Battleground State Historic Site Land Acquisition	Alamance	1.5	\$20,000		Acquire a parcel of approximately 1.5 acres located adjacent to the 18th century battlefield owned and operated by DCR as the Alamance Battleground State Historic Site. The subject parcel has a long common boundary with the historic battleground and is also located directly opposite the main entrance driveway leading to the site's Visitor Center. It is also believed to cover a portion of the historic battlefield not presently in state ownership. The parcel is a critical component of the viewshed and now subject to development pressure. It is availabe for purchse now for a brief period as a result of a bankruptcy proceeding. The property would be managed by DCR staff now stationed at Alamance Battleground State Historic Site.
6		Averasboro Battlefield-Calhoun Property Harnett & Easement	Harnett &	63.6	\$130,000		Request funds to purchase a conservation easement on the property to further protect the Averasboro Battlefield, in cooperation with the Averasboro Battlefield Commission, Inc. This parcel is located within the core area of the battlefield and has been identified as being a high priority acquisition. It is contiguous with a large portion already under protection. The total cost of the easement is \$245,000 plus associated costs, for a total project cost of \$260,000. The Civil War Preservation Trust will provide 50% match (\$130,000). This land is presently agricultural and is under cultivation.



TABLE 6 N.C. Natural Heritage Trust Fund Fall 2007 Award Summary

No.	Agency	Project Title	County	Acres	Award	COPS Award	Description
			-				Project will acquire 42 acres containing a 1.5 mile stretch of the historic Overmountain Victory Trail, within a larger project to acquire 159 acres along the Green River and a tributary. Acquisition will provide trail for pedestrian use and canoe access to the Green River. Bargain sale by owner on the 42 acres results in \$114,240 contribution. CWMTF grant confirmed of \$274,000 for 48 acres of riparian buffer within this larger 159 acre parcel. The remaining 69 of the 159 acre project is proposed to be acquired through a PARTF grant. The entire property will be managed by Polk County as a park, through a management agreement with DCR
2	DCR DCR	Alexander's Ford Land Acquisition	Polk SUBTOTAL	216	\$200,000		and the other funding entities.
=	DENR/ DPR	Chimney Rock State Park - V	Rutherford	229		\$4,192,000	To acquire 229 acres as part of 8 tracts at the recently renamed Chimney Rock State Park (formerly Hickory Nut Gorge State Park). Acquisition will help protect 4 Nationally significant natural heritage areas. Tracts are part of the Southeastern Escarpment Megasite and the Hickory Nut Gorge Macrosite; project is part of a larger effort including The Nature Conservancy's Bat Cave and Rumbling Bald preserves. Matching funds committed \$4,238,000 (PARTF) and \$750,000 (CWMTF) proposed.
12	DENR/ DPR		Ashe, Watauga	685		\$400,000	Acquisition of 685 acres in 6 tracts. Project would help protect the Nationally Significant Long Hope Valley/Elk Knob/The Peak SNHA and help create a larger network of conservation land stretching from Tater Hill to Mount Jefferson. The tracts in this request include\the best example of a rare hanging valley ecosystem if the southeast, 5 rare plant, 2 rare animal species, and at least 3 high quality natural communities. Matching funds committed \$51,000 (private donation); \$1,069,000 \$400,000 (PARTF) proposed.
13	DENR/ SWCD	Eagles Island Conservation Intitiative (Creech Tract)	Brunswick	258	\$302,000	0	This request is to acquire and conserve 258 acres (VA Creech tract) on Eagles Island, which comprises the majority of the Brunswick River / Cape Fear Marshes SNHA. Considered to be of State significance by the NC NHP, it contains the largest area of tidal freshwater marsh habitat in NC. This site supports the threatened American Alligator and the only NC population for the Rare Skipper. As a component of a larger effort on Eagles Island, where 264 acres have already been protected, this project is crucial to future conservation management of this habitat. Matching funds committed: \$18,900 (CWMTF & New Hanover S&WCD). Option expires April 2008.

No.	Agency	Project Title	County	Acres	Award	COPS Award	Description
41	DENR/ DFR	Terra Nova Center/Reasonover Creek Cove - Dupont State Forest	Transylvania	80	\$60,150		This 18-acre fee simple acquisition is part of a larger 200-acre conservation easement acquisition project. The 18-acre project includes a section of the Reasonover Creek SNHA which features "high quality examples of Rich Cove and Acidic Cove Forests". Conservation of the tract will protect wildlife habitat and water quality. Objectives of this project are to preserve important habitat for rare species, protect the Reasonover Creek Cove SNHA and contribute to the Blue Ridge Escarpment important wildlife corridor. The 18-acre tract will become part of the DuPont State Forest. Total cost \$226,250 is funded in part by CWMTF confirmed (\$79,340) and landowner donation (\$86,760). In addition the CWMTF provided \$587,660 for an easement on adjacent lands to total 200 acres with landowner contributing donation of \$624,060 and Carolina Mountains Land Conservancy donating \$281,400 towards the easement.
15	DENR/ DPR	Deep River State Trail	on one	61		\$409,000	Acquisition of 61 acres in 2 tracts to protect Nationally Significant RockcyRiver/Lower Deep River Aquatic Habitat and State Significant White Pines Natural Area SNHAs. Project would protect at least two rare species including the federally endangered Cape Fear Shiner and Harperella. Matching funds CWMTF \$409,000 \$669,500 confirmed and \$244,000 pending; and PARTF proposed \$419,641.
91	DENR/	Pettigrew State Park (Scuppernong River Section)	Tynell	765		\$267,500	Acquisition of 765 acres within 5 tracts to protect Nationally Significant Scuppernong River Swamp Forest SNHA and help connect State-owned land with Pocosin Lakes National Wildlife Refuge. Project would protect 5.5 miles of Scuppernong River frontage, several rare and high quality natural communities including Peatland Atlantic White Cedar, and at least two rare species. Matching \$267,500 funds confirmed: PARTF \$148,000 and CWMTF \$751,000.



TABLE 6
N.C. Natural Heritage Trust Fund
Fall 2007 Award Summary

Š.	No. Agency	Project Title	County	Acres	Award	COPS Award Description	Description
17	DENR/ DFR	Boyette Tract - Bladen Lakes State	Bladen	342	\$270,000		The project is part of a landscape wetland protection effort to protect the David Gam Bay Significant Natural Heritage Area, protect water quality and wildlife habitat and contribute to linking Bladen Lakes State Forest with Suggs Millpond Game Land. The project insures, through acquisition, the protection of 683 acres of Carolina Bay and longleaf/wiregrass habitat. After acquisition, land management activities will be implemented on the tract to benefit habitat restoration, water quality and high quality natural communities by incorporating it into the Division o Forest Resources (DFR) Bladen Lakes State Forest. The tract will be included in the Bladen Lakes State Forest Game Land and opportunities will be provided for research, training, education, hunting, trapping, hiking and wildlife observation. CWMTF proposed \$250,000 (deferred to November);
81	DENR/ DPR	South Mountains State Park - West Side Land Acquisition	Burkc	264	8333,000		Acquisition of 264 acres in 2 tracts to protect 2 regionally Significant Natural Heritage Areas within the South Mountains Macrosite and Megasite. Project would protect at least 6 rare species including the federally endangered White Irisette. Matching funds committed PARTF \$333,000 and CWMTF \$256,000; and \$2,136,500 future requests to CWMTF & PARTF.
	DENR		SUBTOTAL	2,622	\$965,150		\$5,268,500 Total award to DENR = \$6,233,650
19	WRC	Juniper Creek IP - Phase II	Brunswick, Columbus	7236	\$4,555,883		Acquire tract to permanantly protect 2 SNHAs - Juniper Creek Floodplain and Juniper Creck/Driving Creek Aquatic Habitat. Total project is 18,624 acres at a cost of approximately \$16,781,282 with funding from CWMTF (\$6,499,000 confirmed so far) and others. Large landscape conservation project linking the Green Swamp \$2,000,000 in Brunswick County to the Waccamaw River Floodplain in Columbus County.
	20 WRC	NCSU New Hope Valley Forest	Durham and Chatham	. 216	\$1,827,370		Acquire tract to permanantly protect this area known to have an established history of high bald eagle use; supporting active nests and summering populations. Management plans will be designed to maintain and enhance the area's habitat for bald eagles. Tract acquisition is also critical to help protect the Jordan Lake water supply reservoir. Tract will be additions to Jordan Game Land. Tract also provides access to the State Historic Mason Farm House, owned and managed by DCR. Aquisition will prevent sub-division of the tract which would greatly complicate management efforts by state and federal land managers. (Total project 342 acres; proposed CWMTF match of \$1,279,480).

Š	Agency	No. Agency Project Title	County	Acres	Award	COPS Award	Description
21	WRC	Diggs Tract	Richmond	1068	\$1,000,000		Acquire tract to permanently protect part of the Pee Dee Marsh Ponds SNHA and the Pee Dee River Aquatic Natural Area. Nearly three miles of the Pee Dee River will be protected through this project benefiting several listed aquatic species. Total cost \$3,977,900; CWMTF did not fund grant request; the Cole Foundation and NAWCA grants proposed.
22	WRC	Upper Tar River International Paper Tracts upland Pine Plantations	Pamlico River Basin; Warren, Halifax, Franklin, Nash, and Edgecombe Counties	1001	\$1,300,000		This addendum request is to acquire approximately 10% (WRC-COPS funding 90%) of the flattest upland portions in pine plantation contiguous with the Upper Tar Phase II SNHA lands previously funded by NHTF. Acquisition will expand protected land holdings in the upper Tar-Pamlico River Basin and SNHA while contributing to the WRC Game Land Program.
23	WRC	, Kassab Tract	Onslow	55	\$366,900		Insure through acquisition the protection of 55 acres of developable land that lies adjacent to Stones Creek Game Land and Camp Lejcune MARSOC training area. This project contributes toward linking red-cockaded woodpecker populations, protecting Bachman's Sparrow habitat, and a high quality game land while buffering Camp Lejeune from residential development. US Navy is providing \$73,000 ~50% funding match. NOTE: Session Law 2005 Military COPS funding used.
24	WRC	McCotter-Bordeaux Tract	Onslow	446	\$532,725	\$366,900	Acquire 446 acres of of a keystone property to establish an ecological corridor linking Camp LcJeune, the Croatan National Forerst, the Hoffman Forest and weyerhauser lands. Important tract for Black Bears, Red-cockaded woodpeckers and Bachman's Sparrow. Confirmed \$1,118,000 (~50%) match from the US Navy.
	WRC		SUB-TOTAL	10,022	\$9,582,878		\$2,439,900 Total award to WRC = \$12,022,778
	ALL APPs.		GRAND TOTAL	13,258	\$12,538,028	\$11,297,400	
	NC = Nor	NC = North Carolina					CWPT = Civil War Preservation Trust
	DACS/PC	DACS/PCP = NC Department of Agriculture and Consumer Services - Plant Conservation Program	ner Services - Plan	t Conservati	on Program		DOT = Department of Transportation
	DENR =	DENR = NC Department of Environment and Natural Resources	sources				CWMTF = Clean Water Management Trust Fund
	DPR = Di	DPR = Division of Park Resources					NAWACA = North America Wetlands Conservation Act
	DFR = Di	DFR = Division of Forest Resources				The second secon	SNHA = Significant Natural Heritage Area
	NHP = N	NHP = Natural Heritage Program	,				SWCD = Soil and Water Conservation District
	0CP = 0	OCP = Office of Conservation & Planning					WRC = NC Wildlife Resources Commission



PCP = Plant Conservation Preserve

McCotter-Bordeaux Tract Land Acquisition

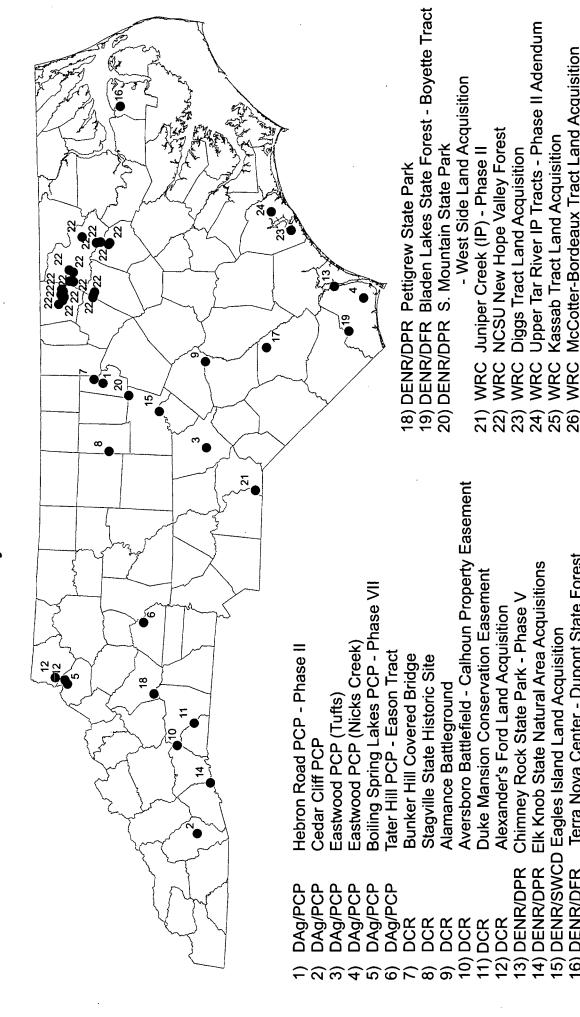
WRC

Terra Nova Center - Dupont State Forest

DENR/DFR

DENR/DPR

Deep River State Trail - Phase IV



Report prepared by:

Lisa D. Riegel, Executive Director

NC Natural Heritage Trust Fund 521 N. Salisbury St., MSC 1601 Raleigh, NC 27699-1601

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December 2007 | \$2.50



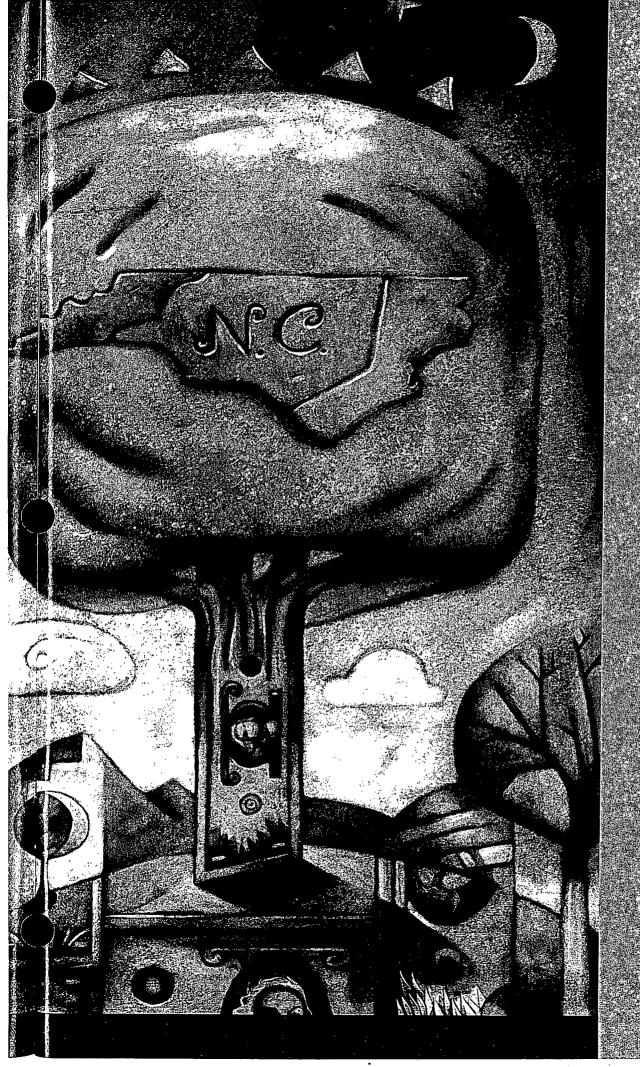
BUIDINGERUSE

WITH POPULATION AND URBAN SPRAWL IN THE STATE GROWING BY LEAPS AND BOUNDS EACH YEAR, WHO ENSURES THAT NORTH CAROLINA'S NATURAL HERITAGE IS PROTECTED?

written by Michael O. Humphries

illustrated by Tim Lee





t would be easy to think that the wide spread development of North Carolina's land is: unstoppable and that the growing human population will eventually: overwhelm the natural heritage of the state: However, the state's natural treasures, ranging from beautiful Coastal Plain lands to the rich Piedmont and Mountain: regions, have had an ardent and effective defender/for the past two decades: North Car olina's Natural Heritage Trust Fund (NHTF)

Founded in 1987 by the N.C. General Assembly through legislation sponsored by state senators Lura Tally and Marc Basnight, the NHTF was begun by those who correctly foresaw that population growth and development would have a severe impact on the natural treasures of the state. The NHTF is a trust fund created and funded by the state to acquire natural lands for the protection of recreation areas, forestry resources, and fish and wildlife habitats. Lands purchased with NHTF funding become part of the stateowned system of parks, wildlife game lands and fish and wildlife management areas—all open to the public.

Celebrating its 20th anniversary this year, the NHTF has spent the past two decades ensuring that there is a permanent source of funding available to help state agencies acquire and protect important natural areas and resources. During these years, the NHTF has awarded more than \$194 million to nearly 400 individual projects, resulting in the protection of more than a quarter-million acres of land. However, we should not let these admittedly impressive numbers lull us into a state of complacency. Much more needs to be done.

Many experts believe that the state's population, which has experienced unprecedented growth in the past two decades, will grow by another 50 percent over the next 25 years. One North Carolina Naturally, a program managed by the N.C. Department of Environment and Natural Resources' Office of Conservation and Community Affairs, estimates that our state loses approximately 383 acres of woodland, farmland and open space per day.

DOING MORE WITH LESS

To have accomplished so much, the Natural Heritage Trust Fund is a remarkably small organization. Consisting of a 12-member board of trustees and an executive director, the NHTF has had an impact on the land conservation movement disproportionate to its size. The executive director, Lisa Reigel, is the only full-time state employee in the group and oversees the day-to-day functioning of the trust fund. The 12 members of the board are appointed for staggered six-year terms, with four trustees selected by the governor and eight by the General Assembly (four by the House and four by the Senate).



The NHTF allows four state agencies to apply for grants: the N.C. Department of Agriculture, the N.C. Department of Cultural Resources, the N.C. Department of Environment and Natural Resources and the N.C. Wildlife Resources Commission. The trustees review grant applications and make decisions on which will receive funding.

THE CHALLENGE

Bob Gordon, current chairman of the NHTF board of trustees as well as a former chairman of the Wildlife Commission, recognizes the threat the state faces. "One only has to look at the growth on our coast and in our mountains to see the urgent need to preserve our state's open spaces," he said. "Every year we lose more than 100,000 acres of forests, farmland and open space. Between 2002 and 2005, the number of farms declined by 6,000, and more than 300,000 acres of farmland were developed."

Where does the NHTF acquire the money to fund this increasingly expensive effort? Since 1991, the NHTF's primary source of funding has been a tax on real estate deed transfers levied whenever real estate is sold. The fund receives one quarter of the state's portion of this tax. Supplemental sources of income include the interest on the fund itself and fees charged on some vehicle license plate sales. However, not all the funding comes from the state.

It is important to note that although the fund does have a steady source of income, keeping up with the increasing costs of real estate is an ever present and constant struggle. As a matter of fact, the NHTF generally can fund only half of the applications it receives. In addition, many of the critical projects require matching funds from the federal government, as well as generous donations from individuals and private groups, to make them happen.

Ironically, although the recent surge in real estate prices is making the fund's job much more difficult, it is also presenting terrific opportunities, of which the NHTF is striving to take advantage. In response to the growing demand for land, many industrial landowners have opened up huge tracts of timberland for sale. Rather than allowing it to be consumed by the private and commercial markets, the NHTF is striving to set aside some of this property for protection. Unfortunately, that is expensive.

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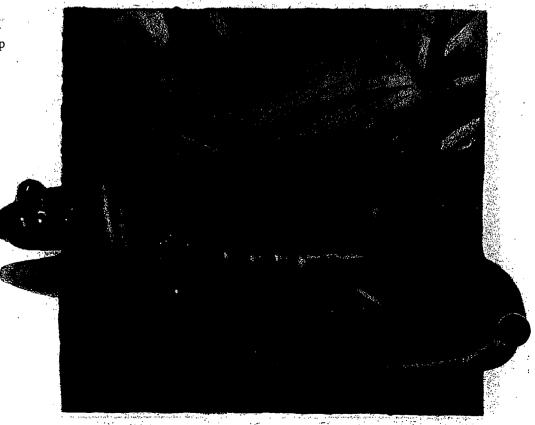
Recognizing that the combination of rising real estate prices and a deluge of land on the market that was in need of protection was creating a unique opportunity, the General Assembly in 2007 authorized an additional \$50 million for the NHTF in what are known as Certificates of Participation. It is important to note that, unlike the fund's normal income, this revenue is a loan of sorts that must be paid back from the future income of the fund. Although that puts a financial strain on the future of the NHTF program, it has allowed the trust fund to access the money needed to step in and act now, while lands are available and priced more affordably than they may be in the future.

RESOURCEFUL PARTNERS

Over the past 20 years, the NHTF has cultivated an extremely good working relationship with the Wildlife Commission, combining efforts to help obtain large tracts of land for current and future generations of North Carolinians to enjoy. In fact, the Wildlife Commission and the NHTF have very similar goals. With the help of the trust fund, the commission has the means to acquire the game lands necessary to achieve its goal of ensuring the wise use, conservation and management of the state's fish and wildlife resources.

Fred Harris, interim executive director of the Wildlife Commission, points out, "The Wildlife Resources Commission has worked closely with the NHTF and other conservation partners to identify and preserve valuable plant and wildlife habitats. The ability of the fund to purchase such habitats, coupled with the ability of the commission to manage them in a way that maintains the desired natural heritage values, has greatly benefited the citizens of the state."

MANY EXPERTS BELIEVE THAT THE STATE'S POPULATION, WHICH HAS EXPERIENCED UNPRECEDENTED GROWTH IN THE PAST TWO DECADES, WILL GROW BY ANOTHER 50 PERCENT OVER THE NEXT 25 YEARS. ONE NORTH CAROLINA NATURALLY ESTIMATES THAT OUR STATE LOSES APPROXIMATELY 383 ACRES OF WOODLAND, FARMLAND AND OPEN SPACE PER DAY.



"THE WILDLIFE RESOURCES COMMISSION HAS WORKED CLOSELY WITH THE NHTF AND OTHER CONSERVATION PARTNERS TO IDENTIFY AND PRESERVE VALUABLE PLANT AND WILDLIFE HABITATS. THE ABILITY OF THE FUND TO PURCHASE SUCH HABITATS, COUPLED WITH THE ABILITY OF THE COMMISSION TO MANAGE THEM IN A WAY THAT MAINTAINS THE DESIRED NATURAL HERITAGE VALUES, HAS GREATLY BENEFITED THE CITIZENS OF THE STATE."

-FRED HARRIS, INTERIM EXECUTIVE DIRECTOR, NCWRC



Since the NHTF's inception in 1987, it has helped the Wildlife Commission preserve more than 100,000 acres of conservation land. As a matter of fact, along with the Clean Water Management Trust Fund, the NHTF has been a driving force for the commission in regard to land acquisition. According to George Norris, a grants/contract biologist with the Wildlife Commission, "Without the NHTF, land acquisition as we have known it would have been impossible."

NHTF board of trustees member Dewey Wells sees the relationship as a two-way street: "The Wildlife Resources Commission's grant applications have enabled the trust to make a difference in lives and opportunities of unborn generations. It has been the major recipient of grants, and deservedly so, since through its applications the larger tracts can be protected."

SUCCESSES

Over the past 20 years, the Wildlife Commission and the NHTF have had some significant successes in the acquisition and application of funding to help acquire and protect important tracts of land. Following are some highlights:

Green River Game Land: Carried out in 1994, the acquisition of this large tract of land resulted in the protection of more than 5,000 acres of the Blue Ridge escarpment in Polk and Henderson counties. Part of a large tract of land put up for sale by Duke Energy, this land was purchased with an award from the NHTF for the commission's Green River Game Land. Made up of narrow gorges, steep ravines and coves, this relatively undisturbed wilderness area is a treasure trove for nature lovers. The Green River winds through the area.

Rollins Tract: Constituting an enormous 17,648 acres of high-quality hickory, oak and chestnut oak forest, the Rollins Tract (part of South Mountains Game Land) was acquired in 1997. The large and expansive block of unfragmented forest, heavily populated with a large number of deer and turkeys as well as a few bears, covers sections of Burke, Cleveland, McDowell and Rutherford counties. In addition to the thriving and vibrant wildlife communities, the area is home to 22 rare plant species, including the ultrarare small whorled pogonia orchid.

North River Game Lands: Acquired in 2000, the North River Game Lands in northeast North Carolina comprise 2,000 acres of high-quality marsh in both Currituck and Camden counties. Viewed as one of the best waterfowl habitats in the state of North Carolina, this wetlands complex is also home to roughly 90 acres of virgin bald cypress. In addition, the area is quite important to native wildlife such as bobcats and black bears.

Angola Bay Addition: Made up of 14,000 acres and acquired over the years 2002-2006, this large pocosin acquisition was funded solely by the NHTF. The tract, which was added to the Angola Bay Game Land, provided a corridor connecting this game land to the adjacent Holly Shelter Game Land. Funding for much of this enormous and significant purchase was made possible through the Certificates of Participation program, allowing the NHTF to provide the Wildlife Commission with the means to take advantage of this tremendous opportunity.

Needmore Tract: Acquired in 2003, the roughly 4,500-acre Needmore Tract is made up of multiple parcels on a 27-mile stretch of the Little Tennessee River between Franklin and Fontana Lake. Widely considered an ecological treasure, the tract is home to a host of endangered species and plants, boasting the greatest mussel diversity of all major North Carolina rivers. It is made up of an impressive combination of mountain floodplain forest, wetlands and habitat.

Carrington Tract: Containing 725 acres and acquired in 2005, the Carrington Tract added a large section of important longleaf pine forest to the Sandhills Game Land. Among the many benefits of this acquisition was the protection of a significant foraging habitat of the red-cockaded woodpecker, an endangered species tied to the longleaf pine forests. An added benefit for the commission has been the opportunity to employ longleaf pine habitat to aid in meeting its management and restoration goals for this significant natural resource.

Johns River Loop: Acquired in 2006, this tract of 400 acres is located at the junction of the Johns and Catawba rivers. The tract, made up of excellent areas of waterfowl habitat, will benefit both those who enjoy the outdoors as well as the wildlife that

NATURAL HERITAGE TRUST FUND BOARD OF TRUSTEES

Governor Appointees	Senate Appointees	House Appointees
Charles E. Clement	J. Robert Gordon, Chairman	Alan D. Briggs
Watauga County	Scotland County	Wake County
2002–2008	2002–2007	2006 – 2011
Thomas D."Bud" Hunter	Lois McIver Winstead	William Joslin
Henderson County	Person County	Wake County
2004–2009	2005–2009	2002–2007
R. Michael Leonard	Portia Hawes	Henry L. Kitchin
Forsyth County	Warren County	Richmond County
2006–2011	2006–2011	2002–2007
Elizabeth D. Taft, Ph.D.	Dewey W. Wells	Thomas W. Reese
Pitt County	Avery County	Catawba County
2002–2007	2002–2007	2004–2010

inhabit it by providing the area a muchneeded segment of quality waterfowl habitat.

Upper Tar International Paper Tract: Acquired in 2007, this nearly 900-acre tract was purchased with the help of an NHTF grant. This acquisition, along the tributaries of the upper Tar River in Franklin, Halifax, Nash and Warren counties, was the result of the sale of enormous tracts of land by the International Paper Company. Part of this land will be included in the Shocco Creek Game Land, with the rest going to create the new Embro Game Land. The area is plentiful in freshwater mussels and fish and has dense deer populations.

Chowan River International Paper Tract: One of the most recent acquisitions, this 10,000-acre tract was purchased in 2007. Of particular note is 1,881 acres in Hertford County that is protecting the extensive hardwood swamps of the lower Meherrin, Wiccacon and Chowan rivers. These areas are significant, as they help protect water quality and anadromous fish nurseries.

THE FUTURE

What projects are the NHTF and the Wildlife Commission currently working on? One is Juniper Creek, an 18,500-acre wetland

complex that connects the Green Swamp in Brunswick County to the Waccamaw River system in Columbus County. Another is the effort being made toward the protection of the Diggs Tract on the Yadkin River, a critical site for wetland-dependent birds as well as diverse freshwater species of fish and mussels.

Is this relationship that exists between the NHTF and the Wildlife Commission a sustainable, long-term arrangement? "Yes, definitely," says Fred Harris. "Frankly, without the fund many critical habitats would no longer exist. This fact, along with the shared goals between the Wildlife Commission and the NHTF, ensures that it will continue to be an essential participant in wildlife conservation in North Carolina."

Although the challenges facing those who wish to protect the natural treasures of the state are daunting, the NHTF is up to the task. Combined with the efforts of the Wildlife Commission and the support of both the people of the state and their elected representatives, the NHTF can continue to ensure that future generations can enjoy natural wonders of this beautiful state. 👄

Michael O. Humphries is managing editor of Wildlife in North Carolina.

North Carolina Department of Environment and Natural Resources

lichael F. Easley, Governor Villiam G. Ross Jr., Secretary Patricia K. Harris, Director



TO:

Senator Charles Albertson

Senator Dan Clodfelter Representative Lucy Allen Representative Pryor Gibson

Chairs, Environmental Review Commission

FROM: Linda P. Pearsall

Director, Division of Natural Resource Planning & Conservation

DATE:

February 25, 2008

RE:

Biennial Report on the Natural Heritage Program

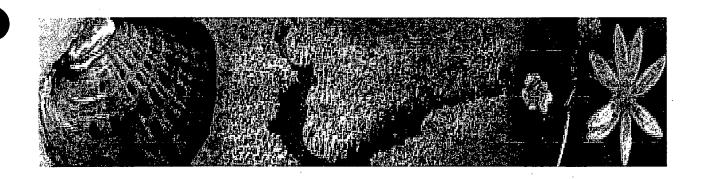
As instructed by the Nature Preserves Act (G.S. 113A-164), I am providing to you the 2005 Biennial Report of the Natural Heritage Program of the Division of Parks and Recreation. The report describes the activities of the past biennium and plans for the coming biennium. Specific recommendations for protection of the natural heritage of North Carolina are included in the 2005 Biennial Protection Plan, also enclosed.

If you have questions or need additional copies, please contact Linda Pearsall, Director of Natural Resource Planning & Conservation at 715-4195 or linda.pearsall@ncmail.net.

Attachment

cc: Assistant Secretary Manly Wilder

Elizabeth Self George F. Givens



NORTH CAROLINA NATURAL HERITAGE PROGRAM

2007 BIENNIAL REPORT



Natural Resource Planning and Conservation Department of Environment and Natural Resources Raleigh, North Carolina

REPORT ON ACTIVITIES OF 2005-2006

As directed by the North Carolina Nature Preserves Act (GS 113A-164.1-.11), the North Carolina Natural Heritage Program (NC NHP), part of Natural Resource Planning & Conservation, Department of Environment and Natural Resources has prepared this report to summarize program activities of occurring during calendar years 2005 and 2006.

NC NHP is the North Carolina component of a national network of natural heritage programs which reaches from Canada through the United States and into much of Latin America. Members of this network share a common methodology and a commitment to support rare species and natural area conservation. The 80 member programs of the network are affiliated through NatureServe, a private, non-profit organization based in Arlington, Virginia.

When established in 1976, NC NHP was placed in the Division of Parks and Recreation. Enabling legislation was enacted in 1985 as part of the Nature Preserves Act (113A-164.1-.11). In March of 2005, Secretary Bill Ross moved NC NHP from the Division of Parks and Recreation to the Office of Conservation and Community Affairs to become part of the One North Carolina Naturally effort of the Office of Conservation and Community Affairs. A restructuring at the end of 2006 places NC NHP under the newly-created division of Natural Resource Planning & Conservation.

2006 marks the 30th anniversary of NC NHP, which was celebrated by bringing current and former staff and conservation partners together for an evening gathering at the North Carolina Botanical Garden (NCBG). NCBG, Progress Energy and the North Carolina Association of Environmental Professionals helped to make this event a great success.

NC NHP continues working in partnership with a variety of state and federal agencies, private organizations, individuals, and corporations to: 1) identify the most significant natural areas and rare species habitats of North Carolina, and 2) support the protection of these significant natural areas so that future generations will be able to enjoy the full diversity of North Carolina's natural legacy.

Program activities of 2005 and 2006 are summarized in this report under the three major program areas of NC NHP: Inventory, Information Services, and Conservation Planning & Protection.

INVENTORY

NC NHP inventory efforts are organized in three ways: county-wide natural area inventories; protection-focused inventories within a given ownership; or inventories for a particular rare species or specific natural community such as a rare wetland type.

2005-2006 County Natural Area Inventories

A County Natural Area Inventory is a systematic search for Significant Natural Heritage Areas (SNHAs) throughout a North Carolina county. SNHAs, or "sites", are areas of land or water identified by our biologists as being important for the conservation of our state's biodiversity. These areas often contain the best examples of natural communities and often include rare and endangered species. Natural area inventories produce reports and maps that identify and describe the most important natural areas of a county and their ecological significance. The presence of natural areas can greatly enhance the quality of life for the citizens of county.

Inventories benefit a wide range of users, from individual landowners to various government agencies. County governments and municipalities can use inventories to help plan for growth in balance with the natural environment. Planning for the conservation of natural areas in a county requires knowing the location and kinds of natural habitats present, which locations are the best and which are protected through conservation ownership. Additionally, state agencies and local land trusts rely on Natural Heritage data to make informed decisions about land and water conservation and prioritize areas for protection. Recent examples include:

- In 2005, North Carolina's General Assembly authorized a new state park at Hickorynut Gorge, in Rutherford County. Hickorynut Gorge is the site of four Nationally-significant Natural Heritage Areas: World's Edge/Sugarloaf Mountain, Bald Mountain/Round Top Mountain, Rumbling Bald/Shumount Mountain/Cedar Knob, and Chimney Rock Natural Area. Large portions of these sites are now coming into State Park's ownership through action from North Carolina's land trusts, appropriations from the state, and grants from the Natural Heritage Trust Fund.
 - In 2006, The Nature Conservancy closed one of the largest land conservation deals in North Carolina history. Approximately 76,500 acres of land in 11 eastern counties was purchased from International Paper's holdings, with Natural Heritage data providing the basis for prioritizing tracts. Nearly 80% of the land is scheduled to be transferred to the N.C. Wildlife Resources Commission over several years. Protecting this land will greatly enhance the conservation of southeastern North Carolina by tying together big parcels of forestland which protect habitat for rare mussels, the federally endangered red-cockaded woodpecker, black bear and numerous rare plants.

Funding for county inventories is provided in large part by the Natural Heritage Trust Fund (NHTF). In Spring 2005 a proposal was funded by NHTF which has allowed NHP to hire additional inventory biologists and develop new procedures to streamline the inventory process. Whenever possible, matching funding is obtained from local governments or raised by a partner, usually a land trust. The commitment of the NHTF Board and the partner agencies to natural area inventories and to local conservation actions is greatly appreciated.

During 2005 and 2006, inventories were completed in Scotland, Bladen, McDowell, Rutherford, and Avery counties, with the Harnett county inventory ongoing. New inventories were begun in Caldwell, Duplin, Person, Robeson, Sampson, Transylvania and Yancey counties. This brings the

total number of completed county inventories to 76, though natural areas and rare species records exist for every county. Full copies of the county natural area reports are available from NC NHP or from local county libraries. Summaries are being developed which are available on the NC NHP website: http://www.ncnhp.org/Pages/countysummaries1.htm.

2005-2006 Rare Species and Natural Community Inventories

In addition to county focused inventories, NC NHP inventories the distribution and habitats of rare species of our state and the remaining high quality or rare examples of natural communities. Many of these inventories are conducted in cooperation with the Wildlife Diversity Program of the North Carolina Wildlife Resources Commission, the Plant Conservation Program of the Dept. of Agriculture and Consumer Services, and the U.S. Fish & Wildlife Service. Other partners include the NC Museum of Natural Sciences, the NC Wildflower Society and the NC Herpetological Association.

The Coastal Goldenrod study was funded by Department of Defense (DOD) Legacy Funds, and was a partnership with the USFWS and DOD. Information from this inventory will be used to develop a protection plan for this species, so as to reduce the need for listing it as Threatened or Endangered under the US Endangered Species Act. The St. Francis" Satyr study was funded by US Fish and Wildlife Service to identify the extent of the population on or near Fr. Bragg, the only habitat for this species in our state.

Table I. Rare Species and Significant Natural Community Inventories

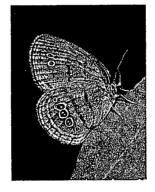
Target Element	Partner Agency	Principal Scientists
St. Francis' Satyr (Neonympha mitchellii francisci)	USFWS, Ft. Bragg, NCSU	S. Hall, NC NHP
Coastal Goldenrod (Solidago villosacarpa)	USFWS, Department of Defense, Camp Lejeune	R. LeBlond and S. Mason, NC NHP B. Wichmann, NCSU



Coastal Goldenrod (Solidago villosicarpa)

Photo by: Patty Matteson, USFWS

Location: French's Creek, Camp Lejeune



St. Francis' Satyr (Neonympha mitchellii francisci) Photo by: Stephen Hall, NC NHP Location: Bones Creek, Fort Bragg

INFORMATION SERVICES

Compiling biological information from a wide variety of sources is a complex process. That process is crucial to developing the information needed for wise conservation and development planning, and to the environmental review function required by the national and the state environmental policy acts. Equally important is sharing that information with a wide variety of agencies, corporations, and individuals.

North Carolina is fortunate to have a variety of outstanding naturalists working independently or as part of state and federal conservation agencies, in academia, as independent consultants or in private conservation organizations. Working as part of this informal network of outstanding naturalists, NC NHP consolidates the information collected about rare species, high quality natural communities, and significant natural areas and makes it available for use in statewide and regional conservation initiatives. The information is also used to weigh the ecological significance of various sites, and to evaluate the likelihood and nature of ecological impacts. This information supports informed evaluations of the trade-offs associated with biological diversity and development projects before plans have been finalized. Finally, this information facilitates the establishment of priorities for the protection of North Carolina's most significant natural areas.

Table 2 summarizes the BIOTICS Database which contains the core of NC NHP information. This database summarizes information about the occurrences of rare species, significant natural communities, and significant natural heritage areas in North Carolina.

Table II. Summary of BIOTICS Database

Database Components	Calendar Year	Calendar Year
	2005	2006
Number of Elements Tracked by NC NHP	1,530	1,619
Number of Records of Element Occurrences (EOs)	22,157	22,262
Vertebrate animals	5,443	4,747
Invertebrate animals	2,410	2,216
Vascular plants	8,778	9,390
Non-vascular plants	884	1,050
Natural communities	4,315	4,460
Special animal habitats/features	327	389
Number of Significant Natural Heritage Areas Identified	2,385	2,410
Number of Managed Natural Areas Mapped	908	1,045

Information Requests

During 2005 & 2006 NC NHP responded to an uncounted number of telephone inquiries and provided more than 800 written responses to federal and state agencies, consulting firms, academic institutions, conservation organizations, and city and county governments. In addition, approximately 350 visitors came to the NC NHP offices to use information from the databases and files. During 2006, our online information database (accessible to the general public) addressed 8701 requests for rare species information summarized by county or by USGS quadrangle.

A new web-based information system was being developed in 2006 to help alleviate the workload associated with written information requests and improve service to users of the data. This system will be available to conservation partners and consultants using a password provided by NHP. This system has already been implemented in the NHP workroom and has replaced the paper maps. The interface is designed to provide real-time data to the user directly from our BIOTICS Database, with minimal training.

Environmental Review

Another important and frequent use of NC NHP data is the review of the potential environmental impacts of major state or federal actions. NC NHP continues to assist with NC DENR environmental reviews, though not officially part of the clearinghouse process. Our database provides state and federal agencies with the most reliable source of information about potential impacts to rare species.

Publications

NC NHP produces three reference publications listed below. These publications are used by staff of numerous federal and state agencies, including Fort Bragg, Camp Lejeune, NC Dept. of Transportation, NC Wildlife Resources Commission, NC Plant Conservation Program, as well as by, environmental consultants, academicians, and amateur naturalists. The publications are provided at cost upon request. In addition, NC NHP provides copies of these publications as digital files on its web page. Lists of 2005 and 2006 reports are included as Appendix A.

Natural Heritage Program reference publications:

- III. Natural Heritage Program List of the Rare Animal Species of North Carolina;
- IV. Natural Heritage Program List of the Rare Plant Species of North Carolina; and
- V. Classification of the Natural Communities of North Carolina, Third Approximation.

Copies of county natural area inventory reports or rare species accounts are also available upon request or through the web page www.ncnhp.org/Pages/publications.html.

CONSERVATION PLANNING & PROTECTION

Strategic Conservation Planning Tool

NCDENR has recognized the need to develop a strategic planning process to coordinate and implement the state's conservation efforts for the next 25 years. As a result, NHP has been given the lead on the development of the North Carolina Strategic Conservation Plan (SCP), initiated during 2006. After completion of the first iteration, the plan will be updated semiannually to reflect current conditions.

The SCP will identify and prioritize the essential high quality natural resources across the state, as well as the crucial land gaps identified in a strategic and scientifically-based network of supporting ecosystems. This planning tool will to highlight areas of opportunity for collaborative conservation that contribute to sustaining the most significant natural resources across the state. The plan consists of a series of natural resource assessments that highlight essential supporting land and water areas across the state. This assessment series is composed of GIS data layers, which can be used by individual organizations, state and local agencies, or funding groups to inform decisions about conservation and/or compatible land use planning in North Carolina. Any combination of the assessment data layers can be studied to inform and add value to local conservation and land use planning goals and missions. However, on a statewide basis, it is the goal of this analysis to show those areas that meet the overall needs of the larger landscape.

Statewide Assessment of Conservation Priorities at the Landscape Level

Prior to the initiation of the Strategic Conservation Planning Tool, NHP was awarded a contract from the Ecosystem Enhancement Program (EEP) in 2006 to identify and evaluate large, blocks of habitat still serving ecological functions at the landscape level, i.e., that have high landscape integrity. Landscape units are identified and evaluated based on the concentration of indicator species, using observations obtained from ground-surveys. The outcome will be a map of "core areas" that serve as residential habitat for species within the indicator guilds. This project will also identify "connectors" between the core areas. This project is ongoing and data resulting from it will be incorporated into the state's Strategic Conservation Planning Tool.

2005-2006 Dedications and Registries

Numerous natural areas have gained protection as Dedicated Nature Preserves or Registered Natural Heritage Areas during the 2005 and 2006 calendar years. In all, almost 66,000 (65,915) acres were newly dedicated and 12 new sites were added to the registry, bringing the number of Registered Areas to 345. To-date, nearly 600,000 acres have been registered and 212,947 acres are dedicated throughout the state.

Twenty new nature preserves were dedicated, totaling 52,799 acres. These include Significant Natural Heritage Areas within the following game lands, parks, and preserves: Alligator River Game Land, Boiling Spring Lakes Plant Conservation Preserve, Shocco Creek Game Land, Roanoke Island Marshes Game Land, Neuse River Game Land, Gull Rock Game Land, Bald Head Island State Natural Area, Gorges State Park, Hammocks Beach State Park, Mount Mitchell State Park, Picture Creek Barrens Plant Conservation Preserve, Green Swamp Nature Conservancy Preserve, Okeeweemee Woodland Plant Conservation Preserve, Paddy Mountain

Plant Conservation Preserve, Pondberry Bay Plant Conservation Preserve, Tater Hill Plant Conservation Preserve, Cold Mountain Game Land, Croatan Game Land, Sandhills Game Land, Stones Creek Game Land.

Additionally, eight existing nature preserve dedications were amended to include an additional 13,116 acres of protected land. These include: Crowders Mountain State Park, Hanging Rock State Park, South Mountains State Park, Roanoke River Wetlands Game Land, Columbus County Game Land, Three Top Mountain Game Land, South Mountains Game Land, and Caswell Game Land.

Twelve new natural areas were added to the registry, totaling 246 acres. Ten of the sites were registered by Progress Energy in 2006 as additions to the original 1993 agreement, indicating the success NHP has had in encouraging this partnership. The other two sites, Broad Creek Marshes and Swamp and Meherrin River Aquatic Habitat, were registered by Weyerhaeuser Company in 2005. In April, 2005, owners of Registered Natural Heritage Areas were surveyed to determine changes to the areas and current landowner status.

Ecosystem Enhancement Program Preservation Review Committee

During 2005-2005, NC NHP continued to lead the committee (membership listed below) tasked with reviewing projects proposed for preservation mitigation using criteria approved by the EEP technical team (Appendix B). The aim of the partnership is to provide a fair economic return to landowners while preserving the state's natural areas for future generations through voluntary land-protection agreements. More than 70 proposed projects were reviewed by the committee during 2005-2006. In addition to committee review, each tract was visited by NC NHP staff and major ecological characteristics were documented in a written report.

EEP PRC agency membership:

Clean Water Management Trust Fund
Division of Water Quality
Ecosystem Enhancement Program
NC Natural Heritage Program
Wildlife Resources Commission
U.S. Fish and Wildlife Service

The committee was dissolved at the end of 2006 with all current preservation mitigation need having been met. As of July 22, 2006 – the initiative's third anniversary – EEP had acquired about 35,700 acres of natural areas, with 14 tracts being transferred to the state for use as parks or game lands. The tracts include about 200 miles of stream buffers and more than 7,800 acres of wetlands in high-quality riparian and wetland areas throughout the state. At the end of 2006, 89 separate projects had closed.

Aquatic Ecosystem Protection

Threats to aquatic species, such as freshwater mussels, fish, crayfish, amphibians, snails, and macroinvertebrates, continue to be of concern to the conservation community. During 2005-2006, NHP's Freshwater Program staff was increased to two full-time freshwater ecologists (one serving river basins west of, and including, the Yadkin-Pee Dee River basin, and one serving river basins east of the Yadkin-Pee Dee River basin); a part-time freshwater data technician position was also added. These positions are funded through Aquatic Inventory grants from the NHTF, with matching funds provided by the NC Wildlife Resources Commission.

NHP continues to collaborate with partner agencies (NC Wildlife Resources Commission, NC Department of Transportation, NC Division of Water Quality, NC Museum of Natural Sciences) to survey for rare aquatic species across North Carolina. At the end of 2006, NHP hosted its 4th annual meeting to coordinate inventory efforts and share information about freshwater surveys and conservation efforts across the state.

Through the county inventory process, aquatic site descriptions are being updated and included in County Inventory reports. In conjunction with the county inventory process, as well as part of DENR's Aquatic Education Program, NHP staff is working with local governments to incorporate Natural Heritage Data into their planning efforts, including in the design of ordinances and zoning plans. Freshwater program staff have given presentations on planning for growth to local governments, elected officials, and developers throughout the state.

Information from NHP's Freshwater Program has been essential in building conservation partnerships throughout the state, including the Chatham Conservation Partnership, the Greater Uwharries Conservation Partnership, and the Albemarle-Pamlico Conservation and Communities Collaborative.

NATURAL HERITAGE TRUST FUND

Up until 2005, the Natural Heritage Program provided staff support to the Natural Heritage Trust Fund. In 2005, a full-time Executive Director was hired by the Natural Heritage Trust Fund. The North Carolina Natural Heritage Program no longer provides staff to support this program, but continues to work very closely with the Director and the Trust Fund Board.

The NHTF website is available at: http://www.ncnhtf.org/

NATURAL HERITAGE PROGRAM STAFF

NC NHP is only able to accomplish the work described above because of its knowledgeable staff, and the assistance of its cooperators and supporters. The staff of the Program are listed below; those marked with * are supported through grants or contracts.

Raleigh Staff (Permanent)

Kim Douglass, Conservation Planner*
John T. Finnegan, Information Systems Manager*
Misty Franklin, Botanist
Stephen P. Hall, Invertebrate Zoologist*
Harry E. LeGrand, Jr., Zoologist*
Suzanne Mason, Environmental Biologist*
Sarah McRae, Aquatic Ecologist *
Scott M. Pohlman, Protection Specialist
Linda P. Pearsall, Director
Ann M. Prince, Protection Specialist (½ time)*
Michael P. Schafale, Community Ecologist
Kristen Sinclair, Inventory Manager*

Raleigh Staff (Temporary)

Jame L. Amoroso, Inventory Data Assistant*

Judith Ratcliffe, Aquatic Data Assistant*

Field Staff (Permanent)

Richard J. LeBlond, Inventory Specialist*
Shawn C. Oakley, Inventory Specialist*
James Padgett, Inventory Specialist*
Edward Schwartzman, Inventory Specialist*
Bruce Sorrie, Inventory Specialist*
Angie Rodgers, Aquatic Ecologist*

Major Activities Planned for 2007 and 2008

- I. Complete County Natural Area Inventories in Caldwell, Robeson, Transylvania, and Yancey counties; continue inventories in Anson and Stanly counties; begin four new county inventories.
- II. Continue to develop and refine North Carolina's Strategic Conservation Planning Tool, including development of the wildlife habitat maps.
- III. Continue the statewide assessment of conservation priorities at the landscape level.
- IV. Publish a new NHP brochure to distribute to landowners and new partners.
- V. Establish the NHP web-based information system for conservation partners and consultants.

APPENDIX A

North Carolina Natural Heritage Program
Publications and Reports
2005 & 2006

NC NHP PUBLICATIONS and CONTRACT REPORTS

2005

- Hall, S.P. and Haddad, N. 2005. Rearing Studies of Larval Neonympha mitchellii francisci and N. areolata. I. Test of Host Plant Preferences. Report to the Endangered Species Branch, Fort Bragg, NC.
- LeBlond, R.J. 2005. Survey for Coastal Goldenrod (Solidago villosicarpa) in 2005. Interim report to U.S. Fish and Wildlife Service, Raleigh, N.C.
- LeBlond, R.J., and G.S. Grant. 2005. Natural Area Inventory of Bladen County, North Carolina. North Carolina Natural Heritage Program, Office of Conservation and Community Affairs, DENR, Raleigh, N.C.*
- LeGrand, H.E., Jr. 2005. An Inventory of the Significant Natural Areas of Scotland County, North Carolina. North Carolina Natural Heritage Program, Office of Conservation and Community Affairs, DENR, Raleigh, N.C.*
- Oakley, S.C. 2005. An Inventory of the Significant Natural Areas of McDowell County, North Carolina. North Carolina Natural Heritage Program, Office of Conservation and Community Affairs, DENR, Raleigh, N.C.*
- Schafale, M.P. 2005. Atlantic Coastal Plain Northern Wet Pine Savannas and Flatwoods Element Integrity Assessment protocol. Report to NatureServe for EPA.
- Shelingoski, S., R.J. LeBlond, J.M. Stucky, and T.R. Wentworth. 2005. Flora and soils of Wells Savannah, an example of a unique savannah type. Castanea 70: 101-114.

^{*}Supported by a grant from the Natural Heritage Trust Fund.

NC NHP PUBLICATIONS and CONTRACT REPORTS

2006

- Franklin, M. A., J. M. Stucky, T. R. Wentworth, C. Brownie, and T. Roulston. Limitations to fruit and seed production by *Lysimachia asperulifolia* Poir. (Primulaceae), a rare plant species of the Carolinas. Journal of the Torrey Botanical Society 133(3), 2006, pp. 403-411.
- Hall, S.P. 2006. A Quantitative Analysis and Classification of the Habitats of *Neonympha mitchelli francisci* at Fort Bragg and Camp Mackall. Report to the Endangered Species Branch, Fort Bragg. NC Natural Heritage Program; Raleigh, NC.
- Hall, S.P. 2006. Statewide assessment of conservation priorities at the landscape level.

 Introduction and Methods. Report to the Ecosystem Enhancement Program. Raleigh,
 NC.
- Hall, S.P. 2006. Statewide assessment of conservation priorities at the landscape level.

 Northern Coastal Plain Region. Report to the Ecosystem Enhancement Program.

 Raleigh, NC.
- LeBlond, R. J., S. Mason, and B. Wichmann. 2006. Survey for coastal goldenrod (Solidago villosicarpa) in 2005-2006. N.C. Natural Heritage Program report to U.S. Fish and Wildlife Service, Arlington, VA.
- Padgett, J. P. 2006. An Inventory of the Significant Natural Areas of Rutherford County, North Carolina. North Carolina Natural Heritage Program, Office of Conservation and Community Affairs, DENR, Raleigh, N.C.*
- Smith, P., A. Kelly and K. Sinclair. 2006. An Inventory of the Significant Natural Areas of Avery County, North Carolina. North Carolina Natural Heritage Program, Office of Conservation and Community Affairs, DENR, Raleigh, N.C.*

^{*}Supported by a grant from the Natural Heritage Trust Fund.

CONSERVATION EASEMENT PROGRAM ANNUAL REPORT TO THE ENVIRONMENTAL REVIEW COMMISSION

November 1, 2007

Pursuant to NC G.S. 113A-235(c), the Department of Environment and Natural Resources reports to the Environmental Review Commission each year on the implementation of Article 16, the Conservation Easement Program. This Article, 113A-230 through 113A-235, includes enabling legislation for a program for conservation easement promotion/education, conservation tax credit promotion/education and quality assurance of conserved lands, and enabling legislation for a conservation grant fund. The following reports on these programs.

North Carolina Department of Environment and Natural Resources

THE YEAR IN SUMMARY

Over the past year significant progress has been made in the development and integration of the programs within Article 16.

Conservation Easement Stewardship. The use of conservation easements continues to grow. The Department (DENR) continued monitoring of some of its conservation easements this year, and plans to expand its activities for stewardship. DENR also has taken the role of administering the monitoring of Ecosystem Enhancement Program (EEP) preservation mitigation easements. A Stewardship Program Director has been hired to coordinate these specific activities. The broader category of stewardship, including management for ecological values, remains largely unaddressed.

Conservation Tax Credit Program. The number of acres and estimated value of donations of interests in real property donated for conservation purposes remains stable, but has not grown in several years. Over the last year, applications for certification have been approved for the conservation of 11,500 acres, which brings the total conserved acreage to 168,000 acres for the duration of the program.

Conservation Grant Fund. Only one of this conservation tool's grants programs received funds this year – the annual stewardship monitoring grant for conservation easements held by the Ecosystem Enhancement Program. This was the second year of funding for this program. The Military Support Act provided funds for the first time in 2006, which were used for transaction costs associated with the buffering of military training areas with compatible land uses. However, this grant program did not receive funding in 2007.

ANNUAL PROGRAM UPDATE

Conservation Easement Program 113A-230. Having been established in 1997, this program is intended to use promotion, education, and quality assurance to increase the use of conservation easements as a tool to accomplish conservation goals, such as the Million Acre Initiative. The use of conservation easements continues to grow, especially as they are a key element of the Clean Water Management Trust Fund, Conservation Reserve Enhancement Program, and Ecosystem Enhancement Program as a mechanism for water quality protection. There is also growing acceptance of conservation easements within the farming and forestry communities.

In 2005 the Department began taking steps toward funding conservation easement quality assurance related activity. With the growing number of conservation easements generated through the Clean Water Management Trust Fund, Ecosystem Enhancement Program, Conservation Reserve Enhancement Program, and other programs, comes a growing responsibility for monitoring and effective management of their conservation values. This was begun in 2006 as a centralized receipts-based program supported by

any agency prepared to make payments into the Conservation Grant Fund Endowment to cover administrative/management costs. The intent is to expand this Stewardship Program incrementally until all conservation easements held by the State are assured proper monitoring and management of their public purposes and values. Two agencies have contracted to participate in the Stewardship Program: the Ecosystem Enhancement Program, and the Conservation Reserve Enhancement Program. At this writing, EEP is paying into the program. For the CREP easements, the Clean Water Management Trust Fund is incrementally contributing to an endowment, to build monitoring capacity.

In its initial year, the Stewardship program administered 71 properties in a pilot project. Monitoring costs alone for these 71 properties — which did not include enforcement or management — was \$29,000. This exceeded interest earned from endowment, meaning that the current endowment per property is inadequate. Additionally, two easement violations were reported as a result of the monitoring in 2007, and the enforcement costs will exacerbate the funding shortfall.

Additional stewardship monitoring expansions need to be pursued, including having DENR agencies that hold interest in properties received through the NCCTC program to submit annual stewardship monitoring reports, as well as all private nonprofit land trusts to confirm their stewardship monitoring of conservation easements received through the NCCTC program.

The program is learning from the pilot project, and it demonstrates that much work remains to be done to accomplish maximum use of conservation easements by private landowners, balancing their related economic advantages with maintenance of the intended conservation benefits. In the past, the Department has combined the CE Program with the Conservation Tax Credit Program, and thus operated a limited CE Program (of promotion and outreach). While a more substantial and in-depth outreach program could greatly increase the use of conservation easements, it will also require more attention to the costs and complexities of conservation easement drafting and stewardship.

Conservation Tax Credit Program 113A-231. The State's Conservation Tax Credit was established in 1983, and this Department's role was passive, to respond to donor's applications for certification of their gifts of interests in real property for conservation purposes. In 1997 the Department received the authorization to begin a non-regulatory program of education/promotion to increase the use of conservation tax credits. Presentations have been made at workshops organized by other groups for landowners and land-related professionals, and there is a NCCTC display often set up at workshops and conferences. The website receives regular visits, but needs to be updated.

There is sustained interest in the NCCTC program. Cumulatively, more than 168,000 acres valued in excess of \$732 million have been donated. (See attached graphs). Over the duration of Conservation Tax Credit use, it has leveraged the donation of over \$240 million of excess value that was above the amount that could be used to create the maximum credit allowed. Further, when used in conjunction with bargain sales, the

Conservation Tax Credit can yield substantial savings for conservation trust funds, local governments, and nonprofit organizations purchasing land. Over the duration of the program, all grantees (state, local and non-profits) have saved more than \$152 million through bargain sales facilitated by the tax credit initiative.

The Department has the statutory responsibility to protect real property and interests in real property conserved in perpetuity by State incentive programs. Fulfillment of this responsibility will require monitoring of these properties to assure that their conservation purposes are not jeopardized. The new but limited stewardship monitoring (quality assurance) program discussed under Conservation Easement Program, above, needs to be expanded incrementally to all conserved properties (both CE and fee simple). The current absence of permanent, full-time staff and line item budget prohibit implementation of these activities to further protect the public's conservation assets.

The increasing benefits from the Conservation Tax Credit Program have been derived mostly from increases in the maximum tax credit allowed. Nevertheless, steadily increasing land values reduce the incentive offered by the Conservation Tax Credit over time. Therefore, the maximum credit allowed must increase periodically to retain the program's effectiveness.

The Conservation Tax Credit is currently applied against State income taxes. Yet, there are landowners that cannot use this conservation incentive because they are required to pay other types of taxes. Consideration might be directed toward broadening the types of taxes to which the credit can be applied.

A more substantial and in-depth outreach program could greatly increase donations of real property for conservation purposes from the use of conservation tax credits. To date the Department has provided minimum support for this function while the Conservation Tax Credit Program has operated in a limited fashion in the absence of permanent, full-time staff or line item operating budget. This is a continuing limitation on the program's potential success.

Conservation Grant Fund 113A-232. Established in 1997, it was intended to stimulate the use of conservation easements, to improve the capacity of private nonprofit land trusts and agencies to successfully accomplish conservation projects, to better equip real estate related professionals to pursue opportunities for conservation, and to provide an opportunity to leverage private or other public monies for the stewardship of conservation easements. To date the Department has not received an appropriation to actualize the complete menu of Conservation Grant Fund activities and address the structural weaknesses it was intended to correct.

In 2005, actions were taken to start up two of the Conservation Grant Fund's functions. (1) The General Assembly approved one-time funding in the amount of \$1,000,000 for the transaction cost function. This was directed to the conservation of land that buffers military bases and training areas with compatible land uses. The funds were expended.

(2) The Department began the process of creating a centralized program that assures

proper quality assurance (monitoring and management) of the conservation easements held by its agencies, as part of the stewardship cost function. The Stewardship Program became operational in 2006 as a receipts-based operation involving the Ecosystem Enhancement Program and the Conservation Reserve Enhancement Program. An administrative position for this program was approved and filled, and as noted above, this program's initial year involved 71 easement properties in a pilot project. Further Stewardship Program expansion involves DENR agencies and nonprofit private land trusts being asked to report their annual stewardship monitoring of conservation easements received through the NC Conservation Tax Credit program, at no cost to the Conservation Grant Fund. Until a continuing source of funding can be secured, additional expansion of this program of conservation quality assurance in perpetuity will be constrained.

RESULTS FROM 2007 LEGISLATIVE SESSION

In June the General Assembly passed HB 463: An Act to Modify the Credit for Certain Real Property Donations. It effective date is January 1, 2007. Four primary changes in the amendment:

- Conservation Benefits. DENR certifies that donations of real property will meet one or more of the conservation purposes required by the statute. The amendment replaces one of the previously listed benefits: "other similar land conservation purposes", with a more specific list: "forestland or farmland conservation, watershed protection, conservation of natural areas as that term is defined in G.S. 113A-164.3(3), conservation of natural or scenic river areas as those terms are used in G.S. 113A-34, conservation of predominantly natural parkland, or historic landscape conservation."
- <u>Value Documentation with Tax Filing</u>. A new requirement was added, specifying that any tax filing tat includes a conservation tax credit must be accompanied by documentation of the donations value, prepared to specified standards.
- Increased Maximum Credit Allowed for Corporate Pass-Through Entities. All corporations now have the same (\$500K) maximum allowed credit. Pass-through entities, such as partnerships and LLCs typically distribute tax liability/benefits among their members, and this maximum allowed credit remains unchanged (\$250K) per member up to the cumulative corporate maximum.
- <u>Increased Maximum Credit Allowed for Married Couples</u>. Formerly, married couples claiming a conservation tax credit were required to file jointly. The amendment changes this to allow them to file separately (\$250K each) or jointly to a new maximum (\$500K).

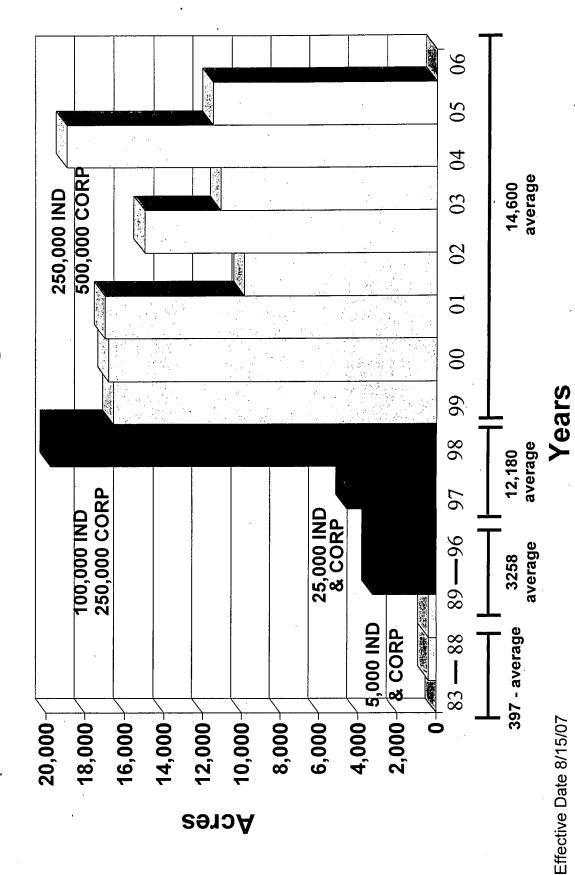
ADDITIONAL TOPICS FOR CONSIDERATION

Through management of the NCCTC Program and observation of evolving approaches to conservation through incentives, a number of topics may deserve consideration. The following could improve administration of the NCCTC and/or the incentive offered by the State for donation of interests in real property for conservation purposes.

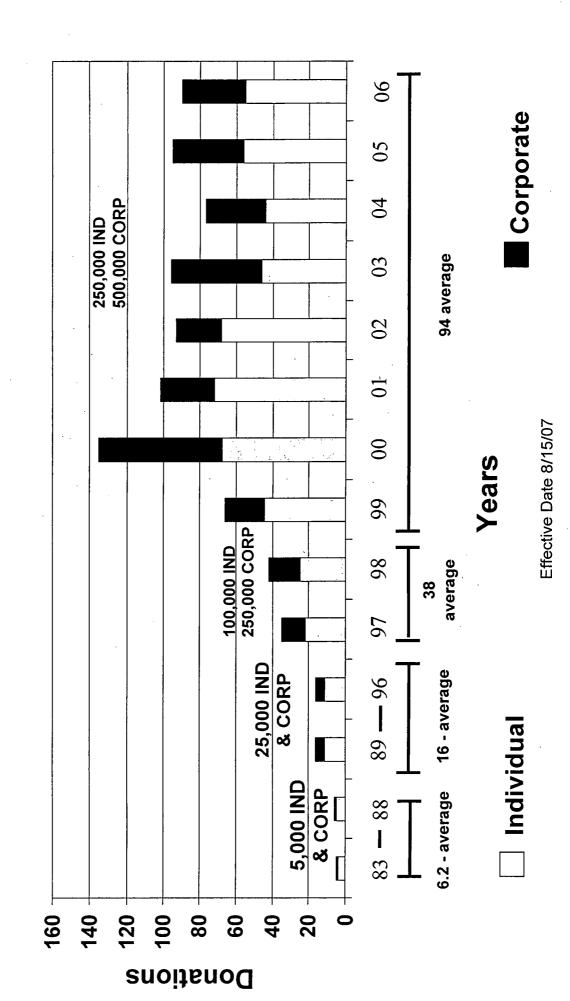
- A. Reports. Since its inception, Fiscal Notes for proposed amendments to the NCCTC have been problematic because of the limited available data. DOR and DENR have previously agreed to several achievable data items that could be reported annually. This includes the: (1) number of taxpayers that claimed a credit; and, (2) the total cost to the General Fund of the credits claimed. This is useful information in its own right and is worth pursuing. Nevertheless, it would be greatly enhanced by knowing the difference between the total value of credit available, and the total value actually used to offset tax liability. This information would provide a depth of insight needed for ongoing refinement of the NCCTC.
- B. Corporate Incentive to Donate. Since its creation in 1983, the NCCTC has only been applied against income taxes. With the sunset provision for how corporate pass-through entities claim tax credit, some of the incentive for conservation donations will be eliminated. One approach for regaining the breadth of NCCTC applicability would be to allow the credit to be used against Franchise Tax and Gross Premium Tax. This would appeal to corporate landowners that may be otherwise constrained from considering the donation of real property for conservation purposes, because they are not required to pay income taxes or they have limited income tax liability.
- C. NCCTC Refundability. The NCCTC was created as an incentive for landowners to donate interests in real property for conservation purposes. While the concept has been very successful and has been emulated in other states, there is still a category of landowner that finds little incentive in the program. "Land-rich and cash-poor" landowners [typically owners of working landscapes such as farms and forests] receive disproportionately low return from their conservation donation for a tax credit. Several states with more recent conservation tax credit programs have addressed this issue by authorizing "transferability" for their tax credits, but this involves a considerable administrative workload. The issue could be addressed more simply through "refundability," where those donors with larger income tax liabilities will have the option of electing a credit, while those donors with lower income tax liabilities will have the option of electing a partial refund. As proposed, a 50% refund of any remaining credit amount would be authorized after the second year of carry forward (third year including the year of donation). In this way, land-rich and cash-poor landowners would have more incentive to donate interests in real property for conservation purposes. If enacted, it would be three years before any refunds were paid.
- D. Index Credit Cap. Since its establishment in 1983, the maximum credit allowed for the NCCTC has been raised three times (1989, 1997, and 1999). Further requests for increases are inevitable as increasing property values decrease the incentive provided by the NCCTC. These dynamics can be addressed by indexing the credit cap. The incentive to donate would then be stabilized relative to land value, and repetitive legislated increases would be avoided. As proposed, an increase equal to 75% of the Consumer Price Index (CPI) would be calculated from the last year of credit cap increase, with the cap increasing incrementally in the year following a cumulative increase of \$25,000 for individuals and \$50,000 for corporations. If previously enacted: since the last credit cap increase occurred in 1999, the index threshold would have been passed in 2004, would have been

- announced in 2005, and 2006 would be the year an automatic indexed increase took effect. Thus, a credit cap increase is due, to avoid a loss of incentive for voluntary donations of interests in real property for conservation purposes. In the absence of indexing authority, an increase in existing credit caps to \$275,000 for individuals and \$550,000 for corporations is timely.
- E. Evaluation of Donation Quality. With an increased interest in "conservation development," NCCTC applications have ranged in perceived quality, especially in regard to fragmentation and "edge effect." Not all donations are the same, obviously, and it seems unfair to offer the same incentive to a prospective donor of a "forever wild" easement for a contiguous and ecologically important natural area as to a developer who chooses to donate interest in land that is not cost-effectively developed, such as a combination of steep slopes and wetlands. The resulting irregularly-shaped donations do not offer the same habitat value, and might be similar to an easement with multiple reserved rights that reduce the overall conservation value. The NCCTC would like to look at tools such as the One NC Naturally Strategic Conservation Planning effort, to see where perhaps donations for conservation could be evaluated and even pro-rated.
- F. Funding for Ecological Management. Attention recently given to red-cockaded woodpeckers (a federally listed species) on military bases has emphasized the lack of tools that would provide landowners the incentive for ecological management, especially those with conservation easements. In order to maximize their military lands for training, base managers have looked for help increasing red-cockaded woodpecker populations off-site. Much as was done for transaction costs with the Military Support Act, the Conservation Grant Fund could provide the structure to competitively award grants to the most beneficial land management around military bases, if funded.

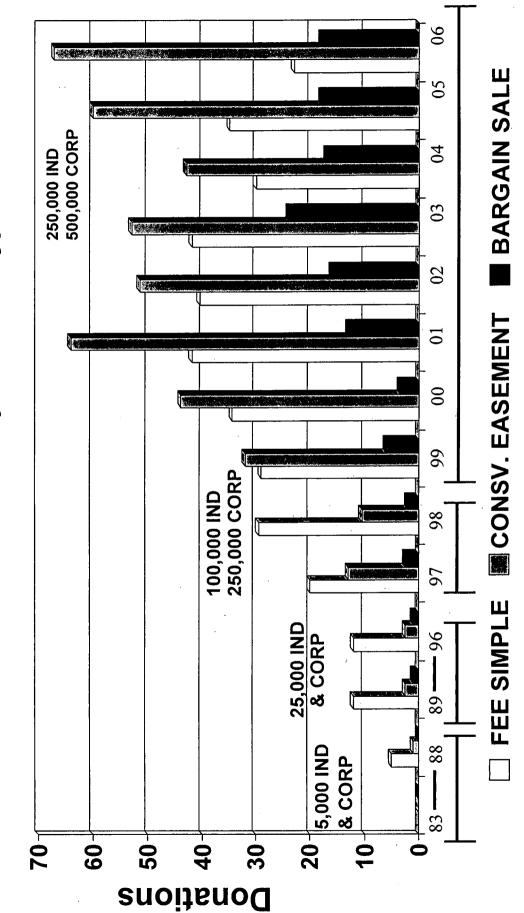
Annual and Average Acres



Annual and Average Donations by Donor Type

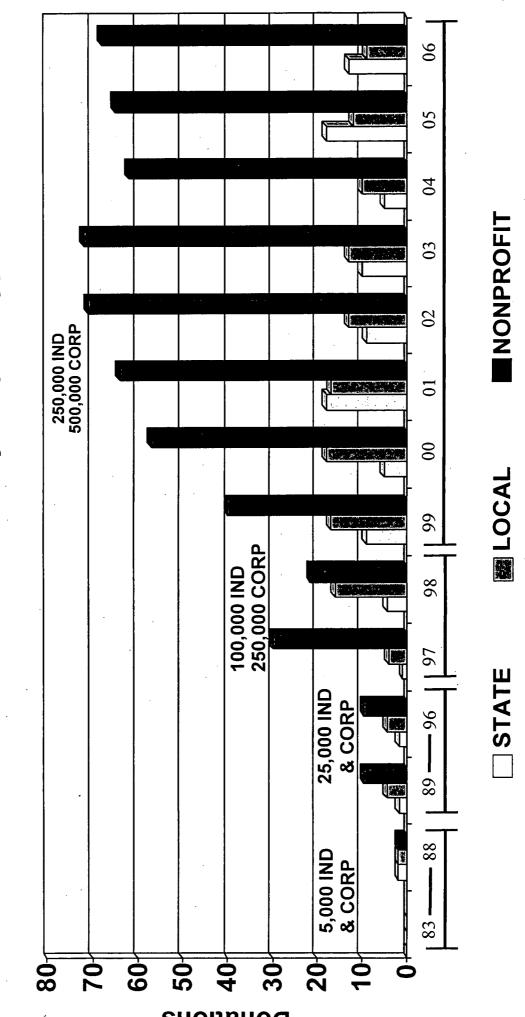


Annual donations by donation type



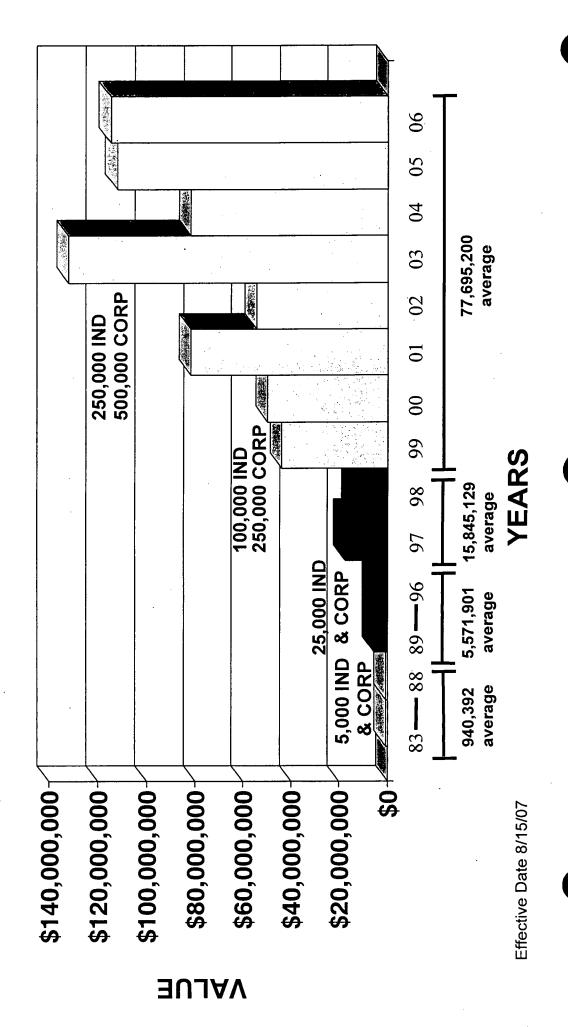
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Annual donations by recipient type

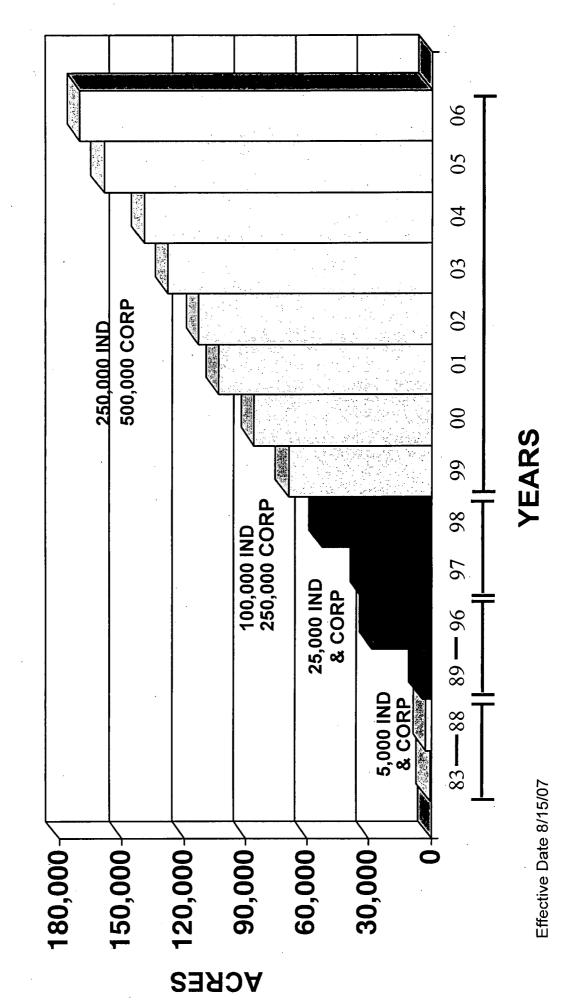


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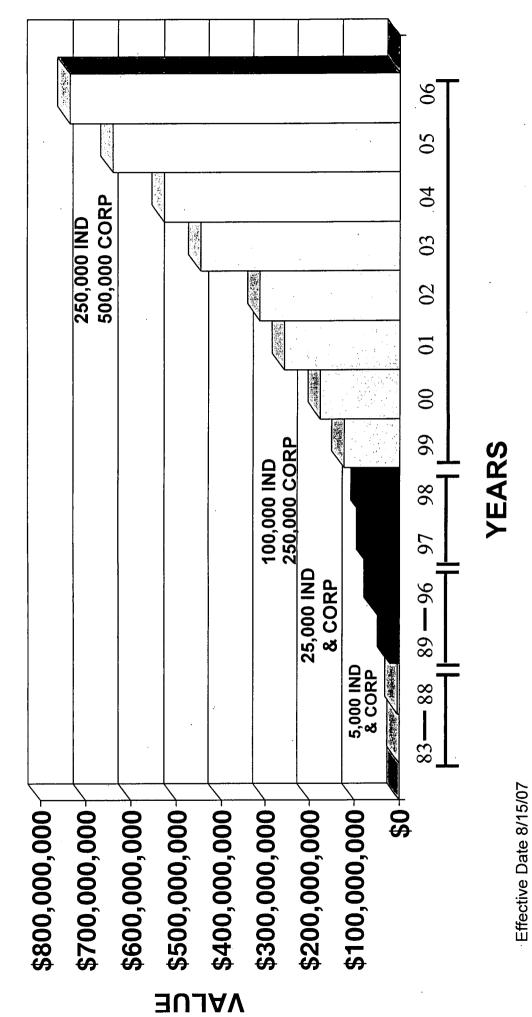
ANNUAL & AVERAGE VALUE



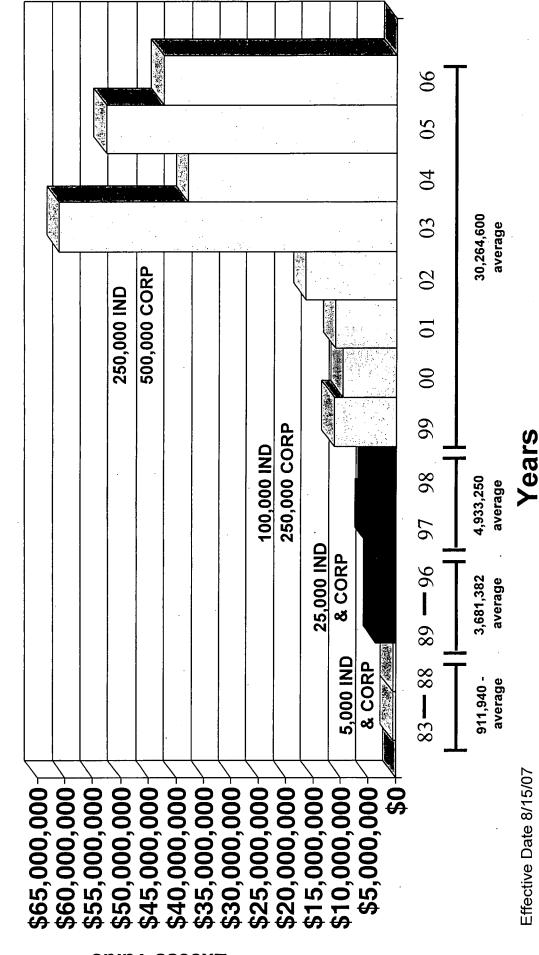
CUMULATIVE ACRES



CUMULATIVE VALUE



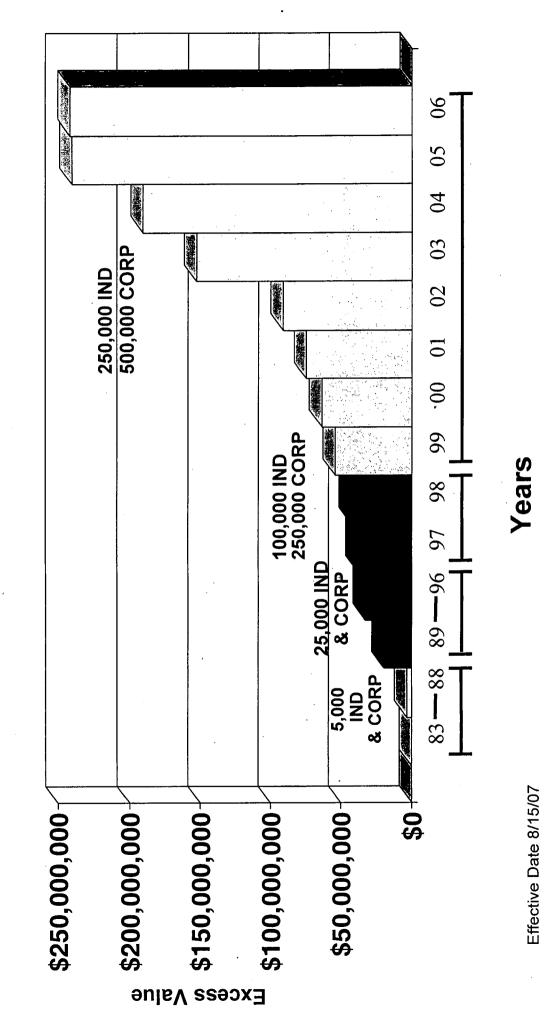
Annual and Average Excess Value



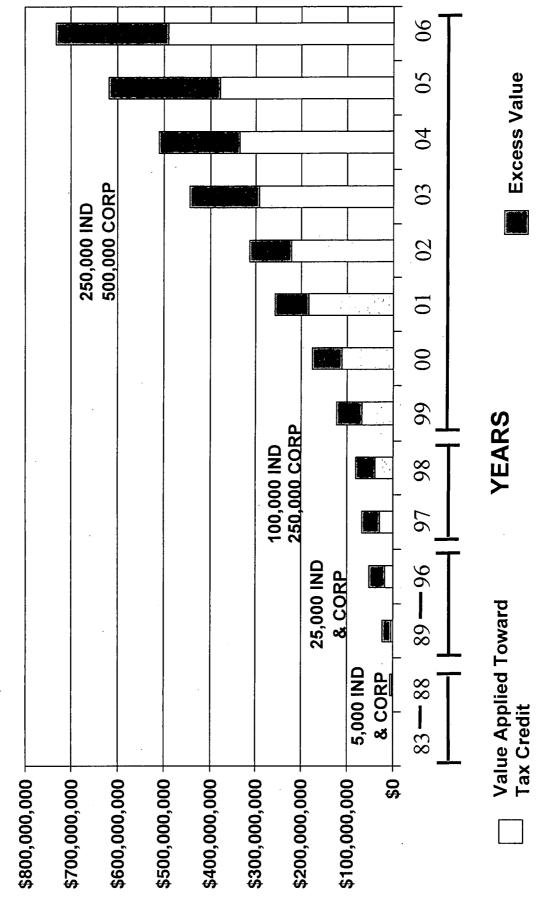
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Excess Value

Cumulative Excess Value

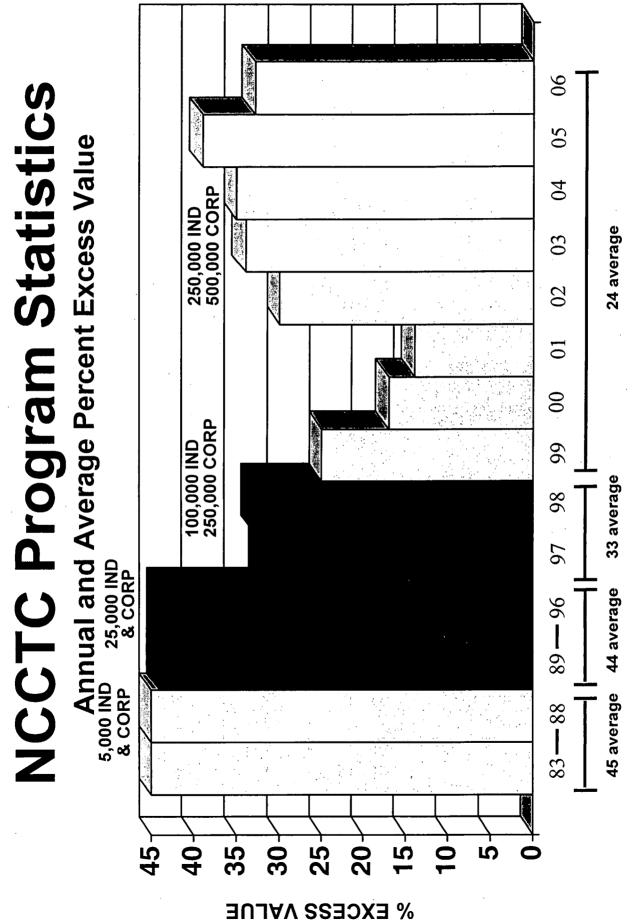


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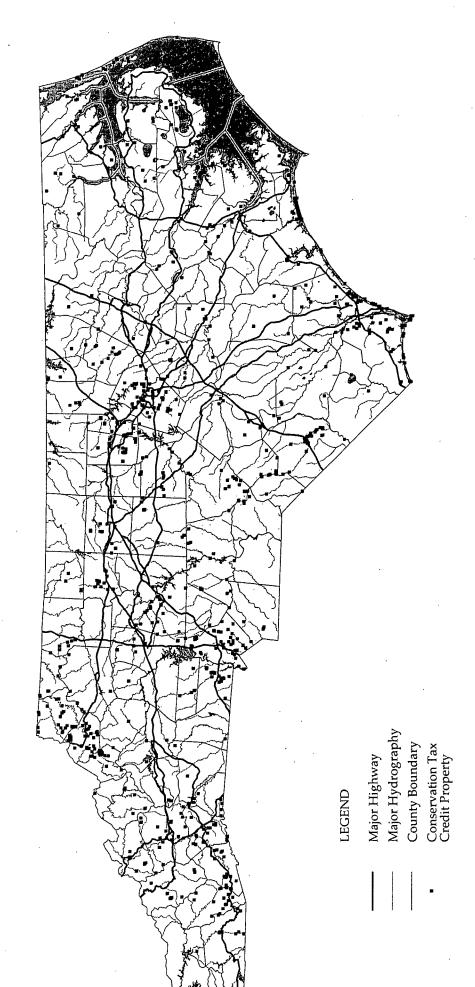
Effective Date 8/15/07



Effective Date 8/15/07

YEARS

North Carolina Conservation Tax Credit Properties (1983 - 2005)





Map Prepared July 2007 by the N.C. Center for Geographic Information & Analysis * 301 N. Wilmington St., Suite 700 * Raleigh, N.C. 27601 * (919)733-2090

2006 Annual Report NC Million Acre Initiative

Presented to the Governor of North Carolina and the Environmental Review Commission of the North Carolina General Assembly

Sept. 1, 2007

By the North Carolina Department of Environment and Natural Resources Office of Conservation and Community Affairs

The Latest Numbers

At the end of the eighth full year of the North Carolina Million Acre Initiative (Jan. 1, 1999 – Dec. 31, 2006), private and public land protection partners across the state have permanently protected an additional 481,315 "Million Acre" acres. These partners reported adding 75,794 of those acres during the 2006 calendar year. This is an increase in the rate of land protection in North Carolina from the previous year, due largely to the initial acquisition of industrial timber company lands (the North Carolina Chapter of The Nature Conservancy agreed to a purchase of significant acreage from International Paper in September, 2006).

The table at the end of this report describes in detail the number of acres protected by sector (state government, local government, etc.), by program, and by time period. To avoid confusion, only official reports of new acquisitions (from surveys, interviews and questionnaires) are counted in the final total. Estimates for non-respondents are not included.

The lands protected in 2006 represent important natural areas for habitat, recreation opportunities, working forests, and riparian buffers that maintain water quality and protect floodplains, among others. However, the amount of land currently protected each year is insufficient to meet the goal of permanently protecting an additional million acres by Dec. 31, 2009 (G.S. 113A-240 and 241). In fact, at our current pace, land protection efforts do not even match the rate at which natural and agricultural lands are being lost to development in the State, which currently amounts to about 100,000 acres per year. The primary barrier to land protection is the availability of public and private funding for new projects. If we intend to meet the Million Acre goal by the end of 2009, more money for land protection must be found. The figure below illustrates our progress toward the Million Acre goal to date.

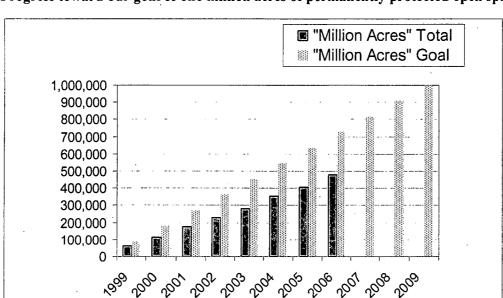


Table 1: Progress toward our goal of one million acres of permanently protected open space

The Program

In addition to working to increase the rate at which land is being protected in North Carolina, the Million Acre Initiative continues to work towards making information about land protection tools and techniques more broadly available, and to encourage conservation planning. As part of the One North Carolina Naturally program, the Million Acre Initiative and other partners continue to slowly but steadily increase awareness among North Carolinians about the need for additional land conservation to protect our valuable natural ecosystems.

A new development for the program in the past year has been the development of a statewide Strategic Conservation Plan (SCP). North Carolina's population is projected to increase 50% over the next 25 years. At the current rate of development, four million new residents will translate to eight million more acres developed. While we can't say for certain how much land will be permanently altered in the next 25 years, it is safe to say that much of the development is likely to occur on lands that currently have forests or farms. In order to ensure the ecological health of North Carolina, we need to not only increase the rate of land protection, but to prioritize which lands should be conserved, versus which lands are best suited for development

to accommodate our new residents. The North Carolina SCP was born out of the need to develop a strategic process which will coordinate and implement the state's conservation efforts over the next 25 years.

North Carolina's SCP will use scientific and strategic analysis to identify and prioritize the essential high quality natural resources across the state, as well as identify crucial protection gaps in our state's network of supporting ecosystems. This plan will highlight areas of opportunity for collaborative conservation that will contribute to sustaining the most significant natural resources across the state. The plan consists of a series of natural resource assessments that highlight the essential and most ecologically functional areas of land and water from the mountains to the coast. This assessment will result in several GIS data layers, which can be used by individual organizations, state and local agencies, or funding groups to inform decisions about conservation and/or compatible land use planning in North Carolina. Any combination of the assessment data layers can be studied to inform and add value to local conservation and land use planning goals and missions. However, on a statewide basis, it is the goal of this analysis to show those areas that meet the overall needs of the larger landscape.

In order to address the most important natural resource needs of North Carolina's wildlife, native plants, and humans, a series of six different assessments will be included in the plan. They have been divided up into two main sections -- ecosystem functions and ecosystem resources. Ecosystem functions consist of: the essential supporting landscape needs for terrestrial wildlife and its habitat; requirements for aquatic wildlife and its habitat; overall landscape function and connectivity; and, areas that are critical for maintaining ecosystem processes (e.g. wetlands, floodplains, stream buffers, and fire). The ecosystem resources section includes the essential supporting landscape needs for agriculture, forestry, fisheries, water source preservation, and recreation and open space.

In order to carefully develop the process and modeling, the first assessment is focused on the ecosystem function section. A first draft of this assessment is currently being made available for review and comment. Development of the assessments is an iterative process, to be updated every six months. This preliminary assessment has produced GIS data layers showing the

locations of the most significant natural resource core areas and connectors, representing a network of intact ecosystem functions. Even with these early results, conservation opportunities can be clearly identified in the areas of highly ranked lands that are not yet formally protected. However, large questions still need to be answered such as: "What areas are critical for protection of natural resource functions and services in North Carolina?" and "What will be required to ensure the viability of the significant natural resources identified in these analyses?"

Looking Ahead

The 75,794 acres permanently protected in 2006 was an unexpectedly strong step forward, due in large part to the previously mentioned sale of timber lands from International Paper. Ironically, a side effect of this major land purchase was to temporarily tap out the funds available from some of our most reliable conservation partners, demonstrating that the limits in North Carolina's conservation funding are real and continue to remain a challenge. With little federal money available, the burden for land protection falls squarely within the State.

As noted in last year's report, it will be difficult to meet the Million Acre goal without a working lands component targeted towards maintaining local production of agricultural and forest products. While partners in agricultural conservation have made exciting progress in mapping priority areas, funding for farmland preservation and conservation of forestry lands remains in short supply.

By building momentum for additional conservation funding, the Land for Tomorrow Coalition was successful in helping pass Senate Bill 1122, the "Land and Water Conservation Study." This act created the Joint Legislative Commission on Land and Water Conservation (hereafter "the Commission") to evaluate current sources of conservation funding, collect information on tools to protect land and water, hold public meetings in three different areas of the state and draft a report summarizing their recommendations to address funding needs for land and water conservation. The public meetings were well attended, with 200-300 people at each meeting, and with the majority of those requesting to speak in very strong support of additional conservation funding in North Carolina. In the report to the General Assembly, the Commission

recognized the good work that most of the conservation partners in North Carolina are already doing, and included findings from successful land and water conservation programs in other states. Common themes noted by the Commission from other states were summarized in seven 'best practices:' substantial state investment in land and water conservation; enabling local financing; providing state incentives for projects; allowing for the purchase of development rights; supporting public-private partnerships; conservation tax credits; and, partnerships with federal agencies.

The primary finding and recommendation of the Commission is that "additional funding is needed to finance land and water conservation," and that "a larger dedicated source of revenue is needed to adequately address conservation and preservation needs." The Commission determined that a balanced approach based on debt financing and dedicated sources of tax or fee revenue is the best approach for providing these needs, and identified a number of possible revenue sources. While no direct appropriations were made, the final budget for 2008 includes authorization of \$120 million in Certificates of Participation. This action will enable some partners to take advantage of existing short-term conservation opportunities, but much like a bond, the Certificates of Participation will have to be repaid. The Parks and Recreation Trust Fund and Natural Heritage Trust Fund will be obligated for \$100 million for this purpose, thereby limiting the amount of funding available for conservation opportunities in the more distant future.

After Land Protection

A great deal of effort goes into protecting land, and each transaction involves much time and effort. There is generally much enthusiasm for the high-profile tasks of acquiring or "protecting" land, but perhaps a lack of appreciation for what is involved with proper management and stewardship of the land following its acquisition. This is a good time to step back and examine whether our conservation partners are growing in their capacity to match the new responsibilities of additional land. There are some encouraging signs of increased stewardship capacity, as well as efforts to coordinate conservation and ecological management across property boundaries. Examples include the Division of Parks and Recreation's hiring of its first Ecological Burn

Coordinator, the N.C. Prescribed Fire Council's formation and its first statewide meeting in December 2006, and a Fire Learning Network being initiated in the Southeast Coastal Plain, which has helped regional land managers gather together and look for ways to share scarce resources.

Some land trusts are also taking on more ecological management, which is a positive step but can stretch limited staff and resources. In 2006 the Land Trust for Central North Carolina encountered land management on a large scale with its acquisition of the Bingham Lands, a 1,160-acre tract of forestland surrounding the Low Water Bridge along the nationally-significant Uwharrie River. This tract had been identified as a conservation priority through riparian corridor protection planning, and it provides five miles of mature hardwood buffer along one of the Piedmont's finest paddling stretches. Funding for this project was made possible though the N.C. Ecosystem Enhancement Program (EEP) and private donations, as well as the generosity of the former landowners. To deal with the land management and stewardship issues of this tract and others, The Land Trust for Central North Carolina formed a stewardship committee in 2006. The stewardship committee's activities include: developing management strategies for feeowned properties (~3,000 acres); coordinating research opportunities with Catawba College and other educational institutions; evaluating requests for recreational uses of fee property (including hunting); coordinating conservation easement monitoring with staff; and, coordinating volunteer management efforts at fee properties.

These are perhaps typical issues that have to be addressed in stewardship, and there are a variety of others. Green Infrastructure, a term that elevates attention to the true network of natural systems, is also a useful analogy -- our wildlife habitats and recreation areas need some level of maintenance or stewardship, much the same way that our "gray" infrastructure of roads, bridges, and sewers needs periodic maintenance to maintain its integrity. All conservation entities (local governments, State agencies and private conservation organizations) would appreciate more help with stewardship. The Million Acre numbers demonstrate that, to its credit, the State is currently the dominant source of funding for open space protection. The State of North Carolina should ensure that its investment remains sound, and that conservation values are maintained through stewardship. Activities such as prescribed burning and control of invasive exotic species to

promote wildlife habitat will be important components of such a strategy. One suggestion would be to offer some limited funding to land managers. It could be distributed or awarded competitively to those projects demonstrating greater ecosystem function benefit.

Conclusion

Understanding the relationships among the priority areas for conservation will help us target our protection efforts so that we maximize both the cost effectiveness and the long-term value of our investment. As tens of thousands of acres each year are permanently altered from their existing natural condition for new development, raising awareness about the importance of setting aside some portion of our critical and unique lands is essential. A combination of planning and coordination at the local, regional and state levels, coupled with adequate funding and incentives to implement the plans, is crucial. Given our uncertain future, the partners listed in the attached summary table will no doubt continue to increase their protection efforts, and the One North Carolina Naturally program will look for new ways to expand land conservation. These efforts and new ones will continue to make the future greener for North Carolina.

Acres Under Permanent Protection

(note: a blank cell means no data were collected. 0 means no land was protected)

		Acres				
		Protected 1/99	Acres Protected	Subtotal through	Acres Protected	"Million
State Agency	category	12/04	1/05 - 12/05	12/05	1/06 - 12/06	Acre" Total
DENR - FOREST RESOURCES	state forest	6,833	1,028	7,861	117	7,978
22.11. 7 0.120.11.2000.1020	conservation reserve	0,000	1,020	1,150	,	.,,,,,,
DENR - SOIL AND WATER	enhancement program	2,246	524	2,770	1,191	3,961
	hog farm buyout	1,413	256	1,669		1,689
WILDLIFE RESOURCES	game lands	94,994	10,740	105,734	39,258	144,992
DENR - Ecosystem Enhancement Program(*)	wetlands & riparian mitigation	9,304	2,160	11,464	1,229	12,693
DENR - PARKS AND REC.	state park	23,551	6,172	29,723	4,503	34,226
	state natural area	5,229	775	6,004	643	6,647
	state trails		765	765	189	954
	state rec area	2	0	2	0	
DENR - COASTAL MNGMT.	coastal reserves	28,961	0	28,961	0	28,961
	submerged lands	0	0	0	0	
DoA&CS - PLANT INDUSTRY	state nature preserve	9,528	19	9,547	274	9,821
	other lands			0		C
DCR - HISTORIC SITES	state historic sites	566	73	639	519	1,158
STATE UNIVERSITY SYSTEM	university property					
SUBTOTALS		182,626	22,512	205,138	47,943	253,081
Local Governments						
CITY AND COUNTY GOVERNMENTS (**)	parklands, greenways, watershed protection, etc.	19,594	2,342	21,936	1,178	23,114
SUBTOTALS		19,594	2,342	21,936	1,178	23,114
		a e e e e e		140 Ye Ville (140)	200-1200	
Federal Agency		Maria de la compania de la compania de la compania de la compania de la compania de la compania de la compania		1. 11 × 36 × 10 × 11 × 12 × 12 × 12 × 12 × 12 × 12		
		40.070		12,679	0	10.070
US FISH AND WILDLIFE SERVICE	national wildlife refuge	12,679	0			12,679
USDA FOREST SERVICE(***) USDA-NRCS WETLAND RESERVE	national forests	6,779	305	7,084	17	7,101
PROGRAM	wetlands reserve	10,429	1,761	12,190	1,122	13,312
NATIONAL PARK SERVICE	national park	7,547	93	7,640	134	7,774
100002110002		i				
SUBTOTALS		37,434	2,159	39,593	1,273	40,866
		F		(1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		· / / / / / / / / / / / / / / / / / / /
Local Land Trusts						
	protected lands			93,955	10.505	
					19,505	113,460
NC LAND TRUSTS (****)	protected failus	74,301	19,654	30,000	,	
NC LAND TRUSTS (****) SUBTOTALS	protected failus	74,301	19,654	93,955		
SUBTOTALS		74,301	19,654	93,955	19,505	113,460
SUBTOTALS		74,301	19,654		19,505	113,460
SUBTOTALS		74,301	19,654	93,955	19,505	113,460
SUBTOTALS Other Conservation Groups		74,301	19,654	93,955	19,505	113,460
SUBTOTALS Other Conservation Groups THE NATURE CONSERVANCY(*****)	nature preserves	74,301 25,642	19,654	93,955	19,505 4,141	113,460 33,025
SUBTOTALS Other Conservation Groups THE NATURE CONSERVANCY(*****) AUDUBON SOCIETY		74,301	19,654	93,955 28,884	19,505 4,141	113,460 10,000 33,025
SUBTOTALS Other Conservation Groups THE NATURE CONSERVANCY(*****) AUDUBON SOCIETY AMERICAN FARMLAND TRUST	nature preserves nature preserves farmland	74,301 25,642 0	19,654 3,242 0	93,955 28,884 0	19,505 4,141	113,460 33,025 (
SUBTOTALS Other Conservation Groups THE NATURE CONSERVANCY(*****) AUDUBON SOCIETY AMERICAN FARMLAND TRUST PRESERVATION NC	nature preserves nature preserves farmland historic preservation	74,301 25,642 0 0 636	19,654 3,242 0 0 44	93,955 28,884 0 0 680	19,505 4,141	33,025 (686
SUBTOTALS Other Conservation Groups THE NATURE CONSERVANCY(*****) AUDUBON SOCIETY AMERICAN FARMLAND TRUST PRESERVATION NC NC COASTAL FEDERATION	nature preserves nature preserves farmland historic preservation nature preserves	74,301 25,642 0 0 636 5,475	3,242 0 0 44 2,878	93,955 28,884 0 0 680 8,353	19,505 4,141 0 1,619	33,025 (680 9,972
SUBTOTALS Other Conservation Groups THE NATURE CONSERVANCY(*****) AUDUBON SOCIETY AMERICAN FARMLAND TRUST PRESERVATION NC	nature preserves nature preserves farmland historic preservation	74,301 25,642 0 0 636	19,654 3,242 0 0 44	93,955 28,884 0 0 680	19,505 4,141	33,025 (680 9,972
SUBTOTALS Other Conservation Groups THE NATURE CONSERVANCY(*****) AUDUBON SOCIETY AMERICAN FARMLAND TRUST PRESERVATION NC NC COASTAL FEDERATION	nature preserves nature preserves farmland historic preservation nature preserves	74,301 25,642 0 0 636 5,475	3,242 0 0 44 2,878	93,955 28,884 0 0 680 8,353	19,505 4,141 0 1,619 135	113,460

^{*}Formerly Wetlands Restoration Program. EEP closed on 3,748 acres in 2006; 2,518 of those acres are held by other state agencies or land trusts.

^{**}Local governments include LWCF projects closed, PARTF projects funded, CWMTF local projects closed, and counties that responded to information requests.

^{***}National Forests in North Carolina reports on fiscal year.

^{****25} local land trusts that regularly partner with the Conservation Trust for North Carolina. Local land trusts also conveyed 5,512 acres to local, state, and federal government in 2006

^{*****}The Nature Conservancy closed on 81,875 acres in 2006, including 76,456 acres of International Paper lands.

Many of these acres are transferring to the State of North Carolina.





January 25, 2008

MEMORANDUM

TO:

The Honorable Marc Basnight, Co-Chair

The Honorable Joe Hackney, Co-Chair

Joint Legislative Commission on Government Operations

The Honorable Charlie Albertson, Co-Chair

The Honorable Dan Clodfelter, Co-Chair

The Honorable Pryor Gibson, Co-Chair

The Honorable Lucy Allen, Co-Chair

Environmental Review Commission

The Honorable David Weinstein, Chair

The Honorable Mary McAllister, Co-Chair

The Honorable Edith Warren, Co-Chair

Joint Appropriations Subcommittee on Appropriations for

Natural and Economic Resources

Mr. Lynn Muchmore, Director, Fiscal Research Division

Ms. Kristen Walker, Fiscal Research Division

FROM:

Richard E. Rogers, Jr., Executive Director, CWMTF

Re:

Clean Water Management Trust Fund's 2007 Annual Report

Chair, Philip A. Baddour, Jr. GOLDSBORO

Ron Beane

Yevonne S. Brannon

Norman C. Camp. III

Rick Coleman

TABOR CITY

Karen Cragnolin

John Crumpler RALEIGH

Rance Henderson

Joseph M. Hester, Jr. ROCKY MOUNT

William Hollan WINSTON SALEM

Robert Howard SOUTHPORT

Charles Johnson GREENVILLE

Kevin Markham CARY

Chuck McGrady HENDERSONVILLE

Dickson McLean, Jr. WILMINGTON

John McMillan RALEIGH

Peter Rascoe

Stan Vaughan CHARLOTTE

Claudette Weston WINSTON SALEM

Jerry Wright JARVISBURG



Introduction

The Board of Trustees of the Clean Water Management Trust Fund (CWMTF) is writing to thank the members of the General Assembly of North Carolina for your continuing strong support for investments in clean water and to make our annual report to the General Assembly and the public pursuant to GS 113A-257.

Background

The 1996 General Assembly created the Clean Water Management Trust Fund (CWMTF) (Chapter 113A Article 18 (GS 113A-251 et seq.)), "to clean up pollution in the State's surface waters and to protect and conserve those waters that are not yet polluted."

The CWMTF "shall be used to help finance projects that specifically address water pollution problems and focus on upgrading surface waters, eliminating pollution, and protecting and conserving unpolluted surface waters, including urban drinking water supplies" and "to build a network of riparian buffers and greenways for environmental, educational, and recreational benefit."

The CWMTF's non-regulatory, incentive-based programs complement North Carolina's environmental regulatory and educational programs and help ensure both a strong economy and healthy environment.

The CWMTF is an independent agency housed for administrative purposes in the Department of Environment and Natural Resources (DENR.) A 21-member board of trustees establishes criteria, allocates funds, reviews applications, approves grants, and hires the executive director. Seven members are appointed by the Governor; seven by the General Assembly upon the recommendation of the President Pro Tempore of the Senate; and seven by the General Assembly upon the recommendation of the Speaker of the House. An advisory council composed of the Commissioner of Agriculture, Chair of the Wildlife Resources Commission, Secretary of DENR, and Secretary of Commerce or their designees advises the board of trustees.

Local governments, state agencies, and nonprofit conservation organizations, such as land trusts, may apply for grants. The next deadline for applications is February 1, 2008.

Moneys from CWMTF may be used to acquire conservation easements or land in fee simple to preserve riparian buffers, wetlands, floodplains, and greenways; to restore riparian buffers, streams, and wetlands; to repair failing wastewater collection and treatment systems; to eliminate failing septic tanks and straight pipes; to prevent, reduce, collect and treat stormwater pollution; to plan water quality projects; and for administration and staff. The board works through three principal committees: acquisitions, infrastructure/wastewater, and restoration/stormwater.

CWMTF application forms for grants, grant evaluation guidelines, enabling legislation, lists of the board of trustees, staff directory, news releases, and other reports and documents are available at www.cwmtf.net.

The executive director, two deputy directors, real property counsel, wastewater infrastructure project manager, restoration and stormwater project manager, administrative officer, public information officer, paralegal, executive assistant, and office assistant are based in the central office in Raleigh. Five field representatives cover the coast, piedmont and mountain regions of the state. In 2008, a part-time water quality advisor will be changed to a full-time position and moved to the central office and a stewardship coordinator will be added to the Raleigh CWMTF staff.

The Board of Trustees adopted an annual administrative budget of up to \$2,222,400 fiscal year 2007-2008 at its August 2007 meeting.

In 2007, the Board of Trustees met eight times – five times in Raleigh, and in Chapel Hill, Browns Summit, and Marion. In 2008, the Board plans to meet for its retreat in February in Durham and then three times in Raleigh and two times in other locations to be determined for its regular meetings.

New Leadership at CWMTF

Following the resignation of Bill Holman in December 2006, Richard E. Rogers, Jr. was hired by the CWMTF Board of Trustees to become the third executive director of CWMTF, effective August 1, 2007.

Progress by the Numbers

In 2007, the CWMTF continued to make strides in significantly improving water quality throughout the state.

In the last year, CWMTF also continued to help the state achieve its goal of preserving a million acres of open space, as set out in GS 113A-240, and further assisted Governor Easley implement his One North Carolina Naturally initiative.

As of 2007 CWMTF has:

- preserved over 439,000 acres of land, thereby ensuring streams, rivers, lakes and shellfishing waters will be able to support their uses for drinking water, recreation, fisheries and other uses.
- Protected over 4,500 miles of riparian buffers.
- invested more than \$446.6 million in land and water conservation.
- funded 135 riparian buffer, stream and wetland restoration projects totaling more than \$85.2 million.
- assisted local governments with 232 wastewater improvement projects, investing more than \$215.3 million to reduce discharges and more effectively treat wastewater so that fewer nutrients and other pollutants enter our rivers.
- funded 89 stormwater management projects totaling more than \$48.3 million to reduce pollution from urban runoff and decrease flooding.

2007 Summary of Projects

On March 1, 2007, CWMTF received 186 applications totaling \$155 million, marking the first grant cycle since a decision in 2006 by CMWTF trustees to reduce the number of grant cycles per year from two to one. In addition to considering those new requests for water quality funding, 28 applications deferred from previous cycles were also eligible for consideration in the 2007 cycle, adding an additional \$102 million to the amount of funding requested from the agency.

Thanks to appropriations from the General Assembly and to the closing out of old grants, the CWMTF Board of Trustees approved 217 grants, awarding a total of \$119 million, including additional funding awarded to 12 previously approved projects in calendar year 2007.

2007 Highlights

In 2007, the CWMTF Board continued to approve a diverse mix of projects: 50 percent of the approved requests involved land acquisitions; 20 percent involved infrastructure/wastewater projects; 20 percent involved restoration/stormwater; and the remainder of the 2007 grant awards involved planning projects and mini-grants.

Key projects for the year included:

- \$22.8 million to The Nature Conservancy and N.C. Wildlife Resources Commission to help conclude the historic purchase of the International Paper tracts on Juniper Creek in Brunswick County, and on the Tar, Chowan and Roanoke rivers;
- \$2.4 million to the N.C. Wildlife Resources Commission to help purchase the GMS Tract, on the Alligator River;
- \$2.4 million to the Town of Murphy to purchase the Murphy Tract and protect Marble Creek:
- \$5.4 million to the N.C. Division of Parks and Recreation to help purchase additional parklands across the state;

- \$3 million to the N.C. Division of Soil and Water Conservation for the continuation of the floodplain swine lagoon buyout program;
- \$1 million to the City of New Bern for stormwater management to protect Jack Smith Creek;
- \$1.9 million to help the Town of Eastover in Cumberland County make improvements to its wastewater treatment system and protect Lock's Creek;
- \$3 million to the Town of Burgaw to regionalize its wastewater treatment collection system and protect Burgaw Creek in Pender County;
- \$2.4 million to the Town of Mt. Gilead to rehabilitate its wastewater collection system and protect Clarks Creek in Montgomery County;
- \$2.9 million to the City of Dunn to upgrade its wastewater treatment facility and protect water quality in Mingo Swamp;
- \$500,000 to Harnett County to regionalize its wastewater treatment system and protect the Little River in the Cape Fear River Basin.

2007 Legislative Action and Issues

Budget and Funding

None of CWMTF's achievements in 2007 would have been possible without the support of the North Carolina legislature.

The General Assembly continued its strong support for protecting and restoring water quality in 2007. The FY 2007-2008 budget approved by the legislature once again appropriated \$100,000,000 in recurring funds to CWMTF in each year of the biennium.

CWMTF will work to justify continued funding at this or an increased level during the remainder of the 2007-2009 biennium, to address the more than \$17 billion of needs to protect and restore water quality in North Carolina.

Grant Criteria and Low Income Communities

In 2007, the CWMTF Board continued to improve CWMTF's grant review criteria and integrated CWMTF's existing criteria with the common criteria set out in Session Law 2005-454. As a result, in the 2007 grant cycle, more weight was given to good water quality applications from economically distressed local governments in the category of wastewater treatment grants. In this arena, the board demonstrated its commitment to following the direction of the General Assembly set out in GS 113A-254(a1) to give priority to applications for wastewater collection system projects and wastewater treatment works projects that serve economically distressed local government units.

Innovative Stormwater Management

The 2007 Session of the General Assembly passed Senate Bill 1468 requiring CWMTF to fund innovative efforts to improve stormwater management. The CWMTF is focusing efforts to encourage innovative stormwater technology and will make funding those types of projects a priority in 2008.

CWMTF and Ecosytem Enhancement Program Merger Study

The 2006 General Assembly authorized a study of merging CWMTF and the Ecosystem Enhancement Program. The Joint Transportation Oversight Commission and the Environmental Review Commission approved a request for proposals at their November meetings. Proposals were due on December 22, 2006. A study of the merger was completed in 2007 and recommended the two agencies not be merged, largely because of the statutory differences in their respective missions. Both CWMTF and EEP were established in 1996; however GS 113A-254(c) currently prohibits CWMTF from funding compensatory mitigation. The study did identify opportunities for CWMTF and EEP to work together. Both agencies endeavor to take advantage of those opportunities to better coordinate efforts in restoration and stormwater management.

Projects Funded BY CWMTF In Calendar Year 2007 (Listed Alphabetically)

	Project	Approval	Amount	Applicant	
Application Name	Number	Date	Funded	Type	County
Aberdeen, Town of -					
Plan/Acq/ Aberdeen					
Lake Greenway Plan	2007-801	9/10/2007	\$40,000	Municipal	Moore
Aberdeen, Town of -	2001 001	0/10/2007			
Storm Mini/					
Aberdeen Creek	2006S-009	7/27/2007	\$50,000	Municipal	Moore
Albemarle, City of -	20005-009	112112001	Ψ00,000	Mariiopai	11.00.0
Storm/ Don					·
Montgomery Park		. •		,	
Stormwater, Little			•		
Long Creek	2007-701	8/13/2007	\$174,000	Municipal	Stanly
Atlantic Beach,	2001-101	0/10/2007	Ψ174,000	Walliopai	O.C.I.I.y
Town of -					
Plan/Storm/Stormwa					
ter Remediation			•		•
Planning	2007-807	8/13/2007	\$50,000	Municipal	Carteret
Ayden, Town of -	2001-001	0/10/2007	400,000	mamorpa.	- Guitting.
WW/ Mill & Planters			*		
Street Replacement,		•			
I&I, Swift Creek	2007-502	10/8/2007	\$403,000	Municipal	Pitt
Banner Elk, Town of	2001-002	10/0/2001	Ψ-100,000	- Marinospaii	
- Rest/ Shawneehaw		•			
Creek Restoration	2007-401	8/13/2007	\$367,000	Municipal	Avery
Beaufort County -	2001 401	0/10/2001	4001,000		
Septic/ Autumnfield					
Assisted Living		1 1			•
Center, Broad Creek	2007-601	11/12/2007	\$28,000	County	Beaufort
Beaufort, Town of -			, , , , , , , , , , , , , , , , , , ,		
WW/WWTP					
Construction, Taylor					,
Creek	2007-503	10/8/2007	\$1,500,000	Municipal	Carteret
Benson, Town of -					
WW/ Reclaimed					
Wastewater System,					
Hannah Creek	2007-504	10/8/2007	\$132,000	Municipal	Johnston
Beulaville, Town of -					
WW/ collection					
System					
Rehabilitation and					
Reuse, Persimmon		•			
Branch	2007-505	10/8/2007	\$314,000	Municipal	Duplin
Biscoe, Town of -					
WW/ Treatment					
Plant Upgrade,					
Cedar Creek	2005A-502	8/8/05	\$50,000	Municipal	Montgomery
Blue Ridge Rural					
Land Trust -	†				
Acq/YMCA Herring					
Ridge, Upper Yadkin					1400
River	2007-001	9/10/2007	\$877,000	Non-profit	Wilkes

and the second of the second o	- (A. 1800 AK (C. 18. 1	444 33 33 33	**************************************		ALTON AND AND
	Project	Approval	Amount	Applicant	
Application Name	Number	* Date 🧚	Funded	Type 🔭	County County
Blue Ridge Rural					
Land Trust -					
Donated Mini/					
Giardina Farm, Fox					V
Creek	2006D-027	9/27/2007	\$25,000	Non-profit	Yancey
Blue Ridge Rural	,		•		
Land Trust -	,				
Donated Mini/					٠.
Koontz Farm,					Allambany
Stillhouse Branch	2006D-023	7/27/2007	\$25,000	Non-profit	Alleghany
Blue Ridge Rural		•			
Land Trust -					
Donated Mini/					
Laurelmor Tract,					,
Laurel and Dugger				N1	Motougo
Creeks	2006D-009	3/13/2007	\$25,000	Non-profit	Watauga
Blue Ridge Rural					
Land Trust -					
Donated Mini/ Old	1				,
Fields Farm, Elk	,			Name and the	Alloghopy
Creek	2006D-033	9/27/2007	\$25,000	Non-profit	Alleghany
Blue Ridge Rural					
Land Trust -			1		
Donated Mini/ Pfohl		i			Mataura
Tract, Beech Creek	2006D-021	7/27/2007	\$17,000	Non-profit	Watauga
Blue Ridge Rural		·			
Land Trust -					
Donated Mini/ South		l	005.000	Non-mark	Vancov
Toe River Tracts	2006D-022	9/27/2007	\$25,000	Non-profit	Yancey
Blue Ridge Rural					
Land Trust -				1	
Donated Mini/					
Woodard farm,			005.000	Non profit	Yancey
Crabtree Creek	2006D-010	3/13/2007	\$25,000	Non-profit	rancey
Bolton, Town of-					
Septic/ Treatment					
Plant Construction,		0/4.4/00	\$76,600	Municipal	Columbus
Friar Swamp	2006A-601	8/14/06	\$76,600	Muriicipai	Columbus
Boone, Town of -					
Storm/ Constructed				i	
Wetlands and					
Retrofits, South Fork		0/40/0007	£479.000	Municipal	Watauga
New River	2007-703	8/13/2007	\$178,000	Municipal	TTAILAUGA
Brunswick County -		,			
Septic/ Oak Island					
Septic Tanks,		1		1	
Lockwood Folly	0007.000	11/12/2007	\$987,500	County	Brunswick
River	2007-603	11/12/2007	φ307,300	County	D. G. 10111011
Buncombe County					
SWCD - Donated				Local	
Mini/ Brown Tract,	00000 040	7/27/2007	\$25,000	Govt	Buncombe
Newfound Creek	2006D-018	7/27/2007	ψ20,000	1 3041	Danoonioo

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	Project	* Approval	Amount	Applicant	
Application Name	Number	Date 🖟	Funded	Type	*County
Buncombe County			·	i	
SWCD - Donated					
Mini/ Morgan Tract,		-		Local	
Morgan Branch	2006D-016	7/27/2007	\$25,000	Govt	Buncombe
Buncombe County					
SWCD - Donated					·
Mini/ Roger Tract,				Local	
Newfound Creek	2006D-017	7/27/2007	\$25,000	Govt	Buncombe
Buncombe County					
SWCD - Donated		,			
Mini/ Rymer Tract,		• •		Local	
Brooks Branch	2006D-019	7/27/2007	\$25,000	Govt	Buncombe
Burgaw, Town of -				,	
WW/ Collection				ŀ	
System to Wallace					·
Regional WWTP,					Dondor
Burgaw Creek	2007-507	10/8/2007_	\$3,000,000	Municipal	Pender
Carolina Beach,				· .	
Town of -				·	
Plan/Storm/Stormwa		•			
ter Ocean Outfall		·			•
Management		0/40/0007	#25.000	Municipal	New Hanover
Planning	2007-808	8/13/2007	\$35,000	Municipal	INCM HAHOVEI
Carolina Land &					
Lakes RC&D -					
Storm Mini/				Local	
Corpening and	00000 000	0/40/0007	\$50,000	Govt	McDowell
Jacktown Creeks	2006S-006	3/13/2007	\$50,000	GOVI	MODOWON
Carolina Mountain				,	
Land Conservancy -		ļ			
Acq/ Big Creek					
Lodge, Rocky Fork	2006B-001	9/10/2007	\$50,000	Non-profit	Henderson
Creek	20000-001	9/10/2007	Ψ30,000	Tron prome	
Carolina Mountain					
Land Conservancy -					
Acq/JABR Tract, Fall Creek	2007-002	11/12/2007	\$784,000	Non-profit	Henderson
Carolina Mountain	2007-002	1171272001	4761,655		
Land Conservancy -					
Acq/Terra Nova	i.				
Tract, Reasonover			}		
Creek	2007-003	9/10/2007	\$667,000	Non-profit	Henderson
Carolina Mountain	2007 000	0, 10, 200			
Land Conservancy -			1		
Donated Mini/ Baker	1				
Tract, Rock Creek	1			1	
(Withdrawn)	2006D-012	7/27/2007	\$18,900	Non-profit	Buncombe
CML Conservancy -					
Donated Mini/					
Bradham-George					
Tract, East Fork					
French Broad River				1	
Tributaries	2006D-028	9/27/2007	\$25,000	Non-profit	Transylvania

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	Project	Approval	Amount	Applicant	
Application Name	Number	Date	Funded	Type	County
Carolina Mountain			·		
Land Conservancy -					
Donated Mini/ Deep					
Woods Camp Tract,					
Aiken Mill Creek	2006D-029	9/27/2007	\$25,000	Non-profit	Transylvania
Carolina Mountain					
Land Conservancy -					
Donated Mini/ Maple					
Flats Tract, Little					
Creek	2006D-030	9/27/2007	\$25,000	Non-profit	Henderson
Carolina Mountain					
Land Conservancy -					İ
Donated Mini/			,		
McClain Branch	· .				
Farm, Cathey's					
Creek	2006D-011	7/27/2007	\$20,100	Non-profit	Transylvania
Carolina Mountain					
Land Conservancy -		•			
Donated Mini/			•		
O'Conner Tract,	• •				
North Fork French	00000 004	0/07/0007	#05.000	N	T
Broad River	2006D-031	9/27/2007	\$25,000	Non-profit	Transylvania
Carolina Mountain			•		
Land Conservancy -	•				
Donated Mini/					İ
Wilson Tract, Mill Creek	2006D-020	7/27/2007	\$25,000	Non-profit	Transylvania
Carolina Mountain	200610-020	112112001	φ25,000	Non-pront	Hansylvania
Land Conservancy -					
Donated/Mini/ Horan					·
Tract, Thompson		,			
River	2007D-008	10/15/2007	\$25,000	Non-profit	Transylvania
Carolina Mountain	200715-000	10/10/2007	Ψ20,000	HOH profit	Transylvania
Land Conservancy -	•				
Mini/ Smith Tract,					
Conestee Falls	2006M-010	6/14/2007	\$25,000	Non-profit	Transylvania
Carolina Mountain	2000111 0 10	0.7.11207		Trong Prom	7
Land Conservancy-					,
Donated Mini/					
Angels Way LLC					
Tract, South Fork					
Mills River tributaries	2006D-036	9/27/2007	\$25,000	Non-profit	Henderson
Carolina Mountain					
Land Conservancy-]	,			
Donated Mini/					
Woods Tract, Dismal					
Creek	2006D-037	9/27/2007	\$23,175	Non-profit	Henderson
Carolina Mountains					-
Land Conservancy -					
Donated/Mini/					
Kooman and Gower					
Tract, Green River	2007D-007	10/15/2007	\$25,000	Non-profit	Transylvania

	Project	Approval	Amount	Applicant	
Application Name	Number	Date	Funded	Type	County
Centralina COG -					
Plan/Storm/					
Regional					•
Stormwater				Local	
Partnership	2007-809	8/13/2007	\$121,000	Govt	Cabarrus
Columbus, Town of -					
WW/ Discharge					
Elimination, North					
Pacolet River	,				. ,
(Application					•
transferred from					اینا
Town of Tryon)	2007-543	10/8/2007	\$50,000	Municipal	Stokes
Conservation Fund -					·
Acq/Reeves-	·				
Jackson Tract,					-
Alligator River	2007-005	9/10/2007	\$704,000	Non-profit	Tyrrell
Conservation Trust					
for North Carolina -				·	
Plan/Acq/Riparian		,			Chataurida/Dag
Corridor Plans,			A 704 000	N1	Statewide/Reg
Phase 7	2007-802	9/10/2007	\$791,000	Non-profit	ional
Contentnea		,			
Metropolitan Sewer	'	•			
District - WW/Outfall		•			
and Treatment		••			
System Upgrades,	0007.500	40/0/0007	# 020 000	Country	Pitt
Contentnea Creek	2007-508	10/8/2007	\$232,000	County	FILL
Cove City, Town of -		·	'		, '
Septic/ Cost			*		
Overruns, Core	2007-604	10/8/2007	\$1,950,000	Municipal	Craven
Creek	2007-004	10/6/2007	\$1,950,000	Widilicipai	Olaven
Cramerton, Town of			*		
- Plan/WW/ Regional	İ				
Wastewater Plan, Lake Wylie	2007-813	10/8/2007	\$120,000	Municipal	Gaston
Dan River Basin	2007-013	10/0/2007	Ψ120,000	Warnopar	- Juston
Association -					
Plan/Rest/Dan River					
Watershed	1		<u>'</u>		
Assessment	2007-805	8/13/2007	\$18,000	Non-profit	Stokes
Davidson County -	200, 000	0, 10, 200,	71		
Septic/ Grinder					
Pumps, Cabin Creek	2007-605	10/8/2007	\$10,000	County	Davidson
Dover, Town of -			· · · · · · · · · · · · · · · · · · ·		
Septic/ Cost					
Overruns, Mosley					
Creek	2007-606	10/8/2007	\$1,200,000	Municipal	Craven
Dunn, City of - WW/	1			•	
WWTP Upgrades,					
Mingo Swamp	2007-509	10/8/2007	\$2,950,000	Municipal	Harnett

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	Project *	Approval	Amount	Applicant	
Application Name	Number	70 Bate 700	Funded	Type	County
Duplin Co. – Ct.					
Sewer System					
Feasibility, NE CF					
River	2007-819	10/8/2007	\$40,000	County	Duplin
Duplin County -			V.0,000		
Septic/ Rosemary					
Community					
Collection System,			İ		
Reedy Branch	2007-607	10/8/2007	\$230,000	County	Duplin
Durham County -	2001-001	10/0/2007	Ψ230,000	County	Варііі
Acq/ Little River					
Uplands, Little River	2007-008	9/10/2007	£4.404.000	Country	Durham
	2007-008	9/10/2007	\$1,101,000	County Local	Durnam
Durham County - Acq/ North Triangle					
• • • • • • • • • • • • • • • • • • • •				Governme	
Realty Tract, Little	0007.000	0/40/0007	# 400,000	nt -	Disabasa
River	2007-009	9/10/2007	\$403,000	County	Durham
Durham County -					
Acq/Little Mountain	0007.007	0/40/0007	# 504.000	On the fact	Db
Farm, Flat River	2007-007	9/10/2007	\$534,000	County	Durham
Durham Soil &					·
Water Conservation					
District - Storm/ R.N.					
Harris Elementary			,		
Stormwater, Rocky					
Creek	2007-704	8/13/2007	\$163,000	County	Durham
Eastover Sanitary		,			
District - WW/			-		
Collection System					
Improvements,		İ			
Lock's Creek	2007-510	11/12/2007	\$1,896,000	County	Cumberland
Edenton, Town of -				·	
Storm Mini/ Edenton					
Bay	2006S-012	9/27/2007	\$50,000	Municipal	Chowan
Ellerbe Creek					
Watershed					
Association - Rest/					
Durham's West					
Ellerbe Creek Trail					
Restoration	2007-402	8/13/2007	\$411,000	Non-profit	Durham
Eno River					
Association - Acq/					
Confluence Property					
Tract, Eno River	2007-010	9/10/2007	\$685,000	Non-profit	Orange
Eno River					
Association - Acq/			_.		
Penny Tract, Mile			l		
Branch	2007-011	9/10/2007	\$363,000	Non-profit	Orange
Environmental					
Impact RC&D -					ļ
				Local	
Ellerbe Creek Watershed Association - Rest/ Durham's West Ellerbe Creek Trail Restoration Eno River Association - Acq/ Confluence Property Tract, Eno River Eno River Association - Acq/ Penny Tract, Mile Branch	2007-402	8/13/2007 9/10/2007	\$411,000 \$685,000	Non-profit	Durham Orange

Clarity and become expense.	4 Project *	Annroval @	Amount	Applicant.	
Application Name	Number	Date	Funded	Type	County
Faison, Town of -				LA CARPON TO THE GRAD	<u>. , ,</u>
WW/ I&I	·				
Rehabilitation,					
Goshen Swamp	2007-511	11/12/2007	\$500,000	Municipal	Duplin
Fayetteville-	200: 01:	_ ,			
Cumberland Parks					
and Recreation -					·
Acq/ Cape Fear	,			Local	
River Greenway	2006B-006	11/13/06	\$1,011,000	Govt	Cumberland
Foothills	20002 000	.,,.,,,,,	V 1, V 1 1, V 2		
Conservancy of NC -					
Acq/ Edgemont		. •			, i
Limited Tract,				'	
Wilson Creek	2007-013	9/10/2007	\$620,000	Non-profit	Caldwell
Foothills	2007-013	3/10/2007	Ψ020,000	14011 prom	<u> </u>
Conservancy of NC -					
Mini/ Dysartsville			•	•	•
Gameland Tract,					,
•	2006M-008	3/13/2007	\$25,000	Non-profit	McDowell
Muddy Creek Four Rivers RC&D,	2000IVI-000	3/13/2007	\$25,000	14011-profit	WODOWOII
Inc Rest/ Roanoke				Local	
Tributary	0007.400	0/40/0007	\$670,000	Govt	Halifax
Restoration	2007-403	8/13/2007	\$670,000	Govi	Halliax
Franklin County -					
Plan/Storm/ Cypress				· '	
Creek Watershed		0/40/0007	645 000	Country	Franklin
Assessment	2007-810	8/13/2007	\$45,000	County	FIANKIII
Franklinton, Town of					•
- WW/ I&I and					
Collection					
Rehabilitation,		40/0/0007	£4.000.000	Municipal	Franklin
Cedar Creek	2007-512	10/8/2007	\$1,030,000	Municipal	riankiin
Gaston County -					
Plan/WW/				1	
Consolidated					
Wastewater Plan,	0007.044	40/0/0007	0400 000	Country	Conton
Dutchmans Creek	2007-814	10/8/2007	\$120,000	County	Gaston
Gaston County -		·			
WW/ Ridge Mill,		10/0/0007	04 400 000	0	Castan
Blackwood Creek	2007-608	10/8/2007	\$1,169,000	County	Gaston_
Gastonia, City of -	1				
Storm/ Open Sand		0/40/000	050.000	Ma ! ! !	Casta
Filter, McGill Creek	2007-705	8/13/2007	\$59,000	Municipal	Gaston
Graham County -	1				
Septic/ Septic			1		
System					
Replacement					
Project, Stecoah					.
Creek	2007-609	10/8/2007	\$560,000	County	Graham
Grifton, Town of -		· ·			
Storm/ Stormwater		!			
BMPs, Contentnea			1		
and Grinnel Creeks	2007-706	8/13/2007	\$201,000	Municipal	Pitt

	Project :	Approval	Amount	Applicant	
Application Name	Number	Date		Type 🦠	County
Guilford County -					
Acq/ Guilford Tract,					
Mears Fork Creek	2007-015	11/12/2007	\$100,000	County	Guilford
Harmony, Town of -					
Septic/ WWTP					
Construction &					
Septic Tank					
Hookups, Dutchman Creek	2007-610	10/8/2007	\$824,000	Municipal	Iredell
Harnett County -	2007-010	10/0/2007	Ψ02-4,000	wanicipal	ii cdoii
WW/ South Regional					
WWTP, Little River	2007-513	10/8/2007	\$500,000	County	Harnett
Henderson, City of -	2007-313	10/0/2007	Ψ000,000	County	Trairiott
WW/ Sewer					ļ .
Rehabilitation,					
Sandy Creek	2007-515	11/12/2007	\$429,000	Municipal	Vance
Hertford, Town of -					
Plan/WW/ Sewer					
System Survey,					
Perquimans River	2007-815	10/8/2007	\$64,000	Municipal	Hertford
Hickory, City of -					
WW/ Interceptor					
Replacement,					
Cripple Creek	2007-516	11/12/2007	\$1,162,000	Municipal	Caldwell
High Country					
Conservancy,					
Donated Mini/					
Reninger Tract,	00000 000	9/27/2007	\$25,000	Non-profit	Watauga
Winkler Creek	2006D-032	9/2//2007	\$25,000	Non-pront	vvalauya
Highlands, Town of - Septic/ Mill Creek	·				
Septic Tank					
Hookups	2007-611	11/12/2007	\$728,000	Municipal	Jackson
Johnston County -	2007 011	11712/2001	V. 20,000		
WW/ Reclaimed					
Wastewater					
Expansion, Neuse					
River	2007-517	10/8/2007	\$52,000	County	Johnston
Johnston County -					
WW/ Wetland			1		
Infiltration Basin and					
Reuse, Neuse River	2007-518	10/8/2007	\$80,000	County	Johnston
Jonesville, Town of -					
Plan/Acq/ Greenway					
Planning, Yadkin	0007.000	0/40/2007	¢25,000	Municipal	Yadkin
River	2007-803	9/10/2007	\$35,000	Municipal	Taukin
Jonesville, Town of -					
Septic/ Mountain			1		.
Crest Septic Tanks, Sandyberry Creek	2007-612	10/8/2007	\$150,000	Municipal	Yadkin
Sandyberry Creek	2001-012	10/0/2007	μ 100,000	i mariioipai	I GUIVIII

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	∴ Project -	Approval	Amount	Applicant	
Application Name	. Number ⊲	Date	Funded		County
Kenly, Town of -					
WW/WWTP					
Upgrades and			,		ĺ
Standby Generator,			·		
Little River	2007-519	10/8/2007	\$14,000	Municipal	Johnston
Kill Devil Hills, Town					
of - Storm/Mini/				Local	ĺ
Town Stormwater				Governme	
Plan Update,	ļ			nt -	
Roanoke Sound	2007S-001	10/25/2007	\$50,000	Municipal	Dare
Kinston, City of -			. •		, .
WW/ College St.					
Sewer					·
Rehabilitation,					
Neuse River	2007-520	11/12/2007	\$903,000	Municipal	Lenoir
Kure Beach, Town					
of - Storm Mini/					,
Ocean Outfalls	2006S-005	3/13/2007	\$25,000	Municipal	New Hanover
Kure Beach, Town			,		
of - WW/ Collection		٠			٠
Line Rehabilitation,					
Atlantic Ocean	2007-521	10/8/2007	\$591,000	Municipal	New Hanover
La Grange, Town of		•			
- WW/ Land					
Application and					
WWTP Upgrade,					
Mosley Creek	2007-522	10/8/2007	\$22,000	Municipal	Lenoir
Land of Sky			•		,
Regional Council -					
Acq/ Hornstein and			i		
Eidus Tracts, French					
Broad River	2007-016	11/12/2007	\$139,000	Non-profit	Madison
Land Trust for					
Central NC - Acq/					
Alcoa Tract, South	0007.047	0/40/0007	04 005 000		
Yadkin River	2007-017	9/10/2007	\$1,385,000	Non-profit	Davidson
Land Trust for the				·	
Little tennessee -		•			
Donated Mini/		Ì	ĺ	·	
Anderson Tract,	20060 044	7/07/0007	#0E 000	Nam :	
Hiwassee River	2006D-014	7/27/2007	\$25,000	Non-profit	Clay
Land Trust for the	, 		İ	ļ	
Little Tennessee -	, J		•		
Donated Mini/					
Waldroop Tract, Nantahala River	2006D-013	7/27/2007	\$25,000	Non profit	Massa
	20000-013	112112001	\$25,000	Non-profit	Macon
Landis, Town of - WW/ I&I					
Investigation, High					
Rock Lake	2007-523	10/8/2007	\$227 000	Municipal	Power
INUCK LAND	2007-020	10/0/2007	\$227,000	Municipal	Rowan

	Project	⊘Approval ⊜	Amount	Applicant,	
Application Name	Number	Date	Funded	一种工作。	County
Lenoir, City of -					
Storm/ Constructed	·				
Wetland, Lower					
Creek	2007-708	8/13/2007	\$311,000	Municipal	Caldwell
Marion, City of -					
WW/WWTP					
Upgrades,					
Corpening Creek	2007-524	10/8/2007	\$500,000	Municipal	McDowell
Maxton, Town of -			·		
WW/ I&I					
Rehabilitation, Shoe					
Heel Creek	2007-525	11/12/2007	\$2,524,000	Municipal	Robeson
Mebane, City of -					
Storm Mini/ Mill					
Creek	2006S-010	7/27/2007	\$28,800	Municipal	Alamance
Mecklenburg County					
- Acq/ Cedar Grove					
Greenway,		•			
McDowell Creek	2007-020	9/10/2007	\$608,000	County	Mecklenburg
Mecklenburg County					
- Rest/ Little Sugar					
Creek Restoration,					
Phase 9	2007-404	8/13/2007	\$615,000	County	Mecklenburg
Mineral Springs -					
Acq/ Greenway					
Project, Wolf &					
Bates Branches	2007-021	9/10/2007	\$307,000	Municipal	Union
Morehead City,			,		
Town of - WW/					
Reuse System,					
Phase I, Calico					'
Creek	2007-526	10/8/2007	\$91,000	Municipal	Carteret
Mount Gilead, Town					
of - WW/ Collection	1				
System					
Rehabilitation,				:	
Clarks Creek	2007-527	10/8/2007	\$2,400,000	Municipal	Montgomery
Mount Olive, Town					
of - Plan/WW/					
Growth Overflow					·
Planning, Northeast	·				<u>,,</u>
Cape Fear	2007-528	10/8/2007	\$115,000	Municipal	Wayne
Mount Pleasant,					.
Town of - Storm					
Mini/ Dutch Buffalo					
Creek	2006S-008	9/27/2007	\$50,000	Municipal	Cabarrus
Murphy, Town of -					
Acq/ Murphy Tract,		040,000=	00.400.000	N 4	Charter
Marble Creek	2007-022	9/10/2007	\$2,462,000	Municipal	Cherokee

	- Project	Approval	Amount	Applicant	
Application Name	Number	Date 📑	Funded	Type	County
National Committee					
for the New River -					
Donated Mini/					
Arrendell Tract, N.			,		
Fork New River	2007D-004	10/15/2007	\$21,607	Non-profit	Ashe
National Committee					
for the New River -					
Donated Mini/					
Caldwell Tract, S.					
Fork New River	2007D-002	10/15/2007	\$22,172	Non-profit	Ashe
National Committee					
for the New River -					
Donated Mini/					
Earnhardt Tract,					
Grassy Creek	2007D-003	10/15/2007	\$22,334	Non-profit	Ashe
National Committee					
for the New River -					,
Donated Mini/					
Langer Tract, S.					
Fork New River	2007D-001	10/15/2007	\$23,241	Non-profit	Ashe
National Committee					
for the New River -			•		
Donated Mini/ Peak		•			,
Tract, S. Fork New					
River	2007D-005	10/15/2007	\$21,453	Non-profit	Ashe
National Committee					
for the New River -					
Rest/ Boone Creek					
Restoration	2007-405	8/13/2007	\$27,000	Non-profit	Watauga
National Committee					
for the New River -					
Rest/ River Builder				·	•
Program, New River	2027 427	0/40/0007	0000 000	N	A II
Tributaries	2007-407	8/13/2007	\$238,000	Non-profit	Alleghany
National Committee					
for the New River -		•			. •
Rest/East Fork New	2007 406	0/40/0007	£244.000	Non profit	Motougo
River Restoration	2007-406	8/13/2007	\$214,000	Non-profit	Watauga
Nature					
Conservancy- Interest on three IP					Hertford,
tracts (2006A-017,					Halifax and
019 and 022)	2006A-022	6/14/07	\$693,313	Non-profit	Nash
Nature	2000/4-022	0/14/0/	Ψυ ο υ,υ ι υ	Non-piont	140011
Conservancy, The -				İ	
Acq /IP Timber			•		
Tracts, Upper Tar					
River; 19 Tracts					
(Transferred to NC					
WRC)	2006A-022	8/14/06	\$4,426,000	Non-profit	Nash
vvi\C)	2000A-022	0/14/00	ψ 1,1 20,000	inon-pront	INGOII

Paragraphic and the second and second	mente la companya di	and state of the s	7. 3年到15年1日,各成门 常 克	Control and the Second	CONTRACTOR OF THE
	Project	Approval	Amount	Applicant	
Application Name	Number	Date	Funded	Type	County
Nature					
Conservancy, The -	,		·		
Acq/ IP Timber					
Tracts, Chowan			,		
River (Transferred to					
NC WRC)	2006A-017	8/14/06	\$3,718,861	Non-profit	Hertford
Nature					
Conservancy, The -	:	•			
Acq/ IP Timber	. '				
Tracts, Juniper	· ·				
Creek (Transferred					
to NC WRC)	2006A-018	9/10/2007	\$8,324,584	Non-profit	Brunswick
Nature	2000/1010	0/10/2007	Ψ0,021,001	TTOTT PROTECT	Branowiot.
Conservancy, The -	'				
Acq/ IP Timber					
Tracts, Lower		•			
Roanoke River					
(Transferred to NC	į				
WRC)	2006A-019	8/14/06	\$558,000	Non-profit	Halifax
Nature	20007-013	0/14/00	Ψ000,000	rton pront	Tidillax
Conservancy, The -		•	:		
Acq/ IP Timber					
Tracts, Upper				•	
Roanoke River	2006A-020	9/10/2007	\$5,821,555	Non-profit	Bertie
NC Coastal	2000A-020	3/10/2007	Ψ0,021,000	Hon pront	Dortio
Federation - Acq/					
Morton Farm Tract,					
Webb Creek	2007-023	9/10/2007	\$1,048,000	Non-profit	Onslow
NC Coastal	2007-025	3/10/2007	Ψ1,040,000	14011-pront	01131044
Federation- Storm		•			
Mini/ Core and Back					
Sounds	2006S-013	7/27/2007	\$31,800	Non-profit	Carteret
NC Coastal Land	20003-013	112112001	ψ51,000	Hon-pront	Cartoret
Trust - Acq/ Barker	2007.024	9/10/2007	\$1,386,000	Non-profit	Carteret
Tract, Hunters Creek NC Coastal Land	2007-024	3/10/2007	ψ1,000,000	Hon-pront	Jakorot
Trust - Acq/ Carroll	· ·				
Tract, Waccamaw					
River	2007-025	9/10/2007	\$486,000	Non-profit	Columbus
NC Coastal Land	2001-020	3/10/2007	Ψ-100,000	. ton pront	30.0.111000
Trust - Acq/ Henry					
Tract, Turnagin Bay,					
Cherry Point					
Encroachment	2006A-023	8/14/06	\$2,000,000	Non-profit	Carteret
NC Coastal Land	20007-023	0/14/00	Ψ2,000,000	.ton pront	
Trust - Acq/ Lukens	2007-026	9/10/2007	\$774,000	Non-profit	Carteret
Island, Little Creek NC Coastal Land	2007-020	3/10/2007	Ψ11 -1 ,000	14011-pront	Varietet
Trust - Acq/	2007-028	9/10/2007	\$1,246,000	Non-profit	Craven
Riceland	2007-020	3/10/2007	ψ1,270,000	14017-pront	Olaveli

Water Control of the		THE WAR MENT OF STREET	The state of the state of the state of	Table 100 March 100	The New Marking No. 19. W.
	Project	Approval	Amount	Applicant	######################################
Application Name	Number	Date	Funded	Type	County
NC Coastal Land					•
Trust - Donated					
Mini/ Lee/Clark					
Tract, South River	2007D-006	10/15/2007	\$25,000	Non-profit	Bladen
NC Coastal Land					
trust - Donated/Mini/				İ	
Bray Tract, Little					
Contentnea Creek	2007D-011	10/15/2007	\$25,000	Non-profit	Pitt
NC Coastal Land					
trust - Donated/Mini/					
Riggs tract, Tar		:	. •		
River	2007D-009	10/15/2007	\$25,000	Non-profit	Pitt
NC Forest	2007.5 000	10/10/2007	Ψ20,000	rton pront	1 100
Resources - Acq/					
Boyette Tract,			*	State	• •
Turnbull Creek	2007-029	11/12/2007	\$250,000	Agency	Bladen
NC Parks and	2001-029	11/12/2001	Ψ230,000	Agency	Diauell
Recreation - Acq/	;				
Brame Tracts, Eno				State	
River	2007.022	9/10/2007	. #642.000		Orange
NC Parks and	2007-032	9/10/2007	\$643,000	Agency	Orange
			,		•
Recreation - Acq/					
Cashion Tract, Deep	0007.000	44/40/0007		State	•
River	2007-036	11/12/2007	. \$244,000	Agency	Lee
NC Parks and					
Recreation - Acq/				a	
Cove Swamp Tract,		0/40/000=	2252 222	State	
Lake Waccamaw	2007-039	9/10/2007	\$350,000	Agency	Columbus
NC Parks and			•		
Recreation - Acq/	İ			-	
Crescent Resources				State	
Tract, Lake Norman	2007-031	9/10/2007	\$1,270,000	Agency	Iredell
NC Parks and	,				
Recreation - Acq/					
Earwood Tract,					
Chestnut Flat				State	_
Branch	2007-033	9/10/2007	\$256,000	Agency	Burke
NC Parks and				l	
Recreation - Acq/		ĺ			
Lockville Tract,				State	
Deep River	2007-037	9/10/2007	\$180,000	Agency	Chatham
NC Parks and					
Recreation - Acq/				ļ	
Marks Tract, Deep				State	
River	2007-035	9/10/2007	\$670,000	Agency	Lee
NC Parks and					
Recreation - Acq/	*	l	ĺ		
Merchants Millpond					
State Park, Bennetts			ļ	State	
Creek	2007-040	9/10/2007	\$80,000	Agency	Gates

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	- Project ≱	Approval.	Amount	Applicant.	
Application Name	Number	Date	Funded	Type	County
NC Parks and	WWW.	State of the state	rent de la companya d		
Recreation - Acq/		İ			
Miles Tract, Big				State	,
Sandy Creek	2007-034	9/10/2007	\$235,000	Agency	Alleghany
NC Parks and	2007 00-7	0/10/2001	+200,000		
Recreation - Acq/					
Pettigrew State			•		
Park, Scuppernong				State	
River	2007-038	9/10/2007	\$751,000	Agency	Tyrrell
NC Sea Grant -	2007 000	0, 10,2001	V.O.,,555		
Rest/ Rocky Branch	ļ		-		
Restoration, Phase			•	State	, .
	2007-408	8/13/2007	\$449,000	Agency	Wake
NC Soil & Water	2001-400	0/10/2007	Ψ110,000		
Conservation - Rest/	.				
Floodplain Swine				State	Statewide/Reg
Buyout Program	2007-411	8/13/2007	\$3,000,000	Agency	ional
NC Soil & Water	2007-411	0/10/2007	ΨΟ,ΟΟΟ,ΟΟΟ	7 (go.,c)	
Conservation -					
Rest/Agricultural					
BMP's, French					٠.
Broad River				State	
Watershed	2007-409	8/13/2007	\$186,000	Agency	Avery
NC Soil & Water	2007-409	0/13/2007	Ψ100,000	, igo.i.cy	
Conservation -	1				
Storm/ Community	ļ ,				
Conservation				State	Statewide/Reg
Assistance Program	2007-710	11/12/2007	\$612,000	Agency	ional
NC State University	2007-710	11/12/2007	VO 12,000	1.97	
- Acq/Rest/Tyrrell			•		ļ
County 4-H				·	
Environmental		}		State	
Center, Bull Bay	2006B-019	9/10/2007	\$1,711,000	Agency	Tyrrell
NC State University	20005 010	0,10,200.			
- Plan/Storm/ Burnt	· ·				•
Mill Creek					
Watershed]	State	
Management Plan	2007-812	8/13/2007	\$62,000	Agency	New Hanover
NC Wildlife					
Resources		}			
Commission - Acq/					
New Hope Valley		1			
Forest, Morgan and				State	
New Hope Creeks	2005B-034	11/12/2007	\$1,280,000	Agency	Chatham
NC Wildlife					
Resources					
Commission - Acq/					
Sherron Tract,				State	
Chowan River	2007-041	9/10/2007	\$125,000	Agency	Hertford
1 -110110111111111111111111111111111111	1	•	•	•	

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	Project	Approval	Amount	Applicant	
Application Name	Number	Date	Funded	Type	County
NC Wildlife					
Resources					
Commission- Acq./			·		
GMS Tract, Alligator				State	
River	2003A-032	8/14/06	\$2,373,000	Agency	Tyrrell
New Bern, City of -					
Storm/ Stormwater					
Wetland, Jack Smith					
Creek	2007-711	11/12/2007	\$1,000,000	Municipal	Craven
New Hanover					, .
County SWCD- Mini/					•
Eagles Island, Cape				Local	
Fear River	2006M-009	7/27/2007	\$18,200	Govt	Brunswick
Newland, Town of -					
Storm/ Bioretention,		0/40/00=	007.000	,, , , ,	
North Toe River	2007-712	8/13/2007	\$35,000	Municipal	Avery
North Wilkesboro,					
Town of - Septic/					
Damascus Church					
Road Collection,		4.0/0/0007	0400 000		\A/:!!
Little Cub Creek	2007-614	10/8/2007	\$100,000	Municipal	Wilkes
Onslow County			·,		
Health Dept					
Septic/ Septic			••		
System Database,					1
Repair & Information	OOOGD GOG	40/0/2007	61 135 000	County	Onslow
Program Deschartes Terra of	2006B-606	10/8/2007	\$1,135,000	County	OTISIOW
Pembroke, Town of -					
Septic/ Union					
Chapel School, Burnt Swamp	2007-615	10/8/2007	\$20,000	Municipal	Robeson
Pembroke, Town of -	2007-013	10/0/2007	Ψ20,000	Warnolpai	110003011
WW/ Collection					
System I&I					
Rehabilitation,					
Lumber River	2007-530	11/12/2007	\$79,000	Municipal	Robeson
Piedmont Land	2007-000	11,12,2001	4.0,000		,
Conservancy - Acq/					
Mitchell River					
Preservation, Phase					
4	2007-042	9/10/2007	\$375,000	Non-profit	Surry
Piedmont Land				•	
Conservancy -					
Donated Mini/ Iseley					
Farm, Haw River	2006D-024	9/27/2007	\$25,000	Non-profit	Alamance
Piedmont Land					
Conservancy - Mini/					
Four Tracts, Mitchell					
River	2006M-007	3/13/2007	\$25,000	Non-profit	Surry

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	Project 5 Number	Approval Date	**Amount Funded	Applicant Type	County
Application Name Piedmont Land	i 4. Watubet ≨.	Date	Fundea	i ype 🤲	County San
Conservancy- Donated Mini/ Lake					
•					
Laurel Tract, Mill Creek	2006D-035	9/27/2007	\$25,000	Non-profit	Surry
Piedmont Triad	20000-033	9/2//2007	\$25,000	Non-pront	Ourry
COG - Plan/Rest/		,			
Watershed					
Restoration Plan,		. <i>'</i>		Local	
Richland Creek	2007-806	8/13/2007	\$80,000	Govt	Davidson
Pikeville, Town of -	2007-000	0/10/2007	Ψου,ουσ	COVE	Baviacon
WW/ Collection					
System					
Rehabilitation, The					
Slough	2007-531	10/8/2007	\$400,000	Municipal	Wayne
Polk County - Acq/			7.00,000		: =: • : : =
Alexanders Ford	'.				
Tract, Green River	2007-044	9/10/2007	\$274,000	County	Polk
Polk SWC District -			7		
Rest/ Lower Pacolet				_	
River Restoration	2007-414	11/12/2007	\$196,000	County	Polk
Powellsville, Town of					
- Septic/ Collection					İ
System to Windsor,					
Ahoskie Creek	2007-616	10/8/2007	\$210,000	Municipal	Bertie
Raleigh, City of -					
Rest/ Longview					
Branch Restoration	2007-415	8/13/2007	\$323,000	Municipal	Wake
Raleigh, City of -					
Storm/Pigeon House		,			
Branch Restoration	2007-714	8/13/2007	\$1,110,000	Municipal	Wake
Randleman, City of -					
Plan/Acq/ Greenway					
Planning, Deep					
River	2007-804	9/10/2007	\$27,000	Municipal	Randolph
Ranlo, Town of -					
WW/ Pump Station		l .			
Construction,	ļ		*****		0
Houser's Branch	2007-532	10/8/2007	\$296,000	Municipal	Gaston
Red Oak, Town of -			·		·
Septic/ Red Oak					
Schools Septic Tank			ŀ		
Elimination, Stony	0007.047	40/0/007	674.000	Municipal	Nooh
and Swift Creeks	2007-617	10/8/2007	\$74,000	Municipal	Nash
Resource Institute,					
Inc Rest/					
Hitchcock Creek	2007 447	0/12/2007	\$303,000	Non-profit	Richmond
Restoration	2007-417	8/13/2007	\$303,000	MOU-biolit	Nonthiona
Resource Institute,					
Inc Rest/ Pine					
Orchard Creek	2007-418	8/13/2007	\$146,000	Non-profit	Watauga
Restoration	2007-410	0/13/2007	μ ν ι το, υυυ	L 14011-brour	Tralauya

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Application Name	Project Number	Approval Date	Amount Funded	Applicant .	County
Resource Institute,	Mailine	Pale	5/1:39/12Fundeus	БТуре 🐷	W # County #
Inc Rest/ Ararat					
River Restoration	00004 400	0/4/4/00	6450 000	11	C
Sites	2006A-409	8/14/06	\$456,000	Non-profit	Surry
Richfield, Town of -					
WW/ I&I, Sewer			·		·
Rehabilitation, Curl	0007 500	4.4.4.0.1000.7	****	44	Ctli-
Tail Creek	2007-533	11/12/2007	\$203,000	Municipal	Stanly
RiverLink - Rest/					
Hominy Creek	0007.440	0/40/0007	0.400.000	N1	D
Restoration	2007-419	8/13/2007	\$480,000	Non-profit	Buncombe
RiverLink - Rest/					
Robinson Creek					
Restoration	2007-420	8/13/2007	\$755,000	Non-profit	Buncombe
Sandhills Area Land					
Trust - Acq/					
Headwaters Timber					
Tract, Black River	2007-048	11/12/2007	\$818,000	Non-profit	Cumberland
Scotland County -					
Plan/WW/WWTP			•		
Recommissioning					
Feasibility, Lumber			4		
River	2007-817	10/8/2007	\$42,000	County	Scotland
Scotland County -		,	·		
WW/ Springfield				"	1
Village System, Big					
Shoe Heel Creek	2007-538	10/8/2007	\$28,000	County	Scotland
Scotland Neck,				:	
Town of -					
Plan/WWW/ I&I					
Assessment Study,					11.176.
Canal Creek	2007-818	10/8/2007	\$40,000	Municipal	Halifax
Shelby, City of -					
WW/ PPG					
Discharge	_		•		
Elimination, Brushy		40/0/000	******		
Creek	2007-537	10/8/2007	\$2,868,000	Municipal	Cleveland
Southeast					
Brunswick Sanitary					
District - WW/				,	
Southport Discharge					
Elimination, Cottage	0007.500	44/40/0007	6007 500	Carrete	Deumanist
Creek	2007-539	11/12/2007	\$987,500	County	Brunswick
Southwestern RC&D					
- Rest/ Animal	*				,
Operation Buyout				Loogl	
and Restoration,	2007 402	0/12/2007	\$409.000	Local	Haverood
Hyatt Creek	2007-423	8/13/2007	\$498,000	Govt	Haywood
Spring Hope, Town	· ·				
of - WW/ Collection					
System Rehabilitation	·			.	
Rehabilitation, Sapony Creek	2007-540	10/8/2007	\$840,000	Municipal	Nash
Sapony Creek	2007-340	10/0/2007	ψυ-τυ,υυυ	wunicipai	ITGOIT

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	Project	Approval	Amount	Applicant	1
Application Name	Number	. Date	Funded	Type	County
Spruce Pine, Town					
of - WW/ School					
Discharge		ļ			
Elimination,					
Cranberry Creek	2007-541	10/8/2007	\$76,000	Municipal	Mitchell
Swansboro, Town of					
- Storm/ Stormwater					
BMP's Hawkins					٠
Creek	2007-715	8/13/2007	\$335,000	Municipal	Onslow
Tar River Land					
Conservancy - Acq/		•	•		
Barnes - Goode	•				
Tract, Knaps of					
Reeds Creek	2007-053	9/10/2007	\$236,000	Non-profit	Granville
Tar River Land	•				
Conservancy - Acq/					
Daniels Farm Tract,					
Big Peachtree Creek	2007-054	9/10/2007	\$135,000	Non-profit	Franklin
Tar River Land					
Conservancy -					
Donated/Mini/					
Knoop-Pfister Tract,					
Aycock Creek	2007D-010	10/15/2007	\$25,000	Non-profit	Granville
Tar River Land					
Conservancy-			1		
Donated Mini/		·	ļ		,
Jenkins Farm, Sand					0 : 31-
Creek	2006D-034	9/27/2007	\$25,000	Non-profit	Granville
Tar River Land				,	·
Conservancy-		l			
Donated Mini/ Lynch			1 .		
Creek Farm, Lynch			000 000	Nam madit	Franklin
Creek	2006D-026	7/27/2007	\$20,800	Non-profit	Frankiiii
Tarboro, Town of-					
Storm Mini/			050.000	Municipal	Edggggmbg
Hendricks Creek	2006S-011	7/27/2007	\$50,000	Municipal	Edgecombe
The LandTrust For		Ì	·		
Central NC-					
Donated Mini/ Save				1	
The Montagnard	-				
People Tract,		1			
Uwharrie River and	20000 200	0/27/2007	\$24,100	Non-profit	Randolph
Toms Creek	2006D-038	9/27/2007	ψ24, 100	140H-profit	, (didoipii
Triangle Greenways				1	
Council - Acq/					
Capital Area	1				
Greenway, Walnut	2007-056	9/10/2007	\$131,000	Non-profit	Wake
Creek	2007-056	3/10/2007	\$101,000	14011 pront	1.2
Triangle Greenways]	Į	1		
Council - Acq/					1
Young Heirs Tract,	2005A-030	8/8/05	\$26,000	Non-profit	Wake
Walnut Creek		1 0/0/03	μ20,000	1 11011 pront	1

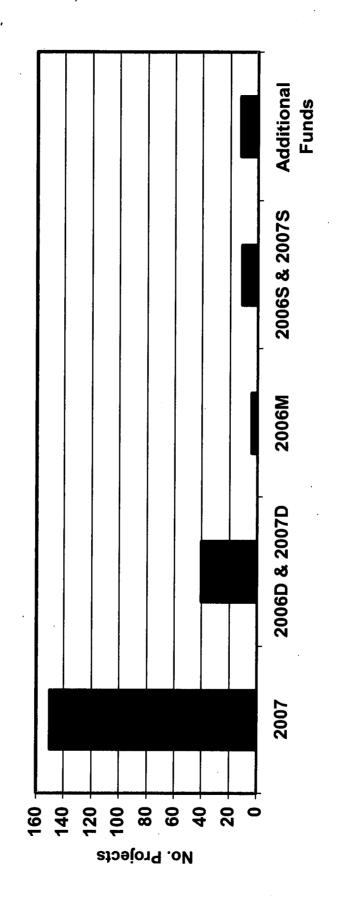
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	Project	Approval	Amount	Applicant:	
Application Name	Number	Date .	Funded	Type	County
Triangle Land					
Conservancy - Acq/		}]
Stone Tract, Deep					
River	2007-057	11/12/2007	\$230,000	Non-profit	Chatham
Triangle Land					
Conservancy-			ĺ		
Donated Mini/					
Stephenson Tract,					
Camp Branch	2006D-025	9/27/2007	\$25,000	Non-profit	Johnston
Troy, Town of - WW/		İ			
Wastewater Replacement			. •		
Project, Denson's			,		
Creek	2007-542	10/8/2007	\$25,000	Municipal	Mantagana
Trust for Public Land	2007-342	10/6/2007	\$25,000	Municipal	Montgomery
- Acq/ Creedmoor		•			
Tract, Beaverdam					
Creek	2007-058	11/12/2007	\$1,684,000	Non-profit	Wake
Wake County - Acq/	2001 000	11/12/2007	Ψ1,004,000	14011-pront	vvake
Mark's Creek Rural					
Lands, Phase III	2007-060	9/10/2007	\$1,450,000	County	Wake
Wake County -			, , , , , , , , , , , , , , , , , , , ,		Trans
Plan/Septic/ On-site			•	i	
System			•		
Maintenance					
Program Planning	2007-821	10/8/2007	\$70,000	County	Wake
Warrenton, Town of					
- WW/ Pump Station					
Rehabilitation,				ŀ	
Fishing Creek	2007-544	10/8/2007	\$271,000	Municipal	Warren
Warrenton, Town of					
- WW/ WWTP		•			
Upgrade, Fishing	. 0007 545	40/0/0007	050.000		
Creek	2007-545	10/8/2007	\$50,000	Municipal	Warren
Waynesville,			1		
CityTown of- Storm Mini/ Richland Creek	2006S-014	9/27/2007	¢50,000	Local	l leve ve e el
Western North	20003-014	9/2//2007	\$50,000	Govt	Haywood
Carolina Alliance -					
Rest/ Upper					
Watauga		ļ		1	ł
Enhancement		ĺ		ĺ	
Project	2007-424	11/12/2007	\$84,000	Non-profit	Watauga
Whiteville, City of -				J.S. Prom	
Wastewater/ Plant				1	
Upgrades, White		İ		Local	
Marsh	2004A-513	7/12/04	\$1,125,000	Govt	Columbus
Wingate, Town of -					
WW/ Sewer			ł	ļ	
Rehabilitation, Ray's	[ĺ	
Branch	2007-546	10/8/2007	\$1,731,000	Municipal	Union

Application Name			Amount Funded		
Winston-Salem, City					
of - Rest/ Bath		;			
Creek Restoration	2007-425	8/13/2007	\$3,000,000	Municipal	Forsyth
2007 Grand Total			\$119,091,595	GROWN L	

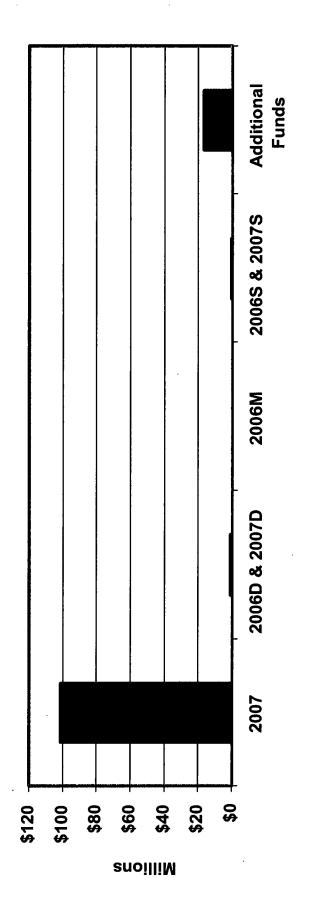
CWMTF Projects Funded in Calendar Year 2007

	Nimbor		
Cycle	Number Projects	Amount Funded	Comments
2007	150	\$101,040,139	Regular Cycle
			Donated
			Conservation
2006D & 2007D	40	\$959,882	Easement Minigrants
2006M	4	\$93,200	Standard Minigrants
	0.0000		Stormwater
2006S & 2007S	11	\$484,600	Minigrants
			Additional Funding
			For Previously
Additional Funds	12	\$16,513,774	Approved Projects
Total	217	\$119,091,595	,
Total New Projects Excluding Additional			
Funding	205	\$102,577,821	

Number of Projects Funded 2007



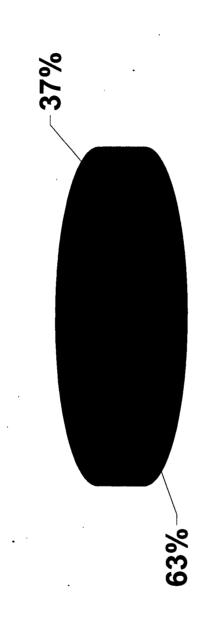
Amount Funded 2007



CWMTF Matching Funds Summary (1997A-2007)

	Total Amount	Total Amount	
Total Project Cost	CWMTF Funded	Match	% Leveraged Funds
\$2,246,556,270	\$832,721,802	\$1,413,834,468	170%

Matching Funds Summary (1997A-2007 Cycles)

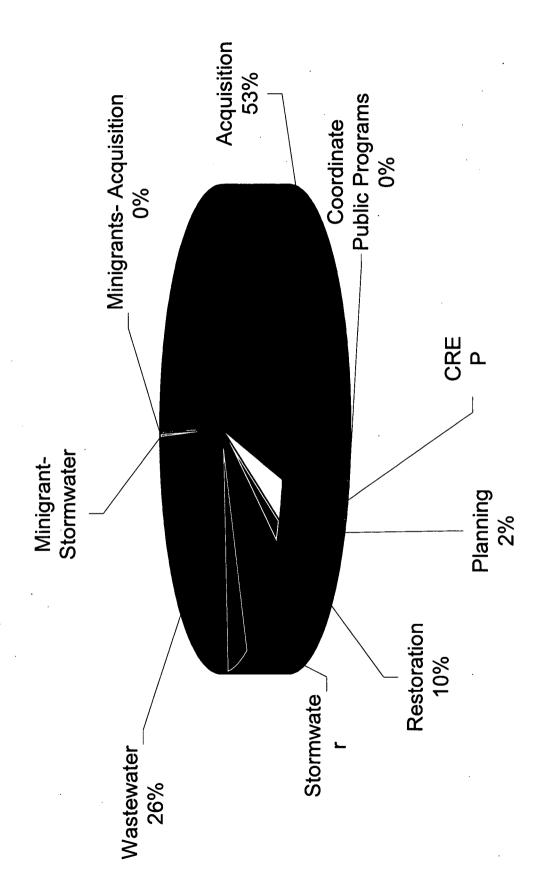


■ Total Amount Match ■ Total Amount CWMTF Funded!

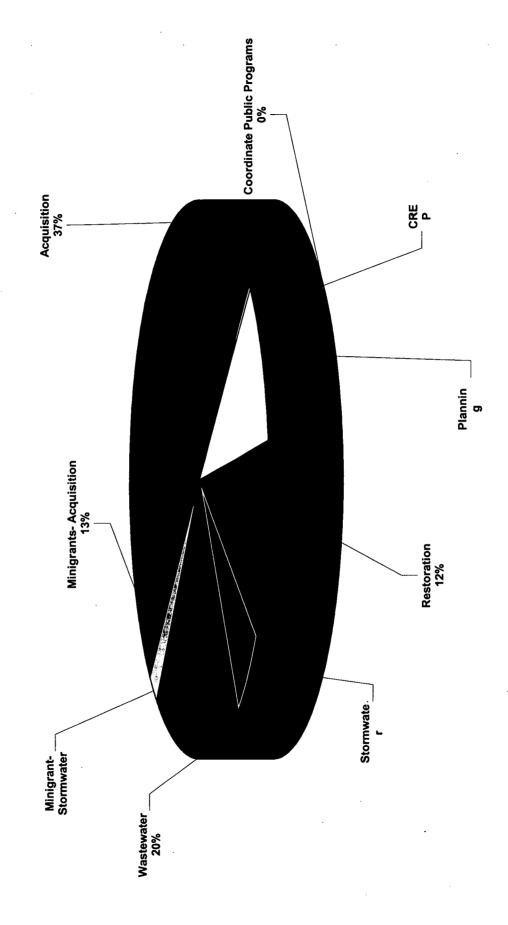
Funded Projects Summarized By Primary Purpose (1997A-2007 Cycles)

	-		
	Number		
Primary Purpose	Projects	Amount Funded	Notes
			Includes fee simple,
			easements, and
Acquisition	432	\$443,401,462	greenways.
Coordinate Public			
Programs	2	\$1,550,000	
CREP	4	\$21,851,549	
Planning	110	\$13,754,297	
			Includes stream
			restoration, ag
			BMPs, and other
			types of ecological
Restoration	135	\$85,217,976	restoration
Stormwater	89	\$47,479,982	
Wastewater	232	\$215,332,977	
Minigrant- Stormwater	21	\$887,600	
Minigrants- Acquisition	144	\$3,245,959	
Minigrant- Donated	26	\$2,169,284	
Minigrant- Standard	47	\$1,076,675	
Total	1148	\$832,721,802	

Funded Projects Summarized By Primary Purpose (1997A-2007 Cycles)



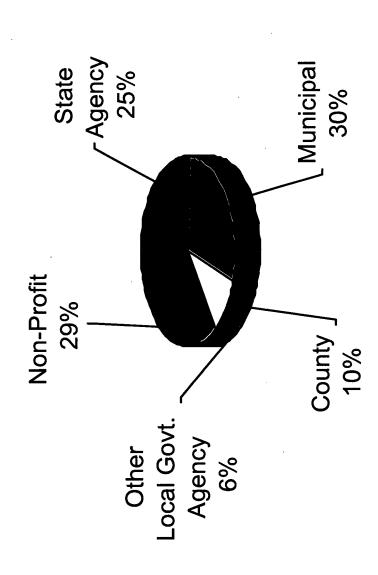
Number of Funded Projects By Primary Purpose (1997A-2007 Cycles)



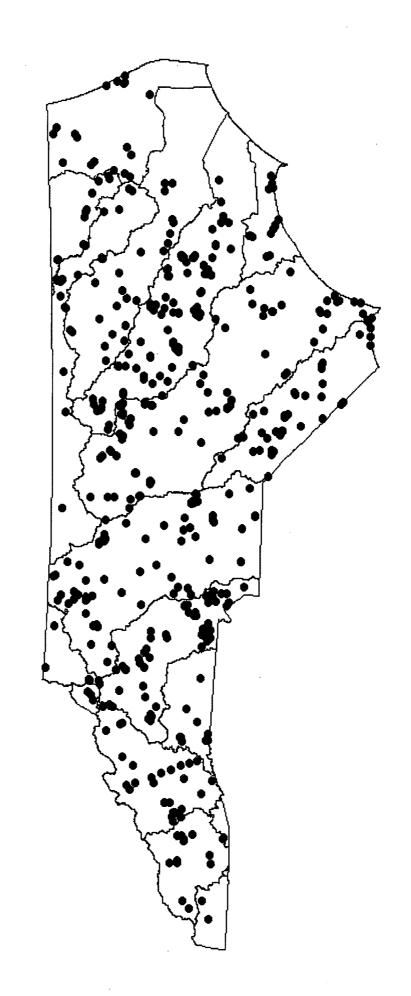
CWMTF Funded Projects by Applicant Type (1997A-2007 Cycles)

Applicant Type	No. Projects	Amount Funded
State Agency	148	\$211,938,335
Non-Profit	433	\$242,131,953
Local Govt. Total	299	\$378,651,514
Municipal	349	\$246,068,310
County	137	\$85,870,300
Other Local Govt.	81	\$46,712,904
Total	1,148	\$832,721,802

Amount Funded by Applicant Type (1997A-2007 Cycles)



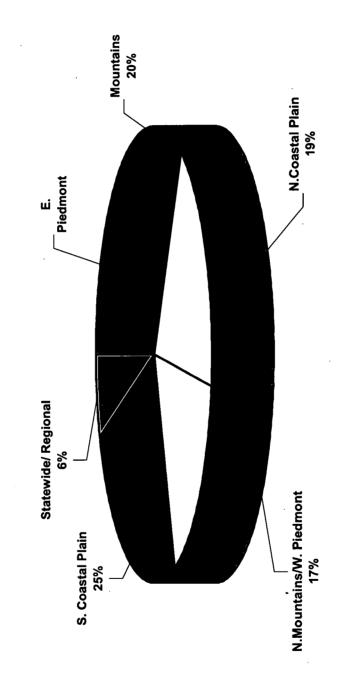
CWMTF Projects with Local Governments 1997-2007



CWMTF Funded Projects Summarized by Region (1997A-2007 Cycles)

	Region		
Region Name	Abbreviation	Number Projects	Amount Funded
Eastern Piedmont	EP	225	\$107,152,995
Mountains	M	228	\$166,860,601
Northern Coastal Plain	NCP	178	\$159,998,791
Northern Mountains/			
WesternPiedmont	NMWP	284	\$141,663,690
Southern Coastal Plain	SCP	202	\$208,242,149
Statewide/Regional	S/R	31	\$48,803,576
	Total	1148	\$832,721,802

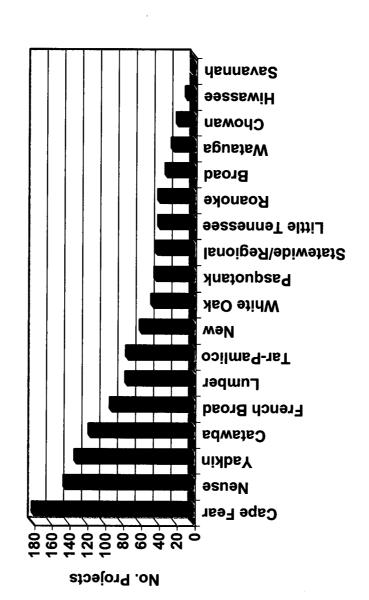
Amount Funded by Region (1997A-2007 Cycles)

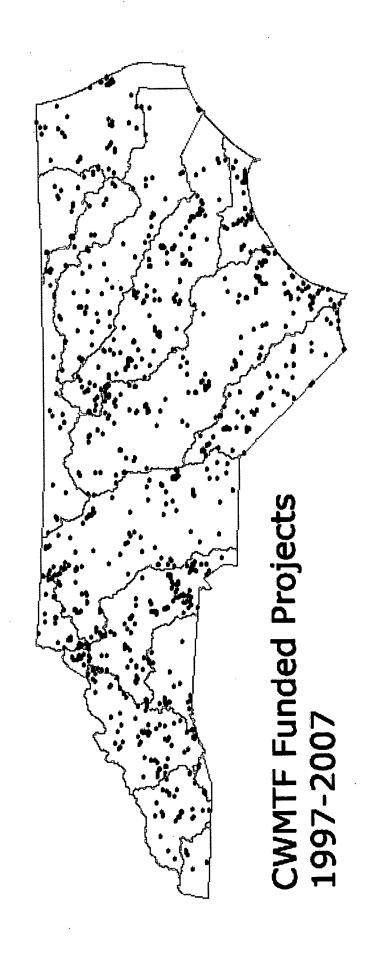


Funded Projects Summarized by River Basins (1997-2007 Cycles)

	Number	
River Basin	Projects	Amount Funded
Cape Fear	178	\$134,079,804
Neuse	143	\$106,732,170
Yadkin	131	\$83,042,100
Catawba	115	\$74,784,123
French Broad	91	\$54,643,344
Lumber	74	\$49,090,586
Tar-Pamlico	73	\$44,859,573
New	58	\$12,528,439
White Oak	45	\$41,296,641
Pasquotank	42	\$41,205,005
Statewide/Regional	41	\$57,663,506
Little Tennessee	38	\$34,041,967
Roanoke	38	\$30,769,155
Broad	30	\$27,790,790
Watauga	23	\$8,553,928
Chowan	18	\$24,402,671
Hiwassee	8	\$6,338,000
Savannah	2	\$900,000
Total	1148	\$832,721,802

Number of CWMTF Projects by River Basin (1997A-2007 Cycles)





2008

ENVIRONMENTAL REVIEW COMMISSION May 9 & 19

MINUTES



Aorth Carolina General Assembly

ENVIRONMENTAL REVIEW COMMISSION MINUTES

May 9, 2008

The Environmental Review Commission was scheduled to meet at 9:30 a.m., Friday, May 9 in Room 544 of the Legislative Office Building. Co-Chairman Pryor Gibson, III presided. The meeting was called to order at 9:39 a.m.

Welcome and Attendance

Members present were Co-Chairman Dan Clodfelter, Co-Chairwoman Lucy Allen, Co-Chairman Pryor Gibson, III, Senator Stan Bingham, Senator James Forrester, Senator Ellie Kinnaird, Representative Jim Harrell, Representative Pricey Harrison, Representative Ruth Samuelson, and Representative Edith Warren. Commission staff present were Commission Counsel George Givens, Assistant Counsel Jeffrey Hudson, Assistant Counsel Jennifer McGinnis, Commission Analyst Jennifer Mundt, Research Assistant Mariah Matheson and Commission Clerk Jessica Kozma Bennett.

A meeting notice was distributed to staff, members and outside parties via regular mail and electronically and is included as an attachment to the minutes as **Exhibit A**. A reminder was sent electronically May 9. The meeting agenda and visitor's registration sheets are attachments to these minutes and referred as **Exhibit B** and **Exhibit C**, respectively.

Co-Chair Gibson recognized co-chairs of the Commission; she then recognized staff, thanking them for their work for the Commission.

Report to the Commission and Explanation of Agenda Items

Mr. Givens noted for the record the Commission's April 29 planning meeting and explained a recent negative opinion regarding the use of covered pipes. Any potential legislation regarding flame retardants will be taken up for discussion during the 2009 long session and Mr. Givens then announced that the Commission would meet the first Wednesday after the start of session. He also said the Committee to study stormwater rules had met twice, and that there were requests for an additional meeting in Eastern North Carolina. He announced subcommittee meetings and then recognized Mr. Richard Rogers with the State's Clean Water Trust Fund.

Mr. Rogers invited ERC members to attend third annual strategic vision meetings. Mr. Givens is a keynote speaker. Invitations and agendas were distributed to membership. Subject for the meeting is water allocation in times of drought.

Approval of the March 18, 2008 and April 7, 2008 Minutes

Approval was deferred until the next meeting to allow membership ample review time.

Quarterly report by the Environmental Management Commission as to its operations, activities, programs and progress for the period of January 2008 through May 2008

Dr. David Moreau, Chairman of the Environmental Management Commission was recognized by Co-Chairman Gibson and a report regarding the commission's activities was distributed and is included in the minutes as **Exhibit D.** Dr. Moreau began saying the management commission met yesterday for its regularly scheduled meeting and that the commission made minor revisions to a number of quality rules.

Among rules discussed at their regular meeting, a request to adopt rules governing permitting and inspection of private drinking water wells by local health departments. With a recommendation that the commission adopt the rules, the rules were adopted by the EMC.

Rule amendments to increase Title V Permit fees were adopted by the commission following a hearing officer's report on the subject. Tonnage fees are increased from the current CIP adjusted value of \$18.50 to \$22.50.An additional \$2.50 increase was also adopted until the tonnage fee becomes \$30 on January 1, 2011.

Amendments to 15A NCAC 2H.1005 Stormwater Requirements in Coastal Counties were adopted by recommendation by hearing officers' reports from those public hearings. Public hearings were attended by a total of 560 people, of whom 160 made comments. From those comments, the following recommendation, among other recommendations, was made:

"That new, non-residential development activities that disturb more than 10,000 square feet of land be required to obtain a State Stormwater Permit under the amendments to this Rule. New, residential development would be required to obtain a State Stormwater Permit if that activity is proposed to disturb more than one acre of land or if the proposed activity will require a CAMA Major Permit. Furthermore, under these proposed amendments, new residential development activity that disturbs more than 10,000 square feet of land, but less than one acre, would be required to meet certain minimum measures, such as the installation of rain barrels, permeable pavement or rain gardens on the site.

That the vegetative setback of 30-foot be retained for redevelopment activities, but that this setback be extended to 50 feet for all new development activities.

That all wetlands that are located within the 20 Coastal Counties be excluded from impervious surface wetlands.

That structural stormwater controls other than infiltration basins be allowed for high density projects within ½ mile of shellfishing waters.

Changes were adopted to amend Coastal Stormwater Rules at the commission's' February 21 meeting. Three objections were approved, two for reasons of ambiguity, one concerning language used to define wetlands excluded from impervious surface calculations in current revised rules.

In another action, the EMC responded to a request to proceed to public notice and hearing with proposed amendments regarding Non-404 Jurisdictional Water Rules. The response come from an Army Corps of Engineers (ACOE) implementation of the US Supreme Court's "Rapanos Decision," making several instances where the State's waters or wetlands are not isolated, but rather are not under the ACOE's 404 Jurisdiction.

The EMC approved sending draft minutes to a public hearing regarding a request to proceed to public hearing on the Amendments to Clean Air Mercury Rules. The EMC director also recommended that the commission authorize a public hearing and that appointments be made to serve as hearing officers. There will be one of more public hearings regarding the issue.

Among other actions, the EMC adopted a resolution to authorize DENR to negotiate a short term contract with the US ACE on Falls Lake; a resolution was adopted regarding EEP fees; approved a future public hearing on an Amendment to Volatile Organic Compounds Rules and a public hearing to repeal those rules; and approved sending draft amendments to public hearing to allow generators subject to NSPS Subpart IIII and Subpart JJJJ to be eligible for permit exemptions.

Rep. Harrison asked to be more specific on the EEP fee. Dr. Moreau replied as there is an increase on the EEP but that the General Assembly did not accept the increase, but then gave authority to change. The EMC did change it, but it can not become effective until approved by the Legislature. He added that projects are delayed because of the delay in fee approval. Chairwoman Allen added that a date could be set prior to session. Chairman Gibson said that there probably could but was unsure if time would allow. Chairwoman Allen thanked Chairman Gibson.

Update on current drought conditions in light of conservation efforts and recent rain events and a presentation of the Governor's legislative recommendations to respond to the current and future droughts.

Ms. Robin Smith of DENR was recognized by Chairman Gibson to give a drought update and other water use data. Ms. Smith thanked Chairman Ross. Her report is attached to the minutes as **Exhibit E**.

In showing her first slide Ms. Smith noted that there had been rain in the past month that alleviated drought from a part the Piedmont and Inner Banks. She continued

that the 30-day rainfall was a "bit" below normal and that six month groundwater averages were low. She then reviewed groundwater levels in Wayne, Rowan and Haywood counties.

Rep. Samuelson asked about a national seasonal drought outlook forecast. Ms. Smith commented that the drought map did ambiguously define drought areas. Chairman Gibson thanked Ms. Smith and recognized Mr. Franklin Freeman, senior assistant for governmental affairs for the Office of the Governor.

Mr. Freeman said that he was presenting a draft bill that was collaborated on by several parties regarding water allocation and drought management. Mr. Freeman said that one might have seen from handouts that at least half the state remained in drought, including the Charlotte/Gaston area. He added that the drought may not end for the entire state this year, but now is the time, "while the iron is hot," to pass this legislation. He thanked the Commission. A copy of this draft is attached to the minutes as **Exhibit F.**

Mr. William Ross, Secretary of the Department of Environment and Natural Resources was recognized by Chairman Gibson to discuss aspects of the draft legislation. He opened using poetry by William Blake:

Man was made for joy and woe; And when this we rightly know Through the world we safely go. Joy and woe are woven fine, A clothing for the soul divine. Under every grief and pine Runs a joy with silken twine.

Mr. Ross then outlined six gaps this legislation tries to address: information; conservation; process to declare an emergency; steps to make water management more efficient; water system planning and communication between water systems.

Mr. Ross then asked for membership to view the State as a school bus traveling down a highway. If there is a flat tire, the tire is changed while going down the road. And flat tires will happen just as droughts will come again. He then said that if the State takes the steps outlined in the draft legislation the State will have "found the silken tine of joy that runs through the worst drought in the State's history."

Ms. Smith was then recognized to cover sections of the bill.

Ms. Smith began ensuring that all members had a copy of the draft. She then broke down the bill, section by section.

Section 1: Registration of water withdrawals and transfers required: this section changes water reporting thresholds for agricultural users from 1 million gallons of water per day to 100,000 gallons per day. If this draft were to become law, violators who did not report or who do not register will face more stringent penalties. Civil penalties will increase, and there are new types of violations which currently are not in the general statutes.

Section 2: Definitions: Ms. Smith explained the definitions.

Section 3: G. S. 143-354 reads as written: Ms. Smith said that this section gives the Secretary of Environment and Natural Resources the power to declare a water emergency or shortage. Currently the EMC holds that power.

Section 4: Mandatory water conservation measures; severe, extreme and exceptional drought: the EMC will adopt rules establishing minimum water conservation measures.

Section 5: powers and duties of the Department: this section allows large systems to report water use on a weekly basis. In the past year, the Governor requested that water systems begin reporting on a weekly basis to give DENR a better feel of statewide water use. Ms. Smith said that systems did respond, and that now getting water usage reports electronically would better the flow of information and response.

Also included it a section for water audits and planning interconnections to among systems.

Section 6: Water shortage emergency powers: Ms. Smith explained that the power to declare a water emergency would come from notification of the Secretary to the Governor. She added that the idea behind making this change would be to allow more expedient time declaring the emergency without having to assemble the membership of the EMC.

Section 7: Reporting: water systems would begin reporting consumption electronically.

Section 8 and 9: Wastewater collection, treatment and disposal; rules; untreated gray water; allowed uses: changes include allowing gray water usage for landscaping and other activities, and calls to avoid runoff.

Section 10: calls to potentially give money for bulk water reuse facilities. Section 11: Ms. Smith told the Commission that these were study provisions.

Chairman Gibson thanked Ms. Smith for reviewing the draft bill and asked commission members to frame their questions and concerns now. He continued that he felt there would be changes to the draft and that he wanted to see a rubric of effective suppliers and what the impact of the bill would mean for constituents. He then requested this information before the next ERC regular meeting. Ms. Smith said she could generate a list of local water systems and would try to put the requirements into a form that addressed Chairman Gibson's concerns.

Representative Thomas asked how much of the State's water is contaminated and unusable. Ms. Smith replied that there were up to 20,000 contaminated sites. Representative Thomas followed up asking if there was a State monitored Superfund site list for hazardous sites. Ms. Smith said there were roughly 1500 sites on such a list. Representative Thomas mentioned a case where a groundwater well served seven families with contaminated water, and asked what entity paid to treat such sites. Ms. Smith said there was not a responsible party to pay for such treatment. Representative Harrison said she hoped to add VOC list to test groundwater sources, and added that this was "a great step" on the issue.

Chairwoman Allen asked what measures did DENR and the Governor's office hope to address in the 2008 short session. Ms. Smith said she hoped all would be addressed. Representative Samuelson asked about the transfer of authority from the EMC to the DENR secretary. Ms. Smith said it was an administrative change and that the EMC would be responsible for developing policy to guide the secretary and Governor's office.

Representative Samuelson commented that the secretary would have the power to "flip the switch." Senator Bingham asked how DENR would determine which systems are effective, of which Ms. Smith said she could not answer today because some systems don't have a regular water audit. Ms. Smith was thanked for her time.

Presentation of the draft interim report on the allocation, availability and maintenance of water resources in North Carolina

Chairman Gibson recognized Richard Whisnant, Professor of Public Law and Government with the School of Government at the University of North Carolina at Chapel Hill to present an interim report on "The Allocation, Availability and Maintenance of Water Resources in North Carolina." This and a copy of the power point presentation are attached to the minutes as **Exhibits G and H**, respectively.

Mr. Whisnant told the commission while reviewing his power point presentation that he had a goal to work with staff and DENR and was working to frame issues and identify what needs the most attention. The background o the study comes from House Bill 820, which mandates a study on water allocation in the State. Options, he hopes, will be presented at the 2009 session.

Core issues of the study include reviewing water resource processes; knowing as much about supply and demand; investigating water pricing and studying how services are delivered. Mr. Whisnant said that he is looking at neighboring states in his study and that neighboring states are all facing similar problems.

Chairwoman Allen said it was extremely important to press on with the study for the citizens of North Carolina to have a state policy on the matter. Representative Samuelson commented that she read that there is a federal bill changing the definition of water and what entities control various bodies of water. Mr. Whisnant said there was a bill in congress to change the Clean Water Act.

Annual Report on the status of leaking petroleum underground storage tanks, the State cleanup fund, and the Groundwater Protection Loan Fund

Mr. Grover Nicholson, Chief of the Underground Storage Tank Section with the Division of Waste Management, DENR, was recognized by Chairman Gibson to report on "the status of leaking petroleum underground storage tanks, the State cleanup fund, and the Groundwater Protection Loan Fund." Two items are attached to the minutes as **Exhibits I and J**, a copy of his report and a summary of that report, respectively.

Mr. Nicholson reviewed Exhibit J judiciously, noting that: there are 28,916 regulated petroleum UST's at 9,000 facilities owned by 5400 owners; there are also 1,076 commercial heating oil USTs; of those regulated USTs, 16 percent were installed more than 30 years ago; that there are approximately 250,000 home heating oil tanks in the State.

Since the program began, 22,554 incidents of leading UST systems are recorded. This program has 13 full-time UST inspectors and two time-limited inspectors. These inspectors conduct complaint inspections; follow up inspections and educational inspections for all facilities. Inspectors average 185 inspections per year.

The programs commercial fund has received roughly \$480 million and distributed \$449 million. The non-commercial fund has received roughly \$110 million and disbursed roughly \$105 million.

Concluding his report, Chairman Gibson opened the floor for questions and comments. Chairwoman Allen said that Mr. Nicholson's staff performed well helping her office deal with a constituent situation. Mr. Nicholson then told the commission that, with the program in its 20th year, the incentives to not have leaks and be cost effective are "not in the right place." Chairman Clodfelter asked how quickly could the program transition to better serve the State, of which Mr. Nicholson said ten years and that it would be difficult to do. Chairman Clodfelter said three to five years would be more appropriate; Mr. Nicholson said they could try to transition in three to five years.

He closed his report saying that 14,000 cases were closed, adding that "the program is working but working slowly."

<u>Discussion of amendments to S. L. 2007-546 (Senate Bill 668, Energy Conservation in State buildings</u>

Counsel Susan Iddings was recognized by Chairman Gibson to discuss Senate Bill 668, introduced by Senator Janet Cowell. Ms. Iddings said that any major facility, construction project or agency would fall under the bill. Public schools would not fall under the bill. At the heart of the legislation, Ms. Iddings said that buildings would be designed for better water usage, as well as renovations to existing buildings. The bill also requires meters for facilities to calculate water usage. Representative Harrison said that she was the sponsor of the House companion bill, and added that it was important for buildings which public money support be as energy efficient as they can be. Not just for conservation but climate change issues, she added.

Chairwoman Allen said that historic buildings needed to be considered.

Mr. Givens then reviewed possible bills for the short session that are discussed in detail in the May 19 minutes.

The meeting was adjourned at 12:28 p.m.

Co-Chair Pryor Gibson

Presiding

*J*essica Kozma Bennett

Commission Clerk

o-Chair Lucy Allen

Co-Chairman Dan Clodfelter

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

MEMBERS

SENATOR STAN W. BINGHAM SENATOR KATIE G. DORSETT SENATOR JAMES S. FORRESTER SENATOR ELEANOR G. KINNAIRD SENATOR A.B. SWINDELL SENATOR DAVID F. WEINSTEIN

REPRESENTATIVE JAMES A. HARRELL REPRESENTATIVE PRICEY HARRISON REPRESENTATIVE CAROLYN H. JUSTICE REPRESENTATIVE RUTH SAMUELSON REPRESENTATIVE EDITH W. WARREN REPRESENTATIVE LARRY W. WOMBLE

Environmental Review Commission State Legislative Building Raleigh, Porth Carolina



16 April 2008

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JENNIFER R. F. MUNDT COMMISSION ANALYST

MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

TO:

Members of the Environmental Review Commission

Interested Parties

FROM:

George F. Givens, Commission Counsel

Jessica Bennett, Commission Clerk

RE:

Notice of Commission Meeting Notice of Planning Meeting Schedule of Future Meetings

Meetings of Interested Parties (605 Working Groups)

Additional Information

NOTICE OF COMMISSION MEETING:

The Environmental Review Commission (Commission) will meet at 9:30 a.m. Friday 9 May in room 544 of the Legislative Office Building in Raleigh

At this meeting, the Commission will continue studies for which the Commission is responsible, hear reports from State agencies, discuss topics to be considered at future meetings, and attend to other matters. Listed below are potential agenda topics for this meeting and for future meetings. More specific information regarding the agenda for the 9 May meeting of the Commission will be developed at the staff planning meeting discussed below. Commission Staff may publish a further notice/draft agenda following the staff planning meeting if circumstances permit.

STUDIES

- 1) Issues related to the franchise of solid waste management facilities by units of local government. (S.L. 2007-550, Sec. 18)
- 2) Issues related to the transportation of solid waste by rail or barge, including the extent to which regulation of the transportation of solid waste by rail or barge may be preempted by federal law. (S.L. 2007-550, Sec. 18)
- 3) Issues related to the use of pervious surfaces for vehicle parking areas, including associated costs, impact to the environment of stormwater runoff, and practices of other states with regard to stormwater best management practices. (S.L. 2007-323, Sec. 6.22.(b))

- 4) Allocation of surface water resources and their availability and maintenance in the State, including issues related to the transfer of water from one river basin to another, the withdrawal of water for consumptive use, and the accuracy and tolerance of equipment used to measure the flow of water transferred from one river basin to another river basin. (S.L. 2007-518, Sec. 1.(a))
- Preparation of a revised map entitled "Major River Basins and Sub-basins in North Carolina" as a recommended replacement for the map referenced in G.S. 143-215.22G. The revised map shall define the extent to which any river basin that encompasses any river that flows from another state into North Carolina or that flows from North Carolina into another state extends into an adjacent state. (S.L. 2007-518, Sec. 1.(b))
- 6) Other studies undertaken by the Commission

REPORTS (Report due dates are indicated in parentheses)

General/Miscellaneous:

- 7) Quarterly report on the activities of the Environmental Management Commission (G.S. 143B-282(b)) (15 April)
- 8) Final Report on the findings and recommendations of the Legislative Commission on Global Climate Change (S.L. 2006-79) (15 April 2008)
- 9) Report by the North Carolina Building Code Council on its findings of the study of the extent to which hot waterlines should be insulated to achieve greater energy efficiency and actions taken to amend the State Building Code as necessary to achieve those ends (S.L. 2007-542, Sec.2) (1 April 2008)

Hazardous Waste Management:

- 10) Report of Superfund cost share fund expenditures for cleanup of sites on the National Priorities List (S.L. 1999-237(15.6)(b)) (Floating, within 30 days of expenditure)
- 11) Report by the Office of the Governor on its efforts in seeking the advice of local governments to determine if the criteria considered to determine whether or to what extent to preempt local ordinances pursuant to 130A-293 should be further amended. (S.L. 2007-107, Sec. 1.10(b)) (1 March 2008)
- Report by the Regulation of Hazardous Materials Task Force on its study of issues related to the treatment, storage, and disposal of hazardous materials and review of all current fire code regulations related to the commercial treatment, storage, and disposal of hazardous materials to ensure the Code addresses the needs and safety of citizens. (S.L. 2007-107, Sec. 4.1.(j)) (1 April 2008)

Water Quality:

- 13) Semiannual report on the pilot program for inspection of animal waste management systems including a comparison of the costs of conducting operations reviews and inspections under the pilot program with the costs of conducting operations and inspections under G.S. 143-215.10D and G.S. 143-215.10F (15 April)
- Annual report on the status of leaking petroleum underground storage tanks, the State cleanup funds, and the Groundwater Protection Loan Fund (G.S. 143-215.94M) (1 September)
- Annual report by the EMC on its progress in developing and implementing nutrient management strategies for water supply reservoirs identified in the Drinking Water Supply Reservoir Protection Act (S.L. 2005-190, Sec. 3 as amended by S.L. 2006-259, Sec. 31.(c)) (1 April)

OTHER MATTERS

16) Update on the current drought and implementation of Governor's drought proposals.

- 17) Discussion of issues related to the use of flame retardants that contain polybrominated diphenylethers (PBDE).
- 18) Discussion of issues related to the implementation of a low emission vehicle program that is the functional equivalent of the low-emission vehicle program established under the laws of the State of California as set forth in final regulations issued by the California Air Resources Board pursuant to Title 13 of the California Code of Regulations and promulgated under the authority of Division 26t of the California Health and Safety Code as amended.
- 19) Discussion of possible amendments to S.L. 2007-546 (Senate Bill 668, Energy Conservation in State Buildings)
- 20) Report on the implementation of S.L. 2007-523 (Senate Bill 1465, Swine Farm Environmental Performance Standards)

PLANNING MEETING:

To facilitate development of the agenda for the 9 May meeting of the Commission, to begin planning for subsequent meetings of the Commission, and to receive input from interested persons regarding the work of the Commission, the Commission Counsel will hold an informal planning meeting at 10:00 a.m. on Tuesday 29 April 2008 in Room 605 of the Legislative Office Building. Persons who wish to participate in the development of the agenda for meetings of the Commission, or who are interested in any matter before the Commission, are invited to attend.

SCHEDULE OF FUTURE MEETINGS:

Below is a schedule of meetings for the remainder of the current legislative interim. This schedule is tentative and subject to adjustment. To facilitate development of the agenda for meetings of the Commission and to receive input from interested persons regarding the future work of the Commission, the Commission Counsel holds informal public planning meetings for staff and interested parties. The schedule of these meetings is also set out below.

Commission Meeting	<u>Location</u>	Staff Planning Meeting	<u>Location</u>
Wednesday 14 May 2008 (Time TBD)	544 LOB	Tuesday 29 April 2008	605 LOB

The Commission may meet while the General Assembly is in session (G.S. 120-70.44). When the Commission meets while the General Assembly is in session, notice will be given at a session of the Senate and House of Representatives as provided by G.S. 143-318.12(b) and will be distributed by email to the email notice distribution list, if possible. Notice will not be provided by first-class mail. The Commission will resume a schedule of regular monthly meetings following adjournment of the 2008 Session of the General Assembly.

MEETINGS OF INTERESTED PARTIES (605 WORKING GROUPS):

The Commission Counsel will hold meetings of interested parties on specific topics as indicated below:

Underground Storage Tank Working Group

2:00 p.m. Thursday 24 April 2008 – 605 Legislative Office Building

Impervious Parking Surfaces Working Group

2:00 p.m. Monday 28 April 2008 - 605 Legislative Office Building

Coastal Stormwater Rules Working Group

2:00 p.m. Thursday 1 May 2008 - Location TBD

ADDITIONAL INFORMATION:

If you have questions related to the Commission, please feel free to contact the Commission Counsel or other Commission staff at (919) 733-2578.

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

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Environmental Review Commission State Legislative Building Raleigh, Porth Carolina



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JESSICA BENNETT COMMISSION CLERK

AGENDA

9:30 a.m. Friday 9 May 2008 Room 544 Legislative Office Building Raleigh, North Carolina

1. Call to order

Representative Pryor A. Gibson, presiding

2. Introductory remarks by Cochairs (5 minutes)

Representative Pryor A. Gibson Representative Lucy T. Allen Senator Charles W. Albertson Senator Daniel G. Clodfelter

3. Report to the Commission and explanation of agenda items (15 minutes)
George F. Givens, Commission Counsel

Approval of the minutes of the 18 March 2008 and 7 April 2008 meetings of the Commission

4. Quarterly report by the Environmental Management Commission as to its operations, activities, programs, and progress for the period of January 2008 through May 2008 (G.S. 143B-282(b)) (45 minutes)

David H. Moreau, Chairman Environmental Management Commission Environmental Review Commission Agenda – 9 May 2008 Page 2

5. Update on current drought conditions in light of conservation efforts and recent rain events and a presentation of the Governor's legislative recommendations to respond to the current and future droughts (45 minutes)

Franklin E. Freeman, Senior Assistant for Governmental Affairs Office of the Governor

William G. Ross, Jr., Secretary Department of Environment and Natural Resources (DENR)

Robin W. Smith, Assistant Secretary for Environment DENR

6. Presentation of the draft interim report on the allocation, availability and maintenance of water resources in North Carolina (S.L. 2007-518, Sec. 1.(a)) (30 minutes)

Richard B. Whisnant, Professor of Public Law and Government School of Government, The University of North Carolina at Chapel Hill

William E. Holman, Visiting Senior Fellow Duke University Nicholas Institute for Environment Policy Solutions

7. Annual report on the status of leaking petroleum underground storage tanks, the State cleanup fund, and the Groundwater Protection Loan Fund (G.S. 143-215.94M) (15 minutes)

Grover Nicholson, Chief

Underground Storage Tank Section, Division of Waste Management, DENR

8. Discussion of amendments to S.L. 2007-546 (Senate Bill 668, Energy Conservation in State Buildings) (15 minutes)

Susan S. Iddings, Assistant Commission Counsel

- 9. Commission discussion and announcements
- 10. Adjourn

SCHEDULE OF FUTURE MEETINGS:

The Commission will meet on Wednesday 14 May 2008 at a time and location to be determined.

The Commission may meet at other times while the General Assembly is in session (G.S. 120-70.44). When the Commission meets while the General Assembly is in session, notice will be given at a session of the Senate and House of Representatives as provided by G.S. 143-318.12(b) and will be distributed by email to the email notice distribution list, if possible. Notice will not be provided by first-class mail. The Commission will resume a schedule of regular monthly meetings following adjournment of the 2008 Session of the General Assembly.

Environmental Review Commission Agenda – 9 May 2008 Page 3

MEETINGS OF INTERESTED PARTIES:

The Commission Counsel will hold meetings of interested parties on specific topics as indicated below:

Impervious Parking Surfaces Working Group

10:00 a.m. Monday 12 May 2008 – 605 Legislative Office Building

Coastal Stormwater Rules Working Group

10:30 a.m. Friday 16 May 2008 - Room 544 Legislative Office Building

Underground Storage Tank Working Group

2:00 p.m. Monday 19 May 2008 - 605 Legislative Office Building

ADDITIONAL INFORMATION:

Persons having questions about the Commission meeting or other matters related to the Commission may contact Commission Counsel or other Commission staff at (919) 733-2578 or may visit the Commission's website at:

http://www.ncleg.net/gascripts/DocumentSites/browseDocSite.asp?nID=12

ENVIRONMENTAL REVIEW COMMISSION

May 9, 2008

VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION ASSISTANT

NAME	FIRM OR AGENCY AND ADDRESS
Dave Moreau	EMC
Keyes MCGEE	DENR
Ron Pridgeon	DENR
AckCozost	Womble
Tracy Kimbrell	Parker Poe
Jim Lowry	M Hilif Contractors Assn
Colleen Kochurek	Juith moore
CHANDRA WHIN	GIV. OFFICE
FRANK W. FOLGER	82) WICKER
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ENVIRONMENTAL REVIEW COMMISSION

May 9, 2008

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NAME	FIRM OR AGENCY AND ADDRESS
Aubrey Incorvaia	NGGA Bill brasting bivision
Stacy Lee	Bill Drafting Division
Jany Beuley	GIC
Hannah Polikov	UNC School of Government
Richard Whismant	VWL 506
3 mmeNeig	Nc Regionel Covered Director
Linda Andrews	NC Faca Bureau
John Preyer	NC Env. Resturation Assoc.
Christa Wryner	Gem Club
Anny McConkey	SA
Dis Holmon	Nicholas Frit / Duke Nuiv
Jenn, Ger Bumgarner	Gov's office

ENVIRONMENTAL REVIEW COMMISSION

May 9, 2008

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NAME	FIRM OR AGENCY AND ADDRESS	
Elizabeth Biser	DENR	
100 Smith	DENR	
Any Pickle	SOUTHERN ENVIRONMENTAL.	
Linda Culperpa	DENR DWM	
Bill Tons	NCDENR	
TOMBEAN	= EDF, NCSEA	
Tom ROBERTS	AQUA NC	
Jeff Mandag	DEMR-DWQ	
Allen Hardison	CRSWMA	
BARRY GULLET	CHARLOTTE - MECKLEUBURY WTILITIES	
SOHN MORRIS	NC Div. of Water Res.	

ENVIRONMENTAL REVIEW COMMISSION

May 9, 2008

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NAME	FIRM OR AGENCY AND ADDRESS
Clay Roberson	Rep. 6 bson
Michael Hurser	NC DSR
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ENVIRONMENTAL REVIEW COMMISSION

May 9, 2008

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Les Le Kleezek	Nicholas Institute, Duke Vnivara
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ENVIRONMENTAL REVIEW COMMISSION

May 9, 2008

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Robert Knylone	Kaylan Law Figure
Patrick Baffin	Nelson Mullins
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ENVIRONMENTAL REVIEW COMMISSION

May 9, 2008

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ENVIRONMENTAL REVIEW COMMISSION

May 9, 2008

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ShARDW Stroud	SEV
Vann Stancil	NOWRO
R. Rosers	EWMTF
Lisa Riegel	NHTF
ANY SIMES	DENR
961	NB
Daton	Mckey
Tommy Stevens	NCPC
Doug Miskew	Capstrat

General Assembly of North Carolina

Environmental Review Commission State Legislative Building Raleigh, Porth Carolina

9 May 2008

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MEMORANDUM

To:

Members of the Environmental Review Commission

From:

Mariah Matheson, Commission Assistant

Rc:

Reports to the Commission

The following report has been submitted by the Building Code Council to the Environmental Review Commission (Commission) since the last reports distribution on 7 April 2008. This report is designated as read-only and is attached to this memorandum:

Report on the study of the extent to which hot waterlines should be insulated to achieve greater energy efficiency. 1 April 2008. Authority: S.L. 2007-542, Sec.2.

The following report has been submitted by the Governor's Office to the Commission since the last reports distribution on 7 April 2008. This report is designated as read-only and is attached to this memorandum:

1) Annual Interagency Report on Litter Enforcement, Prevention, and Removal Efforts. 1 March 2008. Statutory Authority: G.S. 147-12(b).

The following reports have been submitted by the Department of Environment and Natural Resources (DENR) to the Commission since the last reports distribution on 7 April 2008. These reports are designated as read-only and are attached to this memorandum:

- Report of Superfund cost share fund expenditures for cleanup of sites on the National Priorities List. Within 30 days of expenditure. Authority: S.L. 1999-237, Sec. 15.
- 2) Annual report on the Pay for Performance Pilot Study. 1 October 2007. Authority: S.L. 2001-442, Sec. 7 as amended by S.L. 2003-340, Sec. 2.

Environmental Review Commission Reports Distribution – 9 May 2008 Page 2

The following report has been submitted by the Environmental Management Commission (EMC) to the Commission and will be distributed in connection with today's Agenda Item #4:

Quarterly report by the EMC as to its operations, activities, programs, and progress during the previous quarter. 15 April 2008. Statutory Authority: G.S. 143B-282(b).

The following report has been submitted by the School of Government at The University of North Carolina at Chapel Hill to the Commission and will be distributed in connection with today's *Agenda Item #6*:

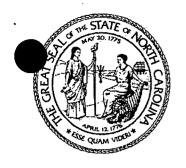
Draft interim report on the allocation, availability, and maintenance of water resources in North Carolina. 2008 Regular Session of the General Assembly. Authority: S.L. 2007-518, Sec. 1.(a).

The following report has been submitted by DENR to the Commission and will be distributed in connection with today's Agenda Item #7:

Annual report on the status of leaking petroleum underground storage tanks, the State cleanup fund, and the Groundwater Protection Loan Fund. 1 September 2007. Statutory Authority: G.S. 143-215.94M.

The Commission staff is not holding any reports at this time.

Please contact George Givens, Jeff Hudson, Jennifer McGinnis, Jennifer Mundt, or Mariah Matheson at (919) 733-2578 if you have any questions or comments.



North Carolina Building Code Council

Staffed by the NC Department of Insurance

1202 Mail Service Center Raleigh, NC 27699-1202

322 Chapanoke Road, Suite 200 Raleigh, Nc 27603

Jim Long, Commissioner Christian Noles, PE, Secretary

> (919) 661-5880 (919) 662-4414 Fax

Building Code Council

Chairman:

Dan Tingen - 2011 (Homebuilder)

Vice Chairman:

John Llewellyn Hitch, AIA - 2010 (Architect)

Members:

J. Albert Bass Jr. - 2009 (Mechanical Engineer)

Cindy Browning, PE - 2011 (State Agency)

Palph Euchner - 2013 s Industry)

Steve L. Knight, PE - 2009 (Structural Engineer)

Barry J. Maness - 2009 (Mechanical Contractor)

Ed Moore - 2013 (Electrical Contractor)

Jack F. Neel, PE - 2010 (Municipal-Gov't Rep)

Mack Nixon - 2010 (County Gov't Representative)

Alan W. Perdue - 2009 (Fire Services)

Kim Reitterer, PE - 2013 (Electrical Engineer)

Robert F. Ruffner, Jr. - 2009 (General Contractor)

Walter L. Simmons - 2009 (Building Inspector)

Pavid Smith - 2010 pastal Contractor)

Thomas P. Turner, FAIA - 2010 (Architect)

MEMORANDUM

TO:

Environmental Review Commission

FROM:

Al Bass, Chairman

Mechanical Committee

North Carolina Building Code Council

DATE:

April 1, 2008

Re: North Carolina Building Code Council Recommendation for Insulation of Potable Hot Water

Attached is an electronic copy of the above-referenced report pursuant to S.L. 2007-542 (HB 1702). If you have any questions, please contact Billy Hinton at 919-661-5880 X 239 or e-mail him at bhinton@ncdoi.net

c: 2008 Regular Session of the General Assembly

NORTH CAROLINA BUILDING CODE COUNCIL RECOMMENDATIONS FOR INSULATION OF POTABLE HOT WATER PIPING

(S.L. 2007-542) April 1, 2008

The North Carolina Building Code Council recommends that the provisions currently adopted for insulation of potable hot water piping remain as currently adopted in the NC Building Code.

The current code provisions require insulation of recirculating system piping for potable hot water systems. Our requirements are consistent with the model code we use as the basis for the NC codes, the 2003 ICC family of codes.

The current code provisions do not require insulating of non-recirculating potable hot water systems except as necessary for freeze protection. The North Carolina Building Code is consistent with the model code we use as the basis for the NC codes, the 2003 ICC family of codes.

A study was performed by Winston Salem State University identifying potential energy and water savings associated with insulating all non-recirculating potable hot water system piping in homes. The study was based on a sample of a single home over a relatively short time duration. The resulting savings from the study for water and energy conservation were dependent on frequent use of hot water. The study identified increasing savings of hot water and energy as the interval between uses of hot water became shorter. The recommendation of the study was to require insulation of all non-recirculating potable domestic hot water systems with a minimum of R-5 insulation.

Given our large population base, frequency of use of hot water varies considerably and is difficult to predict. A broader sampling of behavior concerning hot water usage would be beneficial, especially when given that a short time interval between hot water uses is very important to the results of the study above for improved energy and water conservation.

Considering that the recommendations from the report was from a small sample, NC DOI engineering staff researched current code requirements, emerging code requirements, and national studies performed by the US DOE and others that exist that address this subject on a broader nature. As of this time, no national model code or national standard requires that all non-recirculating potable hot water piping be insulated. California has adopted a limited requirement to insulate hot water piping between the water heater and the kitchen with R-2 pipe insulation. Florida is considering a similar requirement. NC DOI engineering staff could not locate statistical data to document a conclusion on patterns of hot water use for the population at large. Staff recommends that further substantiation is warranted before a recommendation of insulating all hot water piping should be required as a minimum code requirement for non-recirculating hot water systems.

There are also other methods available for improving energy and water conservation for non-recirculating potable hot water systems. One method is to centralize location of the water heater with respect to the fixtures receiving hot water. Another method is installation of an on-demand hot water system which activates a hot water recirculation loop by remote control, a light switch, or an occupancy sensor immediately prior to hot water use. This system assures hot water is available without wasting water down the drain while waiting for hot water to arrive to the fixture. During periods when hot water is not required, the hot water loop is not activated thus eliminating most stand-by energy loss associated with a traditional hot water recirculating system.

NC DOI engineering staff contacted the NC Energy Division and Southface Energy Institute who often works as a contractor to the NC Energy Division. Staff suggested that the Energy Division consider asking for a federal grant to fund a comprehensive study of measures for conserving energy and water for potable hot water systems. Winston Salem State University plans to follow-up with the NC Energy Division on this item. Possible scenarios resulting from such a study could be new recommendations for minimum code requirements or recommendations for best practices above minimum code requirements endorsed and promoted by the NC Energy Division.

The Winston Salem State University students and professional staff are to be commended for their work in initiating a study for conservation of water and energy for domestic non-recirculating potable hot water systems. In light of the increasing need for water conservation and escalating energy costs, this subject is suggested to be a worthy candidate for a future comprehensive study as noted above.

Al Bass, Chairman

Mechanical Committee

North Carolina State Building Code



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

May 1, 2008

Jennifer R. F. Mundt, Commission Analyst Environmental Review Commission 545 Legislative Office Building 300 North Salisbury Street Raleigh, North Carolina 27603

RE: 2007 Statewide Litter Report Highlights

- The amount of volunteer effort increased by approximately 125,000 hours going from 424,804 hours worked in 2006 to 550,648 in 2007. (Page 4)
- The 2007 cost of the Adopt-A-Highway Program was \$257,772 this is a 13 percent decrease from the \$292,964 program cost in 2006. (Page7)
- The amount of roadside litter removed by Adopt-A-Highway groups and other volunteers increased by 433,115 pounds going from 3,632,540 pounds in 2006 to 4,065,655 in 2007. (Page 7)
- The amount of statewide roadside litter removed in 2007 was 10 million pounds this is lower than the 10.1 million reported in 2006. (Page 7)
- The amount expended for litter removal in 2007 was \$16.7 million this is higher than the \$16.6 million reported in 2006. (Page 7)
- The quantity of litter citations increased by 9.2 percent going from 5,636 in 2006 to 6,153 in 2007. (Page 26)
- The number of convictions increased by 14.4 percent going from 2,850 in 2006 to 3,259 in 2007. (Page 26)

Jennifer, please call me if there is anything else I can provide. My direct number is 715-2553.

Sincerely,

George Kapetanakis

Duy Gulanto

NCDOT Litter Programs Coordinator

Mailing Address NC DOT Office of Beautification 1540 Mail Service Center Raleigh, NC 27699-1540 Telephone: 919-715-3188
Fax: 919-715-2554
Website: www.ncdot.org/~beautification

Location: Transportation Building 1 South Wilmington Street Raleigh, NC

NC Mean About Clean

2007

North Carolina Interagency Report

On

Litter Cleanup, Education/Prevention and Enforcement

This report provides statistics for the year 2007.

March 7, 2008

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Litter Report 2007

This report is prepared pursuant to Session Law 2006-79, Section 15 G.S. 147-12(b) ¹ and provides information describing the outcome of North Carolina's 2007 anti litter campaign.

The state's 2007 litter prevention campaign brings together three components:

- Litter cleanup
- Education/prevention
- Enforcement

Executive Summary

The North Carolina Department of Transportation maintained 79,042 road miles in 2007 versus 79,009 miles in 2006.

During 2007, the NCDOT spent \$16,755,795 removing 505,934 bags of litter from 125,487 shoulder miles. Litter removal efforts remained consistent with last year, and because there were no major hurricanes or other major weather events that would hinder litter collection, litter removal was consistent among the regions.

Wake County was the only exception. Due to an accidental inmate fatality in July, the N. C. Department of Correction suspended litter pickup operations for the remainder of the year on multilane divided facilities with speeds 55 miles per hour or higher. This resulted in major litter increases on these routes in Wake County and a reduction in the amount of litter that was collected. During this time the NCDOC reviewed cleanup procedures and sought to implement a new agreement with the NCDOT. An agreement was reached in February of 2008.

The NCDOT, its Office of Beautification Programs and North Carolina Departments of Correction, Crime Control and Public Safety, Environmental and Natural Resources and Wildlife Resources Commission collectively supported statewide litter prevention.

Anti litter education/prevention activities continued statewide. The NCDOT through its Office of Beautification Programs participated on various statewide organizational boards, promoted litter prevention information at conferences, the N.C. State Fair, Tarp Day at landfills and provided litter prevention promotional items to a multitude of local organizations.

The number of charges for littering violations increased from the previous year. A 2007 recap issued by the Administrative Office the Courts shows the number of charges and convictions by offense code, by county and by law enforcement agency. In addition, the Conference of the District Court Judges continued to provide an alternative to first time offenders charged with littering of less than 15 pounds. This alternative allows first time offenders a means of waiving a court appearance by pleading guilty/responsible and paying a fine. The fine for intentional littering is \$250 plus costs and \$50 plus costs for unintentional littering. This was adopted by the Conference of Chief District Court Judges on Oct. 17, 2007, pursuant to N.C.G.S. 7A-148, and applies to any new offenses on or after Dec.1, 2007.

See Attachment A - page 50

Statewide Roadside Litter Cleanup 2007

North Carolina Department of Transportation

The North Carolina Department of Transportation continued to build relationships with other entities to provide safe, environmentally sound and aesthetic roadsides. These relationships include other agencies, such as the N.C. Department of Correction, local governments, volunteers within the Adopt-A-Highway program, other citizen volunteers, industries as working with the N.C. Beverage Association, and nonprofit organizations as N.C. Keep America Beautiful and N.C. Big Sweep.

The NCDOT continued to sponsor Litter Sweep, its biannual statewide roadside litter cleanup. Litter Sweep is held the last two weeks of April and September. During Litter Sweep, the NCDOT provides volunteers the safety vests, gloves and bags for use in roadside litter cleanups. The Department also provides additional manpower for litter cleanup and picking up filled bags for immediate disposal.

NCDOT Adopt-A-Highway Program

The NCDOT through its Office of Beautification Programs continues to administer the AAH program. It's a mutually beneficial partnership endeavor between community volunteers and the NCDOT. The AAH agreement is for a four year period. The AAH groups made up primarily of individuals and school, civic, business, professional, religious and social groups agree to support local roadside litter cleanup by adopting a two-mile stretch and volunteering their time to pick up litter at least four times a year.

The AAH program cost \$257,772 in 2007 versus \$290,964 in 2006. This cost includes items for administration, sign installation/removal, bag retrieval and other miscellaneous cleanup supplies, i.e. bags, gloves and safety vests. There were 4,092 man-hours charged to this program in 2007 versus 6,080 in 2006.

The AAH program has a State Adopt-A-Highway Coordinator that utilizes the assistance of 61 statewide program coordinators. The coordinators oversee the adoption and signage approval processes and other program administrative responsibilities within their assigned counties.

In 2007, the AAH program continued to have some 6,000 groups who had adopted approximately 12,000 roadside miles. The volunteer cleanup efforts of the AAH program saved the state's taxpayers more than \$5.9 million dollars in cleanup costs in 2007, and collectively during the last three years, the AAH program has provided a cumulative savings of \$14.2 million dollars in roadside litter removal costs.

Annual Comparison of AAH program Taxpayer Savings:

	Hours Worked	Cleanup Cost Savings
2007	550,648	\$5.9 million
2006	424,804	\$4.5 million
2005	362,080	\$3.8 million

Annual Comparison of the amount of litter collected through the AAH program:

	Total Pounds Collected Statewide by
Year	Adopt-A-Highway Groups
2007	3,695,440
2006	3,594,500
2005	3,677,440

Of the 3.7 million pounds collected, the AAH groups recycled 313,960 pounds as follows: 37,080 lbs. of metal, 104,720 lbs. of glass and 172,160 lbs. of plastic.

North Carolina Departments of Transportation and Correction

The NCDOT arrangement with the NCDOC is vital in keeping roadside litter removed from many heavily traveled routes throughout the state. During the work week, approximately 1,360 inmates participate in roadside litter cleanup on a daily basis (weather permitting). The breakdown of inmate crews is as follows:

104 Medium Custody Eight-Man Road Squads

- Armed DOC staff is required to supervise these inmates (two officers to eight inmates).
- NCDOT total cost of NCDOC for medium custody inmate labor was \$10,000,000. Approximately 73% of all medium custody inmate labor was spent on litter pick-up.
- An additional \$73,594 was expended for support cost related to working with DOC officers on work assignments.

68 Minimum Custody Highway Work Crews.

- Highway work crews pick up litter on designated routes in 13 of the 14 Highway Divisions where inmates are available. There are 6,350 miles of Interstate, primary and high volume secondary roadways that are specified to be cleaned on a routine basis.
- Correctional officers supervised minimum custody inmates (one officer per eight inmates).
- The labor cost for these crews is \$1,300,000 that the NCDOT transfers to the NCDOC.
- Approximately 94% of all minimum custody highway work crew labor was spent on litter removal.

Minimum Custody Road Squads

- NCDOT staff, trained by the NCDOC, supervised minimum custody inmates.
- Inmate labor was billed at \$1 per day per inmate for litter cleanup. There were a total of 9.207 man-days at a charge of \$9,207.
- NCDOT spent and additional \$220,784 for support supervision and transportation costs.
- The use of inmates for litter removal accounted for 5% of the total number of inmates available. There is no data on the mileage or amounts of litter picked up.

125 Governor's Community Work Program (CWP) crews - up from 117 crews (end of 2006)

- Through this program, a correction officer supervises a crew of up to 10 minimum-custody inmates on short-term, manual labor projects for local governments and state agencies.
- These crews are dedicated to litter pick up during Litter Sweep.
- There is no charge for this labor.

The NCDOT exerts maximum effort during the spring and fall Litter Sweep weeks to coincide with the statewide effort to cleanup roadside litter. For 2007, approximately 28,790 man-days of NCDOT employees and NCDOC inmates picked up litter from nearly 21,220 miles of highway. The amount of litter removed was 203,964 bags of litter. The cost associated with this effort is included in the above amounts.

During the 2007 spring and fall Litter Sweeps, the NCDOT picked up 835,230 pounds of litter versus 759,102 pounds in 2006, and expended approximately 28,790 man-days of its employees and inmates for picking up litter on 21,220 highway miles versus 28,693 man-days on 21,435 highway miles in 2006. The amount of litter picked up by the NCDOC inmates during the 2007 spring and fall Litter Sweeps was 1,866,812 pounds versus 1,927,578 pounds in 2006. Combined inmate and staff worked 31,968 man-days.

NCDOT and NCDOC Inmate Litter Sweep Roadside Cleanup Comparison:

Year	Pounds Collected
2007	2,702,042
2006	2,686,680
2005	2,953,650

Community Service Work Programs Litter Control Efforts, Calendar Year 2007

The Community Service Work Program was established as a grant funded initiative in the early 1980's. During 1983, it was established as a program through the Safe Roads Act. Effective January 2002, CSWP was transferred from the Department of Crime Control and Public Safety to the North Carolina Department of Correction, Division of Community Corrections through legislative action. CSWP is a separate program from the Division of Prisons inmate work crews. Offenders in CSWP are not incarcerated but are ordered to perform community service work hours as a condition of either supervised or unsupervised probation, based upon the criminal offense committed and history of the offender.

DCC community service coordinators place offenders at government or non-profit agencies within the local community to perform work needed by the agency. During 2007, there were 3,700 agencies statewide that participated in the CSWP by contracting as work sites for placement of community service offenders.

Records of these placements, number of hours worked, and value of hours performed are recorded in an automated system. Prior to 2005, records were kept manually. Offenders perform a variety of work, including general labor, skilled labor, clerical labor, professional labor, and litter pick up. Value of the various types of labor is calculated upon the N.C. Department of Labor categories and relative market value minimum payment rates. Many of these agencies focus on litter control regularly and also participate in the NCDOT Litter Sweeps.

For calendar year 2007, there were approximately 181,294 hours worked. There was 3,263,295 pounds of litter removed. Approximately ten percent of the general labor work hours were focused on litter control efforts.

CSWP Annual Roadside Litter Cleanup Comparison:

Year	Pounds Collected
2007	3,263,295
2006	2,126,775
2005	3,227,565

The DOC inmate crews and the CSWP litter pickups are performed separately and independently of one another. The pounds of litter reported above represent the litter pick up efforts of each separately.

2007 Roadside Litter Pick Up Summary - NCDOT, AAH, NCDOC and CSWP

Roadside Litter Cleanup Recap and Comparison:

In 2007, the NCDOT removed a total of 505,934 bags of litter from the state's roadsides. Below is the 2007 recap. The amount of pounds reported does not reflect the items that were too large or heavy to fit into the bags.

Departments and	Pounds of Litter Picked Up by Year						
Other Groups	2007	2006	2005				
NCDOT *	835,230	759,102	691,065				
DOC *	1,866,812	1,927,578	2,262,585				
CSWP**	3,263,295	2,126,775	3,227,565				
AAH**	3,695,440	3,594,500	3,677,440				
Other volunteers *	370,215	380,040	365,280				
Other pounds picked up - not designated to specific group		1,381,120					
Sum of Pounds	10,030,992	10,169,115	10,223,935				

^{*} Litter Sweep (only) litter pick up amount

NCDOT 2007 Disbursements:

NCDOT Disbursement Recap By Year							
	2007	2006	2005				
NCDOT Employees	\$4,894,438	\$4,758,108	\$4,457,575				
Adopt-A-Highway	\$257,772	\$290,964	\$280,045				
DOC (Medium and Minimum Custody Inmates)	\$11,603,585	\$11,571,146	11,614,569				
Disbursement by year:	\$16,755,795	\$16,620,218	\$16,352,189				

^{**}Annual litter pick up amount

Department of Environmental and Natural Resources

Division of Parks and Recreation 2007 Litter Cleanup Summary

The Division of Parks and Recreation hosts litter cleanup events and educational programs to demonstrate the importance of litter abatement and recycling. Park staff partnered with civic groups, youth groups and environmental organizations to engage more than 3,000 participants in removing 17,457 pounds of litter from the environment in 2007. Three division staff members served as North Carolina Big Sweep county coordinators and six state parks held annual Big Sweep community events. Division staff also provided educational programs specifically designed to prevent litter and encourage the reduction of solid waste. These programs reached an additional 3,868 school students and park visitors in 2007. The following table describes the Division of Parks and Recreation litter cleanup efforts in 2007 by park.

Division of Parks and Recreation 2007 Litter Cleanup Efforts

Park Name	Dates of Litter Pickups Events	Number of Volunteers and/or Staff	Number of Bags	Number of Pounds	Comments		
Carolina Beach	4/23/2007	10 volunteers	39		Removed boards, concrete		
	Various dates	4 Community Service			blocks, palates, etc. from		
		Workers (CSW)	200	_	property across Dow Road		
Crowders	Every weekend	2 staff 2 CSW	260				
Mountain	Deilu	64 staff and volunteers	189 bags	2,409 lbs			
Falls Lake	Daily 4/28/07	62 volunteers	169 0ags	325	350 person hours of litter		
Fort Fisher	9/24/07	9 CSW		323	removal		
	9/24/07	8 staff					
	10/6/07	o star.					
	Various dates			+			
Goose Creek	5/19/2007	9 volunteers	52	43			
00000 0.000	11/3/07	6 staff			`		
Hammocks Beach	10-May-07	9 volunteers	26				
	11-May-07	6 staff		1			
	12-May-07	į		1			
	13-May-07		ļ. <u>.</u>	 	Co. I. A. A. Alice III		
Haw River	Daily	20 staff	5	30	Students attending Haw River Program assist with		
	•	2,000 students			regular litter cleanup		
	7/05/05	(-1-66	167	1488	regular litter cicanup		
Hanging Rock	7/25/07	6 staff Numerous volunteers	107	1400			
	10/15/07	Numerous volunteers					
	Daily						
Jockey's Ridge	1/10/07	15 staff	18	351			
Joekey S Kidge	2/14/07	13 3					
	3/20/07						
	4/14/07	1			1		
	5/18/07						
	6/20/07						
Jones Lake	1/25/2007	24 inmates	86				
	2/20/2007	2 CSW					
	2/22/2007						
	3/24/2007						
	4/5/2007						
	4/24/07	29 volunteers	181	916	Poplar Point, Ebenezer,		
Jordan Lake	4/14/07	29 volunteers 3 staff	101	710	Crosswinds, SR 1008,		
	6/9/07	6 CSW			trails		
	10/12/07	2 youth organizations					
Kerr Lake	1/2007-6/2007	219 participants	111	555			
Lake James	Various dates	6 staff	33	320			
Lake Norman	10/08/07			3140	332 person hours during Big Sweep		
Lake Waccamaw	2/24/07	8 volunteers	20		Big Creek Clean Up, Lake		
Lake Waccamaw	2/25/07	12 Boy Scouts			Shore Trail, Waccamaw		
	3/3/2007 Weekly	Staff		1	River		

	Dates of Litter Pickups	Number of Volunteers	Number of	Number of		
Park Name	Events	and/or Staff	Bags	Pounds	Comments	
Lumber River	1/20/2007	3 staff	108	1240	Adopt a Highway, Adopt a	
	3/14/2007	48 volunteers			River	
	7/2/2007	·				
Mayo River	6/9/2007	15 volunteers	93		Removed insulation, tires,	
		1 staff			appliances	
Merchants	1/22/2007	8 staff	12	313	Also collected tires and	
Millpond	1/23/2007	10 inmates			furniture	
	2/21/2007		1			
	2/26/2007					
	11/08/07					
Medoc Mountain	1/13/2007	l volunteer	62	1100		
	1/27/2007	2 staff				
	2/11/2007	24 inmates				
	3/10/2007					
	3/19/2007				*	
	12/21/07					
·	12/27/07	ļ			ļ <u>.</u>	
Pettigrew	1/07/07	21 participants	32	1500 lbs of	1	
	2/10/07			tires		
	2/17/07					
	2/10/07					
Pilot Mountain	1/2007-6/2007	131 participants	81	3240		
Raven Rock	4/3/2007	2 participants	3	30	1	
	5/2/2007					
Singletary Lake	2/5/2007	3 participants	4	32		
	4/16/2007					
South Mountains	Weekly	5 staff	5	35	Backcountry, Roadside, Hiking Trails	
Weymouth Woods	1/2007-6/2007	40 participants	61	8		
William B.	12/25/07	197 volunteers	38	382		
Umstead	Various dates			1		

2007 Litter Cleanup, Division Totals

Number of Participants	Number of Bags	Number of Pounds		
3,105	1,686	17,457		

Division of Parks and Recreation 2007 Recycling Summary

Parks design and conduct organized educational programs to encourage recycling and the reduction of solid waste. These programs reached 3,868 school students and park visitors in 2007. Partnerships with local communities enhance the recycling efforts at state parks. Pettigrew State Park partnered with the Creswell Ruritan Club to sponsor Community Recycle Day, resulting in the recycling of 14,000 pounds of scrap metal. Additionally, creating new and improved recycling sites at parks is a common service projects for scouts and other civic groups. The following table summarizes the 2007 Division of Parks and Recreation recycling collection by park.

Division of Parks and Recreation 2007 Recycling Efforts

Park Name Carolina Beach Cliffs of Neuse Crowders Mountain Elk Knob Elk Knob Elk Knob En River Falls Lake Fort Fisher Fort Macon Goose Creek Gorges Hammocks Beach Hanging Rock Jockey's Ridge Jones Lake Jordan Lake Lake James Lake Waccamaw Lake Waccamaw Lake Waccamaw Lake Waccamaw Lumber River Merchants Millpond Morrow Mountain Mt. Jefferson and New River Pettigrew Rever Pettigrew Rever Rock Singletary Lake South Mountains T Stone	Aluminum (pounds)	Plastic (pounds)	Glass (pounds)	Metal (pounds)	Paper (pounds)	Other recycling- cardboard, batteries, etc. (pounds)
Cliffs of Neuse 1 Crowders Mountain 6 Dismal Swamp 1 Elk Knob 1 Eno River 8 Falls Lake 1 Fort Fisher 2 Fort Macon 0 Goose Creek 10 Gorges 3 Hammocks Beach Beach 4 Hanging Rock 6 Jockey's Ridge 1 Jones Lake 1 Jordan Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw Lumber River 1 Mayo River 1 Merchants Millpond Mountain 8 Mt. Jefferson 1 and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3	*	1				
Crowders Mountain 6 Dismal Swamp 1 Elk Knob 1 Eno River 8 Falls Lake 1 Fort Fisher 2 Fort Macon Goose Creek 10 Gorges 3 Hammocks Beach 4 Hanging Rock 6 Jockey's Ridge 1 Jones Lake 1 Jordan Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	850	0	0	0	0	300
Mountain 6 Dismal Swamp 1 Elk Knob 1 Eno River 8 Falls Lake 1 Fort Fisher 2 Fort Macon Goose Creek 10 Gorges 3 Hammocks Beach 4 Hanging Rock 6 Jockey's Ridge 1 Jones Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	90	40	55	0	315	0
Dismal Swamp 1 Elk Knob 1 Eno River 8 Falls Lake 1 Fort Fisher 2 Fort Macon Goose Creek 10 Gorges 3 Hammocks Beach 4 Hanging Rock 6 Jockey's Ridge 1 Jones Lake 1 Jordan Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7			1			
Elk Knob 1 Eno River 8 Falls Lake 1 Fort Fisher 2 Fort Macon Goose Creek 10 Gorges 3 Hammocks Beach 4 Hanging Rock 6 Jockey's Ridge 1 Jones Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	70	870	0	0	270	450
Elk Knob 1 Eno River 8 Falls Lake 1 Fort Fisher 2 Fort Macon Goose Creek 10 Gorges 3 Hammocks Beach 4 Hanging Rock 6 Jockey's Ridge 1 Jones Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	19.5	24	6	2	120	0
Falls Lake 1 Fort Fisher 2 Fort Macon Goose Creek 10 Gorges 3 Hammocks Beach 4 Hanging Rock 6 Jockey's Ridge 1 Jones Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	0	0	0	0	195	0
Falls Lake 1 Fort Fisher 2 Fort Macon Goose Creek 10 Gorges 3 Hammocks Beach 4 Hanging Rock 6 Jockey's Ridge 1 Jones Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	180	180	180	0	0	0
Fort Fisher 2 Fort Macon Goose Creek 10 Gorges 3 Hammocks Beach 4 Hanging Rock 6 Jockey's Ridge 1 Jones Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	353.5	597.5	994	0	4	0
Fort Macon Goose Creek 10 Gorges 3 Hammocks Beach 4 Hanging Rock 6 Jockey's Ridge 1 Jones Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	32	53	0	250	405	0
Gorges 3 Hammocks Beach 4 Hanging Rock 6 Jockey's Ridge 1 Jones Lake 1 Jordan Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	0	0	0	0	0	0
Gorges 3 Hammocks Beach 4 Hanging Rock 6 Jockey's Ridge 1 Jones Lake 1 Jordan Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	63	75	0	0	110	0
Hammocks Beach 4 Hanging Rock 6 Jockey's Ridge 1 Jones Lake 1 Jordan Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	174	257	260	0	1220	43
Beach 4 Hanging Rock 6 Jockey's Ridge 1 Jones Lake 1 Jordan Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7						
Jockey's Ridge 1 Jones Lake 1 Jordan Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	45.5 ·	59.5	0	0	204	89.5
Jockey's Ridge 1 Jones Lake 1 Jordan Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	0	93	150	0	0	0
Jones Lake 1 Jordan Lake 17 Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	809.0	517.0	392.0	0.0	447.0	0.0
Jordan Lake	50	60	0	0	60	. 60
Kerr Lake 8 Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	613	0	0	0	480	1500
Lake James 1 Lake Norman 2 Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	15	10	20	0	0	0
Lake Norman Lake Waccamaw Lumber River Mayo River Merchants Millpond Morrow Mountain Mt. Jefferson and New River Pettigrew New River Pilot Mountain Singletary Lake South Mountains 7	30	21	0	0	32	62
Lake Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	100	260	440	980	520	860
Waccamaw 1 Lumber River 1 Mayo River Merchants Millpond 1 Morrow Mountain 8 Mt. Jefferson and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7		1				
Lumber River Mayo River Merchants Millpond Morrow Mountain Mt. Jefferson and New River Pettigrew New River Pilot Mountain Singletary Lake South Mountains 7	350	400	8	15.5	120	0
Merchants Millpond Morrow Mountain Mt. Jefferson and New River Pettigrew New River 3 Pilot Mountain Singletary Lake South Mountains 7	225	42	0	0	395	0
Merchants Millpond Morrow Mountain Mt. Jefferson and New River Pettigrew New River 3 Pilot Mountain Singletary Lake South Mountains 7	0	0	0	0	0	0
Morrow Mountain Mt. Jefferson and New River Pettigrew New River 3 Pilot Mountain Saven Rock Singletary Lake South Mountains 7						
Mountain 8 Mt. Jefferson and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	17	37.2	44.1 .	· 0	78.3	55
Mt. Jefferson and New River Pettigrew New River 3 Pilot Mountain Raven Rock Singletary Lake South Mountains 7						1
and New River 6 Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake Lake 2 South Mountains 7	300	300	0	1500	1700	0
Pettigrew 8 New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake Lake 2 South Mountains 7						
New River 3 Pilot Mountain 5 Raven Rock 3 Singletary Lake Lake 2 South Mountains 7	89	197	189	119	216	0
Pilot Mountain 5 Raven Rock 3 Singletary Lake 2 South Mountains 7	500	0	0	20000	0	0
Raven Rock 3 Singletary Lake 2 South Mountains 7	221	427	185	0	844	0
Singletary Lake 2 South Mountains 7	350	800	<u> </u>	500		1650
Lake 2 South Mountains 7	210	125	0	1280	300	0
South Mountains 7			_		_	
Mountains 7	83	0	0	0	0	0
			200	_	366	2604
Stone	184	590	200	0	355	2004
					_	0
Mountain 4	69 .	0	0	0	0	- U
Weymouth	, , , ,	220	310		580	0
Woods 3	155	230	310	0	380	<u> </u>
William B. Umstead 13	816	0	2050	0	0	0

The following table summarizes recycling collection during the past four years.

Division of Parks and Recreation Recycling Efforts 2004-2007

Recycle Material	2007	2006	2005	2004	
Aluminum	6,714	6434	5574	5913	
Plastic	5,465	6703	4484	3344	
Glass	5,483 6488		6681	4614	
Metal	24,147	-	-	-	
Paper	8,970	9957	11006	9250	
Other	6,024	4383	48632	15420	
Totals	56,802	33,965	76,377	38,541	

Other Statewide Litter Cleanups

North Carolina Big Sweep

North Carolina Big Sweep is a 501(c)(3) nonprofit organization whose mission is litter-free watersheds.

In 2007, North Carolina Big Sweep had a record-breaking year for community involvement with 18,084 volunteers. This surpassed the previous all-time Big Sweep record of 17,015 in 2001. Fifty-four out of 100 counties in North Carolina improved their community involvement from the previous year. Four of those counties (Caldwell, Forsyth, Randolph and Wilkes) broke their all-time record number for volunteers, and 50 other counties improved their community involvement from the previous year.

North Carolina history books might remember 2007 as the year of the worst drought on record, and the drought did influence the Big Sweep cleanups. Some counties used the low water levels as an opportunity to clean areas to which they normally didn't have access. As a result of this strategy, Big Sweep volunteers retrieved a record-breaking amount of debris in 2007. Nearly 730,000 pounds (or 365 tons) of debris were retrieved from North Carolina's environment in 2007. The debris retrieved in 2007 was 186,225 more pounds, or a 34 percent increase in debris retrieved from the previous year.

The N.C. Big Sweep massive statewide cleanups provided an educational awareness of the litter problem in North Carolina. It was especially an eye-opener to new volunteers. In addition, teachers all across North Carolina used the Big Sweep cleanup statistics to teach their students a variety of math, science and language arts skills. The sixth-annual Big Sweep T-shirt and poster design contest, which was open to all North Carolina students in kindergarten through twelfth grades, not only encouraged creativity but also made students aware of the harmful effects of litter.

To prevent litter by creating an awareness of the problems associated with litter, Big Sweep staff and volunteers conducted TV and radio interviews and set up educational exhibits at numerous events at the N.C. Zoo, county fairs, Earth Share employee-giving campaign events, other nonprofit events, such as the General Federation of Women's Clubs of NC conferences and business events such as the IBM Earth Week and Macy's Shop for a Cause.

Another method of preventing litter in 2007 involved Big Sweep's marina monofilament line recycling project. Big Sweep staff installed monofilament line recycling containers at 31 inland marinas located in 19 counties in 2007. This means that Big Sweep has now installed monofilament line recycling containers at 86 marinas in Alamance, Beaufort, Brunswick, Burke, Camden, Carteret, Caswell, Catawba, Cherokee, Chowan, Craven, Currituck, Davidson, Durham, Guilford, Hyde, Iredell, Lincoln, Mecklenburg, New Hanover, Northampton, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Rockingham, Rowan, Stanly, Tyrrell, Vance, Wake, Warren and Washington counties.

2007 N.C. Big Sweep Litter Pickup Results

N.C. Big Sweep 2007 RESULTS	Sites	Volunteers	Miles	Tires	White Goods	Recycled Bags	Trash Bags	Pounds	Entanglements, Unusual Finds, Miscellaneous Comments
A.I.		72	33	2	0	31	58	1,560	Large pipe, bikes, car fender, hose, bowling ball, landscaping edging, sofa, 55 gal. drum w/unknown liquid.
Alamance	1	12			U	. 31	50	1,500	
Alexander, Catawba	20	90	15	19			3,000	60,000	Styrofoam, moped w/no license tag (police called).
Alleghany/Ashe	1	128	34	155			218	7,460	tag (poner canea).
Anson	1	24	8	-:			21	420	
Beaufort	12	54	8	. 6	0		39	2,000	Truckload of broken lumber, mattress, baby carrier, boat gas tank, steel pieces.
									Buckets, board, 2 iron poles, 4
Bertie	3	20	3	4	2		26	800	pipes.
Bladen	1	1							
Brunswick	1	466	25				233	4,647	
Buncombe	2	102	6	200	0		400	12,000	Car parts, metal pieces, grocery cart, young girl's bra, girl's jacket and pants.
Burke	1	80	10				155	2,800	Submerged couch and kitchen sink.
Cabarrus	3	193	51	35			167	3,400	onne.
Caldwell	16	367	17	10			460	11,276	Commode plunger, oil can, nets, toilet seat, oven grill, o boom, bath tub parts, vehicle drive shaft.
Canden	10	15	4	. 3	0	8	15	520	dive share
Carteret	1	480	72	34	Ť	37	721	17,490	
Caswell	3	53	13	20	3		71	2,527	Fishing rod, liquor bottle, box of shotgun shells, part of hydraulic system, scuba mask, clothes rack, mattresses.
Chatham	5	86	8	12			96	2,160	Plastic pipe, baby stroller, rugs, propane tanks, chairs, building materials.
Cherokee	0	1							
Chowan	0	1							Rescheduling
Clay	0	1.							Cancelled.
Cleveland	1	12	2	4	0		. 68	1,360	
								1.200	Beach chairs, boat, wooden
Columbus	5	60	10	1		30	21 15	1,200 300	bench, mattress.
Craven	1	30	1				13	300	
Cumberland	4	177	3	46			72	3,110	Bike, ATV, moped, shopping carts, bed frame, landscaping timbers.
Currituck	2	27	5				84	1,680	One exploded military shell.
Dare	75	429	71	5	0	10	320	6,395	I seagull, buckets, pipes, party favors, ribbons w/deflated balloons and party whistles.
Davidson	1	20	. 4	2	0	1	22	500	3 VCRs, 2 propane tanks, boat motors.
Davidson	1	80	2	. 2		·	65	1,340	
Duplin	4	177	4	274	93		6,929	153,360	

N.C. Big Sweep 2007 RESULTS	Sites	Volunteers	Miles	Tires	White Goods	Recycled Bags	Trash Bags	Pounds	Entanglements, Unusual Finds, Miscellaneous Comments
Durham	14	286	26	21	1	1	363	9,495	Loaded gun, shopping cart, bike frames.
Forsyth	67	3,817	38	118	3		1,280	43,380	Albuterol ampules, hair weave, condom wrappers, bottles of urine, bag of vomit, fire extinguisher, steering wheel.
Franklin	3	30	15	3	1	21	55	1,680	Metal.
Gaston	15	1,087	64	268	7	30	2,275	52,158	Camper shell, shopping carts, bikes, moped, credit cards, fence, cell phones, doll head, Ziplock bag w/\$25.
Gates	0	SEE 1							Totals included in Swain County
Graham		SWAIN.							results.
Granville	0	1							
Greene	38	1,188	32	14		5	30 898	17,940	Building materials, cushions. 1 Mallard, helmet, portajohn, DOT barrel, basketball goal, live shotgun shell, computer, grill, cart.
Halifax	1	5	5		,		50	1,000	
Harnett	2	3	1	4	1	1	8	420	Box springs, construction debris, lawn chairs, hot water heater, 2 rims.
Haywood	1	38	3	8	,	•	144	3,040	11113.
Henderson	1	150	25	4	5		551	11,000	Low water so got to areas couldn't clean before. But a number of them got cut from brambles overgrowth.
Hertford	1	4	1	3			13	260	oranioles overgrown.
Hoke	1	29	2	10			75	1,730	2 turtle, fish, swing set, A/C, 5 gallon fluid bucket, street sign, paint cans, lumber.
Hvde	2	34	4				6	200	Wheel ring w/jack attached. Enthusiastic volunteers.
Iredell	1	75	8	29			128	3,140	Lumber.
Jackson	6	12	5	14		10	55	2,080	Four spools of wire from phone company.
Johnston	5	85	5	13			47	1,385	TV, pallets, lot of plastic from juice boxes and cigarette butts.
Jones	0	11							WCB with info.
Lee	2	52	12	16			20	1,580	Construction and demolition waste, large auto parts.
Lenoir	3	28	4	9			35	2,400	
Lincoln	3	30	4_	2	. 0	0	34	1,790	Two grills, 7 ft. metal plank, styrofoam floatation.
Macon	2	12	10	40		4	2	1,240	Construction debris, chairs, plastic pots, 2 deer carcasses.
Madison	0	1							
Martin	1	15	Severe	1	0		25	770	Unable to do because of severe
McDowell	0	1	drought	07	3		752	17 200	drought. Christmas tree, bikes, shopping
Mecklenburg	24	616	60	97	3		753	17,300	carts.
Mitchell	3	28	- 11	5	2		200	4,340	Couch, wire, buckets, metal pieces.

N.C. Big Sweep 2007 RESULTS	Sites	Volunteers	Miles	Tires	White Goods	Recycled Bags	Trash Bags	Pounds	Entanglements, Unusual Find Miscellaneous Comments
Montgomery	0	1							Cancelled due to drought.
Moore	1	12	3			3	3	120	Grill top.
Nash/Edgecombe	40	360	38	28	0		559	11,740	Two phone booth stands, 4 newspaper racks.
New Hanover	11	640	60	3	0	0	581	11,620	Undetonated bomb from WW II.
Northampton	4	47	8	2			. 35	600	Letter asking for 2 washing machines and a dryer. Dead rabbit, carpet, car parts, bucket: Crabs, clams, octopus in net
Onslow	1	167	31	1	2		175	2,880	shark, Part of computer, fence, pipe, floater, shopping cart, sheets of roofing, 55 gal. drum, 2 chairs.
Orange	7	203	18				398	7,967	Fishing debris, odd sock, a very waterlogged office chair.
Pamlico	12	32	18	0	0	5	20	510	Snake in bottle, diapers, boat fender, crab pots, infant carseat, 4 ft. black plastic pipe, dog carcass.
Pasquotank	2	30	5	0	0	45	45	900	Wire.
Pender	2	125	10	0	0	0	262	5,240	Plywood board, concrete blocks, 2x4s.
Perquimans	. 1	9	2	2	0		40	860	Metal strapping, 8-10 pieces of lumber, TV, 1 dog.
Person	1	47	15	2	0	0	34	680	Results by Thursday
Pitt	8	327	14				141	2,820	
Polk	2	71	4	4		18	19	820	Clothing, coffee pot, cooking pot, cooler, lid.
Randolph	26	1,191	28	101	8		333	12,495	Bike frames, shopping carts, large pottery vase, Jungle gym, air compressor, engine block, diapers, condoms.
Richmond	1	61	5			,	34	880	Couch, 2 sofa chairs, riding lawn mower.
Robeson	2	20	3	15			80	3,800	Water low: couldn't use motor boats.
Rockingham	60	1,138	202	201	22		1,878	56,000	opossum, squirrel, beaver, 2 deer, plastic wrap used across end of bridge for race finish line, love letter to a married man that wasn't from his wife.
Rowan	1	9	1	8			73	1,620	
Rutherford	1	57	25	68	13		68	4,020	
Sampson	5	100	19	15	3	2	258	6,770	deer in discarded feincing, raccon in swingset, barbell weights, microwave, heater, car door, 6 beds, 2 couches, toilet, chair, carport, shingles, vinyl siding.
Scotland	1	4	. i				2	80	Bait containers, plastic drink bottles, foam cups.
Scottalid		4	1						Catfish, underwear, lawn chatollet paper, large pieces of metal, propane tank, crib, fishing
Stanly	7	91	15	10	2		167	2,543	line.
Stokes	3	501	91	53	7		654	17,650	Commode with beehive, two car hoods, 2 gas tanks, couches, boat.

N.C. Big Sweep					White	Recycled	Trash		Entanglements, Unusual Finds, Miscellaneous
2007 RESULTS	Sites	Volunteers	Miles .	Tires	Goods	Bags	Bags	Pounds	Comments
Surry	0	1							WCB with info.
Swain	2	51	9	31	1	16	64	2,320	Propane tanks, old boat.
Transylvania	0	. 1	Water levels unsafe.						One exploded military shell.
Tyrrell	1	20	2			-	10	100	
Union	0	1							
Vance	. 1	included with Warren County							Vance and Warren joined efforts at Kerr Lake.
Wake	24	538	40	53	25	117	530	16,485	Halter top, statue of Hindu god, jetski, propellor, Coleman fuel bottles, artificial Christmas tree, concrete marker.
Warren	1	44	5	3			. 58	1,240	PVC pipe, rug.
Washington	1	18	1	0	.0		7	140	Very successful event.
Watauga/Avery	1	137	21			20	270	5,800	
Wayne .	14	352	38	10			175	1,837	Car seat, wallet, shotgun shells, mail, knife, shoe and toilet seat.
Wilkes	1	300	4	25			150	3.000	
Wilson	0	1							
Yadkin	1	5	1			2	10	240	
Yancey	0	included with Mitchell						•	
Totals County	609	17,629	1,478	2,151	204	417		661,010	17
Duke employees	14	455	14					68,640	
Totals Statewide	623	18,084	1,492	2,151	204	417	27,456	729,650	17

N.C. Keep America Beautiful

North Carolina Keep America Beautiful, Inc. is a nonprofit public education organization dedicated to enhancing the natural beauty of North Carolina communities, improving waste handling practices and empowering individuals to take greater responsibility for improving community environments. N.C. KAB is comprised of local, independent affiliates located in communities all across North Carolina.

More than half of the N.C. KAB Affiliates participated in the 2007 Great American CleanupTM, which is a national Keep America Beautiful, Inc. program than runs from March 1 through May 31.

Volunteers worked on a number of projects such as picking up litter, removing debris, used tires, abandoned mobile homes and junk cars, eliminating illegal dumps, restoring playgrounds and planting trees, flowers and bulbs. The 37,242 volunteers participating in the 2007 GACTM expended more than 102,213 hours in these various initiatives, and overall saved the state's taxpayers in equivalent labor costs through all their volunteer efforts. The reported amount of litter picked up during the campaign was 748,816 pounds. Volunteers planted 1,194 trees and 583,320 flowers and bulbs. They collectively held 119 public litter prevention workshops with an attendance of 7,275.

Volunteers by N.C. KAB Affiliate - All Projects:

Affiliate City/County	Volunteers*	Hours*	Pounds Collected
Belmont	130	520	6,000
Bladen	264	528	1,056
Brunswick	2,171	8,684	3,160
Buncombe	500	1,000	36,000
Catawba	350	700	8,760
Charlotte	212	1,130	54,500
Craven	120	240	3,600
Duplin	198	792	141,280
Durham	397	11,967	6,179
Fayetteville	1,200	3000	8600
Franklin	. 35	132	2,240
Gastonia	1,228	2,299	1,746
Greensboro	930	2325	34,875
Greenville	255	1020	2,250
High Point	301	1212	8,880
Iredell	234	586	3,960
McDowell	200	1,500	5,000
Mecklenburg	2,100	6,350	78,750
Moore	888	2,235	105,200
Nash	1,280	4,977	99,980
New Hanover	3,270	6,630	69,160
Pasquotank	100	640	7,600
Shelby	152	646	2,540
Wilkes	600	2,100	22,500
Winston	20,127	41,000	35,000
Total	37,242	102,213	748,816

^{*} For all projects

Anti-Litter Education/Prevention – 2007

Department of Environmental and Natural Resources

Division of Pollution Prevention and Environmental Assistance

RE3.ORG AND THE RECYCLE GUYS - JANUARY 07- DECEMBER 07

North Carolina adopted the Recycle Guys campaign from South Carolina for North Carolina elementary and middle school children in 2000. It includes an activity book, commercials, decals, posters, stickers, tattoos and trading cards.

The RE3.org campaign kicked off in 2005 skewed towards a male demographic for high schoolers, college students and twenty-somethings. The campaign includes bottle openers, bumper stickers, commercials, posters and t-shirts.



2004-2006

With funding from the EPA and other sponsors, DPPEA conducted research and worked with collegiate recycling coordinators throughout the state to identify barriers the twenty-something demographic faced regarding recycling.

Previous media and advertising buys included:

- Recycle Guys and RE3.org commercials on Time Warner Cable,
- RE3.org panels on Mountain Dew soda cans,
- RE3.org cinema ads,
- "Recycle It Now" billboards and radio commercials,
- RE3.org truck ads, and
- Interactive booths throughout the state at various festivals.

2006-2008 Plans

The Division is committing at least \$150,000 in state funding toward public recycling outreach. Our current plans call for combining advertising methods from last year with some new media approaches, including:

- Radio advertising and "streaming" of recycling messages on stations throughout the state,
- Ad placement through athletic programs that will be seen around the state, and
- Viral marketing via the Internet to spread the word about recycling.

Both campaigns have a presence on YouTube - http://www.youtube.com/re3org and http://re3org.blogspot.com/ and MySpace page - http://www.myspace.com/re3org.

Existing Partners

The following organizations have pledged more than \$45,000 to sponsor the campaigns.

- Asheboro Recycling
- Brunswick County
- Burlington
- Cary
- Catawba County
- Charlotte

- Johnston County
- Lee County
- Mecklenburg County
- NC Beverage Assn
- NC Friends of Museum of Natural Sciences

- Chatham County
- Clayton
- Container Recycling Alliance
- Dare County
- Davidson County
- Durham County
- Environment@RTP
- Envision Plastics
- Iredell County

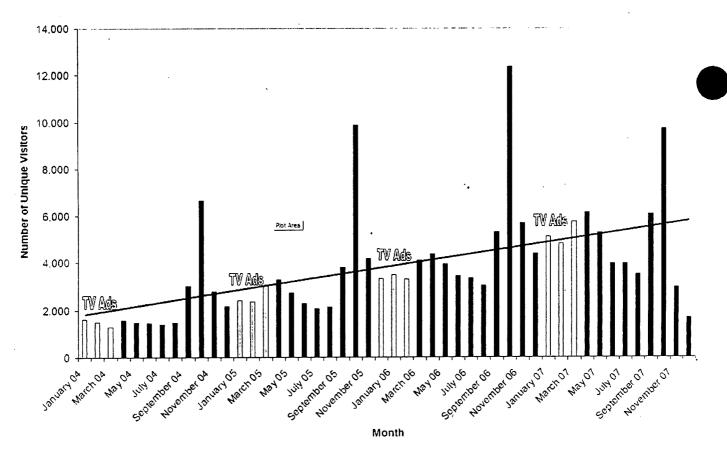
- NC State
- NC SWANA
- New Hanover County
- Orange County
- Pasquotank County
- Raleigh
- Wake County
- Waste Management/Recycle America
- Wayne County

Evaluation

The Recycle Guys campaign is very effective with the elementary school student age range. A survey of 600 students found an 81 percent cognition rate within this demographic and students were also able to sing the Recycle Guys song and describe the commercials. During focus groups conducted in April 2007, 71% of high school and college students had seen the Recycle Guys graphic before. Forty-four N.C. local governments used the Recycle Guys campaign during the 2006-2007 fiscal year. Below is a chart showing the evolution of the Recycle Guys Web site.

Chart 1. Number of unique visitors per month to Recycle Guys

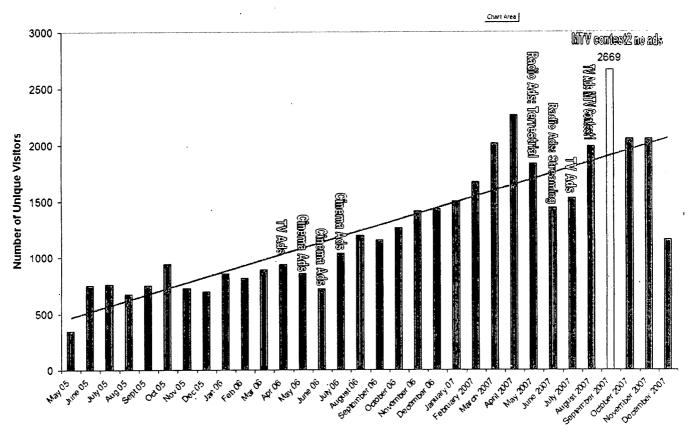
Number of Unique Vistors per month to Recycle Guys.org



Seventeen other local government and state agencies have adopted the RE3.org program since August 2005. Twenty-nine N.C. local governments reported using the RE3.org program during the 2006-2007 fiscal year. During focus groups conducted in April 2007, 9% of high school and college students had seen the RE3.org graphic before. We expect that to get as high as the Recycle Guys' figure once the campaign is more established. Below is a chart showing the evolution of the RE3.org Web site.

Chart 2. Number of unique visitors per month to RE3.org

Number of Unique Visitors per Month



Material Distribution and Presentations

During the 2006-2007 fiscal year we distributed over 110,685 Recycle Guys and RE3.org promotional items. We provided 162 environmental education programs for non-formal educators. We also organized 84 environmental education events where over 21,000 people attended.

Campaign Testimonials

"One time when I was riding with the recycling collectors through town, young children yelled 'It's the Recycle Guys, It's the Recycle Guys' as the curbside recycling truck drove by."

- Bianca Bradford, City of Raleigh, NC

"The Recycle Guys and RE3.org are wonderful resources to help people of all ages connect with the importance of recycling, both locally and globally. Teachers tell me constantly how much their students love the pencils, temporary tattoos and stickers offered by the campaigns."

- Holly Bullman, Land-of-Sky Regional Council, NC

"We give RE3.org t-shirts out at skateboarding competitions and still see kids wearing shirts around town instead of balling them up in a drawer somewhere."

- Lisa Grant, Keep Onslow Beautiful, NC

"Your RE3.org flicks are great and they target a generation that is sometimes hard to reach. Mr. Mutton Chops is my favorite and it's perfect to stream through college dorm TV - especially dorms equipped with trash shoots. Thanks so much for making the world of recycling sexy again!"

- Jessica Sankey, Chittenden Solid Waste District

Division of Parks and Recreation

The Division of Parks and Recreation hosts litter cleanup events and educational programs to demonstrate the importance of litter abatement and recycling. Division staff also provided educational programs specifically designed to prevent litter and encourage the reduction of solid waste. These programs reached an additional 3,868 school students and park visitors in 2007.

Division of Marine Fisheries – Marine Patrol

From January through December 31, 2007 Marine Patrol officers issued 24 citations and 3 warnings for a total of 27 littering cases attributing 90 hours to this effort. In 2006 the Marine Patrol officers issued 13 citations and 2 warnings for a total of 15 littering cases expending 78 hours on this effort.

Year	Littering Citations	Littering Warnings	Time Spent
2007	24	3	90 Hours
2006	13	2	78 Hours
2005	17	8	83 Hours

In 2007, Marine Patrol had investigated construction waste being disposed of in Coastal Waters and these complaints were unfounded. We are still finding derelict vessels abandoned along our shorelines. The problem with the abandoned vessels is that in most cases, the owner cannot be identified. Officers remove several hundred abandoned commercial crab pots from coastal waters between by mid February.

N.C. Wildlife Resources Commission

The Division of Engineering Services has an inventory of 209 boating access areas. Additionally, Engineering Services maintains 48 public fishing access areas across the state. Maintenance and operation of these areas includes the policing and removal of litter. Approximately 3,338 manhours were spent performing litter removal for the past year. The division is currently in the process of creating new educational signage for these areas that deal with littering and how it impacts the environment. The Division also issues "special use permits" for private and civic organizations such as The Boy Scouts to utilize boating access areas as focal points for litter sweeps. There is no data on the quantity of litter removed during the litter sweeps.

Funds expended by Division of Wildlife Management Jan. 1, 2007 – December 31, 2007 for litter pickup was \$2,280.75. Hours spent by Division of Wildlife Management personnel Jan. 1, 2007 – December 31, 2007 for litter pickup totaled 93.5.

NCDOT - Office of Beautification Programs

During 2007, the Office of Beautification Programs continued to place emphasis on improving its Web site to promote litter prevention awareness. Currently the Gaston County 2007-2008 Beautification and Environmental Education Programs and Union County - Yes! Yes! We Can Stop Littering Campaign are provided in their entirety. The intent of this site is to be a resource for educators in need of classroom curriculum material. The information can be found at the Office of Beautification Programs homepage at www.ncdot.org/~beautification within the Litter Prevention link. The curriculums can be downloaded for classroom usage.

The enhanced Adopt-A-Highway database for coordinators and volunteers was incorporated and is working well. The changes simplify the application process and data report queries.

A variety of educational materials for schools, civic groups and others was provided by the Office of Beautification Programs. This included litter prevention stickers, no litter bumper stickers, pencils, Swat-A-Litterbug cards, temporary tattoos, car litterbags, litter law fliers and "Secure Your Load" brochures. Other links/items available through its Web site include this report, the litter law, Swat-A-Litterbug and Adopt-A-Highway programs, Litter Sweep and its various forms, printable activity pages - Litter Activity Book with lessons and activities for second and third grades.

The Office of Beautification Programs also distributed car litterbags in the tens of thousands through rest areas, welcome centers, the N.C. State Fair, Earth Day and upon request to numerous groups. The 2007 graphics promote a secure your load message from the N.C. State Highway Patrol Colonel.

Annual Litter Prevention Awards Contest: N.C. Keep America Beautiful, the N.C. Beverage Association along with the Office of the Governor and the NCDOT sponsored the Annual Litter Prevention Awards Contest. Eligible categories are as follows: Government Agencies, Schools/Youth Groups and Nonprofits. Each category offers first place prizes of \$1,000 and second place prizes of \$500. Winners are posted to the Office of Beautification Programs Web site within the Litter Contest link.

N.C. State Fair Booth: 2007 was the third year, a teacher materials window was used in the Roadside Environmental Unit's booth. Teachers were able to sign up litter prevention materials, such as Swat-A-Litterbug stickers, cards and pencils, Swat-A-Litterbug temporary tattoos, litter law fliers, stormwater fact sheets, anti litter activity pages, no litter bumper stickers and car litterbags. The car litterbags had "Stop the Littering" printed on one side along with the message "it could cost you...up to a \$2,000 fine, community service work and a point on one's driver license," and a "Secure Your Load" message from the N.C. State Highway Patrol Colonel on the other. There were enough materials distributed to supply more than 17,000 students. This initiative continues to grow each year.

Other Litter Prevention Displays, Meetings, Presentations and Government Radio: The Office of Beautification Programs manned litter prevention displays at various events. These events were Earth Day at NCSU, Earth Day at IBM with N.C. Big Sweep, and the NCDOT Continuous Improvement Process Award Conference. In addition to events, the Office of Beautification Programs participated in board meetings of both N.C. Keep America Beautiful and N.C. Big Sweep and other local presentations to Rotary Clubs.

Finally, there were radio and television interviews regarding Litter Sweep on Durham's WTVD talk show with Keep Durham Beautiful which aired prior to the Fall Litter Sweep as well as interviews on government radio broadcasts on topics of Litter Sweep (spring and fall) and the importance of securing loads. There were interviews with WRAL-TV and WPTF radio for their "Trash Talk" Focal Point series that focused on statewide littering. Both stations ran the the series and interview clips in August and for several months afterward.

Swat-A-Litterbug Program: The Office of Beautification Programs continued to administer the Swat-A-Litterbug program. The Swat-A-Litterbug Program is an educational tool intended to inform those observed littering, that it is illegal to litter.

Those observed littering can be reported using the Swat-A-Litterbug online at the Office of Beautification Programs Web site at www.ncdot.org/~beautification, through the mail or by calling the NCDOT Customer Service Office at 1-877-DOT-4YOU. Reports include information regarding the offender's vehicle license plate number, time, date, street, city, county, and a description of the littering offense.

When reports are received, a letter signed by the Colonel of the N.C. State Highway Patrol is mailed to the registered owner of the vehicle reported. The recipient is informed of the observed littering, that littering is illegal and that it's a fineable offense upon conviction. There are no citations or warnings issued from these reports. The program is totally anonymous and no record is kept regarding who submits or receives a letter. In 2007, more than 7,800 Swat-A-Litterbug letters were mailed to those observed littering – in 2006 there were 8,250 and in 2005 more than 7,500.

"Secure Your Load" Flier

One million "Secure Your Load" fliers were distributed by the Division of Motor Vehicles within their vehicle registration renewal mailers. Flier cost was \$0.006 each. One side had the N.C. State Highway Patrol Colonel's litter prevention message and the other side had litter prevention - stormwater message.

Tarp Day: In an attempt to prevent littering by residents traveling with unsecured loads, Tarp Day was held at 45 county municipal landfills. As residents drove into the landfill, tarps were given to those with either pickup trucks or trailers with unsecured loads. "Secure Your Load" brochures, "Secure Your Load" car litterbags and litter law fliers were also given to landfill patrons. Local law enforcement was also on hand to help with this initiative.

Tarp Day was a one day event was held in either September or October. The actual date varied by landfill patron usage. There were approximately 6,000 of the 8' x 10' blue tarps distributed. They cost two dollars each and were paid through the use of No Litter license plate funds. Landfills reported patrons using the tarps in subsequent loads.

Litter License Plate: There have been 546 litter plates issued. This number is up from 481 in 2006. The General Assembly approved the Litter Prevention license plate during the 2000 session. The initial 300 plates were sold in 2001 and the plate became available through the tag agencies by the beginning of 2002. Ten dollars of each plate sold is diverted to a "Litter Prevention Fund" on a quarterly basis. The money is used to help support other statewide anti litter efforts.

Yes! Yes! We Can Stop Littering Campaign: This alliance between the Union County Rotary Clubs, the Union County Public School System, county charter and private schools, local businesses and the NCDOT was developed to prevent littering. The campaign's purpose was to cultivate a cultural change in Union County to stop littering during a five-year period. It is estimated that more than 18,000 children participated in the program.

The Union County Rotary Clubs were the leaders of this initiative. Other sponsors provided assistance as the program moved forward. The NCDOT Office of Beautification Programs provided items such as litterbags, stickers and tattoos with anti-littering messages, promotional pencils and plaques to support the "Yes! Yes! We Can Stop Littering Campaign." Although the program ended in 2006, the template for organizing and implementing the program is maintained on the Office of Beautification Programs Web site for others to review and use.

III. Litter Enforcement

Department of Crime Control and Public Safety

In 2007, the State Highway Patrol issued 941 tickets for littering. The State Highway Patrol also partnered with N.C. Department of Transportation by participating in the NCDOT Litter Sweep (spring and fall) by focusing on citing individuals that either littered or failed to properly secure or cover their loads. Troopers issued 287 citations during the spring and fall 2007 Litter Sweeps.

State Highway Patrol Recap of Litter Charges G.S. 14-399 and local ordinances:

Year	Number of Charges
2007	941
2006	885
2005	708

The Division of Motor Vehicle Enforcement Officers was transferred from the NCDOT to the Department of Crime Control and Public Safety State Highway Patrol in January of 2003. In the table below, the tickets issued for G.S. 20-116(g) violations represent the combined tickets issued by the State Highway Patrol and the DMV enforcement officers.

State Highway Patrol Recap of Improper Loading/covering of Vehicle G.S. 20-116(g):

Year	Number of Charges
2007	1,539
2006	1,235
2005	1,384

Division of Parks and Recreation

Division of Parks and Recreation sponsored educational programs and community events serve as a proactive approach to litter prevention and law enforcement. In addition to these educational measures, state park rangers wrote a total of 53 littering citations during 2007.

	Number of
Year	Citations
2007	53
2006	37
2005	60

Division of Marine Fisheries - Marine Patrol

From January through December 31, 2007 Marine Patrol officers issued 24 citations and 3 warnings for a total of 27 littering cases attributing 90 hours to this effort. In 2006 the Marine Patrol officers issued 13 citations and 2 warnings for a total of 15 littering cases expending 78 hours on this effort.

Marine Patrol Citation Recap:

Year	Citations	Warnings	Time Spent
2007	24	3	90 hours
2006	13	2	78 hours
2005	17	8	83 hours

In 2007 Marine Patrol investigated construction waste disposal in Coastal Waters and these complaints were unfounded. We are still finding derelict vessels abandoned along our shorelines. The problem with the abandoned vessels is that in most cases, the owner cannot be identified. During the first part of the year, officers remove several hundred abandoned commercial crab pots from coastal waters during the closed season.

N.C. Wildlife Resources Commission

The Division of Engineering Services has an inventory of 209 boating access areas. Additionally, Engineering Services maintains 48 public fishing access areas across the state. Maintenance and operation of these areas includes the policing and removal of litter. Approximately 3,338 manhours were spent performing litter removal for the past year. The division is currently in the process of creating new educational signage for these areas that deal with littering and how it impacts the environment. The Division also issues "special use permits" for private and civic organizations such as The Boy Scouts to utilize boating access areas as focal points for litter sweeps. There is no data on the quantity of litter removed during the litter sweeps.

During the period of Jan. 1, 2007 to December 31, 2007, the Division of Wildlife Management personnel spent 93.5 hours and overall expended \$2,280.75 for litter pickup.

Wildlife Resources Commission Litter Charges Recap G.S. 14-399 and local ordinances:

Year	Charges
2007 *	709
2006 *	657
2005 *	751

^{*} Includes G.S. 14-399, 113-264 (a), local ordinances and 75A-10(c).

E. Administrative Office of the Courts

Calendar year 2007 data on charges and convictions by county, the number of charges disposed, and the manner of disposition are provided for the following twelve offenses:

Offense Code		
4425	Improper Loading/Covering of Vehicle	§ 20-116(g)
5370	Commercial Littering	§ 14-399(e)
5371	Littering Hazardous Waste	§ 14-399(e)
5372	Littering not more than 15 pounds	§ 14-399(c)
5373	Littering more than 15 but less than 500 pounds	§ 14-399(d)
5374	Littering more than 500 pounds	§ 14-399(e)
5375	Unintentional Littering not more than 15 Pounds	§ 14-399(c1)
5376	Unintentional Littering more than 15 but less than 500 Pounds	§ 14-399(d1)
5377	Unintentional Littering more than 500 Pounds	§ 14-399(e1)
6248	Litter Gameland/Access Area	§ 113-264(a)
8514	Littering Beer/Wine Container	local ordinance
****	Litter State Waters/Inland Lake Waters	§ 75A-10(c)

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STATEWIDE LITTERING CHARGES AND CONVICTIONS

Calendar Year 2007

be charged in one calendar year and convicted in the next. Thus, for any given calendar year, the defendants convicted are not necessarily the same defendants represents totals from district and superior court. Some of the defendants have other charges in addition to a littering offense. It is possible for a defendant to The following data are from the AOC's Automated Criminal/Infraction System for calendar year 2007. The number of charges, convictions, and dispositions charged in that year. There is not an offense code for GS 75A-10(c); this offense is designated by four asterisks.

CHARGES BY CHARGING AGENCY

AE	1												ω	
Convictions	1216	1	0	1553	59	2	210	5	4	170	37	2	3259	2850
Charges	1976	21	2	3280	172	32	326	7	4	226	104	3	6153	9898
Offense Code	4425	5370	5371	5372	5373	5374	5375	5376	5377	6248	8514	* * *	2007 Total	2006 Total

	. I													
Other	24	5		197	33	4	7			13	. 2		288	284
WRC				455	20		51	7	2	506	3	3	709	657
SHP	1538			712	21		185	3	1		18		2478	2118
Sheriff SHP	49	15	2	317	47	61	24			4	14		491	518
Police		1		1549	51	6	68	2	1		64		2128	2020
DMV	1			1									2	2
ALE	-			42			9						49	24
ABC				7									8	13

	2	TETHOL	METHOD OF DISPOSITION	OSITIO	7
Charges	Guilty	Trial:	Trial: Not		
Disposed	Plea	Guilty	Guilty	Dismiss	Other
2008	137	1	3	745	1122
21	5			10	9
3	1			1	1
3420	854	40	56	1111	780
157	43	4	2	<i>L</i> 8	21
38	14			81	9
272	79			91	155
9	2			7	2
5				7	3
230	62			62	106
125	31	1		88	5
4	2			1	1
6889	1177	46	34	2824	2208
5621	1219	57	30	2583	1732

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	Littering Offenses *	*		Num	oer Of C	harges E	Number Of Charges By Charging Agency	ging Ag	gency	
		Number of								
	Number of Charges	Convictions	ABC	ALE	DMV	DMV Police	Sheriff SHP	SHP	WRC	Other
2007			7	48	_	1766	442	940	602	264
2006	4035	1948	13	24	0	1716	461	385	959	280
2005	3732	1986	13	26	0	1562	399	802	751	273

* Totals do not include charges and convictions for offense code 4425, GS 20-116(g).

LITTERING CHARGES AND CONVICTIONS BY COUNTY Calendar Year 2007

The following data are from the AOC's Automated Criminal/Infraction System for calendar year 2007. The number of charges and convictions represents totals from district and superior court. Some of the defendants have other charges in addition to a littering offense. It is possible for a defendant to be charged in one calendar year and convicted in the next. Thus, for any given calendar year, the defendants convicted are not necessarily the same defendants charged in that year.

The numbers in bold represent county totals. County data include only the codes for which there were any charges or convictions. There is not an offense code for littering under GS 75A-10(c); this offense is designated by four asterisks.

	Offense Code	Charges	Convictions		Offense Code	Charges	Convictions
ALAMANCE	4425	43	29	BERTIE	4425	5	3
,	5372	26	16		5372	11	11
	5373	6	0		5373	1	0
	5375	2	0		5375	2	· 1
	8514	0	1			19	15
•		77	46				
				BLADEN	4425	7	5
ALEXANDER	4425	3	2		5372	15	3
•	5372	14	4		5375	1	0
	5373	1	1			23	8
	5375	3	3				
		21	10	BRUNSWICK	4425	44	31
					5370	3	0
ALLEGHANY	5372	7	5		5372	30	16
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	8514	2	2		5373	3	3 .
	•	9	7		5375	2	0
		_	·		8514	1	0
ANSON	4425	10	7			83	50
Altoon	5372	16	6	••	•		
	5373	1	0	BUNCOMBE	4425	38	26
	5375	3	0		5372	66	35
	6248	12	4	•	5373	6	3
	0210	42	17		5375	5	5
			••		6248	0	1
ASHE	4425	3	1	•	8514	2	2
ASIL	5372	4	2		00	117	72
	0012	7	3				. –
		•	ŭ	BURKE	4425	18	9
AVERY	4425	2	1		5372	27	15
AVERT	5372	10	3		5373	8	1
	5372	1	Ö		6248	9	8
	5375	1	0		8514	0	1
	5575	14			0014	62	34
		14	4			02	•
BEAUFORT	4425	5	1	CABARRUS	4425	43	29
	5372	21	13		5372	49	26
	5373	2	0		5373	6	2
	5375	2	2		5375	7	4
·	55.5	30	16			105	61

-				IND CONVICTION	0110 0 .	000	•
	Offense Code	Charges	Convictions		Offense Code	Charges	Conviction
CALDWELL	4425	16	11	CLAY	4425	3	2
	5372	37	21		5372	4	5
	5375	2	7		5373	2	2
	6248	36	28		5374	1	0
		91	67		5375	1	0
		•	•			11	9
CAMDEN	5372	. 1	1	COLUMBUS	4405	20	28
0.4.D.T.E.D.E.T.	4.405	40	•	COLUMBUS	4425	29	
CARTERET	4425	18	9		5372	4	3
	5372	73	38		5373	0	1
	5373	1	0		5374	2	1
	5375	1	1		8514	1	1
	6248	1	1			36	34
	8514	1	0				
•		95	49	CRAVEN	4425	46	25
					5370	1	. 0
CASWELL	4425	2	3		5372	79	41
•	5370	5	0		5373	2	1
	5371	1	0		5375	10	5
	5372	7	6		6248	2	2
	5373	3	2			140	74
	5374	1	0				
	5375	2	1	CUMBERLAND	4425	64	32
	5376	2	2		5372	62	19
	6248	2	2		5373	3	1
	0240	25	16		5375	2	0
		20			0070	131	52
CATAWBA	4425	35	18				
	5372	52	27	CURRITUCK	4425	10	4
	5373	5	1		5372	15	10
	5375	5	2	·•	5373	1	0
	6248	18	8		5375	9	5
		115	56			35	19
CHATHAM	4425	12	6	DARE	4425	5	5
CHATHAM		54	25	DAIL	5372	44	29
	5372	66	31		5372	2	1
		00	31				
			4	•	5375	11	11
CHEROKEE	4425	4	1		6248	2	1
	5372	8	2		8514	3	1
	5375	1	1			67	48
	6248	5	5				
		18	9	DAVIDSON	4425	51	27
					5372	24	14
CHOWAN	4425	3	1		5373	3	0
	5372	15	14		5374	5	0
	5375	3	2		5375	1	0
	6248	1	1		6248	3	5
	52.0	22	18		8514	3	0
						90	46

	Offense Code	Charges	Convictions		Offense Code	Charges	Convictions
CLEVELAND	4425	19	_. 10	FRANKLIN	4425	11	6
	5370	1	0		5372	22	8
	5371	1	0		5373	1	0
	5372	56	34		5375	1	1
•	5374	2	0		8514	1	2
	5375	10	8			36	17
	5376	0	1				
	6248	1	1	GASTON	4425	37	22
	00	90	54	57.157.511	5370	2	0
			•		5372	107	49
DAVIE	4425	9	3		5373	1	1
DAVIL	5372	19	6		5375	4	4
	5375	1	ő	•	6248	13	8
	8514	1	0		8514	2	0
	6514	30	· 9		0314	166	
		30	9			100	84
DUPLIN	4425	49	26	GATES	4425	3	1
	5372	13	5		5372	6	4
	5373	8	1		5373	1	0
	5374	1	0		5375	1	0
	5375	2	2			11	5
	8514	2	0				
		75	34	GRAHAM	4425	2	1
					5372	1	1
DURHAM	4425	27	14		5375	0	1
DOMINAN	5372	58	26		00.0	3	3
	5373	2	2			Ū	
	5375	1	0.	GRANVILLE	4425	11	3
	6248	11	8	OKANTILLE	5372	11	6
	8514	4	2		6248	2	2
	0314	103	52		0240	24	11
		103	52			24	11
EDGECOMBE	4425	4	3	GREENE	4425	1 ·	0
	5372	20	7		5372	5	3
	5373	1	0		5373	1	0
	5375	4	2			7	3
	6248	4	3				
	8514	2	0	GUILFORD	4425	56	29
		35	15		5372	179	33
		00		•	5373	5	2
FORSYTH	4425	46	23		5374	3	0
10001111	5372	71	34		5375	18	4
	5372	2	1		5377	1	0
1	5375	1	.0		8514	3	1
				•	0314	265	69
	8514	1	· 1			203	03
		121	59	HALIFAX	4425	22	11
				HALIFAX			
					5372	33	19
•					5373	2	0
•					5375	11	6
			•		8514	2	2
						70	38

20	O' LITT			MD COMVICT	ONO DI	CCCIVI	
•	Offense Code	Charges	Convictions		Offense Code	Charges	Conviction
HARNETT	4425	20	11	JOHNSTON	4425	44	28
	5372	70	35		5372	37	15
	5373	5	2		5373	7	2
	5374	2	0		5375	18	9
	5375	1	0		8514	2	0
	0010	98	48		0011	108	54
HAYWOOD	4425	21	11	JONES	5372	4	1
	5372	8	6		5373	1	0
	5373	. 2	2		5375	1	0
	5375	3	2		8514	2	1
	6248	1	1			- 8	2
	02.10	35	22			•	_
				LEE	4425	9	6
HENDERSON	4425	17	13		5372	22	8
HENDEROOM	5372	32	18		5375	1	1
	5375	5	4		0070	32	15
	6248	1	1			52	13
	8514	2	0	LENOIR	4425	6	5
	0514	57	36	LLITOIN	5372	22	10
		31	30		5372	2	1
HERTFORD	4425	4	0		8514	1	1
HEKTFORD	5372	12	5		0514	31	17
			1	•	•	31	17
	5373	1	•	LINCOLN	4425	15	6
	5374	4	0	LINCOLN		15 40	
		21	6		5372	40	24
	4.405	-	•		5375	0	2
HOKE	4425	7	3·	•		55	32
	5372	16	11	MACON	4405	4	
	5373	1	0	MACON	4425	4	4
	5375	0	1		5372	10	1
		24	15		5375	1 15	0 5
HYDE	5372	12	8	•			
	5374	1	0	MADISON	4425	4	2
	5375	2	3		5372	7	2
	5377	1	1		5373	1	1
	6248	1	1		6248	1	1
		17	13		8514	1	1
				•		14	7
IREDELL	4425	46	29				•
	5372	53	26	MARTIN	4425	9	3
	5375	7	5		5372	21	10
	6248	1	0	•	5373	1	0
		107	60	•	5375	1	1
		_				32	14
JACKSON	4425	5	4			_	_
	5372	15	7	McDOWELL	4425	7 1-	5
	5373	1	0		5372	15	13
	5374	1	0		5373	1	0
	6248	6	5		5375	1	1
		28	16		6248	1	1
						25	20

		Offense Code	Charges	Convictions		Offense Code	Charges	Convictions
)	MECKLENBURG	4425	190	132	ONSLOW	4425	41 .	37
		5372	266	117		5372	53	. 34
		5373	4	0		5373	1	0
		5375	39	20		5375	6	5
		5376	2	0		8514	3	1
		5377	2	2			104	77
		6299	0	1				
		8514	12	3	ORANGE	4425	17	16
	1	0011	515	275		5372	13	7
			0.10	270		5373	2	, O
	MITCHELL	4425	1	0		5375	1	0 .
	MITOTILL	5372	4	4		8514	1	0
		5372	2	0		0314	34	23
		5575	7	4		•	34	23
			•	4	PAMLICO	4425	4	2
	MONTCOMEDY	4405	7	4	PAWILICO		4	2
	MONTGOMERY	4425	7	4		5372	5	1
		5372	28	15		5373	2	0
		6248	2	2		5375	1	2
		8514	1	1		6248	1	1
			38	22			13	6
	MOORE	4425	42	28	PASQUOTANK	4425	6	4
		5372	17	4		5372	15	9
		5373	4	2		5373	1	0
}		5375	1	1	•	5375	1	1
		8514	1	0		6248	. 1 .	1
			65	35			24	15
	NASH	4425	51	30	PENDER	4425	12	7 .
		5372	26	8		5372	19	14
		5373	3	0	•	5374	2	0
		5375	2	1		5375	1	0
	•	8514	2	0		5377	0	1
		00,,	84	39		6248	3	1
			Ψ.				37	23
	NEW HANOVER	4425	62	38	•			•
		5370	2	0	PERQUIMANS	4425	2	2
		5372	94	28		5372	2	2
		5373	6	2		5375	1	1
		5374	2	0		00,0	5	5
		5375	8	9			•	•
		5376	1	1	PERSON	4425	5	5
		8514	3	1	Littoon	5372	9	6
		0514	178	79		5373	0	1
			110	13		5375	1	1
	NODTUANDTON	4405	٥	2		6248	0	1
	NORTHAMPTON	4425	8	2 5		0240	1 5	14
		5372	6				15	144
		5373	1	0				
		5375	2	4				
		6248	0	1				
			17	12	•			

PITT	. 200	Offense		JIIANGES A	MD CONVICTIO	Offense	COUNT	•
PITT			Charges	Convictions			Charges	Conviction
S372	PITT				RUTHERFORD			4
S373 2								
S375 6								
S376	•							
POLK						0014		
POLK								33
POLK		0014			CAMDOON	4425	26	13
POLK 4425 3 3 5373 4 3 5375 1 2 5376 5 3 5375 1 2 5376 1 1 6248 28 15 8514 2 0 8 60 25 80 60 28 RANDOLPH 4425 8 6 SCOTLAND 4425 4 4 5372 20 3 5373 2 0 5373 2 0 0 20 11 0 5373 2 0 11 0 5373 2 0 11 0 0 11 0 11 0 11 0 11 0 11 0 11 0 11 0 11 0 11 0 11 0 11 0 11 0 11 0 11 0 0 11 0 0 0 </td <td></td> <td></td> <td>19</td> <td>33</td> <td>SAMPSON</td> <td></td> <td></td> <td></td>			19	33	SAMPSON			
Family State Sta	DOLK	4405	2	2				
RANDOLPH 4425 8 6 SCOTLAND 4425 4 4 5372 20 3 5373 2 0 5375 1 0 0 5375 1 0 0 5375 1 0 0 5375 1 0 0 5375 1 0 0 5375 1 0 0 5375 1 0 0 5375 1 0 0 5375 1 0 0 5375 1 0 0 5375 1 0 0 5375 1 0 0 5375 1 0 0 0 5375 1 0 0 0 5375 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	POLK				•			ა ი
RANDOLPH								
RANDOLPH 4425 8 6 SCOTLAND 4425 4 4 5372 20 3 5372 13 7 5373 1 0 5375 2 0 5375 7 4 5375 1 0 6248 0 8 8 514 1 0 8514 1 0 8 5372 42 18 RICHMOND 4425 16 8 8 5373 2 12 STANLY 5372 42 18 5372 23 13 5375 5 2 5373 2 1 5375 5 2 5375 1 0 6288 10 628 10 6289 3 1 0 6248 10 6 6 58 23 8514 2 0 6288 10 6 6 8 8514 2 0 6289 3 1 0 6248 10 6 6 58 23 8514 2 0 6289 3 1 0 6248 10 6 6 58 23 8514 0 6 6 58 23 ROBESON 4425 17 18 5372 6 5 ROBESON 4425 17 18 5372 6 5 85373 1 1 0 8514 1 0 5375 6 2 5373 1 1 8 5373 2 1 1 8514 1 0 6 5375 6 2 6 7 860KINGHAM 4425 14 9 5375 1 0 870KKINGHAM 4425 14 9 5375 1 0 870KKINGHAM 4425 14 9 5375 6 1 870KKINGHAM 4425 14 9 5372 15 6 870KKINGHAM 4425 14 9 5372 15 6 870KKINGHAM 4425 14 9 5373 1 1 0 870KKINGHAM 4425 14 9 5373 1 1 0 870KKINGHAM 4425 14 9 5372 15 6 870KKINGHAM 4425 14 9 5372 15 6 870KKINGHAM 4425 14 9 5372 15 6 870KKINGHAM 4425 14 9 5372 15 6 870KKINGHAM 4425 14 9 5372 15 6 870KKINGHAM 4425 14 9 5372 15 6 870KKINGHAM 4425 14 9 5372 15 6 870KKINGHAM 4425 14 9 5372 15 6 870KKINGHAM 4425 14 9 5372 15 6 870KKINGHAM 4425 14 9 5372 15 6 870KKINGHAM 4425 14 9 5372 12 7 870KKINGHAM 4425 14 1 0 870KKINGHAM 870KKINGHAM 870KKINGHAM 870KKINGHAM 870KKINGHAM 870KKINGHAM 870KKINGHAM 870KKINGHAM 870KKINGHAM 870KKINGHAM 87								
RANDOLPH		6248				8514		
S372 20 3 5372 13 7 5373 1 0 5373 2 0 6248 0 8 20 11 11 0 11 11 11 11			50	25		•	60	28
S373	RANDOLPH	4425	8	6	SCOTLAND	4425	4	4
S375		5372	20	3		5372	13	7
S375		5373	1	0		5373	2	0
RICHMOND 4425 16 8 8 5372 42 18 RICHMOND 4425 16 8 8 5373 1 0 5372 23 13 5375 5 2 5373 2 1 6248 10 6 8 8514 2 0 6248 10 6 8 8514 2 0 6248 10 6 6 8514 2 0 6248 10 6 6 8514 2 1 6375 1 0 6 6248 10 6 6 8514 2 1 6375 6 6 2 85373 2 1 8 6375 6 6 2 8514 3 1 8 65375 6 6 2 8514 3 1 65375 6 6 2 8514 3 1 65375 6 6 2 8514 3 1 65375 6 6 2 8514 3 1 65375 6 6 2 8514 1 0 65375 6 6 2 8514 1 0 65375 6 6 2 8514 1 0 65375 6 6 2 8514 1 0 65375 6 6 2 8514 1 0 65375 6 6 2 8514 1 0 65375 6 6 2 8514 1 0 65375 6 6 2 8514 1 0 65375 6 6 2 8514 1 0 65375 6 6 2 8514 1 0 65375 6 6 2 8514 1 0 65375 6 6 2 8514 1 0 65375 6 6 2 8514 1 0 65375 6 6 2 8514 1 0 65375 1 0 8514 1 0 65375 1 0 8514 1 0 65375 1 0 8514 1 0 65375 1 0 85375 1 0 8514 1 0 8514 1 0 85375 1			7			5375	1	. 0
RICHMOND							20	
RICHMOND							-	
RICHMOND		0014			STANLY	4425	5	2
RICHMOND			31	~ ·	OTANLI			
S372 23	BICHMOND		16	Ω				
S373	RICHIVIOND							
S375								
ROBESON 4425 17 18 SURRY 4425 1 0 ROBESON 4425 17 18 5373 2 1 5372 48 26 5375 4 4 5373 1 1 8514 1 0 8514 3 1 1 8514 1 0 8514 3 1 5372 15 6 2 14 10 ROCKINGHAM 4425 14 9 5372 15 6 ROCKINGHAM 4425 14 9 5373 1					·			
ROBESON					,	8514		
ROBESON							38	23
ROBESON		8514				4405	4	•
ROBESON 4425 17 18 5373 2 1 5372 48 26 5375 4 4 5373 1 1 8514 1 0 5375 6 2 14 10 <			54	30	STOKES			•
5372								
Table Figure Fi	ROBESON	4425	17	18		5373	2	1
Form Form		5372	48	26		5375	4	4
Form Form	•	5373	1	1		8514	1	0
ROCKINGHAM 4425 14 9 5372 15 6 5372 15 6 5372 15 6 5373 1 1 5370 1 0 8 5375 5 4 5373 4 1 0 8 5374 2 0 5375 2 12 7 5375 2 1 SWAIN 4425 3 0 5375 2 1 SWAIN 4425 3 0 5375 2 1 SWAIN 4425 3 0 5375 1 1 ROWAN 4425 28 18 5372 12 7 5373 2 1 TRANSYLVANIA 4425 4 1 5375 4 4 4 5375 1 1 5375 4 4 4 5375 1 1 5375 4 4 5375 1 1 5375 4 4 5375 1 1 5375 4 4 5 5372 13 7 6248 25 13 5373 2 0							14	10
ROCKINGHAM 4425 14 9 5372 15 6 FROCKINGHAM 4425 14 9 5373 1 1 5370 1 0 5375 5 4 5372 10 8 8514 1 0 5373 4 1 34 19 5374 2 0 33 19 5372 12 7 5375 2 1 SWAIN 4425 3 0 ROWAN 4425 28 18 5372 12 7 5373 2 1 TRANSYLVANIA 4425 4 1 5375 4 4 5372 13 7 6248 25 13 5373 2 0 91 62 6248 1 1								
ROCKINGHAM		0314			OUDDY	4425	10	Ω
ROCKINGHAM 4425 14 9 5373 1 1 5370 1 0 5375 5 4 5372 10 8 8514 1 0 5373 4 1 34 19 5374 2 0 33 19 5372 12 7 5375 2 1 SWAIN 4425 3 0 8 5375 1 1 1 1 1 4425 28 18 16 8 5372 32 26 1 16 8 5373 2 1 TRANSYLVANIA 4425 4 1 5375 4 4 5372 13 7 6248 25 13 5373 2 0 91 62 6248 1 1			75	40	SURRY			
FOWAN 1				_				
5372 10 8 8514 1 0 5373 4 1 34 19 5374 2 0 5375 2 1 SWAIN 4425 3 0 5375 2 1 SWAIN 4425 3 0 5372 12 7 5375 1 1 ROWAN 4425 28 18 16 8 5372 32 26 16 8 5373 2 1 TRANSYLVANIA 4425 4 1 5375 4 4 5372 13 7 6248 25 13 5373 2 0 91 62 6248 1 1	ROCKINGHAM							
5373 4 1 5374 2 0 5375 2 1 SWAIN 4425 3 0 33 19 5372 12 7 5375 1 1 1 ROWAN 4425 28 18 16 8 5372 32 26 1 TRANSYLVANIA 4425 4 1 5373 2 1 TRANSYLVANIA 4425 4 1 5375 4 4 5372 13 7 6248 25 13 5373 2 0 91 62 6248 1 1								
5374 2 0 5375 2 1 SWAIN 4425 3 0 33 19 5372 12 7 5375 1 1 1 5375 1 1 5372 32 26 1 TRANSYLVANIA 4425 4 1 5373 2 1 TRANSYLVANIA 4425 4 1 1 6248 25 13 5373 2 0 91 62 6248 1 1			10	8		8514		
FOWAN 4425 3 0 5375 2 1 SWAIN 4425 3 0 5372 19 5372 12 7 5375 1 1 1 5372 32 26 5373 2 1 TRANSYLVANIA 4425 4 1 5375 4 4 5372 13 7 6248 25 13 5373 2 0 91 62 6248 1 1		5373		1			34	19
ROWAN 4425 28 18 5372 12 7 5375 1 1 ROWAN 4425 28 18 16 8 5372 32 26 5373 2 1 TRANSYLVANIA 4425 4 1 5375 4 4 5375 4 5372 13 7 6248 25 13 5373 2 0 91 62 6248 1		5374	2	0				
ROWAN 4425 28 18 5372 16 8 5373 2 26 5375 4 4 5 5375 1 1 1 5375 4 4 5375 4 525 13 5373 2 0 91 62 6248 1 1		5375	2	. 1	SWAIN		3	
ROWAN 4425 28 18 16 8 5372 32 26 1 TRANSYLVANIA 4425 4 1 5375 4 4 5372 13 7 6248 25 13 5373 2 0 91 62 6248 1 1			33	19		5372	12	
5372 32 26 5373 2 1 TRANSYLVANIA 4425 4 1 5375 4 4 5372 13 7 6248 25 13 5373 2 0 91 62 6248 1 1						5375	1	1
5372 32 26 5373 2 1 TRANSYLVANIA 4425 4 1 5375 4 4 5372 13 7 6248 25 13 5373 2 0 91 62 6248 1 1	ROWAN	4425	28	18			16	8
5373 2 1 TRANSYLVANIA 4425 4 1 5375 4 4 5372 13 7 6248 25 13 5373 2 0 91 62 6248 1 1								
5375 4 4 5372 13 7 6248 25 13 5373 2 0 91 62 6248 1 1					TRANSYLVANIA	4425	4	1 🗸
6248 25 13 5373 2 0 91 62 6248 1 1								
91 62 6248 1 1					•			\
• • • • • • • • • • • • • • • • • • •		0240			•			
711 M			31	. 02		J= 10	20	9

200	Offense	EKING	HARGES A	ND CONVICT	Offense	COUNT	
	Code	Charges	Convictions		Code	Charges	Convictions
TYRRELL	5370	1	0	WAYNE	4425	14	7
	5372	8	6		5372	30	10
	5373	1	1	F	5373	3,	0
	5375	2	1		5374	1	0
	•	12	8		5375	1	1
			-		6248	2	2
UNION	4425	35	18		8514	1	0
	5372	35	12			52	20
	5373	1	0		•		
	5375	5	3	WILKES	4425	6	2
		76	33		5372	12	10
					5373	1	0
VANCE	4425	4	· 1		6248	0	2
•	5372	14	5		8514	1	. 0
	5373	3	0 ·			20	14
	5375	1	0				
	6248	1	1	WILSON	4425	32	19
		23	7		5372	40	11 -
					5375	0	1
WAKE	4425	214	143		8514	2	1
	5370	5	1			74	32
	5372	375	171				
	5373	6	3	YADKIN	4425	5	4
	5374	2	1		5372	9	2
•	5375	21	14		5373	1	4
•	6248	15	14		5375	2	2
,	8514	22	6		8514	1	0 .
		660	353			. 18	12
WARREN	4425	1	1	YANCEY	4425	3	2
	5372	5	. 2		5372	5	3
	5373	2	1		6248	2	2
		8	4			10	7
WASHINGTON	4425	4	4				
	5372	7	2				
	5375	0	. 2				
	6248	1	· 1				
		12	9		•		
WATAUGA	4425	2	1				
•	5372	31	13			٠	
	5375	8	4				
	8514	2	1				
		43	19				

LITTERING CHARGES BY COUNTY BY AGENCY Calendar Year 2007

The following data are from the AOC's Automated Criminal/Infraction System for calendar year 2007. The number of charges and convictions represents totals from district and superior court. Some of the defendants have other charges in addition to a littering offense. It is possible for a defendant to be charged in one calendar year and convicted in the next. Thus, for any given calendar year, the defendants convicted are not necessarily the same defendants charged in that year.

The numbers in bold represent county totals. County data include only the codes for which there were any charges or convictions. There is not an offense code for littering under GS 75A-10(c); this offense is designated by four asterisks.

		Offense Code	Charges			Offense Code	Charges
ALAMANCE	ALE	5372	· 1	ANSON	Police	4425	5
	Police	4425	1			5372	5
		5372	11		Other	5372	1
	Other	4425	1			6248	1
		5373	1		Sheriff	5372	2
		5375	1			5373	1
	Sheriff	4425	4	•		5375	1
		5372	7		SHP	4425	5
		5373	4 .			5372	2
	SHP	4425	37			5375	2
		5372	4		WRC	5372	6
		5373	1			6248	11
		5375	1				42
	WRC	5372	3				
			77	ASHE	Police	5372	1
					SHP	4425	3
ALEXANDER	Police	5372	3			5372	2
		5375	1		WRC	5372	1
	Sheriff	5372	4				7
	SHP	4425	3				
		5372	5	AVERY	Police	4425	1
		5375	2			5372	3
	WRC	5372	· 2			5373	1
		5373	· 1		Other	5372	2
			21		Sheriff	5372	0
						5375	1
ALLEGHANY	SHP	5372	1		SHP	4425	1
	WRC	5372	6	•		5372	. 4
		8514	2		WRC	5372	1
			9				14

	2007 211	Offense Code	Charges	.0 D1 000M11	DI AGEI	Offense Code	Charges
BEAUFORT	Police	4425	. -	BUNCOMBE	ALE	5372	1
BEAUFORT	Folice		1	BUNCOMBE	ALE	5372 5375	,
	Other	5372 5372	8 1		Police	5373	. 1
•	Other	5372	·	•	Police	4425	5 5
	Sheriff		2 3			5372	39
	SHP	5372				5372	
	SHP	4425	4			5375 5375	3
		5372	4			8514	3 1
	WDC	5375	2		Other		
	WRC	5372	5	,	Other	4425	1
			30			5372	5
DEDTIC	Delice	5070	0		Ob a wiff	5373	2
BERTIE	Police	5372	2		Sheriff	5372	2
	Other	5372	1		SHP	4425	32
	Sheriff	5373	1			5372	8
	SHP	4425	5			5373	1
		5372	2			5375	1.
•		5375	1			8514	1
	WRC	5372	6		WRC	5372	8
		5375	1				117
			19				
				BURKE	Police	4425	2
BLADEN	Police	5372	6			5372	7
•	SHP	4425	7		Other	5372	1
		5372	8		•	5373	1
		5375	· 1		Sheriff	4425	1
	WRC	5372	1			5372	12
			23		SHP	4425	15
			•			5372	5
BRUNSWICK	Police	4425	9		WRC	5372	2
		5372	16			5373	7
		5373	1			6248	9
		5375	2				62
	Other	5372	4				
	Sheriff	5370	3	CABARRUS	Police	4425	6
		5372	3			5372	24
	SHP	4425	35			5373	6
		5372	6	•		5375	1
		8514	1		Sheriff	4425	1
	WRC	5372	1			5372	6
		5373	2			5375	1
		0010	83		SHP	4425	36
						5372	19
						5375	5
						-3.4	105

	2007 LI		COLIMICOL	.5 61 0001111	DI AGE		
		Offense				Offense	01
		Code	Charges			Code	Charges
CALDWELL	ALE	5372	1	CATAWBA	Police	4425	4
	Police	4425	2			5372	22
		5372	13 .		DMV	5372	1
	Other	5372	3		Other	4425	1
	Sheriff	5372	4			5372	4
	SHP	4425	14			5373	2
		5372	15		Sheriff	4425	1
		5375	2			5372	4
	WRC	5372	1			5373	2
	******	6248	36		SHP	4425	. 29
		02.0	91			5372	12
						5375	5
					WRC	5372	9
CAMDEN	ALE	5372	1		******	5373	1
CAMPEN	ALL	3312	'			6248	18
						02 10	115
CARTERET	Delice	4405	9				110
CARTERET	Police	4425		CHATHAM	Police	4425	1
	0.11	5372	11	CHATHAM	Fulle	5372	3
	Other	5372	7		Other	5372	1
	Sheriff	4425	1				
		5372	8	•	Sheriff	5372	6
•		5373	1		SHP	4425	11
		5375	1	•	woó	5372	5
		8514	1		WRĊ	5372	39
	SHP	4425	8				66
		5372	46				
	WRC	5372	1 .	CHEROKEE	APD	5372	1
		6248	1		Police	5372	4
			95			5375	1
					Sheriff	5372	2
CASWELL	Other	5370	3		SHP	4425	4
		5372	2			5372	1
	Sheriff	5370	2		WRC	6248	5
		5371	1				18
		5372	3				
		5373	3	CHOWAN	Police	5372	4
		5374	1		Other	4425	1
	SHP	4425	2			5372	1
	WRC	5372	2		Sheriff	5372	5
		5375	2			5375	2
		5376	2			6248	1
		6248	2		SHP	4425	2
		_	25			5372	2 2
						5375	1
					WRC	5372	3
							22

			Offense Code	Charges			Offense Code	Charges
ŀ	CLAY	Other	5372	1	CRAVEN	Police	4425	7
	-	Sheriff	5372	2			5372	23
			5373	. 2			5375	1
			5374	1		Other	4425	1
			5375	1			5373	1
		SHP	4425	3		Sheriff	5370	1
			5372	1			5372	1
				11			5375	1
						SHP	4425	38
	CLEVELAND	Police	4425	1			5372	53
			5372	16 `			5375	8
			5375	1	•	WRC	5372	2
		Other	5372	1			5373	1
		Sheriff	4425	1			6248	2
			5370	1				140
			5371	1				
			5372	11	CUMBERLAND	ABC	5372	4
			5374	2		Police	4425	12
			5375	1			5372	39
		SHP	4425	17			5373	1
			5372	26			5375	1
			5375	6		Other	5372	. 2
		WRC	5372	. 2			5373	1
			5375	2	•	Sheriff	4425	2
		•	6248	1	•		5372	4
				90			5373	1
						SHP	4425	50
	COLUMBUS	Police	4425	1			5372	3
			5372	1			5375	1
		Other	5372	1	•	WRC	5372	10
			5374	2	•			131
		SHP	4425	28				
			5372	2				_
			8514	1	CURRITUCK	Other	5372	2
				36		O1 :**	5373	. 1
						Sheriff	5372	.5
						SHP	4425	10
							5372	6
						14/20	5375	9
						WRC	5372	2 35
								აე

		Offense Code	Charges			Offense Code	Charges
DARE	Police	4425	1	DUPLIN	Police	5372	5
		5372	11			5373	7
		5373	· 1			8514	1
		5375	1		Sheriff	5374	1
		8514	1		SHP	4425	49
	Other	5372	5			5372	8
	Sheriff	5372	11			5373	1
	0 1101111	5373	1			5375	2
		5375	2			8514	1
		8514	2				75
	SHP	4425	4				
		5372	9	DURHAM	Police	4425	6
		5375	8	DOMIANI	1 01100	5372	32
	WRC	5373	8			5373	2
	WAC	•	2			8514	4
		6248	67		Other	5372	
			67			4425	2 1
		•			Sheriff	5372	1
D 43 (ID 0 0 3)	D 11 -	4405	•		CUD		
DAVIDSON	Police	4425	3		SHP	4425	20
		5372	6			5372	11
		5373	1 -		V4/D0	5375	1
		5374	5		WRC	5372	12
		8514	. 1		-	6248	11
	Other	4425	1				103
		5372	2				
		8514	1				
	Sheriff	4425	2	EDGECOMBE	Police	5372	15
		5372	4			5375	2
		5373	1			8514	1
		8514	1		Other	5372	2
	SHP	4425	45	•	SHP	4425	4
		5372	6			5372	3
		5373	1			5373	1
		5375	1			5375	2
	WRC	5372	6	,		8514	. 1
		6248	3		WRC	6248	.4
			90				35
DAVIE	Police	5372	1				
		5375	1				
•		8514	1				
	Sheriff	5372	4				
	SHP	4425	9				
		5372	5				
	WRC	5372	9				
			30				

		Offense				Offense	
		Code	Charges			Code	Charges
FORSYTH	ABC	5372	_. 1	GRAHAM	Sheriff	5372	1
	Police	4425	22		SHP	4425	2
		5372	59				3
		5373	1				
		8514	1	GRANVILLE	Police	5372	6
	Other	4425	1		Other	5372	1
		5372	1	*	Sheriff	5372	2 .
		5373	1		SHP	4425	11
	Sheriff	4425	2			5372	2
		5372	4		WRC	6248	2
	SHP	4425	21				24
		5372	6	,			
		5375	1	GREENE	Other	5372	1
			121		Sheriff	5372	2
			•			5373	1
FRANKLIN	Police	4425	3		SHP	4425	1
		5372	15			5372	1
	Sheriff	4425	1		WRC ·	5372	1
		5372	1				7
		5373	1				
		8514	1	GUILFORD	ALE	4425	1
	SHP	4425	7			5372	26
		5372	3	•		5375	4
		5375	1		Police	4425	11
	WRC	5372	3			5372	99
			36			5373	1
						5375	. 3
GASTON	Police	4425	6 ·			8514	1
		5372	42		Other	5372	23
		5375	1			5374	1
		8514	2			5375	1
	Other	4425	1	•		8514	2
		4425	2		Sheriff	4425	1
		5370	2			5372	10
		5372	9			5373	3
		5373	1			5374	2 .
		5375	1			5375	1
	SHP	4425	28		SHP	4425	43
		5372	49			5372	21
		5375	2	•		5373	1
	WRC	5372	7			5375	9
		6248	13			5377	1
			166				265
GATES	Other	5373	1				
	SHP	4425	3				
		5372	3				
		5375	1				
	WRC	5372	3				
7			11				

	2007 LI		G CHARGE	S BY COUNTY E	o i AGEI		
•		Offense				Offense	
		Code	Charges			Code	Charges
HALIFAX	Police	4425	. 2	HENDERSON	Police	4425	3
		5372	7			5372	18
		5375	1			5375	1
	Other	5372	1			8514	1
		5375	1		Sheriff	4425	1
		8514	1			5372	6
	Sheriff	4425	1		SHP	4425	13
		5372	5			5372	7
		5373	· 1			5375	4
		5375	2		•	8514	1
	SHP	4425	19		WRC	5372	1
		5372	4	••		6248	1
		5375	2				57
	WRC	5372	16				
	111.10	5373	1	HERTFORD	Police	5372	3
		5375	5	TIERTI ORD	Other	5372	1
		8514	1		Sheriff	5372	3
		0314	70			5374	4
			70		SHP	4425	4
HADNETT	Police	4405	E		SHE	5372	4
HARNETT	Police	4425	. 5		MBC		1
	044	5372	13		WRC	5372	
	Other	5372	1			5373	1
	Sheriff	4425	1	•			21
		5372	11		.	5070	4.0
		5373	4	HOKE	Police	5372	13
		5374	2		Other	5372	1
	SHP	4425	14		Sheriff	5372	. 2
		5372	9 ·		SHP	4425	7
		5373	1			5373	1 .
		5375	1				24
	WRC	5372	36				
			98	HYDE	Other	5374	1
	٠				WRC	5372	12
HAYWOOD	Police	4425	1	•		5375	2
		5372	3			5377	1
		5373	1			6248	1
		5375	1	•			17
	Other	5372	2				
	Sheriff	4425	1				
	SHP	4425	19	•			
		5372	2				
		5373	1				
		5375	2				
	WRC	5372	1				
		6248	1				
		J_ , J	35				

		Offense				Offense	
,		Code	Charges			Code	Charges
IREDELL	ALE	5372	1	LEE	Police	4425	2
	Police	4425	3			5372	13
		5372	18		Sheriff	5372	2
		5375	1		SHP	4425	7
	Other	4425	2			5372	7
		5372	5			5375	1
	Sheriff	5372	6				32
		5375	2	•			
	SHP	4425	41	LENOIR	ALE	5372	1
		5372	8		Police	5372	8
		5375	4			8514	1
	WRC	5372	15		SHP	4425	6
		6248	1			5372	10
			107			5373	2
					WRC	5372	3
							31
JACKSON	Police	5372	4	1			
	Other	5373	1	LINCOLN	Police	4425	3
	Sheriff	5372	2			5372	12.
		5374	1	•	Sheriff	4425	2
	SHP	4425	5			5372	10
		5372	2		SHP	4425	10
	WRC	5372	7			5372	17
	•	6248	6		WRĆ	5372	1
			28				55
							•
JOHNSTON	ALE	5372	2	MACON	Police	4425	2
	Police	4425	2			5372	. 3
		5372	12			5375	1
		5373	4		Sheriff	5372	3
		5375	1		SHP	4425	2
		8514	2			5372	2
	Other	5373	1		WRC	5372	2
	Sheriff	5372	3				15
		5373	2				
	SHP	4425	42	MADISON	Police	5372	1
		5372	19		Other	5372	1
		5375	17			5373	1
	WRC	5372	1		SHP	4425	4
			108			5372	3
					•	8514	1
JONES	Police	5372	1		WRC	5372	2 .
		8514	1			6248	1
	Sheriff	5373	1				14
		8514	1				
	SHP	5372	2				
		5375	1				•
	WRC	5372	1				
			8				

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		Offense	01			Offense	Charman
	-	Code	Charges			Code	Charges
MARTIN	Police	5372	2	MONTGOMERY	ALE	5372	1
	Sheriff	5372	2		Police	4425	2
		5373	1			5372	5
	SHP	4425	9			8514	1
	-	5372	6		Other	5372	1
		5375	1		Sheriff	4425	1
	WRC	5372	11		SHP	4425	4
			32	•		5372	5
					WRC	5372	16
McDOWELL	Sheriff	5372	2			6248	2
	SHP	4425	7				38
		5372	6				
		5375	1	MOORE	Police	4425	2
	WRC	5372	7			5372	11
		5373	1	•		5373	2
,		6248	1		Other	5373	1
			25		Sheriff	4425	9
						5372	2
MECKLENBURG	ABC	4425	1			5373	1
	Police	4425	50			8514	1
		5372	226		SHP	4425	31
		5373	4			5372	4
		5375	31			5375	1
		5376	1		•		65
		5377	1				
		8514	12	NASH	Police	4425	1
	Other	4425	1			5372	10
		5372	4			5373	2
		5375	2			8514	1
	Sheriff	5372	1		Other	4425	1
	SHP	4425	138		Sheriff	4425	1
	· · · ·	5372	33			5373	1
		5375	6		SHP	4425	48
		5376	1			5372	11
	WRC	5372	2			5375	2
		5377	1			8514	1
			515		WRC	5372	5
•			0.0				84
MITCHELL	Police	5372	1				
	Other	5372	1	•			
	Sheriff	5372	1				
	SHP	4425	1				
	WRC	5372	1				
	VVINO	5372	2				
•		3373	7				
			•				

	•		Offense Code	Charges			Offense Code	Charges
	NEW HANOVER	Police	4425	6	ORANGE	Police	4425	1
			5372	68			5372	9
			5373	2			5375	1
			5376	1			8514	1
			8514	2		Other	5372	4
		Other	5372	6		Sheriff	5373	1
		Sheriff	4425	2		SHP	4425	16
			5370	2			5373	1
			5372	11				34
			5373	4				
			5374	2	PAMLICO	Sheriff	4425	1
			8514	. 1			5372	3
		SHP	4425	54			5373	2
			5372	9		SHP	4425	3
			5375	8			5372	2
				178		WRC	5375	1
,							6248	1
	NORTHAMPTON	Police	4425	2				13
	,		5372	1	PASQUOTANK	ALE	5372	1
		Other	4425	1		Police	4425	1
		Sheriff	5372	1			5372	4
		SHP	4425	5	•		5373	1
_			5375	2		Other	5372	4
		WRC	5372	4		Sheriff	5372	1
			5373	1		SHP	4425	5
				17			5372	2
							5375	1
	ONSLOW	Police	4425	6		WRC	5372	3
			5372	36			6248	1
			5375	5				24
		Other	4425	1	•			
			5372	4	PENDER	Police	4425	1
			5373	1			5372	3
		Sheriff	5372	. 2			5374	1
			8514	2 .		Sheriff	5372	2
		SHP	4425	34			5374	1
			5372	10		SHP	4425	11
			5375	1			5372	13
			8514	1			5375	1
		WRC	5372	1		WRC	5372	. 1
				104			6248	3
								37
					PERQUIMANS	Police	5372	1
						Sheriff	5372	1
						SHP	4425	2
						•	5375	1
								5

	2007 2.	Offense) AOL		
	•	Code	Charges			Offense Code	Charges
PERSON	Police	5372	4	RICHMOND	Police	5372	8
	Other	5372	1			5373	1
	Sheriff	5372	3		Other	5372	1
	SHP	4425	5		Sheriff	5372	4
		5375	1			5375	1
	WRC	5372	1			8514	1
			15		SHP	4425	16
						5372	2
PITT	ABC	5372	1			5373	1
	Police	4425	7			8514	1
		5372	25		WRC	5372	8
		5373	1			6248	10
		5375	2			02.0	54
	Other	4425	1		·		
		5372	1	ROBESON	ALE	5372	1
	SHP	4425	18	NG2200N	Police	4425	6
	0111	5372	12		1 01100	5372	21
		5373	1		Other	5372	3
		5375	2		Sheriff	5372	2
		5376	1		SHP	4425	11
	WRC	5370			SHE	5372	14
-	WKC.	5372 5375	5 2				
		5575				5373	1
			79			5375	6
DOL I/	Dallas	5070	0		WDO	8514	3
POLK	Police	5372	2		WRC	5372	7
	Other	5372	1				75
	Sheriff	4425	1_		5 "		
		5372	7	ROCKINGHAM	Police	4425	1
		5375	1			5372	7
		6248	3			5374	2
	SHP	4425	2		Other	5372	3
		5372	3			5373	3
	WRC	5372	5		Sheriff	5370	1
		6248	25		SHP	4425	13
			, 50			5375	2
					WRC	5373	1
RANDOLPH	ALE	5372	1				33
	Police	4425	1				
		5372	10				
		5373	1				
		5375	2				,
		8514	1				
	Other	5372	1				
	SHP	4425	7				
		5372	6				
		5375	, 5				
	WRC	5372	2				
			37		•		

		Offense				Offense	
		Code	Charges			Code	Charges
ROWAN	ALE	5372	1 .	STANLY	Police	4425	1
•		5375	1			5372	21
	Police	4425	5			5373	1
		5372	9			5375	5
		5375	2		Other	5372	1
	Other	5373	1		Sheriff	5372	1
		6248	4		SHP	4425	4
	Sheriff	5372	4			5372	4
		5373	1		*	8514	2
	SHP	4425	23		WRC	5372	15
		5372	3			****	3
		5375	1				58
	WRC	5372	15		•		
		6248	21	STOKES	Police	5375	1
•			91			8514	1
					Other	5372	1.
RUTHERFORD	Police	5372	13			5372	1
		8514	1		SHP	4425	1
	Other	5375	1			5372	2
		5372	2			5373	2
	Sheriff	5372	4			5375	· 3
	SHP	4425	7		WRC	5372	2
		5372	16	•			14
		5375	2				
	WRC	5372	27	SURRY	Police	5372	5
			73			5373	1
						5375	1
SAMPSON	Police	4425	1		Other	8514	. 1
		5372	6		Sheriff	5372	1
		8514	2		SHP	4425	12
	Other	5372	2	•		5372	7
	•	5373	4			5375	4
	Sheriff	5372	8		WRC	5372	2
		5375	1	•			34
	SHP	4425	25				
		5372	5	SWAIN	Police	5372	3
		5375	4	•	Sheriff	5372	1
•		5376	1		SHP	4425	3
	WRC	5372	1			5372	6
			60			5375	1
					WRC	5372	2
SCOTLAND	Police	5372	3	•			16
		5375	1				
	Sheriff	5372	1				
	SHP	4425	4				
		5372	5				
		5373	2				
	WRC	5372	4				
			20				

. 4	OUT LI		G CHARGE	S DI COUNTI	HAGE		
		Offense			•	Offense	Charman
		Code	Charges			Code	Charges
TRANSYLVANIA	Police	4425	1	WAKE	ABC	5372	1
	Other	5373	2		ALE	5372	1
	Sheriff	4425	2		Police	4425	96
		5372	9		•	5370	1
	SHP	4425	1			5372	280
	WRC	5372	4			5373	4
		6248	1			5375	11
			20			8514	19
					DMV	4425	1
TYRRELL	Sheriff	5370	1		Other	4425	3
		5372	3			5372	49
		5373	1			5373	1
		5375	2		•	6248	8
	SHP	5372	2		Sheriff	4425	7
•	WRC	5372	3			5370	4
			12			5372	18
						5373	1
UNION	Police	4425	19			5374	2
		5372	7			5375	2
		5375	1			8514	3
	Other	4425	1		SHP	4425	107
		5372	1			5372	22
	Sheriff	4425	1			5375	8
	• • • • • • • • • • • • • • • • • • • •	5372	6		WRC	5372	4
•		5375	1			6248	7 .
	SHP	4425	14				660
	0111	5372	8				
		5373	1				
		5375	3	WARREN	ALE	5372	1
	WRC	5372	13	••••	Other	5373	1
	*****	0012	76	••	Sheriff	5373	1
			. •		SHP	4425	1
VANCE	Police	5372	6		_	5372	3
VAITOL	Other	5372	2	•	WRC	5372	1
	Sheriff	5372	2				8
	OHEHII	5373	3				
	SHP	4425	4	WASHINGTON	Police	4425	2
	SHE			HAVIMOTOR	Sheriff	5372	3
		5372 5375	4 1		SHP	4425	2
	WDC	5375			O(II	5372	1
	WRC	6248	1 23		WRC	5372	3
			23		****	6248	1
						0240	12
		-					12

			Offense				Offense	
			Code	Charges	•		Code	Charges
W/	ATAUGA	Police	5372	20	WILSON	Police	5372	19
			5375	1			8514	1
			8514	· 2		Other	5372	1
		Other	5372	1		Sheriff	5372	6
		Sheriff	5372	3		SHP	4425	32
		SHP	4425	2			5372	3
			5372	6			8514	1
			5375	7		WRC	5372	11
		WRC	5372	1				74
				43			·	
	•				YADKIN	Police	5372	. 4
WA	AYNE	ALE	5372	1			5373	1
		Police	4425	6		Sheriff	5372	3
			5372	12		SHP	4425	5
			5374	1			5372	2
			8514	1			5375	2
		Other	4425	2			8514	1
			5372	3				18
			5373	2				•
		Sheriff	5372	10	YANCEY	SHP	4425	3
		SHP	4425	6			5372	4
			5372	2		WRC	5372	1
			5373	· 1			6248	2
			5375	1	•			10
		WRC	5372	2	•	•		
'		WRC	6248	2				
				52				
WI	LKES	Police	4425	2				
			5372	2				
		Other	4425	1	•			
		Sheriff	5372	2				
		SHP	4425	3				
			5372	4				
			8514	1				
		WRC	5372	4				
			5373	1				
				20				

GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2005

SESSION LAW 2006-79 HOUSE BILL 2165

AN ACT TO MAKE CLARIFYING, CONFORMING, AND TECHNICAL AMENDMENTS TO VARIOUS LAWS RELATED TO THE ENVIRONMENT AND NATURAL RESOURCES, AND TO AMEND OR REPEAL VARIOUS ENVIRONMENTAL REPORTING REQUIREMENTS.

The General Assembly of North Carolina enacts:

SECTION 15. G.S. 147-12(b) reads as rewritten:

The Department of Transportation, the Department of Correction, the Department of Crime Control and Public Safety, the State Highway Patrol, the Wildlife Resources Commission, the Division of Parks and Recreation in the Department of Environment and Natural Resources, and the Division of Marine Fisheries in the Department of Environment and Natural Resources shall deliver to the Governor by February 1 and August 1 of each year detailed information on the agency's litter enforcement, litter prevention, and litter removal efforts. The Administrative Office of the Courts shall deliver to the Governor by February 1 and August 1 of each year detailed information on the enforcement of the littering laws of the State, including the number of charges and convictions under the littering laws of the State. The Governor shall gather the information submitted by the respective agencies and deliver a consolidated semiannual annual report on or before March 1 and September 1 of each year to the Environmental Review Commission, the Joint Legislative Transportation Oversight Committee, and the House of Representatives and the Senate Appropriations Subcommittees on Natural and Economic Resources."

Attachment B: "Keep NC Clean and Green" Signs Posted By County

Signs 9 7

Alamance 13 Hoke 7 Warren Alexander 5 Hyde 7 Washington Alleghany 12 Iredell 15 Watauga Anson 10 Jackson 10 Wayne Ashe 13 Johnston 21 Wilkes Avery 12 Jones 10 Wilson Beaufort 14 Lee 9 Yadkin Bertie 9 Lenoir 14 Yancey Bladen 17 Lincoln 13 Brunswick 12 Macon 6 6 Buncombe 16 Madison 10 10 Buncombe 16 Madison 10 10 Buncombe 16 Madison 10 10 Buncombe 16 Madison 10 10 Burke 12 Martin 15 10 10 Cabarrus 15 McDowell 1	County	# Signs	County	# Signs	County
Alleghany 12 Iredell 15 Watauga Anson 10 Jackson 10 Wayne Ashe 13 Johnston 21 Wilkes Avery 12 Jones 10 Wilson Beaufort 14 Lee 9 Yadkin Bertie 9 Lenoir 14 Yancey Bladen 17 Lincoln 13 Brunswick 12 Macon 6 Buncombe 16 Madison 10 Burke 12 Martin 15 Cabarrus 15 McDowell 13 Caldwell 10 Mecklenburg 20 Camden 5 Mitchell 10 Cardwell 10 Mecklenburg 20 Camden 5 Mitchell 10 Carteret 6 Montgomery 12 Caswell 16 Moore 11 Chawba 15	Alamance	13	Hoke		
Alleghany 12 Iredell 15 Watauga Anson 10 Jackson 10 Wayne Ashe 13 Johnston 21 Wilkes Avery 12 Jones 10 Wilson Beaufort 14 Lee 9 Yadkin Bertie 9 Lenoir 14 Yancey Bladen 17 Lincoln 13 Brunswick 12 Macon 6 Buncombe 16 Madison 10 Burke 12 Martin 15 Cabarrus 15 McDowell 13 Caldwell 10 Mecklenburg 20 Camden 5 Mitchell 10 Cardwell 10 Mecklenburg 20 Camden 5 Mitchell 10 Carteret 6 Montgomery 12 Caswell 16 Moore 11 Chawba 15	Alexander	5	Hyde	7	Washington
Ashe 13 Johnston 21 Wilkes Avery 12 Jones 10 Wilson Beaufort 14 Lee 9 Yadkin Bertie 9 Lenoir 14 Yancey Bladen 17 Lincoln 13 Brunswick 12 Macon 6 Burcombe 16 Madison 10 Burcombe 16 Madison 10 Burcombe 16 Madison 10 Burcombe 16 Madison 10 Burcombe 16 Madison 10 Burcombe 16 Madison 10 Burcombe 16 Madison 10 Cabarrus 15 McDowell 13 Cabarrus 15 McDowell 10 Carteret 6 Montgomery 12 Caswell 16 Moore 11 Chowan 6 Onslow 10	Alleghany	12	Iredell	15	
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Beaufort 14 Lee 9 Yadkin Bertie 9 Lenoir 14 Yancey Bladen 17 Lincoln 13 Brunswick 12 Macon 6 Buncombe 16 Madison 10 Burke 12 Martin 15 Cabarrus 15 McDowell 13 Cabarrus 15 McDowell 13 Caldwell 10 Mecklenburg 20 Camden 5 Mitchell 10 Carderet 6 Montgomery 12 Caswell 16 Moore 11 Caswell 16 Moore 11 Caswell 16 Moore 11 Chatham 15 Nash 20 Chatham 15 New Hanover 8 Cherokee 6 Northampton 14 Chowan 6 Onslow 10 Clay	Ashe	13	Johnston	21	
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Bladen 17 Lincoln 13 Brunswick 12 Macon 6 Buncombe 16 Madison 10 Burke 12 Martin 15 Cabarrus 15 McDowell 13 Caldwell 10 Mecklenburg 20 Camden 5 Mitchell 10 Carteret 6 Montgomery 12 Caswell 16 Moore 11 Catawba 15 Nash 20 Chatham 15 New Hanover 8 Cherokee 6 Northampton 14 Chowan 6 Onslow 10 Clay 3 Orange 14 Cleveland 17 Pamlico 4 Columbus 15 Pasquotank 4 Craven 10 Pender 12 Cumberland 18 Perquimans 4 Currituck 7 Person <td>Beaufort</td> <td>14</td> <td>Lee</td> <td>9</td> <td>Yadkin</td>	Beaufort	14	Lee	9	Yadkin
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Buncombe 16 Madison 10 Burke 12 Martin 15 Cabarrus 15 McDowell 13 Caldwell 10 Mecklenburg 20 Camden 5 Mitchell 10 Carteret 6 Montgomery 12 Caswell 16 Moore 11 Catawba 15 Nash 20 Chatham 15 New Hanover 8 Cherokee 6 Northampton 14 Chevokae 6 Northampton 14 Chevokae 6 Northampton 14 Chevokae 6 Northampton 14 Chevokae 6 Northampton 14 Cleveland 17 Pamlico 4 Cleveland 17 Pamlico 4 Cleveland 17 Pandico 4 Craven 10 Pender 12 Cumberland 18	Bladen	17	Lincoln	13	
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Forsyth 19 Rowan 13 Franklin 18 Rutherford 12 Gaston 18 Sampson 20 Gates 5 Scotland 12 Graham, 3 Stanly 12 Granville 10 Stokes 12					
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Granville 10 Stokes 12	Gates				
	Graham,				
			Stokes		
Greene 12 Surry 14					
Guilford 24 Swain 6					
Halifax 18 Transylvania 8					
Harnett 18 Tyrrell 3					
Haywood 10 Union 15		-			
Henderson 11 Vance 8		11			
Hertford 10 Wake 31	Hertford	10		31	

- Discretionary signs (1995) 20 per Highway Division (a total of 280)
- Rest Areas & Welcome Centers 58
- Total Signs 1,827

In addition to the "Keep NC Clean & Green" signs there are approximately 1400 "Littering Is Illegal" signs posted across the state. These were issued at a rate of 100 per Highway Division.

North Carolina Contacts

N.C. Department of Transportation

George Kapetanakis NCDOT Litter Programs Coordinator Office of Beautification Programs gkapetanakis@dot.state.nc.us (919) 715-3188

Scott Capps, PE Road Maintenance Operations Engineer scapps@dot.state.nc.us (919) 733-3725

Helen Landi Director Office of Beautification Programs hlandi@dot.state.nc.us (919) 715-3188

N.C. Department of Correction

Zack Kendall Division of Prisons Security Services kzr01@doc.state.nc.us (919) 838-3569

Patti Avery, State Lead CSWP Coordinator Division of Community Corrections (CSWP) kpb02@doc.state.nc.us 919-716-3104

Dept. of Crime Control & Public Safety

Lieutenant Everett Clendenin Public Information Office eclendenin@nccrimecontrol.org (919) 733-5027

Administrative Office of the Courts

Ngoc B. Nguyen Research Associate, Research & Planning Division Ngoc.Nguyen@nccourts.org (919) 890-1278

Department of Environment and Natural Resources Division of Pollution Prevention and Environmental Assistance

Environmental Supervisor/Section Chief scott.mouw@ncmail.net (919) 715-6512

Division of Marine Fisheries Major W. M. Davis N.C. Marine Patrol Mike.davis@ncmail.net (252) 808-8133

Division of Parks and Recreation

Don Reuter **Assistant Director** don.reuter@ncmail.net (919) 715-7582

Wildlife Resources Commission

Mitchell D. Kuykendall, Captain / Training Director Division of Enforcement mitch.kuykendall@ncwildlife.org (919) 707-0030

Other Statewide Volunteer Groups

N.C. Big Sweep Judy Bolin, President ncbigsweep@bellsouth.net (919) 366-3888

N.C. Keep America Beautiful, Inc.

Brenda Ewadinger, Executive Director nckab@carolina.rr.com (704) 442-0791

Report to the Environmental Review Commission

Expenditures from the Superfund Cost Share Fund For North Carolina's Ten Percent Share

January 2008



Division of Waste Management
Superfund Section
www.wastenotnc.org/

REPORT TO THE ENVIRONMENTAL REVIEW COMMISSION ON EXPENDITURES FROM THE SUPERFUND COST SHARE FUND FOR NORTH CAROLINA'S TEN PERCENT SHARE OF CLEANUPS FOR SITES ON THE NATIONAL PRIORITIES LIST

North Carolina has 31 hazardous waste sites on the National Priorities List (NPL). Thirteen of the NPL sites are fund-financed sites, where no viable responsible parties have been identified. These sites are being cleaned up using a combination of federal and state public funds. The Hazardous Response Trust Fund (the Superfund) contributes 90 percent of the money for remedial actions at these sites and the state contributes the remaining 10 percent.

The state's 10 percent contribution comes from the Superfund Cost Share Fund (SCSF). As of January 31, 2008, the fund had accumulated \$14,910,862 in appropriations, interest and other income. Of that total, \$11,697,069 has been encumbered or disbursed to pay for the state's share of the cleanup costs at nine NPL sites with signed Superfund State Contracts (SSCs). Other disbursements and reductions have removed \$1,572,016 from the SCSF, leaving \$1,641,777 available for future cleanup actions and long-term operation and maintenance. Some of the available funding could be obligated for cleanups in the next few months. Remedial action is planned for two additional NPL sites. SSCs have not been negotiated for these sites. At present, the estimated cost for one of these sites is \$2,300,000, with an SCSF commitment of \$230,000. In addition to the two sites mentioned above, other sites may be added to the NPL. Some of these sites will require a 10 percent state cost share for cleanup. In addition to the 10 percent cost share at these fund-financed NPL sites, the state is responsible for the long-term operation and maintenance (O&M) costs. The funds to perform O&M will come from the Superfund Cost Share Fund.

The attached table, Fund-Financed NPL Sites, lists the twelve fund-financed sites for which an SSC has been signed. The table also shows all encumbrances and disbursements that have occurred due to the state's 10 percent cost share requirement. Note that some sites are divided into Operable Units (OU). This is common practice in the cleanup of NPL sites, because it makes designing and executing the cleanups more structured and easier to control.

Three disbursements totaling \$60,816 was made from the SCSF in January 2008. Payments made are shown in the following table:

SITE	CITY	COUNTY	COST SHARE
ABC One Hour Cleaner OU1	Jacksonville	Onslow	\$14,904
ABC One Hour Cleaner OU2	Jacksonville	Onslow	\$7,163
FCX, Inc.	Statesville	Iredell	\$38,749

These are all the disbursements since April 2007.

FUND-FINANCED NPL SITES: AMOUNTS ENCUMBERED AND DISBURSED (as of 01/31/2008)

	Dates	Estimated				Remaining
	SSC	Total Cost of	Cost to	Dates	Amounts	Amount
Site Name and Location	Signed	Remediation	State	Disbursed	Disbursed	Encumbered
	o.gca					
ABC One Hour Cleaners	9/12/1996	\$3,760,000	\$376,000	11/20/1997	\$94,000	
Operable Unit # 1	<u> </u>			10/15/2001	\$26,964	
Jacksonville, Onslow Co.				3/31/2004	\$126,091	
				12/31/2006	\$40,336	
				1/31/2008	\$14,904	
		·				
Site Totals		\$3,760,000	\$376,000		\$302,295	\$73,705
				11/00/1007	040.750	
ABC One Hour Cleaners	9/19/1997	\$750,000	\$75,000	11/20/1997	\$18,750	
Operable Unit # 2			·····	7/31/2003	\$3,803	
Jacksonville, Onslow Co.				11/30/2003	\$5,133	
				10/31/2006	\$31,600	
			**··	1/31/2008	\$7,163	
Site Totals		\$750,000	\$75,000		\$66,449	\$8,551
Site Totals		\$750,000	Ψ13,000		400,110	40,00.
Barber Orchard	5/26/2005	\$24,300,000	\$2,430,000			
Operable Unit #1						
Waynesville, Haywood Co.			·			
Site Totals		\$24,300,000	\$2,430,000		\$0	\$2,430,000
					2122.222	Į <u></u>
Benfield Industries	9/27/1996	\$6,729,200	\$672,920	11/20/1997	\$168,230	
Hazelwood (Waynesville)				3/31/2001	\$69,841	
Haywood Co.						
Site Totale		\$6,729,200	\$672,920		\$238,071	\$434,849
Site Totals		\$6,729,200	\$012,320		\$200,07 .	9404,040
Blue Ridge Plating	10/27/2005	\$1,357,600	\$135,760	April 2007	\$47,591	
Arden, Buncombe County	5/25/2007	\$917,600	\$91,760			
7 (1001), 20110011100 000111	0.000					
Site Totals		\$2,275,200	\$227,520		\$47,591	\$179,929
				2/2//2021	04.750.007	
Cape Fear Wood Preserving	9/29/1994	\$16,965,300	\$1,696,530		\$1,758,697	
Fayetteville, Cumberland Co.	9/22/2000	\$4,350,000	\$435,000		\$478,263	
	9/20/2002	\$3,092,274	\$309,227	5/31/2005	\$91,520	•
Site Totals		\$24,407,574	\$2,440,757		\$2,328,480	\$112,277
Site rotals		\$24,407,574	Ψ <u>2</u> , 440 ,101			VIII
Carolina Transformer	9/25/1997	\$9,851,700	\$985,170	11/20/1997	\$246,293	
Soil Remediation	1/14/2000	\$4,634,850	\$463,485	4/30/2001	\$20,266	
Fayetteville, Cumberland Co.	9/28/2001	\$2,000,000	\$200,000	2/28/2003	\$1,181,561	
	9/20/2002	\$3,513,450	\$351,345	3/31/2005	\$497,867	
	5/13/2003	\$2,000,000	\$200,000			
				7/31/2006	\$153,534	
Site Totals		\$22,000,000	\$2,200,000		\$2,099,521	\$100,479

FUND-FINANCED NPL SITES (continued): AMOUNTS ENCUMBERED AND DISBURSED (as of 01/31/2008)

	Dates	Estimated				Remaining
	SSC	Total Cost of	Cost to	Dates	Amounts	Amount
Site Name and Location	Signed	Remediation	State	Disbursed	Disbursed	Encumbered
Carolina Transformer	6/15/2006	\$328,300	\$32,830			
Groundwater Remediation						
Fayetteville, Cumberland Co.						
Site Totals		\$328,300	\$32,830		\$0	\$32,830
				·		
Davis Park Road TCE Site	4/1/2000	\$3,873,299	\$387,330	3/31/2001	\$49,061	
Gastonia, Gaston Co.				12/3/2001	\$13,226	
,				11/30/2003	\$21,958	
<u> </u>				April 2007	\$16,961	
		22 222 222	****		0404 000	0000 404
Site Totals		\$3,873,299	\$387,330		\$101,206	\$286,124
TOY Chaha a villa	0/40/4006	#4 464 FOF	\$416.1E2	11/20/1997	\$104,038	
FCX-Statesville	9/12/1996	\$4,161,525	\$416,153	5/31/2003	\$104,038	
Operable Unit # 1 Statesville, Iredell Co.				1/31/2008	\$38,749	
Statesville, fredeli Co.				1/31/2008	Ψ30,749	····
Site Totals		\$4,161,525	\$416,153	·	\$146,032	\$270,121
Oite rotais		44,101,020	\$ 710,100		V 1 10,002	
FCX-Statesville	9/25/1997	\$4,840,000	\$484,000	11/20/1997	\$121,000	
Operable Unit # 2	0/20/100/	\$ 1,0 10,000	V.O.,000	4/30/2001	\$53,979	
Statesville, Iredell Co.	2/22/2002	\$1,160,000	\$116,000		, = -,	
Otates vine, vieto ii o o .				3/31/2002	\$379,969	
				4/30/2003	\$23,814	
Site Totals		\$6,000,000	\$600,000		\$578,762	\$21,238
FCX-Washington	6/15/2006	\$255,791	\$25,579			
Washington, Beaufort Co.				•		
Site Totals		\$255,791	\$25,579		\$0	\$25,579
		27.505.000	4750 500	40/0/0004	604.005	
North Belmont PCE Site	7/26/2000	\$7,535,000	\$753,500	12/3/2001	\$31,835 \$223,157	
North Belmont, Gaston Co.			······	5/14/2003 3/31/2007	\$112,076	
			·	3/3/1/2007	\$112,070	
Site Totals		\$7,535,000	\$753,500		\$367,068	\$386,432
Site Totals		\$7,333,000	Ψ100,000		4007,000	\$555,452
Potters Septic Tank Pits	9/16/1994	\$8,000,000	\$800,000	1/30/1995	\$200,000	
Sandy Creek, Brunswick Co.	6/15/1998	\$350,000	\$35,000	1,00,1000	+=30,030	
Carlay Creek, Branswick Co.	3, 10, 1000	+300,030	+00,000			-
Site Totals		\$8,350,000	\$835,000		\$200,000	\$635,000
		· - , ,	,,-			
Ram Leather Care	6/15/2006	\$2,244,800	\$224,480			
Charlotte, Mecklenberg Co.	· · · · · · · · · · · · · · · · · · ·					
Site Totals		\$2,244,800	\$224,480		\$0	\$224,480
TOTALS		\$116,970,689	\$11,697,069		\$6,475,475	\$5,221,593



Pay for Performance Pilot Study

Division of Waste Management Underground Storage Tank Section

October 1, 2007

North Carolina Department of Environment and

Michael F. Easley
Governor

Natural Resources

William G. Ross Jr.

Secretary

NC Department of Environment and Natural Resources

Dexter R. Matthews
Director
Division of Waste Management

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Executive Summary:

In October 2001, House Bill 1063 authorized the Pay for Performance (PFP) Pilot Study. The basic concept of PFP is that the total remediation costs are set and reimbursements are made as pre-determined cleanup milestones are met. This varies from the current process in which reimbursements are made as cleanup work is done, with no fixed total cost and no cleanup milestones. Following funding authorization in July 2003 and completion of rulemaking in September 2004, the Underground Storage Tank (UST) Section solicited bids from firms willing to assess and remediate petroleum UST releases using the PFP model. One contract was awarded for the risk-based cleanup of Incident Number 22406 and one PFP-based settlement agreement was entered into for the unrestricted use cleanup of Incident Number 14545. A total of \$477,225 was authorized for the pilot study, and remedial systems have been installed at both sites. Incident Number 14545 has reached the 99% cleanup level within five years of the seven years allotted and Incident Number 22406 has reached the 50% cleanup milestone within the first year of the three years allotted. Of the \$477,225 authorized for the pilot study, \$324,502 has been reimbursed.

Introduction:

Pay for Performance is a cleanup model in which reimbursements for cleanup costs are made as pre-determined goals are met. The PFP model establishes timelines for completion of the cleanups, which include defined goals and budgets for projects, as well as clear, up-front expectations of the goals to be met and guarantees reimbursements for work performed. The PFP model creates incentives for technically effective, cost-controlled, and rapid cleanups.

Legislative and Rule-Making Process:

On October 15, 2001, the NC General Assembly enacted House Bill 1063 which gave the Division of Waste Management's Underground Storage Tank Section the authority to conduct a pilot study of performance-based cleanups of discharges and releases of petroleum from underground storage tanks. Implementation of the pilot study involved identifying releases that would be good candidates for PFP cleanups and whose responsible parties would voluntarily enter into PFP contracts. The pilot study also involved using the North Carolina Interactive Purchasing System to accept bids from and award performance-based contracts to qualified environmental services firms that submitted the lowest, technically qualified bids for acceptable cleanups of the identified releases. A series of milestones were established describing PFP process achievements (generally percentage reductions in contaminate levels in the soil and groundwater) that would have to be met before reimbursements could be made from the Commercial Fund or Non-Commercial Fund.

On November 2, 2001, the Division of Waste Management convened a stakeholders workgroup consisting of representatives of the Professional Engineers of North Carolina, the Consulting Engineers Council of North Carolina, the North Carolina Board for the Licensing of Geologists and the North Carolina Petroleum Marketer's Association. Their goal was to develop a temporary PFP rule. A follow-up meeting on November 9, 2001 resulted in further refinement of the rule and discussions of the contract and bidding procedures proposed for use with the rule.

The proposed temporary rule was presented to the Groundwater Committee of the Environmental Management Commission (EMC) on December 12, 2001 and received a favorable vote to proceed to full commission review in February 2002. On February 14, 2002, the EMC voted to approve the publication of the temporary rule in the North Carolina Register. The temporary rule was published for public comment between March 15 and April 15, 2002 in Volume 16, Issue 18, p. 2019 of the NC Register. No comments were received. The Commission adopted the temporary rule on May 14, 2002. On July 11, 2002 the Commission voted to allow the Division of Waste Management to proceed with permanent rulemaking and to publish the permanent rule in the NC Register. The permanent rule was published in the September 2004 Issue of the NC Register.

In July of 2003, House Bill 897 was passed, allowing \$2.5 million from the Commercial Fund and \$250,000 from the Non-Commercial Fund to be allocated for the Pay-for-Performance Program in each fiscal year. At the time of House Bill 897 passage, there were four commercial releases identified as candidates for the pilot program. Of those releases, one reached cleanup levels by natural attenuation and a Notice of Residual Petroleum land use restriction prior to the start of the pilot study.

Contracting Process:

In 2001, the UST Section entered into a Pay for Performance cleanup contract as part of a third party lawsuit settlement agreement. This contract, while not allowing for flexible cleanup goals due to the settlement agreement between the responsible party and the affected party, did set the cleanup timetable and fix the cleanup costs. Over the past five years, this site has met all contractual milestones up to and including the 99% contaminant reduction goal. At present, the consultant of record is trying to meet the final cleanup goals and begin the one year of monitoring following system shut down to ensure that the cleanup milestone has been met and that the contamination levels do not rebound at the site.

In June of 2005, the UST Section opened and reviewed six bids for the first Pay for Performance contract. Unfortunately, the six offers were not detailed enough in the technical proposal to justify the cost proposals submitted. The performance contract was placed back out to bid, with an updated technical proposal description, on July 21, 2005 with a closing date of August 31, 2005.

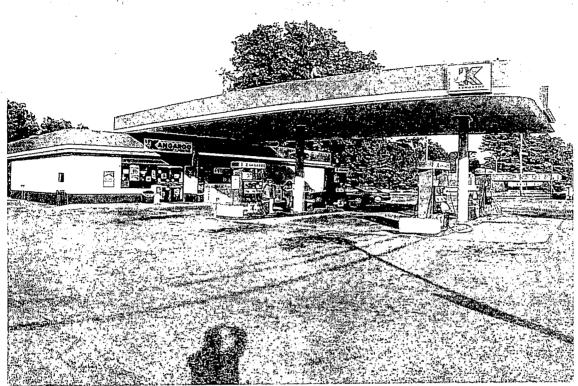
On January 4, 2006, the first voluntary Pay for Performance contract, #N06004, was awarded to Pyramid Environmental & Engineering, P.C. and then amended on May 12, 2006 to finalize the contract terms and conditions. In June and July of 2006, the first milestone was met, and installation and startup of the remediation system commenced. Monitored natural attenuation of the plume will be conducted under the terms of the contract until the site has met the cleanup levels stipulated in the contract.

In order to be considered for the Pay for Performance Program, a site must have had a completed Comprehensive Site Assessment (CSA) and not be an emergency situation. Any responsible party who would have liked their incident considered for the program, and could have met the requirements, was requested to contact the UST Section.

Site Summaries:

Incident #22406 Pantry #932, Kinston, NC

In 2001, the Pantry, Inc. reported a release from underground storage tanks (USTs) at Pantry store #932 (former Kwik Mart #4) located at 701 West Vernon Avenue, Kinston, NC 28501. The DENR designated the release UST Incident #22406. The Pantry worked with the DENR to complete on-site and off-site petroleum contamination assessment. The CSA was completed in 2003, and it included assessment of properties to the south of the site across Vernon Avenue, in the direction of petroleum contaminant transport. The assessment was accepted by DENR. The Pantry volunteered the site to the UST Section as a potential site for the Performance Based Cleanup program, and the site was accepted.



(Pantry #932, Kinston, NC. Courtesy of Pyramid Environmental & Engineering, PC.)

In June and July 2005, the DENR submitted a Request for Proposal (RfP) #16-N06004-RC to select a contractor for a performance based corrective action on behalf of the Division of Waste Management, Underground Storage Tank Section for the release as listed here.

Site Name/Address: The Pantry #932 (former Kwik Mart #4);

DENR Incident #22406

701 West Vernon Avenue, Kinston, NC 28501

Responsible Party:

The Pantry, Inc.

Contact Person:

Ms. Reneé Thomas

P.O. Box 1410, Sanford, NC 27330 Phone (919) 774-6700 Ext. 5206

The contract was awarded to Pyramid Environmental & Engineering, P.C. in September 2005 for a 36-month cleanup period costing \$101,225. The contract signed and submitted to Pyramid in January 2006. The Pantry and DENR worked on a tri-party agreement that included DENR, The Pantry, and Pyramid to allow access to and remediation of the property. After a meeting in Raleigh in March 2006, the tri-party agreement was signed by all parties in May 2006. The Underground Injection Control (UIC) Permit was received by the State of NC Aquifer Protection Section on May 18, 2006. The UIC permit was approved in a letter dated June 19, 2006. The work plan summarizes the planned remediation activities, including injection of oxygen to promote enhanced natural attenuation and degradation, proposed by Pyramid and agreed to by the DENR. The work plan provides additional details of the work and a firm schedule to

accomplish the tasks. Figure 1 and Table 1 shows the relationship between the milestone completion points, payments made for completion, and the reduction in contaminant mass and project completion percentage.

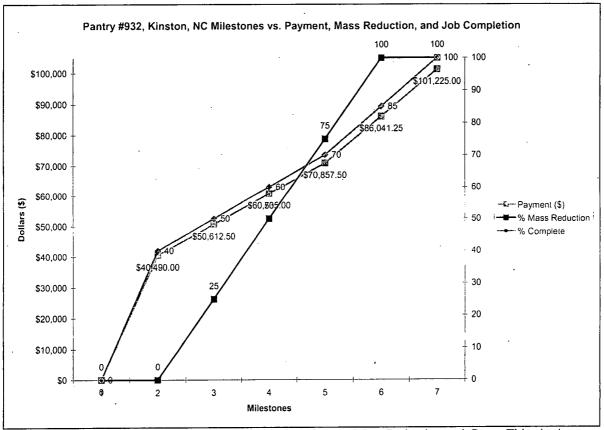


Figure 1: Pantry #932, Kinston, NC Milestone Completion vs. Mass Reduction and Cost. This site is currently at Milestone 2 w/ no mass reduction and 40% project completion w/ \$40k of \$101K spent.

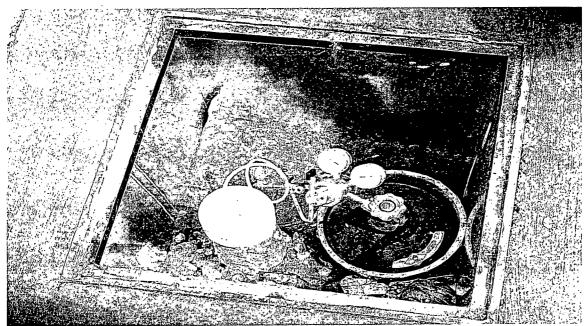
Milestone	Comments	Mass	Payment (\$)	Total	%
		Reduction		Payment (\$)	Complete
1 (5/12/06)	Contract in Place	0	0	0	0
2 (7/20/06)	System Installed	0	\$40,490.00	\$40,490.00	40
3	25% Reduction	25%	\$10,122.50	\$50,612.50	50
4	50% Reduction	50%	\$10,122.50	\$60,735.00	60
5	75% Reduction	75%	\$10,122.50	\$70,857.50	70
6	100% Reduction	100%	\$15,183.75	\$86,041.25	85
7	Final Sampling	0	\$15,183.75	\$101,225.00	100

Table 1: Pantry #932, Kinston, NC Milestone Completion vs. Mass Reduction and Cost. This site is currently at Milestone 2 w/ no mass reduction and 40% project completion w/ \$40k of \$101K spent.

The remediation system was installed as planned and has been operating well through the first year of treatment. The overall amount of oxygen pumped into the groundwater has been slower than predicted in the source area and may reflect a greater mass of hydrocarbons present in this area than anticipated. The oxygen dispersion in the aquifer has been less than predicted because the reported hydraulic conductivity of the aquifer materials appears to be much less than

predicted in the CSA, and there are potentially naturally occurring total organic carbon (TOC) concentrations in the soil in the source area.

To overcome these conditions, additional nutrients and oxygen have been injected through the permitted injection wells and natural biodegradation has been stimulated. To lower contaminant concentrations in monitoring well (MW) 3, an Aggressive Fluid Vapor Recovery (AFVR) event was conducted on July 26, 2007. AFVR is a process in which a vacuum is placed on the MW to extract groundwater and vapor from the soils in order to reduce overall contaminate mass. A reduction in groundwater concentrations is associated with this event. Pyramid utilized an iSOC® and gPRO® oxygen infusion unit to oxygenate well water from an off-site source to 50-60 ppm oxygen and inject this water by gravity into the injection wells in order to enhance the growth of micro-organisms to degrade the petroleum contamination present. The stimulation of biological activity has been excellent, and will play a significant role in the overall remediation of the site.



(A completed iSOC well vault with oxygen cylinder. Courtesy of Pyramid Environmental & Engineering, PC.)

The next sampling event is planned for October 1, 2007, 90 days from the last injection of oxygen in the key monitoring wells. After the results are reported, Pyramid will prepare a system monitoring report to summarize the site activities and results. Once the Remediation Goals (RGs) are met, Pyramid will work with the Pantry and the DENR to complete the deed recordation process and abandon the remediation and monitoring wells at the site.

The PFP contract specifies a total reimbursement of \$101,225 for a three-year cleanup which must reduce Gross Contaminate Levels of petroleum contaminants by 50%, must reduce petroleum contamination concentrations in selected wells to 50% of the concentrations observed on April 18, 2005, and must close the release incident under risked-based standards and rules.

Incident #14545 Kwik Mart #17, Raleigh, NC

As a result of litigation between the responsible party (Wooten Oil) and affected adjacent property owner (CRTS) due to the migration of the petroleum contamination originating from Kwik Mart #17, Wooten Oil, CRTS and the DENR entered into a settlement agreement to cleanup the CRTS property. ATC was selected by the responsible party to perform the cleanup under a negotiated PFP contract that was executed in December 2001 with a seven year cleanup period.



Photo 1 View looking north from adjacent CRTS towards Pantry store (former Ewik Mart #17)

Photo 2: View from Pantry store (remediation equipment to left), looking south towards CRTS property

At the time of the PFP contract, the Trust Fund had expended \$105,560.87 in assessment and reporting costs. The PFP contract called for a total reimbursement of \$380,000 to clean up the property unrestricted use standards within seven years.

In 2002, ATC designed and constructed an air-sparge/soil vapor extraction (AS/SVE) remediation system at the site that included 10 AS wells and 8 SVE wells and began operating the system in October 2002. The system continued to operate through 2006. Figure 2 and Table 2 shows the relationship between the milestone completion points, payments made for completion, and the reduction in contaminant mass and project completion percentage.

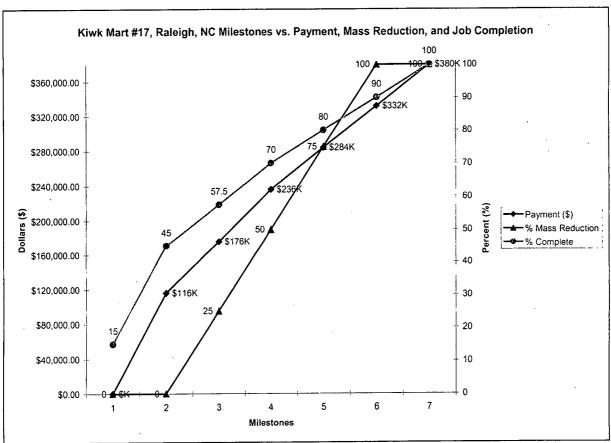


Figure 2: Kwik Mart #17, Raleigh NC Milestone Completion vs. Mass Reduction and Cost. This site is currently at Milestone 5 w/75% mass reduction and 80% project completion with \$284K of \$380 spent.

Milestone	Comments	Mass	Payment (\$)	Total	%
		Reduction		Payment (\$)	Complete
0 (12/12/01)	Contract in Place	0	0	0	0
1 (10/11/02)	Insurance	0	\$100,000.00*	\$0.00	15
2 (10/11/02)	System Installed	0	\$116,000.00	\$116,000.00	45
3 (5/10/04)	25% Reduction	25%	\$60,000.00	\$176,000.00	
4 (4/15/05)	50% Reduction	50%	\$60,000.00	\$236,000.00	70
5 (4/15/05)	75% Reduction	75%	\$48,000.00	\$284,000.00	80
6	100% Reduction	100%	\$48,000.00	\$332,000.00	90
7	Final Sampling	0	\$48,000.00	\$380,000.00	100

Table 2: Kwik Mart #17, Raleigh NC Milestone Completion vs. Mass Reduction and Cost. This site is currently at Milestone 5 w/ 75% mass reduction and 80% project completion with \$284K of \$380 spent.

*The first \$100,000 was paid by the RP directly to satisfy the \$100,000 third-party deductible.

ATC also secured an injection permit from DENR to conduct in-situ chemical oxidation at the site using Fenton's reagent. Various injection wells and monitoring points were installed and five separate injection events were conducted during the period June 2003 through February 2006. Results showed significant reductions in volatile organic compounds (VOCs).

By May 2005 ATC had achieved over 99% reduction in the contaminants of concern (COCs). Chemical injection events and subsequent monitoring events have indicated that ATC has removed a greater amount of COCs than originally thought to be present at the time of the development of the agreement. ATC is in the process of completing another sampling event and pending favorable results, documentation of performance objectives met will be sent to DENR for evaluation.

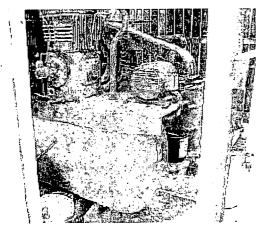


Photo 5: Air spange conspressor unit

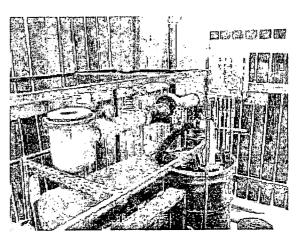


Photo 6: SVE knock out tank and control panel

Results:

Based on information from other states that were using the PFP process, the UST Section determined that the most beneficial point to initiate the PFP process was after the site assessment phase and at the beginning of the remediation phase. Beginning the PFP process at that point makes it easier for the responsible party, their consultant, and DENR to design the remedy, estimate the time period during which the remedy must function, and calculate the total cleanup costs.

To assess the effectiveness of the PFP process, the UST Section analyzed data for all commercial releases that had been closed after some amount of remediation and had received reimbursement since the inception of the UST Program, a total of 966 releases (See Figure 3 and Table 3). Remedial work on these releases generated a requested reimbursement amount of \$243,868,523, of which amount \$200,126,552 was approved and reimbursed. These figures show that the average remedy (from the start of the remedial process to release incident closure) generates a request for reimbursement of \$252,451, of which amount \$207,170 is actually reimbursed. Remediation costs incurred for the two releases involved in the PFP pilot study show a requested reimbursement amount of \$481,225, of which amount \$324,502 has actually been reimbursed to date, or average remediation costs reimbursement requested of \$240,612.50, of which amount \$162,251 has been reimbursed.

	Traditional	PFP
Sites	. 966	2
Requested	\$243,868,523.41	\$481,225.00
Approved	\$200,126,552.05	\$324,502.00

Table 3: Results of Analysis of cost of remedial cleanup.

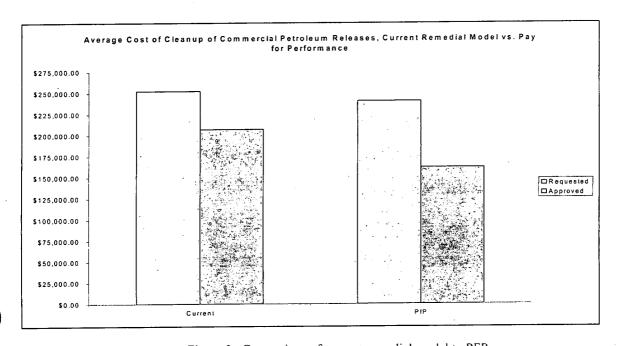


Figure 3. Comparison of current remedial model to PFP.

Although neither PFP pilot study release remediation has been completed, both are on schedule and the total cleanup costs have been set by contracts. In addition, a comparison of average costs based on 766 releases versus two releases is not the best of comparisons, but it does provide an indication of cost reduction as indicated in Figure 3. If more PFP remediations are completed, average costs comparisons will become more meaningful and the UST program will be able to better assess the efficiency of PFP cleanups. Even with limited experience with PFP cleanups, they benefit the UST program by providing fixed costs of remediation allowing the program to more accurately encumber trust fund reimbursement costs

States which incorporate the use of PFP programs for corrective actions, have reported a reduction in their costs for cleanups over non-PFP, based cleanups. According to the United States Environmental Protection Agency (US EPA), "A number of states - Vermont, New Hampshire, Florida, South Carolina, Oklahoma, Utah, California, Nebraska, and Michigan - are using PFP cleanups in their leaking underground storage tanks (LUST) programs. Florida, South Carolina, and Oklahoma have reported that their PFP cleanups have resulted in faster and more effective tank cleanups [http://www.epa.gov/OUST/pfp/toolbox3.htm].

A shortcoming of this pilot study is that it only includes two release incidents, primarily because (1) responsible parties had to be volunteers for the study; (2) the UST statute had to be changed to allow funds to be used for the study; and (3) details of the contracting process, including triparty agreements and some restrictions due to the Mini-Brooks Act, had to be worked through.

Recommendation:

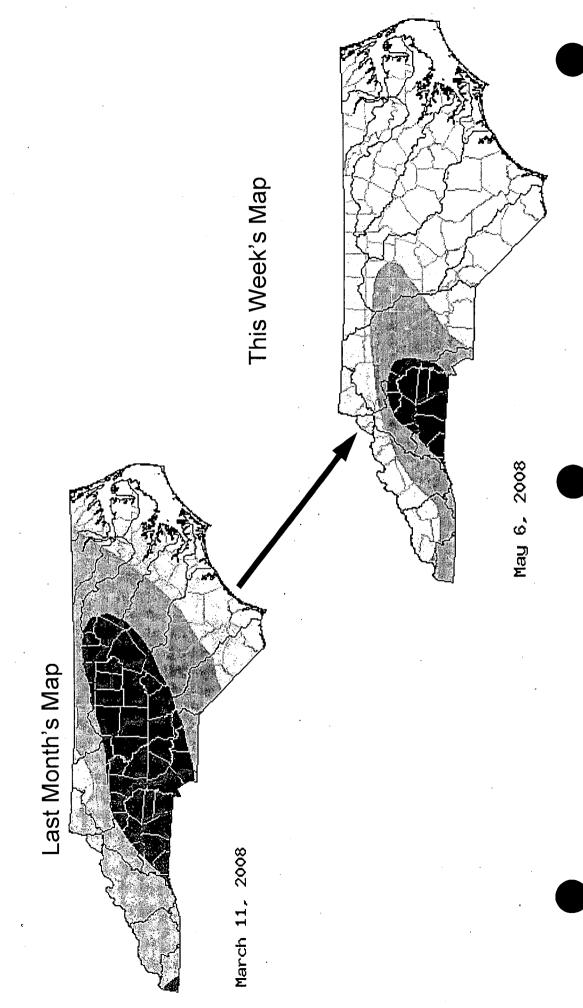
Reinstate the Pay-for-Performance Program for an additional three year period as a voluntary program for responsible parties of UST releases to consider. Allow the Department of Environment and Natural Resources to continue to monitor the costs for the current PFP contracts and the costs of future contracts, and compare them to non-PFP cleanup remediation costs for evidence of cost savings.

Environmental Review Commission

Drought Update and Water-Use Data

Division of Water Resources May 9, 2008

Current Conditions Drought Monitor

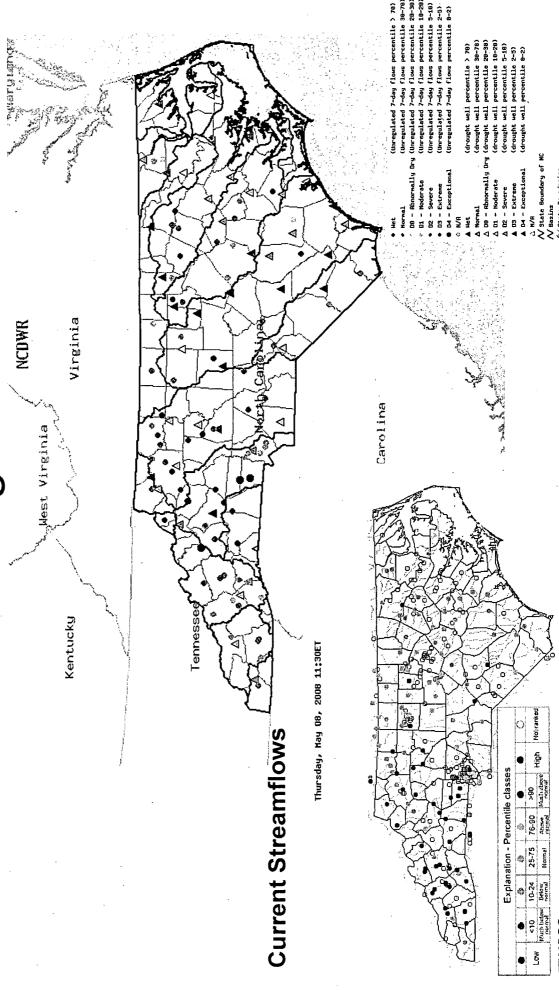


Unofficial Rainfall Estimates

	30-Day P Apr 7, 20	9 6	th Caroli Iay 6, 20		
	lotal Rainfall	Departure from Normal	Pct or Normal	Kank	Driest on Record
North Carolina Statewide	2.85	-0.76	%62	24th driest	24th driest 2.12" (2002)
	365-Day F May 8, 20	Precip for North Carolina 007 through May 6,, 2008	rth Carol Iay 6,, 20	ina 08	
	Total Rainfall	Departure from Normal	Pct of Normal	Rank	Driest on Record
North Carolina Statewide	37.23"	-13.08	74%	2nd driest	36.47" (80- 81)
					ACRES MATERIAL PROPERTY AND AC

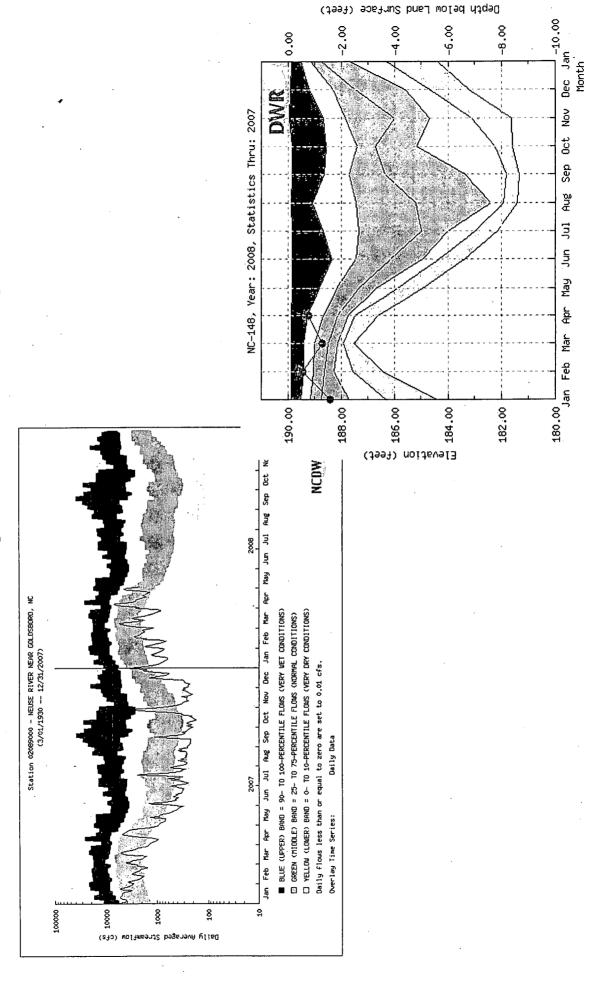


Current Ground Water Levels 6-Month Average Streamflows

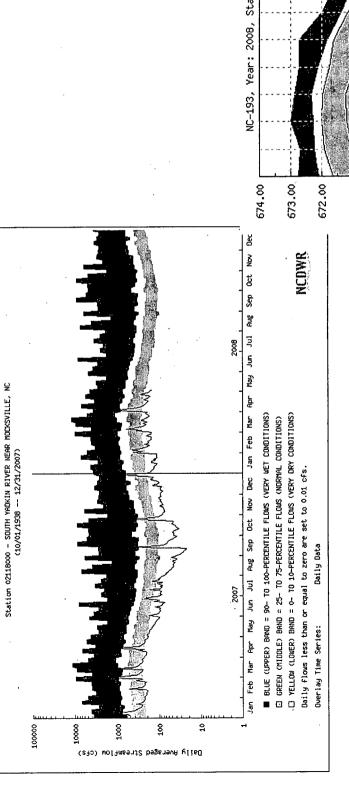


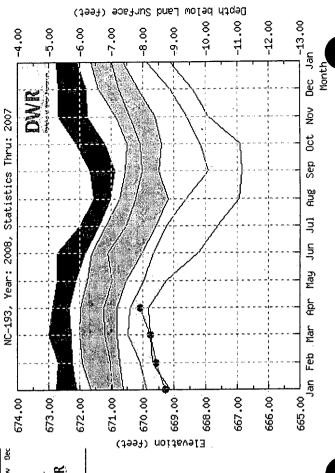


Wayne County

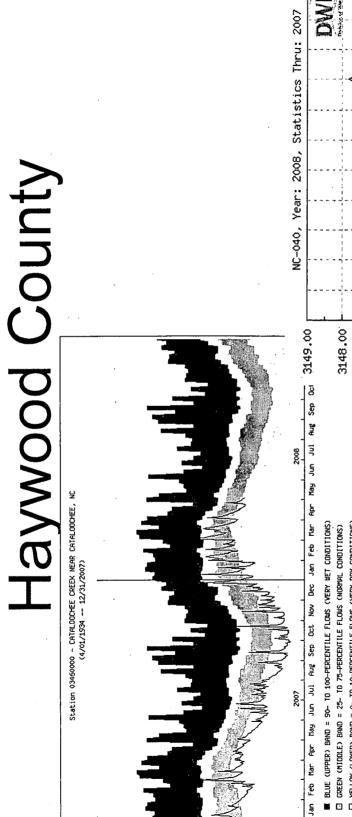


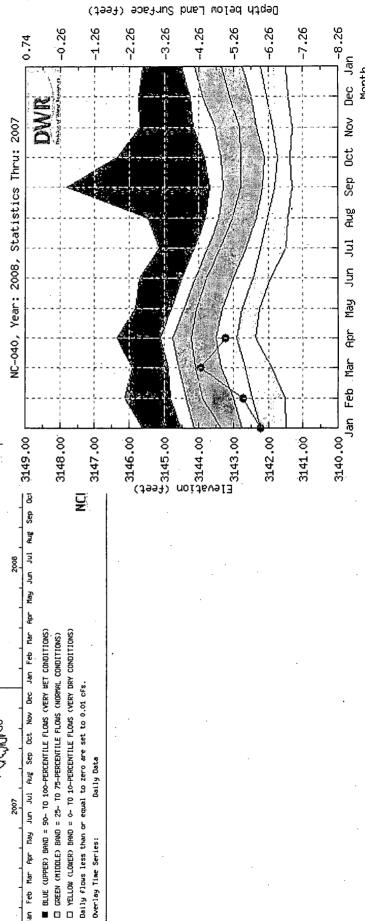
Rowan County





Daily Averaged Streamflow (cfs)





Public Water Supply Systems **Current Conditions**

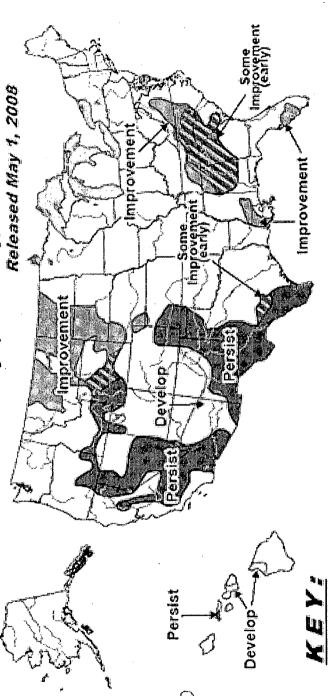
Water Conservation level summary data

	Systems		Population	•
Status	Number	Percent	Number Percent	Percent
Not Restricted	284	45.22	1,654,968	24.41
Voluntary Conservation	178	28.34	1,760,223	25.96
Mandatory Conservation	166	26.43	3,365,981	49.64
Emergency	0	0.00	0	0.00
Total	628		6,781,172	

Forecast

I.S. Seasonal Drought Outlook Drought Tendency During the Valid Period Valid May 1, 2008 - July, 2008





Drought to persist or intensify Drought ongoing, some

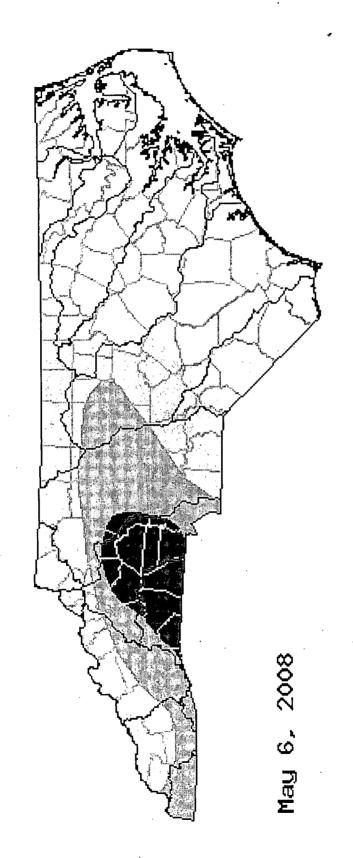
Drought likely to improve, impacts ease improvement

Drought development

by short- and long-range statistical and dynamical forecasts. Short-berm events -- such as individual stomis -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as craps -- that can be affected by such events. Depets large-scale trends based on subjectively derived probabilities guided

Ongoing drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not inconstantly imply drought camination.

Questions



 NC Drought Management Advisory Council http://www.ncdrought.org/

http://www.ncwater.org/Drought Monitoring/wstaskforce.php Water Sources Task Force -

Weekly Water -

http://www.ncwater.org/Drought Monitoring/reduction/weeklyreport.php

2

DRAFT: FOR DISCUSSION ONLY RWS 5/07/08

GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2007

HOUSE/SENATE BILL ____*

The General Assembly of North Carolina enacts:

SECTION 1 G.S. 143-215.22H reads as rewritten:

A BILL TO BE ENTITLED AN ACT TO

" § 143-215.22H. Registration of water withdrawals and transfers required.

- (a) Any person who withdraws 100,000 gallons per day or more of water from the surface or groundwaters of the State or who transfers 100,000 gallons per day or more of water from one river basin to another shall register the withdrawal or transfer with the Commission. A person registering a water withdrawal or transfer shall provide the Commission with the following information:
 - (1) The maximum daily amount of the water withdrawal or transfer expressed in thousands of gallons per day.
 - (1a) The monthly average withdrawal or transfer expressed in thousands of gallons per day.
 - (2) The location of the points of withdrawal and discharge and the capacity of each facility used to make the withdrawal or transfer.
 - (3) The monthly average discharge expressed in thousands of gallons per day.
- (b) Any person initiating a new water withdrawal or transfer of 100,000 gallons per day or more shall register the withdrawal or transfer with the Commission not later than six two months after the initiation of the withdrawal or transfer. The information required under subsection (a) of this section shall be submitted with respect to the new withdrawal or transfer.
- (b1)—Subsections (a) and (b) of this section shall not apply to a person who withdraws or transfers less than 1,000,000 gallons per day of water for activities directly related or incidental to the production of crops, fruits, vegetables, ornamental and flowering plants, dairy products, livestock, poultry, and other agricultural products.

[Note: This draft reflects DENR's original proposal that agricultural water users be required to register water use of 100,000 gallons per day or more with the Division of Water Resources (consistent with other water users). Discussions with interested parties are continuing and the approach to

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registration of agricultural water use may be modified based on those discussions.]

- (c) A unit of local government that has completed a local water supply plan that meets the requirements of G.S. 143-355(l) and that has periodically revised and updated its plan as required by the Department has satisfied the requirements of this section and is not required to separately register a water withdrawal or transfer or to update a registration under this section.
- (d) Any person who is required to register a water withdrawal or transfer under this section shall update the registration by providing the Commission with a current version of the information required by subsection (a) of this section at five-year intervals following the initial registration. A person who submits information to update a registration of a water withdrawal or transfer is not required to pay an additional registration fee under G.S. 143-215.3(a)(1a) and G.S. 143-215.3(a)(1b), but is subject to the late registration fee established under this section in the event that updated information is not submitted as required by this subsection.
- (e) Any person who is required to register a water transfer or withdrawal under this section and fails to do so shall pay, in addition to the registration fee required under G.S. 143-215.3(a)(1a) and G.S. 143-215.3(a)(1b), a late registration fee of five one hundred dollars (\$5:00) (\$100.00). per day for each day the registration is late up to a maximum of five hundred dollars (\$500.00). A person who is required to update a registration under this section and fails to do so shall pay a fee of five fifty dollars (\$5:00) (\$50.00). per day for each day the updated information is late up to a maximum of five hundred dollars (\$500.00). A late registration fee shall not be charged to a farmer who submits a registration that pertains to farming operations. For each willful action or failure to act for which a penalty may be assessed under this subsection, the Commission may consider each day the action or inaction continues after notice is given of the violation as a separate violation; a separate penalty may be assessed for each such separate violation.

SECTION 2. G.S. 143-350 reads as rewritten:

" § G.S. 143-350. Definitions.

As used in this Article:

- (1) "Commission" means the Environmental Management Commission.
- (2) "Department" means the Department of Environment and Natural Resources.
- (3) "Large community water system" means a community water system, as defined in G.S. 130A-313(10), that regularly serves 1,000 or more service connections or 3,000 or more individuals.

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(4) "Essential water use" means the use of water necessary for firefighting, health and safety; water needed to sustain human and animal life; and water necessary to satisfy federal, state and local public health, safety or environmental protection requirements.

5. "Unit of local government" means a county, city, consolidated citycounty, sanitary district or other local political subdivision or authority or agency or local government.

SECTION 3 G.S. 143-354 reads as rewritten:

- "§ 143-354. Ordinary powers and duties of the Commission. [Note: Most of the powers proposed for repeal in this section will be recreated in a later section authorizing the Secretary to exercise those same powers. Some will be recreated in a new section authorizing the EMC to adopt minimum mandatory water conservation measures for extreme and exceptional drought.]
- (a) Powers and Duties in General. Except as otherwise specified in this Article, the powers and duties of the Commission shall be as follows:
 - (1) The Commission shall carry out a program of planning and education concerning the most beneficial long-range conservation and use of the water resources of the State. It shall investigate the long-range needs of counties and municipalities and other local governments for water supply storage available in federal projects.
 - (2) The Commission shall advise the Governor as to how the State's present water research activities might be coordinated.
 - (3) The Commission, based on information available, shall notify any municipality or other governmental unit of potential water shortages or emergencies foreseen by the Commission affecting the water supply of such municipality or unit together with the Commission's recommendations for restricting and conserving the use of water or increasing the water supply by or in such municipality or unit. Failure reasonably to follow such recommendations shall make such municipality or other governmental unit ineligible to receive any emergency diversion of waters as hereinafter provided.
 - (4) The Commission is authorized to call upon the Attorney General for such legal advice as is necessary to the functioning of the Commission.
 - (5) Recognizing the complexity and difficulties attendant upon the recommendation of the General Assembly of fair and beneficial legislation affecting the use and conservation of water, the

- Commission shall solicit from the various water interests of the State their suggestions thereon.
- (6) The Commission may hold public hearings for the purpose of obtaining evidence and information and permitting discussion relative to water resources legislation and shall have the power to subpoena witnesses therefor.
- (7) All recommendations for proposed legislation made by the Commission shall be available to the public.
- (8) The Commission shall adopt such rules and regulations as may be necessary to carry out the purposes of this Article Section.
- (9) Any member of the Commission or any person authorized by it, shall have the right to enter upon any private or public lands or waters for the purpose of making investigations and studies reasonably necessary in the gathering of facts concerning streams and watersheds, subject to responsibility for any damage done to property entered.
- (10) The Commission is authorized to provide to federal agencies the required assurances, subject to availability of appropriations by the General Assembly or applicable funds or assurances from local governments, of nonfederal cooperation for water supply storage and other congressionally authorized purposes in federal projects.
- The Commission is authorized to assign or transfer to any county or municipality or other local government having a need for water supply storage in federal projects any interest held by the State in such storage, upon the assumption of repayment obligation therefor, or compensation to the State, by such local government. The Commission shall also have the authority to reassign or transfer interests in such storage held by local governments, if indicated by the investigation of needs made pursuant to subsection (a)(1) of this section, subject to equitable adjustment of financial responsibility.
- (b) Declaration of Water Emergency. Upon the request of the governing body of a county, city, or town, the Commission shall conduct an investigation to determine whether the needs of human consumption, necessary sanitation and public safety require emergency action as hereinafter provided. Upon making such determination, the Commission shall conduct a public hearing on the question of the source of relief water after three days' written notice of such hearing has been given to any persons having the right to the immediate use of water at the point from which such water is proposed to be diverted. After determining the source of such relief water the Commission shall then notify the Governor and he shall have the authority to declare a water emergency in an area including said county, city or town and the source or sources of water available for

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the relief hereinafter provided; provided, however, that no emergency period shall exceed 30 days but the Governor may declare any number of successive emergencies upon request of the Commission.

- (c) Water Emergency Powers and Duties of the Commission. Whenever, pursuant to this Article, the Governor has declared the existence of a water emergency within a particular area of the State, the Commission shall have the following duties and powers to be exercised only within said area and only during such time as the Governor has, pursuant to this Article, designated as the period of emergency:
 - To authorize any county, city or town in which an emergency (1)has been declared to divert water in the emergency area sufficient to take care of the needs of human consumption, necessary sanitation and public safety. Provided, however, there shall be no diversion of waters from any stream or body of water pursuant to this Article unless the person controlling the water or sewerage system into which such waters are diverted shall first have limited and restricted the use of water in such water or sewerage system to human consumption, necessary sanitation and public safety and shall have effectively enforced such restrictions. Diversion of waters shall cease upon the termination of the water emergency. or upon the finding of the Commission that the person controlling the water or sewerage system using diverted waters has failed to enforce effectively the restrictions on use to human consumption and necessary sanitation and public safety. In the event waters are diverted pursuant to this Article, there shall be no diversion to the same person in any subsequent year unless the Commission finds as fact from evidence presented that the person controlling the water or sewerage system has made reasonable plans and acted with due diligence pursuant thereto to eliminate, future emergencies by adequately enlarging such person's own water supply.
 - To make such reasonable rules and regulations governing the conservation and use of diverted waters within the emergency area as shall be necessary for the health and safety of the persons who reside within the emergency area; and the violation of such rules and regulations during the period of the emergency shall constitute a Class 1 misdemeanor; provided, however, that before such rules and regulations shall become effective, they shall be published in not less than two consecutive issues of not less than one newspaper generally circulated in the emergency area.
- (d) Temporary Rights of Way. When any diversion of waters is ordered by the Commission pursuant to this Article, the person controlling the water or sewerage system into which such waters are diverted is hereby empowered to lay

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necessary temporary water lines for the period of such emergency across, under or above any and all properties to connect the emergency water supply to an intake of said water or sewerage system. The route of such water lines shall be prescribed by the Commission.

(e) Compensation for Water Allocated during Water Emergency and Temporary Rights of Way. Whenever the Commission, pursuant to this Article has ordered any diversion of waters, the person controlling the waters or sewerage system into which such waters are diverted shall be liable to all persons suffering any loss or damage caused by or resulting from the diversion of such waters or caused by or resulting from the laying of temporary water lines to effectuate such diversion. The Commission, before ordering such diversion, shall require that the person against whom liability attaches hereunder to post bond with a surety approved by the Commission in an amount determined by the Commission and conditioned upon the payment of such loss or damage."

SECTION 4 Part ___ of Article ___ of Chapter 143 of the General Statutes is amended by the addition of a new section to read.

"§ 143-354.1. Mandatory Water Conservation Measures; Severe, Extreme and Exceptional Drought.

(a) Mandatory Minimum Water Conservation Measures. — The Commission shall adopt rules establishing minimum water conservation measures to be implemented by units of local government located in areas designated by the Drought Management Advisory Council as areas of severe, extreme or exceptional drought. Rules adopted by the Commission shall prohibit use of potable water for uses that can be supplied by reclaimed water, recycled wastewater or treated gray water in areas that have been in exceptional drought for more than sixty days. Restrictions on water use shall not apply to use of reclaimed or recycled wastewater or to authorized use of treated or unfreated gray water.

[Note: The preceding language may require additional work; the intent is to put a floor under the minimum water conservation measures once drought conditions have reached a critical level.]

- (b) Each city, county or unified local government located in an area of severe, extreme or exceptional drought designated by the Drought Management Advisory Council Minimum shall implement the minimum water conservation measures set out in rules adopted by the Commission pursuant to this subsection. A cit y, county or unified local government may adopt water conservation ordinances pursuant to their general police power. A local ordinance that imposes water conservation requirements shall be at least as stringent and may be more stringent than the minimum water conservation measures adopted by the Commission.
- (c) A city, county or unified local government is authorized to apply water conservation measures to all water users within the local government's

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jurisdiction, including water users served by an investor-owned utility or private water supply well.

SECTION 5 G.S. 143-355(k) and (l) read as rewritten:

" § 143-355. Powers and duties of the Department.

- Water Use Information. Any person using, withdrawing, diverting or obtaining water from surface streams, lakes and underground water sources shall, upon the request of the Department, file a monthly report with the Department showing the amount of water used, withdrawn, diverted or obtained from such sources. Such report shall be on a form supplied by the Department and shall show the identification of the water well or other withdrawal facility, location, total daily withdrawal capacity, average daily withdrawal for the days used, the number of days used and maximum daily withdrawal. Reports required to be filed under this subsection shall be filed on or before the fifteenth day of the month succeeding the month during which the using, withdrawing, diverting or obtaining water required to be reported occurred. This subsection does not apply to withdrawals or uses by individuals or families for household, livestock, or gardens. All reports required under this subsection are provided solely for the purpose of the Department. Within the meaning of this subsection the term "person" means any and all persons, including individuals, firms, partnerships, associations, public or private institutions, municipalities or political subdivisions, governmental agencies, and private or public corporations organized or existing under the laws of this State or any other state or country. In the event of drought or other water shortage, the Department may require each local government water system and each large community water system to report water use on a weekly basis and may require the reporting of additional information necessary to assess and manage the drought or water shortage.
- (l) For purposes of this subsection, "community water system" means a community water system, as defined in G.S. 130A-313(10), that regularly serves 1,000 or more service connections or 3,000 or more individuals. [Note: The definition is being moved to the definitions section of this Article because the term will also be used in other statute sections. The term will also be changed to "Large community water system" to avoid conflict with the definition of "community water system" in rules adopted under the Drinking Water Act; that definition covers smaller systems.] Each unit of local government that provides public water service or that plans to provide public water service and each community water system shall, either individually or together with other units of local government and community water systems, prepare a local water supply plan and submit it to the Department for approval. The Department shall provide technical assistance with the preparation of plans to units of local government and community water systems upon request and to the extent that the Department has resources available to provide assistance. At a minimum, each

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unit of local government and community water system shall include in local water supply plans all information that is readily available to it. Plans shall include present and projected population, industrial development, and water use within the service area; present and future water supplies; an estimate of the technical assistance that may be needed at the local level to address projected water needs; current and future water conservation and water reuse programs; a description of how the local government or community water system will respond to drought and other water shortage emergencies and continue to meet essential public water supply needs during the emergency; a water audit and leak detection program; identification of existing and planned interconnections to otherwater systems; and any other related information as the Department may require in the preparation of a State water supply plan. Local plans shall be revised to reflect changes in relevant data and projections at least once each five years unless the Department requests more frequent revisions. In any case, the local government or community water system shall submit a revised water supply plan that specifies how the water system intends to address foreseeable future water needs when eighty percent (80%) of a water system's available water supply based on average daily demand has been allocated to current or prospective water users or the seasonal demand exceeds ninety percent (90%) of available water supply. The revised plan shall include the current and anticipated reliance by the local government unit or community water system on surface water transfers as defined by G.S. 143-215.22G. Local plans and revised plans shall be submitted to the Department once they have been approved by each unit of local government and community water system that participated in the preparation of the plan. The Department shall review the local water supply plans and shall approve the plan if the Department finds:

- i. The plan addresses each of the elements required in this subsection, and
- ii. The water supply sources identified in the plan can be used to supply potable water and are adequate to meet the water supply needs projected in the plan.
- (m) In order to assure the availability of adequate supplies of good quality water to protect the public health and to support desirable economic growth, the Department shall develop a State water supply plan. The State water supply plan shall include the information and projections required to be included in local plans, a summary of water conservation and water reuse programs described in local plans, a summary of the technical assistance needs indicated by local plans, and shall indicate the extent to which the various local plans are compatible. The State plan shall identify potential conflicts among the various local plans and ways in which local water supply programs could be better coordinated.
- (n) The Secretary shall adopt such rules and regulations as may be necessary to carry out the purposes of this Section.

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SECTION 6. Part __ of Article __ of Chapter 143 of the General Statutes is amended by adding four new sections to read:

- § 143-355.2 Water Shortage Emergency Powers. [Note: This section shifts powers that currently reside in the Environmental Management Commission to the Secretary of DENR. The process for declaring a water shortage emergency has been streamlined, but otherwise the section reflects existing law.]
- (a) Declaration of Water Shortage Emergency. —If the Secretary determines that the needs of human consumption, necessary sanitation and public safety require emergency action, the Secretary shall notify the Governor. The Governor shall have the authority to declare a water emergency in the area affected by the water shortage emergency. No emergency period shall exceed 30 days but the Governor may declare successive emergencies upon recommendation of the Secretary.
- (b) Water Emergency Powers and Duties. Whenever, pursuant to this Article, the Governor has declared the existence of a water emergency within a particular area of the State, the Secretary shall have the following duties and powers within the designated water emergency area and only for the period of the water emergency:
 - (1) To require any water system that has water supply in excess of that required to meet the essential water uses of its customers to provide water to a water system experiencing a water emergency. The amount required to be supplied shall be limited to the amount necessary to supply essential water uses within the receiving system. The required diversion of waters shall cease upon the termination of the water emergency
 - (2) To adopt rules governing the conservation and use of water within the emergency area as shall be necessary for the health and safety of the persons who reside within the emergency area. Before such rules and regulations shall become effective, they shall be published in two consecutive issues of a newspaper generally circulated in the emergency area.
 - (3) To adopt rules governing conservation and use of water within the service area of the water system from which water is being diverted as shall be necessary to maintain essential water uses in the system while supplying water to the emergency area.

The duties and powers granted in this subsection shall be exercised by the Secretary only after the Secretary has consulted with the affected water systems and determined that the water emergency cannot be effectively managed in the absence of exercising these authorities.

(c) Temporary Rights-of-Way. – When any diversion of waters is ordered by the Secretary pursuant to this Article, the water or wastewater system into

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which such waters are diverted is authorized to lay necessary temporary water lines for the period of such emergency across, under or above any and all properties to connect the emergency water supply to an intake of said water or wastewater system without first acquiring right-of-way. The Department shall expedite the approval of temporary water lines needed to provide emergency water supply under this Section.

(d) Compensation for Water Allocated during Water Emergency and Temporary Rights-of-Way. – Whenever the Secretary, pursuant to this Article has ordered any diversion of waters, the water or wastewater system into which such waters are diverted shall reimburse the donor water system for the cost of the water. The cost charge to the receiving system shall not exceed the retail cost that would be charged to a customer of the supplying system for an equivalent amount of water and any additional costs incurred by the supplying system for alterations to its infrastructure to effectuate the diversion. The receiving water system shall be liable to all persons suffering any loss or damage caused by or resulting from the laying of temporary water lines to effectuate such diversion. The Secretary, before ordering such diversion, shall require that the water or wastewater system against whom liability attaches hereunder to post bond with a surety approved by the Secretary, in an amount determined by the Secretary and conditioned upon the payment of such loss or damage.

§ 143-355.3 Water System Efficiency

- (a) For purposes of maintaining accurate records of water use, local government and community water systems shall ensure that water delivered by the water system is metered to the maximum extent practicable.
- (b) Local government water systems and community water systems shall require separate meters for in-ground irrigation systems. [Note: the effective date clause in the bill will need to describe how this requirement will be implemented with respect to new versus existing systems.]
- (c) To be eligible for state water infrastructure funds to extend water lines or to expand water treatment capacity, a water system must demonstrate the following:
- 1. A water rate structure that is adequate to pay the cost of maintaining, repairing, and operating the system, including reserves for such purposes and payment of principal and interest on indebtedness incurred for maintenance or improvement of the water system during periods of normal use and periods of reduced water use due to implementation of water conservation measures. The funding agency shall apply guidelines developed by the State Water Infrastructure Commission in determining the adequacy of the water rate structure to support operation and maintenance of the system.
 - 2. Implementation of a leak detection and repair program;
 - 3. An approved water supply plan pursuant to G.S. 143-355.

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The requirements of this subsection shall apply to loans and grants from the Drinking Water Revolving Fund, the Drinking Water Reserve Fund, and to any other grant or loan of funds allocated by the General Assembly whether the allocation of funds is to a state agency or to a nonprofit organization.

(d) No water system shall use a rate structure that gives residential water customers a lower per unit water rate as water use increases.

§ 143-355.4 Enforcement

- (a) The Secretary may assess a civil penalty of not less than one hundred dollars (\$100.00) nor more than five hundred dollars (\$500.00) against any person who:
 - (1) Fails to report water use or other information required under G.S. 143-355(k);
 - (2) Fails to act in accordance with the terms, conditions, or requirements of an order issued by the Secretary under G.S. 143-355.2.
 - (3) Violates any provision of this Article or any rule adopted by the Commission or the Department implementing this Article.
- (b) For each willful action or failure to act for which a penalty may be assessed under this subsection, the Secretary may consider each day the action or inaction continues after notice is given of the violation as a separate violation; a separate penalty may be assessed for each such separate violation.
- (c) A civil penalty of not more than one thousand dollars (\$1,000) per month may be assessed against any local government that fails to adopt a water conservation ordinance that meets the mandatory minimum standards for extreme and exceptional drought established by the Commission as required by G.S. 143-354.1 or willfully fails to administer or enforce the provisions of its program in substantial compliance with the minimum water conservation standards.
- (d) The violation of emergency water conservation rules adopted by the Secretary pursuant to G.S. 143-355-3(b) shall constitute a Class 1 misdemeanor.
- (e) The Secretary shall notify any person assessed a civil penalty of the assessment and the specific reasons therefor by registered or certified mail, or by any means authorized by G.S. 1A-1, Rule 4. Contested case petitions shall be filed within 30 days of receipt of the notice of assessment."

SECTION 7 Part of Article of Chapter 130A of the General Statutes is amended by the addition of a new section as follows:

<u>"§ 130A-329 Reporting</u>

Reports required to be submitted under this Article or under rules adopted by the Commission shall be submitted electronically on a form specified by the Department. The Department may waive the requirement for electronic

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submission of a report if the water system demonstrates that it lacks the technical capability to report electronically."

SECTION 8 G.S. 130A-355(a) reads as rewritten:

"§ 130A-335. Wastewater collection, treatment and disposal; rules.

(a) A person owning or controlling a residence, place of business or a place of public assembly shall provide an approved wastewater system. All wastewater from water-using fixtures and appliances connected to a water supply source shall discharge to the approved wastewater system. A wastewater system may include components for collection, treatment and disposal of wastewater."

Note: Versions of the language added above already appears in rules that the Commission for Public Health has adopted to implement this statute and in the Plumbing Code. Inserting the language into 130A-335 made it easier to then create the exception for hand-watering with gray water that appears in the next section.

SECTION 9 Part ____ of Article ___ of Chapter 130A is amended by the addition of a new section as follows:

"G.S. 130A-345. Untreated gray water; allowed uses:

- (a) For purposes of this section, "gray water" means waste water removed from household wash basins, bathtubs, and showers.
- (b) Notwithstanding G.S. 130A-335(a), untreated gray water may be used in periods of drought to hand water trees, shrubs and inedible plants under the following conditions:
 - (1) Gray water shall be applied as soon as practicable. Untreated gray water should not be stored for later use.
 - (2) Gray water containing hazardous chemicals, including but not limited to residue from solvents, shall not be used.
 - (3) Use of untreated gray water is restricted to the residential property where the gray water originates. Untreated gray water shall not be allowed to runoff onto adjoining property, roadways or into drainage features such as ditches and storm drains.
 - (4) Untreated gray water shall be applied using buckets, watering cans or other hand-held containers. Gray water may not be used in an irrigation system unless the gray water has been treated in accordance with standards set out in the State Plumbing Code.
 - (5) Gray water shall not be applied closer than 100 feet to surface waters or a water supply well."

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Note: Does this section need specific language about enforcement by local health departments?

SECTION 10 G.S. 159G-23 reads as rewritten:

"§ 159G-23. Common criteria for loan or grant from Wastewater Reserve or Drinking Water Reserve.

The criteria in this section apply to a loan or grant from the Wastewater Reserve or the Drinking Water Reserve. The Division of Water Quality and the Division of Environmental Health must each establish a system of assigning points to applications based on the following criteria:

- (1) Public necessity. An applicant must explain how the project promotes public health and protects the environment. A project that improves a system that is not in compliance with permit requirements or is under orders from the Department, enables a moratorium to be lifted, or replaces failing septic tanks with a wastewater collection system.
- (2) Effect on impaired waters. A project that improves designated impaired waters of the State has priority.
- (3) Efficiency. A project that achieves efficiencies in meeting the State's water infrastructure needs or reduces vulnerability to drought by one of the following methods has priority:
 - a. The combination of two or more wastewater or public water systems into a regional wastewater or public water system by merger, consolidation, or another means.
 - b. Conservation or reuse of water, <u>including bulk water reuse</u> facilities and water lines to supply reuse water for <u>irrigation and other approved uses</u>.
 - c. Construction of an interconnection between water systems intended for use in drought or other water shortage emergency.
 - d. Repair or replacement of leaking water lines.
 - <u>Replacement of meters and installation of new metering systems.</u>
- (4) Comprehensive land-use plan. A project that is located in a city or county that has adopted or has taken significant steps to adopt a comprehensive land-use plan under Article 18 of Chapter 153A of the General Statutes or Article 19 of Chapter 160A of the General Statutes has priority over a project located in a city or county that has not adopted a plan or has not taken steps to do so. The existence of a plan has more priority than steps taken to adopt a plan, such as adoption of a zoning ordinance. A plan that exceeds the minimum State standards for protection of water

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resources has more priority than one that does not. A project is considered to be located in a city or county if it is located in whole or in part in that unit. A land-use plan is not considered a comprehensive land-use plan unless it has provisions that protect existing water uses and ensure compliance with water quality standards and classifications in all waters of the State affected by the plan.

(5) Flood hazard ordinance. – A project that is located in a city or county that has adopted a flood hazard prevention ordinance under G.S. 143-215.54A has priority over a project located in a city or county that has not adopted an ordinance. A plan that exceeds the minimum standards under G.S. 143-215.54A for a flood hazard prevention ordinance has more priority than one that does not. A project is considered to be located in a city or county"

SECTION 11 The State Water Infrastructure Commission, in consultation with the Department of Environment and Natural Resources and UNC's School of Government, shall develop guidelines for water rate structures that are adequate to pay the cost of maintaining, repairing, and operating the system, including payment of principal and interest on indebtedness incurred for maintenance or improvement of the water system. The guidelines shall also consider the effect of water rates on water conservation and recommend rate structures that support water conservation. Copies of the guidelines shall be made available to the Department of Environment and Natural Resources, the North Carolina Utilities Commission and to all local government water systems and community water systems that serve more than 1,000 connections. The Commission shall report to the General Assembly by February 1, 2009 on development of the guidelines

SECTION 12 The Department of Environment and Natural Resources shall develop recommendations for water efficiency standards for water-using fixtures in residential and commercial building and in-ground irrigation systems. The Department shall also develop recommendations for efficient metering of water use by local government and community water systems. The Department shall report its recommendations to the Commissioner of Insurance, to the Chair of the Building Code Council and to the Environmental Review Commission of the General Assembly by February 1, 2009.

SECTION 13 This Act shall become effective

Note: There will likely be different effective dates for different sections of the bill. Some could go into effect immediately, but others — such as those that require local government action — will require some lead time. For example, the requirement that in-ground irrigation systems have separate meters will likely be effective as applied to new construction after a certain date.

The Allocation, Availability and Maintenance of Water Resources in North Carolina

An Interim Report to the Environmental Review Commission of the North Carolina General Assembly addressing elements, issues, and methodology to be included in the full study

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April 30, 2008

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Reason for study

Section 1.(a) of S.L. 2007-518 directs the Environmental Review Commission (ERC), with the assistance of the Department of Environment and Natural Resources (DENR), and independent consultants to be retained by the ERC, to:

- Study the allocation of surface water resources and their availability and maintenance in the State, including issues related to the transfer of water from one river basin to another, the withdrawal of water for consumptive use, and the accuracy and tolerance of equipment used to measure the flow of water transferred from one river basin to another river basin.
- 2. Evaluate the benefits of establishing formal and informal procedures for negotiating transfers of water from one river basin to another.
- 3. Study and recommend measures to: (i) ensure that the purposes of the Regional Water Supply Planning Act of 1971, as set out in G.S. 162A-21, are fulfilled; (ii) provide for a comprehensive system for regulating surface water withdrawals for consumptive and nonconsumptive uses; (iii) provide for the establishment of a statewide plan for water resources development projects; (iv) provide for adequate resources for the Department so that it may develop and implement a comprehensive approach to water resources management; (v) ensure that all State laws regulating water resources are consistent with and fully integrated into the comprehensive system for regulating surface water withdrawals and the statewide plan for water resources development projects; and (vi) ensure that potential interstate conflicts related to water resources are avoided or minimized.

The Principal Investigators (PIs) are, on behalf of their respective universities, entering into contracts to assist the ERC with this study, including a principal contract between the ERC and the UNC School of Government. As of the date of this interim report, the principal contract has been executed by the ERC and the Dean of the UNC School of Government, and is still being reviewed and processed by the sponsored research offices of UNC and Duke. The contract more fully explains the scope of work, including changes made as a result of the public hearing process in December 2007 and January 2008, such as more explicit direction to include groundwater and its allocation in the study. This Interim Report sets out the PIs' plans for carrying out their part of the study in 2008. The contracts contemplate a final report to the ERC by October 31, 2008. However, given the scope and importance of the study, and the scale of similar studies being conducted in other eastern states, it is almost certain that further work will be required beyond 2008. Any extensions or modifications in the scope or time frame of this study will be made by the ERC and its staff, for whom the study is principally intended.

Scope of study

The PIs will study all matters called for under their contracts, including:

- a. Allocation of water resources (surface water and groundwater) and their availability and maintenance in North Carolina.
- b. Issues related to the transfer of water from one river basin to another.
- c. Withdrawal of water for consumptive and nonconsumptive use.
- d. Whether the purposes of the Regional Water Supply Planning Act of 1971, as set out in G.S. 162A-21, are being fulfilled and, if not, how they can be fulfilled.
- e. Options that provide for a comprehensive system for regulating surface water withdrawals for consumptive and nonconsumptive uses.
- f. The governance, organization, operation, and funding of, and services provided by, publicly-owned and privately-owned public water systems.

This is a scoping study, designed to frame options for the General Assembly to consider—options both for changes in water law and for more detailed investigation. The PIs will make recommendations in October 2008 for areas of further, more detailed inquiry and likely resource needs for carrying out those further studies.

Input and methods

The PIs, in conjunction with ERC staff, have consulted widely with persons interested in the study. They participated in five public meetings attended by over four hundred people in December, 2007 and January, 2008, in Charlotte, Greenville, Asheville, Raleigh and Wilmington. These were meetings at which anyone interested in the study was allowed to speak. A record of the comments received and subsequent written communications was kept by legislative staff. In addition, the PIs have posted their notes of the meetings on a publicly-available website, http://sogweb.sog.unc.edu/Water/index.php/Current_events, which is part of the "water wiki" to be discussed below.¹

Since those public meetings, the PIs have been actively engaged in discussions with stakeholders from public water systems, private water systems, water users including private citizens, agricultural users, food processors and food scientists, turfgrass producers and scientists, bottlers, electric utilities, environmental public interest organizations, cities and counties, state agency water managers and regulators from North Carolina, South Carolina, Georgia, Virginia, Tennessee and other states, Councils of Government, professional engineers, federal officials at the Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Department of the Interior, and scholars who study water resources from UNC and Duke, other United States universities and think tanks, and other countries including Australia, Austria, Canada, France, Germany, Great Britain, the Netherlands, Norway, and Sweden.

On the basis of their own knowledge and this input, the PIs propose to carry out the study in 2008 as follows. The methods and resources needed for future, more narrowly focused research will be discussed and explained in the 2008 final report.

Water supply and demand assessment

The PIs will summarize and evaluate past studies and current estimates of water supply and demand in North Carolina. Aspects of water supply include

- Precipitation
- Stream flows
- Infiltration/recharge
- Storage

¹ A note on formatting: some words and phrases in this Interim Report are <u>underlined</u> in the printed version. This underlining indicates a hyperlink that can be followed by clicking or control+clicking in the online version of the document.

- o Reservoirs
- o Distributed storage such as farm ponds and catchment systems
- Aquifers (groundwater storage)
- Reuse and reclamation of water
- Cleanup/source protection
- Interconnects between public water supplies

Aspects of water demand include:

- · Growth and demand
- Efficiency
- Conservation

The best available data integrating surface water supply and demand in North Carolina, for particular river basins, is probably contained in three hydrologic models used by the State; a model for the Catawba River system, developed by Duke Energy; a model for the Cape Fear River system, developed by DENR's Division of Water Resources (DWR) in conjunction with a group of interested persons; and two models for the Yadkin/Pee Dee, one developed by Alcoa for the Upper Yadkin and one by Progress Energy for the Pee Dee. DWR is working on extending river basin modeling efforts to other basins, starting with the Neuse. The Pls will generally familiarize themselves with and participate in debates and discussions about these models, and will provide comments to DWR on ways they believe, in light of this study, the modeling effort could be improved. But a detailed assessment and report on the results of these river basin models is outside the scope of the Pls' work on this study. It is part of the assistance DENR is providing to the ERC directly.

Critical governance processes

Water allocation in North Carolina is a complex, un-integrated system. Its foundations are court decisions establishing riparian rights and reasonable use limits. On these un-integrated foundations the State has built a handful of regulatory programs. Alongside this State law are several important federal laws and the rules and operating policies of three federal agencies: the U.S. Army Corps of Engineers, the Federal Energy Regulatory Commission, and the Tennessee Valley Authority. Poised atop these State and federal elements are the rules and operating policies of public water suppliers (both public and private sector suppliers), which are themselves constrained by local governing boards and, in the case of privately-owned water suppliers, the N.C. Utilities Commission. Looming around all these elements are the claims of adjoining states to parts of the water supply and the possibility of international trade agreement limitations on state regulation of water. Further, water allocation is a social-ecological system, in the sense that there is a practically finite supply of water that varies

independently of action by the State, and demands on this supply are the result of the decisions of many individual users and firms. There are also environmental needs for water (such as for fish and other aquatic organisms). Finally, there are economic features of this system that are critical parts of the allocation puzzle: how water is priced and how water systems are funded.

The study will explain these elements. It will focus on several key laws and policies that are at its core and are within the control of the General Assembly, with the aim of helping legislators understand how the system might be made more efficient, more equitable, and more sustainable for the long term.

- Key laws and policies
 - Registration and monitoring network
 - Drought response
 - o Capacity use area regulation
 - o Interbasin transfer regulation
 - o Flow regimes

In addition, the PIs are following and will report on <u>other states' status and reform efforts</u>, because many other states, particularly in the southeast, are actively reconsidering their historical approach to water allocation and management at this time.

The Water Wiki

The PIs have set up a unique website, called the "water wiki," where they compile their findings. The unique thing about the website is that anyone can quickly see, comment on and even change the information on the website. However, the site keeps track of changes, and alerts anyone who is interested when anything on a given web page within the site is changed. Changes are easily reverted. So the water wiki can serve as a collaborative space for discussion, debate and hopefully consensus on the many controversial aspects of water allocation and management. The portal for the water wiki is:

http://water.unc.edu

and the links embedded in this document point to particular wiki pages. As of April 17, 2008, twelve weeks after its inception, the water wiki had 1,543 edits of 285 pages in 86 articles and 103 registered users. Seven of its 285 pages had been viewed over 10,000 times.

Policy possibilities

The point of this study, in 2008, is to frame policy possibilities for discussion and debate by the ERC. The study team has been capturing the suggestions made in the extensive stakeholder meetings thus far. They are posted on the water wiki, at

http://sogweb.sog.unc.edu/Water/index.php/Policy_suggestions. We will continue to refine this list through the course of the study. One general set of possibilities to be presented and analyzed in the final 2008 report will be drawn from this list, and could be thought of as "Refinements to the existing water allocation system."

Another important policy option to be evaluated is creation of a water withdrawal permit for North Carolina. Many states in the United States require that major withdrawals of water have some regulatory review and control. We have been and will continue to discuss the arguments for and against such a requirement, and if it were passed, how it might be implemented, and will include this analysis in the final report.

Goals and aspirations for study

As noted, the goal for this study, in 2008, is to frame options for the ERC to help inform the debate about how and whether North Carolina's water allocation and management system could be made more efficient, more equitable, and more sustainable. Beyond this goal, given the scrutiny that states all along the eastern seaboard are currently giving to water resources, it is possible to imagine—to aspire to—improvements in North Carolina's approach to water resources that might make water allocation in the southeast better and more compatible for the region as a whole. The physiographic region, stretching from New Jersey (which was North Carolina's model for its 1967 Capacity Use Area law) south to Florida, and west to the Appalachian mountains, has similar physical water resources. It is, in a global sense, a waterrich region. Nearly all experts, worldwide, agree that global water supplies will come under increasing stress in the next century, and that many regions will experience severe water shortages in this time frame, producing great conflict and suffering. In this context, perhaps the southeastern United States could, along with the Great Lakes region and the Pacific northwest, emerge as a globally desirable region for its water. Whether that happens appears to the PIs to be mainly a question of how wisely North Carolina and the other southeastern states maintain their water resources.

The study team

UNC-Chapel Hill and Duke University have assembled an expert team to provide this scoping analysis. The team includes:

- Bill Holman, State Policy Director, Nicholas Institute for Environmental Policy Solutions,
 Duke University
- Richard Whisnant, Professor of Public Law and Government, UNC School of Government
- Dr. Greg Characklis, Assoc. Prof. Environmental Sciences and Engineering, UNC-CH
- Jeff Hughes, Director, Environmental Finance Center, UNC-CH
- Leslie Kleczek, Masters in Environmental Science, Nicholas School, Duke University
- Jennifer Platt, M. S., Environmental Science and Engineering, UNC-CH. Formerly Conservation Coordinator (Water), Town of Cary
- Andrew Westbrook, M.S., Environmental Science and Engineering, UNC-CH; B.S. Civil and Environmental Engineering, U. Illinois.
- Joseph LoBuglio, Ph.D student, Dept. of Environmental Sciences and Engineering, UNC-CH
- Shadi Eskaf, Ph.D. student, Dept. of Environmental Sciences and Engineering, UNC-CH
- Sybil Tate, Masters student, Public Administration, UNC School of Government

The Allocation, Availability and Maintenance of Water Resources in North Carolina

An Interim Report to the Environmental Review Commission addressing elements, issues, and methodology to be included in the full study

May 9, 2008

Richard Whisnant Professor of Public Law & Government School of Government UNC-Chapel Hill Bill Holman
Director of State Policy
Nicholas Institute for
Environmental Policy Solutions
Duke University



School of Government

The University of North Carolina at Chapel Hill

Study background N.C. Water Use vs. Population • HB 820, S.L. 2007-518 • Comprehensive review, surface and groundwater N.C. Total Water Use-Kgal/day Scoping, framing N.C. Population issues · Analyzing, presenting options 1970 1975 1980 1985 1990 1995 2000 for 2009 session Sources: USGS water withdrawals; NC State consideration Demographics population estimates richard_whisnant@unc.edu (919) 962-School of Government

Study process and core issues

- Stakeholder meetings
- Review of key water resource processes
 - Common law of water rights
 - Withdrawal registration and reporting
 - Interbasin transfer regulation
 - Capacity use area regulation
 - Drought response
- · What do we know about supply and demand?
- How do we price and finance water services and infrastructure?
- Interconnection, regionalization, privatization: how is service delivered?
- · Other states' policies and reform efforts

WATER wiki

School of Government

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Deliverable, goals, aspirations

- October 31 report: policy options, analysis and priorities for further, deeper study
- Goals: ample, efficient, fair, resilient water supply for all uses
- Aspirations: North Carolina as a leader in water policy, taking a regional/global perspective



Source: http://sr6ceoo.er.usgs.gov/aquiferBesics/crystel.htm

School

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The study team

- Bill Holman, Duke
- · Leslie Kleczek, Duke
- · Mallory Dimmit, Duke
- · Eben Polk, Duke

· Greg Characklis, UNC

Joe LoBuglio, UNC

- Jeff Hughes, UNC EFC
- · Shadi Eskaf, UNC
- Andrew Westbrook, UNC
- · Sybil Tate, UNC
- · Hannah Polikov, UNC & Duke
- Jennifer Platt

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And....

a cast of hundreds on the "water wiki"

http://water.unc.edu



The end



Questions?

Richard Whisnant: (919) 962-9320

Bill Holman: (919) 613-8737



richard_whisnant@unc.edu (919) 962-

Exhibit I

Annual Report to the Environmental Review Commission North Carolina General Assembly

The Status of Leaking Petroleum Underground Storage Tanks, the State Cleanup Funds, and the Groundwater Protection Loan Fund

September 1, 2007



NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOUCES

UST Release Incident-Kerosene Free Product in Basin

Underground Storage Tank Section Division of Waste Management

North Carolina Department of Environment and Natural Resources

Michael F. Easley Governor

William G. Ross Jr.

Secretary

NC Department of Environment and Natural Resources

Dexter R. Matthews
Director
Division of Waste Management

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Pay-for-Performance
Recommendations
Appendices (available upon request - please contact Ms. Jane Comer at 919.733.1302)
Appendix A - LUSTs reported 7/1/88-6/30/06 Appendix B - LUSTs reported 7/1/05-6/30/06 Appendix C - LUSTs closed out 7/1/88-6/30/06

Executive Summary

The Department of Environment and Natural Resources is required to prepare an annual report on the status of leaking petroleum underground storage tanks.

North Carolina's underground storage tank program is administered by the Division of Waste Management's UST Section in DENR. The section enforces UST regulations and manages funds used to perform cleanups of petroleum UST discharges or releases. The program was initiated in 1988 in response to growing reports of USTs leaking petroleum into soil and drinking water supplies. Funding for the program has been provided by the Commercial and Noncommercial Trust Funds, the Groundwater Protection Loan Fund, the Federal UST Regulatory Grant and the Federal Leaking UST Fund.

This is the summary of the statistics described in this report for the period July 1, 2006 through June 30, 2007.

\$27,564,837		
\$10,097,821		
\$ 6,053,993		
\$ 6,448,355		
897		
1080		

^{*}Includes transfer of \$598,935 from commercial fund to non-commercial trust fund per G.S. 119-18(b).

This is the summary of the statistics for the entire history of the UST program (7/1/88-6/30/07).

Commercial Fund Revenues	\$479,749,593	
Commercial Fund Total Expenditures	\$448,505,050	
Noncommercial Fund Revenues	\$109,965,329	
Noncommercial Fund Total Expenditures	\$105,121,478	
Petroleum UST Incidents – Reported	22,554	
Petroleum UST Incidents - Closed Out	13,839	

As of June 30, 2007, the status of the Commercial and Noncommercial Funds was:

Commercial Fund Balance	\$ 31,214,205
Commercial Fund Claims Pending	\$ 3,845,244
Noncommercial Fund Balance	\$ 4,845,847
Noncommercial Fund Claims Pending	\$ 2,866,359

FY 2006-2007 experienced continued cost management and control from the implementation of Session Law 2004-124, effective October 1, 2004. As described in the prior FY 2005-2006 Annual Report, the Department is prohibited from pre-approving tasks that will be reimbursed by either Fund unless the claim(s) can be paid within 90 days of their approval. Therefore, the Department is only approving further assessment and remediation for those incidents that are judged to be emergency situations and

North Genothe UST Seation Annual Report 2003-2007

those incidents that pose the highest risk to human health and the environment. The combined actions continue to result in focusing available resources on those sites warranting the most urgent attention, while maintaining fiscal integrity of the State Trust Fund. The approach taken in addressing this mandate has been to establish a Risk, Rank, and Abatement (RRA) score that allows the UST program to direct work at the highest risk incidents and reimburse claims for that work in a timely manner. Every week the Department reviews balances, encumbrances, and outlays of both the Commercial and Noncommercial fund, and then adjusts the RRA score to direct as much clean up work as resources will allow. For the 12-month period from July 1, 2006 through June 30, 2007, fund balances have exceeded claims paid for both the Commercial and Noncommercial Funds, reversing the deficit trend of FY 2004-2005.

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Funding for the Underground Storage Tank Cleanup Program

Program funding is provided by revenues from the Commercial and Noncommercial Trust Funds and the Groundwater Protection Loan Fund. The Federal UST Regulatory Grant and the Federal Leaking UST Grant are provided by the Environmental Protection Agency. Of the 84.3 Full Time Equivalent (FTE) positions assigned to the UST program, state revenue funds 63.40 positions and 20.90 are supported by federal grants. In addition, the trust funds and federal grant pay for one laboratory position and four regional administrative positions which support the program.

Commercial and Noncommercial Trust Funds

The Leaking Petroleum Underground Storage Tank Cleanup Act of 1988 (GS 143-215.94A et. seq) established two separate funds: the Commercial Trust Fund and the Noncommercial Trust Fund. Both may be used to reimburse eligible UST owners, operators and landowners for reasonable and necessary costs incurred as a result of environmental cleanup and third party liability claims. Additionally, both funds enable UST Section staff to:

- record and track UST release incidents;
- register and permit commercial USTs, manage the database and receive annual UST operating fee payments;
- identify responsible parties;
- provide technical assistance to tank owners and operators;
- inspect USTs to ensure compliance with UST regulations;
- monitor site cleanups;
- review site assessments and corrective action plans;
- evaluate innovative assessment and cleanup technologies;
- review reimbursement claim procedures;
- manage contracts for cleanups designated as "State Lead";
- inspect and monitor land applications of contaminated soil; and
- identify and evaluate abandoned petroleum USTs.

The UST Section has the authority to contract for the cleanup of petroleum UST incidents if the owner or operator cannot be identified or located, if the owner or operator is financially unable to perform cleanup or if the owner or operator refuses to perform the required cleanup. In the latter case, the section is authorized by general statute to recover costs incurred during assessment and cleanup activities.

Sources of funding for the Commercial Trust Fund include:

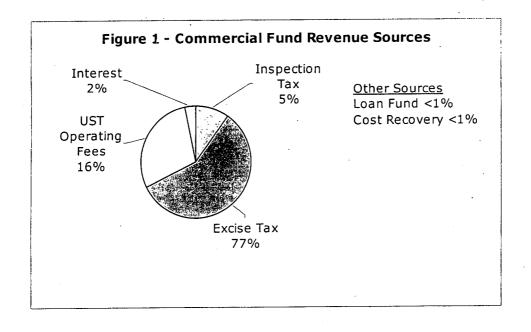
- a motor fuel and kerosene inspection tax (1/4 of \$0.01/gallon);
- a re-occurring excise tax (19/32 of \$0.005/gallon) on motor fuel and kerosene sales;
- annual payment of UST operating fees;
- costs recovered from UST owners and operators for State Lead sites;
- loan collection and interest for the Groundwater Protection Loan Fund; and
- interest earned on the account.

Owners and operators are required to pay annual operating fees to receive operating permits and to be eligible for the Commercial Fund. Annual fees for commercial

USTs began at a rate of \$30 for tanks with a capacity equal to or less than 3,500 gallons (small tanks) and \$60 for tanks with a capacity in excess of 3,500 gallons (large tanks). Tank fees increased annually from 1989 to 1993. From 1993 to 1997, fees were \$150 for small tanks and \$225 for large tanks. Beginning January 1, 1997, annual fees were increased to \$200 for commercial USTs with capacities equal to or less than 3,500 gallons and \$300 for commercial USTs with capacities in excess of 3,500 gallons.

Revenues received for the Commercial Fund for the twelve-month period from July 1, 2006 to June 30, 2007 were approximately \$28 million (Table 1). The relative contributions to the Commercial Fund from each of the funding sources are illustrated in Figure 1.

Table 1 - Commercial Trust Fund Revenues 7/1/06- 6/30/07				
Motor Fuel & Kerosene Inspection Tax	\$ 2,693,239			
Motor Fuel & Gasoline Excise Tax	\$ 15,958,944			
UST Operating Fees	\$ 7,937,236			
State Lead Cost Recovery	\$ 58,705			
Interest	\$ 905,504			
Loan Fund Collection and Interest	\$ 11,209			
Total Commercial Revenues \$ 27,564				
Transfer to Noncommercial	\$(598,935)			
Transfer to Department of Agriculture	\$(90,000)			
Transfer to Federal LUST Program	\$(108,904)			
Net Commercial Revenues \$ 26,766,9				



Groundwater Protection Loan Fund

The Groundwater Protection Loan Fund Program was created in 1991.* It provided financial assistance to owners of commercial USTs who replaced or upgraded their tanks to meet the performance standards required for all USTs by Dec. 22, 1998. Administrative rules implementing the program were adopted by DENR and became effective Dec. 1, 1992. Revenues for the fund were generated through a 0.0025 cent (one quarter of one cent) per gallon motor fuel excise tax received from Jan. 1, 1992 through Dec. 31, 1994.

Funding for the Noncommercial Trust Fund is provided by a motor fuel and kerosene inspection tax and excise taxes (0.047 cents per gallon) on kerosene and motor fuel sales¹. Owners and operators of noncommercial USTs are not required to pay annual operating fees. Revenues received for the Noncommercial Fund for the 12-month period from July 1, 2006 to June 30, 2007 were approximately \$ 6 million (Table 2).

1House Bill # 681 of 1993

Table 2 - Noncommercial Trust Fund Revenues

. 7/1/00 - 0/30/07			
Motor Fuel & Kerosene Inspection Tax	\$ 2,693,239		
Motor Fuel & Gasoline Excise Tax	\$ 2,521,390		
Interest	\$ 221,291		
Transfer from Commercial Fund	\$ 598,535		
Cost Recovery	\$ 19,138		
Total Noncommercial Revenues	\$ 6,053,993		

North Carolina General Statute 119-18(b) states that if the amount of revenue in the Noncommercial Fund at the end of the month is at least \$ 5 million, one-half of the motor fuel inspection tax must be credited to the Commercial Fund and one-half must be credited to the Noncommercial Fund. If the amount of revenue in the Noncommercial Fund at the end of the month is less than this threshold amount, all of the inspection tax will be credited to the Noncommercial Fund. For FY 2006-2007, the net transfer of money from the Noncommercial to the Commercial Fund was \$598,535.

^{*}Session Laws 1991, c. 538, s. 25 - G.S. 143-215.94P

Federal UST Regulatory Grant Program

This program promotes compliance with UST regulations. It provides the state's UST Section with \$186,675 per year to fund three positions in the DWM central office. The positions provide technical assistance to the owners and operators of USTs, develop materials, conduct educational activities, train regional staff and conduct UST inspections.

Federal Leaking UST Grant

The Federal Leaking UST Trust Grant is used to clean up petroleum contamination from leaking USTs, provide potable water to affected third-parties, perform emergency activities, relocate residents affected by leaking USTs and conduct enforcement activities. The use of this grant is limited to regulated USTs, primarily commercial tanks used for storing motor fuels. Tanks used for heating oil and those used for farm or residential uses (1,100 gallons capacity or less) are not covered by this fund.

Individuals (i.e., owners/operators) do not have access to the grant. Only the federal government and states with cooperative agreements with the EPA can draw on the grant. It may be used in situations when: (1) the responsible party cannot be identified; (2) the responsible party is financially unable to pay for the cleanup; or (3) the responsible party is unwilling and refuses to undertake assessment and/or cleanup actions.

Since the state's UST program began in 1988, the Federal Leaking UST Grant has made 26 awards totaling \$48,064,522 to the state's UST Section. As of June 30, 2007, the state has spent \$46,503,880 of these awards. Of that amount, approximately \$21,253,435 has been spent on cleanup activities; \$4,093,627 on enforcement actions; and \$21,156,818 on program administration. Administrative costs include personnel costs, operating costs, travel costs and equipment costs. Because of limitations in program tracking capabilities, program element costs through FY 2000-2001 are estimated. However, in FY 2001-2002, program tracking capabilities were improved such that disbursements can be more accurately reconciled with grant awards.

The program is obligated to seek recovery of all costs incurred during state lead cleanups. As of June 30, 2007, the UST Section had recovered \$1,766,167 in federal cleanup money through cost recovery actions. Of this amount, \$1,021,315 came from the North Carolina Commercial Fund for sites determined eligible for Commercial Fund coverage after cleanup activities had begun.

The EPA approved \$2,041,404 for North Carolina from the Leaking UST Fund for FY 2006-2007.

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Petroleum UST Incidents

Discharges or releases from petroleum USTs are reported to DENR regional offices where they are added to an incident management database. Table 3 lists the number of incidents reported and closed out in each region during the twelve-month period from July 1, 2006 through June 30, 2007. It also shows the number of incidents reported and closed out since the UST program began in 1988.

Table 3 Petroleum UST Incidents By Region ¹

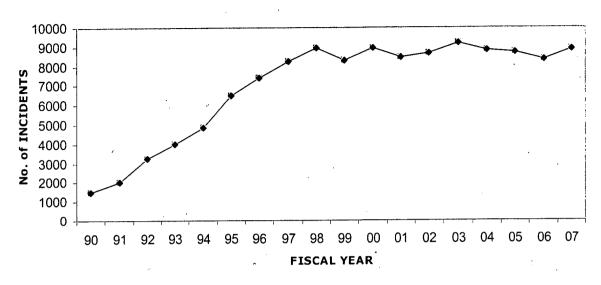
	5 /4 /	106 612	0./07	7/4	/88 - 6/3	0 /07
Region	//1/	06 - 6/3	0/0/	// 1	./00 - 0/3	0/0/
	Reported	Closed	Clean Closures	Reported	Closed	Clean Closures
Asheville	104	55	2	2,316	1,417	867
Fayetteville	41	40	11	1,690	867	1,392
Mooresville	198	268	8	4,480	2,981	2,071
Raleigh	169	216	10	4,553	2,807	697
Washington	126	122	2	2,955	1,761	1,235
Wilmington	70	61	2	1,740	947	733
Winston-Salem	189	318	11	4,820	3,059	2,470
	897	` 1,080	46	22,554	13,839	9,465

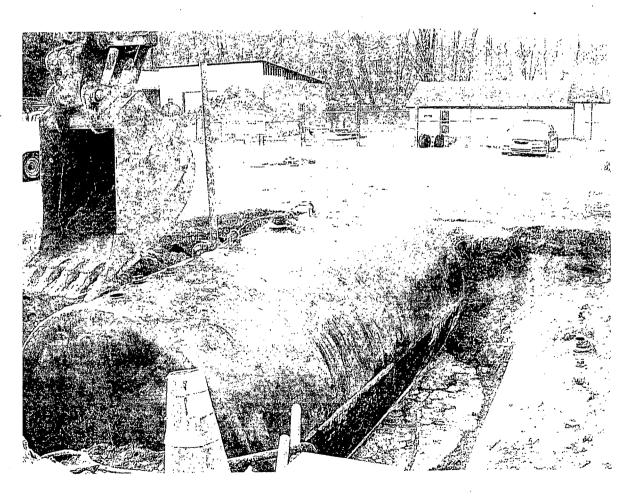
Total reported releases affecting groundwater that have been closed out:	4,701
Total reported releases closed out since implementation of RBCA ¹ :	9,480
² Total remaining open sites:	8,715
Open commercial sites:	6,668
Open noncommercial sites:	2,047

^{1.} Risk-based corrective action implemented 1/2/98.

Beginning January 2, 1998, the UST Section implemented risk-based corrective action rules for petroleum UST incidents. Discharges or releases under these rules receive a risk classification of "high," "intermediate," or "low" based on the potential threat to human health and the environment. Of the total number of UST incidents closed since 1988, 67 percent were closed following implementation of Risk-Based Corrective Action. The total number of open incidents has generally increased since 1988; however, recent data indicates the trend may be leveling off (Figure 2).

Figure 2 - Open UST Incidents





UST Release Incident-Kerosene Free Product in Basin

Receipts and Disbursements: Commercial and Noncommercial Trust Funds and Groundwater Protection Loan Fund

Commercial and Noncommercial Funds

UST owners, operators and landowners may submit reimbursement claims for reasonable and necessary costs incurred during environmental assessment and cleanup activities. Claims may be submitted if the eligibility requirements for the trust funds are met. Deductibles that must be met before receiving reimbursement from the Commercial Fund range from \$20,000 to \$75,000. Noncommercial Fund deductibles are \$0 for UST owners and operators, and \$5,000 for landowners. Table 4 lists the receipts and disbursements by fiscal year for both funds for the period July 1, 1988 to June 30, 2007.

Table 4 - Receipts & Disbursements for Cleanups

7/1/88 - 6/30/07

FISCAL	RECE	IDTS	DISBURS	=MFNTS ¹
YEAR	NECL	11 13	<i>51050</i> (10.	
ILAN	Commercial	Noncommercial	Commercial	Noncommercial
FY 88-89	\$ 2,337,685	\$ 0	\$ 14,768	\$ 0
FY 89-90	5,773,632	2,905,035	79,080	0
FY 90-91	7,330,573	2,934,347	1,616,760	564,206
FY 91-92	13,484,008	3,018,344	4,409,229	2,143,155
FY 92-93	18,032,784	7,693,288	9,651,948	4,069,497
FY 93-94	24,438,966	3,404,086	22,904,802	2,012,312
FY 94-95	56,037,135 ²	5,194,725	37,405,510	2,900,368
FY 95-96	28,178,768	5,215,550	44,060,639	5,029,109
FY 96-97	28,564,034	5,587,781	44,163,273	5,924,799
FY 97-98	27,291,220	5,717,592	30,267,392	3,869,091
FY 98-99	26,783,344	5,945,461	16,104,152	2,776,105
FY 99-00	27,178,623	5,636,563	22,820,069 ³	5,028,505
FY 00-01	27,240,303	5,811,666	24,566,132 ⁴	7,890,618 ⁵
FY 01-02	27,124,210	6,620,808 ⁶	36,872,426	9,182,320
FY 02-03	27,055,759	·· 7,664,329 ⁷	26,498,565	9,898,806
FY 03-04	26,934,685	8,060,151	23,514,179 ⁸	7,756,579
FY 04-05	50,255,908 ¹⁰	14,885,997 ¹⁰	46,966,083 ⁹	11,326,318
FY 05-06	28,143,119	. 7,615,613 ¹¹	15,474,991 ¹¹	5,005,578
FY 06-07	27,564,837	6,053,993 ¹²	7,372,403 ¹²	5,099,349
TOTAL	\$479,749,593	\$109,965,329	\$414,762,401	\$90,486,712

1 Does not include administrative costs.

2 Commercial receipts for FY 94-95 included \$31,288,889 that was transferred from the Groundwater Protection Loan Fund.

Adjustment due to a transfer from the Commercial Fund to the Federal Trust Fund of \$288,117 as a cleanup expenditure rather than as an administrative cost.

4 \$33,866 transferred to Federal Trust Fund as a cleanup expenditure.

5 \$2 million transferred out of Noncommercial Fund to the state's General Fund.

Includes transfer of \$784,382 from Circle K Settlement Fund

7 Includes transfer of \$3,418,990 of motor fuel and kerosene tax from Commercial to Noncommercial trust fund due to balance below \$5 million - General Statute 119-18(b).

Includes transfer of \$2,036,932 from Commercial to Noncommercial trust funds per GS 119.18(b); transfer of \$90,000 to Dept. of Agriculture; and transfer of \$52,722 to Federal trust fund as a cleanup expenditure.

9 Includes transfer of \$3,150,730 from Commercial to Noncommercial trust fund per GS119:18(b). Transfer from Agriculture Department; transfer of \$38,702 to Federal trust fund.

10 Includes additional revenue from the 1-year 1.1 cent per gallon excise tax or \$19,000,000 to the Trust Fund.

11 Includes \$1,922,601 transfer to Noncommercial Fund, \$90,000 transfer to Dept. of Agriculture, and \$30,016 transfer to repay Federal Trust Fund for State Lead program expenses.

12 Includes transfer to Noncommercial Fund of \$598,935 and disbursement from Commercial Fund to Department of Agriculture (\$90,000) and Federal LUST Grant (\$108,904).

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The administrative budget for the state-funded portion of the UST program is derived from the Commercial and Noncommercial Funds. Table 5 lists past administrative expenditures since the beginning of the UST program.

Table 5 - Administrative Expenditures

FISCAL YEAR	COMMERCIAL	NONCOMMERCIAL
FY 89-90	\$ 201,255	\$ 201,254
FY 90-91	547,595	547,595
FY 91-92	517,221	517,221
FY 92-93	601,687	601,686
FY 93-94	694,424	694,423
FY 94-95	666,270	666,270
FY 95-96	2,322,632	783,684
FY 96-97	2,623,339	801,143
FY 97-98	2,530,036	667,724
FY 98-99	2,567,668	620,574
FY 99-00	2,579,540*	570,738
FY 00-01	2,730,236	733,811
FY 01-02	2,397,264	913,755
FY 02-03	2,221,851	1,166,494
FY 03-04	2,527,451	1,244,864
FY 04-05	2,654,447	1,265,079
FY 05-06	2,636,228	1,298,441
FY 06-07	2,725,418	1,349,006
TOTAL	\$ 33,744,562	\$ 14,643,762

Incorporating the administrative costs into receipts and cleanup disbursements yields these Commercial and Noncommercial Fund balances:

Commercial Fund Balance (as of June 30, 2007)	\$31,214,205
Noncommercial Fund Balance (as of June 30, 2007)	\$ 4,845,847

^{*}Adjustment due to a transfer of \$288,117 from the Commercial Fund to the Federal Trust Fund as a cleanup expenditure rather than an administrative cost.

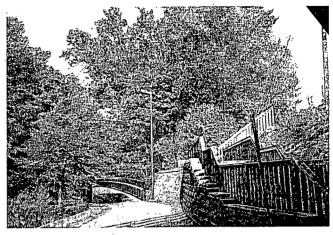
Groundwater Protection Loan Fund

After the Groundwater Protection Loan Fund was created, 11 North Carolina banks agreed to administer the loan program. As of June 30, 1995, four loans totaling \$1,228,350 had been closed. After this date, remaining funds of \$31,288,889 were deposited into the Commercial Trust Fund. Loan repayments are also deposited into the Commercial Fund. During the twelve-month period ending June 30, 2007, \$ 9,893 was repaid. Total receipts for the Loan Fund since its inception in January 1992 are \$33,178,602. The program is no longer active, but loan payments continue to be received.

Claims Against the Cleanup Funds

Claims against both the Commercial and Noncommercial Funds are processed on a "first-come, first-served" basis. The status of all claims requesting reimbursement from both funds that were received as of June 30, 2007 is presented in Table 6. These claims only include costs claimed to date, and do not represent the total costs for cleanups.

UST Section staff has supervised contract 640 commercial cleanups at noncommercial sites (Table 511 commercial and 129 noncommercial). With the close of FY 2006-2007, the second year



Glenwood Avenue, Raleigh - Phytoremediation

of the three-year contract for the State Lead program has been completed.

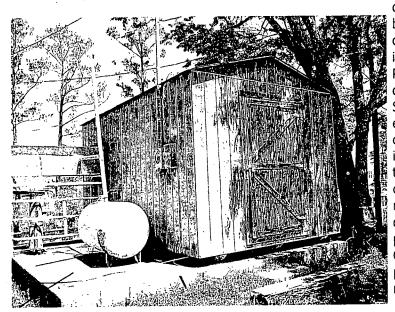
Table 6 - Claims Against the Cleanup Fund				
		rcial Fund		mercial Fund
	Number	<u>Cost</u>	<u>Number</u>	Cost
Claims Paid	26,164	\$393,112,896	10,558	\$85,271,316
Incidents Denied Totally ¹	33	\$4,573,040	4	\$59,845
Claims Denied Partially ²	14,970	\$80,422,978	4,647	\$11,378,149
Total Deductibles Paid		\$73,436,955		\$852,553
Claims Pending	321	\$3,845,244	346	\$2,866,359
Contracted Cleanups ³	511	\$12,906,905	129	\$1,700,621
¹ Ineligible				
² Excessive or undocur	mented costs			

State Lead actions undertaken or completed

Commercial and Noncommercial Fund Balances and Projected Needs

Commercial Fund

As of June 30, 2007, the Commercial Fund balance was \$31,214,205 with pending claims of \$3,845,244 (see Figure 3, Page 12). From fiscal year 2000 through 2004, the



difference between the fund balance and the pending steadily claim amounts increased (see Figure 4, Page 12). This was largely due to the fact that the UST Section implemented expedited review process during fiscal year 2001-2002 in an effort to reduce the time for claim review. While claim review time was reduced, the result was a delay in the reimbursement since payment, Commercial Fund could only pay out what had been received for the month.

Soil and Groundwater Vapor Extraction Remediation System

This trend continued up to fiscal year 2004-2005. With the passage of Session Law 2004-124, the difference decreased markedly. The present situation represents a significant change in the complexion of the commercial fund program over previous years because the UST Section now directs most of the work that can be accomplished, and only those commercial and noncommercial incidents with threshold level risks are directed to continue with assessments and remediations. This results in greater fiscal control over the program and focuses resouces on those sites exhibiting the greatest risks to human health and the environment. The Trust Fund balance has remained greater than disbursements and claims pending (Table 7). With strong fiscal management, the Trust Fund has been able to periodically lower the RRA score and direct additional high risk incidents.

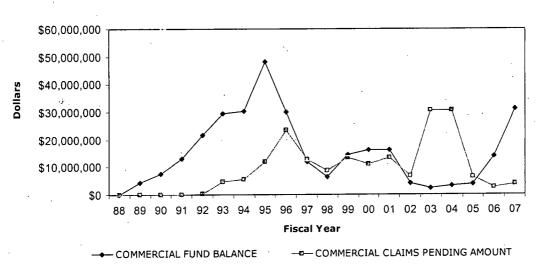


Figure 3 - Commercial Fund Balance and Claims Pending Amount



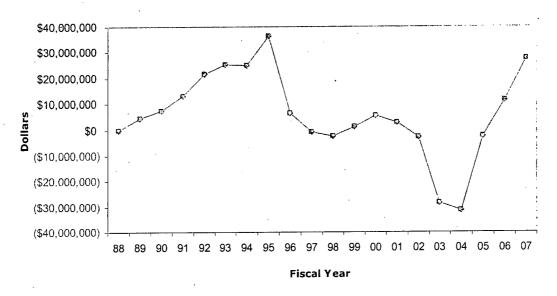


Table 7 - Total Commercial Fund Revenues and Expenditures 7/1/06 - 6/30/07		
Total Commercial Revenues (see Table 1)	\$ 27,564,837	
Total Claims and Contracted Cleanups Transfers ¹ Administrative Costs Total Commercial Expenditures	\$ 5,574,555 \$ 598,935 <u>\$ 2,725,418</u> \$ 8,299,982	

1-From Table 4, footnote 12, transfer to the Noncommercial Fund for State Lead expenses.

One initiative which may affect a future demand on the Commercial Fund is pay-forperformance cleanups. On Oct. 1, 2001, the General Assembly ratified House Bill 1063, which allows responsible parties to participate in the pay-for-performance program on a voluntary basis. Pay-for-performance is a reimbursement method that requires cleanup goals to be met before payments can be made to environmental consultants. This reimbursement method requires the Trust Fund to obligate the contracted cleanup costs. Pay-for-performance obligations may initially place a higher demand on the Trust Fund, but should greatly decrease the costs of cleanups and thus result in a lesser burden to the Trust Fund.

Other factors that may affect future demands on the Commercial Fund are claims for bodily injuries and property damages brought by third parties. In FY 2006-2007, one third party claim was settled for \$304,704. Two other claims totaling \$121,000 were settled, but since neither claim exceeded the \$100,000 deductible, there were no payments made. The financial impact of third party claims, while anticipated, cannot be estimated with certainty because their financial resolution falls outside of the direct control of the Trust Fund.

After UST operating fees were raised on Jan. 1, 1997, revenue from this funding source declined through the end of FY 1998-99 (Table 8). This decrease was likely due to the reduction in the number of registered USTs that occurred as a result of the federal 1998 upgrade regulations. Overall, since 1998, the number of registered USTs has generally decreased. As in FY 2004-05, the number of registered USTs has decreased during the period from July 1, 2006 to June 30, 2007. UST operating fees have remained essentially stable.

Table 8 – Commercial UST Population and Operating Fee Revenue				
Fiscal Year	No. of Commercial USTs Billed	Operating Fee Revenue		
FY 1988-89	-	\$ 4,322,917		
FY 1989-90		\$ 8,086,895		
FY 1990-91	57,385	\$ 6,889,969		
FY 1991-92	52,529	\$ 9,910,737		
FY 1992-93	48,812	\$18,032,784		
FY 1993-94	43,314	\$23,661,875		
FY 1994-95	39,289	\$ 8,500,000		
FY 1995-96	37,529	\$11,050,000		
FY 1996-97	37,776	\$10,839,975		
FY 1997-98	36,563	\$10,008,917		
FY 1998-99	34,428	\$ 8,697,468		
FY 1999-00	33,558	\$ 8,844,093		
FY 2000-01	33,776	\$ 8,464,019		
FY 2001-02	32,839	\$ 8,553,715		
FY 2002-03	31,155	\$ 8,087,033		
FY 2003-04	32,005	\$ 8,309,807		
FY 2004-05	31,518	\$ 7,987,101		
FY 2005-06	30,638	\$ 7,951,508		
FY 2006-07	30,145	\$ 7,937,236		

At present, there are approximately 6,668 commercial incidents that have yet to be closed out. Risk levels at these sites rank from low to high. With implementation of Session Law 2004-124, the Department now directs most work done at both Commercial and Noncommercial incidents. In addition, all high risk incidents have been assigned a relative risk, and further assessment and remediation is being directed on only those incidents with a high enough relative risk. While the statutory responsibility of the responsible party to address their incident remains, the Session Law limits the number of incidents that can be addressed and the cost of work reimbursed. This improves fiscal control and management, but it will result in a longer time necessary to address all petroleum releases.

Data tracking improvements are continuously made to the UST incident management database. These changes will enable the UST Section to better predict the number of incident closures and project Commercial Fund expenditures.

UST systems pose a substantial threat to human health and the environment. While the total number of reported incidents has decreased, down from over 1,200 a few years ago, there were over 900 releases reported last year. Maintaining the quality of North Carolina's drinking water and groundwater depends on preventing releases to the environment. Direct education and technical assistance for tank owners and operators is critical. Only education and assistance ensure responsible handling of petroleum products (including methyl tert-butyl ether) and early detection in the event of a leak.

North Carolina currently has about 30,145 active regulated USTs at 10,806 facilities. We estimate that 40 to 50 percent of the facilities are located within 500 feet of both domestic and public drinking water supplies. Our inspection data show that over 30 percent of tank owners and operators do not comply with UST regulations. These regulations cover proper operation and maintenance, with an emphasis on leak detection. If we are to preserve the quality of North Carolina's drinking water, improving compliance must be a future priority.



UST Release Incident-Tank Removal

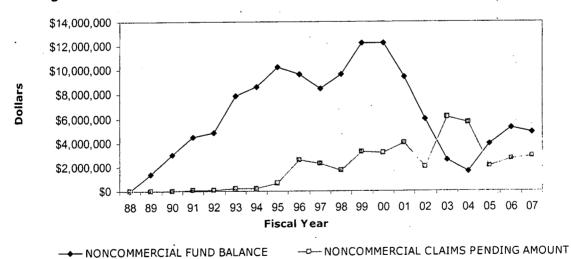
To ensure that all UST facilities are in compliance with the rules and regulations necessary to prevent releases, the UST program presently has 16 inspectors, one support staff, and one attorney. These inspectors are responsible for all phases of facility compliance, including inspection preparation, on-site inspecting, inspection data entry, follow-up inspections, owner and operator training, and enforcement activities. Each inspector can complete approximately 250 inspections per year. This inspection rate only allows the program to inspect each facility once every four to five years. Experience has shown that more frequent inspections lead to improved compliance and fewer releases, particularly since many facilities change ownership each year and many new owners are unfamiliar with UST regulations. The preferred inspection frequency is once every two years and, in fact, the federal Energy Act mandates a three-year inspection frequency by 2010. For FY 2006-2007, considerable progress was made in FY 2006-2007 to meet the required performance requirements. inspectors are anticipated to meet inspection and compliance goals. An additional nine full-time inspectors, one support staff, and one attorney are needed to get the inspection rate to the desired two-year cycle.

Noncommercial Fund

As of June 30, 2007, the Noncommercial Fund balance was \$4,845,847(Table 9). The total for pending claims stood at \$2,866,359. Based on the past 12 month period, the demands on the Fund have decreased. We anticipate that this will improve the payments being made in a timelier manner, just as in the Commercial Fund (Figures 5 and 6).

Table 9 - Total Noncommercial Fund Revenues, Expenditures and Balance 7/1/06-6/30/07			
Noncommercial Fund Balance as of 6/30/06	\$5,240,209		
Total Noncommercial Revenues (see Table 2, page 3)	\$6,053,993		
Total Noncommercial Expenditures		(\$6,448,355)	
Total Claims and Contracted Cleanups	\$5,099,349		
Administrative Costs	\$1,349,006		
Noncommercial Fund Balance as of 6/30/07		\$4,845,847	

Figure 5 - Noncommercial Fund Balance and Claims Pending Amount



\$12,000,000 \$10,000,000 \$8,000,000 \$4,000,000 \$0 (\$2,000,000) (\$4,000,000) (\$6,000,000) (\$6,000,000) (\$6,000,000) (\$6,000,000)

Figure 6 - Noncommercial Fund Balance Minus Claims Pending Amount

Fiscal Year

Table 10 shows the estimated cost to complete cleanups for noncommercial incidents reported from July 1, 2006 to June 30, 2007. It should be noted, however, that cleanups can easily extend over several years and costs may vary greatly. In addition, these figures do not include remedial costs for reported releases from past fiscal years.

Table 10 – Estimate of Cleanup Costs for Noncommercial Incidents Reported July 1, 2006 – June 30, 2007

Reported July 1, 2006 – June 30, 2007		
Region	Incidents*	Total Estimated Cleanup Cost**
Asheville		\$ 1,407,900
Fayetteville	5	\$ 123,500
Mooresville	106	\$ 2,618,200
Raleigh	115	\$ 2,840,500
Washington	97	\$ 2,395,900
Wilmington	46	\$ 1,136,200
Winston-Salem	<u>119</u>	<u>\$ 2,939,300</u>
Total	545	\$13,461,500

^{*}In evaluating the last 12-month period, approximately 61% of reported new releases are from noncommercial sites

^{**}An average cost of \$ 24,700 is used as an estimate of total cleanup costs for noncommercial sites

Pay for Performance

On October 15, 2001, House Bill 1063 was enacted by the North Carolina General Assembly. This bill gives the Division of Waste Management's Underground Storage Tank program the authority to allow performance-based cleanups of discharges or releases of petroleum from underground storage tanks. Two petroleum release incidents were ultimately selected for the pilot program and performance-based contracts were awarded to two qualified environmental service providers to cleanup the releases for set costs and in specified time periods. In both cases, specified milestones (generally percentage reductions in contaminate levels in the soil and groundwater) must be achieved before reimbursements for costs are made to the environmental service providers from the Commercial Trust Fund.

A full report of the pilot study is attached to this annual report.

Recommendations

The UST Section makes the following recommendations for the Commercial and Noncommercial Trust Funds and the UST program:

- Transition (and ultimately terminate) the providing of required financial responsibility (FR) for owners and operators of regulated, commercial USTs from the trust fund to other mechanisms, such as private insurance and self-insurance. Ending the use of the trust fund as a provider of FR will eventually greatly reduce the need to use trust fund resources to clean up new releases from responsible owners and operators. Transitioning to private insurance, self-insurance, or other non-trust fund mechanisms of FR will also tend to reduce the number and severity of releases by giving tank owners and operators real incentives to be vigilant in preventing releases before contamination reaches the state's soil and ground water.
- Increase annual operating fees to increase the amount of money coming into the trust funds in order to address free product at every occurrence and to clean up more existing UST releases.
- Increase release prevention by implementing a phase in of secondary containment requirements for existing, non-secondarily contained UST systems. For instance, a phased approach could be implemented by secondarily containing the oldest tanks first.
- Increase release prevention by increasing the inspection frequency for USTs in North Carolina. More frequent inspections will have the following positive effects: ensure UST systems are in compliance with all release prevention and detection requirements, detect and correct more out-of-compliance equipment and operating procedures that could allow a release, and detect some undiscovered releases before contamination of the soil and ground water occurs.
- Increase release prevention by providing more frequent release prevention and detection training to UST owners and operators. This last benefit is particularly important due to the large number of UST facilities being bought and operated by new and inexperienced owner/operators each year.

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- Continue to find and implement better and more cost-effective methods for assessing and cleaning up petroleum releases, including reviewing existing rules and regulations and reducing or eliminating requirements whenever practical while maintaining a sufficient level of protection for public health and the environment.
- Implement technical changes to existing law, such as setting time limits on filing claims and seeking eligibility determination, in order to lessen the logistics of the process and to determine the trust fund's total liability for cleaning up releases.
- Continue to encourage responsible parties of UST releases to consider pay-for-performance cleanups of their incidents. Pay-for-performance (PFP) is a reimbursement method that requires cleanup goals to be met before payments can be made to environmental consultants. The PFP pilot program indicates that cost savings are realized in cleaning up the pilot program sites selected.

THE NORTH CAROLINA UNDERGROUND STORAGE TANK PROGRAM IN BRIEF

A: The Universe of Underground Storage Tanks (as of 30 June 2007)

- 1. There are 28,916 regulated petroleum USTs at approximately 9,000 facilities, owned by about 5400 owners. These USTs pay annual operating fees and can access the trust fund, and require inspections.
- 2. In addition, there are 1,076 commercial heating oil USTs. These USTs pay annual operating fees and can access the trust fund, but do not require inspections.
- 3. Of the 28,916 regulated USTs, about 16% were installed more than 30 years ago; about 22% were installed 20-29 years ago; about 41% were installed 19-10 years ago; and about 21% were installed less than 10 years ago.
- 4. We estimate that there are also approximately 250,000 home heating oil tanks in the state. These are unregulated tanks that do not require inspections and do not pay annual operating fees, but they can access the noncommercial trust fund for costs of cleanups.

B: The UST Program's Corrective Action Progress (as of 1 September 2007)

- 1. Since the program's inception, we have recorded 22,554 incidents of leaking UST systems.
- 2. We have issued Notices of No Further Action (closed out) 13,839 of these incidents.
- 3. In addition, there have been 6,260 "clean closures" of tank systems. These were closures where there was no release of petroleum (and therefore no reported incident).
- 4. Presently, we have 6,414 active regulated UST releases: 2,232 are High-Risk; 1,313 are Intermediate-Risk; 1,947 are Low-Risk; and 922 are Unconfirmed-Risk. We have trust fund resources to direct cleanup activities at about 1718 of the High Risk releases and initial abatement and assessment activities at all releases.
- 5. Presently, we also have 2,301 active non-regulated UST (home heating oil tank) releases: 607 High-Risk; 202 Intermediate-Risk; 908 Low-Risk; and 584 Unconfirmed-Risk. We have trust fund resources to direct work at about 50 High Risk releases and initial abatement and assessment activities at all releases.

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C: The UST Program's Compliance Progress

- 1. The UST program has 13 full-time UST inspectors and 2 time-limited UST inspectors to conduct compliance inspections of the approximately 9,000 UST facilities. Inspectors also conduct annually about 240 complaint inspections, follow-up inspections, and educational inspections for all facilities, and 300 installation inspections for new and replacement UST systems (tanks and piping). In order to conduct compliance inspections of every UST facility at least once every three years, as well as complaint, follow-up, educational, and installation inspections, our inspectors must conduct about 10620 inspections every three years.
- 2. Typically, each inspector can conduct about 185 inspections per year, including file reviews, inspection set-ups, the on-site inspections, follow-up meetings with the facilities, data entry, reports, and enforcement (about 40% to 50% of inspections find violations). In order to be able to meet the inspection goals (particularly those of the federal Energy Policy Act of 2005) we must add about eight inspectors to the program (six new ones and two to replace the two time-limited federally-funded inspectors whose tenure ends in October 2009). Right now, our overall compliance rate is about 60%. Our goals are to meet the federal Energy Policy Act mandate to conduct compliance inspections at every UST facility at least once every three years and to increase the compliance rate to 90%.

D: The Commercial Fund

Since the inception of the Commercial Trust Fund in 1988, it has received about \$480 million and disbursed about \$449 million. Of the funds disbursed, 93% has gone toward cleanup of releases from USTs and third-party claims. 7% of the money has been used to administer the UST program.

E: The Non-Commercial Fund

Since the inception of the Non-Commercial Trust Fund in 1988, it has received about \$110 million and disbursed about \$105 million. Of the funds dispersed, about 87% has gone toward cleanup of releases from USTs. 13% of the money has been used to administer the UST Program.

- F: Recommendations from annual report.
- **G:** Recommendations from PFP study.

Presented to the NC ERC on 9 May 2008 by Grover Nicholson, Chief, UST Section Contact at 919-733-1300 or grover.nicholson@ncmail.net

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GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2007

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SENATE BILL 1554* PROPOSED COMMITTEE SUBSTITUTE S1554-CSRIf-35 [v.9]

5/9/2008 9:28:36 AM

Short Title:	Underground Storage Tank Prgm. Amends 2008.	(Public)
Sponsors:		
Referred to:		

March 28, 2007

A BILL TO BE ENTITLED

AN ACT (1) TO PROVIDE ADDITIONAL FUNDS FOR THE CLEANUP OF RELEASES AND DISCHARGES OF PETROLEUM FROM UNDERGROUND STORAGE TANKS BY INCREASING THE FEES PAID BY OWNERS AND OPERATORS OF COMMERCIAL UNDERGROUND STORAGE TANKS, (2) TO REDUCE THE INCIDENCE OF LEAKS BY REQUIRING SECONDARY CONTAINMENT FOR ALL COMPONENTS OF REGULATED PETROLEUM UNDERGROUND STORAGE TANK SYSTEMS, (3) TO PROVIDE FOR CLEANUP **RELEASES** ASSESSMENT AND OF EXPEDITED DISCHARGES FROM PETROLEUM UNDERGROUND STORAGE TANKS BY REQUIRING THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES TO ESTABLISH A PILOT PROGRAM TO EVALUATE THE USE SITE-SPECIFIC CLEANUP STANDARDS, (4) TO PROVIDE FOR VARIOUS STUDIES AND REPORTS, AND (5) TO MAKE OTHER IMPROVEMENTS TO THE UNDERGROUND STORAGE TANK CLEANUP PROGRAM.

The General Assembly of North Carolina enacts:

SECTION 1. G.S. 143-215.94C reads as rewritten:

"§ 143-215.94C. Commercial leaking petroleum underground storage tank cleanup fees.

- (a) For purposes of this subsection, each compartment of a commercial underground storage tank that is designed to independently contain a petroleum product is a separate petroleum commercial underground storage tank. The owner or operator of a commercial petroleum underground storage tank shall pay to the Secretary for deposit into the Commercial Fund an annual operating fee of four-hundred and twenty dollars (\$420.00) according to the following schedule:
 - (1) For for each petroleum commercial underground storage tank. tank of 3,500 gallons or less capacity—two hundred dollars (\$200.00).

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- 1 (2) For each petroleum commercial underground storage tank of more than 3,500 gallon capacity—three hundred dollars (\$300.00).

 3 (b) The annual operating fee shall be determined on a calendar year basis. For
 - The annual operating fee shall be determined on a calendar year basis. For petroleum commercial underground storage tanks in use on 1 January and remaining in use on or after 1 December of that year, the annual operating fee due for that year shall be as specified in subsection (a) of this section. For a petroleum commercial underground storage tank that is first placed in use service in any year, the annual operating fee due for that year shall be determined by multiplying one-twelfth (1/12) of the amount specified in subsection (a) of this section by the number of months remaining in the calendar year. For a petroleum commercial underground storage tank that is permanently removed from use service in any year, the annual operating fee due for that year shall be determined by multiplying one-twelfth (1/12) of the amount specified in subsection (a) of this section by the number of months in the calendar year preceding the permanent removal from use. In calculating the pro rata annual operating fee for a tank that is first placed in use or permanently removed during a calendar year under the preceding two sentences, a partial month shall count as a month, except that where a tank is permanently removed and replaced by another tank, the total of the annual operating fee for the tank that is removed and the replacement tank shall not exceed the annual operating fee for the replacement tank. The annual operating fee shall be due and payable on the first day of the month in accordance with a staggered schedule established by the Department. The Department shall implement a staggered schedule to the end that the total amount of fees to be collected by the Department is approximately the same each quarter. A person who owns or operates more than one petroleum commercial underground storage tank may request that the fee for all tanks be due at the same time. The fee for all commercial underground storage tanks located at the same facility shall be due at the same time. A person who owns or operates 12 or more commercial petroleum storage tanks may request that the total of all fees be paid in four equal payments to be due on the first day of each calendar quarter, provided that the fee for all commercial underground storage tanks located at the same facility shall be due at the same time.
 - (c) Beginning no later than sixty days before the first due date of the annual operating fee imposed by this section, any person who deposits a petroleum product in a commercial underground storage tank that would be subject to the annual operating fee shall, at least once in each calendar year during which such deposit of a petroleum product is made, notify the owner or operator of the duty to pay the annual operating fee. The requirement to notify pursuant to this subsection does not constitute a duty owed by the person depositing a petroleum product in a commercial underground storage tank to the owner or operator and the person depositing a petroleum product in an underground storage tank shall not incur any liability to the owner or operator for failure to give notice of the duty to pay the operating fee.
 - (d) Repealed by Session Laws 1991, c. 538, s. 3.1.
 - (e) An owner or operator of a commercial underground storage tank who fails to pay an annual operating fee due under this section within 30 days of the date that the fee is due shall pay, in addition to the fee, a late penalty of five dollars (\$5.00) per day per

 commercial underground storage tank, up to a maximum equal to the annual operating fee due. The Department may waive a late penalty in whole or in part if:

- (1) The late penalty was incurred because of the late payment or nonpayment of an annual operating fee by a previous owner or operator.
- (2) The late penalty was incurred because of a billing error for which the Department is responsible.
- Where the late penalty was incurred because the annual operating fee was not paid by the owner or operator due to inadvertence or accident.
- (4) Where payment of the late penalty will prevent the owner or operator from complying with any substantive law, rule, or regulation applicable to underground storage tanks and intended to prevent or mitigate discharges or releases or to facilitate the early detection of discharges or releases."

SECTION 2.(a) G.S. 143-215.94E is amended by adding two new subsections to read:

- "(j) An owner, operator, or landowner shall request that the Department determine whether any of the costs of assessment and cleanup of a discharge or release from a petroleum underground storage tank are eligible to be paid or reimbursed from either the Commercial Fund or the Noncommercial Fund within one year after completion of any task that is eligible to be paid or reimbursed under G.S. 143-215.94B(b), 143-215.94B(b1), or 143-215.94D(b1).
- (k) An owner, operator, or landowner shall request payment or reimbursement from the Commercial Fund or the Noncommercial Fund for the cost of a task within one year after the completion of the task. The Department shall deny any request for payment or reimbursement of the cost of any task that would otherwise be eligible to be paid or reimbursed if the request is not received within 12 months after the later of the date on which the:
 - (1) Department determines that the cost is eligible to be paid or reimbursed.
 - (2) Task is completed."

SECTION 2.(b) Notwithstanding G.S. 143-215.94E(k), as enacted by subsection (a) of this section, an owner, operator, or landowner shall request payment or reimbursement of the cost of any task completed prior to 1 January 2009 that is eligible to be paid or reimbursed from the Commercial Fund or the Noncommercial Fund no later than 1 January 2010. The Department shall deny any request for payment or reimbursement of the cost of any task to which this subsection applies that is made after 1 January 2010.

SECTION 3. G.S. 143-215.94G is amended by adding four new subsections to read:

"(g) If the Department paid or reimbursed costs that are not authorized to be paid or reimbursed under G.S. 143-215.94B or G.S. 143-215.94D as a result of a misrepresentation by an agent who acted on behalf of an owner, operator, or landowner,

- the Department shall first seek reimbursement, pursuant to subdivision (1) of subsection (d) of this section, from the agent of monies paid to or retained by the agent.
- (h) The Department shall take administrative action to recover costs or bring a civil action pursuant to subdivision (1) of subsection (d) of this section to seek reimbursement of costs in accordance with the time limits set out in this subsection.
 - The Department shall take administrative action to recover costs or bring a civil action to seek reimbursement of costs that are not authorized to be paid from the Commercial Fund under subdivisions (1), (2), (3), or (9) of G.S. 143-215.94B(d) or from the Noncommercial Fund under subdivisions (1), (2), or (3) of G.S. 143-215.94D(d) within five years after payment.
 - (2) The Department shall take administrative action to recover costs or bring a civil action to seek reimbursement of costs other than those described in subdivision (1) of this subsection within three years after payment.
 - (3) Notwithstanding the time limits set out in subdivisions (1) and (2) of this subsection, the Department may take administrative action to recover costs or bring a civil action to seek reimbursement of costs paid as a result of fraud or misrepresentation at any time.
- (i) An administrative action or civil action that is not commenced within the time allowed by subsection (h) of this section is barred.
- (j) Except with the consent of the claimant, the Department may not withhold payment or reimbursement of costs that are authorized to be paid from the Commercial Fund or the Noncommercial Fund in order to recover any other costs that are in dispute unless the Department is authorized to withhold payment by a final decision of the Commission pursuant to G.S. 150B-36 or an order or final decision of a court."

SECTION 4. G.S. 143-215.94H reads as rewritten:

"§ 143-215.94H. Financial responsibility.

- (a) The Department shall require each owner and operator of a petroleum underground storage tank who is required to demonstrate financial responsibility under rules promulgated by the United States Environmental Protection Agency pursuant to 42 U.S.C. § 6991b(d) to maintain evidence of financial responsibility of not less than that is the lesser of:
 - (1) The full amount of the financial responsibility that an owner or operator is required to demonstrate under rules promulgated by the United States Environmental Protection Agency pursuant to 42 U.S.C. § 6991b(d).
 - The amounts required to be paid for by the owner or operator pursuant to G.S. 143-215.94E(b) per occurrence for costs described in G.S. 143-215.94B(b) and G.S. 143-215.94D(b1).

 G.S. 143-215.94B(b1) if costs are eligible to be paid under those subsections.
- (b) Financial responsibility may be established in accordance with rules adopted by the Commission which shall provide that financial responsibility may be established

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by either insurance, guarantee, surety bond, letter of credit, qualification as a self-insurer, or any combination thereof. The compliance date schedule for 2 demonstrating financial responsibility shall conform to the schedule adopted by the 3 4 Environmental Protection Agency." 5

SECTION 5. G.S. 143-215.94T reads as rewritten:

"§ 143-215.94T. Adoption and implementation of regulatory program.

- The Commission shall adopt, and the Department shall implement and storage tanks provided underground as enforce. relating to G.S. 143-215.3(a)(15) and G.S. 143B-282(2)h. These rules shall include standards and requirements applicable to both existing and new underground storage tanks and tank systems, may include different standards and requirements based on tank capacity, tank location, tank age, and other relevant factors, and shall include, at a minimum, standards and requirements for:
 - Design, construction, and installation, including monitoring systems. (1)
 - Notification to the Department, inspection, and registration. (2)
 - Recordation of tank location. (3)
 - Modification, retrofitting, and upgrading. (4)
 - General operating requirements. (5)
 - Release detection. (6)
 - Release reporting, investigation, and confirmation. **(7)**
 - Corrective action. (8)
 - Repair. (9)
 - (10)Closure.
 - Financial responsibility. (11)
 - Tank tightness testing procedures and certification of persons who (12)conduct tank tightness tests.
 - Secondary containment for nontank—all components of petroleum (13)underground storage tank systems.
- Rules adopted pursuant to subsection (a) of this section that apply only to (b) commercial underground storage tanks shall not apply to any:
 - Farm or residential underground storage tank of 1,100 gallons or less (1) capacity used for storing motor fuel for noncommercial purposes.
 - Underground storage tank of 1,100 gallons or less capacity used for (2) storing heating oil for consumptive use on the premises where stored.
 - Underground storage tank of more than 1,100 gallon capacity used for (3) storing heating oil for consumptive use on the premises where stored by four or fewer households.
- Rules adopted pursuant to subdivision (13) of subsection (a) of this section (c) shall require secondary containment for all nontank-components of underground storage tank systems, including all piping and including, but not limited to, tanks, piping, fittings, pump heads, and dispensers. Secondary containment requirements shall include standards for double wall piping tanks, piping, and fittings and for sump containment for pump heads and dispensers. The rules shall provide for monthly-release detection monitoring of double wall interstices and sump containments. The rules shall apply to

any underground storage tank system that is installed on or after the date on which the rules become effective and to the replacement of any nontank—component of an underground storage tank system on or after that date."

SECTION 6. G.S. 143-215.94U reads as rewritten:

- "§ 143-215.94U. Registration of petroleum commercial underground storage tanks; operation of petroleum underground storage tanks; operating permit required.
- (a) The owner or operator of each petroleum commercial underground storage tank shall annually obtain an operating permit from the Department for the facility at which the tank is located. The Department shall issue an operating permit only if the owner or operator: operator has done all of the following:
 - (1) Has notified Notified the Department of the existence of all tanks as required by 40 Code of Federal Regulations § 280.22 (1 July 1994 Edition) or 42 U.S.C. § 6991a, if applicable, at the facility; facility.
 - (2) Has paidPaid all fees required under G.S. 143-215.94C for all commercial petroleum underground storage tanks located at the facility; facility.
 - (3) Complies with applicable release detection, spill and overfill protection, and corrosion protection requirements set out in rules adopted pursuant to this Chapter, notifies the Department of the method or combination of methods of leak detection, spill and overfill protection, and corrosion protection in use, and certifies to the Department that all applicable release detection, spill and overfill protection, and corrosion protection requirements are being met for all petroleum underground storage tanks located at the facility; facility.
 - (4) If applicable, complies with the Stage I vapor control requirements set out in 15A North Carolina Administrative Code 2D.0928, effective 1 March 1991, notifies the Department of the method or combination of methods of vapor control in use, and certifies to the Department that all Stage I vapor control requirements are being met for all petroleum underground storage tanks located at the facility; and facility.
 - (5) Has substantially Substantially complied with the air quality, groundwater quality, and underground storage tank standards applicable to any activity in which the applicant has previously engaged and has been in substantial compliance with federal and State laws, regulations, and rules for the protection of the environment. In determining substantial compliance, the compliance history of the owner or operator and any parent, subsidiary, or other affiliate of the owner, operator, or parent may be considered.
 - (6) Demonstrated financial responsibility as required by G.S. 143-215.94H.
- (b) The operating permit shall be issued at the time the commercial underground storage annual tank operating fee required under G.S. 143-215.94C(a) is paid and shall be valid from the first day of the month in which the fee is due through the last day of

the last month for which the fee is paid in accordance with the schedule established by the Department under G.S. 143-215.94C(b).

- (c) No person shall place a petroleum product, and no owner or operator shall cause a petroleum product to be placed, into an underground storage tank at a facility for which the owner or operator does not hold a currently valid operating permit.
- (d) The Department shall issue an operating permit certificate for each facility that meets the requirements of subsection (a) of this section. The operating permit certificate shall identify the number of tanks at the facility and shall conspicuously display the date on which the permit expires. Except for the owner or operator, no person shall be liable under subsection (c) of this section if an unexpired operating permit certificate is displayed at the facility, unless the person knows or has reason to know that the owner or operator does not hold a currently valid operating permit for the facility.
- (e) The Department may revoke an operating permit only if the owner or operator fails to continuously meet the requirements set out in subdivisions (1) through (4) of subsection (a) of this section. If the Department revokes an operating permit, the owner or operator of the facility for which the operating permit was issued shall immediately surrender the operating permit certificate to the Department, unless the revocation is stayed pursuant to G.S. 150B-33. An owner or operator may challenge a decision by the Department to deny or revoke an operating permit by filing a contested case under Article 3 of Chapter 150B of the General Statutes. The Secretary shall make the final agency decision regarding the revocation of a permit under this section."

SECTION 7.(a) The definitions set out in G.S. 143-215.94A apply to this section. As used in this section, "Department" means the Department of Environment and Natural Resources and, with respect to any power or duty assigned to the Environmental Management Commission under Article 21A of Chapter 143 of the General Statutes, includes the Environmental Management Commission. As used in this section, "site-specific cleanup standards" means standards developed using the methodology described in the Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites adopted by the American Society for Testing and Materials (ASTM) as E1739-95(2002).

SECTION 7.(b) The Department shall establish a pilot program to evaluate the use of site-specific cleanup standards for the cleanup of discharges or releases of petroleum from underground storage tanks as an alternative to the use of the risk-based assessment and corrective action standards set out in 15A NCAC 2L.0115. The purpose of the pilot program is to determine the extent to which the use of site-specific standards would provide effective protection of public health, safety, and the environment in a cost-effective manner and at a lower overall cost as compared with the use of the risk-based standards set out in 15A NCAC 2L.0115. The pilot program shall apply only to discharges or releases that are classified as intermediate risk under 15A NCAC 2L.0115(d). The pilot program shall evaluate the use of site-specific standards in the cleanup of contamination that results from a discharge or release of petroleum from: (i) an underground storage tank; and (ii) an underground storage tank that is commingled

with petroleum contamination from a source of contamination other than an underground storage tank, as provided in G.S. 143-215.94V(h).

SECTION 7.(c) Participation in the pilot program shall be at the election of the owner, operator, or landowner. To participate in the pilot program, an owner, operator, or landowner shall perform a site-specific risk assessment and submit the assessment to the Department. If the Department determines that the use of site-specific cleanup standards will provide effective protection of public health, safety, and the environment, the Department shall set site-specific soil and groundwater cleanup standards for the discharge or release. These site-specific standards shall apply in lieu of the risk-based assessment and corrective action standards set out in 15A NCAC 2L.0115.

SECTION 7.(d) If soil and groundwater contamination from a discharge or release is no greater than the site-specific soil and groundwater cleanup standards set by the Department, the Department shall notify an owner, operator, or landowner that no cleanup, further cleanup, or further action will be required. If soil and groundwater contamination from a discharge or release is greater than the site-specific soil and groundwater cleanup standards set by the Department, the owner, operator, or landowner shall submit a corrective action plan to achieve the standards. The Department may require the owner, operator, or landowner to evaluate the impact of the site-specific cleanup standards on public health, safety, and the environment through use of an appropriate model. The Department shall not set site-specific soil and groundwater cleanup standards for the discharge or release that allow for contamination in excess of unrestricted use standards, as defined in G.S. 143B-279.9, on any real property that is not subject to land-use restrictions under G.S. 143B-279.9 and recordation under G.S. 143B-279.11.

SECTION 7.(e) Except as provided in this section, the provisions of Part 2A and Part 2B of Article 21A of Chapter 143 of the General Statutes apply to this section.

SECTION 7.(f) The Department shall annually report to the Environmental Review Commission on the number of site-specific risk assessments submitted to the Department under the pilot program, the disposition of those submissions, and, for any submissions for which site-specific soil and groundwater cleanup standards are not set, the basis for the decision not to set site-specific cleanup standards. The report shall include a comparison of assessment and corrective action of discharges or releases under the pilot program to assessment and corrective action of intermediate risk discharges or releases pursuant to the risk-based assessment and corrective action standards set out in 15A NCAC 2L.0115. The comparison shall include all of the following:

- (1) The costs associated with investigation, assessment, initial response, abatement, analysis of risk, and development and implementation of a corrective action plan.
- (2) The immediate and long-term impacts on public health, safety, and the environment.
- (3) The need for and use of land-use restrictions as part of the corrective action plan.

S1554-CSRIf-35 [v.9]

The extent to which corrective action addresses vapor intrusion.

The Department shall submit the first report requirements and submit the first report requirements.

SECTION 7.(g) The Department shall submit the first report required by subsection (f) of this section on or before 1 September 2009. The Department shall include in the report due on or before 1 September 2013 any recommendations, including legislative proposals, based on the findings of the pilot program.

SECTION 8.(a) The definitions set out in Section 8(a) of this act apply to this section. It is the policy of the State that a discharge or release be reclassified as low-risk if, based on site-specific cleanup standards, investigation, assessment, initial response, abatement, risk-based corrective action, or other corrective action, the Department determines that the discharge or release poses no significant risk to human health or the environment. An owner, operator, or landowner may request that a discharge or release be reclassified to a lower risk classification. If the Department denies a request to reclassify a discharge or release to a lower risk classification, the owner, operator, or landowner may file a petition for a contested case hearing as provided in Article 3 of Chapter 150B of the General Statutes.

SECTION 8.(b) The Department shall report on or before 1 September of each year to the Environmental Review Commission on the number of sites for which reclassification was requested based on site-specific information and the disposition of each request. The Department shall submit the first report required by this section on or before 1 September 2009.

SECTION 9. The Department of Environment and Natural Resources shall establish a process to provide informal notice of any proposed policy change or rule interpretation that is not a rule, as defined in G.S. 150B-2, to interested parties. Except in a situation that requires immediate action, the Department shall receive and consider oral and written comment from interested parties before the Department implements the proposed policy change or rule interpretation. Except in a situation that requires immediate action, the Department shall provide written notice of a policy change or rule interpretation to interested parties at least 30 days prior to its implementation.

SECTION 10. The Department of Insurance, in consultation with the Petroleum Underground Storage Tank Funds Council and the Department of Environment and Natural Resources, shall provide guidance and technical assistance for the formation of an insurance pool pursuant to G.S. 143-215.94I to any responsible entity that requests assistance.

SECTION 11. Section 8 of S.L. 2001-442 reads as rewritten:

"SECTION 8. Sections 1 through 5 of this act become effective 1 October 2001. Sections 6, 7, and 8 of this act are effective when this act becomes law. Sections 1, 2, 3, 4, 5, and 7 of this act expire 1 October 2006."

SECTION 12. Notwithstanding any provision of Part 2A of Article 21A of Chapter 143 of the General Statutes, the Department of Environment and Natural Resources shall annually use up to three million dollars (\$3,000,000) of the increase in receipts credited to the Commercial Fund as a result of the increase in the annual operating fee set out in G.S. 143-215.94C(a), as amended by Section 1 of this act, solely for the removal of free petroleum from groundwater as a first priority and shall use the balance of these receipts to address the other concerns raised in the letter from the

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United States Environmental Protection Agency Region 4 Administrator to the Secretary of Environment and Natural Resources dated 19 September 2006.

SECTION 13. Sections 3, 4, 5, 9, 10, and 11 of this act are effective when this act becomes law. Sections 1, 6, and 12 of this act become effective 1 January 2009. G.S. 143-215.94C(a) as amended by Section 1 of this act expires 1 January 2019. Section 2 of this act becomes effective 1 January 2009 and applies to determinations of eligibility and requests for payments made on or after that date. Sections 7 and 8 of this act are effective when it becomes law and expire 1 September 2014. Section 11 of this act is effective retroactively to 1 October 2006.

GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2007

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BILL DRAFT 2007-LDz-203F [v.2] (02/01)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/8/2008 2:47:17 PM

Short Title:	Codify Energy Efficiency in Public Buildings.	(Public)
Sponsors:	Unknown.	
Referred to:		

A BILL TO BE ENTITLED

AN ACT TO CODIFY THE STANDARDS GOVERNING ENERGY EFFICIENCY AND WATER USE FOR MAJOR FACILITY CONSTRUCTION AND RENOVATION PROJECTS INVOLVING STATE, UNIVERSITY, AND COMMUNITY COLLEGE BUILDINGS IN ORDER TO REDUCE THE CONSUMPTION OF ENERGY AND WATER, AS RECOMMENDED BY THE ENVIRONMENTAL REVIEW COMMISSION.

The General Assembly of North Carolina enacts:

SECTION 1. Chapter 143 of the General Statutes is amended by adding a new Article to read:

"Article 8C.

"Performance Standards for Sustainable, Energy-Efficient Public Buildings.

"§ 143-135.35. Findings; legislative intent.

The General Assembly finds that public buildings can be built and renovated using sustainable, energy efficient methods that save money, reduce negative environmental impacts, improve employee and student performance, and make employees and students more productive. The main objectives of sustainable, energy efficient design are to avoid resource depletion of energy, water, and raw materials; prevent environmental degradation caused by facilities and infrastructure throughout their life cycle; and create buildings that are livable, comfortable, safe, and productive. It is the intent of the General Assembly that State-owned buildings, The University of North Carolina, and the North Carolina Community College System be improved by establishing specific performance standards for sustainable, energy efficient public buildings. These performance standards should be based upon recognized, consensus standards that are supported by science and have a demonstrated performance record. The General Assembly also intends, in order to ensure that the economic and environmental objectives of this Article are achieved, that State agencies, The

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University of North Carolina, and the North Carolina Community College System determine whether the performance standards are met for major facility construction and renovation projects for public agencies, measure utility and maintenance costs, and verify whether these standards result in savings. Also, it is the intent of the General Assembly to establish a priority to use North Carolina-based resources, building materials, products, industries, manufacturers, and businesses to provide economic development to North Carolina and to meet the objectives of this Article.

"§ 143-135.36. Definitions.

As used in this section, the following definitions apply unless the context requires otherwise:

- (1) "ASHRAE" means the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
- (2) "Commission" means to document and to verify throughout the construction process whether the performance of a building, a component of a building, a system of a building, or a component of a building system meets specified objectives, criteria, and agency project requirements.
- (3) "Department" means the Department of Administration.
- "Institutions of higher education" means the constituent institutions of The University of North Carolina, the regional institutions as defined in G.S. 115D-2, and the community colleges as defined in G.S. 115D-2.
- (5) "Major facility construction project" means a project to construct a building larger than 20,000 gross square feet of occupied or conditioned space, as defined in the North Carolina State Building Code adopted under Article 9 of Chapter 143 of the General Statutes, "Major facility construction project" does not include a project to construct a transmitter building or a pumping station.
- (6) "Major facility renovation project" means a project to renovate a building when the cost of the project is greater than fifty percent (50%) of the insurance value of the building prior to the renovation and the renovated portion of the building is larger than 20,000 gross square feet of occupied or conditioned space, as defined in the North Carolina State Building Code. "Major facility renovation project" does not include a project to renovate a transmitter building or a pumping station.
- (7) "Public agency" means every State office, officer, board, department, and commission and institutions of higher education.
- "§ 143-135.37. Energy and water use standards for public major facility construction and renovation projects; verification and reporting of energy and water use.
- (a) Program Established. The Sustainable Energy Efficient Buildings Program is established within the Department to be administered by the Department. This program applies to any major facility construction or renovation project of a public

agency that is funded in whole or in part from an appropriation in the State capital budget or through a financing contract as defined in G.S. 142-82.

- (b) Energy Efficiency Standard. For every major facility construction project of a public agency, the building shall be designed and constructed so that the calculated energy consumption is at least thirty percent (30%) less than the energy consumption for the same building as calculated using the energy efficiency standard in ASHRAE 90.1-2004. For every major facility renovation project of a public agency, the renovated building shall be designed and constructed so that the calculated energy consumption is at least twenty percent (20%) less than the energy consumption for the same renovated building as calculated using the energy efficiency standard in ASHRAE 90.1-2004. For the purposes of this subsection, any exception or special standard for a specific type of building found in ASHRAE 90.1-2004 is included in the ASHRAE 90.1-2004 standard.

 (c) Water Use Standard. For every major facility construction or renovation project of a public agency, the water system shall be designed and constructed so that the
- Water Use Standard. For every major facility construction or renovation project of a public agency, the water system shall be designed and constructed so that the calculated indoor potable water use is at least twenty percent (20%) less than the indoor potable water use for the same building as calculated using the fixture performance requirements related to plumbing under the 2006 North Carolina State Building Code. For every major facility construction project of a public agency, the water system shall be designed and constructed so that the calculated sum of the outdoor potable water use and the harvested stormwater use is at least fifty percent (50%) less than the sum of the outdoor potable water use and the harvested stormwater use for the same building as calculated using the performance requirements related to plumbing under the 2006 North Carolina State Building Code. For every major facility renovation project of a public agency, the Department shall determine on a project by project basis what reduced level of outdoor potable use or harvested stormwater use, if any, is a feasible requirement for the project, but the Department shall not require a greater reduction than is required under this subsection for a major facility construction project. To reduce the use of potable outdoor water use as required under this subsection, landscape materials that are water-use efficient and irrigation strategies that include reuse and recycling of the water may be used.
- building component or an energy or water system component, the construction contract shall include provisions that require each building component and each energy and water system component to be commissioned, and these provisions shall be included at the earliest phase of the construction process as possible and in no case later than the schematic design phase of the project. Such commissioning shall continue through the initial operation of the building. The project design and construction teams and the public agency shall jointly determine what level of commissioning is appropriate for the size and complexity of the building or its energy and water system components.
- (e) Separate Utility Meters. In order to be able to monitor the initial cost and the continuing costs of the energy and water systems, a separate meter for each electricity, natural gas, fuel oil, and water utility shall be installed at each building undergoing a major facility construction or renovation project. Each meter shall be installed in accordance with the United States Department of Energy guidelines issued

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under section 103 of the Energy Policy Act of 2005 (Pub. L. 109-58, 119 Stat. 594 (2005)). Starting with the first month of facility operation, the public agency shall compare data obtained from each of these meters by month and by year with the applicable energy efficiency standard under subsection (b) of this section and the applicable water use standard for the project under subsection (c) of this section and report annually no later than August 1 of each year to the Office of State Construction within the Department. If the average energy use or the average water use over the initial 12-month period of facility operation exceeds the applicable energy efficiency standard under subsection (b) of this section or exceeds the applicable water use standard under subsection (c) of this section by fifteen percent (15%) or more, the public agency shall investigate the actual energy or water use, determine the cause of the discrepancy, and recommend corrections or modifications to meet the applicable standard.

"§ 143-135.38. Use of other standard when standard not practicable.

When the Department, public agency, and the design team determine that the energy efficiency standard or the water use standard required under G.S. 143-135.37 is not practicable for a major facility construction or renovation project, then it must be determined by the State Building Commission if the standard is not practicable for the major facility construction or renovation project. If the State Building Commission determines the standard is not practicable for that project, the State Building Commission shall determine which standard is practicable for the design and construction for that major facility construction or renovation project. If a standard required under G.S. 143-135.37 is not followed for that project, the State Building Commission shall report this information and the reasons to the Department within 90 days of its determination.

"§ 143-135.39. Guidelines for Administering the Sustainable Energy Efficient Buildings Program. —

- (a) Policies and Technical Guidelines. The Department, in consultation with public agencies, shall develop and issue policies and technical guidelines to implement this Article for public agencies. The purpose of these policies and guidelines is to establish procedures and methods for complying with the energy efficiency standard or the water use standard for major facility construction and renovation projects under G.S. 143-135.37.
- (b) Preproposal Conference. As provided in the request for proposals for construction services, the public agency may hold a preproposal conference for prospective bidders to discuss compliance with, and achievement of, the energy efficiency standard or the water use standard required under G.S. 143-135.37 for prospective respondents.
- (c) Advisory Committee. The Department shall create a sustainable, energy efficient buildings advisory committee comprised of representatives from the design and construction industry involved in public works contracting, personnel from the public agencies responsible for overseeing public works projects, and others at the Department's discretion to provide advice on implementing this Article. Among other duties, the advisory committee shall make recommendations regarding the education

and training requirements under subsection (d) of this section, make recommendations regarding specific education and training criteria that are appropriate for the various roles with respect to, and levels of involvement in, a major facility construction or renovation project subject to this Article or the roles regarding the operation and maintenance of the facility, and make recommendations regarding developing a process whereby the Department receives ongoing evaluations and feedback to assist the Department in implementing this Article so as to effectuate the purpose of this Article. Further, the advisory committee may also make recommendations to the Department regarding whether it is advisable to strengthen standards for energy efficiency or water use under this Article, whether it is advisable and feasible to add additional criteria to achieve greater sustainability in the construction and renovation of public buildings, or whether it is advisable and feasible to expand the scope of this Article to apply to additional types of publicly financed buildings or to smaller facility projects.

- (d) Education and Training Requirements. The Department shall review the advisory committee's recommendations under subsection (c) of this section regarding education and training. For each of the following, the Department shall develop education and training requirements that are consistent with the purpose of this Article and that are appropriate for the various roles with respect to, and level of involvement in, a major facility construction or renovation project or the roles regarding the operation and maintenance of the facility:
 - (1) The chief financial officers of public agencies.
 - (2) For each public agency that is responsible for the payment of the agency's utilities, the facility managers of these public agencies.
 - (3) The capital project coordinators of public agencies.
 - (4) Architects.
 - (5) Mechanical design engineers.
- (e) <u>Performance Review.</u> <u>Annually the Department shall conduct a performance review of the Sustainable Energy Efficient Buildings Program. The performance review shall include at least all of the following:</u>
 - (1) Identification of the costs of implementing energy efficiency and water use standards in the design and construction of major facility construction and renovation projects subject to this Article.
 - (2) <u>Identification of operating savings attributable to the implementation of energy efficiency and water use standards, including, but not limited to, savings in utility and maintenance costs.</u>
 - (3) <u>Identification of any impacts on employee productivity from using energy efficiency and water use standards.</u>
 - (4) Evaluation of the effectiveness of the energy efficiency and water use standards established by this Article.
 - (5) Whether stricter standards or additional criteria for sustainable building should be used than the standards under G.S. 143-135.37.
 - (6) Whether the Sustainable Energy Efficient Buildings Program should be expanded to include additional public agencies, to include

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- additional types of projects, or to include smaller major facility construction or renovation projects.
 - (7) Any recommendations for any other changes regarding sustainable, energy efficient building standards that may be supported by the Department's findings.
 - (f) Report on Performance Review. Each year, the Department shall include in its consolidated report under subsection (g) of this section a report of its findings under the performance review under subsection (e) of this section.
 - required under subsection (f) of this section, the report under G.S. 143-135.37(e), the report, if any, from the State Building Commission under G.S. 143-135.38, and the report under G.S. 143-135.40 into one report. No later than October 1 of each year, this consolidated report shall be transmitted to the Chairs of the General Government Appropriations Subcommittees of both the Senate and the House of Representatives, the Environmental Review Commission, and the Joint Legislative Commission on Governmental Operations. The Department shall include any recommendations for administrative or legislative proposals that would better fulfill the legislative intent of this Article.
 - (h) Authority to Adopt Rules or Architectural or Engineering Standards. The Department may adopt rules to implement this Article. The Department may adopt architectural or engineering standards as needed to implement this Article.

"§ 143-135.40. Monitor construction standards and sustainable building standards.

- The Department shall monitor the development of construction standards and (a) sustainable building standards to determine whether there is any standard that the Department determines would better fulfill the intent of the Sustainable Energy Efficient Buildings Program to achieve sustainable, energy efficient public buildings than the standards under G.S. 143-135.37, and, if so, whether this Article should be amended to provide for the use of any different standards or the use of any additional standards to address additional aspects of sustainable, energy efficient buildings. Additional standards monitored shall address consideration of site development, material and resource selection, and indoor environmental quality to enhance the health or productivity of building occupants. Also, the Department shall monitor the development of improved energy efficiency standards developed by the American Society of Heating, Refrigerating and Air-Conditioning Engineers, the ASHRAE standards, shall monitor whether the State Building Code Council adopts any other energy efficiency standards for inclusion in the State Building Code that result in greater energy efficiency and increased energy savings in major facility construction and renovation projects under this Article, and shall monitor other standards for sustainable, energy-efficient buildings that are based upon recognized, consensus standards based on science and demonstrated performance, including the standards for sustainable buildings under the Leadership in Energy and Environmental Design (LEED) program, as authored by the United States Green Building Council.
- (b) Each year, the Department shall report the results of its monitoring under this section, including any recommendations for administrative or legislative proposals."

2 read:

"(14) To comply with the design and construction requirements regarding energy efficiency and water use in the Sustainable Energy Efficient Buildings Program under Article 8C of Chapter 143 of the General Statutes."

SECTION 2. G.S. 115D-20 is amended by adding a new subdivision to

SECTION 3. Article 6 of Chapter 146 of the General Statutes is amended by adding a new section to read:

"§ 146-23.2. Purchase of buildings constructed or renovated to a certain energy efficiency standard.

- (a) A State agency shall not acquire by purchase any building unless the building was designed and constructed to at least the same standards for energy efficiency and water use that the design and construction of a comparable State building was required to meet at the time the building under consideration for purchase was constructed. Further, a State agency shall not acquire by purchase any building that had a major renovation unless the major renovation of the building was designed and constructed to at least the same standards for energy efficiency and water use that the design and construction of a major renovation of a comparable State building was required to meet at the time the building under consideration for purchase was renovated.
- (b) This section does not apply to the purchase of a building having historic, architectural, or cultural significance under G.S. 143-23.1. This section does not apply to buildings that are acquired by devise or bequest."

SECTION 4. The initial report under G.S. 143-135.37(e), the initial report under G.S. 143-135.39(f), and the initial report under G.S. 143-135.40 are due no later than August 1, 2009. The initial consolidated report required under G.S. 143-135.39(g) is due no later than 1 October 2009.

SECTION 5. Section 1 of S.L. 2007-546 is repealed.

SECTION 6. This act is effective when it becomes law. Section 1 and Section 2 of this act apply to every major facility construction project, as defined in G.S. 143-135.36 as enacted in Section 1 of this act, and every major facility renovation project, as defined in G.S. 143-135.36 as enacted in Section 1 of this act, of a public agency, as defined in G.S. 143-135.36 as enacted in Section 1 of this act, that has not entered the schematic design phase prior to the effective date of this act.



North Carolina General Assembly

ENVIRONMENTAL REVIEW COMMISSION MINUTES

May 19, 2008

The Environmental Review Commission met Monday, May 19, 2008 in Room 544 of the Legislative Office Building. Co-Chairwoman Lucy Allen presided and the meeting was called to order at 3:09 p.m. Members in attendance were Co-Chairman Charlie Albertson, Co-Chairman Dan Clodfelter, Co-Chairman Pryor Gibson, Senator James Forrester, Advisory Member Fletcher Hartsell, Senator A. B. Swindell, Senator David Weinstein, Representative Pricey Harrison, Representative Ruth Samuelson, Advisory Member Representative Russell Tucker and Representative Edith Warren. Staff present were Commission Counsel George Givens, Assistant Counsel Jeff Hudson, Assistant Counsel Jennifer McGinnis, Assistant Counsel Susan Iddings, Commission Analyst Jennifer Mundt, Research Assistant Mariah Matheson and Commission Assistant Jessica Kozma Bennett.

A meeting notice was distributed to staff, members and outside parties via regular mail and electronically and is included as an attachment to the minutes as **Exhibit A**. A reminder was sent electronically May 15. The meeting agenda and visitor's registration sheets are attachments to these minutes and referred as **Exhibit B** and **Exhibit C**, respectively.

Co-Chairwoman Allen recognized the meeting's sergeants at arms and thanked membership for attending the day's meeting. The Co-Chairwoman asked if fellow chairpersons had introductory comments for the Commission. Hearing none, she then recognized Mr. Givens for his comments.

Comments from Commission Counsel

Mr. Givens called attention to recent working groups, saying that the underground storage working group had meet three times and a working group addressing stormwater rules had also met. He then asked Commission membership to approve minutes from regular meetings held March 18 and April 7. Copies of both sets of minutes are included in attachments from this meeting as **Exhibits D and E**, respectively. After a motion by Senator Weinstein and the motion seconded by Representative Samuelson, minutes were approved through unanimous vote.

Proposed Legislative Recommendations

Mr. Givens continued noting a booklet distributed to membership with draft legislation for review. He said that a list of 22 items would not be reviewed in order. A copy of this list as well as draft copies of bills are attached together to the minutes as **Exhibit F.**

- ❖ Environmental Technical Corrections (Item 1)
 Amend Environmental Laws 2008 (Item 2)
 Amend Environmental Report Requirements 2008 (Item 3)
 Co-Chairman Gibson asked that the first three items of the proposal be accepted in unison. After clarification by Co-Chairwoman Allen the motion was approved through unanimous vote.
- ❖ Extend Climate Change Commission 2008 (Item 4)/Extend Water Allocation Study (Item 5): Counsel then addressed Items 4 and 5, extending the climate change commission into 2008 and extending a pending water allocation study. Representative Harrison motioned for acceptance of the recommendation. The motion passed through unanimous vote. Mr. Givens then moved through the remaining legislative recommendations.
- ❖ Electronics Recycling Amendments (Item 7): Representative Harrison moved to accept recommendation and with no commission discussion the motion passed unanimously.
- ❖ Codify Energy Efficiency in Public Buildings (Item 21)/Energy Efficient Buildings If State Funds (Item 22): Representative Samuelson asked for clarification of what the draft bills specify. Assistant Counsel Iddings explained that meeting energy efficiency standards would apply to any buildings funded through state capital funds. Co-Chairwoman Allen clarified that there are exemptions for historic buildings. Co-Chairman Gibson said that discussion on the bills would continue and urged the Commission to use caution as scrutiny could ensue and there were potential financial consequences for the State. Representative Harrison motioned for acceptance for Item 21. Senator Weinstein motioned for acceptance of Item 22. Both items passed with unanimous vote.
- ❖ State Nature and Historic Preserve Removal (Item 17)/State Parks System Additions (Item 18): With little discussion both items were accepted after a motion from Co-Chairman Gibson was voted on unanimously.
- ❖ Underground Storage Tank Program Amendments (Item 16): Counsel noted that this is a "scaled down" version of another bill. Co-Chairman Albertson motioned for approval and the motion was accepted through unanimous vote.

- ❖ Promote Private Compensatory Mitigation (Item 15): Through a motion by Representative Harrison the bill was accepted through unanimous vote.
- ❖ Sedimentation Ctrl./Local Government Enforcement (Item 14): After a motion to acceptance of the recommendation by Co-Chairman Gibson the motion was approved through unanimous vote.
- ❖ Facilitate Use of Reclaimed Water (Item 13): In discussion among Commission members it was noted that facilitating the use of reclaimed water was also part of the Governor's drought management package. Co-Chairwoman Allen said that as a former mayor she had a particular interest in the bill. Co-Chairman Gibson said that counties were putting in infrastructure to reclaim water and said that he had asked for a separate bill solely for reclaimed water in the event the Governor's proposed legislation is delayed.
- Revise River Basin Advisory Commission (Item 12): Staff noted that the draft bill would only address the Roanoke River Advisory Commission. Co-Chairman Clodfelter motions to accept the recommendation. The motion carried unanimously.
- ❖ Limit Impervious Pavement in Parking Lots (Item 11): Co-Chairman Gibson motioned to accept the recommendation. The motion carried unanimously.
- ❖ Drought Water Management Recommendations (Item 10): Representative Harrison motioned for approval. Discussion ensued and Co-Chairman Gibson said that the recommendations were "woefully short on some issues and overreaching on others. He continued and said that the commission needs to vote for it because the issue is so important given the State's recent drought, and that the bill would need a great deal more work. The motion for approval was carried by unanimous vote.
- ❖ Delay Solid Waste Tax Effective Date: A draft bill was distributed to members and is included as a separate attachment to the minutes as the proposed legislative recommendation packet. Representative Harrison motioned to accept the recommendation. The motion carried unanimously.
- * Recycle Plastic Bags (Item 8): Counsel noted that the draft was requested by Representative Harrison. Senator Forrester asked if the subject of plastic bag recycling had been discussed before. He followed and asked if all stores would recycle, including larger retrial stores. Representative Harrison said she understood there was an issue with that and said that bill needed more work. She followed asked for the bill to move forward and motion to accept the recommendation.

- ❖ Motor Vehicle Emissions Study (Item 6): The study is also requested by Representative Harrison and is created in part from a current California statute. Representative Gibson raised concerns about the bill, and Senators Clodfelter and Albertson said they did not feel the bill—because it is a study—would create any harm. Representative Harrison motioned to accept the recommendation and the motion carried, however not unanimously.
- ❖ Facilitate Net Metering (Item 20): Representative Harrison asked to withdraw the recommendation pursuant to objections by Commission members.

The meeting was adjourned at 3:57 p.m. by Chairwoman Allen.

Representative Lucy Allen, Presiding Chairman
Jessica Kozma Bennett, Commission Clerk
Jestica Form Brust
Representative Pryor Gibson, Co-Chairman
Senator Charlie Albertson, Co Chairman January. May

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

MEMBERS

SENATOR STAN W. BINGHAM SENATOR KATIE G. DORSETT SENATOR JAMES S. FORRESTER SENATOR ELEANOR G. KINNAIRD SENATOR A.B. SWINDELL SENATOR DAVID F. WEINSTEIN

REPRESENTATIVE JAMES A. HARRELL REPRESENTATIVE PRICEY HARRISON REPRESENTATIVE CAROLYN H. JUSTICE REPRESENTATIVE RUTH SAMUELSON REPRESENTATIVE EDITH W. WARREN REPRESENTATIVE LARRY W. WOMBLE

Environmental Review Commission State Legislative Building Raleigh, Morth Carolina



15 May 2008

GEORGE F. GIVENS COMMISSION COUNSEL. 545 LEGISLATIVE OFFICE BUILDING 300 NORTH SALISBURY STREET RALEIGH, NORTH CAROLINA 27603 (919) 733-2578 FAX: (919) 715-5460

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JENNIFER R. F. MUNDT COMMISSION ANALYST

MARIAH R MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

TO:

Members of the Environmental Review Commission

Interested Parties

FROM:

George F. Givens, Commission Counsel Jessica Bennett, Commission Clerk

RE:

Notice of Commission Meeting Schedule of Future Meetings Meetings of Interested Parties

Additional Information

COMMISSION MEETING:

The Environmental Review Commission (Commission) will meet at 3:00 p.m. Monday 19 May 2008 in Room 544 of the Legislative Office Building in Raleigh.

The purpose of this meeting is to consider proposed legislation for possible recommendation to the 2008 Regular Session of the General Assembly. This meeting is in lieu of the meeting which was previously announced for 14 May 2008 and which was not held.

Due to the need to schedule other meetings on Monday 19 May, this meeting should last no more than one hour. Please be on time. This meeting will be followed by a meeting of the Joint Legislative Commission on Seafood and Aquaculture, which is scheduled for 4:00 p.m. as previously noticed.

SCHEDULE OF FUTURE MEETINGS:

The Commission may meet at other times while the General Assembly is in session (G.S. 120-70.44). When the Commission meets while the General Assembly is in session, notice will be given at a session of the Senate and House of Representatives as provided by G.S. 143-318.12(b) and will be distributed by email to the email notice distribution list. Notice will not be provided by first-class mail. The Commission will resume a schedule of regular monthly meetings following adjournment of the 2008 Session of the General Assembly.

Environmental Review Commission Notice – 19 May 2008 Page 2

MEETINGS OF INTERESTED PARTIES:

The Commission Counsel will hold meetings of interested parties on specific topics as indicated below:

Coastal Stormwater Rules Working Group
10:30 a.m. Friday 16 May 2008 – Room 544 Legislative Office Building

Underground Storage Tank Working Group
1:00 p.m. Monday 19 May 2008 – 605 Legislative Office Building

ADDITIONAL INFORMATION:

Persons having questions about the Commission meeting or other matters related to the Commission may contact Commission Counsel or other Commission staff at (919) 733-2578 or may visit the Commission's website at: http://www.ncleg.net/gascripts/DocumentSites/browseDocSite.asp?nlD=12

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

MEMBERS

SENATOR STAN W. BINGHAM SENATOR KATIE G. DORSETT SENATOR JAMES S. FORRESTER SENATOR ELEANOR G. KINNAIRD SENATOR A.B. SWINDELL SENATOR DAVID F. WEINSTEIN

REPRESENTATIVE JAMES A. HARRELL REPRESENTATIVE PRICEY HARRISON REPRESENTATIVE CAROLYN H. JUSTICE REPRESENTATIVE RUTH SAMUELSON REPRESENTATIVE EDITH D. WARREN REPRESENTATIVE LARRY W. WOMBLE Environmental Review Commission State Legislative Building Raleigh, Porth Carolina



AGENDA
3:00 p.m. Monday 19 May 2008
Room 544 Legislative Office Building
Raleigh, North Carolina

GEORGE F. GIVENS COMMISSION COUNSEL 545 LEGISLATIVE OFFICE BUILDING 300 NORTH SALISBURY STREET RALEIGH, NORTH CAROLINA 27603 (919) 733-2578 FAX: (919) 715-5460

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JENNIFER R. F. MUNDT COMMISSION ANALYST

MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

1. Call to order

Senator Charles W. Albertson, Presiding

2. Introductory remarks by Cochairs
Senator Charles W. Albertson

Senator Daniel G. Clodfelter Representative Lucy T. Allen Representative Pryor A. Gibson

3. Report to the Commission and explanation of agenda items George F. Givens, Commission Counsel

Approval of the minutes of the 18 March 2008 and 7 April 2008 meetings of the Commission

- 4. Consideration of legislative proposals
- 5. Commission discussion and announcements
- 6. Adjourn

SCHEDULE OF FUTURE MEETINGS:

The Commission may meet at other times while the General Assembly is in session (G.S. 120-70.44). When the Commission meets while the General Assembly is in session, notice will be given at a session of the Senate and House of Representatives as provided by G.S. 143-318.12(b) and will be distributed by email to the email notice distribution list, if possible. Notice will not be provided by first-class mail. The Commission will resume a schedule of regular monthly meetings following adjournment of the 2008 Session of the General Assembly.

MEETINGS OF INTERESTED PARTIES:

The Commission Counsel will hold meetings of interested parties on specific topics as indicated below:

Coastal Stormwater Rules Working Group

2:00 p.m. Thursday 22 May 2008 – Room 544 Legislative Office Building

ADDITIONAL INFORMATION:

Persons having questions about the Commission meeting or other matters related to the Commission may contact Commission Counsel or other Commission staff at (919) 733-2578 or may visit the Commission's website at:

http://www.ncleg.net/gascripts/DocumentSites/browseDocSite.asp?nID=12

ENVIRONMENTAL REVIEW COMMISSION May 19, 2008

NAME	FIRM OR AGENCY AND ADDRESS
JOHN SHAW	,
Jon BEON	NC3EA EDF
Leslie Arnold	SOG-Daily Bolletin
Christme waysche	SOG-Daile Bulletin
Dan M'Lawhern	City of Roleige
Katherine Kelly	City of Raleigh
DONNIE REDMOND	DENR-DAR
Mallory Dimmitt	Nicholas Institute
Christine Wyman	Nicholas Institute
Ryhe Longest	Duhe School of Law
Scott Mouw	NC OPPEA/DENR

ENVIRONMENTAL REVIEW COMMISSION

May 19, 2008

NAME	FIRM OR AGENCY AND ADDRESS
Joins Jamel	NC Divoron of Marme Fisheries
ShARON STROUD	SEV
Allison Fowler	NC State Grange
ROSALIE DAY	NC SUSTAINABLE ENERGY ASSOCIATION
Wendy Jaglom	Environmental Defense Fund
Elizabeth Darden	EDF
KEIS CORACINI	EOF.
Many Willer	DENZ.
Vernon Cox	PSWC
CAROL TINGLEY	DENR - DPR
Dick Carlton	ally,

ENVIRONMENTAL REVIEW COMMISSION

May 19, 2008

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ENVIRONMENTAL REVIEW COMMISSION

May 19, 2008

NAME	FIRM OR AGENCY AND ADDRESS
Tracy Kimbrell	Parker Poe
Patrick BAK.	Nelson Mullins
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ENVIRONMENTAL REVIEW COMMISSION May 19, 2008

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ENVIRONMENTAL REVIEW COMMISSION

May 19, 2008

NAME	FIRM OR AGENCY AND ADDRESS
Thomas Dixon	Rep. Allen's intern
Jay Stem.	NCAA
Sarah Hagedorn	Env. Defense Fund
Kate Wonderlich	,,
David Bass	Carolina Journal
Clint Atkins	John Locke Foundation
Pari Mayor	NCACC
PANL Mayer Arita Watkins	NCLM.
DKN CRANTORD	CCNC
Laura Pisoni	NCCN
Erin Klinnen	NCCN
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ENVIRONMENTAL REVIEW COMMISSION

May 19, 2008

NAME	FIRM OR AGENCY AND ADDRESS
Appe Taylor	Chan Water for NC 2009 Chapel 14 Dunham N/C 2
Pete Saris	Govs Office
Christa Wagner	NC Siena cub
Steve Wall	DENR
	AP
Whitney Woodnesson Gary Robertson	AP
Kim Genarlo	NBC17 /WNCN-TV
Dave Batran	NBC17 (WNKNIV.
Wade Rawlins	The News & Observer
Kathy Hawkin	Process Energy
Han Igs	muc Energy

ENVIRONMENTAL REVIEW COMMISSION

May 19, 2008

NAME	FIRM OR AGENCY AND ADDRESS
Labin Smith	DENR
Diana Kees	DENR
Elizabeth Biser	DENR
Jany Bauley	UBA
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Parth Carolina General Assembly

ENVIRONMENTAL REVIEW COMMISSION MINUTES

March 18, 2008

The Environmental Review Commission was scheduled to meet at 9:30 a.m., Tuesday, March 18, 2008 in Room 544 of the Legislative Office Building. Co-Chairperson Lucy Allen presided. The meeting was called to order at 9:37 a.m.

Welcome and Attendance

Members present were Co-Chairman Charlie Albertson, Co-Chairman Pryor Gibson, III, Senator Stan Bingham, Senator Katie Dorsett, Senator James Forrester, Senator Ellie Kinnaird, Senator A. B. Swindell, Senator David Weinstein, Representative Jim Harrell, Representative Carolyn Justice, Representative Ruth Samuelson Representative Edith Warren, and advisory members Senator Fletcher Hartsell and Representative Russell Tucker. Commission staff present were Commission Counsel George Givens, Assistant Counsel Jeffrey Hudson, Assistant Counsel Jennifer McGinnis, Commission Analyst Jennifer Mundt, Research Assistant Mariah Matheson and Commission Clerk Jessica Kozma Bennett.

A meeting notice was distributed to staff, members and outside parties via regular mail and electronically and is included as an attachment to the minutes as **Exhibit A**. A reminder was sent electronically March 17. The meeting agenda and visitor's registration sheets are attachments to these minutes and referred as **Exhibit B** and **Exhibit C**, respectively.

Co-Chairwoman Allen recognized co-chairs of the Commission; she then recognized staff, thanking them for their work for the Commission.

Report to the Commission and Explanation of Agenda Items

Mr. Givens noted that there were three packets of reports, read only, for distribution and those held. He added for the record that a public staff planning meeting was held March 7 at 10 a.m. in Room 605 of the Legislative Office Building. Mr. Givens reviewed the day's agenda, including two items on low level waste, and three agenda items on the drought, among other items. He also said that the Commission would continue to work on a flame retardants issue as well as House Bill 1756, the Safe Artificial Slope Construction Act. The April meeting will be both a Commission meeting and field trip to Hammock's Beach State Park, and Mr. Givens said that staff was

currently working on a meeting notice for the two-day trip. He lastly announced upcoming meetings regarding pervious pavement and underground storage tank cleanup.

Approval of the January 23, 2008 and February 14, 2008 Minutes

Senator Kinnaird moved for approval of the January and February minutes and asked if it was necessary for hard copy distribution of minutes at Commission meetings. Mr. Givens said that there were differing opinions on whether to send solely electronically or distributing both in hard copy and electronically. Minutes were approved by unanimous vote.

Report on the Management of Low-Level Radioactive Waste in North Carolina

Co-Chairwoman Allen recognized Mr. Walter "Lee" Co x, III, manager of the Radioactive Material Branch, Radiation Protection Section (DENR). A copy of his report is included in the minutes as **Exhibit D.** According to his report, because of the scheduled closure of the Barnwell Facility it may be necessary for a small amount of the State's generators to develop long term on-site storage contingency plans. This is to deal with Class B and C level radioactive waste, Class A waste is still accepted from the State by a Utah facility. After the Barnwell closure to outside states, on June 30, the facility will only accept waste from South Carolina generators. There had been 56 cubic feet of storage previously. According to Mr. Cox, commercial producers of radioactive waste—in the short term—the disposal issue is not yet detrimental. However, he said, producers are very concerned about the long terms consequences of "no-disposal." Producers are concerned with both costs and security of sources to use.

Mr. Cox then said that in the wake of the closure a new strategic plan had to be developed. A position to help licensees was created to inform changes in low-level radioactive waste "landscape" and works hand-in-hand with other branches. He added that the position had been very effective. To date, it is reported that there is 100 percent compliance.

Senator Kinnaird asked what has happened with the "compact," of which Mr. Cox answered that the State is not in a compact. Senator Kinnaird followed up that it is a "myth that they are functioning." Mr. Cox agreed. Senator Forrester asked if producers will start storing "on site." Mr. Cox said that producers would.

Update on Pending Litigation: State of Alabama, State of Florida, State of Tennessee, Commonwealth of Virginia and the Southeast Interstate Low-Level Radioactive Waste Management Commission v. State of North Carolina

Mr. John F. Maddrey, Assistant Solicitor General for the Department of Justice was recognized by Co-Chairwoman Allen to discuss litigation pending against North Carolina regarding the construction of a facility to house low level waste in North Carolina. He began saying that he was here on the fifth anniversary of the litigation and noted that there had not been a "whole lot of progress" toward ruling on litigation. The United States Supreme Court approved for the plaintiffs in the case five years ago.

During the 1980s and 1990s the State was developing a plan for a site. During that period South Carolina withdrew from the Southeastern Compact and constructed Barnwell. After South Carolina's withdrawal the compact, the compact withdrew funding for the North Carolina site. In July 1999, the Legislature also withdrew the State from the compact, begetting litigation. The lawsuit was filed in July 2003, and a special master is appointed to make recommendations on the case. The suit alleges that the State should return \$85 million to the compact and plaintiff states. Currently, the compact sought summary enforcement of a sanctions order, and the special master has agreed with the State that the sanctions order has no effect.

Senator Kinnaird was recognized and said that in Chatham County there was not a suitable place to construct a site. She then questioned how long it would take for a resolution. Mr. Maddrey said there were complex legal issues and that most other jurisdiction cases involve water rights, and primarily in the western United States. He added that he is aware of one case that lasted 40 years, but there is no time table as the Supreme Court is in charge of the process. The special master, he continued, has proceeded cautiously. Co-Chairman Gibson asked if we were heading toward lessening liability as the State answers seven questions posed in the case. Maddrey answered said that liability would come from contractually or equitable responsibility.

Report on the Controlled Releases from Falls Lake in Wake County

Co-Chairwoman Allen recognized Mr. Terry M. Brown, Water Control Manager for the Wilmington District of the United States Army Corps of Engineers. A copy of his report is included in the minutes as **Exhibit E**. Co-Chairwoman Allen said this agenda item would get into "some very timely issues."

Mr. Brown began profiling Falls Lake, saying that the Corps tracks both water supply storage and water quality storage. He then showed river basin levels starting in April, 2007 and projecting to January 2009. On Christmas Day only 19 percent of water supply in the lake remained. Because of this, the City of Raleigh asked the Corps to cut back on releases.

Reviewing deviation requests, flow targets in April dropped to 100cfs for Falls Dam and 254 for Clayton. Stakeholders met and created suggested Clayton Target flows. Benefits from the proposed course of action kept Falls Lake from falling to nine week levels. He then reported that because of recent rain events the City of Raleigh's water supply was at 73 percent.

During this presentation House Speaker Joe Hackney was recognized and was in attendance during the meeting.

Several utilities directors that have inflows to their communities from Falls Dam have responded that they did not experience any water quality or treatment issues from the deviations, including Smithfield, Johnston County and Goldsboro.

Mr. Brown then asked for questions. Co-Chairwoman Allen said that the presentation sounded like "good news." Mr. Brown thanked Co-Chairwoman Allen. Representative Samuelson was recognized and asked if the Commission was only seeing a presentation on one lake because others were okay. Mr. Brown said that levels at Jordan Lake had improved, but that it is difficult to predict what will happen in the future.

Representative Samuelson followed up asking whether the rest of the State is "okay." Mr. Brown deferred the question to Thomas Fransen, the next speaker.

Update on Current Drought Conditions in Light of Conservation Efforts and Recent Rain Events

Co-Chairwoman Allen recognized Mr. Thomas C. Fransen, Chief of the River Basin Management Section with the Division of Water Resources (DENR). A copy of his report is included in the minutes as **Exhibit F.** Mr. Fransen began saying that he was happy to have a good message rather than one of "doom and gloom." To note: for the first time since August of last year drought maps showed improvement. What was a 30 day rainfall deficit had returned to normal, and is actually at 102 percent of normal. However, the State is 14.36 inches below is average annual rainfall, making it the driest year in State history for rainfall averages.

Although there is improvement, the drought continues to persist, Fransen said. Among public water supply systems, 44.59 percent (280 systems) are not under restrictions and 27.87 percent (175 systems) remain under mandatory conservation restrictions. No public water systems are in a state of emergency, and 27.55 percent are under voluntary conservation (173).

Predictions from the National Weather Service show that from March 6 until May, 2008 the State remains in two categories, either for the drought to persist or intensity or that the drought is ongoing and may have some improvement. In asking for questions, Senator Forrester asked about restrictions on wells. Mr. Fransen said those are localized issues.

Presentation of the Governor's Recommendation to Respond to the Current and Future Droughts

Co-Chairwoman Allen recognized Mr. Franklin Freeman, Senior assistant for Governmental Affairs in the Governor's Office to discuss a package by the Governor regarding drought management. He introduced Secretaries Bill Ross from DENR and Brian Beatty of the Department of Crime Control and Public Safety. Mr. Freeman then reviewed a timeline of the Governor's work with drought issues, noting that all 100 counties had been directed by the Governor to conserve by August 23, one day before the Governor requested an agricultural State of Disaster declaration due to the loss of 30 percent of crops in 85 counties. The declaration was granted in early September. The Governor then asked local governments to activate their drought plans, and also asked the League the Municipalities to work to end outdoor water use, including a statewide burning ban. During the month of October, the Governor's office began working with a legislative program, and have spent six months working to create the plan.

One part of the Governor's legislative plan is for vulnerable water systems has made progress, Mr. Franklin continued, and work is currently underway to reconnect those systems to other water suppliers. As part of the Governor's plan, public systems are

also not conducting audits to detect and repair leaks as well as adopting water conservation pricing for customers.

Mr. Freeman recalled a drought of the 1950s, saying he remembered when his grandfather's farm well dried and when his grandfather took a mule and a sled to a spring to retrieve water for washing. In telling this story, Mr. Freeman said that we learn lessons from crisis. The Drought Management Advisory Council was created in response to the 2002 drought, but the current 2007/2008 drought "has shown us that we must have additional tools to cope with water shortages and manage our resources." He added that he hoped to prepare for future droughts, not just the current drought.

Mr. Freeman then announced the Governor's legislative package, adding that the governor said that the State can no longer be satisfied "to use a 19th century water system resources and equipment to serve 21st century communities."

Co-Chairwoman Allen then recognized Crime Control and DENR Secretaries Brian Beatty and Bill Ross to discuss the governor's plan. Secretary Ross thanked the Commission for their interest and time.

The Governor's plan, he said, was a three-part plan to improve a community's ability to manage water during the drought. Among concepts included in the plan are inner-connections between water systems, leak detection programs, metering systems and reuse facilities. He then said that the governor's office had realized that there was a need to do a better job of water use. Also included in the plan, he said, are guidelines to better report industrial water use and to identify large water users.

A copy of the press release is included in minutes as **Exhibit G**.

Co-Chairwoman Allen then recognized the Department of Crime Control and Public Safety Secretary Bryan E. Beatty to further discuss the Governor's plan. **Exhibit G** may be referred to as an attachment regarding his discussion.

Secretary Beatty told Commission members that steps needed to be taken before there is a crisis. He added that there are no proposals to meter wells, but that local governments can impose water restrictions within their respective planning and zoning jurisdictions.

Co-Chairmon Allen clarified the Secretary's comments noting that the proposal suggests to restrict the use of well water rather than the metering of well water. Co-Chairman Gibson said that he was "100 percent" convinced that water issues needed to be addressed through the legislative process. He added that in the previous drought rains came and quelled public concern. But in this drought "tens of thousands of people were laid off and millions were lost." Co-Chairman Gibson followed up asking about rule timelines, which Ms. Smith answered that she did not know as details were still being worked on. Ms. Smith also said that she expected a draft prepared for review by early April.

Senator Clodfelter noted a water allocation study underway at the UNC School of Government, saying that two categories needed to be addressed regarding water allocation: one, short term drought measures and improvement of drought management response. Mr. Freeman said that he had been in touch with Mr. Richard Whisnant and Mr. Bill Holman, two principal investigators charged with the study, and that he did "not want to trespass on their work." Senator Albertson asked Ms. Smith about a state inspector who visits animal facilities and the potential health hazards of the inspector not

being able to wash his state issued truck. Ms. Smith said she would look into the matter and follow up. Senator Albertson thanked Ms. Smith and asked that she please follow up.

Representative Samuelson asked if consideration was given to ensure certain industries do not suffer because of drought restrictions. Ms. Smith said that concerns about the Green Industry were considered.

Regarding funding, Mr. Freeman said some funding may come through the Golden Leaf Foundation.

Co-Chairman Gibson asked that the issue not be "talked to death." Senator Hartsell commented that the governor's recommendations seemed like a "very useful framework from where we can begin," adding that he was glad to see an emphasis on interconnection.

The Commission recessed at 12 noon and reconvened at 12:59 p.m.

<u>Discussion of changes to the federal ozone standard</u> and the implications for North Carolina

After the Commission reconvened, Mr. Brock M. Nicholson, Deputy Director of the Division of Air Quality (DENR) was recognized by Co-Chairwoman Allen to report on changes to the federal ozone standard and the implications for North Carolina. A copy of his power point presentation is included in the minutes as **Exhibit H.**

Mr. Nicholson began explaining the two types of ozone—stratospheric which blocks UV radiation, and tropospheric, which causes lung irritations—and noted that this type of ozone is highest in the summer. Ozone is formed in the presence of "precursor pollutants" and "sunlight".

Discussing how ozone affects a person, Mr. Nicholson said that ozone can worsen acute respiratory problems, aggravate asthma, decrease lung capacity from 15 to 20 percent in some healthy adults, and impair immune systems. These factors contribute to increased hospital admissions and emergency room visits. Effects of repeated ozone exposure can create permanent "airway remodeling" in people, children may experience slower lung growth and quality of life for a person may be compromised. Persons most at risk are children and adults who are active outdoors and people sensitive to ozone, such as persons with asthma or bronchitis.

Currently, the ozone standard is set at .08 parts per million and is based on a 3-year average of the fourth highest daily maximum 8-hour average. Levels at or above .09 are a violation of the standard, and note that .085 rounds up to .09 ppm.

Mr. Nicholson then reviewed a state map that specifies what counties have ozone monitors in place. Currently the Charlotte area is the only area officially exceeding the ozone standard in the State. In reviewing the next two maps, which projected ozone in 2009 and in 2018, no counties showed excessive ozone. Regarding the new rules, the effective date of rule was March 12, 2008 and final designations are set for no later than March 12, 2010.

Report by the Utilities Commission on Implementation of the Promote Renewable Energy/Baseload Generation, the Swine Farm Methane Capture Pilot Program, and an Update on the Save-a-Watt proposal at Duke Energy

Mr. Jim Kerr, Commissioner of the North Carolina Utilities Commission was recognized to discuss Senate Bill 3, an act according to session law reads:

An act to promote the development of renewable energy and ENERGY EFFICIENCY in the state through implementation of a renewable ENERGY and ENERGY Efficiency portfolio Standard (REPS), (2) allow recovery of certain nonfuel utility costs through the fuel charge adjustment procedure, (3) provide for ongoing review of construction costs and for recovery of costs in rates in a general rate case, (4) adjust the public utility and electric membership corporation regulatory fees, (5) provide for the phaseout of the tax on the sale of energy to North Carolina farmers and manufacturers, and (6) allow a tax credit to contributors to 501(c)(3) organizations for renewable energy property.

A copy of Senate Bill 3 is included in the minutes as **Exhibit I**.

Mr. Kerr thanked the Commission and said the commission had been busy subsequent to the new legislation and that the commission was currently in process of monitoring the impact of the drought on utilities among other projects.

He reviewed the major provisions of the Senate Bill 3, including the bill's establishing an energy "portfolio" for renewable sources to be used by retail utilities, looking at solar energy, the use of swine and other waste. With the adoption of the bill, North Carolina because the first state in the southeast to ratify such legislation, though 25 other states have passed similar legislation. Upon enactment the bill begins in 2008 and "ramps up over time." By the year 2021, 12.5 percent of energy should come from a renewable source, and is only applied to retail electric companies. Also included are cost caps beginning in 2008 at \$10 per customer to \$12 in 2012 and in 2018 \$34 per customer. By 2018, Mr. Kerr said, more than \$330 million should be invested in renewable sources of energy. Both energy and cost define the market, he added.

All three major public utilities have filed requests for renewable energy programs and the Utilities Commission is currently in the process of reviewing those applications. Mr. Kerr also added that 250 megawatts of renewable energy are expected to be produced in the east by 2018.

Rule making began in August of 2007, and final rules have been issued. More than 100 rules issues. Highlights of rule include that all major utilities must file compliance plan and reports. Also, when it is implemented there will be third party renewable tracking systems, principally so not double counting generation more than once.

Mr. Kerr then discussed implementation of House Bill 1465, the Swine Farm Methane Capture Pilot Program. A copy of the bill is included in the minutes as **Exhibit J.** Fifty swine farm owners are allotted to participate in the program. The program, administered jointly by DENR and the Utilities Commission, has opened up registration for farmers. DENR and the Utilities Commission will report back to the Commission in January 2009.

North Carolina General Assembly

ENVIRONMENTAL REVIEW COMMISSION MINUTES

April 7, 2008

The Environmental Review Commission met at 1:30 p.m. in Soundside Hall of the North Carolina Aquarium at Pine Knoll Shores. Co-Chairman Dan Clodfelter and Charlie Albertson presided.

Members present were Co-Chairman Charlie Albertson, Co-Chairman Dan Clodfelter, Co-Chairwoman Lucy Allen, Co-Chairman Pryor Gibson, Representative Carolyn Justice, Representative Edith Warren and Representative Russell Tucker.

Also recognized in attendance were Representative William Wainwright and Representative Alice Graham Underhill, who attended a meeting at the aquarium prior to the Commission meeting. Staff in attendance was Commission Counsel George Givens, Assistant Counsel Jeff Hudson, Assistant Counsel Jennifer McGinnis, Commission Analyst Jennifer Mundt and Commission Clerk Jessica Kozma Bennett.

An advanced notice was distributed electronically to interested parties on March 26, and a second notice was distributed on April 1. Both are included as attachments to the minutes as **Exhibits A and B**, respectively. A copy of the meeting agenda and visitor registration forms are also included in the minutes as **Exhibits C and D**, again, respectively.

Co-Chairman Albertson then recognized Mr. Jay Barnes, director of the aquarium. Mr. Barnes welcomed Commission members and staff and extended an invitation to a "back of the house" tour. He also complimented the recent remodel of the aquarium.

Commission Counsel was then recognized by Co-Chairman Albertson to review the day's agenda. It is noted for the record that a planning meeting was held March 28 and that the day's meeting agenda is dedicated to parks and recreation reports. Mr. Givens added that there have been three meetings regarding pervious pavement and that investigation into possible flame retardant legislation is currently under study and the subject will be revisited at future Commission meetings.

Update on current drought conditions in light of conservation efforts and recent rain events

Concluding Mr. Givens comments Co-Chairman Albertson recognized Ms. Elizabeth S. Biser, Director of Legislative and Intergovernmental Affairs for the Department of Environment and Natural Resources (DENR). A copy of her presentation as attached to the minutes as **Exhibit E**.

Ms. Biser began by stating that she is filling in for Mr. Thomas Fransen and noted that although there had been a generous amount of rain recently, the State remained in a drought. Statewide, she said, water levels remain 14 to 15 inches below normal.

Regarding an outlook for the drought, she reported, a La Nina pattern is predicted. The current rains have aided reservoirs but have not recharged groundwater levels.

Co-Chairman Gibson asked to be informed of what counties are in better or worse shape. Ms. Biser was then thanked by the Chair for her report.

Annual report on allocations from the Parks and Recreation Trust Fund from the prior fiscal year

Mr. Lewis Ledford was recognized by Co-Chairman Albertson. A copy of his power point presentation and a copy of the North Carolina Parks and Recreation Trust Fund annual report are included as attachments to the minutes as **Exhibits F and G**, respectively.

The trust fund was established in July of 1994 and since its inception, has funded the purchase of land by local authorities with maximum grants of \$500,000. Allocated money is as follows: 65 percent for the State's Parks System for capital projects, repairs and renovations of facilities to acquire land; 30 percent to provide grants for local governments on a dollar for dollar basis to create or improve parks and recreational projects; and, five percent for the Coastal and Estuarine Water Beach Access Programs. No more than three percent may be used by DENR for the operating expenses associated with managing capital improvement, acquiring land and administering the grants program for local governments.

Mr. Lewis reported that since 1996 more than 3,550 acres of land have been acquired, including a skate park in Rocky Mount. In 2007 there were 12 capital projects with a total price of \$17.6 million. This includes a Ford Macon State Park visitor center and renovations for a park in Haw River, among other projects. In the past 10 years, 30,000 acres were added with a total cost of \$11 million.

Addressing future needs Mr. Ledford said that State parks are experiencing record attendance and that there will be needs for additional lands and "protections." Capital improvements at existing parks total \$334 million and a potential 43,700 acres may potentially be purchased. He said that the State park system was important for the lives of future generations and that other states were creating similar models to the State's trust fund.

Co-Chairman Albertson thanked Mr. Ledford and his staff and asked the Commission to compose a letter thanking Mr. J. K. Sherron—an arbiter of the trust fund—for his efforts. Co-Chairman Clodfelter asked if historic sites ware eligible for funding, of which Mr. Ledford replied that historic sites were not eligible. Discussion ensued and DENR Secretary Ross said that combinations of parklands and cultural sites have been discussed. Co-Chairman Gibson said the Commission may need to address a park fee schedule.

Co-Chairman Albertson then recognized the next presenter.

Annual report on allocation from the Natural Heritage Trust Fund from the prior fiscal year

Ms. Lisa Riegal, Executive Director of the North Carolina Natural Heritage Trust Funds began her presentation discussing the mission of the trust fund. That is, to protect natural and cultural heritage lands. A copy of her presentation is included as an

attachment to the minutes as **Exhibit H**. The program works to identify the most important natural areas in the state and has finished projects in 83 counties with an additional six counties in ongoing projects.

In the 20 years of the funds existence, land values for lands acquired by the program have appreciated 300 percent. She then reviewed projects (see attachment) including an archeological site in Contentnea, the Stagville State Historic Site Land Acquisition in Durham County, New Hope Valley Forest and the Mast General Store.

Co-Chairperson Clodfelter asked how many cultural projects are taken on compared to natural sites. Ms. Riegel answered that 25 percent are cultural because of a statutory limit to focus on natural areas.

Co-Chairman Albertson thanked Ms. Riegel.

Report on the North Carolina Naturally conservation initiative

Ms. Linda P. Pearsall, Director of the Natural Heritage Program with the Office of Conservation and Community Affairs (DENR) presented on two annual reports that are included as attachments to the minutes as **Exhibits I and J**. A copy of her presentation to the Commission is included in the minutes as **Exhibit K**.

Ms. Pearsall reviewed data for the 2006 year and Co-Chairman Clodfelter asked about data from 2007. Ms. Pearsall answered that such information is not released until September. Co-Chairman Clodfelter followed asking if it took nine months to compile such information, of which Ms. Pearsall said it took six months and that there is an effort to compile and release the information more quickly.

Ms. Pearsall reviewed slides in her presentation including discussing progress toward obtaining a million acres, conservation incentives. One grant fund, she noted, successfully funded 16 projects and another conservation tax credit program as of 2006 had affected 168,000 acres.

Because of increasing population growth there is added pressure on land and water, Ms. Pearsall said. Local planners need to have effective information to be able to access and insure the most important properties. She continued her presentation and then Co-Chairman Albertson asked for questions from Commission members. Co-Chairman Clodfelter asked if it was possible to map properties with their tax values. Co-Chairman Albertson thanked Ms. Pearsall for her time.

Annual report on implementation of the Clean Water Management Trust Fund

Agenda Item 9 was deferred until later in the meeting. Co-Chairman Albertson recognized Mr. Richard E. Rogers, Executive Director of the Clean Water Management Trust Fund, Item 10 of the agenda. A copy of his presentation is included in the minutes as **Exhibit L.**

Mr. Rogers said that the trust fund's mission is to restore and enhance degraded waters, conserve unpolluted waters, eliminate water pollution, create a network of riparian buffers and greenways, and fund innovative systems. Accomplishments for the fund include 4,560 miles of buffers preserved, 435,573 acres protected, more than \$443.4 million invested in land and water conservation and 135 buffer, stream and wetlands restoration projects.

Moving to another slide, Mr. Rogers said that since 1997, 1,148 grants were funded with a total of \$832.7 million awarded. He then showed a map depicting where projects were. He then discussed projects with local governments. Co-Chairwoman Allen asked what the difference is between county versus city projects. Mr. Rogers said that the difference is management of wastewater systems.

Among key projects, one project Mr. Rogers noted was a wastewater project in Harnett County. That particular local wastewater system was regionalized and as a result the Little River (Cape Fear River basin) was projected. The awarded grant for that project was \$500,000.

He then reviewed other key projects including a \$335,000 grant to protect Hawkins Creek and the White Oak River in Swansboro. The project targets stormwater management in three drainage areas and will allow construction of two small wetlands areas and a retention pond.

Upon finishing his presentation, Co-Chairperson Albertson asked if his organization had a relationship with the State agricultural extension service. Mr. Rogers replied that they did and he believed the relationship to be a "good opportunity."

Presentation by Land for Tomorrow

Mr. David Knight, Director of Government Relations with The Nature Conservancy was recognized by Co-Chairman Albertson. Mr. Knight began by stating that Land for Tomorrow had developed more than 240 partners and 60 ambassadors since its inception in 2004. A copy of his presentation is included in the minutes as **Exhibit M**.

Three years ago, Land for Tomorrow issued a "Five year plan for investing in North Carolina's Land, Water, History and Future." The report stated that the State needed to invest \$200 million a year for five years to protect important natural areas before being lost to development. In 2008, he reported that the challenges are greater. Three hundred thousand acres have been developed and the cost of land has increased 300 percent in 10 years. He then spoke of the impacts of drought and noted that the number of miles of streams not meeting state water quality standards has grown.

Mr. Rogers then expressed concern that the Million Acres goals established by the General Assembly in 2000 had only achieved 50 percent of the charge in eight years.

Mr. Reid Wilson then addressed the Commission. He is the executive director of the Conservation Trust of North Carolina.

Drought issues will recur because of the growing demand for water by an increasing population, he said. Land conservation is an important part of a long term strategy, and he added that in such conservation, groundwater recharge needs to occur.

His organization is in discussions with officials from DENR to target conservation funds for lands with real impact on water supplies. The conversation has been positive so far, he said.

Annual report on the activities of the North Carolina Agricultural Development and Farmland Preservation Trust Fund and Advisory Committee

Mr. Dewitt Hardee, Environmental Program Manager for the Department of Agriculture and Consumer Services was recognized by the Chair. A copy of his presentation is included in the minutes as **Exhibit N**. His report is Item 9 of the agenda.

Mr. Hardee began by reporting that between 2003 and 2006 the State lost 300,000 acres to development and is leading the country in farmland loss. His fund tries to protect farmland because agriculture is still the State's leading industry at \$66 billion in revenues a year. His fund promotes sustainable agriculture and is working to make family farms more viable. He also explained the Voluntary Agricultural Districts. He then showed a map in his presentation showing such districts throughout the State.

Co-Chairman Albertson thanked Mr. Hardee and the meeting was adjourned at 3:28 p.m.

A read only packet of reports for membership was distributed at the meeting and is attached to the minutes as Exhibit O.

Senator Dan Clodelfer, Presiding Chairman
Jessica Kozma Bennett, Commission Clerk
Representative Pryor Gibson, Co-Chairman
Senator Charlie Albertson, Co-Chairman

Environmental Review Commission

roposed Legislative Recommendations T) May 2008 Updated 20 May 2008*

	Short Title	Drafting Code	Status Status
1	Environmental Technical Corrections 2008.	2007-TAz-22 [v.3]	Recommended
2	Amend Environmental Laws 2008.	2007-TAz-20 [v.4]	Recommended
3	Amend Env. Reporting Requirements 2008.	2007-TAz-21 [v.3]	Recommended
4	Extend Climate Change Commission 2008.	2007-TAz-18 [v.5]	Recommended
5	Extend Water Allocation Study.	2007-TAz-19 [v.7]	Recommended
6	Motor Vehicle Emissions Study.	2007-RTz-8 [v.1]	Recommended
7	Electronics Recycling Amends/Add TVs.	2007-RIz-20 [v.6]	Recommended
8	Recycle Plastic Bags.	2007-RIz-17 [v.5]	Recommended
9	Amend Bernard Allen Emer. Drinking Water Fnd.	2007-RIz-25 [v.1]	Recommended
10	Drought/Water Management Recommendations.	2007-SBz-42 [v.5]	Recommended
	Limit Impervious Pavement in Parking Lots.	2007-SBz-38 [v.6]	Recommended
12	Revise River Basin Advisory Commission.	2007-SBz-34 [v.9]	Recommended
13	Facilitate Use of Reclaimed Water.	2007-RTz-10 [v.1]	Recommended
14	Sedimentation Ctrl/Local Gov't Enforcement.	2007-RIz-21 [v.3]	Recommended
15	Promote Private Compensatory Mitigation.	2007-SBz-36 [v.3]	Recommended
16	Underground Storage Tank Prgm Amends-2008.	2007-RIfz-23 [v.23]	Recommended
17	State Nature and Historic Preserve Removal.	2007-RIxz-18 [v.4]	Recommended
18	State Parks System Additions.	2007-RIz-24 [v.2]	Recommended
19	Limit Condemnation of Conservation Esmts.	2007-RIz-16 [v.18]	Withdrawn
20	Facilitate Net Metering.	2007-RTz-9 [v.3]	Withdrawn
21	Codify Energy Efficiency in Public Buildings.	2007-LDz-203F [v.3]	Recommended
22	Energy Efficient Buildings If State Funds.	2007-LDz-243 [v.7]	Recommended
23	Delay Solid Waste Tax Effective Date.	2007-RIxz-22 [v.1]	Recommended

Table updated on 20 May 2008 to reflect the Commission's action on each proposed bill draft

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BILL DRAFT 2007-TAz-22 [v.3] (05/14)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/16/2008 10:52:12 AM

Short Title: H	Environmental Technical Corrections 2008.	(Public)
Sponsors: .		
Referred to:	•	
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•	•	
	A BILL TO BE ENTITLED	
AN ACT T	O MAKE CLARIFYING, CONFORMING, AND	TECHNICAL
AMENDM	ENTS TO VARIOUS LAWS RELATED TO THE ENV	VIRONMENT,
AS RECON	MMENDED BY THE ENVIRONMENTAL REVIEW CO	MMISSION.
The General A	ssembly of North Carolina enacts:	
	CTION 1. G.S. 143-215.3A(a) reads as rewritten:	
	ater and Air Quality Account is established as a nonrev	
	partment. Revenue in the Account shall be applied to	
	the programs for which the fees were collected. Revenue	
-	suant to <u>G.S. 105-449.43</u> , G.S. 105-449.125, 105-4	•
	1. 105-449.136 shall be used to administer the air quality programs and application for any property administration for	-
	ng fees, all application fees and permit administration feed armits issued under Articles 21, 21A, 21B, and 38 of this C	
credited to the		napter snan be
(1)	Fees collected under Part 2 of Article 21A and credited	d to the Oil or
(1)	Other Hazardous Substances Pollution Protection Fund.	to the on or
(2)	Fees credited to the Title V Account.	
(3)	Repealed by Session Laws 2005-454, s. 7, effective Janu	ary 1, 2006.
(4)	Fees collected under G.S. 143-215.28A.	3
(5)	Fees collected under G.S. 143-215.94C shall be cr	edited to the
e .	Commercial Leaking Petroleum Underground Storage	Tank Cleanup
. •	Fund "	_

SECTION 2. This act is effective when it becomes law.

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GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2007

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BILL DRAFT 2007-TAz-20 [v.5] (05/14)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/19/2008 10:04:03 AM

Short Title:	Amend Environmental Laws 2008.	(Public)
Sponsors:	Representative Unknown.	
Referred to:		

A BILL TO BE ENTITLED

AN ACT TO AMEND CERTAIN ENVIRONMENTAL AND NATURAL RESOURCES LAWS TO PROVIDE THAT PRIVATE DRINKING WATER WELLS ARE TO BE TESTED FOR CERTAIN ADDITIONAL PARAMETERS, AS RECOMMENDED BY THE ENVIRONMENTAL REVIEW COMMISSION.

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The General Assembly of North Carolina enacts:

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SECTION 1. G.S. 87-97(h) reads as rewritten:

Drinking Water Testing. - Within 30 days after it issues a certificate of 10 completion for a newly constructed private drinking water well, the local health 11 department shall test the water obtained from the well or ensure that the water obtained 12 from the well has been sampled and tested by a certified laboratory in accordance with 13 rules adopted by the Commission for Public Health. The water shall be tested for the 14 following parameters: arsenic, barium, cadmium, chromium, copper, fluoride, lead, 15 iron, magnesium, manganese, mercury, nitrates, nitrites, selenium, silver, sodium, zinc, 16 pH, and bacterial indicators, methyl tert-butyl ether, ethylene dibromide, 17 1,2-dichloroethane, 1,2-dichloropropane, isopropyl ether. benzene. toluene. 18 ethylbenzene, xylenes, trichloroethylene, and tetrachloroethylene." 19

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SECTION 2. This act becomes effective 1 July 2008.

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BILL DRAFT 2007-TAz-21 [v.3] (05/14)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/13/2008 10:00:00 AM

Short Title: Amend Env. Reporting Requirements 2008. (Publ
Sponsors: .
Referred to:
A BILL TO BE ENTITLED
AN ACT TO AMEND OR REPEAL VARIOUS ENVIRONMENTAL REPORTIN
REQUIREMENTS, AS RECOMMENDED BY THE ENVIRONMENTA
REVIEW COMMISSION.
The General Assembly of North Carolina enacts:
SECTION 1. Subsection (e) of G.S. 143B-279.12 is repealed.
SECTION 2. Subsection (c) of G.S. 143B-279.13 is repealed.
SECTION 3. Article 7 of Chapter 143B of the General Statutes is amend
by adding a new section to read:
"§ G.S. 143B-279.15. Report on one-stop permitting program and expre
permitting program.
No later than 1 March of each year, the Department of Environment and Natu
Resources shall report to the Fiscal Research Division of the General Assembly and t
Environmental Review Commission on the one-stop permits for certain environmen
permits program established by G.S. 143B-279.12 and the express permit a
certification reviews program established by G.S. 143B-279.13. The report sh
include:
(1) The number of environmental permits subject to G.S. 143B-279.
that took more than 90 days to issue or deny, the types of permits the
were, the reasons for the extended processing time of those permi
and how the time within which the permit was actually issued denied compared with the projected time frame provided to t
applicant by the Department as provided by G.S. 143B-279.12. Bas
on the data gathered in this subsection, the Department shall inclu
recommendations regarding permit time frames for all major perm
issued by the Department.

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G	eneral Assem	bly Of North Ca	rolina			Session 2007
1	(2)	Findings on the	success of the ex	press pern	nit and certi	ification reviews
2		program establis	shed by G.S. 143	B-279.13	and any o	ther findings or
3	• .		ns, including any			
4		pertinent."				
5	SEC	TION 4. This act	is effective when	it become	es law.	•

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BILL DRAFT 2007-TAz-18 [v.5] (05/14)

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(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/12/2008 11:15:57 AM

Short Title:	Extend Climate Change Commission 2008.	(Public)
Sponsors:	•	
Referred to:		·

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A BILL TO BE ENTITLED

AN ACT TO EXTEND THE LEGISLATIVE COMMISSION ON GLOBAL CLIMATE CHANGE, AS RECOMMENDED BY THE ENVIRONMENTAL REVIEW COMMISSION.

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Whereas, the Legislative Commission on Global Climate Change was established by S.L. 2005-442 to conduct an in-depth examination of issues related to global climate change; and

Whereas, the Legislative Commission on Global Climate Change has met regularly since its inception in pursuit of its legislative charge; and

Whereas, the Legislative Commission on Global Climate Change needs additional time to carry out its legislative charge;

Now, therefore,

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The General Assembly of North Carolina enacts:

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SECTION 1. Section 1 of S.L. 2006-73 reads as rewritten:

"SECTION 11. Report. Reports. – The Commission shall submit an interim report to the General Assembly and the Environmental Review Commission no later than 15 January 2007 and may submit interim reports at other times at its discretion. The Commission shall submit a final report, including any findings and recommendations, report its findings and recommendations to the 2009 General Assembly and the Environmental Review Commission on or before 1 November 2006,15 April 2008,1 April 2009, at which time the Commission shall terminate."

SECTION 2. This act is effective when it becomes law.

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- BILL DRAFT 2007-TAz-19 [v.7] (05/14)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/18/2008 5:21:15 PM

Short Title:	Extend Water Allocation Study.	(Public)
Sponsors:		
Referred to:		

A BILL TO BE ENTITLED

AN ACT TO EXTEND THE STUDY OF THE ALLOCATION OF WATER RESOURCES AND THEIR AVAILABILITY AND MAINTENANCE IN THE STATE, AS RECOMMENDED BY THE ENVIRONMENTAL REVIEW COMMISSION.

Whereas, the Environmental Review Commission and The University of North Carolina at Chapel Hill School of Government acknowledge that an extension of time is necessary in order to complete the work of the Water Allocation Study contemplated in the contract between the two parties and the work identified in Section 1.(a) of S.L. 2007-518; and

Whereas, The University of North Carolina School of Government acknowledges in its Interim Report to the Environmental Review Commission that further work will be required beyond 2008 given the scope and importance of the study;

Now therefore,

The General Assembly of North Carolina enacts:

SECTION 1. Section 1.(a) of S.L. 2007-518 reads as rewritten:

"SECTION 1.(a) The Environmental Review Commission, with the assistance of the Department of Environment and Natural Resources, shall study the allocation of surface water resources and their availability and maintenance in the State, including issues related to the transfer of water from one river basin to another, the withdrawal of water for consumptive use, and the accuracy and tolerance of equipment used to measure the flow of water transferred from one river basin to another river basin. The Commission shall evaluate the benefits of establishing formal and informal procedures for negotiating transfers of water from one river basin to another. The Commission shall also study and recommend measures to: (i) ensure that the purposes of the Regional Water Supply Planning Act of 1971, as set out in G.S. 162A-21, are fulfilled; (ii) provide for a comprehensive system for regulating surface water

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withdrawals for consumptive and nonconsumptive uses; (iii) provide for the establishment of a statewide plan for water resources development projects; (iv) provide for adequate resources for the Department so that it may develop and implement a comprehensive approach to water resources management; (v) ensure that all State laws regulating water resources are consistent with and fully integrated into the comprehensive system for regulating surface water withdrawals and the statewide plan for water resources development projects; and (vi) ensure that potential interstate conflicts related to water resources are avoided or minimized. In the conduct of this study, the Environmental Review Commission may employ independent consultants as provided in G.S. 120-32.02 and G.S. 120-70.44. The Environmental Review Commission may submit an-interim report-reports to the 2008 and 2009 Regular Session regular sessions of the General Assembly and shall submit a final report of its findings and recommendations, including any legislative proposals, to the 2009—General Assembly on or before 1 October 2010."

SECTION 2. This act is effective when it becomes law.

GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2007

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BILL DRAFT 2007-RTz-8 [v.1] (05/14)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/18/2008 4:25:40 PM

Short Title: Motor Vehicle Emissions Study.	(Public)
Sponsors: .	
Referred to:	
A BILL TO BE ENTITLED	·
AN ACT TO DIRECT THE ENVIRONMENTAL REVIEW COMM	ISSION, IN
CONSULTATION WITH THE DEPARTMENT OF ENVIRONM	•
NATURAL RESOURCES, TO STUDY THE COSTS AND BENEFI	
ADOPTION OF CALIFORNIA MOTOR VEHICLE EMISSIONS ST	ΓANDARDS
IN NORTH CAROLINA.	
The General Assembly of North Carolina enacts:	
SECTION 1.(a) Definitions. – As used in this act:	
(1) "California motor vehicle emissions standards" means the	ne functional
equivalent, if implemented in this State, of the low-emis	
program established under the laws of the State of Cali	
forth in final regulations issued by the California Air Res	
pursuant to Title 13 of the California Code of Reg	
promulgated under the authority of Division 26 of the	e California
Health and Safety Code.	
(2) "Federal emissions standards" means the regulations as	
Parts 85 and 86 of Title 40 of the Code of Federal Regula	itions (1 July
2007 Edition).	

(3)

SECTION 1.(b) Study. – The Environmental Review Commission, in consultation with the Division of Air Quality of the Department of Environment and Natural Resources, shall study the costs and benefits of the adoption of the California motor vehicle emissions standards in this State. The Commission shall determine:

Code of Federal Regulations (1 October 2007 Edition).

(1) The projected emissions of carbon dioxide for each year through the year 2020 from motor vehicles in North Carolina if the California

"Federal fuel efficiency standards" means the corporate average fuel economy (CAFE) standards, as set forth in Chapter V of Title 49 of the

1		motor vehicle emissions standards were adopted in North Carolina, as
2		compared to emissions of carbon dioxide projected for the same period
3		from motor vehicles in North Carolina if the California motor vehicle
4		emissions standards are not adopted. In making the comparison, the
5		Commission shall factor in any reduction of emissions of carbon
6		dioxide in North Carolina that are projected to result from the
7		implementation of the federal emissions standards and the federal fuel
8		efficiency standards.
9	(2)	The projected increase in costs to North Carolina sellers and
10	•	purchasers of new vehicles if the California motor vehicle emissions
11		standards were adopted in North Carolina.
12	(3)	The projected reduction in quantity and cost of fuel to North Carolina
13		consumers if the California motor vehicle emissions standards were
14		adopted in North Carolina as compared to the quantity and cost of fuel
15		if the California motor vehicle emissions standards are not adopted. In
6		making the comparison, the Commission shall determine quantity and
17		cost of fuel during the first five years of the useful life of the vehicle
8	~~~	and over the projected useful life of the vehicle.
9		FION 1.(c) Commission may employ consultants. – In the conduct of
20		Commission may employ independent consultants as provided by
21	•	and G.S. 120-70.44.
22		FION 1.(d) – Advisory committee. – The Commission may convene an
23		ittee of interested parties to assist in the design and implementation of
!4 !5	the study.	CION 1 (a) Penart The Commission shall report its findings and
ر.	SEC	FION 1.(e) Report. – The Commission shall report its findings and

SECTION 1.(e) Report. – The Commission shall report its findings and recommendations, including any legislative proposals to the General Assembly on or before 1 April 2009.

SECTION 2. This act is effective when it becomes law.

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GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2007

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BILL DRAFT 2007-RIz-20 [v.6] (05/14)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/19/2008 11:06:19 AM

	Short Title: E	Electronics Recycling Amends/Add TVs.	(Public)
	Sponsors: .		
	Referred to:		
1		A BILL TO BE ENTITLED	
2	AN ACT TO	AMEND THE REQUIREMENTS FOR COMPUT	TER EQUIPMENT
3	MANAGE	MENT ENACTED BY S.L. 2007-550 TO (1) CLA	RIFY THAT THE
4	PROGRAM	A APPLIES ONLY TO COMPUTER EQUIPMENT	DISCARDED BY
5	CONSUME	ERS IN THE STATE AND (2) ADD TELEVISIONS	DISCARDED BY
6	CONSUME	ERS IN THE STATE TO THE EQUIPMENT	THAT MUST BE
7	RECOVER	ED FOR REUSE OR RECYCLING, AS RECOMM	IENDED BY THE
8		MENTAL REVIEW COMMISSION	
9		ssembly of North Carolina enacts:	•
10	SEC	TION 1. Article 9 of Chapter 130A of the General	l Statutes reads as
11	rewritten:		,
12	"Part 2	E. Discarded Television and Computer Equipment Ma	anagement.
13	"§ 130A-309.9	0. (Effective January 1, 2009) Findings.	•
14	The Genera	l Assembly makes the following findings:	
15	(1)	The computer electronics equipment waste stream	is growing rapidly
16		in volume and complexity and can introduce toxic	materials into solid
17	•	waste landfills.	
18	(2)	It is in the best interests of the citizens of this State	
19		simple, and free access to recycling services for di	scarded televisions
20		and computer equipment.	
21	(3)	Collection programs operated by local government	
22		agencies are an efficient way to divert discard	
23		computer equipment from disposal and to provide re	ecycling services to
24		all citizens of this State.	
25	(4)	The development of local and nonprofit colle	
26		hindered by the high costs of recycling and tran	sporting discarded
77		televisions and computer equipment	

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1 (5) No other comprehensive system currently exists, either provided by 2 electronics manufacturers, retailers, or others, to adequately serve all 3 citizens—consumers of the State and to divert large quantities of 4 discarded televisions and computer equipment from disposal. 5 Manufacturer responsibility is an effective way to ensure that (6) 6 manufacturers of televisions and computer equipment take part in a 7 solution to the electronic waste problem. 8 The recycling of discarded televisions and computer equipment (7) recovers valuable materials for reuse and will create jobs and expand 9 10 the tax base of the State. 11 12 "§ 130A-309.91. (Effective January 1, 2009) Definitions. As used in this Part, the following definitions apply: 13 Business entity. – Defined in G.S. 55-1-40(2a). 14 (1) Computer equipment. - Any desktop central processing unit, any 15 (2) laptop computer, the monitor or video display unit for a computer 16 system, and the keyboard, mice, and other peripheral equipment. 17 Computer equipment does not include a printing device such as a 18 printer, a scanner, a combination print-scanner-fax machine, or other 19 device designed to produce hard paper copies from a computer; an 20 automobile; a television; a household appliance; a large piece of 21 commercial or industrial equipment, such as commercial medical 22 equipment, that contains a cathode ray tube, a cathode ray tube device, 23 a flat panel display, or similar video display device that is contained 24 25 within, and is not separate from, the larger piece of equipment, or other medical devices as that term is defined under the federal Food, Drug, 26 and Cosmetic Act. 27 28 Consumer. - Any occupant of a single detached dwelling unit or a (2a)single unit of a multiple dwelling unit who owns or possesses a 29 television or item of computer equipment primarily for personal or 30 31 home business use. 32 Discarded television and computer equipment. – Computer Television (3) and computer equipment that is solid waste. 33 Discarded television and computer equipment collector. – A municipal 34 (4) or county government, nonprofit agency, or retailer that accepts 35 36 discarded television and computer equipment public.consumers. 37 Manufacturer of computer equipment. – A person 38 (5)(5a)manufactures computer equipment sold under its own brand or label; 39 40 sells under its own brand or label computer equipment produced by other suppliers; imports into the United States computer equipment 41 42 that was manufactured outside of the United States; or owns a brand

that it licenses to another person for use on computer equipment.

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Manufacturer includes a business entity that acquires another business entity that manufactures or has manufactured computer equipment.

- Manufacturer of televisions. Any existing person: (i) who manufactures or manufactured televisions under a brand that it owns or owned or is or was licensed to use, other than a license to manufacture televisions for delivery exclusively to or at the order of the licensor; (ii) who sells or sold televisions manufactured by others under a brand that the seller owns or owned or is or was licensed to use, or (iii) for whose account televisions, manufactured outside the United States, are or were imported into the United States, provided, however, if at the time the televisions are or were imported into the United States, another person has offered to collect the televisions under a recovery plan pursuant to this section, then this clause (iii) shall not apply.
- (6) Orphan discarded <u>televisions and computer equipment</u>. Any discarded <u>televisions and computer equipment</u> for which a manufacturer cannot be identified or for which the manufacturer is no longer in business and has no successor in interest.
- (7) Retailer. A person who sells <u>televisions and</u> computer equipment in the State to a consumer. Retailer includes a manufacturer of <u>televisions</u> and computer equipment that sells directly to a consumer through any means, including transactions conducted through sales outlets, catalogs, the Internet, or any similar electronic means, but does not include a person who sells <u>televisions and</u> computer equipment to a distributor or retailer through a wholesale transaction.
- (8) Television. A stand-alone display system containing a cathode ray tube or any other type of display primarily intended to receive video programming via broadcast, having a viewable area greater than nine inches measured diagonally, able to adhere to standard consumer video formats and having the capability of selecting different broadcast channels and support sound capability.

"§ 130A-309.92. (Effective January 1, 2009) Responsibility for recycling <u>televisions</u> and discarded computer equipment.

In addition to the specific requirements of this Part, discarded <u>television and</u> computer equipment collectors and manufacturers share responsibility for the recycling of discarded <u>televisions and</u> computer equipment and the education of <u>citizens</u> of consumers in the State as to recycling opportunities for discarded <u>televisions and</u> computer equipment. (2007-550, s. 16.1(a).)

"§ 130A-309.93. (For effective dates, see note) Requirements for manufacturers.

(a) Registration and Fee Required. – Each manufacturer of <u>televisions and manufacturer of computer equipment</u>, before selling or offering for sale <u>televisions and computer equipment</u> in North Carolina, shall register with the Department and, at the time of registration, shall pay an initial registration fee of ten thousand dollars (\$10,000)

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- to the Department. A <u>manufacturer of televisions and manufacturer of computer equipment equipment manufacturer</u> that has registered shall pay an annual renewal registration fee of one thousand dollars (\$1,000) to the Department. The annual renewal registration fee shall be paid each year no later than the first day of the month in which the initial registration fee was paid. The proceeds of these fees shall be credited to the <u>Television and Computer Equipment Management Account.</u> A <u>manufacturer of televisions and manufacturer of computer equipment that sells 1,000 items of computer equipment or less per year is exempt from the requirement to pay the registration fee and the annual renewal fee imposed by this subsection.</u>
- (b) Manufacturer Label Required. A manufacturer shall not sell or offer to sell televisions and computer equipment in this State unless a visible, permanent label clearly identifying the manufacturer of that device is affixed to the equipment.
- (c) <u>Televisions and Computer Equipment Recycling Plan.</u> Each <u>manufacturer of televisions and manufacturer of computer equipment shall develop and submit to the Department a plan for reuse or recycling of discarded <u>televisions and computer equipment from consumers in the State produced by the manufacturer. The manufacturer shall submit a proposed plan to the Department within 120 days of registration as required by subsection (a) of this section. The plan shall:</u></u>
 - (1) Describe any direct take-back program to be implemented by the manufacturer, including mail-back programs and collection events.
 - (2) Provide that the manufacturer will take responsibility for discarded televisions and computer equipment it manufactured discarded by consumers in the State.
 - (3) Include a detailed description as to how the manufacturer will implement and finance the plan.
 - (4) Provide for environmentally sound management practices to transport and recycle discarded <u>televisions and</u> computer equipment.
 - (5) Describe the performance measures that will be used by the manufacturer to document recovery and recycling rates for discarded televisions and computer equipment. The calculation of recycling rates shall include the amount of discarded televisions and computer equipment managed under the manufacturer's program divided by the amount of televisions and computer equipment sold by the manufacturer in North Carolina.
 - (6) Describe in detail how the manufacturer will provide for transportation of discarded <u>televisions and computer equipment</u> at no cost from discarded computer equipment collectors.
 - (7) Describe in detail how the manufacturer will fully cover the costs of processing discarded <u>televisions and</u> computer equipment received from discarded <u>televisions and</u> computer equipment collectors.
 - (8) Include a public education plan on the laws governing the recycling and reuse of discarded <u>televisions and</u> computer equipment under this Part and on the methods available to consumers to comply with those requirements.

- (d) <u>Televisions and Computer Equipment Recycling Plan Revision.</u> A manufacturer may prepare a revised plan and submit it to the Department at any time as the manufacturer considers appropriate in response to changed circumstances or needs. The Department may require a manufacturer to revise or update a plan if the Department finds that the plan is inadequate or out-of-date.
- (e) Payment of Costs for Plan Implementation. Each manufacturer is responsible for all costs associated with the development and implementation of its plan. A manufacturer shall not collect a charge for the management of discarded televisions and computer equipment at the time the equipment is discarded by consumers.
- (f) Joint <u>Television and</u> Computer Equipment Recycling Plans. A manufacturer may fulfill the requirements of this section by participation in a joint recycling plan with other manufacturers. A joint plan shall meet the requirements of subsection (c) of this section.
- (g) Annual Report. Each manufacturer shall submit a report to the Department by 1 February of each year that includes all of the following for the previous calendar year:
 - (1) A description of the collection and recycling services used to recover the manufacturer's products.
 - (2) The quantity and type of computer equipment sold by the manufacturer to retail consumers in this State.
 - (3) The quantity and type of discarded computer equipment collected by the manufacturer for recovery in this State for the preceding calendar year.
 - (4) Any other information requested by the Department.

"§ 130A-309.94. (Effective January 1, 2010) Requirements for discarded <u>television</u> and computer equipment collectors.

Each discarded <u>television and</u> computer equipment collector shall ensure that discarded <u>televisions and</u> computer equipment received by the collector is consolidated at central locations, properly stored, and either held for pickup by a manufacturer or delivered to a facility designated by a manufacturer.

"§ 130A-309.95. (Effective January 1, 2009) Responsibilities of the Department.

In addition to its other responsibilities under this Part, the Department shall:

- (1) Develop and maintain a current list of manufacturers that are in compliance with the requirements of G.S. 130A-309.93 and provide the current list to the Office of Information Technology Services each time that the list is updated.
- (2) Develop and implement a public education program on the laws governing the recycling and reuse of discarded televisions and computer equipment under this Part and on the methods available to consumers to comply with those requirements. The Department shall make this information available on the Internet and shall provide

1	technical assistance to manufacturers to meet the requirements of
2	G.S. 130A-309.93(c)(8). The Department shall also provide technical
3	assistance to units of local government on the establishment and
4	operation of discarded television and computer equipment collection
5	centers and in the development and implementation of local public
6	education programs. (2) Maintain the confidentiality of any information that is required to be
7 8	(3) Maintain the confidentiality of any information that is required to be submitted by a manufacturer under this Part that is designated as a
9	trade secret, as defined in G.S. 66-152(3) and that is designated as
10	confidential or as a trade secret under G.S. 132-1.2.
11	confidential of as a trade secret under G.S. 132-1.2.
12	"§ 130A-309.96. (Effective January 1, 2009) Television and Computer Equipment
13	Management Account.
14	The Television and Computer Equipment Management Account is created as a
15	nonreverting account within the Department. Funds in the Account shall be used by the
16	Department to implement the provisions of this Part.
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18	"§ 130A-309.97. (Effective January 1, 2009) Enforcement.
19	This Part may be enforced as provided by Part 2 of Article 1 of this Chapter.
20	
21	"§ 130A-309.98. (Effective April 1, 2011) Annual report.
22	No later than 1 April of each year, the Department shall submit a report on the recycling
23	of discarded televisions and computer equipment in the State under this Part to the
24	Environmental Review Commission. The report must include an evaluation of the
25	recycling rates in the State for discarded televisions and computer equipment, a
26	discussion of compliance and enforcement related to the requirements of this Part, and
27 28	any recommendations for any changes to the system of collection and recycling of discarded televisions and computer equipment or other electronic devices."
29	SECTION 2. G.S. 130A-309.09A(b)(6) reads as rewritten:
30	"(6) Include an assessment of current programs and a description of
31	intended actions with respect to:
32	a. Education with the community and through the schools.
33	b. Management of special wastes.
34	c. Prevention of illegal disposal and management of litter.
35	d. Purchase of recycled materials and products manufactured with
36	recycled materials.
37	e. (Effective January 1, 2009) For each county and each
38	municipality with a population in excess of 25,000, collection
	municipanty with a population in excess of 25,000, concetion
39	of discarded <u>televisions and</u> computer equipment, as defined in

SECTION 3. G.S. 130A-309.10(f) is amended by adding a new subdivision

"(15) Discarded televisions, as defined in G.S. 130A-309.91."

2007-RIz-20 [v.6] (05/14)

to read:

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i	SECTION 4. G.S. 130A-309.10(11) is amended by adding a new
. 2	subdivision to read:
3	"(8) Discarded televisions, as defined in G.S. 130A-309.91."
4	SECTION 5. Section 16.6.(b) of S.L. 2007-550 reads as rewritten:
5	"SECTION 16.6.(b) Section 16.2 of this act becomes effective 1 January
6	2009. Sections 16.3 and 16.4 of this act become effective 1 January
7	2012. Section 16.5 of this act becomes effective 1 July 2009.
8	Subsection (b) of Section 16.1 of this act, Section 16.6 of this act, and
9	any other provision of Section 16 of this act for which an effective date
10	is not specified become effective 1 January 2009."
11	SECTION 6. Part 2E of Article 9 of Chapter 130A of the General Statutes,
12	as amended by Section 1 of this act, becomes effective as follows:
13	(1) G.S. 130A-309.90 becomes effective 1 January 2009.
14	(2) G.S. 130A-309.91 becomes effective 1 January 2009.
15	(3) G.S. 130A-309.92 becomes effective 1 January 2009.
16	(4) G.S. 130A-309.93(a) becomes effective 1 January 2009.
17	(5) G.S. 130A-309.93(b) becomes effective 1 January 2009.
18	(6) G.S. 130A-309.93(c) becomes effective 1 October 2009.
19	(7) G.S. 130A-309.93(d) becomes effective 1 October 2009.
20	(8) G.S. 130A-309.93(e) becomes effective 1 January 2009.
21	(9) G.S. 130A-309.93(f) becomes effective 1 January 2009.
22	(10) G.S. 130A-309.93(g) becomes effective 1 February 2011.
23	(11) G.S. 130A-309.94 becomes effective 1 January 2010.
24	(12) G.S. 130A-309.95(1) becomes effective 1 January 2009.
25	(13) G.S. 130A-309.95(2) becomes effective 1 January 2009.
26	(14) G.S. 130A-309.95(3) becomes effective 1 January 2009.
27	(15) G.S. 130A-309.96 becomes effective 1 January 2009.
28	(16) G.S. 130A-309.97 becomes effective 1 January 2009.
29	(17) G.S. 130A-309.98 becomes effective 1 April 2011.
30	SECTION 7. Section 2 of this act becomes effective 1 January 2009.
31	Sections 3 and 4 of this act become effective 1 January 2012. Section 5 of this act is
32	effective when it becomes law. Section 6 of this act, and any other provision of this act
33	for which an effective date is not specified become effective 1 January 2009.

GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2007

H

BILL DRAFT 2007-RIz-17 [v.5] (05/14)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/16/2008 12:27:10 PM

(Public) Short Title: Recycle Plastic Bags. Representative. Sponsors: Referred to: A BILL TO BE ENTITLED 1 AN ACT TO REQUIRE CERTAIN RETAILERS IN THE STATE TO IMPLEMENT 2 A PROGRAM TO RECYCLE THE PLASTIC BAGS PROVIDED TO 3 CUSTOMERS, AS RECOMMENDED BY THE ENVIRONMENTAL REVIEW 4 COMMISSION. The General Assembly of North Carolina enacts: SECTION 1. G.S. 130A-309.10(c) reads as rewritten: 7 No plastic bag shall be provided at any retail outlet to any retail 8 "(c) customer to use for the purpose of carrying items purchased by that 9 customer unless the bag is composed of material that is recyclable. 10 It is the goal of the State that at least twenty-five seventy-five percent (2) 11 (25%) (75%) of the plastic bags provided at retail outlets in the State to 12 retail customers for carrying items purchased by the customer be 13 recycled. 14 A retailer that (i) owns or controls more than 10,000 square feet of 15 <u>(3)</u> retail space in the State, and (ii) provides retail customers plastic bags 16 for carrying items purchased shall: 17 Implement a plastic bag collection program that facilitates the 18 return and recycling of plastic bags provided to customers by 19 that retailer. 20 Provide a clearly marked receptacle for the collection of plastic 21 b. bags that is in a convenient location at each retail outlet owned 22 or controlled by the retailer. 23 Arrange for the pick-up, transport, and recycling of plastic bags 24 <u>c.</u> deposited in the collection receptacles provided." 25 **SECTION 2.** This act is effective 1 January 2009. 26

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GENERAL ASSEMBLY OF NORTH CAROLINA **SESSION 2007**

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BILL DRAFT 2007-RIz-25 [v.1] (05/14)

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(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/19/2008 11:15:18 AM

Short Title:	Amend Bernard Allen Emer. Drinking Water Fnd.	(Public)
Sponsors:	•	
Referred to:		

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A BILL TO BE ENTITLED

AN ACT TO AMEND THE BERNARD ALLEN MEMORIAL EMERGENCY DRINKING WATER FUND TO ALLOW FOR PAYMENT OF ADDITIONAL NOTIFICATION AND TESTING.

The General Assembly of North Carolina enacts:

SECTION 1.

"§ 87-98. Bernard Allen Memorial Emergency Drinking Water Fund.

- The Bernard Allen Memorial Emergency Drinking Water Fund is established under the control and direction of the Department. The Fund shall be a nonreverting, interest-bearing fund consisting of monies appropriated by the General Assembly or made available to the Fund from any other source and investment interest credited to the Fund.
- The Fund may be used to pay for notification, to the extent practicable, of persons aged 18 and older who reside in any dwelling unit, and the senior official in charge of any business, at which drinking water is supplied from a private drinking water well or improved spring that is located within 1,500 feet of, and at risk from, known groundwater contamination. The senior official in charge of the business shall take reasonable measures to notify all employees of the business of the groundwater contamination, including posting a notice of the contamination in a form and at a location that is readily accessible to the employees of the business. The Fund may also be used by the Department to-to: (i) pay the costs of testing of private drinking water wells and improved springs for suspected contamination up to once every three years upon request by a person who uses the well and for the temporary or permanent provision of alternative drinking water supplies to persons whose drinking water well or improved spring is contaminated, contaminated, and (ii) pay for additional notification and testing where an initial set of well tests identifies a larger range of contamination.

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Under this subsection, an alternative drinking water supply includes the repair or replacement of a contaminated well or the connection to a public water supply.

- The Department shall disburse monies from the Fund based on financial need and on the risk to public health posed by groundwater contamination and shall give priority to the provision of services under this section to instances when an alternative source of funds is not available. The Fund shall not be used for remediation of groundwater contamination. Nothing in this section expands, contracts, or modifies the obligation of responsible parties under Article 9 or 10 of Chapter 130A of the General Statutes, this Article, or Article 21A of this Chapter to assess contamination, identify receptors, or remediate groundwater or soil contamination. The Fund shall not be used to provide alternative water supply to households with incomes greater than three hundred percent (300%) of the current federal poverty level. The Fund shall not be used to provide alternative drinking water supplies unless the concentration of one or more contaminants in the private drinking water well or improved spring exceeds the Maximum Contaminant Level, or the federal drinking water action level as defined in 40 Code of Federal Regulations § 141.1 through § 141.571 (1 July 2006) and 40 Code of Federal Regulations § 143.3 (1 July 2006). The Fund shall not be used to provide temporary water supplies in any calendar quarter until all needs for permanent replacement water supplies that have been identified in that calendar quarter have been met through hookups to public water supplies, repair, or replacement of contaminated wells. In disbursing monies from the Fund, preference shall be given to providing permanent replacement water supplies by connection to public water supplies and repair or replacement of contaminated wells over the provision of temporary water supplies.
- (d) The Department shall establish criteria by which the Department is to evaluate applications and disburse monies from this Fund and may adopt any rules necessary to implement this section.
- (e) The Department, in consultation with the Commission for Public Health and local health departments, shall report no later than 1 October of each year to the Environmental Review Commission, the House of Representatives and Senate Appropriations Subcommittees on Natural and Economic Resources, and the Fiscal Research Division of the General Assembly on the implementation of this section. The report shall include the purpose and amount of all expenditures from the Fund during the prior fiscal year, a discussion of the benefits and deficiencies realized as a result of the section, and may also include recommendations for any legislative action."

SECTION 2. This act is effective when it becomes law.

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BILL DRAFT 2007-SBz-42 [v.5] (05/14)

GENERAL ASSEMBLY OF NORTH CAROLINA

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/16/2008 5:05:17 PM

Short Title. Diot	igni/ water ivianagement Recommendations.	(1 done)
Sponsors: .		
Referred to:		
•		
	A BILL TO BE ENTITLED	
AN ACT TO	IMPLEMENT WATER MANAGEMENT AND	DROUGHT
PREPAREDNI	ESS AND RESPONSE MEASURES, AS RECOMM	ENDED BY
THE ENVIRO	NMENTAL REVIEW COMMISSION.	
The General Asser	nbly of North Carolina enacts:	
SECTION	ON 1. G.S. 143-215.22H reads as rewritten:	
"§ 143-215.22H.]	Registration of water withdrawals and transfers requi	red.
(a) Any per	son who withdraws 100,000 gallons per day or more o	f water from
the surface or gro	undwaters of the State or who transfers 100,000 gallon	s per day or
more of water from	n one river basin to another shall register the withdraws	al or transfer
	ion. A person registering a water withdrawal or transfer	
	ith the following information:	-
(1) T	he maximum daily amount of the water withdrawal	or transfer
• •	expressed in thousands of gallons per day.	
	he monthly average withdrawal or transfer expressed in	thousands of
` ,	allons per day.	
•	he location of the points of withdrawal and discha	rge and the
	apacity of each facility used to make the withdrawal or tra	

(3)

(b) Any person initiating a new water withdrawal or transfer of 100,000 gallons per day or more shall register the withdrawal or transfer with the Commission not later than six-two months after the initiation of the withdrawal or transfer. The information required under subsection (a) of this section shall be submitted with respect to the new withdrawal or transfer.

The monthly average discharge expressed in thousands of gallons per

(b1) Subsections (a) and (b) of this section shall not apply to a person who withdraws or transfers less than 1,000,000 gallons per day of water for activities directly

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related or incidental to the production of crops, fruits, vegetables, ornamental and flowering plants, dairy products, livestock, poultry, and other agricultural products.

- (c) A unit of local government that has completed a local water supply plan that meets the requirements of G.S. 143-355(l) and that has periodically revised and updated its plan as required by the Department has satisfied the requirements of this section and is not required to separately register a water withdrawal or transfer or to update a registration under this section.
- (d) Any person who is required to register a water withdrawal or transfer under this section shall update the registration by providing the Commission with a current version of the information required by subsection (a) of this section at five-year intervals following the initial registration. A person who submits information to update a registration of a water withdrawal or transfer is not required to pay an additional registration fee under G.S. 143-215.3(a)(1a) and G.S. 143-215.3(a)(1b), but is subject to the late registration fee established under this section in the event that updated information is not submitted as required by this subsection.
- (e) Any person who is required to register a water transfer or withdrawal under this section and fails to do so shall pay, in addition to the registration fee required under G.S. 143-215.3(a)(1a) and G.S. 143-215.3(a)(1b), a late registration fee of five dollars (\$5.00) per day for each day the registration is late up to a maximum of five hundred dollars (\$500.00).one hundred dollars (\$100.00). A person who is required to update a registration under this section and fails to do so shall pay a fee of five dollars (\$5.00) per day for each day the updated information is late up to a maximum of five hundred dollars (\$500.00).fifty dollars (\$50.00). A late registration fee shall not be charged to a farmer who submits a registration that pertains to farming operations.For each willful action or failure to act for which a penalty may be assessed under this subsection, the Commission may consider each day the action or inaction continues after notice is given of the violation as a separate violation. A separate penalty may be assessed for each separate violation."

SECTION 2. G.S. 143-350 reads as rewritten: "§ 143-350. Definitions.

As used in this Article:

- (1) "Commission" means the Environmental Management Commission.
- (2) "Department" means the Department of Environment and Natural Resources.
- "Essential water use" means the use of water necessary for firefighting, health, and safety; water needed to sustain human and animal life; and water necessary to satisfy federal, state, and local laws for the protection of public health, safety, the environment, and natural resources.
- (4) "Large community water system" means a community water system, as defined in G.S. 130A-313(10), that regularly serves 1,000 or more service connections or 3,000 or more individuals.

(5) "Unit of local government" means a county, city, consolidated city-county, sanitary district, or other local political subdivision or authority or agency or local government."

SECTION 3. G.S. 143-354 reads as rewritten:

"§ 143-354. Ordinary powers and duties of the Commission.

- (a) Powers and Duties in General. Except as otherwise specified in this Article, the powers and duties of the Commission shall be as follows:
 - (1) The Commission shall carry out a program of planning and education concerning the most beneficial long-range conservation and use of the water resources of the State. It shall investigate the long-range needs of counties and municipalities and other local governments for water supply storage available in federal projects.
 - (2) The Commission shall advise the Governor as to how the State's present water research activities might be coordinated.
 - (3) The Commission, based on information available, shall notify any municipality or other governmental unit of potential water shortages or emergencies foreseen by the Commission affecting the water supply of such municipality or unit together with the Commission's recommendations for restricting and conserving the use of water or increasing the water supply by or in such municipality or unit. Failure reasonably to follow such recommendations shall make such municipality or other governmental unit ineligible to receive any emergency diversion of waters as hereinafter provided.
 - (4) The Commission is authorized to call upon the Attorney General for such legal advice as is necessary to the functioning of the Commission.
 - (5) Recognizing the complexity and difficulties attendant upon the recommendation of the General Assembly of fair and beneficial legislation affecting the use and conservation of water, the Commission shall solicit from the various water interests of the State their suggestions thereon.
 - (6) The Commission may hold public hearings for the purpose of obtaining evidence and information and permitting discussion relative to water resources legislation and shall have the power to subpoena witnesses therefor.
 - (7) All recommendations for proposed legislation made by the Commission shall be available to the public.
 - (8) The Commission shall adopt such rules and regulations as may be necessary to carry out the purposes of this Article.
 - (9) Any member of the Commission or any person authorized by it, shall have the right to enter upon any private or public lands or waters for the purpose of making investigations and studies reasonably necessary in the gathering of facts concerning streams and watersheds, subject to responsibility for any damage done to property entered.

- (10) The Commission is authorized to provide to federal agencies the required assurances, subject to availability of appropriations by the General Assembly or applicable funds or assurances from local governments, of nonfederal cooperation for water supply storage and other congressionally authorized purposes in federal projects.
- (11) The Commission is authorized to assign or transfer to any county or municipality or other local government having a need for water supply storage in federal projects any interest held by the State in such storage, upon the assumption of repayment obligation therefor, or compensation to the State, by such local government. The Commission shall also have the authority to reassign or transfer interests in such storage held by local governments, if indicated by the investigation of needs made pursuant to subsection (a)(1) of this section, subject to equitable adjustment of financial responsibility.
- (b) Declaration of Water Emergency. Upon the request of the governing body of a county, city or town the Commission shall conduct an investigation to determine whether the needs of human consumption, necessary sanitation and public safety require emergency action as hereinafter provided. Upon making such determination, the Commission shall conduct a public hearing on the question of the source of relief water after three days' written notice of such hearing has been given to any persons having the right to the immediate use of water at the point from which such water is proposed to be diverted. After determining the source of such relief water the Commission shall then notify the Governor and he shall have the authority to declare a water emergency in an area including said county, city or town and the source or sources of water available for the relief hereinafter provided; provided, however, that no emergency period shall exceed 30 days but the Governor may declare any number of successive emergencies upon request of the Commission.
- (c) Water Emergency Powers and Duties of the Commission. Whenever, pursuant to this Article, the Governor has declared the existence of a water emergency within a particular area of the State, the Commission shall have the following duties and powers to be exercised only within said area and only during such time as the Governor has, pursuant to this Article, designated as the period of emergency:
 - (1) To authorize any county, city or town in which an emergency has been declared to divert water in the emergency area sufficient to take care of the needs of human consumption, necessary sanitation and public safety. Provided, however, there shall be no diversion of waters from any stream or body of water pursuant to this Article unless the person controlling the water or sewerage system into which such waters are diverted shall first have limited and restricted the use of water in such water or sewerage system to human consumption, necessary sanitation and public safety and shall have effectively enforced such restrictions. Diversion of waters shall cease upon the termination of the water emergency or upon the finding of the Commission that the person controlling the water or sewerage system using diverted waters has

- failed to enforce effectively the restrictions on use to human consumption and necessary sanitation and public safety. In the event waters are diverted pursuant to this Article, there shall be no diversion to the same person in any subsequent year unless the Commission finds as fact from evidence presented that the person controlling the water or sewerage system has made reasonable plans and acted with due diligence pursuant thereto to eliminate future emergencies by adequately enlarging such person's own water supply.
- (2) To make such reasonable rules and regulations governing the conservation and use of diverted waters within the emergency area as shall be necessary for the health and safety of the persons who reside within the emergency area; and the violation of such rules and regulations during the period of the emergency shall constitute a Class 1 misdemeanor; provided, however, that before such rules and regulations shall become effective, they shall be published in not less than two consecutive issues of not less than one newspaper generally circulated in the emergency area.
- (d) Temporary Rights-of-Way. When any diversion of waters is ordered by the Commission pursuant to this Article, the person controlling the water or sewerage system into which such waters are diverted is hereby empowered to lay necessary temporary water lines for the period of such emergency across, under or above any and all properties to connect the emergency water supply to an intake of said water or sewerage system. The route of such water lines shall be prescribed by the Commission.
- (e) Compensation for Water Allocated during Water Emergency and Temporary Rights-of-Way. Whenever the Commission, pursuant to this Article has ordered any diversion of waters, the person controlling the waters or sewerage system into which such waters are diverted shall be liable to all persons suffering any loss or damage caused by or resulting from the diversion of such waters or caused by or resulting from the laying of temporary water lines to effectuate such diversion. The Commission, before ordering such diversion, shall require that the person against whom liability attaches hereunder to post bond with a surety approved by the Commission in an amount determined by the Commission and conditioned upon the payment of such loss or damage."

SECTION 4. Article 38 of Chapter 143 of the General Statutes is amended by adding a new section to read:

"§ 143-354.1. Water conservation measures for severe, extreme, and exceptional drought.

(a) Minimum Water Conservation Measures. – The Commission shall adopt rules establishing minimum water conservation measures to be implemented by cities, counties, and unified local governments located in areas designated by the Drought Management Advisory Council as areas of severe, extreme or exceptional drought. The rules shall prohibit the use of potable water for uses that can be supplied by reclaimed water, recycled wastewater or treated gray water in areas that have been in exceptional drought for more than sixty days. Any restrictions on water use established by the rules

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 shall not apply to use of reclaimed or recycled wastewater or to authorize use of treated or untreated gray water.

- (b) Implementation of Minimum Water Conservation Measures. E ach city, county, or unified local government located in an area of severe, extreme or exceptional drought as designated by the Drought Management Advisory Council shall implement the minimum water conservation measures established by rules adopted by the Commission pursuant to subsection (a) of this section. A city, county, or unified local government may adopt water conservation ordinances pursuant to their general police power. A local ordinance that imposes water conservation requirements shall be at least as stringent and may be more stringent than the minimum water conservation measures adopted by the Commission.
- (c) Application of Minimum Water Conservation Measures. A city, county, or unified local government is authorized to apply water conservation measures to all water users within its jurisdiction, including water users served by an investor-owned utility or private water supply well."

SECTION 5. G.S. 143-355 read as rewritten:

"§ 143-355. Powers and duties of the Department.

- (a) Repealed by Session Laws 1989, c. 603, s. 1.
- (b) Functions to Be Performed. The Department shall:
 - (1) Request the North Carolina Congressional Delegation to apply to the Congress of the United States whenever deemed necessary for appropriations for protecting and improving any harbor or waterway in the State and for accomplishing needed flood control, shore-erosion prevention, and water-resources development for water supply, water quality control, and other purposes.
 - (2) Initiate, plan, and execute a long-range program for the preservation, development and improvement of rivers, harbors, and inland ports, and to promote the public interest therein.
 - (3) Prepare and recommend to the Governor and the General Assembly any legislation which may be deemed proper for the preservation and improvement of rivers, harbors, dredging of small inlets, provision for safe harbor facilities, and public tidewaters of the State.
 - (4) Make engineering studies, hydraulic computations, hydrographic surveys, and reports regarding shore-erosion projects, dams, reservoirs, and river-channel improvements; to develop, for budget and planning purposes, estimates of the costs of proposed new projects; to prepare bidding documents, plans, and specifications for harbor, coastal, and river projects, and to inspect materials, workmanship, and practices of contractors to assure compliance with plans and specifications.
 - (5) Cooperate with the United States Army Corps of Engineers in causing to be removed any wrecked, sunken or abandoned vessel or unauthorized obstructions and encroachments in public harbors, channels, waterways, and tidewaters of the State.

- (6) Cooperate with the United States Coast Guard in marking out and establishing harbor lines and in placing buoys and structures for marking navigable channels.
- (7) Cooperate with federal and interstate agencies in planning and developing water-resource projects for navigation, flood control, hurricane protection, shore-erosion prevention, and other purposes.
- (8) Provide professional advice to public and private agencies, and to citizens of the State, on matters relating to tidewater development, river works, and watershed development.
- (9) Discuss with federal, State, and municipal officials and other interested persons a program of development of rivers, harbors, and related resources.
- (10) Make investigations and render reports requested by the Governor and the General Assembly.
- (11) Participate in activity of the National Rivers and Harbors Congress, the American Shore and Beach Preservation Association, the American Watershed Council, the American Water Works Association, the American Society of Civil Engineers, the Council of State Governments, the Conservation Foundation, and other national agencies concerned with conservation and development of water resources.
- (12) Prepare and maintain climatological and water-resources records and files as a source of information easily accessible to the citizens of the State and to the public generally.
- (13) Formulate and administer a program of dune rebuilding, hurricane protection, and shore-erosion prevention.
- (14) Include in the biennial budget the cost of performing the additional functions indicated above.
- (15) Initiate, plan, study, and execute a long-range floodplain management program for the promotion of health, safety, and welfare of the public. In carrying out the purposes of this subsection, the primary responsibility of floodplain management rests with the local levels of government and it is, therefore, the policy of this State and of this Department to provide guidance, coordination, and other means of assistance, along with the other agencies of this State and with the local levels of government, to effectuate adequate floodplain management programs.
- (b1) The Department is directed to pursue an active educational program of floodplain management measures, to include in each biennial report a statement of flood damages, location where floodplain management is desirable, and suggested legislation, if deemed desirable, and within its capacities to provide advice and assistance to State agencies and local levels of government.
 - (c) Repealed by Session Laws 1961, c. 315.

- (d) Investigation of Coasts, Ports and Waterways of State. The Department is designated as the official State agency to investigate and cause investigations to be made of the coasts, ports and waterways of North Carolina and to cooperate with agencies of the federal and State government and other political subdivisions in making such investigations. The provisions of this section shall not be construed as in any way interfering with the powers and duties of the Utilities Commission, relating to the acquiring of rights-of-way for the Intra-Coastal Waterway; or to authorize the Department to represent the State in connection with such duties.
 - (e) Repealed by Session Laws 1998-129, s. 1, effective January 1, 2000.
- (f) Samples of Cuttings to Be Furnished the Department When Requested. Every person, firm or corporation engaged in the business of drilling, boring, coring or constructing wells in any manner by the use of power machinery shall furnish the Department samples of cuttings from such depths as the Department may require from all wells constructed by such person, firm or corporation, when such samples are requested by the Department. The Department shall bear the expense of delivering such samples. The Department shall, after an analysis of the samples submitted, furnish a copy of such analysis to the owner of the property on which the well was constructed; the Department shall not report the results of any such analysis to any other person whatsoever until the person legally authorized to do so authorizes in writing the release of the results of the analysis.
- (g) Reports of Each Well Required. Every person, firm or corporation engaged in the business of drilling, boring, coring, or constructing wells with power machinery within the State of North Carolina shall, within 30 days of the completion of each well, report to the Department on forms furnished by the Department the location, size, depth, number of feet of casing used, method of finishing, and formation log information of each such well. In addition such person, firm or corporation shall report any tests made of each such well including the method of testing, length of test, draw-down in feet and yield in gallons per minute. The person, firm or corporation making such report to the Department shall at the time such report is made also furnish a copy thereof to the owner of the property on which the well was constructed.
- (h) Drilling for Petroleum and Minerals Excepted. The provisions of this Article shall not apply to drillings for petroleum and minerals.
- (i) Penalty for Violation. Any person violating the provisions of subsections (e), (f) and (g) of G.S. 143-355 shall be guilty of a Class 3 misdemeanor and, upon conviction, shall only be punished by a fine of fifty dollars (\$50.00). Each violation shall constitute a separate offense.
- (j) Miscellaneous Duties. The Department shall make investigations of water supplies and water powers, prepare and maintain a general inventory of the water resources of the State and take such measures as it may consider necessary to promote their development; and to supervise, guide, and control the performance of the duties set forth in subsection (b) of this section and to hold hearings with regard thereto. In connection with administration of the well-drilling law the Department may prepare analyses of well cuttings for mineral and petroleum content.

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- Water Use Information. Any person using, withdrawing, diverting or (k) obtaining water from surface streams, lakes and underground water sources shall, upon the request of the Department, file a monthly report with the Department showing the amount of water used, withdrawn, diverted or obtained from such sources. Such report shall be on a form supplied by the Department and shall show the identification of the water well or other withdrawal facility, location, withdrawal rate (measured in gallons per minute), and total gallons withdrawn during the month. Reports required to be filed under this subsection shall be filed on or before the fifteenth day of the month succeeding the month during which the using, withdrawing, diverting or obtaining water required to be reported occurred. This subsection does not apply to withdrawals or uses by individuals or families for household, livestock, or gardens. All reports required under this subsection are provided solely for the purpose of the Department. Within the meaning of this subsection the term "person" means any and all persons, including partnerships, associations, public or private individuals. firms, municipalities or political subdivisions, governmental agencies, and private or public corporations organized or existing under the laws of this State or any other state or country. In the event of drought or other water shortage, the Department may require each local government water system and each large community water system to report water use on a weekly basis and may require the reporting of additional information necessary to assess and manage the drought or water shortage.
- For purposes of this subsection, "community water system" means a community water system, as defined in G.S. 130A-313(10), that regularly serves 1,000 or more service connections or 3,000 or more individuals. Local Water Supply Plans. -Each unit of local government that provides public water service or that plans to provide public water service and each large community water system shall, either individually or together with other units of local government and large community water systems, prepare a local water supply plan and submit it to the Department. Department for approval. The Department shall provide technical assistance with the preparation of plans to units of local government and large community water systems upon request and to the extent that the Department has resources available to provide assistance. At a minimum, each unit of local government and large community water system shall include in local water supply plans all information that is readily available to it. Plans shall include present and projected population, industrial development, and water use within the service area; present and future water supplies; an estimate of the technical assistance that may be needed at the local level to address projected water needs; current and future water conservation and water reuse programs; a description of how the local government or large community water system will respond to drought and other water shortage emergencies and continue to meet essential public water supply needs during the emergency; a water audit and leak detection program, identification of existing and planned interconnections to other water systems; and any other related information as the Department may require in the preparation of a State water supply plan. A unit of local government or large community water system shall submit a revised plan that specifies how the water system intends to address foreseeable future water needs when eighty percent (80%) of the water system's available water supply based on average

- daily demand has been allocated to current or prospective water users or the seasonal demand exceeds ninety percent (90%). A unit of local government or large community water system shall submit a revised plan that reflects Local plans shall be revised to reflect changes in relevant data and projections at least once each five years unless the Department requests more frequent revisions. The revised plan shall include the current and anticipated reliance by the local government unit or large community water system on surface water transfers as defined by G.S. 143-215.22G. Local plans and revised plans shall be submitted to the Department once they have been approved by each unit of local government and large community water system that participated in the preparation of the plan. The Department shall review each local water supply plan and shall approve a plan if the Department finds that the plan includes the information required under this subsection and the water supply sources identified in the plan can be used to supply potable water and are adequate to meet the water supply needs projected in the plan.
- (m) In order to assure the availability of adequate supplies of good quality water to protect the public health and to support desirable economic growth, the Department shall develop a State water supply plan. The State water supply plan shall include the information and projections required to be included in local plans, a summary of water conservation and water reuse programs described in local plans, a summary of the technical assistance needs indicated by local plans, and shall indicate the extent to which the various local plans are compatible. The State plan shall identify potential conflicts among the various local plans and ways in which local water supply programs could be better coordinated.
 - (m1) The Secretary shall adopt all rules necessary to implement this section.
- (n) The Department of Environment and Natural Resources shall report to the Environmental Review Commission on the implementation of this section and the development of the State water supply plan on or before 1 September of each year."

SECTION 6. Article 38 of Chapter 143 of the General Statutes is amended by adding a new section to read:

"§ 143-355.2. Water shortage emergency powers.

- (a) Declaration of Water Shortage Emergency. If the Secretary determines that the needs of human consumption, necessary sanitation, and public safety require emergency action, the Secretary shall notify the Governor. The Governor shall have the authority to declare a water shortage emergency in the area affected by the water shortage emergency. No emergency period shall exceed 30 days, but the Governor may declare successive emergencies upon recommendation of the Secretary.
- (b) Water Shortage Emergency Powers and Duties. Whenever, pursuant to this Article, the Governor declares the existence of a water shortage emergency within a particular area of the State, the Secretary shall have the powers and duties set out in subdivisions (1), (2), and (3) of this subsection. These powers may only be exercised within the designated water shortage emergency area, after the Secretary has consulted with the affected water systems and determined that the water shortage emergency cannot be effectively managed in the absence of exercising these powers, and only for

the period of the water shortage emergency. Under these circumstances, the Secretary has the power and duty to:

- Require any water system that has water supply in excess of that required to meet the essential water uses of its customers to provide water to a water system experiencing a water shortage emergency. The amount required to be supplied shall be limited to the amount necessary to supply essential water uses within the receiving system.

 The required diversion of waters shall cease upon the termination of the water shortage emergency
- Adopt rules governing the conservation and use of water within the water shortage emergency area as shall be necessary for the health and safety of the persons who reside within the water shortage emergency area. Before such rules and regulations shall become effective, they shall be published in two consecutive issues of a newspaper generally circulated in the emergency area.
- (3) Adopt rules governing conservation and use of water within the service area of the water system from which water is being diverted as shall be necessary to maintain essential water uses in the system while supplying water to the water shortage emergency area.
- Secretary pursuant to this Article, the receiving water or wastewater system is authorized to lay necessary temporary water lines for the period of the water shortage emergency across, under, or above any and all properties to connect the emergency water supply to an intake of the supplying water or wastewater system without first acquiring right-of-way. The Department shall expedite the approval of temporary water lines needed to provide emergency water supply under this section.
- Compensation for Water Allocated during Water Shortage Emergency and Temporary Rights-of-Way. Whenever the Secretary, pursuant to this Article, has ordered any diversion of water, the receiving water or wastewater system shall reimburse the supplying water system for the cost of the water. The cost charge to the receiving system shall not exceed the retail cost that would be charged to a customer of the supplying system for an equivalent amount of water and any additional costs incurred by the supplying system for alterations to its infrastructure to effectuate the diversion. The receiving water system shall be liable to all persons suffering any loss or damage caused by or resulting from the laying of temporary water lines to effectuate the diversion. The Secretary, before ordering a diversion, shall require the receiving water or wastewater system to post bond with a surety approved by the Secretary, in an amount determined by the Secretary, and conditioned upon the payment of any loss or damage."
- **SECTION 7.** Article 38 of Chapter 143 of the General Statutes is amended by adding a new section to read:
- "§ 143-355.3. Water system efficiency.

- (a) For purposes of maintaining accurate records of water use, local government and large community water systems shall ensure that water delivered by the water system is metered to the maximum extent practicable.
- (b) Local government water systems and large community water systems shall require separate meters for newly installed in-ground irrigation systems.
- (c) To be eligible for State water infrastructure funds from the Drinking Water Revolving Fund or the Drinking Water Reserve Fund or any other grant or loan of funds allocated by the General Assembly whether the allocation of funds is to a State agency or to a nonprofit organization for the purpose of extending water lines or expanding water treatment capacity, a local government or large community water system must demonstrate that the system:
 - (1) Has established a water rate structure that is adequate to pay the cost of maintaining, repairing, and operating the system, including reserves for payment of principal and interest on indebtedness i neurred for maintenance or improvement of the water system during periods of normal use and periods of reduced water use due to implementation of water conservation measures. The funding agency shall apply guidelines developed by the State Water Infrastructure Commission in determining the adequacy of the water rate structure to support operation and maintenance of the system.
 - (2) Implemented a leak detection and repair program.
 - (3) Has an approved water supply plan pursuant to G.S. 143-355.
- (d) No water system shall use a rate structure that gives residential water customers a lower per unit water rate as water use increases."

SECTION 8. Article 38 of Chapter 143 of the General Statutes is amended by adding a new section to read:

"§ 143-355.4. Enforcement.

- (a) The Secretary may assess a civil penalty of not less than one hundred dollars (\$100.00) nor more than five hundred dollars (\$500.00) against any person who:
 - (1) Fails to report water use or other information required under G.S. 143-355(k);
 - (2) Fails to act in accordance with the terms, conditions, or requirements of an order issued by the Secretary under G.S. 143-355.2.
 - Violates any provision of this Article or any rule adopted by the Commission, the Department, or the Secretary implementing this Article.
- (b) For each willful action or failure to act for which a penalty may be assessed under this section, the Secretary may consider each day the action or inaction continues after notice is given of the violation as a separate violation. A separate penalty may be assessed for each separate violation.
- (c) A civil penalty of not more than one thousand dollars (\$1,000) per month may be assessed against any city, county, or unified local government that fails to adopt a water conservation ordinance that meets the mandatory minimum standards for severe, extreme, and exceptional drought established by the Commission as required by G.S.

- 143-354.1 or willfully fails to administer or enforce the provisions of its program in substantial compliance with the minimum water conservation standards.
- (d) The violation of emergency water conservation rules adopted by the Secretary pursuant to G.S. 143-355.3(b) is a Class 1 misdemeanor.
- (e) The Secretary shall notify any person assessed a civil penalty of the assessment and the specific reasons for the assessment by registered or certified mail, or by any means authorized by G.S. 1A-1, Rule 4. Contested case petitions shall be filed within 30 days of receipt of the notice of assessment."

SECTION 9. Article 10 of Chapter 143 of the General Statutes is amended by adding a new section to read:

"§ 130A-329. Reporting.

Reports required to be submitted under this Article or under rules adopted by the Commission shall be submitted electronically on a form specified by the Department. The Department may waive the requirement for electronic submission of a report if the water system demonstrates that it lacks the technical capability to report electronically."

SECTION 10. G.S. 130A-335(a) reads as rewritten:

"(a) A person owning or controlling a residence, place of business or a place of public assembly shall provide an approved wastewater system. All wastewater from water-using fixtures and appliances connected to a water supply source shall discharge to the approved wastewater system. A wastewater system may include components for collection, treatment and disposal of wastewater."

SECTION 11. Article 11 of Chapter 143 of the General Statutes is amended by adding a new section to read:

"§ 130A-345. Untreated gray water; allowed uses.

- (a) For purposes of this section, "gray water" means waste water removed from household wash basins, bathtubs, and showers.
- (b) Notwithstanding G.S. 130A-335(a), untreated gray water may be used in periods of drought to hand water trees, shrubs, and inedible plants under the following conditions:
 - (1) Gray water shall be applied as soon as practicable. Untreated gray water should not be stored for later use.
 - (2) Gray water containing hazardous chemicals, including but not limited to residue from solvents, shall not be used.
 - (3) Use of untreated gray water is restricted to the residential property where the gray water originates. Untreated gray water shall not be allowed to runoff onto adjoining property, roadways, or into drainage features such as ditches and storm drains.
 - (4) Untreated gray water shall be applied using buckets, watering cans, or other hand-held containers. Gray water may not be used in an irrigation system unless the gray water has been treated in accordance with standards set out in the State Plumbing Code.
 - (5) Gray water shall not be applied closer than 100 feet to surface waters or a water supply well."

SECTION 12. G.S. 159G-23 reads as rewritten:

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42 43 "§ 159G-23. Common criteria for loan or grant from Wastewater Reserve or Drinking Water Reserve.

The criteria in this section apply to a loan or grant from the Wastewater Reserve or the Drinking Water Reserve. The Division of Water Quality and the Division of Environmental Health must each establish a system of assigning points to applications based on the following criteria:

- (1) Public necessity. An applicant must explain how the project promotes public health and protects the environment. A project that improves a system that is not in compliance with permit requirements or is under orders from the Department, enables a moratorium to be lifted, or replaces failing septic tanks with a wastewater collection system has priority.
- (2) Effect on impaired waters. A project that improves designated impaired waters of the State has priority.
- (3) Efficiency. A project that achieves efficiencies in meeting the State's water infrastructure needs or reduces vulnerability to drought by one of the following methods has priority:
 - a. The combination of two or more wastewater or public water systems into a regional wastewater or public water system by merger, consolidation, or another means.
 - b. Conservation or reuse of water water, including bulk water reuse facilities and water lines to supply reuse water for irrigation and other approved uses.
 - <u>c.</u> Construction of an interconnection between water systems intended for use in drought or other water shortage emergency.
 - d. Repair or replacement of leaking water lines.
 - e. Replacement of meters and installation of new metering systems.
- (4) Comprehensive land-use plan. – A project that is located in a city or county that has adopted or has taken significant steps to adopt a comprehensive land-use plan under Article 18 of Chapter 153A of the General Statutes or Article 19 of Chapter 160A of the General Statutes has priority over a project located in a city or county that has not adopted a plan or has not taken steps to do so. The existence of a plan has more priority than steps taken to adopt a plan, such as adoption of a zoning ordinance. A plan that exceeds the minimum State standards for protection of water resources has more priority than one that does not. A project is considered to be located in a city or county if it is located in whole or in part in that unit. A land-use plan is not considered a comprehensive land-use plan unless it has provisions that protect existing water uses and ensure compliance with water quality standards and classifications in all waters of the State affected by the plan.

- (5) Flood hazard ordinance. A project that is located in a city or county that has adopted a flood hazard prevention ordinance under G.S. 143-215.54A has priority over a project located in a city or county that has not adopted an ordinance. A plan that exceeds the minimum standards under G.S. 143-215.54A for a flood hazard prevention ordinance has more priority than one that does not. A project is considered to be located in a city or county if it is located in whole or in part in that unit. If no part of the service area of a project is located within the 100-year floodplain, the project has the same priority under this subdivision as if it were located in a city or county that has adopted a flood hazard prevention ordinance. The most recent maps prepared pursuant to the National Flood Insurance Program or approved by the Department determine whether an area is within the 100-year floodplain.
- (6) Sound management. A project submitted by a local government unit that has demonstrated a willingness and ability to meet its responsibilities through sound fiscal policies and efficient operation and management has priority.
- (7) Capital improvement plan. A project that implements the applicant's capital improvement plan for the wastewater system or public water system it manages has priority over a project that does not implement a capital improvement plan. To receive priority, a capital improvement plan must set out the applicant's expected water infrastructure needs for at least 10 years.
- (8) Coastal habitat protection. A project that implements a recommendation of a Coastal Habitat Protection Plan adopted by the Environmental Management Commission, the Coastal Resources Commission, and the Marine Fisheries Commission pursuant to G.S. 143B-279.8 has priority over other projects that affect counties subject to that Plan."

SECTION 13. The State Water Infrastructure Commission, in consultation with the Department of Environment and Natural Resources and the School of Government at the University of North Carolina at Chapel Hill, shall develop guidelines for water rate structures that are adequate to pay the cost of maintaining, repairing, and operating the system, including payment of principal and interest on indebtedness incurred for maintenance or improvement of the water system. The guidelines shall also consider the effect of water rates on water conservation and recommend rate structures that support water conservation. Copies of the guidelines shall be made available to the Department of Environment and Natural Resources, the North Carolina Utilities Commission, and to all local government water systems and large community water systems, as defined in G.S. 143-350. The Commission shall report to the Environmental Review Commission on its progress in developing the guidelines no later than January 1, 2009.

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SECTION 14. The Department of Environment and Natural Resources shall develop recommendations for water efficiency standards for water-using fixtures in residential and commercial building and in-ground irrigation systems. The Department shall also develop recommendations for efficient metering of water use by local government and large community water systems. The Department shall submit its recommendations to the Commissioner of Insurance, the Chair of the Building Code Council and the Environmental Review Commission no later than January 1, 2009.

SECTION 15. Section 5 of this act becomes effective when the act becomes law and applies to local water supply plans due after that date. Sections 1, 3, 6, and 9 of this act become effective October 1, 2008. Section 8 of this act becomes effective December 1, 2008, and applies to offenses committed on or after that date. Section 7 of this act is effective July 1, 2009. All other sections of this act become effective when the act becomes law.

GENERAL ASSEMBLY OF NORTH CAROLINA **SESSION 2007**

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BILL DRAFT 2007-SBz-38 [v.6] (04/15)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/19/2008 12:22:34 PM

	Short Ti	tle: L	imit Impervious Pavement in Parking Lots.	(Public)
	Sponsor	s: .		
	Referred	l to:		
1			A BILL TO BE ENTITLED	
1	ANIACT	ר די ז	IMIT THE AMOUNT OF IMPERVIOUS SURFACE (OF VEHICIII AR
2				
3			AREAS, AS RECOMMENDED BY THE ENV	VIKONWIENTAL
4			COMMISSION.	•
5	The Gen		ssembly of North Carolina enacts:	
6			TION 1. Section 6.22 of S.L. 2007-323 is repealed.	andad'hve addina a
7	A 4		TION 2. Chapter 113A of the General Statutes is ame	inded by adding a
8	new Arti	icle to		•
9			"Article 4A.	
10	110 4464	T	"Impervious Surface of Vehicular Surface Areas.	
11			mpervious Surface of Vehicular Surface Areas.	
12	<u>(a)</u>		nitions. – As used in this section:	
13		<u>(1)</u>	"Development" means any land-disturbing activity	y, as defined in
14 15			G.S. 113A-52, that increases the total vehicular s	urface area of a
15		(=)	property that is impervious surface.	1
16		<u>(2)</u>	"Impervious surface" means any material that reduce	es or prevents the
17		(0)	natural infiltration of water into the soil.	
18		<u>(3)</u>	"Private passenger vehicle" has the same meaning as	
19		<u>(4)</u>	"Vehicular surface area" means an area primarily use	
20			of private passenger vehicles. "Vehicular surface a	
21			means of ingress and egress to the area where p	
22 23 24			vehicles are parked. "Vehicular surface area" inclu	•
23			traffic island, or other traffic control device or str	
24			wholly within the vehicular parking area. "Vehicular	
25			includes any stormwater retention pond or o	
26			management or control structure that serves the vehice	cular surface area,

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1	but does not include any structure that manages stormwater runoff
2	from areas other than the vehicular surface area.
3	(b) Limit on Impervious Surface of Vehicular Surface Area For development
4	that will disturb more than one acre of land, no more than eighty percent (80%) of the
5	surface area of the vehicular surface area may be impervious surface.
6	(c) Building Permit No permit shall be issued under G.S. 153A-357 or
7	G.S. 160A-417 for any development that does not comply with the requirements of this
8	section."
9	SECTION 3. G.S. 153A-357 is amended by adding a new subsection to
10	read:
l 1	"(c) No permit shall be issued pursuant to subsection (a) of this section for any
12	development that does not comply with the requirements of G.S. 113A-71."
13	SECTION 4. G.S. 160A-417 is amended by adding a new subsection to
14	read:
15	"(c) No permit shall be issued pursuant to subsection (a) of this section for any
16	development that does not comply with the requirements of G.S. 113A-71."
17	SECTION 5. This act becomes effective April 1, 2009, and applies to
18	building permits issued pursuant to G.S. 153A-357 and G.S. 160A-417 for which
19	applications were received on or after that date.

GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2007

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commission shall be to:

"§ 77-118. Termination.

BILL DRAFT 2007-SBz-34 [v.9] (05/14)

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(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/19/2008 10:20:04 AM

Short Title: Revise River Basin Advisory Commission. (Public)
Sponsors: .
Referred to:
A DILL TO DE ENTITLED
A BILL TO BE ENTITLED
AN ACT TO SIMPLIFY THE PROCESS BY WHICH THE NORTH CAROLINA
MEMBERS OF THE ROANOKE RIVER BASIN ADVISORY COMMISSION
ARE APPOINTED, AS RECOMMENDED BY THE ENVIRONMENTAL
REVIEW COMMISSION.
The General Assembly of North Carolina enacts:
SECTION 1. Article 7 of Chapter 77 of the General Statutes is repealed.
SECTION 2. The title of Article 8 of Chapter 77 of the General Statutes
reads as rewritten:
"Article 8.
"River Basins Advisory Commissions.
"Part 1. North Carolina/South Carolina River Basin Advisory Commissions."
SECTION 3. G.S. 77-110 reads as rewritten:
"§ 77-110. Definitions.
The following definitions apply in this Article: Part:
SECTION 4. G.S. 77-111 reads as rewritten:
"§ 77-111. Commissions established; purposes.
There is established the Catawba/Wateree River Basin Advisory Commission and
the Yadkin/Pee Dee River Basin Advisory Commission. The commissions shall be
constituted as described in this Article-Part and there shall be a separate commission for
each river basin. The commissions shall be permanent bodies composed of members
from the State of North Carolina and the State of South Carolina. The purpose of each

SECTION 5. G.S. 77-118 reads as rewritten:

The General Assembly of North Carolina may terminate the commissions by repealing this Article. Part. The commissions shall terminate if the General Assembly of South Carolina repeals the provisions of the South Carolina Code of Laws that are comparable to this Article. Part."

SECTION 6. Article 8 of Chapter 77 of the General Statutes is amended by

SECTION 6. Article 8 of Chapter 77 of the General Statutes is amended by adding a new Part to read:

" Part 2. North Carolina/Virginia River Basin Advisory Commission.

"§ 77-120. Definitions.

 The following definitions apply in this Part:

- (1) "Commission" means the Roanoke River Basin Advisory Commission.
- "River basin" or "river basins" means that land area designated as the Roanoke River Basin by the North Carolina Department of Environment and Natural Resources pursuant to G.S. 143-215.8B and the Virginia State Water Control Board pursuant to Code of Virginia §62.1-44.38.

"§ 77-121. Commission established; purposes.

There is established the Roanoke River Basin Advisory Commission. The commission shall be constituted as described in this Part. The commission shall be a permanent body composed of members from the State of North Carolina and the Commonwealth of Virginia. The purpose of the commission shall be to:

- (1) Provide guidance and make recommendations to local, state, and federal legislative and administrative bodies, and to others as it considers necessary and appropriate, for the use, stewardship, and enhancement of the water, and other natural resources, for all citizens within the river basins.
- Provide a forum for discussion of issues affecting the river basin's water quantity and water quality, and issues affecting other natural resources.
- (3) Promote communication, coordination, and education among stakeholders within the river basin.
- (4) Identify problems and recommend appropriate solutions.
- (5) Undertake studies related to water quantity, water quality, and other natural resources in the river basin based on existing data available from agencies located in either state.
- (6) Determine the optimum approach to comprehensively and collaboratively provide recommendations for integrated river management including, but not limited to, the total assimilative capacity of the river basin.

"§ 77-122. Powers and duties.

- (a) The authority granted to the commission shall be advisory in nature and in no way shall the commission be construed to have any regulatory authority.
- (b) The commission shall not have any authority to obligate or otherwise bind the State of North Carolina, the Commonwealth of Virginia, or any agency or subdivision of either state.

1	(c) <u>To</u>	achieve its purposes, the commission shall have all of the following
2	powers and du	ties:
3	(1)	To develop rules and procedures for the conduct of its business or as
4		may be necessary to perform its duties and carry out its objectives
5		including, but not limited to, calling meetings and establishing voting
6		procedures. Rules and procedures developed pursuant to this item shall
7		be effective upon an affirmative vote by a majority of the commission
8		members.
9	(2)	To establish standing and ad hoc committees, which shall be
10		constituted in a manner to ensure a balance between recognized
11		interests and states. The commission shall determine the purpose of
12		each standing or ad hoc committee.
13	(3)	To seek, apply for, accept, and expend gifts, grants, donations,
14		services, and other aid from public or private sources. The commission
15		may accept or expend funds only after an affirmative vote by a
16		majority of the members of the commission.
17	<u>(4)</u>	To exercise the powers of a body corporate, including the power to sue
18		and be sued, and adopt and use a common seal and alter the same.
19	(5)	To enter into contracts and execute all instruments necessary or
20		appropriate to achieve the purposes of the commission.
21	(6)	To designate a fiscal agent.
	$\overline{(7)}$	To perform any lawful acts necessary or appropriate to achieve the
22 23		purposes of the commission.
24	"§ 77-123. M	embership; terms of office; eligibility for appointment; meetings.
25	(a) The	Roanoke River Basin Advisory Commission shall be composed of 15
26	members as fo	llows:
27	(1)	Two members of the North Carolina House of Representatives whose
28		districts include a part of the North Carolina portion of the river basin,
29		to be appointed by the Speaker of the North Carolina House of
30		Representatives.
31	<u>(2)</u>	Two members of the North Carolina Senate whose districts include a
32		part of the North Carolina portion of the river basin, to be appointed by
33		the President Pro Tempore of the North Carolina Senate.
34	<u>(3)</u>	Two members of the Virginia House of Delegates whose districts
35		include a part of the Virginia portion of the river basin, to be appointed
36		by the Speaker of the Virginia House of Delegates.
37	<u>(4)</u>	Two members of the Virginia Senate whose districts include a part of
38		the Virginia portion of the river basin, to be appointed by the President
39		of the Virginia Senate.
40	<u>(5)</u>	One person from North Carolina representing a water or sewer
41		municipal utility, appointed by the Governor of North Carolina.
1 2	<u>(6)</u>	One person from Virginia representing a water or sewer municipal
43		utility, appointed by the Governor of Virginia.

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- 1 <u>One person from North Carolina representing the agricultural</u> 2 <u>community, appointed by the Governor of North Carolina.</u>
 - (8) One person from Virginia representing the agricultural community, appointed by the Governor of Virginia.
 - (9) One person from North Carolina representing a nonprofit land conservation trust operating within the North Carolina portion of the river basin, appointed by the Governor of North Carolina.
 - (10) One person from Virginia representing a nonprofit land conservation trust operating within the Virginia portion of the river basin, appointed by the Governor of Virginia.
 - (11) The President of Progress Energy or the President's designee.
 - Each member appointed to the commission pursuant to subdivisions (1) and (b) (2) of subsection (a) of this section shall serve at the pleasure of the appointing authority so long as the member remains a Representative or Senator. Each member appointed to the commission pursuant to subdivisions (3) and (4) of subsection (a) of this section shall serve as provided by the General Assembly of Virginia. Each member appointed to the commission pursuant to subdivision (11) of subsection (a) of this section shall serve for so long as the member continues in the qualifying position or, if the member is a designee, at the pleasure of the designating authority. Each member appointed to the commission pursuant to subdivisions (5), (7), and (9) of subsection (a) of this section shall serve a term of two years and may be reappointed to serve no more than three consecutive full terms or 84 consecutive months, whichever is greater. The term of a person appointed to the commission pursuant to subdivision (5) of subsection (a) of this section shall expire on 1 January of years evenly divisible by three. The term of a person appointed to the commission pursuant to subdivision (7) of subsection (a) of this section shall expire on 1 January of years that precede by one year those years evenly divisible by three. The term of a person appointed to the commission pursuant to subdivision (9) of subsection (a) of this section shall expire on 1 January of years that follow by one year those years that are evenly divisible by three. The term of a member who is appointed to the commission pursuant to subdivision (6), (8), or (10) of subsection (a) of this section shall serve as provided by the General Assembly of Virginia. An appointment to fill a vacancy on the commission shall be for the unexpired portion of the term. A vacancy on the commission shall be filled in the same manner as the original appointment. Members of the commission who are appointed from or reside in North Carolina may be removed by the Governor of North Carolina for misfeasance, malfeasance, or nonfeasance, as provided in G.S. 143B-13.
 - (c) The legislative members of the commission may appoint additional members to the commission to serve as advisory members as the legislative members consider necessary.
 - (d) The members of the commission shall elect a Chair, Vice-Chair, and any other officers they consider necessary and shall determine the length of the term of office, not to exceed two years, of each officer. The Chair and the Vice-Chair shall not be from the same state and the Chair shall be rotated between the State of North Carolina and the Commonwealth of Virginia.

- (e) The commission shall meet upon the call of the Chair. A majority of the commission shall constitute a quorum for the transaction of business.
- (f) The legislative members of the commission from each state may meet separately to discuss river basin-related issues affecting their state and may report their findings independently of the commission.

"§ 77-124. Staffing; meeting facilities; assistance by agencies.

- (a) The North Carolina Department of Environment and Natural Resources and the Virginia Department of Environmental Quality shall provide staff support and facilities to the commission within the existing programs of the respective agencies. Additional staff may be hired or contracted by the commission through funds raised by or provided to it. The duties and compensation of any additional staff shall be determined and fixed by the commission, within available resources.
- (b) All agencies of the State of North Carolina and the Commonwealth of Virginia shall cooperate with the commission and, upon request, shall assist the commission in fulfilling its responsibilities. The North Carolina Secretary of Environment and Natural Resources and the Virginia Secretary of Natural Resources or their designees shall each serve as the liaison between their respective state agencies and the commission.
- (c) The commission may obtain information and data upon request from all state officers, agents, agencies, and departments of the State of North Carolina and the Commonwealth of Virginia while in discharge of their duties.

"§ 77-125. Funding.

- (a) The commission shall annually adopt a budget that shall include the estimated income and expenses of the commission. Funding for the commission shall be shared and apportioned between the State of North Carolina and the Commonwealth of Virginia as each state may provide through its regular appropriations process.
- (b) The accounts and records of the commission showing the receipt and disbursement of funds from whatever source derived shall be in the form that the Auditor of North Carolina and the Virginia Auditor of Public Accounts prescribe. The accounts and records of the commission shall be subject to an annual audit by the Auditor of North Carolina and the Virginia Auditor of Public Accounts or their legal representatives. The cost of the annual audits shall be borne by the commission. The results of the audits shall be delivered to the Joint Legislative Commission on Governmental Operations of the General Assembly of North Carolina and to the General Assembly of Virginia shall provide.

"§ 77-126. Compensation and expenses of members of the commission.

- (a) Members of the commission who are appointed from or reside in North Carolina shall receive no salary for their service on the commission but may be paid, within available resources, per diem, subsistence, and travel expenses as follows:
 - (1) Members of the commission who are members of the General Assembly at the rate established in G.S. 120-3.1.
 - Members of the commission who are officials or employees of the State or of local government agencies at the rate established in G.S. 138-6.

- 1 (3) All other members of the commission at the rate established in G.S. 138-5.
 - (b) Members of the commission who are appointed from or reside in Virginia shall be compensated as provided by the General Assembly of Virginia.
 - (c) All expenses shall be paid from funds appropriated or otherwise available to the commission.

"§ 77-127. Annual report.

The commission shall submit an annual report, including any recommendations, on or before 1 October of each year to the Governor of North Carolina, the Environmental Review Commission of the General Assembly of North Carolina, the Governor of Virginia, and the General Assembly of Virginia, as the Governor, the General Assembly of Virginia, or the Virginia Secretary of Natural Resources shall provide.

"§ 77-128. Termination.

The General Assembly of North Carolina may terminate the commission by repealing this Part. The commission shall terminate if the General Assembly of Virginia repeals the provisions of the Code of Virginia that are comparable to this Part."

SECTION 7. Notwithstanding the provisions of G.S. 77-123(b), as enacted by Section 6 of this act, the initial term of the member of the Roanoke River Basin Advisory Commission appointed pursuant to subdivision (5) of subsection (a) of G.S. 77-123 shall expire 1 January 2010. Notwithstanding the provisions of G.S. 77-123(b), as enacted by Section 6 of this act, the initial term of the member of the Roanoke River Basin Advisory Commission appointed pursuant to subdivision (7) of subsection (a) of G.S. 77-123 shall expire 1 January 2012. Notwithstanding the provisions of G.S. 77-123(b), as enacted by Section 6 of this act, the initial term of the member of the Roanoke River Basin Advisory Commission appointed pursuant to subdivision (9) of subsection (a) of G.S. 77-123 shall expire 1 January 2011.

SECTION 8. The Roanoke River Basin Advisory Commission shall submit the first report pursuant to G.S. 77-127, as enacted by Section 6 of this act, on or before 1 October 2009.

SECTION 9. This act shall not be construed to obligate the General Assembly of North Carolina or the General Assembly of Virginia to appropriate any funds to implement the provisions of this act.

SECTION 10. This act is effective when it becomes law.

GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2007

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BILL DRAFT 2007-RTz-10 [v.1] (05/14)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/19/2008 1:06:13 PM

Short Title: Facilitate Use of Reclaimed Water.

	Sponsors: .			
	Referred to:			
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1	A BILL TO BE ENTITLED			
2	AN ACT TO PROVIDE FOR AND PROMOTE THE USE OF RECLAIMED			
3	WATER, AS RECOMMENDED BY THE ENVIRONMENTAL REVIEW			
4	COMMISSION.			
5 、	The General Assembly of North Carolina enacts:			
6	SECTION 1.(a) G.S. 143-213 is amended by adding a new subdivision to			
7	read:			
8	"(31) "Reclaimed water" means the water that remains after waste has been			
9	removed from wastewater consistent with the terms and conditions of			
0	a permit issued to the treatment works pursuant to G.S. 143-215.1."			
1	SECTION 1.(b) Part 1 of Article 21 of Chapter 143 is amended by adding a			
2	new section to read:			
3	"§ G.S. 143-214.15. Reclaimed Water. (a) The Commission shall establish a program to facilitate the use of reclaimed			
.4	water. The Commission may adopt rules to govern the distribution and use of reclaimed			
6	water. The rules shall be designed to prevent the distribution and use of reclaimed water			
7	as potable water.			
8	(b) A reclaimed water distribution system is exempt from the provisions of			
9	G.S. 143-215.1.			
0.	(c) Reclaimed water may be discharged into a stormwater management system			
21	subject to the requirements of the federal Clean Water Act, G.S. 143-214.7, and			
22	regulations and rules adopted to implement those laws."			
23	SECTION 2. This act is effective when it becomes law.			

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- terms, conditions, and provisions of an approved plan, is subject to a civil penalty. The maximum civil penalty for a violation is five thousand dollars (\$5,000). A civil penalty may be assessed from the date of the violation. Each day of a continuing violation shall constitute a separate violation.
- (2) The Secretary or a local government that administers an erosion and sedimentation control program approved under G.S. 113A-60 shall determine the amount of the civil penalty and shall notify the person who is assessed the civil penalty of the amount of the penalty and the reason for assessing the penalty. The notice of assessment shall be served by any means authorized under G.S. 1A-1, Rule 4, and shall direct the violator to either pay the assessment or contest the assessment within 30 days by filing a petition for a contested case under Article 3 of Chapter 150B of the General Statutes. If a violator does not pay a civil penalty assessed by the Secretary within 30 days after it is due, the Department shall request the Attorney General to institute a civil action to recover the amount of the assessment. If a violator does not pay a civil penalty assessed by a local government within 30 days after it is due, the local government may institute a civil action to recover the amount of the assessment. The civil action may be brought in the superior court of any county where the violation occurred or the violator's residence or principal place of business is located. A civil action must be filed within three years of the date the assessment was due. An assessment that is not contested is due when the violator is served with a notice of assessment. An assessment that is contested is due at the conclusion of the administrative and judicial review of the assessment.
- In determining the amount of the penalty, the Secretary shall consider (3) the degree and extent of harm caused by the violation, the cost of rectifying the damage, the amount of money the violator saved by noncompliance, whether the violation was committed willfully and the prior record of the violator in complying or failing to comply with this Article.
- (4) Repealed by Session Laws 1993 (Reg. Sess., 1994), c. 776, s. 11.
- (5) The clear proceeds of civil penalties collected by the Department or other State agency under this subsection shall be remitted to the Civil Penalty and Forfeiture Fund in accordance with G.S. 115C-457.2. Civil penalties collected by a local government under this subsection shall be eredited remitted to the general county school fund of the local government as nontax revenue. county where the local government is located, unless the entity being fined is the county or a school funded by the county, in which case the funds shall be credited to the stormwater funds for the local government as nontax revenue.

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(6) (a) Where a local government has established and administers an erosion and sedimentation control program approved under G.S. 113A-60, the local government, or its designee, shall determine the amount of the civil penalty and shall notify the person who is assessed the civil penalty of the amount of the penalty and the reason for assessing the penalty.

(b) The issuance of a notice of violation and the assessment of a civil penalty by a local government shall entitle the violator to a quasi-judicial hearing contesting the issuance of the notice of violation and/or the assessment of the civil penalty. The notice of assessment shall be served on the violator by any means authorized under G.S. 1A-1, Rule 4, and shall direct the violator to either pay the assessment or contest the assessment within 60 days by filing a demand for hearing with the local government as directed by its adopted procedures.

Review of the notice of violation and the assessment of a civil penalty shall be conducted pursuant to procedures adopted by the local government. If the local government has no adopted procedures, review shall be conducted under Articles 3 and 4 of Chapter 150B of the General Statutes. The demand for hearing by the local government shall be accompanied by such fees as established by the local government's adopted procedures. The local government, or its delegate, shall make the final agency decisions in contested cases arising from civil penalties assessed by the local government. Failure to timely file such demand and fee shall constitute a waiver of any rights to appeal the assessment of the civil penalty.

(d) Every decision of the local government under local government procedures shall be subject to review by the superior court by proceedings in the nature of certiorari. Any petition for review by the superior court shall be filed with the clerk of superior court within 30 days after the decision of the local government, or its delegate, is delivered to the violator. The decision of the local government may be delivered to the violator either by personal service or by registered mail or certified mail return receipt requested.

(e) If a violator does not pay a civil penalty assessed by a local government within 30 days after it is due, the local government may institute a civil action to recover the amount of the assessment. The civil action may be brought in the superior court of any county where the violation occurred or the violator's residence or principal place of business is located. A civil action must be filed within three years of the date the assessment was due. An assessment that is not contested is due when the violator is served with a notice of assessment. An assessment that is contested is due at the conclusion of the administrative and judicial review of the assessment.

(b) Criminal Penalties. – Any person who knowingly or willfully violates any provision of this Article or any ordinance, rule, regulation, or order duly adopted or issued by the Commission or a local government, or who knowingly or willfully initiates or continues a land-disturbing activity for which an erosion and sedimentation control plan is required, except in accordance with the terms, conditions, and provisions of an approved plan, shall be guilty of a Class 2 misdemeanor that may include a fine not to exceed five thousand dollars (\$5,000)."

SECTION 3. G.S. 113A-65.1 reads as rewritten:

"§ 113A-65.1. Stop-work orders. orders issued by Secretary or local government.

- (a) The Secretary may issue a stop-work order if he finds that a land-disturbing activity is being conducted in violation of this Article or of any rule adopted or order issued pursuant to this Article, that the violation is knowing and willful, and that either:
 - (1) Off-site sedimentation has eliminated or severely degraded a use in a lake or natural watercourse or that such degradation is imminent.
 - (2) Off-site sedimentation has caused severe damage to adjacent land or that such damage is imminent.
 - (3) The land-disturbing activity is being conducted without an approved plan.
- (a1) A local government that has established and administers an erosion and sedimentation control program approved under G.S. 113A-60 may issue a stop-work order if the local government finds that a land-disturbing activity is being conducted in violation of this Article or of any rule adopted or order issued pursuant to this Article, that the violation is knowing and willful, and that either:
 - (1) Off-site sedimentation has eliminated or severely degraded a use in a lake or natural watercourse or that such degradation is imminent.
 - (2) Off-site sedimentation has caused severe damage to adjacent land or that such damage is imminent.
 - (3) The land-disturbing activity is being conducted without an approved plan.
- (b) The stop-work order shall be in writing and shall state what work is to be stopped and what measures are required to abate the violation. The order shall include a statement of the findings made by the Secretary issuing authority pursuant to subsection subsections (a) or (a1) of this section, and shall list the conditions under which work that has been stopped by the order may be resumed. The delivery of equipment and materials which does not contribute to the violation may continue while the stop-work order is in effect. A copy of this section shall be attached to the order.
- (c) The stop-work order shall be served by the sheriff of the county in which the land-disturbing activity is being conducted or by some other person duly authorized by law to serve process as provided by G.S. 1A-1, Rule 4, and shall be served on the person at the site of the land-disturbing activity who is in operational control of the land-disturbing activity. The sheriff or other person duly authorized by law to serve process shall post a copy of the stop-work order in a conspicuous place at the site of the land-disturbing activity. The Department issuing authority shall also deliver a copy of

the stop-work order to any person that the Department issuing authority has reason to believe may be responsible for the violation.

- (d) The directives of a stop-work order become effective upon service of the order. Thereafter, any person notified of the stop-work order who violates any of the directives set out in the order may be assessed a civil penalty as provided in G.S. 113A-64(a). A stop-work order issued pursuant to this section may be issued for a period not to exceed five days.
- (e) The <u>Secretary issuing authority</u> shall designate an employee of the <u>Department issuing authority</u> to monitor compliance with the stop-work order. The name of the employee so designated shall be included in the stop-work order. The employee so designated, or the <u>Secretary</u>, issuing authority, shall rescind the stop-work order if all the violations for which the stop-work order are issued are corrected, no other violations have occurred, and all measures necessary to abate the violations have been taken. The <u>Secretary issuing authority</u> shall rescind a stop-work order that is issued in error.
- (f) The issuance of a stop-work order shall be a final agency decision subject to judicial review in the same manner as an order in a contested case pursuant to Article 4 of Chapter 150B of the General Statutes. The petition for judicial review shall be filed in the superior court of the county in which the land-disturbing activity is being conducted.
- (g) As used in this section, days are computed as provided in G.S. 1A-1, Rule 6. Except as otherwise provided, the Secretary may delegate any power or duty under this section to the Director of the Division of Land Resources of the Department or to any person who has supervisory authority over the Director. The Director may delegate any power or duty so delegated only to a person who is designated as acting Director. A local government that has established and administers an erosion and sedimentation control program approved under G.S. 113A-60 may delegate any power or duty under this section to the head of its agency responsible for enforcement of the local sedimentation and erosion control program.
- (h) The Attorney General shall file a cause of action to abate the violations which resulted in the issuance of a stop-work order within two business days of the service of the stop-work order. The cause of action shall include a motion for an ex parte temporary restraining order to abate the violation and to effect necessary remedial measures. The resident superior court judge, or any judge assigned to hear the motion for the temporary restraining order, shall hear and determine the motion within two days of the filing of the complaint. The clerk of superior court shall accept complaints filed pursuant to this section without the payment of filing fees. Filing fees shall be paid to the clerk of superior court within 30 days of the filing of the complaint.
- (i) The attorney for a local government authorized to issue a stop-work order may file a cause of action to abate the violations that resulted in the issuance of a stop-work order within two business days of the service of the stop-work order. The cause of action shall include a motion for an ex parte temporary restraining order to abate the violation and to effect necessary remedial measures. The resident superior court judge, or any judge assigned to hear the motion for the temporary restraining

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order, shall hear and determine the motion within two days of the filing of the complaint. The clerk of superior court shall accept complaints filed pursuant to this section without the payment of filing fees. Filing fees shall be paid to the clerk of superior court within 30 days of the filing of the complaint."

SECTION 4. This act becomes effective October 1, 2008.

GENERAL ASSEMBLY OF NORTH CAROLINA

SESSION 2007

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BILL DRAFT 2007-SBz-36 [v.3] (05/14)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/16/2008 4:33:36 PM

Short Title:	Promote Private Compensatory Mitigation.	(Public)
Sponsors:	•	·
Referred to:		

A BILL TO BE ENTITLED

AN ACT TO PROMOTE COMPENSATORY MITIGATION BY PRIVATE MITIGATION BANKS, AS RECOMMENDED BY THE ENVIRONMENTAL REVIEW COMMISSION.

The General Assembly of North Carolina enacts:

SECTION 1. G.S. 143-214.11 reads as rewritten:

"§ 143-214.11. Ecosystem Enhancement Program: compensatory mitigation.

- Definition. For purposes of this section, the term "compensatory mitigation" means the restoration, creation, enhancement, or preservation of wetlands or other areas required as a condition of a section 404 permit issued by the United States Army Corps of Engineers.
- Department of Environment and Natural Resources to Coordinate Compensatory Mitigation. - All compensatory mitigation required by permits or authorizations issued by the United States Army Corps of Engineers under 33 U.S.C. § 1344 shall be coordinated by the Department consistent with the basinwide plans for wetlands restoration and rules developed by the Environmental Management Commission. All-Except as provided in Section (d1)(1) of this section, compensatory wetlands mitigation, whether performed by the Department or by permit applicants, shall be consistent with the basinwide restoration plans.
- Mitigation Emphasis on Replacing Ecological Function Within Same River Basin. - The emphasis of mitigation is on replacing functions within the same river basin unless it is demonstrated that restoration of other areas would be more beneficial to the overall purposes of the Ecosystem Enhancement Program.
- Compensatory Mitigation Options Available to Applicant. An applicantthe North Carolina Department of Transportation. - The North Carolina Department of Transportation may satisfy compensatory wetlands mitigation requirements by the following actions, if those actions are consistent with the basinwide restoration plans

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and also meet or exceed the requirements of the United States Army Corps of Engineers:

- (1) Payment of a fee established by the Department into the Ecosystem Restoration Fund established in G.S. 143-214.12.
- (2) Donation of land to the Ecosystem Enhancement Program or to other public or private nonprofit conservation organizations as approved by the Department.
- (3) Participation in a private wetlands mitigation bank.
- (4) Preparing and implementing a wetlands restoration plan.
- (d1) Compensatory Mitigation Options Available to Applicants other than the North Carolina Department of Transportation. An applicant other than the North Carolina Department of Transportation may satisfy compensatory wetlands mitigation requirements by the following actions, if those actions meet or exceed the requirements of the United States Army Corps of Engineers:
 - (1) Participation in a private wetlands mitigation bank. This option is only available in a hydrologic area where there is at least one private wetlands mitigation bank that has been (i) approved by the United States Army Corps of Engineers and that has available mitigation credit or (ii) approved by the North Carolina Division of Water Quality for resources regulated under the Neuse and Tar-Pam rules and that has available mitigation credit. For purposes of this subdivision, "hydrologic area" means the 8-digit Hydrologic Unit Code where the mitigation bank is located and the adjacent 8-digit Hydrologic Unit Codes that are located within the same river basin.
 - Payment of a fee established by the Department into the Ecosystem Restoration Fund established in G.S. 143-214.12. This option is only available to an applicant if the option under subdivision (1) of this subsection is not available as an option.
 - (3) Donation of land to the Ecosystem Enhancement Program or to other public or private nonprofit conservation organizations as approved by the Department.
 - (4) <u>Preparing and implementing a wetlands restoration plan.</u>
- (e) Payment Schedule. A standardized schedule of per-acre payment amounts shall be established by the Environmental Management Commission. The monetary payment shall be based on the ecological functions and values of wetlands permitted to be lost and on the cost of restoring or creating wetlands capable of performing the same or similar functions, including directly related costs of wetlands restoration planning, long-term monitoring, and maintenance of restored areas.
- (f) Mitigation Banks. State agencies and private mitigation banking companies shall demonstrate that adequate, dedicated financial surety exists to provide for the perpetual land management and hydrological maintenance of lands acquired by the State as mitigation banks, or proposed to the State as privately operated and permitted mitigation banks.

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(g) Payment for Taxes. – A State agency acquiring land to restore, enhance, preserve, or create wetlands must also pay a sum in lieu of ad valorem taxes lost by the county in accordance with G.S. 146-22.3."

SECTION 2. This act becomes effective October 1, 2008.

GENERAL ASSEMBLY OF NORTH CAROLINA

SESSION 2007

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BILL DRAFT 2007-RIfz-23 [v.2] (05/14)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/16/2008 12:03:00 PM

Short Title:	Underground Storage Tank Pgrm Amends-2008.		(Public)
Sponsors:	•	,	
Referred to:			

A BILL TO BE ENTITLED

AN ACT (1) TO PROVIDE ADDITIONAL FUNDS FOR THE CLEANUP OF RELEASES AND DISCHARGES OF PETROLEUM FROM UNDERGROUND STORAGE TANKS BY INCREASING THE FEES PAID BY OWNERS AND OPERATORS OF COMMERCIAL UNDERGROUND STORAGE TANKS, (2) TO REDUCE THE INCIDENCE OF LEAKS BY REQUIRING SECONDARY CONTAINMENT FOR ALL COMPONENTS OF REGULATED PETROLEUM UNDERGROUND STORAGE TANK SYSTEMS, (3) TO PROVIDE FOR EXPEDITED ASSESSMENT AND CLEANUP OF RELEASES DISCHARGES FROM PETROLEUM UNDERGROUND STORAGE TANKS BY REQUIRING THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES TO ESTABLISH A PILOT PROGRAM TO EVALUATE THE USE OF SITE-SPECIFIC CLEANUP STANDARDS, (4) TO PROVIDE FOR VARIOUS STUDIES AND REPORTS, AND (5) TO MAKE OTHER IMPROVEMENTS TO THE UNDERGROUND STORAGE TANK CLEANUP PROGRAM, AS RECOMMENDED BY THE ENVIRONMENTAL REVIEW COMMISSION.

The General Assembly of North Carolina enacts:

SECTION 1. G.S. 143-215.94C reads as rewritten:

Commercial leaking petroleum underground storage tank "\ 143-215.94C. cleanup fees.

For purposes of this subsection, each compartment of a commercial underground storage tank that is designed to independently contain a petroleum product is a separate petroleum commercial underground storage tank. The owner or operator of a commercial petroleum underground storage tank shall pay to the Secretary for deposit into the Commercial Fund an annual operating fee of four-hundred twenty dollars (\$420.00) according to the following schedule:

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- (1) For for each petroleum commercial underground storage tank. tank of 3,500 gallons or less capacity—two hundred dollars (\$200.00).
- (2) For each petroleum commercial underground storage tank of more than 3,500 gallon capacity—three hundred dollars (\$300.00).
- The annual operating fee shall be determined on a calendar year basis. For (b) petroleum commercial underground storage tanks in use on 1 January and remaining in use on or after 1 December of that year, the annual operating fee due for that year shall be as specified in subsection (a) of this section. For a petroleum commercial underground storage tank that is first placed in use-service in any year, the annual operating fee due for that year shall be determined by multiplying one-twelfth (1/12) of the amount specified in subsection (a) of this section by the number of months remaining in the calendar year. For a petroleum commercial underground storage tank that is permanently removed from use service in any year, the annual operating fee due for that year shall be determined by multiplying one-twelfth (1/12) of the amount specified in subsection (a) of this section by the number of months in the calendar year preceding the permanent removal from use. In calculating the pro rata annual operating fee for a tank that is first placed in use or permanently removed during a calendar year under the preceding two sentences, a partial month shall count as a month, except that where a tank is permanently removed and replaced by another tank, the total of the annual operating fee for the tank that is removed and the replacement tank shall not exceed the annual operating fee for the replacement tank. The annual operating fee shall be due and payable on the first day of the month in accordance with a staggered schedule established by the Department. The Department shall implement a staggered schedule to the end that the total amount of fees to be collected by the Department is approximately the same each quarter. A person who owns or operates more than one petroleum commercial underground storage tank may request that the fee for all tanks be due at the same time. The fee for all commercial underground storage tanks located at the same facility shall be due at the same time. A person who owns or operates 12 or more commercial petroleum storage tanks may request that the total of all fees be paid in four equal payments to be due on the first day of each calendar quarter, provided that the fee for all commercial underground storage tanks located at the same facility shall be due at the same time.
- operating fee imposed by this section, any person who deposits a petroleum product in a commercial underground storage tank that would be subject to the annual operating fee shall, at least once in each calendar year during which such deposit of a petroleum product is made, notify the owner or operator of the duty to pay the annual operating fee. The requirement to notify pursuant to this subsection does not constitute a duty owed by the person depositing a petroleum product in a commercial underground storage tank to the owner or operator and the person depositing a petroleum product in an underground storage tank shall not incur any liability to the owner or operator for failure to give notice of the duty to pay the operating fee.
 - (d) Repealed by Session Laws 1991, c. 538, s. 3.1.

- (e) An owner or operator of a commercial underground storage tank who fails to pay an annual operating fee due under this section within 30 days of the date that the fee is due shall pay, in addition to the fee, a late penalty of five dollars (\$5.00) per day per commercial underground storage tank, up to a maximum equal to the annual operating fee due. The Department may waive a late penalty in whole or in part if:
 - (1) The late penalty was incurred because of the late payment or nonpayment of an annual operating fee by a previous owner or operator.
 - (2) The late penalty was incurred because of a billing error for which the Department is responsible.
 - (3) Where the late penalty was incurred because the annual operating fee was not paid by the owner or operator due to inadvertence or accident.
 - (4) Where payment of the late penalty will prevent the owner or operator from complying with any substantive law, rule, or regulation applicable to underground storage tanks and intended to prevent or mitigate discharges or releases or to facilitate the early detection of discharges or releases."

SECTION 2.(a) G.S. 143-215.94E is amended by adding two new subsections to read:

- "(j) An owner, operator, or landowner shall request that the Department determine whether any of the costs of assessment and cleanup of a discharge or release from a petroleum underground storage tank are eligible to be paid or reimbursed from either the Commercial Fund or the Noncommercial Fund within one year after completion of any task that is eligible to be paid or reimbursed under G.S. 143-215.94B(b), 143-215.94B(b1), or 143-215.94D(b1).
- (k) An owner, operator, or landowner shall request payment or reimbursement from the Commercial Fund or the Noncommercial Fund for the cost of a task within one year after the completion of the task. The Department shall deny any request for payment or reimbursement of the cost of any task that would otherwise be eligible to be paid or reimbursed if the request is not received within 12 months after the later of the date on which the:
 - (1) Department determines that the cost is eligible to be paid or reimbursed.
 - (2) Task is completed."

SECTION 2.(b) Notwithstanding G.S. 143-215.94E(k), as enacted by subsection (a) of this section, an owner, operator, or landowner shall request payment or reimbursement of the cost of any task completed prior to 1 January 2009 that is eligible to be paid or reimbursed from the Commercial Fund or the Noncommercial Fund no later than 1 January 2010. The Department shall deny any request for payment or reimbursement of the cost of any task to which this subsection applies that is made after 1 January 2010.

SECTION 3. G.S. 143-215.94G is amended by adding four new subsections to read:

- "(g) If the Department paid or reimbursed costs that are not authorized to be paid or reimbursed under G.S. 143-215.94B or G.S. 143-215.94D as a result of a misrepresentation by an agent who acted on behalf of an owner, operator, or landowner, the Department shall first seek reimbursement, pursuant to subdivision (1) of subsection (d) of this section, from the agent of monies paid to or retained by the agent.
- (h) The Department shall take administrative action to recover costs or bring a civil action pursuant to subdivision (1) of subsection (d) of this section to seek reimbursement of costs in accordance with the time limits set out in this subsection.
 - The Department shall take administrative action to recover costs or bring a civil action to seek reimbursement of costs that are not authorized to be paid from the Commercial Fund under subdivisions (1), (2), (3), or (9) of G.S. 143-215.94B(d) or from the Noncommercial Fund under subdivisions (1), (2), or (3) of G.S. 143-215.94D(d) within five years after payment.
 - The Department shall take administrative action to recover costs or bring a civil action to seek reimbursement of costs other than those described in subdivision (1) of this subsection within three years after payment.
 - (3) Notwithstanding the time limits set out in subdivisions (1) and (2) of this subsection, the Department may take administrative action to recover costs or bring a civil action to seek reimbursement of costs paid as a result of fraud or misrepresentation at any time.
- (i) An administrative action or civil action that is not commenced within the time allowed by subsection (h) of this section is barred.
- (j) Except with the consent of the claimant, the Department may not withhold payment or reimbursement of costs that are authorized to be paid from the Commercial Fund or the Noncommercial Fund in order to recover any other costs that are in dispute unless the Department is authorized to withhold payment by a final decision of the Commission pursuant to G.S. 150B-36 or an order or final decision of a court."

SECTION 4. G.S. 143-215.94H reads as rewritten:

"§ 143-215.94H. Financial responsibility.

- (a) The Department shall require each owner and operator of a petroleum underground storage tank who is required to demonstrate financial responsibility under rules promulgated by the United States Environmental Protection Agency pursuant to 42 U.S.C. § 6991b(d) to maintain evidence of financial responsibility of not less than that is the lesser of:
 - The full amount of the financial responsibility that an owner or operator is required to demonstrate under rules promulgated by the United States Environmental Protection Agency pursuant to 42 U.S.C. § 6991b(d).
 - The amounts required to be paid for by the owner or operator pursuant to G.S. 143-215.94E(b) per occurrence for costs described in G.S. 143-215.94B(b) and G.S. 143-215.94D(b1).

G.S. 143-215.94B(b1) if costs are eligible to be paid under those subsections.

(b) Financial responsibility may be established in accordance with rules adopted by the Commission which shall provide that financial responsibility may be established by either insurance, guarantee, surety bond, letter of credit, qualification as a self-insurer, or any combination thereof. The compliance date schedule for demonstrating financial responsibility shall conform to the schedule adopted by the Environmental Protection Agency."

SECTION 5. G.S. 143-215.94T reads as rewritten:

"§ 143-215.94T. Adoption and implementation of regulatory program.

- (a) The Commission shall adopt, and the Department shall implement and enforce, rules relating to underground storage tanks as provided by G.S. 143-215.3(a)(15) and G.S. 143B-282(2)h. These rules shall include standards and requirements applicable to both existing and new underground storage tanks and tank systems, may include different standards and requirements based on tank capacity, tank location, tank age, and other relevant factors, and shall include, at a minimum, standards and requirements for:
 - (1) Design, construction, and installation, including monitoring systems.
 - (2) Notification to the Department, inspection, and registration.
 - (3) Recordation of tank location.
 - (4) Modification, retrofitting, and upgrading.
 - (5) General operating requirements.
 - (6) Release detection.
 - (7) Release reporting, investigation, and confirmation.
 - (8) Corrective action.
 - (9) Repair.
 - (10) Closure.
 - (11) Financial responsibility.
 - (12) Tank tightness testing procedures and certification of persons who conduct tank tightness tests.
 - (13) Secondary containment for nontank—all components of petroleum underground storage tank systems.
- (b) Rules adopted pursuant to subsection (a) of this section that apply only to commercial underground storage tanks shall not apply to any:
 - (1) Farm or residential underground storage tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes.
 - (2) Underground storage tank of 1,100 gallons or less capacity used for storing heating oil for consumptive use on the premises where stored.
 - (3) Underground storage tank of more than 1,100 gallon capacity used for storing heating oil for consumptive use on the premises where stored by four or fewer households.
- (c) Rules adopted pursuant to subdivision (13) of subsection (a) of this section shall require secondary containment for all nontank-components of underground storage tank systems, including all piping and including, but not limited to, tanks, piping,

fittings, pump heads, and dispensers. Secondary containment requirements shall include standards for double wall piping tanks, piping, and fittings and for sump containment for pump heads and dispensers. The rules shall provide for monthly release detection monitoring of double wall interstices and sump containments. The rules shall apply to any underground storage tank system that is installed on or after the date on which the rules become effective and to the replacement of any nontank component of an underground storage tank system on or after that date."

SECTION 6. G.S. 143-215.94U reads as rewritten:

"§ 143-215.94U. Registration of petroleum commercial underground storage tanks; operation of petroleum underground storage tanks; operating permit required.

- (a) The owner or operator of each petroleum commercial underground storage tank shall annually obtain an operating permit from the Department for the facility at which the tank is located. The Department shall issue an operating permit only if the owner or operator:operator has done all of the following:
 - (1) Has notified Notified the Department of the existence of all tanks as required by 40 Code of Federal Regulations § 280.22 (1 July 1994 Edition) or 42 U.S.C. § 6991a, if applicable, at the facility; facility.
 - (2) Has paidPaid all fees required under G.S. 143-215.94C for all commercial petroleum underground storage tanks located at the facility; facility.
 - (3) Complies with applicable release detection, spill and overfill protection, and corrosion protection requirements set out in rules adopted pursuant to this Chapter, notifies the Department of the method or combination of methods of leak detection, spill and overfill protection, and corrosion protection in use, and certifies to the Department that all applicable release detection, spill and overfill protection, and corrosion protection requirements are being met for all petroleum underground storage tanks located at the facility; facility.
 - (4) If applicable, complies with the Stage I vapor control requirements set out in 15A North Carolina Administrative Code 2D.0928, effective 1 March 1991, notifies the Department of the method or combination of methods of vapor control in use, and certifies to the Department that all Stage I vapor control requirements are being met for all petroleum underground storage tanks located at the facility; and facility.
 - (5) Has substantially Substantially complied with the air quality, groundwater quality, and underground storage tank standards applicable to any activity in which the applicant has previously engaged and has been in substantial compliance with federal and State laws, regulations, and rules for the protection of the environment. In determining substantial compliance, the compliance history of the owner or operator and any parent, subsidiary, or other affiliate of the owner, operator, or parent may be considered.

- (6) Demonstrated financial responsibility as required by G.S. 143-215.94H.
- (b) The operating permit shall be issued at the time the commercial underground storage annual tank operating fee required under G.S. 143-215.94C(a) is paid and shall be valid from the first day of the month in which the fee is due through the last day of the last month for which the fee is paid in accordance with the schedule established by the Department under G.S. 143-215.94C(b).
- (c) No person shall place a petroleum product, and no owner or operator shall cause a petroleum product to be placed, into an underground storage tank at a facility for which the owner or operator does not hold a currently valid operating permit.
- (d) The Department shall issue an operating permit certificate for each facility that meets the requirements of subsection (a) of this section. The operating permit certificate shall identify the number of tanks at the facility and shall conspicuously display the date on which the permit expires. Except for the owner or operator, no person shall be liable under subsection (c) of this section if an unexpired operating permit certificate is displayed at the facility, unless the person knows or has reason to know that the owner or operator does not hold a currently valid operating permit for the facility.
- (e) The Department may revoke an operating permit only if the owner or operator fails to continuously meet the requirements set out in subdivisions (1) through (4) of subsection (a) of this section. If the Department revokes an operating permit, the owner or operator of the facility for which the operating permit was issued shall immediately surrender the operating permit certificate to the Department, unless the revocation is stayed pursuant to G.S. 150B-33. An owner or operator may challenge a decision by the Department to deny or revoke an operating permit by filing a contested case under Article 3 of Chapter 150B of the General Statutes. The Secretary shall make the final agency decision regarding the revocation of a permit under this section."

SECTION 7.(a) The definitions set out in G.S. 143-215.94A apply to this section. As used in this section, "Department" means the Department of Environment and Natural Resources and, with respect to any power or duty assigned to the Environmental Management Commission under Article 21A of Chapter 143 of the General Statutes, includes the Environmental Management Commission. As used in this section, "site-specific cleanup standards" means standards developed using the methodology described in the Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites adopted by the American Society for Testing and Materials (ASTM) as E1739-95(2002).

SECTION 7.(b) The Department shall establish a pilot program to evaluate the use of site-specific cleanup standards for the cleanup of discharges or releases of petroleum from underground storage tanks as an alternative to the use of the risk-based assessment and corrective action standards set out in 15A NCAC 2L.0115. The purpose of the pilot program is to determine the extent to which the use of site-specific standards would provide effective protection of public health, safety, and the environment in a cost-effective manner and at a lower overall cost as compared with the use of the risk-based standards set out in 15A NCAC 2L.0115. The pilot program shall apply only

to discharges or releases that are classified as intermediate risk under 15A NCAC 2L.0115(d). The pilot program shall evaluate the use of site-specific standards in the cleanup of contamination that results from a discharge or release of petroleum from: (i) an underground storage tank; and (ii) an underground storage tank that is commingled with petroleum contamination from a source of contamination other than an underground storage tank, as provided in G.S. 143-215.94V(h).

SECTION 7.(c) Participation in the pilot program shall be at the election of the owner, operator, or landowner. To participate in the pilot program, an owner, operator, or landowner shall perform a site-specific risk assessment and submit the assessment to the Department. If the Department determines that the use of site-specific cleanup standards will provide effective protection of public health, safety, and the environment, the Department shall set site-specific soil and groundwater cleanup standards for the discharge or release. These site-specific standards shall apply in lieu of the risk-based assessment and corrective action standards set out in 15A NCAC 2L.0115.

SECTION 7.(d) If soil and groundwater contamination from a discharge or release is no greater than the site-specific soil and groundwater cleanup standards set by the Department, the Department shall notify an owner, operator, or landowner that no cleanup, further cleanup, or further action will be required. If soil and groundwater contamination from a discharge or release is greater than the site-specific soil and groundwater cleanup standards set by the Department, the owner, operator, or landowner shall submit a corrective action plan to achieve the standards. The Department may require the owner, operator, or landowner to evaluate the impact of the site-specific cleanup standards on public health, safety, and the environment through use of an appropriate model. The Department shall not set site-specific soil and groundwater cleanup standards for the discharge or release that allow for contamination in excess of unrestricted use standards, as defined in G.S. 143B-279.9, on any real property that is not subject to land-use restrictions under G.S. 143B-279.9 and recordation under G.S. 143B-279.11.

SECTION 7.(e) Except as provided in this section, the provisions of Part 2A and Part 2B of Article 21A of Chapter 143 of the General Statutes apply to this section.

SECTION 7.(f) The Department shall annually report to the Environmental Review Commission on the number of site-specific risk assessments submitted to the Department under the pilot program, the disposition of those submissions, and, for any submissions for which site-specific soil and groundwater cleanup standards are not set, the basis for the decision not to set site-specific cleanup standards. The report shall include a comparison of assessment and corrective action of discharges or releases under the pilot program to assessment and corrective action of intermediate risk discharges or releases pursuant to the risk-based assessment and corrective action standards set out in 15A NCAC 2L.0115. The comparison shall include all of the following:

(1) The costs associated with investigation, assessment, initial response, abatement, analysis of risk, and development and implementation of a corrective action plan.

- (2) The immediate and long-term impacts on public health, safety, and the environment.
- (3) The need for and use of land-use restrictions as part of the corrective action plan.
- (4) The extent to which corrective action addresses vapor intrusion.

SECTION 7.(g) The Department shall submit the first report required by subsection (f) of this section on or before 1 September 2009. The Department shall include in the report due on or before 1 September 2013 any recommendations, including legislative proposals, based on the findings of the pilot program.

SECTION 8.(a) The definitions set out in Section 8(a) of this act apply to this section. It is the policy of the State that a discharge or release be reclassified as low-risk if, based on site-specific cleanup standards, investigation, assessment, initial response, abatement, risk-based corrective action, or other corrective action, the Department determines that the discharge or release poses no significant risk to human health or the environment. An owner, operator, or landowner may request that a discharge or release be reclassified to a lower risk classification. If the Department denies a request to reclassify a discharge or release to a lower risk classification, the owner, operator, or landowner may file a petition for a contested case hearing as provided in Article 3 of Chapter 150B of the General Statutes.

SECTION 8.(b) The Department shall report on or before 1 September of each year to the Environmental Review Commission on the number of sites for which reclassification was requested based on site-specific information and the disposition of each request. The Department shall submit the first report required by this section on or before 1 September 2009.

SECTION 9. The Department of Environment and Natural Resources shall establish a process to provide informal notice of any proposed policy change or rule interpretation that is not a rule, as defined in G.S. 150B-2, to interested parties. Except in a situation that requires immediate action, the Department shall receive and consider oral and written comment from interested parties before the Department implements the proposed policy change or rule interpretation. Except in a situation that requires immediate action, the Department shall provide written notice of a policy change or rule interpretation to interested parties at least 30 days prior to its implementation.

SECTION 10. The Department of Insurance, in consultation with the Petroleum Underground Storage Tank Funds Council and the Department of Environment and Natural Resources, shall provide guidance and technical assistance for the formation of an insurance pool pursuant to G.S. 143-215.94I to any responsible entity that requests assistance.

SECTION 11. Section 8 of S.L. 2001-442 reads as rewritten:

"SECTION 8. Sections 1 through 5 of this act become effective 1 October 2001. Sections 6, 7, and 8 of this act are effective when this act becomes law.—Sections 1, 2, 3, 4, 5, and 7 of this act expire 1 October 2006."

SECTION 12. Notwithstanding any provision of Part 2A of Article 21A of Chapter 143 of the General Statutes, the Department of Environment and Natural Resources shall annually use up to three million dollars (\$3,000,000) of the increase in

receipts credited to the Commercial Fund as a result of the increase in the annual operating fee set out in G.S. 143-215.94C(a), as amended by Section 1 of this act, solely for the removal of free petroleum from groundwater as a first priority and shall use the balance of these receipts to address the other concerns raised in the letter from the United States Environmental Protection Agency Region 4 Administrator to the Secretary of Environment and Natural Resources dated 19 September 2006.

SECTION 13. Sections 3, 4, 5, 9, 10, and 11 of this act are effective when this act becomes law. Sections 1, 6, and 12 of this act become effective 1 January 2009. G.S. 143-215.94C(a) as amended by Section 1 of this act expires 1 January 2019. Section 2 of this act becomes effective 1 January 2009 and applies to determinations of eligibility and requests for payments made on or after that date. Sections 7 and 8 of this act are effective when it becomes law and expire 1 September 2014. Section 11 of this act is effective retroactively to 1 October 2006.

GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2007

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BILL DRAFT 2007-RIxz-18 [v.4] (05/09)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/16/2008 11:54:52 AM

Short Title:	State Nature and Historic Preserve Rem	ioval.	(Public)
Sponsors:	Unknown.	,	
Referred to:			

A BILL TO BE ENTITLED

AN ACT TO REMOVE A PORTION OF LAKE WACCAMAW STATE PARK FROM THE STATE NATURE AND HISTORIC PRESERVE AND THE STATE PARKS SYSTEM TO ALLOW FOR BRIDGE REALIGNMENT ON BELLA COOLA ROAD, AS RECOMMENDED BY THE ENVIRONMENTAL REVIEW COMMISSION.

The General Assembly of North Carolina enacts:

SECTION 1. G.S. 143-260.10 reads as rewritten:

"§ 143-260.10. Components of State Nature and Historic Preserve.

The following are components of the State Nature and Historic Preserve accepted by the North Carolina General Assembly pursuant to G.S. 143-260.8:

All lands and waters within the boundaries of the following units of (1)the State Parks System as of 1 May 2007: Baldhead Island State Natural Area, Bay Tree Lake State Park, Beech Creek Bog State Natural Area, Bullhead Mountain State Natural Area, Bushy Lake State Natural Area, Carolina Beach State Park, Carvers Creek State Park, Chimney Rock State Park, Cliffs of the Neuse State Park, Chowan Swamp State Natural Area, Dismal Swamp State Park, Elk Knob State Park, Fort Fisher State Recreation Area, Fort Macon State Park, Goose Creek State Park, Gorges State Park, Haw River State Park, Hammocks Beach State Park, Jones Lake State Park, Lake Norman State Park, Lake Waccamaw State Park, Lea Island State Natural Area, Lower Haw River State Natural Area, Lumber River State Park, Mayo River State Park, Medoc Mountain State Park, Merchants Millpond State Park, Mitchells Millpond State Natural Area, Mount Mitchell State Park, Mountain Bog State Natural Area, Occoneechee Mountain State Natural Area, Pettigrew State Park, Pilot

1		Mountain State Park, Raven Rock State Park, Run Hill State Natural
2		Area, Sandy Run Savannas State Natural Area, Singletary Lake State
3		Park, Theodore Roosevelt State Natural Area, and Weymouth
4		Woods-Sandhills Nature Preserve.
5		
6	(20)	All lands and waters within the boundaries of Lake Waccamaw State
7	<u>(==)</u>	Park as of May 1, 2007 with the exception of the following tracts: The
8		portions of that certain tract or parcel of land at Lake Waccamaw State
9		Park in Columbus County described in Deed Book 835, Page 590,
10		containing 48,210 square feet and being the portion of this tract shown
11		as new R/W and permanent utility easement on drawing prepared by
12		State of North Carolina Department of Transportation entitled "Map of
13		Proposed Right of Way Property of State of North Carolina (Parks and
14		Recreation) Columbus County" for Tip B-3830 on SR 1947 (Bella
15		Coola Road) done by John E. Kaukola, PLS No. 3999 and compiled 1-
16		18-2008, and filed with the State Property Office. The tracts excluded
17		from the State Nature and Historic Preserve under this section are
18		deleted from the State Parks System pursuant to G.S. 113-44.14. The
19		State of North Carolina may only exchange this land for other land for
20		the expansion of Lake Waccamaw State Park or sell this land and use
21	•	the proceeds for that purpose. The State may not otherwise sell or
22		exchange this land."
22		exchange und land.

SECTION 2. This act is effective when it becomes law.

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GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2007

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BILL DRAFT 2007-RIz-24 [v.2] (05/14)

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(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/15/2008 4:32:51 PM

Short Title:	State Parks System Additions.		(Public)
Sponsors:	•		
Referred to:		•	

A BILL TO BE ENTITLED

AN ACT TO AUTHORIZE THE ADDITION OF BEAR PAW STATE NATURAL AREA AND YELLOW MOUNTAIN STATE NATURAL AREA TO THE STATE PARKS SYSTEM, AS RECOMMENDED BY THE ENVIRONMENTAL REVIEW COMMISSION.

Whereas, Section 5 of Article XIV of the North Carolina Constitution states that it shall be a proper function of the State of North Carolina to acquire and preserve park, recreational, and scenic areas and, in every other appropriate way, to preserve as a part of the common heritage of this State its open lands and places of beauty; and

Whereas, the General Assembly enacted the State Parks Act in 1987, declaring that the State of North Carolina offers unique archaeological, geological, biological, scenic, and recreational resources, and that such resources are part of the heritage of the people of the State to be preserved and managed by those people for their use and for the use of their visitors and descendants; and

Whereas, an area on the Avery and Watauga county line, including Hanging Rock Ridge and the headwaters of Dutch Creek, is known to be nationally significant for its excellent examples of the rare High Elevation Rocky Summit community type and other exemplary natural communities; and

Whereas, rare species found at the site include Heller's blazing star, Blue Ridge goldenrod, spreading avens, American speedwell, wretched sedge, Roan rattlesnakeroot, and golden tundra-moss; and

Whereas, this site was known by the Cherokee as Yonah-wayah, or Bear's Paw; and

Whereas, the Bear Paw State Natural Area has been found to possess biological resources of statewide significance; and

General Assembly Of North Carolina

Whereas, the area known as Yellow Mountain in Avery and Mitchell countie
near the Roan Mountain massif is known to be nationally significant for its Grassy Balo
and Heath Bald natural community types, as well as its assemblage of other outstanding
high elevation natural communities; and
Whereas, the site supports dozens of rare plant and animal species including
the northern flying squirrel, the spruce-fir moss spider, Gray's lily, Roan Mountain

bluet, and the rock gnome lichen; and
Whereas, the Yellow Mountain State Natural Area has been found to possess
biological resources of statewide significance; and

Whereas, both of these natural areas are valuable for scientific research and education, and as examples of the diverse natural resources of North Carolina; Now, therefore,

The General Assembly of North Carolina enacts:

SECTION 1. The General Assembly authorizes the Department of Environment and Natural Resources to add Bear Paw State Natural Area to the State Parks System as provided in G.S. 113-44.14(b).

SECTION 2. The General Assembly authorizes the Department of Environment and Natural Resources to add Yellow Mountain State Natural Area to the State Parks System as provided in G.S. 113-44.14(b).

SECTION 3. This act is effective when it becomes law.

GENERAL ASSEMBLY OF NORTH CAROLINA

SESSION 2007

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BILL DRAFT 2007-RIz-16 [v.8] (05/14)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/19/2008 10:21:45 AM

Short Title:	Limit condemnation of conservation esmts.	(Public)
Sponsors:	•	
Referred to:		

A BILL TO BE ENTITLED

AN ACT TO LIMIT THE CONDEMNATION OF LAND PROTECTED THROUGH CONSERVATION EASEMENT. AS RECOMMENDED BYTHE ENVIRONMENTAL REVIEW COMMISSION.

Whereas, North Carolina is losing natural areas, historic sites, and agricultural and forestry lands at a rate of over 100,000 acres per year; and

Whereas, North Carolina's waters, open lands, and historic properties are critical to our State's economic future and quality of life; and

Whereas, G.S. 113A-241(a) provides, "The State of North Carolina shall encourage, facilitate, plan, coordinate, and support appropriate federal, State, local, and private land protection efforts so that an additional one million acres of farmland, open space, and conservation lands in the State are permanently protected by December 31, 2009."; and

Whereas, as stated in Section 5 of Article XIV of the Constitution of North Carolina, it is the policy of this State to conserve and protect its lands and waters for the benefit of all its citizenry; Now, therefore,

The General Assembly of North Carolina enacts:

SECTION 1. Article 16 of Chapter 113A of the General Statutes is amended by adding a new section- to read:

"§ 113A-236. Condemnation of land protected through conservation easements.

Whenever the State, a State agency, a political subdivision of the State, or any other public or private entity that is authorized to exercise the power of eminent domain under the General Statutes seeks to condemn land protected through a conservation easement, including a conservation agreement as provided under Article 4 of Chapter 121 of the General Statutes, or a conservation easement enrolled under the federal Conservation Reserve Enhancement Program authorized by 16 U.S.C. Chapter 58, the entity shall forward a detailed statement concerning the proposed condemnation action to the

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General Assembly Of North Carolina

Common for any instance of final decision has him on by any against the Covernor may
Governor for review and final decision by him or by any agency the Governor may
designate. The detailed statement shall include a copy of the conservation agreement or
conservation easement that encumbers the land sought to be condemned and a
description of all of the following:
(1) The project for which condemnation of the land is sought.
(2) The environmental impact of the proposed action.
(3) Any significant adverse environmental effects which cannot be
avoided should the proposal be implemented.
(4) Mitigation measures proposed to minimize the impact.
(5) Alternatives to the proposed action.
(6) Any irreversible and irretrievable environmental changes which would
be involved in the proposed action should it be implemented."
SECTION 2. This act is effective when it becomes law and applies to any
condemnation proceeding initiated on or after the effective date of this act.

GENERAL ASSEMBLY OF NORTH CAROLINA **SESSION 2007**

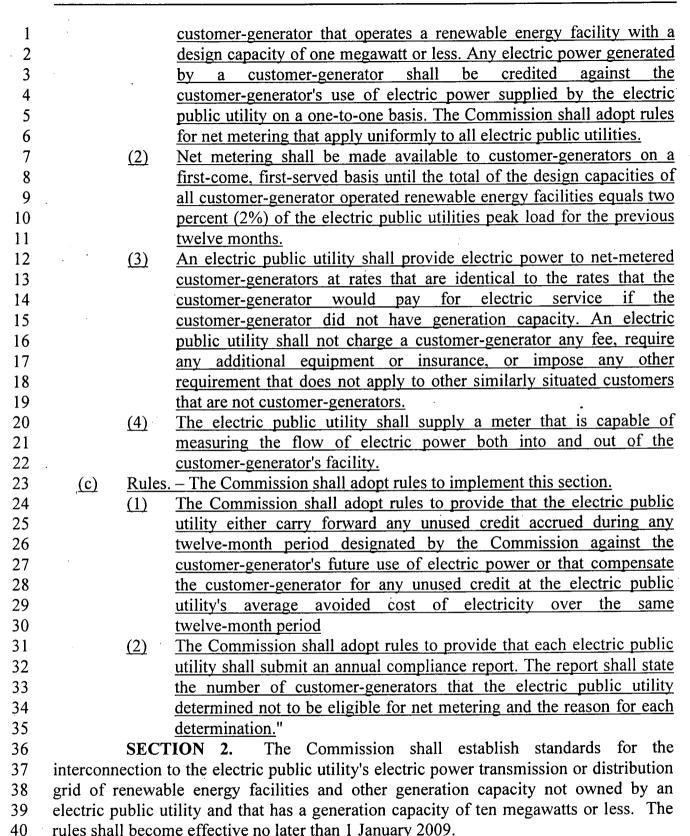
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BILL DRAFT 2007-RTz-9 [v.3] (05/14)

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(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/19/2008 9:52:30 AM

	Short Title	: Facilitate Net Metering. (Pub	olic)
	Sponsors:	•	
	Referred to):	
	·		
1	,	A BILL TO BE ENTITLED	
2		TO FACILITATE THE USE OF NET METERING OF ELECTION	
3		CE IN ORDER TO PROMOTE THE DEVELOPMENT OF SMA	
4		VABLE ENERGY FACILITIES BY NORTH CAROLINA BUSINESS	
5		ITIZENS, AS RECOMMENDED BY THE ENVIRONMENTAL REVI	EW
6	COMM	ISSION.	
7		al Assembly of North Carolina enacts:	
8	•	SECTION 1. Article 7 of Chapter 62 of the General Statutes is amended	by
9	adding a ne	ew section to read:	
10	" <u>§ 62-133.</u>	10. – Facilitate Net Metering.	
11	<u>(a)</u> <u>I</u>	Definitions. – The definitions set out in G.S. 62-133.8 apply to this section	on.
12	As used in	this section:	
13	(1) "Customer-generator" means an electric utility customer who owns	or
14		operates a renewable energy facility that supplies electric power to	
15		electric power transmission or distribution grid through an appro-	<u>ved</u>
16		interconnection.	
17	. (2) "Interconnection" means the equipment and associated technic	<u>ical</u>
18		standards required to connect to an electric power generator to	the
19		electric power utility transmission or distribution grid.	
20	(3) "Net metering" means the billing arrangement by which the cost of	the
21		electric power consumed by an electric utility customer is offset	by
22		value of the electric power that the customer generates and supplies	
23		the electric power utility transmission or distribution grid through	<u>an</u>
24	,	approved interconnection.	
25	<u>(b)</u> 1	Net Metering.	
26		Subject to the limitation set out in subdivision (2) of this subsecti	on,
27	_		any



SECTION 3. G.S. 62-133.2 (a1) reads as rewritten:

- "(a1) As used in this section, "cost of fuel and fuel-related costs" means all of the following:
 - (1) The cost of fuel burned.

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- (9) Cost of fuel and fuel-related costs shall be adjusted for any net gains or losses resulting from any sales by the electric public utility of by-products produced in the generation process to the extent the costs of the inputs leading to that by-product are costs of fuel or fuel-related costs.
- (10) Total cost of excess net-metered kilowatt hours paid to customer-generators under G.S. 62-133.10.
- (11) Total cost of bidirectional meters purchased by an electric public utility to comply with G.S. 62-133.10."
- **SECTION 4.** This act is effective when it becomes law.

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GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2007

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BILL DRAFT 2007-LDz-203F [v.3] (02/01)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/19/2008 1:07:26 PM

Short Title:	Codify Energy Efficiency in Public Buildings.	(Public)
Sponsors:	Unknown.	
Referred to:		

A BILL TO BE ENTITLED

AN ACT TO CODIFY THE STANDARDS GOVERNING ENERGY EFFICIENCY AND WATER USE FOR MAJOR FACILITY CONSTRUCTION AND RENOVATION PROJECTS INVOLVING STATE, UNIVERSITY, AND COMMUNITY COLLEGE BUILDINGS IN ORDER TO REDUCE THE CONSUMPTION OF ENERGY AND WATER, AS RECOMMENDED BY THE ENVIRONMENTAL REVIEW COMMISSION.

The General Assembly of North Carolina enacts:

SECTION 1. Chapter 143 of the General Statutes is amended by adding a new Article to read:

"Article 8C.

"Performance Standards for Sustainable, Energy-Efficient Public Buildings.

"§ 143-135.35. Findings; legislative intent.

The General Assembly finds that public buildings can be built and renovated using sustainable, energy efficient methods that save money, reduce negative environmental impacts, improve employee and student performance, and make employees and students more productive. The main objectives of sustainable, energy efficient design are to avoid resource depletion of energy, water, and raw materials; prevent environmental degradation caused by facilities and infrastructure throughout their life cycle; and create buildings that are livable, comfortable, safe, and productive. It is the intent of the General Assembly that State-owned buildings and buildings of The University of North Carolina and the North Carolina Community College System be improved by establishing specific performance standards for sustainable, energy efficient public buildings. These performance standards should be based upon recognized, consensus standards that are supported by science and have a demonstrated performance record. The General Assembly also intends, in order to ensure that the economic and environmental objectives of this Article are achieved, that State agencies,

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The University of North Carolina, and the North Carolina Community College System determine whether the performance standards are met for major facility construction and renovation projects, measure utility and maintenance costs, and verify whether these standards result in savings. Also, it is the intent of the General Assembly to establish a priority to use North Carolina-based resources, building materials, products, industries, manufacturers, and businesses to provide economic development to North Carolina and to meet the objectives of this Article.

"§ 143-135.36. Definitions.

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As used in this section, the following definitions apply unless the context requires otherwise:

- (1) "ASHRAE" means the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
- "Commission" means to document and to verify throughout the construction process whether the performance of a building, a component of a building, a system of a building, or a component of a building system meets specified objectives, criteria, and agency project requirements.

(3) "Department" means the Department of Administration.

- "Institutions of higher education" means the constituent institutions of The University of North Carolina, the regional institutions as defined in G.S. 115D-2, and the community colleges as defined in G.S. 115D-2.
- "Major facility construction project" means a project to construct a building larger than 20,000 gross square feet of occupied or conditioned space, as defined in the North Carolina State Building Code adopted under Article 9 of Chapter 143 of the General Statutes, "Major facility construction project" does not include a project to construct a transmitter building or a pumping station.
- (6) "Major facility renovation project" means a project to renovate a building when the cost of the project is greater than fifty percent (50%) of the insurance value of the building prior to the renovation and the renovated portion of the building is larger than 20,000 gross square feet of occupied or conditioned space, as defined in the North Carolina State Building Code. "Major facility renovation project" does not include a project to renovate a transmitter building or a pumping station. "Major facility renovation project" does not include a project to renovate a building having historic, architectural, or cultural significance under G.S. 143-23.1.
- (7) "Public agency" means every State office, officer, board, department, and commission and institutions of higher education.
- "§ 143-135.37. Energy and water use standards for public major facility construction and renovation projects; verification and reporting of energy and water use.

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- Program Established. The Sustainable Energy Efficient Buildings Program (a) is established within the Department to be administered by the Department. This program applies to any major facility construction or renovation project of a public agency that is funded in whole or in part from an appropriation in the State capital budget or through a financing contract as defined in G.S. 142-82.
- Energy Efficiency Standard. For every major facility construction project of (b) a public agency, the building shall be designed and constructed so that the calculated energy consumption is at least thirty percent (30%) less than the energy consumption for the same building as calculated using the energy efficiency standard in ASHRAE 90.1-2004. For every major facility renovation project of a public agency, the renovated building shall be designed and constructed so that the calculated energy consumption is at least twenty percent (20%) less than the energy consumption for the same renovated building as calculated using the energy efficiency standard in ASHRAE 90.1-2004. For the purposes of this subsection, any exception or special standard for a specific type of building found in ASHRAE 90.1-2004 is included in the ASHRAE 90.1-2004 standard.
- Water Use Standard. For every major facility construction or renovation project of a public agency, the water system shall be designed and constructed so that the calculated indoor potable water use is at least twenty percent (20%) less than the indoor potable water use for the same building as calculated using the fixture performance requirements related to plumbing under the 2006 North Carolina State Building Code. For every major facility construction project of a public agency, the water system shall be designed and constructed so that the calculated sum of the outdoor potable water use and the harvested stormwater use is at least fifty percent (50%) less than the sum of the outdoor potable water use and the harvested stormwater use for the same building as calculated using the performance requirements related to plumbing under the 2006 North Carolina State Building Code. For every major facility renovation project of a public agency, the Department shall determine on a project by project basis what reduced level of outdoor potable use or harvested stormwater use, if any, is a feasible requirement for the project, but the Department shall not require a greater reduction than is required under this subsection for a major facility construction project. To reduce the use of potable outdoor water use as required under this subsection, landscape materials that are water-use efficient and irrigation strategies that include reuse and recycling of the water may be used.
- Performance Verification. In order to be able to verify performance of a (d) building component or an energy or water system component, the construction contract shall include provisions that require each building component and each energy and water system component to be commissioned, and these provisions shall be included at the earliest phase of the construction process as possible and in no case later than the schematic design phase of the project. Such commissioning shall continue through the initial operation of the building. The project design and construction teams and the public agency shall jointly determine what level of commissioning is appropriate for the size and complexity of the building or its energy and water system components.
- Separate Utility Meters. In order to be able to monitor the initial cost and the continuing costs of the energy and water systems, a separate meter for each

electricity, natural gas, fuel oil, and water utility shall be installed at each building undergoing a major facility construction or renovation project. Each meter shall be installed in accordance with the United States Department of Energy guidelines issued under section 103 of the Energy Policy Act of 2005 (Pub. L. 109-58, 119 Stat. 594 (2005)). Starting with the first month of facility operation, the public agency shall compare data obtained from each of these meters by month and by year with the applicable energy efficiency standard under subsection (b) of this section and the applicable water use standard for the project under subsection (c) of this section and report annually no later than August 1 of each year to the Office of State Construction within the Department. If the average energy use or the average water use over the initial 12-month period of facility operation exceeds the applicable energy efficiency standard under subsection (b) of this section or exceeds the applicable water use standard under subsection (c) of this section by fifteen percent (15%) or more, the public agency shall investigate the actual energy or water use, determine the cause of the discrepancy, and recommend corrections or modifications to meet the applicable standard.

"§ 143-135.38. Use of other standard when standard not practicable.

When the Department, public agency, and the design team determine that the energy efficiency standard or the water use standard required under G.S. 143-135.37 is not practicable for a major facility construction or renovation project, then it must be determined by the State Building Commission if the standard is not practicable for the major facility construction or renovation project. If the State Building Commission determines the standard is not practicable for that project, the State Building Commission shall determine which standard is practicable for the design and construction for that major facility construction or renovation project. If a standard required under G.S. 143-135.37 is not followed for that project, the State Building Commission shall report this information and the reasons to the Department within 90 days of its determination.

"§ 143-135.39. Guidelines for Administering the Sustainable Energy Efficient Buildings Program. —

- (a) Policies and Technical Guidelines. The Department, in consultation with public agencies, shall develop and issue policies and technical guidelines to implement this Article for public agencies. The purpose of these policies and guidelines is to establish procedures and methods for complying with the energy efficiency standard or the water use standard for major facility construction and renovation projects under G.S. 143-135.37.
- (b) Preproposal Conference. As provided in the request for proposals for construction services, the public agency may hold a preproposal conference for prospective bidders to discuss compliance with, and achievement of, the energy efficiency standard or the water use standard required under G.S. 143-135.37 for prospective respondents.
- (c) Advisory Committee. The Department shall create a sustainable, energy efficient buildings advisory committee comprised of representatives from the design and construction industry involved in public works contracting, personnel from the public

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- agencies responsible for overseeing public works projects, and others at the Department's discretion to provide advice on implementing this Article. Among other duties, the advisory committee shall make recommendations regarding the education and training requirements under subsection (d) of this section, make recommendations regarding specific education and training criteria that are appropriate for the various roles with respect to, and levels of involvement in, a major facility construction or renovation project subject to this Article or the roles regarding the operation and maintenance of the facility, and make recommendations regarding developing a process whereby the Department receives ongoing evaluations and feedback to assist the Department in implementing this Article so as to effectuate the purpose of this Article. Further, the advisory committee may make recommendations to the Department regarding whether it is advisable to strengthen standards for energy efficiency or water use under this Article, whether it is advisable and feasible to add additional criteria to achieve greater sustainability in the construction and renovation of public buildings, or whether it is advisable and feasible to expand the scope of this Article to apply to additional types of publicly financed buildings or to smaller facility projects.
- (d) Education and Training Requirements. The Department shall review the advisory committee's recommendations under subsection (c) of this section regarding education and training. For each of the following, the Department shall develop education and training requirements that are consistent with the purpose of this Article and that are appropriate for the various roles with respect to, and level of involvement in, a major facility construction or renovation project or the roles regarding the operation and maintenance of the facility:

(1) The chief financial officers of public agencies.

- (2) For each public agency that is responsible for the payment of the agency's utilities, the facility managers of these public agencies.
- (3) The capital project coordinators of public agencies.
- (4) Architects.
- (5) Mechanical design engineers.
- (e) <u>Performance Review.</u> <u>Annually the Department shall conduct a</u> performance review of the Sustainable Energy Efficient Buildings Program. The performance review shall include at least all of the following:
 - (1) <u>Identification of the costs of implementing energy efficiency and water</u> use standards in the design and construction of major facility construction and renovation projects subject to this Article.
 - (2) Identification of operating savings attributable to the implementation of energy efficiency and water use standards, including, but not limited to, savings in utility and maintenance costs.
 - (3) <u>Identification of any impacts on employee productivity from using energy efficiency and water use standards.</u>
 - Evaluation of the effectiveness of the energy efficiency and water use standards established by this Article.
 - Whether stricter standards or additional criteria for sustainable building should be used than the standards under G.S. 143-135.37.

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- Whether the Sustainable Energy Efficient Buildings Program should be expanded to include additional public agencies, to include additional types of projects, or to include smaller major facility construction or renovation projects.
- (7) Any recommendations for any other changes regarding sustainable, energy efficient building standards that may be supported by the Department's findings.
- (f) Report on Performance Review. Each year, the Department shall include in its consolidated report under subsection (g) of this section a report of its findings under the performance review under subsection (e) of this section.
- (g) Consolidated Report Required. The Department shall consolidate the report required under subsection (f) of this section, the report under G.S. 143-135.37(e), the report, if any, from the State Building Commission under G.S. 143-135.38, and the report under G.S. 143-135.40 into one report. No later than October 1 of each year, this consolidated report shall be transmitted to the Chairs of the General Government Appropriations Subcommittees of both the Senate and the House of Representatives, the Environmental Review Commission, and the Joint Legislative Commission on Governmental Operations. The Department shall include any recommendations for administrative or legislative proposals that would better fulfill the legislative intent of this Article.
- (h) Authority to Adopt Rules or Architectural or Engineering Standards. The Department may adopt rules to implement this Article. The Department may adopt architectural or engineering standards as needed to implement this Article.

"§ 143-135.40. Monitor construction standards and sustainable building standards.

The Department shall monitor the development of construction standards and sustainable building standards to determine whether there is any standard that the Department determines would better fulfill the intent of the Sustainable Energy Efficient Buildings Program to achieve sustainable, energy efficient public buildings than the standards under G.S. 143-135.37, and, if so, whether this Article should be amended to provide for the use of any different standards or the use of any additional standards to address additional aspects of sustainable, energy efficient buildings. Additional standards monitored shall address consideration of site development, material and resource selection, and indoor environmental quality to enhance the health or productivity of building occupants. Also, the Department shall monitor the development of improved energy efficiency standards developed by the American Society of Heating, Refrigerating and Air-Conditioning Engineers, the ASHRAE standards, shall monitor whether the State Building Code Council adopts any other energy efficiency standards for inclusion in the State Building Code that result in greater energy efficiency and increased energy savings in major facility construction and renovation projects under this Article, and shall monitor other standards for sustainable, energy-efficient buildings that are based upon recognized, consensus standards based on science and demonstrated performance, including the standards for sustainable buildings under the Leadership in Energy and Environmental Design (LEED) program, as authored by the United States Green Building Council.

read:

(b) Each year, the Department shall report the results of its monitoring under this section, including any recommendations for administrative or legislative proposals."

SECTION 2. G.S. 115D-20 is amended by adding a new subdivision to

"(14) To comply with the design and construction requirements regarding energy efficiency and water use in the Sustainable Energy Efficient Buildings Program under Article 8C of Chapter 143 of the General Statutes."

SECTION 3. Article 6 of Chapter 146 of the General Statutes is amended by adding a new section to read:

"§ 146-23.2. Purchase of buildings constructed or renovated to a certain energy efficiency standard.

- (a) A State agency shall not acquire by purchase any building unless the building was designed and constructed to at least the same standards for energy efficiency and water use that the design and construction of a comparable State building was required to meet at the time the building under consideration for purchase was constructed. Further, a State agency shall not acquire by purchase any building that had a major renovation unless the major renovation of the building was designed and constructed to at least the same standards for energy efficiency and water use that the design and construction of a major renovation of a comparable State building was required to meet at the time the building under consideration for purchase was renovated.
- (b) This section does not apply to the purchase of a building having historic, architectural, or cultural significance under G.S. 143-23.1. This section does not apply to buildings that are acquired by devise or bequest."

SECTION 4. The initial report under G.S. 143-135.37(e), the initial report under G.S. 143-135.39(f), and the initial report under G.S. 143-135.40 are due no later than August 1, 2009. The initial consolidated report required under G.S. 143-135.39(g) is due no later than 1 October 2009.

SECTION 5. Section 1 of S.L. 2007-546 is repealed.

SECTION 6. This act is effective when it becomes law. Section 1 and Section 2 of this act apply to every major facility construction project, as defined in G.S. 143-135.36 as enacted in Section 1 of this act, and every major facility renovation project, as defined in G.S. 143-135.36 as enacted in Section 1 of this act, of a public agency, as defined in G.S. 143-135.36 as enacted in Section 1 of this act, that has not entered the schematic design phase prior to the effective date of this act.

GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2007

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BILL DRAFT 2007-LDz-243 [v.7] (05/16)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/19/2008 1:08:59 PM

Short Title: Energy Efficient Buildings If State Funds. (Public)

Sponsors: Representative Harrison.

Referred to:

A BILL TO BE ENTITLED

AN ACT TO CODIFY THE STANDARDS GOVERNING ENERGY EFFICIENCY AND WATER USE FOR MAJOR FACILITY CONSTRUCTION AND RENOVATION PROJECTS INVOLVING STATE, UNIVERSITY. **EXTEND THOSE** COMMUNITY COLLEGE BUILDINGS AND TO STANDARDS TO MAJOR FACILITY CONSTRUCTION AND RENOVATION PROJECTS INVOLVING BUILDINGS OF PUBLIC SCHOOL DISTRICTS AND ANY OTHER ENTITIES THAT RECEIVE FUNDING FOR THE PROJECT IN THE STATE CAPITAL BUDGET, AS RECOMMENDED BYTHE ENVIRONMENTAL REVIEW COMMISSION..

The General Assembly of North Carolina enacts:

SECTION 1. Chapter 143 of the General Statutes is amended by adding a new Article to read:

"Article 8C.

"Performance Standards for Sustainable, Energy-Efficient Public Buildings.

"§ 143-135.35. Findings; legislative intent.

The General Assembly finds that public buildings can be built and renovated using sustainable, energy efficient methods that save money, reduce negative environmental impacts, improve employee and student performance, and make employees and students more productive. The main objectives of sustainable, energy efficient design are to avoid resource depletion of energy, water, and raw materials; prevent environmental degradation caused by facilities and infrastructure throughout their life cycle; and create buildings that are livable, comfortable, safe, and productive. It is the intent of the General Assembly that State-owned buildings and buildings of The University of North Carolina, the North Carolina Community College System, public school districts, and other entities that receive any funding from the State capital budget for the project be improved by establishing specific performance standards for

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sustainable, energy efficient buildings. These performance standards should be based upon recognized, consensus standards that are supported by science and have a demonstrated performance record. The General Assembly also intends, in order to ensure that the economic and environmental objectives of this Article are achieved, that State agencies, The University of North Carolina, the North Carolina Community College System, public school districts, and other entities that receive any funding from the State capital budget for the project determine whether the performance standards are met for major facility construction and renovation projects, measure utility and maintenance costs, and verify whether these standards result in savings. Also, it is the intent of the General Assembly to establish a priority to use North Carolina-based resources, building materials, products, industries, manufacturers, and businesses to provide economic development to North Carolina and to meet the objectives of this Article.

"§ 143-135.36. Definitions.

As used in this section, the following definitions apply unless the context requires otherwise:

(1) "ASHRAE" means the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.

- "Commission" means to document and to verify throughout the construction process whether the performance of a building, a component of a building, a system of a building, or a component of a building system meets specified objectives, criteria, and entity project requirements.
- (3) "Department" means the Department of Administration.
- "Institutions of higher education" means the constituent institutions of The University of North Carolina, the regional institutions as defined in G.S. 115D-2, and the community colleges as defined in G.S. 115D-2.
- (5) "Major facility construction project" means a project to construct a building larger than 20,000 gross square feet of occupied or conditioned space, as defined in the North Carolina State Building Code adopted under Article 9 of Chapter 143 of the General Statutes, "Major facility construction project" does not include a project to construct a transmitter building or a pumping station.
- building when the cost of the project is greater than fifty percent (50%) of the insurance value of the building prior to the renovation and the renovated portion of the building is larger than 20,000 gross square feet of occupied or conditioned space, as defined in the North Carolina State Building Code. "Major facility renovation project" does not include a project to renovate a transmitter building or a pumping station. "Major facility renovation project" does not include a building having historic, architectural, or cultural significance under G.S. 143-23.1.

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- (7) "Public entity" means every State office, officer, board, department, and commission; institution of higher education; public school district; or entity that receives any funding from the State capital budget for the major facility construction or renovation project.
- (8) "Public school district" means a local school administrative unit eligible to receive appropriations from the State Public School Fund.
- "§ 143-135.37. Energy and water use standards for public major facility construction and renovation projects; verification and reporting of energy and water use.
- (a) Program Established. The Sustainable Energy Efficient Buildings Program is established within the Department to be administered by the Department. This program applies to any major facility construction or renovation project of a public entity that is funded in whole or in part from an appropriation in the State capital budget or through, a financing contract as defined in G.S. 142-82.
- (b) Energy Efficiency Standard. For every major facility construction project of a public entity, the building shall be designed and constructed so that the calculated energy consumption is at least thirty percent (30%) less than the energy consumption for the same building as calculated using the energy efficiency standard in ASHRAE 90.1-2004. For every major facility renovation project of a public entity, the renovated building shall be designed and constructed so that the calculated energy consumption is at least twenty percent (20%) less than the energy consumption for the same renovated building as calculated using the energy efficiency standard in ASHRAE 90.1-2004. For the purposes of this subsection, any exception or special standard for a specific type of building found in ASHRAE 90.1-2004 is included in the ASHRAE 90.1-2004 standard.
- Water Use Standard. For every major facility construction or renovation project of a public entity, the water system shall be designed and constructed so that the calculated indoor potable water use is at least twenty percent (20%) less than the indoor potable water use for the same building as calculated using the fixture performance requirements related to plumbing under the 2006 North Carolina State Building Code. For every major facility construction project of a public entity, the water system shall be designed and constructed so that the calculated sum of the outdoor potable water use and the harvested stormwater use is at least fifty percent (50%) less than the sum of the outdoor potable water use and the harvested stormwater use for the same building as calculated using the performance requirements related to plumbing under the 2006 North Carolina State Building Code. For every major facility renovation project of a public entity, the Department shall determine on a project by project basis what reduced level of outdoor potable use or harvested stormwater use, if any, is a feasible requirement for the project, but the Department shall not require a greater reduction than is required under this subsection for a major facility construction project. To reduce the use of potable outdoor water use as required under this subsection, landscape materials that are water-use efficient and irrigation strategies that include reuse and recycling of the water may be used.
- (d) Performance Verification. In order to be able to verify performance of a building component or an energy or water system component, the construction contract

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- shall include provisions that require each building component and each energy and water system component to be commissioned, and these provisions shall be included at the earliest phase of the construction process as possible and in no case later than the schematic design phase of the project. Such commissioning shall continue through the initial operation of the building. The project design and construction teams and the public entity shall jointly determine what level of commissioning is appropriate for the size and complexity of the building or its energy and water system components.
- Separate Utility Meters. In order to be able to monitor the initial cost and the continuing costs of the energy and water systems, a separate meter for each electricity, natural gas, fuel oil, and water utility shall be installed at each building undergoing a major facility construction or renovation project. Each meter shall be installed in accordance with the United States Department of Energy guidelines issued under section 103 of the Energy Policy Act of 2005 (Pub. L. 109-58, 119 Stat. 594 (2005)). Starting with the first month of facility operation, the public entity shall compare data obtained from each of these meters by month and by year with the applicable energy efficiency standard under subsection (b) of this section and the applicable water use standard for the project under subsection (c) of this section and report annually no later than August 1 of each year to the Office of State Construction within the Department. If the average energy use or the average water use over the initial 12-month period of facility operation exceeds the applicable energy efficiency standard under subsection (b) of this section or exceeds the applicable water use standard under subsection (c) of this section by fifteen percent (15%) or more, the public entity shall investigate the actual energy or water use, determine the cause of the discrepancy, and recommend corrections or modifications to meet the applicable standard.

"§ 143-135.38. Use of other standard when standard not practicable.

When the Department, public entity, and the design team determine that the energy efficiency standard or the water use standard required under G.S. 143-135.37 is not practicable for a major facility construction or renovation project, then it must be determined by the State Building Commission if the standard is not practicable for the major facility construction or renovation project. If the State Building Commission determines the standard is not practicable for that project, the State Building Commission shall determine which standard is practicable for the design and construction for that major facility construction or renovation project. If a standard required under G.S. 143-135.37 is not followed for that project, the State Building Commission shall report this information and the reasons to the Department within 90 days of its determination.

"§ 143-135.39. Guidelines for Administering the Sustainable Energy Efficient Buildings Program. –

(a) Policies and Technical Guidelines. – The Department, in consultation with public entities, shall develop and issue policies and technical guidelines to implement this Article for public entities. The purpose of these policies and guidelines is to establish procedures and methods for complying with the energy efficiency standard or

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- the water use standard for major facility construction and renovation projects under G.S. 143-135.37.
- (b) Preproposal Conference. As provided in the request for proposals for construction services, the public entity may hold a preproposal conference for prospective bidders to discuss compliance with, and achievement of, the energy efficiency standard or the water use standard required under G.S. 143-135.37 for prospective respondents.
- Advisory Committee. The Department shall create a sustainable, energy (c) efficient buildings advisory committee comprised of representatives from the design and construction industry involved in public works contracting, personnel from the public entities responsible for overseeing public works projects, and others at the Department's discretion to provide advice on implementing this Article. Among other duties, the advisory committee shall make recommendations regarding the education and training requirements under subsection (d) of this section, make recommendations regarding specific education and training criteria that are appropriate for the various roles with respect to, and levels of involvement in, a major facility construction or renovation project subject to this Article or the roles regarding the operation and maintenance of the facility, and make recommendations regarding developing a process whereby the Department receives o ngoing evaluations and feedback to assist the Department in implementing this Article so as to effectuate the purpose of this Article. Further, the advisory committee may make recommendations to the Department regarding whether it is advisable to strengthen standards for energy efficiency or water use under this Article, whether it is advisable and feasible to add additional criteria to achieve greater sustainability in the construction and renovation of public buildings, or whether it is advisable and feasible to expand the scope of this Article to apply to smaller facility projects.
- (d) Education and Training Requirements. The Department shall review the advisory committee's recommendations under subsection (c) of this section regarding education and training. For each of the following, the Department shall develop education and training requirements that are consistent with the purpose of this Article and that are appropriate for the various roles with respect to, and level of involvement in, a major facility construction or renovation project or the roles regarding the operation and maintenance of the facility:
 - (1) The chief financial officers of public entities.
 - (2) For each public entity that is responsible for the payment of the entity's utilities, the facility managers of these public entities.
 - (3) The capital project coordinators of public entities.
 - (4) Architects.
 - (5) Mechanical design engineers.
- (e) <u>Performance Review.</u> <u>Annually the Department shall conduct a performance review of the Sustainable Energy Efficient Buildings Program. The performance review shall include at least all of the following:</u>

- 1 (1) Identification of the costs of implementing energy efficiency and water
 2 use standards in the design and construction of major facility
 3 construction and renovation projects subject to this Article.
 - (2) <u>Identification of operating savings attributable to the implementation of energy efficiency and water use standards, including, but not limited to, savings in utility and maintenance costs.</u>
 - (3) <u>Identification of any impacts on employee productivity from using energy efficiency and water use standards.</u>
 - (4) Evaluation of the effectiveness of the energy efficiency and water use standards established by this Article.
 - (5) Whether stricter standards or additional criteria for sustainable building should be used than the standards under G.S. 143-135.37.
 - Whether the Sustainable Energy Efficient Buildings Program should be expanded to include additional types of projects or to include smaller major facility construction or renovation projects.
 - (7) Any recommendations for any other changes regarding sustainable, energy efficient building standards that may be supported by the Department's findings.
 - (f) Report on Performance Review. Each year, the Department shall include in its consolidated report under subsection (g) of this section a report of its findings under the performance review under subsection (e) of this section.
 - (g) Consolidated Report Required. The Department shall consolidate the report required under subsection (f) of this section, the report under G.S. 143-135.37(e), the report, if any, from the State Building Commission under G.S. 143-135.38, and the report under G.S. 143-135.40 into one report. No later than October 1 of each year, this consolidated report shall be transmitted to the Chairs of the General Government Appropriations Subcommittees of both the Senate and the House of Representatives, the Environmental Review Commission, and the Joint Legislative Commission on Governmental Operations. The Department shall include any recommendations for administrative or legislative proposals that would better fulfill the legislative intent of this Article.
 - (h) Authority to Adopt Rules or Architectural or Engineering Standards. The Department may adopt rules to implement this Article. The Department may adopt architectural or engineering standards as needed to implement this Article.

"§ 143-135.40. Monitor construction standards and sustainable building standards.

- (a) The Department shall monitor the development of construction standards and sustainable building standards to determine whether there is any standard that the Department determines would better fulfill the intent of the Sustainable Energy Efficient Buildings Program to achieve sustainable, energy efficient public buildings than the standards under G.S. 143-135.37, and, if so, whether this Article should be amended to provide for the use of any different standards or the use of any additional standards to address additional aspects of sustainable, energy efficient buildings. Additional standards monitored shall address consideration of site development,
- 44 material and resource selection, and indoor environmental quality to enhance the health

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- or productivity of building occupants. Also, the Department shall monitor the development of improved energy efficiency standards developed by the American Society of Heating, Refrigerating and Air-Conditioning Engineers, the ASHRAE standards, shall monitor whether the State Building Code Council adopts any other energy efficiency standards for inclusion in the State Building Code that result in greater energy efficiency and increased energy savings in major facility construction and renovation projects under this Article, and shall monitor other standards for sustainable, energy-efficient buildings that are based upon recognized, consensus standards based on science and demonstrated performance, including the standards for sustainable buildings under the Leadership in Energy and Environmental Design (LEED) program, as authored by the United States Green Building Council.
- (b) Each year, the Department shall report the results of its monitoring under this section, including any recommendations for administrative or legislative proposals."
- **SECTION 2.** G.S. 115D-20 is amended by adding a new subdivision to read:
 - "(14) To comply with the design and construction requirements regarding energy efficiency and water use in the Sustainable Energy Efficient Buildings Program under Article 8C of Chapter 143 of the General Statutes."
- **SECTION 3.** Article 6 of Chapter 146 of the General Statutes is amended by adding a new section to read:

"§ 146-23.2. Purchase of buildings constructed or renovated to a certain energy efficiency standard.

- (a) A State agency shall not acquire by purchase any building unless the building was designed and constructed to at least the same standards for energy efficiency and water use that the design and construction of a comparable State building was required to meet at the time the building under consideration for purchase was constructed. Further, a State agency shall not acquire by purchase any building that had a major renovation unless the major renovation of the building was designed and constructed to at least the same standards for energy efficiency and water use that the design and construction of a major renovation of a comparable State building was required to meet at the time the building under consideration for purchase was renovated.
- (b) This section does not apply to the purchase of a building having historic, architectural, or cultural significance under G.S. 143-23.1. This section does not apply to buildings that are acquired by devise or bequest."
- **SECTION 4.** The initial report under G.S. 143-135.37(e), the initial report under G.S. 143-135.39(f), and the initial report under G.S. 143-135.40 are due no later than August 1, 2009. The initial consolidated report required under G.S. 143-135.39(g) is due no later than 1 October 2009.

SECTION 5. Section 1 of S.L. 2007-546 is repealed.

SECTION 6. This act is effective when it becomes law. Section 1 and Section 2 of this act apply to every major facility construction project, as defined in G.S. 143-135.36 as enacted in Section 1 of this act, and every major facility renovation project, as defined in G.S. 143-135.36 as enacted in Section 1 of this act, of a public

entity, as defined in G.S. 143-135.36 as enacted in Section 1 of this act, that has not entered the schematic design phase prior to the effective date of this act.

GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2007

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BILL DRAFT 2007-RIxz-22 [v.1] (05/14)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/14/2008 11:30:08 AM

Short Title: Delay Solid Waste Tax Effective Date. (Public)
Sponsors: .
Referred to:
A BILL TO BE ENTITLED
AN ACT TO DELAY THE EFFECTIVE DATE OF THE SOLID WASTE DISPOSAL
TAX IMPOSED BY ARTICLE 5G OF SUBCHAPTER I OF CHAPTER 105 OF
THE GENERAL STATUTES, AS ENACTED BY S.L. 2007-550 AND
AMENDED BY S.L. 2007-543, FROM 1 JULY 2008 TO 1 JANUARY 2009, AS
RECOMMENDED BY THE ENVIRONMENTAL REVIEW COMMISSION.
The General Assembly of North Carolina enacts:
SECTION 1. Section 14.(e) of S.L. 2007-550 reads as rewritten:
"SECTION 14.(e) This section becomes effective 1 July 2008. 1 January
<u>2009.</u> "
SECTION 2. Section 5 of S.L. 2007-543 reads as rewritten:
"SECTION 5. Sections 1, 4, and 5 of this act become effective when this act
becomes law. If Senate Bill 1492 becomes law, Section 3 of this act becomes effective
when this act becomes law. Section 2 of this act becomes effective 1 July 2008.1
January 2009."

SECTION 3. This act is effective when it becomes law.

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GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2007

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BILL DRAFT 2007-RIxz-22 [v.1] (05/14)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION) 5/14/2008 11:30:08 AM

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5	<u>January 2009.</u> "
6	SECTION 3. This act is effective when it becomes law.

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ENVIRONMENTAL REVIEW COMMISSION October 9

MINUTES



North Carolina General Assembly

ENVIRONMENTAL REVIEW COMMISSION MINUTES

October 9, 2008

The Environmental Review Commission was scheduled to meet at 9:30 a.m., Thursday, October 9, 2008 in Room 544 of the Legislative Office Building. Co-Chairwoman Lucy Allen presided. The meeting was called to order at 10:25 a.m.

Welcome and Attendance

Members present were Co-Chairman Charlie Albertson, Co-Chairman Pryor Gibson, III, Senator Stan Bingham, Senator Ellie Kinnaird, Representative Ruth Samuelson Representative Edith Warren, and advisory member Senator Fletcher Hartsell. Commission staff present was Commission Counsel George Givens, Assistant Counsel Jeffrey Hudson, Assistant Counsel Jennifer McGinnis, Research Assistant Mariah Matheson and Committee Assistant Jessica Kozma Bennett.

A meeting notice was distributed to staff, members and outside parties electronically and is included as an attachment to the minutes as **Exhibit A**. A reminder was sent electronically October 8. The meeting agenda and visitor's registration sheets are attachments to these minutes and referred as **Exhibit B** and **Exhibit C**, respectively.

Co-Chairwoman Allen recognized co-chairs of the Commission; she then recognized staff, thanking them for their work for the Commission.

Representative Womble recognized Faith Wambui, a visiting student to North Carolina from Nairobi, Kenya, saying that he was encouraging her to complete college in North Carolina. Ms. Wambui thanked the Commission and said she had a desire to study medicine.

Report to the Commission and Explanation of Agenda Items

Commission Counsel Givens thanked the chairwoman and began reminding members to sign and return reimbursement forms. He then announced the birth of Susannah Louise Mundt, born to Commission Analyst Jennifer Mundt and husband Karl on September 6. He noted that Ms. Mundt would return to work in early 2009. He then asked for members to note a table of reports bound by law to be reported to the Commission. This report is referred to as **Exhibit D** in the attachments. A second packet of reports, **Exhibit E**, include two read only reports and three reports to be distributed at

future meetings. Mr. Givens noted for the record that a planning meeting for this regular meeting was held September 29 at 10 a.m. in Room 605 of the Legislative Office Building. He then reviewed the agenda. In reviewing Mr. Givens said that a meeting schedule for November 5 and 6 was cancelled. The next regular meeting would be November 25 with a planning meeting scheduled for November 13.

Approval of the March 20, 2008 and April 7 and 8, 2008 Minutes

With a motion by Representative Womble and seconded by Representative Samuelson, minutes from the March 20 and April 7 and 8 meetings were approved by unanimous vote.

Quarterly reports by the Environmental Management Commission (EMC) as to its operations, activities, programs and progress for the period of 1 April 2008 through 30 September 2008

Chairwoman Allen recognized Dr. David H. Moreau to deliver the EMC's two quarterly reports from July and October of this year. Dr. Moreau's retirement was announced after serving with the commission for 16 years. Dr. Moreau is being replaced by Steve Smith, who previously served as a commission member. Chairwoman Allen welcomed and thanked Dr. Moreau for his presentation, that he delivered although already in retirement, and also thanked him for his service to the commission.

Two reports are included as attachments are listed as exhibits F and G.

Dr. Moreau thanked the Commission and said he had finished his chairmanship with the EMC. He then said he wanted to reflect on issues pertinent to the EMC during his 16 year tenure. Among items he noted:

- Wetlands were protected from the establishment of a 401 Certification process under the Clean Water Act.
- That water allocation had been addressed through establishing a base for usage in the coastal plane, with the State acting as a cautionary partner in water supply storage at Jordan Lake
- That the EMC will continue under the leadership of Mr. Smith to address ozone issues impacting the State.
- The Mercury rule of the Clean Smokestacks Act was concluded as a very strong protective rule for the State.

Dr. Moreau continued that when he was preparing to step down as commission chairman Mr. Givens asked him if he had frustrations. There were frustrations, he said, but most "had been self imposed." Among frustrations Dr. Moreau mentioned a challenge by the Rules Review Commission that was eventually over turned by court action. He then suggested that the State establish an administrative clearinghouse. His second frustration, if you will, was the interaction between the EMC and the General Assembly. A majority of the time, he said, the General Assembly delegated authority to the EMC and in turn the EMC operated to the satisfaction of the General Assembly. But in some cases it took years to develop rules, with numerous hearings and deliberation among

hearing officers to arrive at a well balanced rule. He then commented that sometimes "the ink is hardly dry ... before another process is started at the General Assembly."

Despite any frustrations Dr. Moreau said it was an honor and privilege to serve with the EMC staff, the Legislature and the Office of the Governor. He thanked staff, including Mr. Givens, and said that the State had been well served by the large number of people who have given their time and professional expertise to the State and the EMC.

Dr. Moreau was loudly applauded by the audience after Chairwoman Allen asked for a round of applause. She then welcomed Mr. Smith.

Mr. Smith began saying that since Dr. Moreau announced his retirement, Dr. Moreau smiled much more. Mr. Smith said that the EMC met three times since the last quarterly report. He also said that because of the passage of Senate Bill 3, a committee is formed to follow the direction of the bill. He then reviewed actions of the EMC as listed in the attached exhibits **F** and **G**.

Chairwoman Allen recognized Senator Bingham who asked about the use of wind in Denmark as a renewable energy and then followed up asking about using wood pellet producing plants: He added that North Carolina State University was conducting research on such energy. Mr. Smith said he did not know about the wood pellets.

Annual Report on the EMC's progress in developing and implementing nutrient management strategies for certain water supply reservoirs

Senator Kinnaird thanked Dr. Moreau for his service and discussed development on Jordan Lake, noting that there were problems because the lake was a source for multiple water systems. She asked if this issue would be addressed in the future. She added that she hoped the EMC would look at watershed issues.

Mr. Smith said that in August 2008 officials with the Division of Water Quality began a stakeholder process to look at a management strategy for Falls Lake. Regarding Jordan Lake Mr. Smith gave a brief history. In years 2003 and 2004 an 18-month study was conducted on nutrient rules. In 2005, EMC staff solicited public comment. Additional meetings occurred in 2006, and in May of 2008 hearing officers recommended rules for the EMC.

Report on the progress in developing and implementing a new fee structure for the nutrient offset program

Chairwoman Allen called on Mr. James B. Stanfill, strategic planning coordinator for the Ecosystem Enhancement Program through DENR. A report and handout were distributed to members and are attached to the minutes as **Exhibits H and I.**

Mr. Stanfill thanked Chairwoman Allen and said his report this day was a progress report for the existing program. He began his presentation.

The nutrient offset program is in place for development along the Neuse and Tar-Pamlico rivers. The program began in 1996 because of massive fish kills stemming from nutrient runoff from development. The goal of the program was to assist developers in meeting reduction requirements. Initially, the charge was \$11 per pound. From May 2001 until 2005 the fee stayed the same, until officials realized collected fees were not enough to support the project. In 2006, new fees passed, increasing to \$57 per pound for nitrogen

and \$45 per pound for phosphorus. The new fees also covered costs of land acquisition and new projects such as wetland restoration. The first payments under the new fee structure were received in May 2006.

The increased fees, however, would lower through legislation from the 2006 legislative session, returning to \$11 per pound for both nitrogen and phosphorus. This legislation came as the result of a study conducted by RTI International.

Objectives of the program are to incorporate the actual costs of generating the program. Mr. Stanfill said. Also, that all costs must be accounted for and the program needed to be understandable and easy to use given the spectrum of clients' knowledge. Another objective was that the program needed to be predictable and equitable, he continued. Builders have to financially plan projects prior to breaking ground, so the program must give accurate estimates of costs.

Mr. Stanfill then reviewed project and administration cost models. The program has received hundreds of payments, he said. To better serve clients a prototype was created to produce cost calculations. He added that the program works closely with the Division of Water Quality.

Finishing his report, Chairwoman Allen called for questions and discussion.

Representative Samuelson asked about adjustment factors for projects that needed to be recalculated. Mr. Stanfill said the subject would be discussed in a future stakeholder process. Representative Samuelson followed up and asked if there would be times when an applicant would contract with a private bank. Mr. Stanfill replied that this does occur. Senator Kinnaird asked about refunded money to builders from rate adjustments. Mr. Stanfill said that refunds came from existing fees paid. Senator Bingham asked Mr. Stanfill to break down cost per acre. Mr. Stanfill said that charges were by the pound. Senator Bingham followed up asking for a range of fees for builders. Mr. Stanfill replied that a low fee would be a few hundred dollars to a high fee in the thousands. Representative Harrison asked if there was a backlog of projects from fee variability. Mr. Stanfill said projects did slow down but process was restarted as soon as the new fees were established in 2007.

Annual report on the One-Stop Permit Assistance Program and the Express Permit and Certification Review Program

Chairwoman Allen thanked Mr. Stanfill and then recognized Ms. Edythe M. McKinney, director of the Customer Service Center and Small Business Ombudsman for DENR. Ms. McKinney thanked membership for allowing her to speak today.

She began her presentation noting that there is a report distributed to members, **Exhibit J**, and called for members to note two charts in the report.

Ms. McKinney reported that the program she oversees tracks seven programs ad has also tracked 13,000 permits since its inception.

One trend of the program is that a large percentage of permits were tracked in less than 90 days: eighty-four percent of regularly filed permits and 99 percent of expressly filed permits. For those permits that take more than 90 days, delays come from permit complexities; for example, acquiring a major source air permit or design issues. A second trend is that an express review is much quicker than a regular review. One goal of the program is expediency, she noted. The programs ability to handle reviews quickly stems

from having adequate staff and stringent oversight in the early steps of the application process. A third trend is working to ensure a lack of incomplete transactions. Currently her program is offering additional training and aids to assist employees in helping clients file completed permit applications.

Ms. McKinney told the Commission that it would be unfair not to note that applications had declined. She said there is not a panic, as some months still show increases and some months remain reciprocal on a year to year basis.

Finishing her report, Chairwoman Allen asked for questions of comments.

Representative Samuelson said she was attending a conference on stormwater in the next week and asked Ms. McKinney to forward any information she could take to the conference. Ms. McKinney said she would be delighted to.

Report on the analysis of whether rate structures, policies, and measures, including decouopling, that promote a mix of generation involving renewable energy sources and demand reduction should be implemented in this State

Annual report on the Renewable Energy and Energy Efficiency Portfolio Standard

Mr. Edward S. Finley, Jr., Chairman of the North Carolina Utilities Commission was recognized by Chairwoman Allen for two reports, one concerning Senate Bill 3 and another regarding rate structures. These reports are attached to the minutes as **Exhibits K** and **L**.

Mr. Finley began reporting on where the commission and utility company currently stand with regard to the legislation. Rules proceedings began and an order was issued in February of 2008. These rules are in Exhibit K, pages 1 through 3. In all, 105 issues were addressed, some of smaller and larger scopes, he reported. Currently there is an open topic for net metering, whether to allow generators up to 1 megawatt to quality for metering. He added that solar generator operators are not pleased with the current rules. Two public hearings were held regarding the issue, one in Charlotte and one in Raleigh.

Compliance plans were received by the commission as required by Senate Bill 3. Plans are due December 1, 2008. Some utilities have requested extensions. As for the larger utility providers, Progress Energy has submitted plans; Duke Power is currently on extension.

Issues to note for future consideration are presented on pages 30 and 31 or Exhibit K. They include:

- Establishing what percentage of electrical sales is needed to meet required goals during in between years. For example, by statute there is a three percent increase in 2012; a six percent increase in 2014. Currently no thresholds are set in years between.
- Whether existing hydroelectric plants may be accepted under compliance standards.
- Determining whether it is a joint requirement to purchase energy derived from poultry and swine waste and solar set-asides.

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

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Environmental Review Commission State Legislative Building Raleigh, Porth Carolina



22 September 2008

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MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

TO:

Members of the Environmental Review Commission

Interested Parties

FROM:

George F. Givens, Commission Counsel

Jessica Bennett, Commission Clerk

RE:

Notice of Commission Meeting Notice of Planning Meeting Schedule of Future Meetings

Meetings of Interested Parties (605 Working Groups)

Additional Information

COMMISSION MEETING:

The Environmental Review Commission (Commission) will meet at 9:30 a.m. <u>Thursday October 9</u> 2008 in Room 544 of the Legislative Office Building in Raleigh.

At this meeting, the Commission will begin or continue studies for which the Commission is responsible, hear reports from State agencies, discuss topics to be considered at future meetings, and attend to other matters. Listed below are potential agenda topics for this meeting and for future meetings. More specific information regarding the agenda for the 9 October meeting of the Commission will be developed at the staff public staff planning meeting described below. Commission staff may publish a revised notice/draft agenda following the public staff planning meeting if circumstances permit.

STUDIES Listed below are topics that the Commission has been specifically authorized or directed by the General Assembly to study during the current legislative interim. (The specific legislative authorization or directive is set out in parentheses.) The list may include other study topics and issues. (The general powers and duties of the Commission are set out in Article 12D of Chapter 120 of the General Statutes.) The Commission Counsel will, as circumstances permit, discuss the plans for and progress of the study of these topics, including the formation of "605" working groups, at the public staff planning meeting described below.

Allocation of surface water resources and their availability and maintenance in the State, including issues related to the transfer of water from one river basin to another, the withdrawal of water for consumptive use, and the accuracy and tolerance of equipment used to measure the flow of water transferred from one river basin to another river basin. (S.L. 2007-518, Sec. 1.(a) as amended by S.L. 2008-10) Issues related to increasing water supply and reservoir construction. (S.L. 2008-143, Sec. 6)

- Preparation of a revised map entitled "Major River Basins and Sub-basins in North Carolina" as a recommended replacement for the map referenced in G.S. 143-215.22G. The revised map shall define the extent to which any river basin that encompasses any river that flows from another state into North Carolina or that flows from North Carolina into another state extends into an adjacent state. (S.L. 2007-518, Sec. 1.(b)) Determine whether the definition of "river basin" set out in G.S. 143-215.22G should be revised. (S.L. 2007-518, Sec. 1.(b) as amended by S.L. 2008-125, Sec. 2)
- The costs and benefits of the adoption of the California motor vehicle emissions standards in this State. (S.L. 2008-181, Sec. 6.2)
- 4) Issues related to disclosure of coastal hazards. (S.L. 2008-181, Sec. 6.6)
- 5) Methods for implementing a State level permitting system and siting requirements for commercial scale wind energy systems. (S.L. 2008-181, Sec. 6.5)
- The desirability of abolishing existing environmental regulatory programs and replacing them with a new, full time Environmental Management Commission modeled on the Utilities Commission. (S.L. 2008-181, Sec. 6.4)
- 7) The protection of conservation land from eminent domain. (S.L. 2008-181, Sec. 6.8)
- 8) A ban on toxic brominated fire retardants (in consultation with the Child Fatality Task Force). (S.L. 2008-181, Sec. 6.10)
- 9) Issues related to the use of plastic bags. (S.L. 2008-181, Sec. 6.9)
- 10) Issues related to a recycling program for fluorescent lamps. (S.L. 2008-181, Sec. 6.11)
- 11) The feasibility of implementing a stormwater management program without requiring the issuance of a State permit prior to construction. (S.L. 2008-181, Sec. 6.3)
- 12) A date certain for the phase-out of hog lagoons. (S.L. 2008-181, Sec. 6.7)
- The impacts on the State of the potential issuance of a new 50-year license by the Federal Energy Regulatory Commission to Alcoa Power Generating, Inc. (S.L. 2008-137, Secs. 1 and 2)
- Other topics carried over from, or not undertaken, in previous interims and other matters that have been referred to the Commission.

REPORTS . Listed below are periodic and other reports that are due to be received by the Commission as of the meeting of the Commission described in this Notice (whether or not the report has been received). Reports received by the Commission may be scheduled for presentation at the meeting of the Commission described in this Notice, held for presentation at a future meeting of the Commission, or distributed to members and staff of the Commission as "read-only reports." All reports are included in the records of the Commission and, to the extent possible, are posted on the Commission's website. (Where appropriate and available, citations to the legislation that authorizes or requires the report is set out in parentheses.) (Report due dates are set out italics in parentheses.) The Commission Counsel and staff will solicit recommendations as to whether and when a report should be scheduled for presentation to the Commission or designated "read-only" and, in most cases, will make an initial determination at the public staff planning meeting described below.

General/Miscellaneous:

- Ouarterly report on the activities of the Environmental Management Commission (G.S. 143B-282(b)) (15 July), including:
 - Progress in developing and implementing wastewater collection system permit program.
 - Extent to which facilities seeking new or modified discharge permits are funded with public funds; their impact on water quality; whether there are cost-effective alternative technologies that would achieve greater water quality benefit.

- Findings on identification and adoption of control criteria necessary to prevent excess nutrient loading in drinking water supply reservoirs; adoption of nutrient management strategy and permanent rules.
- Progress in developing engineering standards to allow regional interconnection of municipal and domestic wastewater collection systems.
- Annual report on the Environmental Management Commission's progress in developing and implementing nutrient management strategies for certain water supply reservoirs. (S.L. 2005-190, Sec. 4, as amended by S.L. 2006-259, Sec. 31 (c))
- Annual report on the One-Stop Permit Assistance Program on the number of environmental permits that took more than 90 days to issue or deny, types of permits, reasons for extended processing time, and how the time used to issue or deny the permits compared with projected time provided to the applicant by DENR and the findings and recommendations on the success of the express permit and certification review program (G.S. 143B-279.15) (1 March)
- 18) Interim Report on the findings and recommendations of the Legislative Commission on Global Climate Change (S.L. 2006-79) (15 January 2007)
- 19) Report by the Utilities Commission on whether rate structures, policies, and measures, including decoupling in other places should be implemented in North Carolina (S.L. 2007-397, Sec. 4(c)) (1 September 2008)

Air Quality:

- 20) Annual report on implementation of S.L. 2002-4 (Clean Smokestacks Act) (S.L. 2002-4, Sec. 14) (1 June)
- 21) Report on the pilot program to retrofit certain school buses in nonattainment areas (S.L. 2007-465, Sec. 4(b)) (1 September 2008)
- 22) Annual report on the desirability of requiring and the feasibility of obtaining reductions in emissions of NOx and SO₂ beyond those required by the Clean Smokestacks Act (S.L. 2002-4, Sec. 11) (1 September)

Coastal Management:

Annual report on the progress in developing and implementing the Coastal Habitat Protection Plans and reports on the completion or substantial revision of each draft Coastal Habitat Protection Plan (G.S. 143B-279.8(e) and G.S. 143B-279.8(f)) (1 September)

Hazardous Waste Management:

Report of Superfund cost share fund expenditures for cleanup of sites on the National Priorities List (S.L. 1999-237(15.6)(b)) (Floating, within 30 days of expenditure)

Land Resources:

25) Annual report on the cost of implementing the Mining Act of 1971 (G.S. 74-54.1(c)) (1 September)

Parks and Recreation / Land Conservation:

North Carolina Natural Heritage Trust Fund Award Report, Fiscal Year 2005-2006 (G.S. 113-77.9(e)) (Semi-annually, within 30 days of each revision)

Water Quality:

- 27) Report on the progress in developing and implementing a new fee structure for the nutrient offset program (S.L. 2007-438, Sec. 3) (1 September 2008)
- Semiannual report on the pilot program for inspection of animal waste management systems including a comparison of the costs of conducting operations reviews and inspections under the pilot program with the costs of conducting operations and inspections under G.S. 143-215.10D and G.S. 143-215.10F (15 April)
- Annual report on the status of leaking petroleum underground storage tanks, the State cleanup funds, and the Groundwater Protection Loan Fund (G.S. 143-215.94M) (1 September)
- 30) Annual report on the implementation of the Pay for Performance Program (S.L. 2001-442, as amended by S.L. 2003-340, Sec. 2) (1 September)

Water Quantity:

31) Annual report on the progress of water supply planning (G.S. 143-355(n)) (1 September)

PLANNING MEETING:

To facilitate development of the agenda for the 9 October meeting of the Commission, to begin planning for subsequent meetings of the Commission, and to receive input from interested persons regarding the work of the Commission, the Commission Counsel will hold an informal planning meeting at 10:00 a.m. on Monday 29 September 2008 in Room 605 of the Legislative Office Building. Persons who wish to participate in the development of the agenda for meetings of the Commission, or who are interested in any matter before the Commission, are invited to attend.

SCHEDULE OF FUTURE MEETINGS:

Below is a schedule of meetings of the Environmental Review Commission for October 2008 through January 2009. This schedule is tentative and subject to adjustment. For planning purposes, however, please reserve these dates. This schedule may be modified to allow for out-of-town business meetings or site visits and in the event that it becomes necessary to cancel a scheduled meeting due to hazardous weather conditions.

Please note the following:

- 1. Meetings of the Commission normally begin at 9:30 a.m., include a lunch break, and run until mid-afternoon. Please plan on meeting from 9:30 a.m. until at least 3:30 p.m. Meetings of the Commission are open to the public.
- 2. Staff planning meetings normally begin at 10:00 a.m. and adjourn by noon. Staff planning meetings are informal and are open to the public. Commission members are not expected to attend these meetings.
- 3. The 2009 Regular Session is scheduled to begin at 12:00 noon on Wednesday 28 January 2009. The Commission may meet shortly after the beginning of the session to complete ongoing work and to consider any legislative proposals and recommendations and may meet at other times during the legislative session.

Commission Meeting	Location	Staff Planning Meeting	Location
Thursday 9 October 2008	544 LOB	Monday 29 September 2008	605 LOB
Wed./Thur. 5 and 6 November 2008	544 LOB	Monday 29 September 2008	605 LOB
Tuesday 25 November 2008	544 LOB	Wednesday 12 November 2008	3 605 LOB
Thursday 11 December 2008	544 LOB	Tuesday 2 December 2008	605 LOB
Thursday 15 January 2009	643 LOB	Tuesday 6 January 2009	605 LOB
Thursday 22 January 2009	544 LOB	Tuesday 6 January 2009	605 LOB

MEETINGS OF INTERESTED PARTIES (605 WORKING GROUPS):

The Commission Counsel will hold meetings of interested parties on specific topics as indicated below:

None at this time.

ADDITIONAL INFORMATION:

If you have questions related to the Commission, please feel free to contact the Commission Counsel or other Commission staff at (919) 733-2578.

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

MEMBERS
SENATOR STAN W. BINGHAM
SENATOR KATIE G. DORSETT
SENATOR JAMES S. FORRESTER
SENATOR ELEANOR G. KINNAIRD
SENATOR A.B. SWINDELL
SENATOR DAVID F. WEINSTEIN

REPRESENTATIVE JAMES A. HARRELL REPRESENTATIVE PRICEY HARRISON REPRESENTATIVE CAROLYN H. JUSTICE REPRESENTATIVE RUTH SAMUELSON REPRESENTATIVE EDITH D. WARREN REPRESENTATIVE LARRY W. WOMBLE Environmental Review Commission State Legislative Building Raleigh, Porth Carolina



AGENDA 10:15 a.m. Thursday 9 October 2008 Room 544 Legislative Office Building Raleigh, North Carolina

1. Call to order

Representative Lucy T. Allen, Presiding

- 2. Introductory remarks by Cochairs. (5 minutes)
 Representative Lucy T. Allen
 Representative Pryor A. Gibson
 Senator Charles W. Albertson
 Senator Daniel G. Clodfelter
- 3. Report to the Commission and explanation of agenda items. (15 minutes)
 George F. Givens, Commission Counsel

Approval of the minutes of the 18 March 2008 and 7 April 2008 meetings of the Commission

Discussion of studies that the Commission is authorized to undertake

4. Quarterly reports by the Environmental Management Commission (EMC) as to its operations, activities, programs, and progress for the period of 1 April 2008 through 30 September 2008 (G.S. 143B-282(b)).

Annual report on the EMC's progress in developing and implementing nutrient management strategies for certain water supply reservoirs (S.L. 2005-190, Sec. 4, as amended by S.L. 2006-259, Sec. 31 (c)). (30 minutes)

David H. Moreau, Former Chairman (1992 through 2008) Stephen T. Smith, Chairman Environmental Management Commission

GEORGE F. GIVENS COMMISSION COUNSEL 545 LEGISLATIVE OFFICE BUILDING 300 NORTH SALISBURY STREET RALEIGH, NORTH CAROLINA 27603 (919) 733-2578 FAX: (919) 715-5460

SUSAN S. IDDINGS ASSISTANT COMMISSION COUNSEL

JEFF W. HUDSON ASSISTANT COMMISSION COUNSEL

JENNIFER L. McGINNIS ASSISTANT COMMISSION COUNSEL

JENNIFER R. F. MUNDT COMMISSION ANALYST

MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK 5. Report on the progress in developing and implementing a new fee structure for the nutrient offset program (S.L. 2007-438, Sec. 3). (15 minutes)

James B. Stanfill, Strategic Planning Coordinator Ecosystem Enhancement Program, Department of Environment and Natural Resources (DENR)

6. Annual report on the One-Stop Permit Assistance Program and the Express Permit and Certification Review Program (143B-279.15). (15 Minutes)

Edythe M. McKinney, Director Customer Service Center and Small Business Ombudsman, DENR

7. Report on the analysis of whether rate structures, policies, and measures, including decoupling, that promote a mix of generation involving renewable energy sources and demand reduction should be implemented in this State (S.L. 2007-397, Sec. 4(c)).

Annual report on the Renewable Energy and Energy Efficiency Portfolio Standard (REPS) (G.S. 62-133.8 (j)).

Edward S. Finley, Jr., Chairman (20 minutes). North Carolina Utilities Commission

8. Update on air quality issues, including the annual report on implementation of S.L. 2002-4 (Improve Air Quality/Electric Utilities) (S.L. 2002-4, Sec. 14). (10 minutes).

James C. Gulick, Senior Deputy Attorney General Division of Air Quality, DENR

- 9. Commission discussion and announcements
- 10. Adjourn

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ADDITIONAL INFORMATION:

Persons having questions about the Commission meeting or other matters related to the Commission may contact Commission Counsel or other Commission staff at (919) 733-2578 or may visit the Commission's website at

http://www.ncleg.net/gascripts/DocumentSites/browseDocSite.asp?nID=12

Environmental Review Commission

October 9, 2008

NAME	FIRM OR AGENCY AND ADDRESS
Dear Hande	WC Newtof Ag
Kathy fowhis	Proges Every
Jos Maprimo	gen of Assoc.
Edythe McKinn	DENR-CSC
Sharn Miller	CUCA
James Stanfill	DENR EED
BILL Gumbre	DEWR EEP
Manly Wilder	DENR
Suzanne Klinde	DENR EEP /
John Huisman	DENR-DWQ
ALAN CLARK	DENR-DWG

Environmental Review Commission

October 9, 2008

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TAD BOGGS	KDANR
Grady Mcallin	de Cronotte Neteral.
Malloy Hatcher	Mobile Words Consulting
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Environmental Review Commission

October 9, 2008

NAME	FIRM OR AGENCY AND ADDRESS
CARI PERRY	E-2 SET COMPANY
Dave Moresu	EMC

Environmental Review Commission

October 9, 2008

NAME	FIRM OR AGENCY AND ADDRESS
Tammy Moldovan	Vandeventer Black
Elizabeth Biser	DENR
Steve Wall	DENR
Robin Smith	DENR
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Willo Kely	Outer Banks Home Bulders / Ruces
Dand Knight	ナルこ
EricEllis	DENR
Kelly Williams	DENR EEP
Robert Brown	DENR EEP

Environmental Review Commission

October 9, 2008

NAME	FIRM OR AGENCY AND ADDRESS
STEVE SMITH	Emc
Sam Watson	Neve
El Finder	*
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W. Dave Amborn	ElectriCities of N.C., Inc
JOHN SHAW	Serp
James Gulick	NCDOJ
Kelli Kukura	NCLM
BNABLY 32	wm
JOHN PREYER	NCERA
Jay Stem	NCAA

Environmental Review Commission

October 9, 2008

NAME	FIRM OR AGENCY AND ADDRESS
Patrick Boff	nmes
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Tracy Kimbrell	Parker Poe.
Tommy Stevens	Ncec
Du Holver	Nicholos Frist Dilee Win
John Shart	NEAGA
Chris anderson	
Roper Knight	Wyrick Robbins
Tom SEON	NC EDE, SEA, NOWE
Doug Lassiter	NESTA
DONNIE REDMAND	NC DAG

Environmental Review Commission

October 9, 2008

NAME	FIRM OR AGENCY AND ADDRESS
Midelle Frazier	MFS
PRESTON HOWARD	MCIC
Jerry Hadesty	NPPC
John	Alliana Artomobile Manufacturers
Amy McConkey	Swith Anderson
John Monoghan	Piedmont Natural Gas
Anita Warkins	NCLM
Ramff Jerkhs	Respondi System
Ross SMITH	PCS PHOSPHATE
JOHN GODDMAN	NC CHAMBER
John McAlisto	NC Chanser
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Environmental Review Commission

October 9, 2008

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John Mothers	Govorts Alutens Was
Scott GARDNA	Duk Clery
George Everett	Duke Energy
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General Assembly of North Carolina

Environmental Review Commission State Legislative Building Raleigh, Porth Carolina

9 October 2008

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SENATOR A.B. SWINDELL SENATOR DAVID F. WEINSTEIN

REPRESENTATIVE JAMES A. HARRELL REPRESENTATIVE PRICEY HARRISON REPRESENTATIVE CAROLYN H. JUSTICE REPRESENTATIVE RUTH SAMUELSON REPRESENTATIVE EDITH D. WARREN REPRESENTATIVE LARRY W. WOMBLE

MEMORANDUM

To:

Members of the Environmental Review Commission

From:

Mariah Matheson, Commission Assistant

Re:

Reports to the Commission

The following reports have been submitted by the Department of Environment and Natural Resources (DENR) to the Environmental Review Commission (Commission) since the last reports distribution on 9 May 2008. These reports are designated as a read only and are attached to this memorandum:

- 1) Annual report on the cost of implementing the Mining Act of 1971. 1 September 2008. Statutory Authority: G.S. 74-54.1(c).
- 2) Annual report on the Bernard Allen Memorial Emergency Drinking Water Fund. 1 October 2008. Authority: S.L. 2007-323, Sec 12.2.(a).

The following report has been submitted by the Environmental Management Commission (EMC) to the Commission and will be distributed in connection with today's Agenda Item #4:

Quarterly report by the EMC as to its operations, activities, programs, and progress during the previous quarters, 15 July 2008 and 15 October 2008. Statutory Authority: G.S. 143B-282(b).

The following reports have been submitted by the Utilities Commission and will be distributed in connection with today's *Agenda Item #7*:

- Report on whether rate structures, policies, and measures, including decoupling in other places should be implemented in North Carolina. 1 September 2008. Authority: S.L. 2007-397, Sec. 4(c).
- 2) Annual report on the Renewable Energy and Energy Efficiency Portfolio Standard (REPS). 1 October 2008. Statutory Authority: G.S. 62-133.8(j).

The following reports have been submitted by DENR to the Commission and will be distributed in connection with today's agenda as follows:

- 1) Annual report and recommendations on the One-Stop Permit Assistance Program and the express permit and certification review program. 1 March 2008. Statutory Authority: G.S. 143B-279.15. Agenda Item #6.
- 2) Annual report on implementation of S.L. 2002-4 (Improve Air Quality/Electric Utilities). 1 June 2008. Authority: S.L. 2002-4, Sec. 14. *Agenda Item #8*.
- Report on the progress in developing and implementing a new fee structure for the nutrient offset program. 1 September 2008. Authority: S.L. 2007-438, Sec. 3. Agenda Item #5.

The following reports have been received and are being held for distribution either as read-only or for presentation at a future meeting of the Commission. If you would like a copy of one of these reports in advance of the next meeting, please contact Mariah Matheson at (919) 733-2578 or mariahm@ncleg.net for assistance.

- 1) Annual report on the desirability of requiring and the feasibility of obtaining reductions in emissions of NOx and SO2 beyond those required by S.L. 2002-4, Sec. 11 (Improve Air Quality/Electric Utilities). 1 September 2008. Authority: S.L. 2002-4, Sec. 11.
- 2) Annual report on the impacts on water quality and other environmental impacts from the new urban waterfront area development authorized by this act and evaluate the costs and benefits from the development to the area in which the development is located. 1 October 2008. Authority: S.L. 2004-117, Sec. 4.
- Annual report on the activities and allocations from the Parks and Recreation Trust Fund from the prior fiscal year. 1 October 2008. Statutory Authority: G.S. 113-44.15(c).

Please contact George Givens, Jeff Hudson, Jennifer McGinnis, or Mariah Matheson at (919) 733-2578 if you have any questions or comments.



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

September 25, 2008

MEMORANDUM

To:

The Honorable Pryor Gibson, Co-Chair, Environmental Review Commission

The Honorable Daniel Clodfelter, Co-Chair, Environmental Review Commission The Honorable Charles Albertson, Co-Chair, Environmental Review Commission

From:

William G. Ross, Jr.

Subject:

Annual Mining Permit Fee Use Report

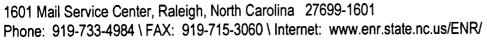
G. S. 74.54.1 (c) of The Mining Act of 1971 requires the Department of Environment and Natural Resources to report annually to the Environmental Review Commission on the mining permit fees collected and used in implementing the state's mining program.

Attached is this year's report. If you have any questions, please contact Jim Simons, Director of the Division of Land Resources, at 733-3833.

Cc. Ms. Elizabeth Biser

Ms. Robin Smith

Ms. Kristin Walker





MINING PERMITTING PROGRAM

1. Monies Collected

Total fee monies of \$227,676.00 were collected during fiscal year 2007-2008. Mining permit fee collections are cyclic because most of the fees are from permit renewals, which are dictated by a 10-year permit renewal cycle. A substantial portion of the fees were collected in the second half of the fiscal year.

2. Monies Expended

Salaries and Benefits	\$34,254.00
Purchased Services	\$17,993.00
Supplies	\$156.00
Property, Plant & Equipment	\$532.00
Other Expenses & Adjustments	\$330.00

Total \$53,265.00

Five mine inspector positions were authorized by the 2007 Session of the General Assembly, along with a permit fee increase. Prior to that, the permit fee supported one assistant mining specialist position to assist in application review and permit issuance. The assistant mining specialist position was vacant for a portion of the year, but has been filled. The newly authorized inspector positions have been established, but could not be filled until the permit fee collections were sufficient to support the positions. The average funding required per position for salary, fringes, inspection travel, equipment and supplies is approximately \$65,000 per year. Consequently, the fees collected will be quickly drawn once the positions are filled. The current collections will support at least two inspector positions that will be advertised and filled this fall. The remaining positions will be filled as soon as fee collections allow.

Annual Report to the Environmental Review Commission

BERNARD ALLEN EMERGENCY DRINKING WATER FUND

October 1, 2008

North Carolina Department of Environment and Natural Resources

EXECUTIVE SUMMARY

In 2006 the General Assembly created the Emergency Drinking Water Fund as a program designed to improve the state's response to groundwater contamination and provide low income households with a safe and clean drinking water supply. The Fund received a \$300,000 appropriation in 2006 and a \$615,000 appropriation in 2007. The General Assembly did not appropriate any money to the Fund in 2008.

The legislation establishing the Fund outlined three authorized uses: 1) to pay for notice to persons whose wells are at risk from groundwater contamination; 2) to pay the costs of testing private wells; and 3) to provide an alternative drinking water supply to well owners affected by contamination. The legislation included very general language requiring DENR to disburse the money based on financial need and on the risk to public health.

Since its inception the program has served a critical need to the citizens of North Carolina. Dozens of residents throughout the state have benefited from the Fund either through a permanent connection to public water supplies or through the receipt of emergency bottled water until a long term solution is found. The Department continues to work with local governments to identify eligible sites where the Fund may be able to assist residents affected by contaminated groundwater.

The Department has worked closely with the General Assembly to ensure that the program is responsive, efficient and effective. Since 2006, the program has undergone significant changes on an annual basis. Many of these changes will improve and strengthen the program. However, frequent changes in the program also resulted in confusion and made eligibility for assistance under the program a moving target. It also should be noted that the specific contamination threshold and income eligibility criteria required by the program limits the number of residents who can access the Fund.

The Department's primary recommendation in this report is to ask that the legislature allow time to evaluate the effectiveness of the program as it currently exists before making further changes to the statute governing the program. More experience with consistent implementation of the program will give both the Department and other parties a better baseline for evaluating the need for additional changes.

Background

2006 Legislation

In 2006, the General Assembly established the Emergency Drinking Water Fund (Session Law 2006-255) within the Department of Environment and Natural Resources and appropriated \$300,000 to the Fund. The authorizing language for the Fund was included in Senate Bill 1587, Amend Environmental and Natural Resource laws (see Appendix I). The legislation establishing the Fund identified the allowable uses. Monies in the Fund could be used to: 1. notify residents who get their drinking water from a private drinking water well that is at risk from known groundwater contamination; 2. pay for water quality testing of private drinking water wells; and 3. provide an alternative drinking water source for residents with contaminated wells.

In providing assistance from the Fund, the legislation also required that the Department consider the financial need of the well owner and the health risk posed by the well contamination. The legislation prohibited use of the Fund for groundwater remediation.

2007 Legislation

In 2007 the General Assembly appropriated \$615,000 to the Fund and made substantive changes to the statutory language establishing the program.

The 2007 legislation renamed the Fund the "Bernard Allen Memorial Emergency Drinking Water Fund." The legislation, House Bill 1473, the 2007 Appropriations Act, also made significant changes to the disbursement criteria included in the original legislation. (Session Law 2007-0323, See Appendix I)

While the original language required financial need to be a factor in the disbursement of the Fund, the 2007 amendments provided specific income eligibility criteria. The Fund cannot be used to provide alternative water supplies to households with incomes greater than 300% of the federal poverty level. The Department has been using affidavits to verify this income requirement (See Appendix III).

The amendments also provided more direction on consideration of risk to public health. The 2007 language prohibited use of the Fund to provide alternative drinking water supplies unless one or more of the contaminants in the contaminated well exceed the Maximum Contaminant Level (MCL). An MCL is a drinking water standard established by the United States Environmental Protection Agency (USEPA) for public water systems. MCL's protect drinking water quality by limiting the levels of specific contaminants that can adversely affect public health.

The 2007 legislation also stated a preference for providing permanent water supplies as opposed to temporary water supplies (such as bottled water). Other changes made by the 2007 legislation clarified that the Fund is a non-reverting fund and required that DENR prepare an annual report in consultation with the Commission for Public Health and local health departments.

2008 Legislation

In Session Law 2008-107 (See Appendix I), the 2008 budget bill, the General Assembly again made significant changes to the statutory language governing the Fund. The first substantial change provided more flexibility in determining that well contamination presented a health risk. The amendments gave the Department discretion to provide an alternative water supply if: 1. concentration levels of a contaminant are below MCLs, but are increasing over time; and 2. there is a significant risk that the contamination level will exceed the drinking water standards in the future.

Another significant change limits the amount of money the Department may spend on a waterline extension project to \$10,000 per household. Consistent with that approach the legislature also placed a limitation that no more than one-third of the total cost of a waterline extension project may be paid from the Fund.

In addition to new limits on spending from the Fund, the legislature also placed eligibility limits related to the cause of the contamination. To access the Fund as a means to provide alternative water, the Department must find that the person responsible for the contamination does not have financial resources to provide an alternative water source and that one of the following applies:

- the contamination is naturally occurring;
- the owner of the property did not cause or contribute to the contamination; and
- the source of the contamination did not occur with the owner's consent.

Finally, the 2008 language authorizes the Department to use up to \$100,000 in the Fund to pay personnel and other direct costs associated with implementation.

Program Implementation

Based on the language in the 2006 session law, the Department developed criteria for identifying contaminated sites that might qualify for assistance from the Fund. The Department formed a working group with representatives from the Division of Waste Management, the Division of Water Quality and the Secretary's Office to review potential sites and set priorities. As required by the legislation, the Department classified the sites based on factors such as the level of contamination (risk), number of residents impacted and financial status of the residents. In the process of gathering this preliminary information, it became clear that DENR needed more information or updated

information (e.g. well sampling data, financial status) on some sites to determine eligibility for assistance and set priorities.

Since the establishment of the Fund, the Department has focused its efforts on identifying the most viable sites for funding. In developing the initial list of candidate sites departmental staff recommended the most effective remedy for each impacted site and the estimated costs of providing that remedy. These costs vary significantly from site to site. Some sites require connection to a public water supply, while others can be addressed by providing a new well or filtration system.

The initial list of sites identified by the Department included sites in all areas of the state and contamination from a number of different sources. In some instances, sites have been contaminated by pesticides used in agricultural operations and in other cases petroleum spills from above ground storage tanks have been responsible for the contamination. At a number of the sites on the initial list the contamination source is unknown.

During this identification process sites initially on the list have been removed or no action has been taken for various reasons. For example, some potentially eligible sites did not meet the income limitations, while at other sites temporary measures are already in place and a permanent connection to public water supply would be cost prohibitive. Given the new MCL restrictions there are other sites where new sampling will be required to ensure an up to date and accurate evaluation of the current risk. It should be noted that during the process of reviewing the candidate sites and options for alternative water supply, the Department identified at least two sites that may be eligible for federal funding.

Jackson County

On March 6, 2007 DENR staff at the Asheville regional office received a call from the Jackson County Health Department about petroleum contamination in a drinking water well. DENR staff sampled the well on the same day. On March 15 the results from the testing came back showing high levels of benzene contamination above the federal drinking water standard. The contaminated well served four households. The Division of Public Health recommended that the water not be used for drinking or cooking and that children should not bathe in the water and that adults should limit exposure to five minutes or less.

All four households served by the well met the income threshold required by the Bernard Allen statute. Jackson County, the N.C. Rural Center and DENR agreed to partner in a waterline project to provide a safe source of drinking water to these families. The cost of the project was estimated to be approximately \$880,000. In August of 2007 the Department issued a letter to Jackson County that it was prepared to enter into a contract with the County to disburse \$300,000 from the Fund.

The waterline extension will also allow an assisted living facility to hook into the public water supply at their expense. The assisted living facility has fifty-five residents. Currently, the assisted living facility gets its water supply from spring that does not appear to be contaminated. The Division of Waste Management is continuing to conduct further sampling in this area, to assess the extent of the contamination and the possible impact on other water supplies.

In August of 2008 the waterline extension project was completed.

Cumberland County

In July 2007 DENR begin working with the city of Fayetteville to address groundwater contamination in the Rim Road neighborhood. Sampling of drinking water wells revealed approximately a dozen wells were impacted by some type of contamination. In late 2007 the city estimated that a waterline extension project to 14 homes in this area would cost \$340,000. DENR and the N.C. Rural Center agreed to help the city with funding of the project.

Most of the contaminated wells discovered in this area were from an old service station nearby with underground storage tanks. The Underground Storage Tank Program committed up to \$39,873 to the project. However, during the course of sampling the area DENR identified two drinking water wells contaminated with high levels of solvent from unidentified sources. Both of these households were eligible for funding through the Bernard Allen Fund. As a result the Fund committed up to \$26,786 for the waterline project to extend connections to these homes.

In the summer of 2008 the waterline project was completed and the Department has reimbursed the city of Fayetteville for its share of the project.

Montgomery County

In December of 2007 the Division of Water Quality (DWQ) was notified of potential drinking water concerns in Montgomery County. DWQ sampled the well in question and by January 2008 began expanding the geographic scope of its sampling. Results from indicated that approximately three dozen wells contained pesticide compounds above the drinking water standard.

DWQ began working with local officials and the U.S. Environmental Protection Agency to identify a short term and long term solution to the contaminated wells. In April residents were supplied with bottled water paid for through the Bernard Allen Fund.

DWQ is continuing to conduct sampling in the nearby areas. Montgomery County officials have been working with the N.C. Rural Center and other funding agencies to

secure funds for a waterline extension project. One initial estimate put the cost of such project at over \$1.2 million.

Other sites

The Department, in conjunction with local health departments, is continuing to work to identify those sites that may be eligible for funding under the Bernard Allen Fund. In addition to the Montgomery County site discussed above, half a dozen homes have been impacted by pesticide contamination in Richmond County. The Department is in the process of providing bottled water and working with local officials to find a long-term solution.

Summary of Expenditures

The Fund has provided for dozens of samples of wells and the analysis of those samples at a cost of approximately \$13,600. The Fund has provided bottled water to three dozen households in Montgomery County at a cost of approximately \$9,000.

As noted above the Fund has also partnered with other funding agencies and local governments to assist with the funding of major waterline projects. The Fund has contracted with Jackson County to contribute \$300,000 to a waterline project. The Fund has also committed to contribute approximately \$26,000 to assist Cumberland County with a project designed to assist residents with petroleum and solvent contamination.

In addition, Montgomery County is working to secure funding for a waterline project to assist residents with pesticide contamination. The waterline project, which includes three dozen households, may cost more than \$1 million. Montgomery County has requested that the Bernard Allen Fund provide \$200,000 in contribution to this project. In September 2008 the Department issued a commitment letter for \$200,000 to the Montgomery County project.

Ongoing work on two contaminated sites in Buncombe County and Richmond County may lead to expenditures from the Fund in the near future, but the scope of the potential costs is currently unknown.

The Fund has produced approximately \$38,000 in interest since its establishment. The current Fund balance is approximately \$605,000.

Conclusion

The Bernard Allen Emergency Drinking Water Fund serves an important need to the residents of this state affected by groundwater contamination. Other programs that provide funds for alternative water supply, such as the Underground Storage Tank Trust Fund and the Dry Cleaner Solvent Cleanup Fund, can only be used to address specific

types of contamination. Before the creation of the Emergency Drinking Water Fund, there was no source of emergency funding to assist residents whose drinking water wells had been contaminated by a broad range of pollutants including pesticides, bacteria, solvents (from sources other than dry cleaners), and other chemicals. If the original polluter could not be identified or had no financial resources, the individual well user bore the cost of any alternative water supply. In some cases, a city or county government was able and willing to extend a water line to provide a permanent solution, but the well user absorbed the interim cost of bottled water.

The Fund fills many of the gaps where other programs cannot provide immediate relief. The Fund also leverages investment by local government and by state funding agencies. Without investment of state monies, many local governments find a waterline project to serve a small number of residents cost prohibitive. This is particularly true in rural areas where extension of a water line can be extremely costly just because of distance.

Demand for funds to provide emergency bottled water and permanent alternative water sources to replace contaminated wells is likely to increase as more groundwater contamination incidents are discovered. In July of 2008 the state's private well rules went into effect, which require testing of all new drinking water wells. The results from this testing are likely to identify previously undiscovered groundwater contamination. Furthermore, as North Carolina continues to grow and more and more property transitions from agricultural to residential, the state could see a rise in the number of residential wells that have contamination from former agricultural operations.

Efforts by the General Assembly to modify the provisions governing use of money from the Fund have resulted in welcome improvements. However, policy decisions limiting use of the Fund have continued to create concern among residents impacted by groundwater contamination who are not eligible to access the Fund for assistance. We believe that these policy decisions and their impacts should be closely monitored. Nevertheless, we would recommend that the General Assembly not make any changes to the Fund for at least two years to establish some certainty and to allow the current program criteria to be fully evaluated.

APPENDIX I

Copies of originating legislation and subsequent amendments

(2) Prevent solid material larger than one-sixteenth of an inch, as measured along the shortest axis of the material, from entering the drainfield.

Be designed and constructed to allow for routine maintenance.

Be designed and constructed so as not to require maintenance more frequently than once in any three-year period under normally anticipated use."

SECTION 5. Section 4 of S.L. 2005-384 reads as rewritten:

"SECTION 4. Sections 1, 3, and 4 of this act are effective when this act becomes law, except that G.S. 130A-310.53, 130A-310.54(c), and 130A-310.55 become effective 1 July 2006.2007. Section 2 of this act becomes effective 1 October 2005. Each vehicle manufacturer that is subject to the requirements of this act shall provide the information required by G.S. 130A-310.52(b), either individually or as a group of manufacturers, on or before 1 January 2006.2007. This act expires on 1 July 2026."

SECTION 5.1.(a) G.S. 130A-291.1 is amended by adding a new subsection

to read:

"(j) Septage generated by the operation of a wastewater system permitted under Article 11 of this Chapter may be managed as provided in this section and may be land

applied at a septage land application site permitted under this section."

SECTION 5.1.(b) Management, including land application, of septage generated by the operation of a wastewater system permitted under Article 11 of Chapter 130A of the General Statutes shall be governed by 40 Code of Federal Regulations Part 503 (1 July 2003 Edition) and rules adopted by the Commission for Health Services pursuant to G.S. 130A-291.1, as amended by subsection (a) of this section.

SECTION 5.2. Article 7 of Chapter 87 of the General Statutes is amended by adding a new section to read:

"§ 87-98. Emergency Drinking Water Fund.

(a) The Emergency Drinking Water Fund is established within the Department.

(b) The Fund may be used to pay for notification, to the extent practicable, of persons aged 18 and older who reside in any dwelling unit, and the senior official in charge of any business, at which drinking water is supplied from a private drinking water well that is located within 1,500 feet of, and at risk from, known groundwater contamination. The senior official in charge of the business shall take reasonable measures to notify all employees of the business of the groundwater contamination, including posting a notice of the contamination in a form and at a location that is readily accessible to the employees of the business. The funds may also be used to cover the costs of testing private drinking water wells for contamination and for the provision of alternative drinking water supplies to persons whose drinking water well is contaminated.

and on the risk to public health posed by groundwater contamination and shall give priority to the provision of services under this section to instances when an alternative source of funds is not available. The funds shall not be used for remediation of groundwater contamination. Nothing in this section expands, contracts, or modifies the obligation of responsible parties under Article 9 or 10 of Chapter 130A of the General Statutes, this Article, or Article 21A of this Chapter to assess contamination, identify receptors, or remediate groundwater or soil contamination.

(d) The Department shall establish criteria by which the Department is to evaluate applications and disburse funds from this Fund and may adopt any rules

necessary to implement this section."

SECTION 5.3. If Senate Bill 1862, 2005 Regular Session, becomes law, then Senate Bill 1862, 2005 Regular Session is amended by adding a new section to read:



SECTION 11.1. G.S. 143-64.05(a) reads as rewritten:

The State agency for surplus property may assess and collect a service charge for the acquisition, receipt, warehousing, distribution, or transfer of any State surplus property and for the transfer or sale of recyclable material. The service charge authorized by this subsection does not apply to the transfer or sale of timber on land owned by the Wildlife Resources Commission. Commission or the Department of Agriculture and Consumer Services."

PRACTICES OF **MANAGEMENT** STUDY STRUCTURE AND AGRICULTURAL RESEARCH STATIONS AND RESEARCH FARMS

SECTION 11.4.(a) The Performance Evaluation Division of the General Assembly shall study the structure and management practices of the 18 agricultural research stations and research farms currently owned either by North Carolina State University or the Department of Agriculture and Consumer Services and currently managed by the Department of Agriculture and Consumer Services. This study shall consider ways to achieve efficiency savings and whether it is desirable and feasible to consolidate or transfer to another State department these research stations and research farms.

SECTION 11.4.(b) No later than May 1, 2008, the Performance Evaluation Division of the General Assembly shall prepare a report of the findings and recommendations of the study and submit this report to the House of Representatives and Senate Appropriations Subcommittees on Natural and Economic Resources and the Fiscal Research Division.

PART XII. DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

AND LEAKING PETROLEUM NONCOMMERCIAL COMMERCIAL UNDERGROUND STORAGE TANK PROGRAM ADMINISTRATIVE **COSTS**

SECTION 12.1.(a) G.S. 143-215.94B is amended by adding a new

subsection to read:

The Commercial Fund may be used to support the administrative functions of the program for underground storage tanks under this Part and Part 2B of this Article up to the amounts allowed by law, which amounts may be changed from time to time. In the case of a legislated increase or decrease in salaries and benefits, the administrative allowance existing at the time of the increase or decrease shall be correspondingly increased or decreased an amount equal to the legislated increase or decrease in salaries and benefits."

SECTION 12.1.(b) G.S. 143-215.94D is amended by adding a new

subsection to read:

The Noncommercial Fund may be used to support the administrative functions of the program for underground storage tanks under this Part and Part 2B of this Article up to the amounts allowed by law, which amounts may be changed from time to time. In the case of a legislated increase or decrease in salaries and benefits, the administrative allowance existing at the time of the increase or decrease shall be correspondingly increased or decreased an amount equal to the legislated increase or decrease in salaries and benefits.'

BERNARD ALLEN MEMORIAL EMERGENCY DRINKING WATER FUND

SECTION 12.2.(a) G.S. 87-98 reads as rewritten: "§ 87-98. Bernard Allen Memorial Emergency Drinking Water Fund.

The Bernard Allen Memorial Emergency Drinking Water Fund is established within under the control and direction of the Department. The Fund shall be a nonreverting, interest-bearing fund consisting of monies appropriated by the General Assembly or made available to the Fund from any other source and investment interest

credited to the Fund.

(b) The Fund may be used to pay for notification, to the extent practicable, of persons aged 18 and older who reside in any dwelling unit, and the senior official in charge of any business, at which drinking water is supplied from a private drinking water well or improved spring that is located within 1,500 feet of, and at risk from, known groundwater contamination. The senior official in charge of the business shall take reasonable measures to notify all employees of the business of the groundwater contamination, including posting a notice of the contamination in a form and at a location that is readily accessible to the employees of the business. The funds-Fund may also be used by the Department to eover-pay the costs of testing of private drinking water wells and improved springs for suspected contamination up to once every three years upon request by a person who uses the well for contamination—and for the temporary or permanent provision of alternative drinking water supplies to persons whose drinking water well or improved spring is contaminated. Under this subsection, an alternative drinking water supply includes the repair or replacement of a

contaminated well or the connection to a public water supply.

The Department shall disburse monies from the Fund based on financial need and on the risk to public health posed by groundwater contamination and shall give priority to the provision of services under this section to instances when an alternative source of funds is not available. The funds Fund shall not be used for remediation of groundwater contamination. Nothing in this section expands, contracts, or modifies the obligation of responsible parties under Article 9 or 10 of Chapter 130A of the General Statutes, this Article, or Article 21A of this Chapter to assess contamination, identify receptors, or remediate groundwater or soil contamination. The Fund shall not be used to provide alternative water supply to households with incomes greater than three hundred percent (300%) of the current federal poverty level. The Fund shall not be used to provide alternative drinking water supplies unless the concentration of one or more contaminants in the private drinking water well or improved spring exceeds the Maximum Contaminant Level, or the federal drinking water action level as defined in 40 Code of Federal Regulations § 141.1 through § 141.571 (1 July 2006) and 40 Code of Federal Regulations § 143.3 (1 July 2006). The Fund shall not be used to provide temporary water supplies in any calendar quarter until all needs for permanent replacement water supplies that have been identified in that calendar quarter have been met through hookups to public water supplies, repair, or replacement of contaminated wells. In disbursing monies from the Fund, preference shall be given to providing permanent replacement water supplies by connection to public water supplies and repair or replacement of contaminated wells over the provision of temporary water supplies.

(d) The Department shall establish criteria by which the Department is to evaluate applications and disburse funds—monies from this Fund and may adopt any

rules necessary to implement this section.

(e) The Department, in consultation with the Commission for Health Services and local health departments, shall report no later than 1 October of each year to the Environmental Review Commission, the House of Representatives and Senate Appropriations Subcommittees on Natural and Economic Resources, and the Fiscal Research Division of the General Assembly on the implementation of this section. The report shall include the purpose and amount of all expenditures from the Fund during the prior fiscal year, a discussion of the benefits and deficiencies realized as a result of the section, and may also include recommendations for any legislative action."

SECTION 12.2.(b) The first report required by G.S. 87-98(e), as enacted by

subsection (a) of this section, shall be submitted on or before 1 October 2008.

FUNDS FOR PENDING CIVIL LITIGATION EXPENSES

SECTION 12.2A. Notwithstanding G.S. 143-215.3A, of the funds available in the Water and Air Quality Account for the costs of administering the air quality

PART XI. DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

STUDY CERTAIN DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES FEES

SECTION 11.1.(a) The Department of Agriculture and Consumer Services, in consultation with the Office of State Budget and Management and the Fiscal Research Division, shall study the following:

The feasibility and advisability of increasing the fees imposed by either the Board of Agriculture or the Department regarding services provided by the Rollins Laboratory System.

provided by the Rollins Laboratory System.

The feasibility and advisability of establishing fees for soil testing services provided by the Agronomics Division of the Department.

(3) The feasibility and advisability of using alternative sources of funding for the "Agricultural Review", an agriculture newsletter published by the Department, including charging fees for advertisements or classified advertisements and soliciting private sponsors for the newsletter.

SECTION 11.1.(b) In the course of the study under subsection (a) of this section, the Department may consider other fees imposed by either the Board of Agriculture or the Department, the administrative costs associated with these fees, and

current usage rates for various services provided by the Department.

SECTION 11.1.(c) No later than March 1, 2009, the Department of Agriculture and Consumer Services shall report the results of the study under this section, including any recommendations or legislative proposals, to the Chairs of the House of Representatives and Senate Appropriations Subcommittees on Natural and Economic Resources.

PART XII. DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

BERNARD ALLEN MEMORIAL EMERGENCY DRINKING WATER FUND AMENDMENTS.

SECTION 12.1. G.S. 87-98 reads as rewritten:

"§ 87-98. Bernard Allen Memorial Emergency Drinking Water Fund.

(a) The Bernard Allen Memorial Emergency Drinking Water Fund is established under the control and direction of the Department. The Fund shall be a nonreverting, interest-bearing fund consisting of monies appropriated by the General Assembly or made available to the Fund from any other source and investment interest credited to the Fund.

(b) The Fund may be used to pay for notification, to the extent practicable, of persons aged 18 and older who reside in any dwelling unit, and the senior official in charge of any business, at which drinking water is supplied from a private drinking water well or improved spring that is located within 1,500 feet of, and at risk from, known groundwater contamination. The senior official in charge of the business shall take reasonable measures to notify all employees of the business of the groundwater contamination, including posting a notice of the contamination in a form and at a location that is readily accessible to the employees of the business. The Fund may also be used by the Department to pay the costs of testing of private drinking water wells and improved springs for suspected contamination up to once every three years upon request by a person who uses the well and for the temporary or permanent provision of alternative drinking water supplies to persons whose drinking water well or improved spring is contaminated. Under this subsection, an alternative drinking water supply includes the repair or replacement of a contaminated well or the connection to a public water supply.

- The Department shall disburse monies from the Fund based on financial need and on the risk to public health posed by groundwater contamination and shall give priority to the provision of services under this section to instances when an alternative source of funds is not available. The Fund shall not be used for remediation of groundwater contamination. Nothing in this section expands, contracts, or modifies the obligation of responsible parties under Article 9 or 10 of Chapter 130A of the General Statutes, this Article, or Article 21A of this Chapter to assess contamination, identify receptors, or remediate groundwater or soil contamination. The Fund shall not be used to provide alternative water supply to households with incomes greater than three hundred percent (300%) of the current federal poverty level. The Fund shall not may be used to provide alternative drinking water supplies unless if the Department determines that the concentration of one or more contaminants in the private drinking water well or improved spring exceeds the federal Maximum Contaminant Levelmaximum contaminant level, or the federal drinking water action level as defined in 40 Code of Federal Regulations § 141.1 through § 141.571 (1 July 2006)2007) and 40 Code of Federal Regulations § 143.3 (1 July 2006). 2007). For a contaminant for which a federal maximum contaminant level or drinking water action level has not been established, the State groundwater standard established by the Environmental Management Commission for the concentration of that contaminant shall be used to determine whether the Fund may be used to provide alternative drinking water supplies. The Fund may also be used to provide alternative drinking water supplies as provided in this section if the Department determines that the concentration of one or more contaminants in a private drinking water well is increasing over time and that there is a significant risk that the concentration of a contaminant will exceed the federal maximum contaminant level or drinking water action level, or the State groundwater standard. A determination of the concentration of a contaminant shall be based on a sample of water collected from the private drinking water well within the past 12 months. The Fund shall not be used to provide temporary water supplies in any calendar quarter until all needs for permanent replacement water supplies that have been identified in that calendar quarter have been met through hookups to public water supplies, repair, or replacement of contaminated
- (c1) In disbursing monies from the Fund, preference shall be given to providing the Department shall give preference to provision of permanent replacement water supplies by connection to public water supplies and repair or replacement of contaminated wells over the provision of temporary water supplies. In providing alternative drinking water supplies, the Department shall give preference to connection to a public water supply system or to construction of a new private drinking water well over the use of a filtration system if the Department determines that the costs of periodic required maintenance of the filtration system would be cost-prohibitive for users of the alternative drinking water supply.

(c2) If the Department provides an alternative drinking water supply by extension of a waterline, the Department may disburse from the Fund no more than ten thousand dollars (\$10,000) per household or other service connection. No more than one-third of the total cost of the project may be paid from the Fund. The Department may combine monies from the Fund with monies from other sources in order to pay the total cost of

the project.

(c3) The Fund shall be used to provide alternative drinking water supplies only if the Department determines that the person or persons who are responsible for the contamination of the private drinking water well is or are not financially viable or cannot be identified or located and if the Department determines that one of the following applies:

The contamination of the private drinking water well is naturally

occurring.

(2) The owner of the property on which the private drinking water well is located did not cause or contribute to the contamination or control the source of the contamination.

(3)The source of the contamination is the application or disposal of a hazardous substance or pesticide that occurred without the consent of the owner of the property on which the private drinking water well is located.

The Department may use up to one hundred thousand dollars (\$100,000) of the monies in the Fund to pay the personnel and other direct costs associated with the implementation of this section.

The Fund shall not be used for remediation of groundwater contamination.

Nothing in this section expands, contracts, or modifies the obligation of (c6)responsible parties under Article 9 or 10 of Chapter 130A of the General Statutes, this Article, or Article 21A of this Chapter to assess contamination, identify receptors, or remediate groundwater or soil contamination.

The Department shall establish criteria by which the Department is to evaluate applications and disburse monies from this Fund and may adopt any rules

necessary to implement this section.

The Department, in consultation with the Commission for Public Health and local health departments, shall report no later than 1 October of each year to the Environmental Review Commission, the House of Representatives and Senate Appropriations Subcommittees on Natural and Economic Resources, and the Fiscal Research Division of the General Assembly on the implementation of this section. The report shall include the purpose and amount of all expenditures from the Fund during the prior fiscal year, a discussion of the benefits and deficiencies realized as a result of the section, and may also include recommendations for any legislative action."

INACTIVE HAZARDOUS WASTE SITES REPORT REQUIREMENT

SECTION 12.1A.(a) G.S. 130A-310.2 reads as rewritten: "§ 130A-310.2. Inactive Hazardous Waste Sites Priority List.

No later than six months after July 1, 1987, the Commission shall develop a system for the prioritization of inactive hazardous substance or waste disposal sites based on the extent to which such sites endanger the public health and the environment. The Secretary shall apply the prioritization system to the inventory of sites to create and maintain an Inactive Hazardous Waste Site Priority List, which shall rank all inactive hazardous substance or waste disposal sites in decreasing order of danger. This list shall identify the location of each site and the type and amount of hazardous substances or waste known or believed to be located on the site. The first such list shall be published within two years after July 1, 1987, with subsequent lists to be published at intervals of not more than two years thereafter. The Secretary shall notify owners, operators, and responsible parties of sites listed on the Inactive Hazardous Waste Sites Priority List of their ranking on the list. The Inactive Hazardous Sites Priority List shall be used by the Department in determining budget requests and in allocating any State appropriation which may be made for remedial action, but shall not be used so as to impede any other action by the Department, or any remedial or other action for which funds are available.

(b) No later than January 1 of each year, the Department shall report to each member of the General Assembly who has an inactive hazardous substance or waste disposal site in the member's district. This report shall include the location of each inactive hazardous substance or waste disposal site in the member's district, the type and amount of hazardous substances or waste known or believed to be located on each of

these sites, the last action taken at each of these sites, and the date of that last action."

SECTION 12.1A.(b) The initial report under G.S. 130A-310.2(b), as amended by this section, shall be due no later than January 1, 2009.

AGRICULTURAL DROUGHT RESPONSE COST SHARE PROGRAM

APPENDIX II

Copy of 2008 DENR Memorandum Recommending Amendments



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

MEMORANDUM

·TO:

Representative Pricey Harrison

FROM:

Robin Smith

Assistant Secretary for Environment

RE:

Bernard Allen Emergency Drinking Water Fund

DATE:

May 13, 2008

The Emergency Drinking Water Fund that you were instrumental in creating has filled an important gap in the State's response to contaminated drinking water wells. In the first two years of implementation, DENR has used the Fund to pay part of the cost of extending water lines to two communities with contaminated wells. DENR has also conducted groundwater testing around four sites in four counties. One of those sites involves pesticide contamination affecting at least forty homes; additional testing will likely be necessary to fully determine the extent of the contamination. The Fund is paying for a temporary water supply to the affected households, until a permanent source of safe drinking water can be provided. In the process, DENR has encountered some unanticipated issues and questions about legislative intent. I want to take this opportunity to identify the questions and concerns that have arisen in the early implementation of the Fund and suggest amendments that could resolve those questions.

Background

The Emergency Drinking Water Fund was created by the General Assembly in 2006 to: 1) provide notice to persons whose wells are at risk from groundwater contamination; 2) pay the costs of testing private wells for contamination; and 3) provide clean drinking water to people with contaminated wells. Assistance from the Fund is available only to households with incomes less than 3 times the poverty level and well contamination that exceeds federal drinking water standards. The law governing the Fund also states a preference for funding permanent, rather than temporary, water supplies. The Fund received \$300,000 in appropriations in 2006 and an additional \$615,000 in 2007.

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North Carolina
Naturally

Recommendations

I. Means Testing as an Eligibility Criteria

The law requires DENR to apply a means test (less that 300% of the poverty level) as one criteria for assistance from the Fund. Applying the means test to individual households can lead to problematic results. A minimal difference in income may make one household eligible for assistance with a clean water supply while their neighbors – affected by the same contamination, but having an income level just above the income threshold -- are forced to pay the full costs of an alternative water supply. In those cases, the small difference in income does not represent a true difference in ability to pay the high costs of bottled water or connection to a new water line.

Recommendation 1: The statute should move away from application of the means test on a household by household basis and instead determine eligibility based on an economic indicator for the community or neighborhood that allows more flexibility. One approach could be to use census data at the block group level.

The law should also clarify how the means test applies to rental properties. Applying the means test to the renter (or based on census block information on residents' income levels) could make landlords eligible for assistance from the Fund even if the landlord has the financial resources to address the problem. In landlord/tenant situations, DENR has applied the means test to the landlord for purposes of determining eligibility for assistance with connection to a water line since those improvements ultimately benefit the property owner. For purposes of providing bottled water as a temporary measure until a permanent source of safe drinking water can be provided, DENR has applied the means test to the tenant.

Recommendation 2: The law should clarify how the income eligibility standard (whether applied to individual households or to census blocks) applies when the affected well serves a rental property.

II. Contamination Level

The current law states that "(t)he Fund shall not be used to provide alternative drinking water supplies unless the concentration of one or more contaminants ... exceeds the Maximum Contaminant Level." DENR found that some sites with well contamination had not been recently sampled. Since conditions can change over time, the level of contamination should be established based on recent well testing data. Otherwise, use of the Fund could be based on old data that no longer reflects actual conditions on the site.

Recommendation 3: DENR recommends that eligibility for assistance from the Fund be conditioned on at least one well sample showing an exceedance of MCLs within the last 12 months.

The law needs to be more specific about the contamination standard used to establish eligibility for assistance from the Fund. DENR has assumed that the reference to Maximum Contaminant Levels means the MCLs established in federal rules under the

Safe Drinking Water Act. There are some contaminants for which there is no federal MCL; in those cases, the practice of both DENR and the Department of Health and Human Services has been to rely on the State's groundwater standard.

Recommendation 4: The law should reference the federal MCL and North Carolina groundwater standards. When an MCL does not exist for a specific contaminant, the default threshold should be the North Carolina groundwater standard for that contaminant.

DENR sometimes finds a number of contaminated wells with varying levels of contamination (some above MCLs and others below) in the same vicinity and affected by the same source of contamination. If the contaminant plume is not controlled, the level of contamination in wells below MCLs may continue to increase. Under the current law, DENR cannot provide assistance to those households until the contamination actually exceeds the MCL. Addressing all of the wells at risk would be more protective of public health and potentially more cost effective.

Recommendation 5: Allow flexibility to use the Fund to assist low income well users whose wells show contamination below MCLs if DENR determines that there is a significant risk that contamination levels in those wells will continue to increase as groundwater contamination migrates.

III. Cause of Contamination

DENR has encountered contaminated wells that exceed the MCL for nitrates solely as a result of improper well construction. DENR does not believe the Fund was intended to address improper well construction, inappropriate siting of a septic system or acts within the control of the current property owner, but the existing language does not clearly exclude those situations.

Recommendation 6: DENR recommends that the Fund be available only for: well contamination caused by naturally occurring contaminants; the release of contaminants from a source that was not under the control of the property owner when the release occurred; or application or disposal of pesticides or other hazardous substances by another person without the current property owner's consent. Assistance should also be limited to cases where there is no financially viable responsible party.

IV. Preference for Permanent Solutions

The law now expresses a preference for permanent solutions over providing temporary water supplies, but bottled water is often a necessary stop-gap measure until a permanent source of safe drinking water can be provided.

Recommendation 7: DENR recommends that the General Assembly recognize the need for emergency temporary water supplies as one of the primary functions of the Fund. This would require repeal of existing language that prohibits use of the Fund for temporary water supplies until all permanent water supply needs have been met.

V. Funding Decisions

Sometimes a choice must be made between use of a water filtration systems versus providing a new water supply (either installation of a new well or connection to a water line). Water filtration systems require regular maintenance, which can cost hundreds of dollars on an annual basis. Although the cost of installing a filtration system will be significantly lower than the cost of extending a water line, the filtration system requires a long-term maintenance commitment that may be beyond the means of the low income citizens the Fund is intended to help. If the filtration system is not maintained, it will fail.

Recommendation 8: Priority should be given to new well construction or connection to a water line over use of filtration systems if the ongoing maintenance cost of the filtration system is beyond the homeowner's means.

In some cases, extension of a water line is the best long-term solution, but the high cost has been a point of controversy. Some interest groups have taken the position that the Bernard Allen Fund should not be used for water line extensions because of the high cost. In their view, the Fund should be focused on groundwater testing, notice to homeowners of contamination and perhaps providing filtration systems or bottled water for a period of time.

Given limited resources to address competing water and sewer infrastructure needs, many local governments are understandably reluctant to give high priority to a water line that will serve only a few homes with contaminated wells. There is no legal obligation for local government to provide a water supply to a private well owner with well contamination. Bottled water is not a permanent solution and filtration systems may be impractical because of on-going maintenance needs. DENR believes that the Bernard Allen Fund has played an important role in getting clean water to low income neighborhoods by providing a source of grant funds to offset some local government infrastructure costs. (The N.C. Rural Center has been another source of funding for water line extensions, but many local governments are not eligible for Rural Center grants.) In cases where DENR has used the Bernard Allen Fund for a water line project, the Fund has covered no more than one-third the total project cost.

DENR suggests two possible alternatives:

Recommendation 9A: Put limits on use of the Fund for water line extensions. The law could limit use of the Fund to 1/3 of the total project costs. The General Assembly could also impose a per project cap; a similar fund in California caps the grant for an individual project at \$250,000. (For those projects where the Fund is used to supplement other state and local funding sources, the law should also recognize that not all residents served by the project need to be individually eligible under the Fund criteria).

Or

Recommendation 9B: Use the Fund only to pay the homeowner's costs. Limit use of the Fund to paying the cost of connecting individual homes to a new water line (the street to

home connection) and the cost of properly closing the contaminated well. Prohibit use of the Fund to pay any of the cost of extending a water line into the neighborhood.

VI. Staffing

Implementation of the Bernard Allen Fund requires coordination among several different DENR programs. Providing assistance involves identification of sites; notice to and communication with residents; coordination with local health departments and other agencies; verification of income to determine eligibility; prioritizing funding decisions; and establishing and administering contracts (for well testing, delivery of bottled water and infrastructure). The current law does not allow use of any part of the Fund for administrative purposes and no other resources have been provided for implementation.

Recommendation 10: If the General Assembly continues to fund the program, a portion of the Fund should be allocated for the cost of implementation, including a position to coordinate assistance activities.

Conclusion

Thank you for your consideration of these recommendations. DENR believes that it is important for the Bernard Allen Emergency Drinking Water Fund to continue as a resource for low income people who have contaminated wells. We hope to have the opportunity to talk with you about the future of the Fund.

cc: Speaker Joe Hackney
President Pro Tem Marc Basnight
George Givens
Jane Preyer

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North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

September 25, 2008

MEMORANDUM

To:

The Honorable Pryor Gibson, Co-Chair, Environmental Review Commission

The Honorable Daniel Clodfelter, Co-Chair, Environmental Review Commission The Honorable Charles Albertson, Co-Chair, Environmental Review Commission

From:

William G. Ross, Jr.

Subject:

Annual Mining Permit Fee Use Report

G. S. 74.54.1 (c) of The Mining Act of 1971 requires the Department of Environment and Natural Resources to report annually to the Environmental Review Commission on the mining permit fees collected and used in implementing the state's mining program.

Attached is this year's report. If you have any questions, please contact Jim Simons, Director of the Division of Land Resources, at 733-3833.

Cc.

Ms. Elizabeth Biser

Ms. Robin Smith

Ms. Kristin Walker

1601 Mail Service Center, Raleigh, North Carolina 27699-1601
Phone: 919-733-4984 \ FAX: 919-715-3060 \ Internet: www.enr.state.nc.us/ENR/



MINING PERMITTING PROGRAM

1. Monies Collected

Total fee monies of \$227,676.00 were collected during fiscal year 2007-2008. Mining permit fee collections are cyclic because most of the fees are from permit renewals, which are dictated by a 10-year permit renewal cycle. A substantial portion of the fees were collected in the second half of the fiscal year.

2. Monies Expended

Salaries and Benefits	\$34,254.00
Purchased Services	\$17,993.00
Supplies	\$156.00
Property, Plant & Equipment	\$532.00
Other Expenses & Adjustments	\$330.00

<u>Total</u> \$53,265.00

Five mine inspector positions were authorized by the 2007 Session of the General Assembly, along with a permit fee increase. Prior to that, the permit fee supported one assistant mining specialist position to assist in application review and permit issuance. The assistant mining specialist position was vacant for a portion of the year, but has been filled. The newly authorized inspector positions have been established, but could not be filled until the permit fee collections were sufficient to support the positions. The average funding required per position for salary, fringes, inspection travel, equipment and supplies is approximately \$65,000 per year. Consequently, the fees collected will be quickly drawn once the positions are filled. The current collections will support at least two inspector positions that will be advertised and filled this fall. The remaining positions will be filled as soon as fee collections allow.

Annual Report to the Environmental Review Commission

BERNARD ALLEN EMERGENCY DRINKING WATER FUND

October 1, 2008

North Carolina Department of Environment and Natural Resources

EXECUTIVE SUMMARY

In 2006 the General Assembly created the Emergency Drinking Water Fund as a program designed to improve the state's response to groundwater contamination and provide low income households with a safe and clean drinking water supply. The Fund received a \$300,000 appropriation in 2006 and a \$615,000 appropriation in 2007. The General Assembly did not appropriate any money to the Fund in 2008.

The legislation establishing the Fund outlined three authorized uses: 1) to pay for notice to persons whose wells are at risk from groundwater contamination; 2) to pay the costs of testing private wells; and 3) to provide an alternative drinking water supply to well owners affected by contamination. The legislation included very general language requiring DENR to disburse the money based on financial need and on the risk to public health.

Since its inception the program has served a critical need to the citizens of North Carolina. Dozens of residents throughout the state have benefited from the Fund either through a permanent connection to public water supplies or through the receipt of emergency bottled water until a long term solution is found. The Department continues to work with local governments to identify eligible sites where the Fund may be able to assist residents affected by contaminated groundwater.

The Department has worked closely with the General Assembly to ensure that the program is responsive, efficient and effective. Since 2006, the program has undergone significant changes on an annual basis. Many of these changes will improve and strengthen the program. However, frequent changes in the program also resulted in confusion and made eligibility for assistance under the program a moving target. It also should be noted that the specific contamination threshold and income eligibility criteria required by the program limits the number of residents who can access the Fund.

The Department's primary recommendation in this report is to ask that the legislature allow time to evaluate the effectiveness of the program as it currently exists before making further changes to the statute governing the program. More experience with consistent implementation of the program will give both the Department and other parties a better baseline for evaluating the need for additional changes.

Background

2006 Legislation

In 2006, the General Assembly established the Emergency Drinking Water Fund (Session Law 2006-255) within the Department of Environment and Natural Resources and appropriated \$300,000 to the Fund. The authorizing language for the Fund was included in Senate Bill 1587, Amend Environmental and Natural Resource laws (see Appendix I). The legislation establishing the Fund identified the allowable uses. Monies in the Fund could be used to: 1. notify residents who get their drinking water from a private drinking water well that is at risk from known groundwater contamination; 2. pay for water quality testing of private drinking water wells; and 3. provide an alternative drinking water source for residents with contaminated wells.

In providing assistance from the Fund, the legislation also required that the Department consider the financial need of the well owner and the health risk posed by the well contamination. The legislation prohibited use of the Fund for groundwater remediation.

2007 Legislation

In 2007 the General Assembly appropriated \$615,000 to the Fund and made substantive changes to the statutory language establishing the program.

The 2007 legislation renamed the Fund the "Bernard Allen Memorial Emergency Drinking Water Fund." The legislation, House Bill 1473, the 2007 Appropriations Act, also made significant changes to the disbursement criteria included in the original legislation. (Session Law 2007-0323, See Appendix I)

While the original language required financial need to be a factor in the disbursement of the Fund, the 2007 amendments provided specific income eligibility criteria. The Fund cannot be used to provide alternative water supplies to households with incomes greater than 300% of the federal poverty level. The Department has been using affidavits to verify this income requirement (See Appendix III).

The amendments also provided more direction on consideration of risk to public health. The 2007 language prohibited use of the Fund to provide alternative drinking water supplies unless one or more of the contaminants in the contaminated well exceed the Maximum Contaminant Level (MCL). An MCL is a drinking water standard established by the United States Environmental Protection Agency (USEPA) for public water systems. MCL's protect drinking water quality by limiting the levels of specific contaminants that can adversely affect public health.

The 2007 legislation also stated a preference for providing permanent water supplies as opposed to temporary water supplies (such as bottled water). Other changes made by the 2007 legislation clarified that the Fund is a non-reverting fund and required that DENR prepare an annual report in consultation with the Commission for Public Health and local health departments.

2008 Legislation

In Session Law 2008-107 (See Appendix I), the 2008 budget bill, the General Assembly again made significant changes to the statutory language governing the Fund. The first substantial change provided more flexibility in determining that well contamination presented a health risk. The amendments gave the Department discretion to provide an alternative water supply if: 1. concentration levels of a contaminant are below MCLs, but are increasing over time; and 2. there is a significant risk that the contamination level will exceed the drinking water standards in the future.

Another significant change limits the amount of money the Department may spend on a waterline extension project to \$10,000 per household. Consistent with that approach the legislature also placed a limitation that no more than one-third of the total cost of a waterline extension project may be paid from the Fund.

In addition to new limits on spending from the Fund, the legislature also placed eligibility limits related to the cause of the contamination. To access the Fund as a means to provide alternative water, the Department must find that the person responsible for the contamination does not have financial resources to provide an alternative water source and that one of the following applies:

- the contamination is naturally occurring;
- the owner of the property did not cause or contribute to the contamination; and
- the source of the contamination did not occur with the owner's consent.

Finally, the 2008 language authorizes the Department to use up to \$100,000 in the Fund to pay personnel and other direct costs associated with implementation.

Program Implementation

Based on the language in the 2006 session law, the Department developed criteria for identifying contaminated sites that might qualify for assistance from the Fund. The Department formed a working group with representatives from the Division of Waste Management, the Division of Water Quality and the Secretary's Office to review potential sites and set priorities. As required by the legislation, the Department classified the sites based on factors such as the level of contamination (risk), number of residents impacted and financial status of the residents. In the process of gathering this preliminary information, it became clear that DENR needed more information or updated

information (e.g. well sampling data, financial status) on some sites to determine eligibility for assistance and set priorities.

Since the establishment of the Fund, the Department has focused its efforts on identifying the most viable sites for funding. In developing the initial list of candidate sites departmental staff recommended the most effective remedy for each impacted site and the estimated costs of providing that remedy. These costs vary significantly from site to site. Some sites require connection to a public water supply, while others can be addressed by providing a new well or filtration system.

The initial list of sites identified by the Department included sites in all areas of the state and contamination from a number of different sources. In some instances, sites have been contaminated by pesticides used in agricultural operations and in other cases petroleum spills from above ground storage tanks have been responsible for the contamination. At a number of the sites on the initial list the contamination source is unknown.

During this identification process sites initially on the list have been removed or no action has been taken for various reasons. For example, some potentially eligible sites did not meet the income limitations, while at other sites temporary measures are already in place and a permanent connection to public water supply would be cost prohibitive. Given the new MCL restrictions there are other sites where new sampling will be required to ensure an up to date and accurate evaluation of the current risk. It should be noted that during the process of reviewing the candidate sites and options for alternative water supply, the Department identified at least two sites that may be eligible for federal funding.

Jackson County

On March 6, 2007 DENR staff at the Asheville regional office received a call from the Jackson County Health Department about petroleum contamination in a drinking water well. DENR staff sampled the well on the same day. On March 15 the results from the testing came back showing high levels of benzene contamination above the federal drinking water standard. The contaminated well served four households. The Division of Public Health recommended that the water not be used for drinking or cooking and that children should not bathe in the water and that adults should limit exposure to five minutes or less.

All four households served by the well met the income threshold required by the Bernard Allen statute. Jackson County, the N.C. Rural Center and DENR agreed to partner in a waterline project to provide a safe source of drinking water to these families. The cost of the project was estimated to be approximately \$880,000. In August of 2007 the Department issued a letter to Jackson County that it was prepared to enter into a contract with the County to disburse \$300,000 from the Fund.

The waterline extension will also allow an assisted living facility to hook into the public water supply at their expense. The assisted living facility has fifty-five residents. Currently, the assisted living facility gets its water supply from spring that does not appear to be contaminated. The Division of Waste Management is continuing to conduct further sampling in this area, to assess the extent of the contamination and the possible impact on other water supplies.

In August of 2008 the waterline extension project was completed.

Cumberland County

In July 2007 DENR begin working with the city of Fayetteville to address groundwater contamination in the Rim Road neighborhood. Sampling of drinking water wells revealed approximately a dozen wells were impacted by some type of contamination. In late 2007 the city estimated that a waterline extension project to 14 homes in this area would cost \$340,000. DENR and the N.C. Rural Center agreed to help the city with funding of the project.

Most of the contaminated wells discovered in this area were from an old service station nearby with underground storage tanks. The Underground Storage Tank Program committed up to \$39,873 to the project. However, during the course of sampling the area DENR identified two drinking water wells contaminated with high levels of solvent from unidentified sources. Both of these households were eligible for funding through the Bernard Allen Fund. As a result the Fund committed up to \$26,786 for the waterline project to extend connections to these homes.

In the summer of 2008 the waterline project was completed and the Department has reimbursed the city of Fayetteville for its share of the project.

Montgomery County

In December of 2007 the Division of Water Quality (DWQ) was notified of potential drinking water concerns in Montgomery County. DWQ sampled the well in question and by January 2008 began expanding the geographic scope of its sampling. Results from indicated that approximately three dozen wells contained pesticide compounds above the drinking water standard.

DWQ began working with local officials and the U.S. Environmental Protection Agency to identify a short term and long term solution to the contaminated wells. In April residents were supplied with bottled water paid for through the Bernard Allen Fund.

DWQ is continuing to conduct sampling in the nearby areas. Montgomery County officials have been working with the N.C. Rural Center and other funding agencies to

secure funds for a waterline extension project. One initial estimate put the cost of such project at over \$1.2 million.

Other sites

The Department, in conjunction with local health departments, is continuing to work to identify those sites that may be eligible for funding under the Bernard Allen Fund. In addition to the Montgomery County site discussed above, half a dozen homes have been impacted by pesticide contamination in Richmond County. The Department is in the process of providing bottled water and working with local officials to find a long-term solution.

Summary of Expenditures

The Fund has provided for dozens of samples of wells and the analysis of those samples at a cost of approximately \$13,600. The Fund has provided bottled water to three dozen households in Montgomery County at a cost of approximately \$9,000.

As noted above the Fund has also partnered with other funding agencies and local governments to assist with the funding of major waterline projects. The Fund has contracted with Jackson County to contribute \$300,000 to a waterline project. The Fund has also committed to contribute approximately \$26,000 to assist Cumberland County with a project designed to assist residents with petroleum and solvent contamination.

In addition, Montgomery County is working to secure funding for a waterline project to assist residents with pesticide contamination. The waterline project, which includes three dozen households, may cost more than \$1 million. Montgomery County has requested that the Bernard Allen Fund provide \$200,000 in contribution to this project. In September 2008 the Department issued a commitment letter for \$200,000 to the Montgomery County project.

Ongoing work on two contaminated sites in Buncombe County and Richmond County may lead to expenditures from the Fund in the near future, but the scope of the potential costs is currently unknown.

The Fund has produced approximately \$38,000 in interest since its establishment. The current Fund balance is approximately \$605,000.

Conclusion

The Bernard Allen Emergency Drinking Water Fund serves an important need to the residents of this state affected by groundwater contamination. Other programs that provide funds for alternative water supply, such as the Underground Storage Tank Trust Fund and the Dry Cleaner Solvent Cleanup Fund, can only be used to address specific

types of contamination. Before the creation of the Emergency Drinking Water Fund, there was no source of emergency funding to assist residents whose drinking water wells had been contaminated by a broad range of pollutants including pesticides, bacteria, solvents (from sources other than dry cleaners), and other chemicals. If the original polluter could not be identified or had no financial resources, the individual well user bore the cost of any alternative water supply. In some cases, a city or county government was able and willing to extend a water line to provide a permanent solution, but the well user absorbed the interim cost of bottled water.

The Fund fills many of the gaps where other programs cannot provide immediate relief. The Fund also leverages investment by local government and by state funding agencies. Without investment of state monies, many local governments find a waterline project to serve a small number of residents cost prohibitive. This is particularly true in rural areas where extension of a water line can be extremely costly just because of distance.

Demand for funds to provide emergency bottled water and permanent alternative water sources to replace contaminated wells is likely to increase as more groundwater contamination incidents are discovered. In July of 2008 the state's private well rules went into effect, which require testing of all new drinking water wells. The results from this testing are likely to identify previously undiscovered groundwater contamination. Furthermore, as North Carolina continues to grow and more and more property transitions from agricultural to residential, the state could see a rise in the number of residential wells that have contamination from former agricultural operations.

Efforts by the General Assembly to modify the provisions governing use of money from the Fund have resulted in welcome improvements. However, policy decisions limiting use of the Fund have continued to create concern among residents impacted by groundwater contamination who are not eligible to access the Fund for assistance. We believe that these policy decisions and their impacts should be closely monitored. Nevertheless, we would recommend that the General Assembly not make any changes to the Fund for at least two years to establish some certainty and to allow the current program criteria to be fully evaluated.

APPENDIX I

Copies of originating legislation and subsequent amendments

(2) Prevent solid material larger than one-sixteenth of an inch, as measured along the shortest axis of the material, from entering the drainfield.

(3) Be designed and constructed to allow for routine maintenance.
(4) Be designed and constructed so as not to require maintenance.

(4) Be designed and constructed so as not to require maintenance more frequently than once in any three-year period under normally anticipated use."

SECTION 5. Section 4 of S.L. 2005-384 reads as rewritten:

"SECTION 4. Sections 1, 3, and 4 of this act are effective when this act becomes law, except that G.S. 130A-310.53, 130A-310.54(c), and 130A-310.55 become effective 1 July 2006.2007. Section 2 of this act becomes effective 1 October 2005. Each vehicle manufacturer that is subject to the requirements of this act shall provide the information required by G.S. 130A-310.52(b), either individually or as a group of manufacturers, on or before 1 January 2006.2007. This act expires on 1 July 2026."

SECTION 5.1.(a) G.S. 130A-291.1 is amended by adding a new subsection

to read:

"(j) Septage generated by the operation of a wastewater system permitted under Article 11 of this Chapter may be managed as provided in this section and may be land

applied at a septage land application site permitted under this section."

SECTION 5.1.(b) Management, including land application, of septage generated by the operation of a wastewater system permitted under Article 11 of Chapter 130A of the General Statutes shall be governed by 40 Code of Federal Regulations Part 503 (1 July 2003 Edition) and rules adopted by the Commission for Health Services pursuant to G.S. 130A-291.1, as amended by subsection (a) of this section.

SECTION 5.2. Article 7 of Chapter 87 of the General Statutes is amended by adding a new section to read:

§ 87-98. Emergency Drinking Water Fund.

(a) The Emergency Drinking Water Fund is established within the Department.

- (b) The Fund may be used to pay for notification, to the extent practicable, of persons aged 18 and older who reside in any dwelling unit, and the senior official in charge of any business, at which drinking water is supplied from a private drinking water well that is located within 1,500 feet of, and at risk from, known groundwater contamination. The senior official in charge of the business shall take reasonable measures to notify all employees of the business of the groundwater contamination, including posting a notice of the contamination in a form and at a location that is readily accessible to the employees of the business. The funds may also be used to cover the costs of testing private drinking water wells for contamination and for the provision of alternative drinking water supplies to persons whose drinking water well is contaminated.
- and on the risk to public health posed by groundwater contamination and shall give priority to the provision of services under this section to instances when an alternative source of funds is not available. The funds shall not be used for remediation of groundwater contamination. Nothing in this section expands, contracts, or modifies the obligation of responsible parties under Article 9 or 10 of Chapter 130A of the General Statutes, this Article, or Article 21A of this Chapter to assess contamination, identify receptors, or remediate groundwater or soil contamination.

(d) The Department shall establish criteria by which the Department is to evaluate applications and disburse funds from this Fund and may adopt any rules

necessary to implement this section.'

SECTION 5.3. If Senate Bill 1862, 2005 Regular Session, becomes law, then Senate Bill 1862, 2005 Regular Session is amended by adding a new section to read:



SECTION 11.1. G.S. 143-64.05(a) reads as rewritten:

"(a) The State agency for surplus property may assess and collect a service charge for the acquisition, receipt, warehousing, distribution, or transfer of any State surplus property and for the transfer or sale of recyclable material. The service charge authorized by this subsection does not apply to the transfer or sale of timber on land owned by the Wildlife Resources Commission. Commission or the Department of Agriculture and Consumer Services."

STUDY STRUCTURE AND MANAGEMENT PRACTICES OF AGRICULTURAL RESEARCH STATIONS AND RESEARCH FARMS

SECTION 11.4.(a) The Performance Evaluation Division of the General Assembly shall study the structure and management practices of the 18 agricultural research stations and research farms currently owned either by North Carolina State University or the Department of Agriculture and Consumer Services and currently managed by the Department of Agriculture and Consumer Services. This study shall consider ways to achieve efficiency savings and whether it is desirable and feasible to consolidate or transfer to another State department these research stations and research farms.

SECTION 11.4.(b) No later than May 1, 2008, the Performance Evaluation Division of the General Assembly shall prepare a report of the findings and recommendations of the study and submit this report to the House of Representatives and Senate Appropriations Subcommittees on Natural and Economic Resources and the Fiscal Research Division.

PART XII. DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

COMMERCIAL AND NONCOMMERCIAL LEAKING PETROLEUM UNDERGROUND STORAGE TANK PROGRAM ADMINISTRATIVE COSTS

SECTION 12.1.(a) G.S. 143-215.94B is amended by adding a new

subsection to read:

"(g) The Commercial Fund may be used to support the administrative functions of the program for underground storage tanks under this Part and Part 2B of this Article up to the amounts allowed by law, which amounts may be changed from time to time. In the case of a legislated increase or decrease in salaries and benefits, the administrative allowance existing at the time of the increase or decrease shall be correspondingly increased or decreased an amount equal to the legislated increase or decrease in salaries and benefits."

SECTION 12.1.(b) G.S. 143-215.94D is amended by adding a new

subsection to read:

"(g) The Noncommercial Fund may be used to support the administrative functions of the program for underground storage tanks under this Part and Part 2B of this Article up to the amounts allowed by law, which amounts may be changed from time to time. In the case of a legislated increase or decrease in salaries and benefits, the administrative allowance existing at the time of the increase or decrease shall be correspondingly increased or decreased an amount equal to the legislated increase or decrease in salaries and benefits."

BERNARD ALLEN MEMORIAL EMERGENCY DRINKING WATER FUND

SECTION 12.2.(a) G.S. 87-98 reads as rewritten: "§ 87-98. Bernard Allen Memorial Emergency Drinking Water Fund.

(a) The <u>Bernard Allen Memorial Emergency Drinking Water Fund is established</u> within <u>under the control and direction of the Department.</u> The Fund shall be a nonreverting, interest-bearing fund consisting of monies appropriated by the General

Assembly or made available to the Fund from any other source and investment interest

credited to the Fund.

(b) The Fund may be used to pay for notification, to the extent practicable, of persons aged 18 and older who reside in any dwelling unit, and the senior official in charge of any business, at which drinking water is supplied from a private drinking water well or improved spring that is located within 1,500 feet of, and at risk from, known groundwater contamination. The senior official in charge of the business shall take reasonable measures to notify all employees of the business of the groundwater contamination, including posting a notice of the contamination in a form and at a location that is readily accessible to the employees of the business. The funds Fund may also be used by the Department to cover pay the costs of testing of private drinking water wells and improved springs for suspected contamination up to once every three years upon request by a person who uses the well for contamination and for the temporary or permanent provision of alternative drinking water supplies to persons whose drinking water well or improved spring is contaminated. Under this subsection, an alternative drinking water supply includes the repair or replacement of a

contaminated well or the connection to a public water supply.

The Department shall disburse monies from the Fund based on financial need and on the risk to public health posed by groundwater contamination and shall give priority to the provision of services under this section to instances when an alternative source of funds is not available. The funds-Fund shall not be used for remediation of groundwater contamination. Nothing in this section expands, contracts, or modifies the obligation of responsible parties under Article 9 or 10 of Chapter 130A of the General Statutes, this Article, or Article 21A of this Chapter to assess contamination, identify receptors, or remediate groundwater or soil contamination. The Fund shall not be used to provide alternative water supply to households with incomes greater than three hundred percent (300%) of the current federal poverty level. The Fund shall not be used to provide alternative drinking water supplies unless the concentration of one or more contaminants in the private drinking water well or improved spring exceeds the Maximum Contaminant Level, or the federal drinking water action level as defined in 40 Code of Federal Regulations § 141.1 through § 141.571 (1 July 2006) and 40 Code of Federal Regulations § 143.3 (1 July 2006). The Fund shall not be used to provide temporary water supplies in any calendar quarter until all needs for permanent replacement water supplies that have been identified in that calendar quarter have been met through hookups to public water supplies, repair, or replacement of contaminated wells. In disbursing monies from the Fund, preference shall be given to providing permanent replacement water supplies by connection to public water supplies and repair or replacement of contaminated wells over the provision of temporary water supplies.

(d) The Department shall establish criteria by which the Department is to evaluate applications and disburse funds—monies from this Fund and may adopt any

rules necessary to implement this section.

(e) The Department, in consultation with the Commission for Health Services and local health departments, shall report no later than 1 October of each year to the Environmental Review Commission, the House of Representatives and Senate Appropriations Subcommittees on Natural and Economic Resources, and the Fiscal Research Division of the General Assembly on the implementation of this section. The report shall include the purpose and amount of all expenditures from the Fund during the prior fiscal year, a discussion of the benefits and deficiencies realized as a result of the section, and may also include recommendations for any legislative action."

SECTION 12.2.(b) The first report required by G.S. 87-98(e), as enacted by

subsection (a) of this section, shall be submitted on or before 1 October 2008.

FUNDS FOR PENDING CIVIL LITIGATION EXPENSES

SECTION 12.2A. Notwithstanding G.S. 143-215.3A, of the funds available in the Water and Air Quality Account for the costs of administering the air quality

PART XI. DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

STUDY CERTAIN DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES FEES

SECTION 11.1.(a) The Department of Agriculture and Consumer Services, in consultation with the Office of State Budget and Management and the Fiscal Research Division, shall study the following:

(1) The feasibility and advisability of increasing the fees imposed by either the Board of Agriculture or the Department regarding services provided by the Rollins Laboratory System.

The feasibility and advisability of establishing fees for soil testing services provided by the Agronomics Division of the Department.

The feasibility and advisability of using alternative sources of funding for the "Agricultural Review", an agriculture newsletter published by the Department, including charging fees for advertisements or classified advertisements and soliciting private sponsors for the newsletter.

SECTION 11.1.(b) In the course of the study under subsection (a) of this section, the Department may consider other fees imposed by either the Board of Agriculture or the Department, the administrative costs associated with these fees, and current usage rates for various services provided by the Department.

SECTION 11.1.(c) No later than March 1, 2009, the Department of Agriculture and Consumer Services shall report the results of the study under this section, including any recommendations or legislative proposals, to the Chairs of the House of Representatives and Senate Appropriations Subcommittees on Natural and Economic Resources.

PART XII. DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

BERNARD ALLEN MEMORIAL EMERGENCY DRINKING WATER FUND AMENDMENTS.

SECTION 12.1. G.S. 87-98 reads as rewritten:

"§ 87-98. Bernard Allen Memorial Emergency Drinking Water Fund.

(a) The Bernard Allen Memorial Emergency Drinking Water Fund is established under the control and direction of the Department. The Fund shall be a nonreverting, interest-bearing fund consisting of monies appropriated by the General Assembly or made available to the Fund from any other source and investment interest credited to the Fund.

(b) The Fund may be used to pay for notification, to the extent practicable, of persons aged 18 and older who reside in any dwelling unit, and the senior official in charge of any business, at which drinking water is supplied from a private drinking water well or improved spring that is located within 1,500 feet of, and at risk from, known groundwater contamination. The senior official in charge of the business shall take reasonable measures to notify all employees of the business of the groundwater contamination, including posting a notice of the contamination in a form and at a location that is readily accessible to the employees of the business. The Fund may also be used by the Department to pay the costs of testing of private drinking water wells and improved springs for suspected contamination up to once every three years upon request by a person who uses the well and for the temporary or permanent provision of alternative drinking water supplies to persons whose drinking water well or improved spring is contaminated. Under this subsection, an alternative drinking water supply includes the repair or replacement of a contaminated well or the connection to a public water supply.

- The Department shall disburse monies from the Fund based on financial need and on the risk to public health posed by groundwater contamination and shall give priority to the provision of services under this section to instances when an alternative source of funds is not available. The Fund shall not be used for remediation of groundwater contamination. Nothing in this section expands, contracts, or modifies the obligation of responsible parties under Article 9 or 10 of Chapter 130A of the General Statutes, this Article, or Article 21A of this Chapter to assess contamination, identify receptors, or remediate groundwater or soil contamination. The Fund shall not be used to provide alternative water supply to households with incomes greater than three hundred percent (300%) of the current federal poverty level. The Fund shall not may be used to provide alternative drinking water supplies unless if the Department determines that the concentration of one or more contaminants in the private drinking water well or improved spring exceeds the <u>federal Maximum Contaminant Levelmaximum contaminant level</u>, or the federal drinking water action level as defined in 40 Code of Federal Regulations § 141.1 through § 141.571 (1 July 2006)2007) and 40 Code of Federal Regulations § 143.3 (1 July 2006). 2007). For a contaminant for which a federal maximum contaminant level or drinking water action level has not been established, the State groundwater standard established by the Environmental Management Commission for the concentration of that contaminant shall be used to determine whether the Fund may be used to provide alternative drinking water supplies. The Fund may also be used to provide alternative drinking water supplies as provided in this section if the Department determines that the concentration of one or more contaminants in a private drinking water well is increasing over time and that there is a significant risk that the concentration of a contaminant will exceed the federal maximum contaminant level or drinking water action level, or the State groundwater standard. A determination of the concentration of a contaminant shall be based on a sample of water collected from the private drinking water well within the past 12 months. The Fund shall not be used to provide temporary water supplies in any calendar quarter until all needs for permanent replacement water supplies that have been identified in that calendar quarter have been met through hookups to public water supplies, repair, or replacement of contaminated
- (c1) In disbursing monies from the Fund, preference shall be given to providing the Department shall give preference to provision of permanent replacement water supplies by connection to public water supplies and repair or replacement of contaminated wells over the provision of temporary water supplies. In providing alternative drinking water supplies, the Department shall give preference to connection to a public water supply system or to construction of a new private drinking water well over the use of a filtration system if the Department determines that the costs of periodic required maintenance of the filtration system would be cost-prohibitive for users of the alternative drinking water supply.

(c2) If the Department provides an alternative drinking water supply by extension of a waterline, the Department may disburse from the Fund no more than ten thousand dollars (\$10,000) per household or other service connection. No more than one-third of the total cost of the project may be paid from the Fund. The Department may combine monies from the Fund with monies from other sources in order to pay the total cost of

the project.

(c3) The Fund shall be used to provide alternative drinking water supplies only if the Department determines that the person or persons who are responsible for the contamination of the private drinking water well is or are not financially viable or cannot be identified or located and if the Department determines that one of the following applies:

The contamination of the private drinking water well is naturally

occurring.

(2)The owner of the property on which the private drinking water well is located did not cause or contribute to the contamination or control the

source of the contamination.

The source of the contamination is the application or disposal of a (3) hazardous substance or pesticide that occurred without the consent of the owner of the property on which the private drinking water well is located.

The Department may use up to one hundred thousand dollars (\$100,000) of the monies in the Fund to pay the personnel and other direct costs associated with the implementation of this section.

The Fund shall not be used for remediation of groundwater contamination.

(c6) Nothing in this section expands, contracts, or modifies the obligation of responsible parties under Article 9 or 10 of Chapter 130A of the General Statutes, this Article, or Article 21A of this Chapter to assess contamination, identify receptors, or remediate groundwater or soil contamination.

The Department shall establish criteria by which the Department is to evaluate applications and disburse monies from this Fund and may adopt any rules

necessary to implement this section.

The Department, in consultation with the Commission for Public Health and local health departments, shall report no later than 1 October of each year to the Environmental Review Commission, the House of Representatives and Senate Appropriations Subcommittees on Natural and Economic Resources, and the Fiscal Research Division of the General Assembly on the implementation of this section. The report shall include the purpose and amount of all expenditures from the Fund during the prior fiscal year, a discussion of the benefits and deficiencies realized as a result of the section, and may also include recommendations for any legislative action."

INACTIVE HAZARDOUS WASTE SITES REPORT REQUIREMENT

SECTION 12.1A.(a) G.S. 130A-310.2 reads as rewritten: "§ 130A-310.2. Inactive Hazardous Waste Sites Priority List.

No later than six months after July 1, 1987, the Commission shall develop a system for the prioritization of inactive hazardous substance or waste disposal sites based on the extent to which such sites endanger the public health and the environment. The Secretary shall apply the prioritization system to the inventory of sites to create and maintain an Inactive Hazardous Waste Site Priority List, which shall rank all inactive hazardous substance or waste disposal sites in decreasing order of danger. This list shall identify the location of each site and the type and amount of hazardous substances or waste known or believed to be located on the site. The first such list shall be published within two years after July 1, 1987, with subsequent lists to be published at intervals of not more than two years thereafter. The Secretary shall notify owners, operators, and responsible parties of sites listed on the Inactive Hazardous Waste Sites Priority List of their ranking on the list. The Inactive Hazardous Sites Priority List shall be used by the Department in determining budget requests and in allocating any State appropriation which may be made for remedial action, but shall not be used so as to impede any other action by the Department, or any remedial or other action for which funds are available.

No later than January 1 of each year, the Department shall report to each member of the General Assembly who has an inactive hazardous substance or waste disposal site in the member's district. This report shall include the location of each inactive hazardous substance or waste disposal site in the member's district, the type and amount of hazardous substances or waste known or believed to be located on each of these sites, the last action taken at each of these sites, and the date of that last action.'

SECTION 12.1A.(b) The initial report under G.S. 130A-310.2(b), as amended by this section, shall be due no later than January 1, 2009.

AGRICULTURAL DROUGHT RESPONSE COST SHARE PROGRAM

APPENDIX II

Copy of 2008 DENR Memorandum Recommending Amendments



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

MEMORANDUM

TO:

Representative Pricey Harrison

FROM:

Robin Smith

Assistant Secretary for Environment

RE:

Bernard Allen Emergency Drinking Water Fund

DATE:

May 13, 2008

The Emergency Drinking Water Fund that you were instrumental in creating has filled an important gap in the State's response to contaminated drinking water wells. In the first two years of implementation, DENR has used the Fund to pay part of the cost of extending water lines to two communities with contaminated wells. DENR has also conducted groundwater testing around four sites in four counties. One of those sites involves pesticide contamination affecting at least forty homes; additional testing will likely be necessary to fully determine the extent of the contamination. The Fund is paying for a temporary water supply to the affected households, until a permanent source of safe drinking water can be provided. In the process, DENR has encountered some unanticipated issues and questions about legislative intent. I want to take this opportunity to identify the questions and concerns that have arisen in the early implementation of the Fund and suggest amendments that could resolve those questions.

Background

The Emergency Drinking Water Fund was created by the General Assembly in 2006 to: 1) provide notice to persons whose wells are at risk from groundwater contamination; 2) pay the costs of testing private wells for contamination; and 3) provide clean drinking water to people with contaminated wells. Assistance from the Fund is available only to households with incomes less than 3 times the poverty level and well contamination that exceeds federal drinking water standards. The law governing the Fund also states a preference for funding permanent, rather than temporary, water supplies. The Fund received \$300,000 in appropriations in 2006 and an additional \$615,000 in 2007.

1601 Mail Service Center, Raleigh, North Carolina 27699-1601

Phone: 919-733-4984 \ FAX: 919-715-3060 \ Internet: www.enr.state.nc.us/ENR/



Recommendations

I. Means Testing as an Eligibility Criteria

The law requires DENR to apply a means test (less that 300% of the poverty level) as one criteria for assistance from the Fund. Applying the means test to individual households can lead to problematic results. A minimal difference in income may make one household eligible for assistance with a clean water supply while their neighbors – affected by the same contamination, but having an income level just above the income threshold -- are forced to pay the full costs of an alternative water supply. In those cases, the small difference in income does not represent a true difference in ability to pay the high costs of bottled water or connection to a new water line.

Recommendation 1: The statute should move away from application of the means test on a household by household basis and instead determine eligibility based on an economic indicator for the community or neighborhood that allows more flexibility. One approach could be to use census data at the block group level.

The law should also clarify how the means test applies to rental properties. Applying the means test to the renter (or based on census block information on residents' income levels) could make landlords eligible for assistance from the Fund even if the landlord has the financial resources to address the problem. In landlord/tenant situations, DENR has applied the means test to the landlord for purposes of determining eligibility for assistance with connection to a water line since those improvements ultimately benefit the property owner. For purposes of providing bottled water as a temporary measure until a permanent source of safe drinking water can be provided, DENR has applied the means test to the tenant.

Recommendation 2: The law should clarify how the income eligibility standard (whether applied to individual households or to census blocks) applies when the affected well serves a rental property.

II. Contamination Level

The current law states that "(t)he Fund shall not be used to provide alternative drinking water supplies unless the concentration of one or more contaminants ... exceeds the Maximum Contaminant Level." DENR found that some sites with well contamination had not been recently sampled. Since conditions can change over time, the level of contamination should be established based on recent well testing data. Otherwise, use of the Fund could be based on old data that no longer reflects actual conditions on the site.

Recommendation 3: DENR recommends that eligibility for assistance from the Fund be conditioned on at least one well sample showing an exceedance of MCLs within the last 12 months.

The law needs to be more specific about the contamination standard used to establish eligibility for assistance from the Fund. DENR has assumed that the reference to Maximum Contaminant Levels means the MCLs established in federal rules under the

Safe Drinking Water Act. There are some contaminants for which there is no federal MCL; in those cases, the practice of both DENR and the Department of Health and Human Services has been to rely on the State's groundwater standard.

Recommendation 4: The law should reference the federal MCL and North Carolina groundwater standards. When an MCL does not exist for a specific contaminant, the default threshold should be the North Carolina groundwater standard for that contaminant.

DENR sometimes finds a number of contaminated wells with varying levels of contamination (some above MCLs and others below) in the same vicinity and affected by the same source of contamination. If the contaminant plume is not controlled, the level of contamination in wells below MCLs may continue to increase. Under the current law, DENR cannot provide assistance to those households until the contamination actually exceeds the MCL. Addressing all of the wells at risk would be more protective of public health and potentially more cost effective.

Recommendation 5: Allow flexibility to use the Fund to assist low income well users whose wells show contamination below MCLs if DENR determines that there is a significant risk that contamination levels in those wells will continue to increase as groundwater contamination migrates.

III. Cause of Contamination

DENR has encountered contaminated wells that exceed the MCL for nitrates solely as a result of improper well construction. DENR does not believe the Fund was intended to address improper well construction, inappropriate siting of a septic system or acts within the control of the current property owner, but the existing language does not clearly exclude those situations.

Recommendation 6: DENR recommends that the Fund be available only for: well contamination caused by naturally occurring contaminants; the release of contaminants from a source that was not under the control of the property owner when the release occurred; or application or disposal of pesticides or other hazardous substances by another person without the current property owner's consent. Assistance should also be limited to cases where there is no financially viable responsible party.

IV. Preference for Permanent Solutions

The law now expresses a preference for permanent solutions over providing temporary water supplies, but bottled water is often a necessary stop-gap measure until a permanent source of safe drinking water can be provided.

Recommendation 7: DENR recommends that the General Assembly recognize the need for emergency temporary water supplies as one of the primary functions of the Fund. This would require repeal of existing language that prohibits use of the Fund for temporary water supplies until all permanent water supply needs have been met.

V. Funding Decisions

Sometimes a choice must be made between use of a water filtration systems versus providing a new water supply (either installation of a new well or connection to a water line). Water filtration systems require regular maintenance, which can cost hundreds of dollars on an annual basis. Although the cost of installing a filtration system will be significantly lower than the cost of extending a water line, the filtration system requires a long-term maintenance commitment that may be beyond the means of the low income citizens the Fund is intended to help. If the filtration system is not maintained, it will fail.

Recommendation 8: Priority should be given to new well construction or connection to a water line over use of filtration systems if the ongoing maintenance cost of the filtration system is beyond the homeowner's means.

In some cases, extension of a water line is the best long-term solution, but the high cost has been a point of controversy. Some interest groups have taken the position that the Bernard Allen Fund should not be used for water line extensions because of the high cost. In their view, the Fund should be focused on groundwater testing, notice to homeowners of contamination and perhaps providing filtration systems or bottled water for a period of time.

Given limited resources to address competing water and sewer infrastructure needs, many local governments are understandably reluctant to give high priority to a water line that will serve only a few homes with contaminated wells. There is no legal obligation for local government to provide a water supply to a private well owner with well contamination. Bottled water is not a permanent solution and filtration systems may be impractical because of on-going maintenance needs. DENR believes that the Bernard Allen Fund has played an important role in getting clean water to low income neighborhoods by providing a source of grant funds to offset some local government infrastructure costs. (The N.C. Rural Center has been another source of funding for water line extensions, but many local governments are not eligible for Rural Center grants.) In cases where DENR has used the Bernard Allen Fund for a water line project, the Fund has covered no more than one-third the total project cost.

DENR suggests two possible alternatives:

Recommendation 9A: Put limits on use of the Fund for water line extensions. The law could limit use of the Fund to 1/3 of the total project costs. The General Assembly could also impose a per project cap, a similar fund in California caps the grant for an individual project at \$250,000. (For those projects where the Fund is used to supplement other state and local funding sources, the law should also recognize that not all residents served by the project need to be individually eligible under the Fund criteria).

Or

Recommendation 9B: Use the Fund only to pay the homeowner's costs. Limit use of the Fund to paying the cost of connecting individual homes to a new water line (the street to

home connection) and the cost of properly closing the contaminated well. Prohibit use of the Fund to pay any of the cost of extending a water line into the neighborhood.

VI. Staffing

Implementation of the Bernard Allen Fund requires coordination among several different DENR programs. Providing assistance involves identification of sites; notice to and communication with residents; coordination with local health departments and other agencies; verification of income to determine eligibility; prioritizing funding decisions; and establishing and administering contracts (for well testing, delivery of bottled water and infrastructure). The current law does not allow use of any part of the Fund for administrative purposes and no other resources have been provided for implementation.

Recommendation 10: If the General Assembly continues to fund the program, a portion of the Fund should be allocated for the cost of implementation, including a position to coordinate assistance activities.

Conclusion

Thank you for your consideration of these recommendations. DENR believes that it is important for the Bernard Allen Emergency Drinking Water Fund to continue as a resource for low income people who have contaminated wells. We hope to have the opportunity to talk with you about the future of the Fund.

cc: Speaker Joe Hackney
President Pro Tem Marc Basnight
George Givens
Jane Preyer

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NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES CUSTOMER SERVICE CENTER EXPRESS PERMIT REVIEW AND ONE STOP PERMIT ASSISTANCE AND COORDINATION APRIL 2008

This report fulfills the requirements of § 143B-279.12(e) and § 143B-279.13(c) to provide information on environmental permit processing times and report on the progress of the Express Permit Review Program. A breakdown of processing times for FY 2006-07 is provided on the attached charts for Air Quality permits, Coastal Area Management Act major permits, State Stormwater permits, Erosion and Sedimentation Control Plans, Water Quality Wetland 401 Certifications, Water Quality Land Application Non-Discharge Permits and Public Water Supply Plans. It also provides an update on the Express Permit Review Program.

The number of permits issued through the regular review process for these programs is similar to previous years. However there has been a 15 percent growth in the express programs, which reflects its continued popularity. More than 13,700 permits were issued in the seven programs tracked in FY 2006-07. Eighty-four percent of those issued under regular review and 99 percent under express review were issued in less than 90 days. Of the 1,181 express permits issued that year, 82 percent were issued in 30 days or less. The express processing time generally takes 20 to 50 percent of the time of the regular permit review. (See attached chart)

The most complex permits, such as Title V Air Quality permits, consistently require longer review time and sometimes more than 90 days. These are the permits required for major air emission sources. New requirements, industry specific control equipment and review by US EPA are reasons for the longer processing times. All of the 965 air quality permits for small or minor sources were issued in less than 90 days.

Coastal Area Management (CAMA) Act major permits also take more review time-statutorily they can take up to 150 days. The fragile coastal environment, review by a large number of state and federal agencies, and design challenges to ensure environmentally effective projects require a longer review time. The average processing time for major CAMA permits reviewed under the express process was 35 days. The most complex projects are not usually taken into the express program because the target processing time is 30 days.

The most significant increase in processing time between FY 2005-06 and FY 2006-07 was in the Water Quality State Stormwater Program. Last year 83 percent of the state stormwater permits in the regular program were issued within 90 days, compared with 73 percent this year. Under the express state stormwater program 98 percent were issued within 90 days, but only 68 percent were issued within the 30-day target processing time of the express program. An analysis to identify the causes for the delays showed that in the Wilmington Region, the number of applications almost doubled for several months, and experienced staff was not hired quick enough to meet the demand. Incomplete applications, wait time for additional information and inadequate tracking and quality control measures contributed to unacceptable review delays, especially in the express stormwater program. In the Washington Regional Office 30 percent of the applications required at least one additional information submittal, adding an average of 30 days to the processing time. In the Wilmington Regional Office, about 60 percent of the applications required more information and additional review time which added about 28 days to the processing times. Staff turnover in the regular program, new rules and incomplete initial applications in both programs were key factors for delays.

Additional reviewers were added to the express program. Other procedural improvements included: a workload analysis, earlier tracking of submittals to better predict and meet demands and

instituting a number of measures to improve the quality of applications. The changes were made with input from applicants, engineers and DENR staff. We now have more timely reviews and goals are currently being met. New tracking and reporting will allow continued monitoring of this progress.

Based on this data and other permit improvement discussions, the lack of complete well-documented applications is the single biggest factor in a protracted review process. Permit programs were asked for information on the number of applications requiring additional information and the amount of time it added to the review process. While not all programs have been collecting this information, each one stated that a large percentage of applications had to be sent back or put on hold because there was insufficient design or technical documentation to make a permit decision.

Nearly one-half of the express sedimentation and erosion control plans required additional information. Air Quality estimated that more than 20 percent of the small permits and 27 percent of synthetic minor air permits did not provide sufficient application documentation. The delay awaiting this information and additional review necessary added an average 13 to 20 days to the processing time. Information presented earlier shows that time waiting and subsequent reviews added almost a month to the state stormwater application processing time.

It is extremely important to improve the overall quality of initial permit applications. In the express program, additional fees are being charged for re-submittal, as allowed by the statute. In the Wilmington region, the express staff invites consultants to meet with permitting staff, ask questions and discuss frequent mistakes in a monthly open-discussion forum. The Water Quality staff has scheduled a number of training sessions for staff, local governments and consultants on how to meet the state stormwater requirements. The Division of Air Quality has posted on its website tips on improving the quality of its Title V applications.

Hiring and retaining experienced permit reviewers continues to be an obstacle to meeting permit processing goals and deadlines. Growth and new development in the state continue to put pressure on the environment and environmental permitting. Coastal, land application and state stormwater permits require increasingly complex designs which often must be re-designed to meet environmental requirements.

The One-Stop Permit Assistance and Coordination program provides permit information and develops guidance materials for small businesses and non-express clients. Its staff also facilitates express review. Throughout the state, coordinators help businesses identify environmental permits that may be needed for proposed projects and work with program staff to see that all requirements are clearly communicated early in the planning process. Nearly 200 permit lists were generated for companies looking to start or expand a business in North Carolina in FY 2006-07 and about 50 face-to-face meetings were held to provide site-specific guidance. Examples of companies that benefitted from this customized assistance included alternative energy businesses (bio-diesel, ethanol and wind-power prospective companies), a Business Park and distribution center, wineries, and manufacturing and recycling businesses.

The department will seek ways to improve the permitting process and increase public awareness of environmental requirements as growth impacts the state's natural resources. Expanding permit guidance materials, holding additional permit training programs, and providing more timely information on new rules or application requirements are planned for the coming year. Our goal is to expand express review to other permit programs.

Note # 1: Processing times do not include days spent waiting for additional information or "add info".

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Land Resources LQS	Environmental Health		Ex	Express Permitting (Targets for Review Under Express)	for Review Under .	Express)	
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0	93	0	. 0	11	0	3	0
n/a	159	N/A	N/A	130	N/A	132	N/A
	Each review of a specific project restarts the 30-day			Incomplete applications and staffing vacancies contribute to longer processing times.		Rules changes & new requirements under 15A NCAC 2T went into effect in 2006 and caused changes to permitting processes that the consulting community & staff needed to adjust to.	
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□Regular Express Determinations Stream Non-Discharge **Erosion Control** Fiscal Year 2006-07 Stormwater Wetlands 200 250 □ Dауs

Express / Regular Comparison of Processing Times

(Average in Days)

QUARTERLY REPORT

TO THE

ENVIRONMENTAL REVIEW COMMISSION

ON

ENVIRONMENTAL MANAGEMENT COMMISSION ACTIVITIES

October 2008

QUARTERLY REPORT TO ERC IN ACCORDANCE WITH § 143B-282(b)

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 - iv. AIR QUALITY COMMITTEE
 - v. STEERING COMMITTEE
 - vi. NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) COMMITTEE
 - vii. RENEWABLE ENERGY COMMITTEE
- III. SUMMARIES OF ENVIRONMENTAL MANAGEMENT COMMISSION (EMC) ACTIONS

I. SESSION LAW 2005-190 REPORTING REQUIREMENTS

Section 2. (b) of Session Law 2005-190

Based upon Section 2. (b) of Session Law 2005-190, the Environmental Management Commission continues to assess and identify nutrient control strategies and criteria necessary to prevent excess nutrient loading in each drinking water supply reservoir. In compliance with the goals of the Section, the Division of Water Quality (DWQ) received US EPA approval of a plan of action evaluating the current surface water quality standards to determine if adequate nutrient criteria controls are in place to prevent nutrient impairments in North Carolina lakes. Approval to continue with development of additional or revised lake nutrient criteria was granted by the US EPA on June 27, 2006.

Monitoring data collected from 2005 – 2007 in Falls Lake and the Falls Lake watershed are being used to calibrate and validate the lake nutrient response model as well as the watershed loading model. At present, the watershed-loading model has been calibrated for flow and temperature. Calibrations of total suspended solids (TSS) and nutrients are underway. The lake nutrient response model calibration results are being analyzed for 2005-2006. Model validation using 2007 data will follow.

Although Session Law 2006-259 technically corrected the target date for the EMC to develop a nutrient management strategy for the Falls Lake Reservoir from July 1, 2008 to July 1, 2009, the target date for the EMC to adopt the rules to implement the nutrient management strategy by the same date (July 1, 2009) does not allow for rulemaking procedure in accordance with the Administrative Procedures Act, General Statutes 150B.

In August 2008 DWQ along with the Upper Neuse River Basin Association kicked off the stakeholder process as part of the rule making process to develop a nutrient management strategy for Falls Lake. This process provides a diverse group of stakeholders representing a wide range of interests the opportunity to work with the DWQ in developing the nutrient management strategy for Falls Lake and its watershed. This collaboration will allow stakeholders and DWQ staff the opportunity to exchange ideas on how to best develop and implement a successful nutrient management strategy to achieve the necessary nutrient reductions for Falls Lake while addressing specific questions and concerns from individual stakeholders. The first stakeholder meeting was held on August 21, 2008 with the stakeholder process running through October 2009. The next stakeholder meeting is scheduled for October 16, 2008.

The next scheduled Falls Reservoir Technical Advisory meeting is scheduled for November 20, 2008, 1:00 pm at the TJCOG facility. The watershed-loading model results will be presented at this meeting.

Section 4 of Session Law 2005-190 (amended by SL 2006-259)

Section 4 of Session Law 2005-190 and amendments in Session Law 2006-259 require the EMC to report its progress in developing and implementing nutrient management strategies for drinking water supply reservoirs meeting certain criteria to the ERC by April 1 of each year beginning April 1, 2006. B. Everett Jordan Reservoir in the upper Cape Fear River Basin is currently the only water body in the state that fits these criteria. The following is an update on progress of the Jordan nutrient strategy.

In January 2006, the EMC postponed proceeding to public comment with draft rules for Jordan Reservoir and directed staff to address outstanding stakeholder issues. Over the course of 2006, staff conducted over thirty structured, largely technical stakeholder meetings, resulting in revisions to most of the rules and a draft fiscal note summarizing estimated costs of the rules to affected parties.

In March 2007, the EMC approved a formal public comment period for the draft rules. The public comment period ran from June 15 – September 15, 2007 and included three public hearings held in Carrboro and Elon. The five hearing officers, all EMC members, deliberated rule revisions based on the comments received for 8 months following the comment period.

In May 2008, the EMC adopted the rules pursuant to the Hearing Officers' unanimous recommendation. The EMC also passed a **resolution** requesting the General Assembly to provide funding support for implementation of the rules. The rules were taken to the June meeting of the RRC. Given the complexity of the rules, the RRC voted to extend the review period while DWQ staff addressed technical change requests. Technically revised rules were approved by the July EMC and taken to the July RRC to receive full RRC objections. The September EMC adopted revised rules addressing the July RRC's substantive objections. The September RRC then identified minor follow-up objections to a few of the rules, but extended the review period on most of the rules including the more controversial ones. Additional objections to the latter appear likely at the RRC's next review. DWQ intends to return to the October RRC with revisions addressing the September objections. Rules approved by December would be considered by the General Assembly during its 2009 Session.

- Resolution of the North Carolina Environmental Management Commission Requesting the North Carolina General Assembly To Provide Funding Support for Implementation of Nutrient Rules for the Jordan Reservoir Watershed
- Whereas, B. Everett Jordan Reservoir was authorized by the U.S. Army Corps of Engineers for purposes of water supply, recreation, fish and wildlife conservation, water quality, and flood control; and
- Whereas, the North Carolina Environmental Management Commission has classified Jordan Reservoir and its watershed as Nutrient Sensitive Waters based on the potential for water quality problems driven by excessive nutrient inputs and nuisance algal growth; and
- Whereas, the waters of Jordan Reservoir have been found to violate state nutrient-related water quality standards, resulting in the designation of these waters as impaired, and thereby diminishing their use for water supply, recreation, fish and wildlife conservation, and water quality; and
- Whereas, the Commission is charged under state and federal mandates with achieving restoration of impaired waterbodies, and is expressly charged under the NC Clean Water Responsibility Act with setting goals for reducing nutrient inputs to nutrient-impaired waters and ensuring that point and nonpoint sources share the cleanup responsibility in a fair, reasonable, and proportionate manner relative to their nutrient inputs; and
- Whereas, in carrying out its above-referenced responsibilities, the Commission adopted rules May 8, 2008 that would provide for such restoration, that necessitate substantial new costs, and under which a majority of costs would fall to local governments; and
- Whereas, nutrient problems were anticipated prior to construction of Jordan Reservoir in 1983, but steps were not taken at that time to provide resources with which to address such problems; and
- Whereas, Jordan Reservoir has become a regional amenity, providing quality-of-life benefits to a large geographic area while providing additional benefit as a source of drinking water to communities in proximity to the reservoir; and
- Whereas, for individual affected parties the costs of the proposed rules may not be proportionally related to the benefits they receive from the reservoir.
- Therefore, it is hereby resolved that the North Carolina Environmental Management Commission requests that the Governor and the North Carolina General Assembly provide for new, recurring, non-reverting funding to assist in the implementation of nutrient rules for the Jordan Reservoir watershed. More specifically, the Commission requests:

- \$10 million recurring appropriation to assist local governments in meeting the requirements of the Existing Development Stormwater rule.
- \$1 million recurring appropriation to assist local governments with staffing and other resource needs to implement the requirements of the Riparian Buffer Protection and New Development Stormwater rules.
- □ \$100,000 recurring appropriation to the Agriculture Cost Share Program to provide additional cost-shared technical assistance positions to Soil and Water Conservation Districts to implement the requirements of the Agriculture rule.
- \$120,000 recurring appropriation to the Division of Water Quality to carry out implementation requirements of the Existing Development Stormwater rule, New Development Stormwater rule, State and Federal Stormwater rule, Riparian Buffer Protection rule, Agriculture rule and Trading rule.

This the 8th day of May, 2008

David H. Moreau Chairman, NC Environmental Management Commission

II. STANDING COMMITTEE MEETINGS

- i. WATER ALLOCATION COMMITTEE
 The WAC met in July and September 2008.
- ii. WATER QUALITY COMMITTEE
 The WQC met in July and September 2008.
- iii. GROUNDWATER COMMITTEE The GWC met in July 2008.
- iv. AIR QUALITY COMMITTEE
 The AQC met in July and September 2008.
- v. STEERING COMMITTEE
 The Steering Committee did not meet.
- vi. NPDES COMMITTEE

 The NPDES Committee did not meet.
- vii. RENEWABLE ENERGY COMMITTEE
 The REC met in July and September 2008.

Under Senate Bill 3, paragraph modified GS 143B 282A that reads, "the EMC may (1) establish a procedure for evaluating renewable energy technologies that are or are proposed to be employed as part of a renewable energy facility; (2) establish standards to ensure those renewable energy technologies do not harm the environment, natural resources, and cultural resources for public safety, welfare, or health of the state; (3) and to the extent that there is not an environmental regulatory program establish an environmental regulatory program to implement these protective standards." Therefore, the EMC has established their newest Committee, the Renewable Energy Committee (REC).

III. SUMMARIES OF ENVIRONMENTAL MANAGEMENT COMMISSION (EMC) ACTIONS

The EMC held meetings in July and September 2008.

Request to Proceed to Public Hearing to Include Greenhouse Gases in Annual Emissions Reporting

Explanation: The Environmental Management Commission (EMC) was requested to approve one or more public hearings to consider an amendment to the annual emissions reporting rule. Rule 15A NCAC 02Q .0207, Annual Emissions Reporting, is proposed for amendment to add Greenhouse Gases to the list of pollutants that shall be reported annually from Title V facilities. Other changes were made to the list to ensure that all pollutants that shall be reported annually from Title V facilities are listed in one place.

Recommendation: The Director recommended that the Commission authorize a public hearing(s) on these items and that the Chairman appoint a member(s) of the Commission to serve as hearing officer(s).

EMC Action: The EMC approved sending the draft amendments to public hearing.

Request to Proceed to Public Hearing to Address the Combustion Source Exemption in the North Carolina Air Toxics Rules

Explanation: The Environmental Management Commission (EMC) was requested to approve one or more public hearings to consider amendments to the North Carolina Air Toxics Rules to address the exemption of combustion sources. Combustion sources burning only unadulterated wood or unadulterated fossil fuels have been exempt from evaluation under the North Carolina air toxics rules pending promulgation and Division assessment of applicable combustion source Maximum Achievable Control Technology (MACT) standards to determine whether additional measures are necessary with respect to toxic air pollutant (TAP) emissions from such sources. The Division was required to assess the federal combustion source MACT standards after promulgation and report its findings to the EMC. Per the rule, the EMC is to proceed through rulemaking, if necessary, to implement additional measures. The Division has conducted a modeling study of the impact of combustion sources' toxic air pollutant emissions. Based on the results of the study, the Division recommends the rule changes described below. Rule 15A NCAC 02Q .0701, Applicability, is proposed for amendment to remove obsolete language directing DAQ to assess MACT standards for combustion sources to determine whether additional measures are necessary with respect to toxic air pollutants (TAPs) and to add language specifying a periodic assessment every five years starting in 2014. 15A NCAC 02Q .0702, Exemptions, is proposed for amendment to modify the exemption of combustion sources to exclude new and modified combustion sources permitted on or after March 1, 2009 and to remove obsolete language regarding timing of an EMC decision on whether to keep or remove the combustion source exemption. 15A NCAC 02Q .0706, Modifications, is proposed for amendment to add language clarifying that facility wide emissions of toxic air pollutants emitted by new or modified combustion sources, including common pollutant emissions from existing combustion sources, are to be included in toxics evaluations on or after March 1, 2009. 15A NCAC 02Q .0709, Demonstrations, is proposed for amendment to extend availability of the economic hardship and technical infeasibility provisions of the rule to facilities with previously

exempt combustion sources that are permitted between May 1, 1990 and the effective date of the amendment.

Recommendation: The Director recommended that the Commission authorize a public hearing(s) on these items and that the Chairman appoint a member(s) of the Commission to serve as hearing officer(s).

EMC ACTION: The EMC approved sending the draft amendments to public hearing.

Request to Proceed to Public Hearing to Address Odors from New or Modified Swine Farms.

Explanation: The Environmental Management Commission (EMC) was requested to approve one or more public hearings to consider an adoption of a rule to address odors from new or modified swine farms. Rule 15A NCAC 02D .1808, Evaluation of New or Modified Swine Farms, is proposed for adoption to address the requirements of Session Law 2007-523, s. 1(a) which includes the requirement for new or modified swine farms to "substantially eliminate the emission of odor that is detectable beyond the boundaries of the parcel or tract of land on which the swine farm is located."

Recommendation: The Director recommended that the Commission authorize a public hearing(s) on these items and that the Chairman appoint a member(s) of the Commission to serve as hearing officer(s).

EMC Action: The EMC approved sending the draft amendments to public hearing.

Request for Approval to Proceed to Public Hearing with Performance Standards Rules for New and Expanding Swine Waste Systems & GWC's Recommendation to waive the 30-day By-law

Explanation: Senate Bill 1465 made permanent the existing moratorium on new and expanding lagoon systems that serve swine farms. The Bill requires that any new or expanding swine farm meet five performance standards. The Commission was charged with the task of implementing rules to codify the five performance standards. These rules will be added to the existing 15A NCAC 02T.1300 rules.

Recommendation: That the Environmental Management Commission concur with the GWC's recommendation to waive the 30-day bylaw and that these proposed rules be approved for public notice.

EMC ACTION: The EMC waived the 30-Day Bylaw and approved sending the draft amendments to public hearing.

Request for Approval to Initiate Enforcement on City of Raleigh for Failure to Implement Watershed Protection Ordinance for Upper Neuse River/Richland Creek Water Supply Watershed

Explanation: Effective July 1, 2004, the EMC reclassified the Upper Neuse River, Richland Creek, and unnamed tributaries from Class C NSW to Class WS-IV NSW. N.C. General Statute §143-214.5 and Rule 15A NCAC 2B .0104(b) require that all local governments having land use jurisdiction within a water supply watershed adopt and implement land use ordinances that at least meet the minimum requirements of the EMC's water supply watershed protection rules. The statute requires local governments to adopt and implement the appropriate ordinances and maps within 270 days after reclassification and notification of this action. The City of Raleigh was notified of the reclassification on July 21, 2004 and was given until April 1, 2005 to comply. The city failed to meet that deadline. On August 19, 2005, the City of Raleigh submitted a request for declaratory ruling to appeal the reclassification. The EMC upheld the WS-IV reclassification at its September 14, 2006 meeting. To date, the city has failed to adopt the ordinance and zoning overlay district necessary to implement protections in the Richland Creek watershed. Pursuant to N.C. General Statute §143-214.5, the EMC or its designee must notify a local government of its program deficiencies and allow a local government a minimum of 120 days to bring its program into compliance. After 120 days, if the EMC finds that no substantial progress had been made toward compliance. the EMC may order assumption of a local program. Upon assumption of a local program, civil penalties of up to \$10,000 per month may be assessed pursuant to N.C. General Statute §143-215.6A(e).

Recommendation: Staff recommended that the EMC authorize DWQ to proceed with enforcement on the City of Raleigh by sending a notice of violation. Further, DWQ recommends that the EMC require the city to bring its program into compliance within 120 days. If compliance is not achieved within 120 days, DWQ staff will bring the matter before the EMC for consideration of civil penalties and assumption of the local program. Staff also requests that the EMC delegate authority to the Director of DWQ to send notices of violation to local governments in future enforcement actions on the water supply watershed protection rules.

EMC ACTION: The EMC approved the issuance of a Notice of Violation (NOV) to initiate the process that leads to the EMC's consideration of the City of Raleigh's progress in meeting their requirements.

Request to Proceed to Public Hearing to Amend Ambient Standards for Ozone and Particulate Matter.

Explanation: The Environmental Management Commission (EMC) was requested to approve one or more public hearings to consider amendments to the ambient standards for ozone and particulate matter. Rules 15A NCAC 02D .0405 - Ozone standards, 15A NCAC 02D .0409 - Particulate Matter (PM10) standards, and 15A NCAC 02D .0410 -

Particulate Matter (PM2.5) standards are proposed for amendment to reflect changes to the National Ambient Air Quality Standards (NAAQS) for those pollutants. The United States Environmental Protection Agency (USEPA) strengthened its NAAQS for ground-level ozone on March 12, 2008. USEPA revised the 8-hour "primary" ozone standard, designed to protect public health, to a level of 0.075 parts per million (ppm). The previous standard, set in 1997, was 0.08 ppm. Amendments to 15A NCAC 02D .0405 (Ozone) are necessary to reflect this Federal rule change. USEPA revoked the annual PM10 standard in 2006 (effective December 17, 2006) due to a lack of evidence linking health problems to long-term exposure to coarse particle pollution. In the same regulatory action, USEPA strengthened the 24-hour fine particle PM2.5 standard from the 1997 level of 65 micrograms per cubic meter (μg/m3) to 35μg/m3. Amendments to 15A NCAC 02D .0409 (PM10) and 15A NCAC 02D .0410 (PM2.5) are necessary to reflect the Federal rule changes.

Recommendation: The Director recommended that the Commission authorize a public hearing(s) on these items and that the Chairman appoint a member(s) of the Commission to serve as hearing officer(s).

EMC Action: The EMC approved sending the draft amendments to public hearing.

Request to Proceed to Public Hearing for Temporary Rules to Amend the NOx SIP Call Rules for 2009 and Beyond.

Explanation: The Environmental Management Commission (EMC) was requested to approve one or more public hearings to consider temporary rules to amend the NOx SIP Call Rules in the 15A NCAC 02D .1400 Section for the year 2009 and beyond. This action will supercede the previous actions taken by the EMC on March 13, 2008 and approved by the Rules Review Commission (RRC) on May 15, 2008 on the NOx SIP Call rules. On May 12, 2005, the United States Environmental Protection Agency (USEPA) promulgated the Clean Air Interstate Rule (CAIR). CAIR established annual and ozone season NOx emission budgets. The CAIR ozone season NOx emission budget program was to replace the Nox SIP Call ozone season program. NC's adoption of CAIR became effective on May 1, 2008. NC's repeal of the NOx SIP call rules was approved on May 15, 2008. Those repeals become effective on January 1, 2009 (the date the CAIR rules were to take over). On July 11, 2008, a three-judge panel of the U.S. Court of Appeals for the District of Columbia unanimously vacated CAIR in its entirety and remanded the rules to USEPA for revision consistent with the Court's opinion. Temporary Rules are being presented to ensure there is no gap in the NOx regulatory program in NC for NOx SIP call sources. These Temporary Rules will include unit-level ozone season NOx allocations for 2009 that are the same as the 2008 allocations. Additionally, two new facilities have been added into the allocation table. The Temporary Rules will also include modifications to ensure their validity for the year 2009 and beyond. For example, allocations for new growth of major point sources are included for the year 2009 and beyond in Rule 15A NCAC 02D .1421.

Recommendation: The Director recommended that the Commission authorize a public hearing(s) on these items and that the Chairman appoint a member(s) of the Commission to serve as hearing officer(s).

EMC Action: The EMC approved sending the temporary rules to public hearing.

Request to Proceed to Public Hearings on the Triennial Review of Groundwater Standards

Explanation: This was a request to proceed to public hearing on proposed changes to 15A NCAC 02L .0202, Classifications and Water Quality Standards Applicable to The Groundwaters of North Carolina, as a result of DWO's 2006-2008 triennial review. DWO staff reviewed all Groundwater Quality Standards and Interim Maximum Allowable Concentrations in accordance with the criteria in the EMC's Rule 15A NCAC 2L .0202 and found that revisions are needed. The last amendments to the Groundwater Ouality Standards were made effective April 1, 2005. On July 10, 2008, the EMC's Groundwater Committee approved bringing this recommendation forward to proceed to public hearings. In Section .0202(c), language is proposed to clarify the meaning of "detection" when there is no standard. In Section .0202(g), the following revisions are proposed: Change the units of measure from milligrams per liter to micrograms per liter except where otherwise noted; Standards calculated to one significant figure; Update ten chemical names to the term most commonly used by analytical laboratories and EPA databases: Incorporate seven existing IMACs as standards--benzoic acid, bis(chloroethyl)ether, dibromochloromethane, ethyl acetate, hexachlorobutadiene, 1,1,2,2-tetrachloroethane, 1,2,4-trichlorobenzene; Remove two existing IMACS due to lack of toxicity data on which to base a standard-- dibenzofuran, 2-hexanone; Remove ten current groundwater standards because EPA has withdrawn the toxicity data previously used to calculate them--n-butylbenzene, sec-butylbenzene, tert-butylbenzene, chloroethane, di-n-octyl phthalate, diundecyl phthalate, Isopropylether, n-propylbenzene, 1.2.4-trimethylbenzene, and 1,3,5-trimethylbenzene; Remove the groundwater standard for endrin because the total endrin standard is inclusive of endrin as well as its breakdown products endrin aldehyde and endrin ketone; Add a standard for formaldehyde as requested by the Aquifer Protection Section; Revise twenty-seven groundwater standards.

Recommendation: In accordance with Rule 15A NCAC 2L .0202, DWQ recommended that the groundwater standards and rule be revised as proposed. It was requested that the Environmental Management Commission approve proceeding to public notice and hearing with this recommendation.

EMC Action: The EMC approved sending the draft amendments to public hearing.

Request to Proceed to Public Notice to Reclassify a Haw River Segment as Critical Area, "CA", for Pittsboro's WS-IV Water Supply Intake

Explanation: The Town of Pittsboro ("Town") requested that a Haw River segment in Chatham County (Cape Fear River Basin) be reclassified to WS-IV CA in order to recognize an existing potable water supply intake, which is currently being used by the Town as their permanent water supply source and has yet to receive a CA designation. Because the proposed CA's waters are located within an existing WS-IV watershed, these waters meet water supply water quality standards. If reclassified, development and discharge restrictions will apply. There is one NPDES wastewater facility, the Town's Water Treatment Plant, in the proposed CA, and it will not be impacted by this proposal because it's discharge already meets water supply water quality standards. There are not any known planned dischargers and developments in the proposed CA per local government officials. Chatham County and the Town are the local governments with jurisdiction in the proposed CA, and these local governments already have modified their water supply watershed protection (WSWP) ordinances to reflect requirements that this proposal will invoke. At the July 2008 Water Quality Committee (WQC) meeting, the WQC granted staff approval to proceed to the full Environmental Management Commission with the proposed reclassification. The proposed effective date for this reclassification is July 1, 2009.

Recommendation: That the Environmental Management Commission grant staff approval to proceed to public notice with the proposed reclassification.

EMC Action: The EMC approved sending the proposed reclassification to public notice.

Request to Adopt Revised Nutrient Rules for the Jordan Reservoir with Technical Changes per RRC Staff Recommendations

Explanation: There have been a number of objections from the Rules Review Commission. Based on the DWQ staff's recommendation a modified version of the Jordan Rules that basically deals with technical changes only and not the substantive changes was submitted to EMC. Then to undertake a process to try to reach consensus with RRC's objections and come back to the EMC in September with recommendation as to substantive changes in the Jordan Rules to meet the RRC needs.

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Recommendation: That the EMC adopt these revised Rules incorporating these July 3 technical changes and then endorse the following process steps: the EMC request full review of all objections to these rules at the July 17, 2008 RRC meeting. The second is to inform the July RRC of the intent to consider objections and adopt provisions as needed at the September 10, 2008 EMC meeting and to seek a second thorough RRC review at its September meeting.

EMC Action: The EMC approved the revised proposed nutrient rules for the Jordan Reservoir.

Request to Approve Hearing Officers' Recommendations on the Jordan Nutrient Rules in Response to July RRC Objections

Explanation: The Commission adopted the Jordan nutrient rules in May 2008. At its July meeting, the Commission adopted revised rules with technical changes requested by the June RRC. The July RRC gave the rules a full review and provided objections. Division staff has since developed revisions and responses to all objections and technical change requests, and the Hearing Officers have reviewed and accepted those revisions and responses. Three attachments are provided: a listing of the most notable objections to the rules and revisions addressing those objections; the RRC's objection letter with staff replies inserted; and the full text of the revised rules.

Recommendation: That the Commission accepts the Hearing Officers' recommendation to adopt the Jordan nutrient rules as revised.

EMC Action: The EMC again approved the revised proposed nutrient rules for the Jordan Reservoir.

Request to Proceed to Public Hearing on 2T .0900 Rule Amendments for Reclaim Water Systems

Explanation: The Division of Water Quality presented draft revisions to rules related to reclaimed water systems. On September 1, 2006 Subchapter 2T of NC Administrative Code became effective. The purpose of the original 2T rulemaking effort was to make the rules easier to follow and understand, provide editorial changes, update references to the federal regulations, and to add a limited number of changes. Having completed the goals of the original 2T rulemaking effort, the Division focused energy on a more thorough review and update of the reclaimed water system rules in Section .0900. The purpose of the proposed reclaimed water rulemaking effort is to provide additional beneficial uses for reclaimed water, establish a second classification of reclaimed water, and update existing reclaimed water rules. DWQ staff received approval from the Water Quality Committee (WQC) on September 10, 2008 to proceed to the EMC for approval to go to public hearing. The WQC recommended that the 30-day rule be waived and that the item be added to the September 11, 2008 EMC agenda.

Recommendation: That the Rules for Amendments for Reclaim Water Systems be approved to proceed to public hearing and that the 30-Day Bylaw be waived.

EMC Action: The EMC waived the 30-Day Bylaw and approved sending the draft amendments to public hearing.

<<<END OF REPORT>>>

ENVIRONMENTAL MANAGEMENT **ENVIRONMENTAL REVIEW QUARTERLY REPORT** COMMISSION TO THE N O

QUARTERLY REPORT TO ERC **COMMISSION ACTIVITIES** October 2008

Miscellaneous

- Renewable Energy Committee
- Authorizing Enforcement for Failure to Implement Watershed Protection Ordinance

AIR QUALITY

- Request to Proceed to Public Hearing to Include Greenhouse Gases in Annual **Emissions Reporting**
- **Exemption in the North Carolina Air Toxics** Request to Proceed to Public Hearing to Address the Combustion Source Rules

Air Quality

- Amend Ambient Standards for Ozone and Request to Proceed to Public Hearing to Particulate Matter.
- Temporary Rules to Amend the NOx SIP Call Request to Proceed to Public Hearing for Rules for 2009 and Beyond.

Swine Farms

- Proceed to Public Hearing to Address Odors from New or Modified Swine Farms.
- Standards Rules for New and Expanding Swine Proceed to Public Hearing with Performance Waste Systems

Water Quality

- nutrient control strategies and criteria necessary **REQUIREMENTS** --- to assess and identify to prevent excess nutrient loading in each **SESSION LAW 2005-190 REPORTING** drinking water supply reservoir.
- Implementation of nutrient rules for the Resolution requesting funding for Jordan Reservoir Watershed

Water Quality

- Proceed to Public Notice to Reclassify a Haw River Segment as Critical Area, "CA", for Pittsboro's WS-IV Water Supply Intake
- Approve Hearing Officers' Recommendations on the Jordan Nutrient Rules in Response to July RRC Objections
 - Amendments for Reclaim Water Systems Public Hearing on 2T .0900 Rule

Selected Issues Addressed by Management Commission the Environmental 1993-2008

Water Quality and Groundwater

- Implementation of the Water Supply Watershed Protection Act
- Groundwater standards
- CAFO standards
- Neuse River Nutrient Sensitive Water Strategy
- Revision of Tar-Pamlico Strategy
 - Protection of wetlands
- Ecosystem restoration program
- Phase II stormwater regulations
- Coastal stormwater regulations
 - Jordan Lake Rules

September 1, 2008

A Report of the Ecosystem Enhancement Program's Response to Session Law 2007- 438 Requiring the Transition of the Nutrient Offset Program to an Actual Cost Method

Progress Report

Prepared for Environmental Review Commission

Prepared by Ecosystem Enhancement Program 2728 Capital Blvd.
Suite 1H 103 Raleigh, NC 27604

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I. Executive Summary

Session Law 2007-438 mandates that the N.C. Department of Environment and Natural Resources (DENR) is required to develop and implement a plan to transition the N.C. Ecosystem Enhancement Program Nutrient Offset Program from a fee-based program to a program based on the actual costs of providing nutrient credits. This transition is to occur no later than Sept. 1, 2009 and requires the employment of the least-cost alternative for providing nutrient-offset credits, consistent with rules adopted by the Environmental Management Commission for implementation of nutrient-management strategies in the Neuse and the Tar-Pamlico river basins. The legislation also requires DENR to "report on its progress in developing and implementing a new fee structure for the Nutrient Offset Program to the Environmental Review Commission on 1 September 2008." This report serves that purpose.

DENR agrees that it is important that fees for nutrient reductions reflect the actual costs of achieving those reductions. The Ecosystem Enhancement Program has been compiling data from market-driven contract awards that accurately reflect restoration project costs. The program has also identified objectives for an actual-cost approach and has identified issues that need to be considered in its development. Key considerations include the practicability of the method, and accounting for all aspects of restoration project costs. Based on these considerations, the following basic rate establishment method has been devised:

$$ActualCostRate = \frac{ActualCosts}{TotalPoundsOffset} + AdjustmentFactor$$

This method incorporates known and predicted costs of providing nutrient reductions (including data from negotiated consultant fees and competitive bid awards to private-sector companies) in relation to reductions achieved and accounts for situations when revenues exceed or are below expenditures. The method has additional complexities that are described in the report. With concurrence from the Environmental Review Commission (ERC), EEP will continue to refine the proposed approach and begin to engage stakeholders in discussing its viability. EEP proposes to meet with key stakeholders in advance of the program's March 2009 report to the ERC.

II. Introduction

The North Carolina Ecosystem Enhancement Program (EEP), an initiative in DENR, implements restoration projects that reduce nutrients entering the Neuse and Tar-Pamlico river basins. This program, known as the Nutrient Offset Program, is made available to developers in these river basins to help them comply with nutrient-sensitive-waters management strategies set by the Division of Water Quality (DWQ).

Since its establishment in 2001, the Nutrient Offset Program has received payments of \$17,132,430 for 1,335,467 pounds of nitrogen reduction and 1,768 pounds of phosphorus reduction. EEP has used these funds to restore 226 acres of riparian buffer and to implement five stormwater wetland best management practices (BMPs). These projects represent 564,630 pounds of nitrogen and 840 pounds of phosphorus reduction in the Neuse and Tar-Pamlico river basins combined. The gap between required reductions and provided reductions is the result of EEP suspending the acquisition of restoration projects while the legislature resolved fee issues as described below. EEP is currently actively procuring projects to achieve required reductions. Additional program statistics are included in the Appendix.

Recognizing that the original fees established for nutrient payments to the program were not sufficient to cover the costs of implementing restoration projects to achieve required reductions, DWQ conducted a rule-making process to revise the fees in 2005. Revised fees became effective in March 2006. Soon thereafter, the legislature rescinded the new fees, leaving the Nutrient Offset Program to operate under the original, insufficient fees. At the same time, the General Assembly also commissioned a study to determine what the fees for the program should be. During this period, EEP suspended procurement of restoration projects until the legislature took action to set fees at an appropriate level. As payment to EEP was the primary option available to developers for compliance with DWQ nutrient rules, the program accepted payments at belowcost levels during this period.

Using the results of the legislative study conducted by Research Triangle Institute, the legislature ratified Session Law 2007-438, which established interim nutrient reduction fees for nitrogen and phosphorus in the Neuse and Tar-Pamlico river basins. This bill was passed in August 2007. Once interim fees were set, EEP developed a strategy to procure restoration projects to provide required reductions, and began project development and initiated appropriate contracting procedures.

As required by Session Law 2007-438, DENR has developed a proposed plan to transition the EEP Nutrient Offset Program from a fee-based program to a program based on the actual costs of providing nutrient credits. This report provides an update on progress to date, presents a proposed approach to establishing actual-cost rates, describes important considerations in developing such an approach, and describes proposed next steps in this transition. An appendix provides additional detail on the Nutrient Offset Program in general.

III. Transitioning to an Actual Cost Method

A. Objectives

The development and implementation of an Actual Cost Method relies on meeting a number of program objectives in order to meet regulatory rules, statutes, and departmental goals. During the development of the method described in the next section, a number of objectives and issues were reviewed and considered. These variables are continuing to be analyzed during the development process and are discussed below.

The following objectives were identified in the development of the Actual Cost Method:

 The Actual Cost Method must incorporate real costs of generating nutrient reduction credits.

While this objective is somewhat obvious, it is the cornerstone of an effective approach and is worth noting.

• All costs associated with implementing the program and meeting regulatory requirements must be accounted for in the method.

Failure to account for all costs will result in collecting insufficient funds to meet regulatory requirements. Full-cost accounting techniques must therefore be utilized to ensure that the Actual Cost Method collects sufficient payments.

- The Actual Cost Method must be a self-sustaining financial model. The EEP Nutrient Offset Program is a receipt-based program. Currently, the Nutrient Offset Program does not receive any state or federal appropriations. All program costs are paid through applicant payments collected from the Nutrient Offset Program. Thus, the Actual Cost Method must account for all program expenditures and cash-flow demands, and income received from applicants.
- Rates must change (upwards or downwards) as actual costs change. As actual costs increase or decrease, the Actual Cost Method must result in a self- adjusting rate to ensure that only actual costs are charged to applicants. Since actual costs are dynamic, consideration was given to the frequency of the rate adjustment. The Actual Cost Method must be designed to allow regularly scheduled adjustments. Four potential scenarios were considered for making adjustments:
 - 1. Next Payment Calculate actual cost rate for each applicant when reduction credits are requested. This approach would require extensive administrative effort to calculate and would not provide any predictability for applicants on what the actual cost rate is likely to be at the time reduction credits are needed. This approach could also result in delays to payment process due the need to calculate the actual cost rate each time.
 - Quarterly Calculate actual cost rate every three months. Requires a moderate
 amount of administrative effort to calculate and provides some predictability for
 applicants. The interval is sufficiently small that if actual costs were to change
 during this interval, the subsequent adjustment during the next quarter would be
 expected to be minor.
 - 3. Annually Calculate actual cost rate every 12 months. Low administrative effort to calculate and a high degree of predictability. Small to moderate adjustments might be expected on annual basis.

4. More than One Year -- Calculate actual cost rate at intervals greater than 12 months. High degree of predictability for applicants but also could result in significant numbers of payments that were above or below actual costs and thus require significant adjustments each time actual cost rate is calculated.

• The Actual Cost Method must be applicable at either Cataloging Unit (CU), Basin, or State levels.

Nutrient-reduction rules are currently in effect in the Tar-Pamlico and Neuse river basins and have been proposed in the Upper Cape Fear basin. Nutrient requirements must be met within the eight-digit Cataloging Unit (as defined by the U.S. Geological Survey; see pg. 14 of the appendix for a map of the eight-digit Cataloging Units for the Tar-Pamlico and Neuse river basins). The proposed Cape Fear rules require mitigation for nutrients in smaller watersheds. The costs of achieving nutrient reductions will vary from watershed to watershed. Therefore, the Actual Cost Method must be applicable to watershed's size and must result in the collection of dollars equal to the actual cost of producing projects in those watersheds. Since a single flat statewide fee could result in below cost fees in high-cost watersheds, EEP supports the application of the Actual Cost Method on either the watershed or river basin level, but not at the State level.

The Actual Cost Method must be applicable to either nitrogen or phosphorus offsets.

The Neuse and Tar-Pamlico rules and the proposed Upper Cape Fear rules require mitigation offsets to both nitrogen and phosphorus. The costs associated with removing nitrogen and phosphorus differ significantly. The Actual Cost Method must account for the differing costs associated with removing these nutrients.

The Actual Cost Method must be understandable and easy to use.

EEP interacts annually with hundreds of citizens and customers, including municipalities, to assist them in meeting their regulatory requirements so that their development projects can proceed. The Nutrient Offset Program currently accepts payments for nitrogen and phosphorus in nine watersheds (with three additional watersheds proposed in the Upper Cape Fear basin). The Actual Cost Method could be used to develop rates for each watershed-nutrient combination (a multiple-rate approach) or could be used to develop a single rate. Both approaches would be based on actual costs. The Actual Cost Method must factor in the ease of communicating and administering the program without creating a difficult-to-understand program.

• The Actual Cost Method must be predictable and equitable.

Consideration was given to actual-cost process that would charge applicants based on the actual costs of the most recently initiated individual nutrient project. Since individual nutrient-reduction projects vary in cost per pound of reduction, such a process would result in unpredictable and highly variable mitigation costs for applicants. This process would also result in similar applicants being charged significantly different rates solely because of the timing or order of the request. This type of actual-cost approach would be difficult to understand and would present a perception of inequality. Thus, the Actual Cost Method must contain an element of predictability (actual cost rates stable for a specific period of time) and be equitable (applicants pay similar rates when requested at similar time periods).

• The Actual Cost Method must be in place by September 2009.

Session Law 2007-438 expires in September 2009. At that time, a new rate structure must be installed for the Nutrient Offset Program. DENR is proposing to establish the Actual Cost

Method through rulemaking, which may require an extension of the interim fees set in statute to allow time for the rulemaking process (approximately two years).

B. Actual Cost Method

The General Assembly has instructed DENR to move toward an actual-cost method when determining how much applicants must pay into the Nutrient Offset Program. The appropriate rate for charging applicants the actual costs of administering the program can be summarized in simple terms as follows:

$$ActualCostRate = \frac{ActualCosts}{TotalPoundsOffset} + AdjustmentFactor$$

In this equation, the actual costs represent the total costs associated with running and delivering the Nutrient Offset Program (this includes the cost of restoration projects and costs associated with program administration). The total pounds offset represents the total amount of pounds paid into the program that must be reduced by the program. The adjustment factor is the self adjusting portion of the equation that ensures that the actual receipts collected always equal the actual costs of implementing the program. The adjustment factor is essential to the actual cost rate as it ensures that if at any point in time the fees collected do not equal the actual costs (due to unforeseeable expenditures or savings), the future fee adjusts to bring the program back into balance. The objective is to have the exact cost of implementing the program match the payments collected by the program. When the actual costs equal the actual receipts, no adjustment will be necessary (adjustment factor equals \$0/lb). The adjustment factor can be calculated as follows:

AdjustmentFactor = (ActualCosts - ActualReceipts)/(Time * TotalPoundsPaidPerYear)

If actual costs differ from receipts, the adjustment can either be made instantly (e.g., the next payment is higher or lower number of payments). DENR proposes that when savings are achieved, the full adjustment can be implemented immediately. In cases where payments are less than actual costs, as has been the case recently, the adjustment should be made over a larger number of payments so that the overall effect on any one user of the program is minimized.

This equation fairly represents the appropriate rate to charge applicants, as it represents the actual cost-per-pound for implementing the program. Charging less would result in insufficient funds to meet required nutrient reductions. Charging more would result in excess dollars received from applicants.

The components of the Actual Cost Method to derive an actual cost rate can be further defined as follows:

$$Actual Costs = Project Costs + Administration Costs$$

<u>Project Costs</u> are the actual costs associated with implementing nutrient-offset mitigation projects to meet the regulatory nutrient reductions paid into the Nutrient Offset Program. All project costs, from land acquisition through design, construction, success monitoring, maintenance and long-term stewardship, must be included to determine actual costs. Many of these costs are captured through data from private-sector companies that are employed by EEP to design and construct restoration projects.

In order to utilize full-cost accounting, each project within the Nutrient Offset Program must be evaluated. Projects can be categorized into three classes, all of which must be considered when determining the project costs:

- 1. Complete Projects Nutrient-reduction projects that have been completed where no future expenditures are anticipated. For these projects, the complete actual cost of the project is known.
- 2. Projects in Process Planned or initiated projects intended to meet mitigation requirements include two types of projects:
 - a. Incomplete Projects Nutrient-reduction projects that are still in progress. The projects have been initiated and some costs have been incurred, but expenditures are not complete. Paid expenditures are known, but the future expenditures necessary to complete the project must be estimated. The cost to complete a current contract can be easily calculated. Future contracts necessary to complete the project must be calculated based on the actual costs of implementing similar types of contracts. The cost for future contracts must also be adjusted for inflation.
 - b. Projects Needed to Meet Remaining Requirements Includes nutrient-reduction projects that are required to be completed because of received payments, but project expenditures have not yet started. Since no contracts have been initiated, the entire project cost must be calculated using the actual costs of implementing similar types of projects after accounting for inflation.
- 3. Terminated Projects Projects not completed because of unforeseeable issues such as the discovery of hazardous wastes on site, liens discovered on the property, cultural resources identified during a project's excavation, etc. Although these projects yield reduced or no nutrient-reduction credits, they still represent actual program expenditures and must be included in the Actual Cost Method. These types of costs represent a small portion of the total program expenditures. Failure to include these costs will result in calculating rates that are insufficient to cover program costs.

Considering the project categories above, Actual Project Costs can be estimated using the following formula:

 $ProjectCosts = Cost_{CompletedProjects} + Cost_{ProjectsInProcess} + Cost_{TerminatedProjects}$

The cost of completed projects and terminated projects are known precisely. The following method describes how costs are derived for projects in process.

Actual costs for projects in process are the expenditures made, plus the cost to complete. Cost to complete is the calculated remaining costs associated with completing the mitigation projects:

 $Cost_{ProjectsInProcess} = PastExpenditures + CostToCompleteProjects$

Past expenditures are known costs of projects in process, whereas the cost to complete must be calculated. The calculation is shown below:

 $CostToCompleteProjects = Cost_{CostToCompleteExistingContracts} + Cost_{FutureContracts}$

The current cost-to-complete for the existing contracts is calculated based on the known total contract cost and past expenditures:

 $CosttoComplete_{ExistingContract} = Cost_{ExisitingContract} - Expenditures_{ExistingContract}$

The costs to complete future contracts represents the additional cost of completing the projects. Some projects may have no additional contracts necessary to complete the project, whereas others may have multiple contracts. The cost to complete remaining contracts must be based on cost of implementing that contract at the time the contract is needed. For example, if a project will go to construction in two years, the cost of construction must account for construction costs in the future and be adjusted for inflation. Historical construction costs from five years ago will not accurately reflect the cost of constructing a project two years into the future. Therefore the Actual Cost Method must use historical actual costs, but must also adjust those costs based on inflation. Changes in regulations could also change the expected contract costs (for example, if additional or less land or engineering became required). If this occurs, future contract costs would need to be adjusted based on the change in regulations as well. Nevertheless, as soon as new contract data became available for these new projects, the actual costs of these contracts should be incorporated to calculate the cost of future contracts. In this way, the Actual Cost Method self-adjusts based on actual cost data.

 $Cost_{FutureContracts} = f_{(ContractType)}Cost_{PastContracts} * InflationAdjustment$

<u>Administration Costs</u> – The actual costs associated with providing staff, equipment, space, etc. for administering the Nutrient Offset Program. Administrative costs are generally 6-10 percent for EEP's mitigation programs.

EEP proposes to utilize the Actual Cost Method described above for its future rate structure. The method itself would be established in rule with clearly described processes for its execution.

C. Issues to Consider

There are a number of issues that must be considered when developing an Actual Cost Method:

- Accounting for payments made at 'below cost' rates When the legislature rescinded revised nutrient fees and reset fees at a level that was below the actual cost of providing nutrient reductions, EEP continued to receive payments from individuals and companies in need of reduction credits for compliance with nutrient rules. In fact, the volume of payments during this period was very high. Strategies that could address the historical issue of below-cost payments include legislative appropriations to close the funding gap, and accounting for the funding gap in future fees. The proposed Actual Cost Method can accommodate both approaches utilizing the adjustment factor as described above. However, regardless of whether additional gap funding is provided to the Nutrient Offset Program to address the historical under-collection of fees, the adjustment factor is an essential component of the actual cost rate for future fees. How this is best addressed is an issue that can be discussed with stakeholders at a proposed meeting to be held before the end of this year (see next section).
- Nutrient -reduction requirements Under current state rules, the mitigation required for nutrient loading accounts for 30 years of annual nutrient exports from the development. Payment is made in advance and is intended to equal the cost of producing nutrient offsets equal to the total number of required pounds. Thus, the nutrient-reduction requirements are measured in total pounds rather than pounds per year. DWQ's expectation is that reductions

provided in the Nutrient Offset Program perform in perpetuity and consideration may be given to accounting for perpetual reductions.

- Nutrient-reduction credits The nutrient-reduction credits associated with a nutrient mitigation project are measured by the total number of pounds reduced over the lifetime of the project. Therefore, if a project reduced 10 pounds of nitrogen over 30 years, the project generates 300 nitrogen credits.
- Life cycle of a typical nutrient-reduction project The life cycle of a typical nutrient reduction project is 32-33 years. Two major types of projects are currently used to offset nutrients in North Carolina: stream riparian-buffer restoration projects and stormwater best-management practices. Typically, these projects take one year to identify and acquire the property, one year to design and plant (buffer) or two years to design and construct (stormwater BMP), five years of monitoring and then 25 years in long-term management, for a total of 30 years of performing nutrient reduction. As such these projects can incur expenses for 32-33 years; actual completed costs of these projects are therefore not fully known until the end of the project's life cycle. Nevertheless, the actual costs of the project include both paid costs and costs associated with future maintenance. Both costs must be included in the Actual Cost Method in order to ensure that revenues match expenditures.
- Incomplete project costs Since the life cycle of the typical nutrient-reduction project is 32-33 years, most projects will be incomplete at any point in time. However, the full actual costs of every project must be accounted for in the Actual Cost Method, since the failure to include all costs will result in below-cost rates. Thus, the actual cost of a project includes both past expenditures, and costs to complete. The cost to complete is literally the future cost to complete the project. Determining the cost to complete a project must not only take into consideration the remaining cost of the project, but must also consider inflation over the 30-plus years of the project life and potential liability costs (e.g., regulatory change, weather-related or design failure, all leading to an extended project life or actual project replacement). The Actual Cost Method must be self-adjusting (upwards or downwards) as both paid costs and costs to complete change over time.

D. Actions Taken to Support Development of the Actual Cost Method

The Actual Cost Method requires that the Nutrient Offset Program maintain detailed and accurate records of the program's costs and revenues for financial accounting, and also keep accurate records of the total mitigation requirements and total nutrient reductions achieved from projects developed to accurately calculate the appropriate actual-cost rates. Consequently, EEP began the development of an improved financial accounting system that is designed to track comprehensive costs on all projects, receipts collected from all applicants, and total mitigation requirements that must be fulfilled. The previous system was inadequate to perform each of these tasks in a way that would facilitate actual-cost calculations on demand.

During the 2007-2008 fiscal year, EEP has been transitioning to a new, more secure and robust project-tracking database. The current database, built on DENR's IBEAM platform, was designed to manage project credit, stages, and property acquisition. Financial and contract information will be added to the IBEAM database over the next couple of years.

EEP currently manages its financial and contracting information in other DENR database programs. These programs were designed prior to the inception of EEP and do not possess the capability to relate financial and contract information to project-specific information. EEP identified this lack of connectivity as an issue to be addressed in order to allow accurate

calculations of cost per credit. Simultaneous with the project data migration into IBEAM, EEP undertook a needs analysis and designed an improved financial accounting system that will allow relation of financial data to project information. The new system will become the prototype for the next iteration of the IBEAM system, which will ultimately combine financial and project information in one database. Migration of data from the old databases into the new database is progressing. The re-designed financial accounting system will be able to connect to dynamic data in the IBEAM project database, which will allow EEP to query, calculate and track true mitigation costs, a significant improvement over the capabilities of the previous systems.

IV. Next Steps

A number of efforts will begin or continue over the next several months:

• Engage Stakeholders

With concurrence from the ERC, EEP intends to collaborate with DWQ to convene a group of key stakeholders to discuss the basic approach to setting actual-cost rates described in this report. The stakeholder meeting(s) would include discussion of important unresolved issues related to the actual-cost model, such as whether rates should vary by cataloging unit and the frequency with which rates should be revised. Interest groups invited to participate would largely mirror those that were part of a group convened by legislative staff to refine the scope of the RTI nutrient-offset study.

EEP proposes to convene these stakeholders in November or December of 2008 in advance of the next progress report to the ERC in March 2009. Additional meetings would be held if necessary. With feedback from stakeholders and the ERC, DENR will proceed with the establishment of the Actual Cost Method for setting rates for nutrient-reduction credits.

Completion of Database

As described earlier in this report, EEP has made significant advances in establishing a database to support the proposed actual cost method. This effort will continue.

Report to ERC in March 2009

As required by statute, EEP will provide an additional progress report on the transition to the Actual Cost Method in March of 2009.

Pursue Establishment of Agreed-Upon Method in Rule

With feedback from the ERC and stakeholders, EEP and DWQ will initiate procedures to establish the method in rule. In practice, rulemaking takes approximately two years to complete. DENR anticipates being able to initiate rulemaking in the spring of 2009.

Appendix

Background Information and Statistics on the Nutrient Offset Program

I. Nutrient Offset Program Timeline

EEP Nutrient Offset Program History of Supporting Legislation and Fee Schedules

1996

Session Law 1995-572 ratified on June 19, 1996, setting goals for nitrogen reduction in the Neuse River basin.

1997

Nutrient Sensitive Waters Management Strategy, adopted by EMC (Feb. 11, 1997), for Neuse basin.

1998

Neuse Nitrogen Fee established at \$11 pound/year.

2001

First Neuse nitrogen payment received, May 2001.

2006

EMC expands nutrient offset to Tar-Pamlico River basin, establishing new fees (Jan. 12, 2006).

Nitrogen fees increased to \$57 pound/year in Neuse and Tar-Pamlico basins; (March 1, 2006).

Phosphorus fee initiated in Tar-Pamlico basin at \$45/0.10 pound/year (March 1, 2006).

First Tar-Pamlico River basin payment received, April 2006.

Session Law 2006-216, ratified on Aug. 8, 2006, reduces fees to \$11 pound/year for nitrogen in Neuse and Tar-Pamlico, and \$11/0.10 pound/year for phosphorus in the Tar-Pamlico; requires refunds for any fees paid in excess; and commissions a study by the Environmental Review Commission (ERC) of costs associated with providing nutrient offset reduction projects.

2007

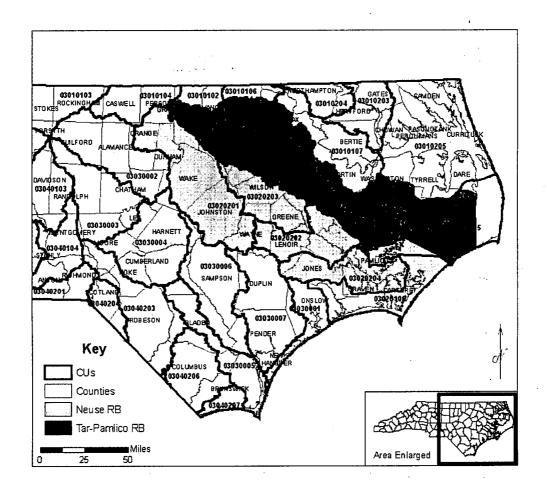
ERC hires RTI International to perform the study of costs associated with providing nutrient offset reductions.

RTI International submits its findings in a report to the ERC in June 2007; recommends fee structure.

Session Law 2007-438 ratified on Aug. 23, 2007, specifying fees for nitrogen in the Neuse (\$28.35 / pound/year), nitrogen in the Tar-Pamlico (\$21.67 / pound/year), and phosphorus in the Tar-Pamlico (\$28.62 / 0.10 pound/year), effective Sept. 1, 2007; and requires DENR to develop no later than Sept. 1, 2009, a plan to transition EEP nutrient offset program from a fee-based program to a program based on actual costs of providing nutrient credits, with progress reports due Sept. 1, 2008, and March 1, 2009. This act also required that all nutrient offset projects be located within the same eight-digit Cataloging Unit in which the associated nutrient loading takes place.

II. North Carolina River Basin Map

Below is the Nutrient Offset Program Area Map depicting the Neuse and Tar-Pamlico river basins and corresponding eight-digit cataloging unit codes. Local governments participating in the program are located within these river basins.



III. Nutrient Offset Program Participants

EEP has provided nutrient-reduction credits to both the private and public sectors. The private- sector customers include homeowners, private residential developers, and private retail and commercial developers. The public-sector customers include government agencies (towns, cities, county, state, federal), school systems and military bases. The table below shows that the majority of the users of EEPs Nutrient Offset Program are those in the private sector.

PRIVATE and PUBLIC SECTOR OFFSET REQUIREMENTS (in pounds from 2001 through the Present)

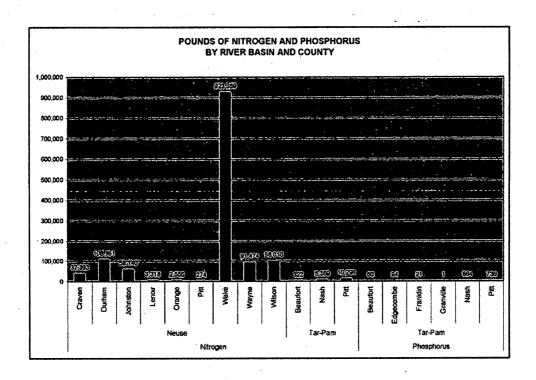
Basin (Nutrient)	Reduction Requirements for Public Sector Participants	Reduction Requirements for Private Sector Participants	Total Requirements
Neuse (N)	31,761	1,287,718	1,319,479
Tar-Pam (N)	2,154	13,834	15,988
Tar-Pam (P)	61	1,707	1,768
Total	33,976	1,303,259	1,337,235
Requirements			
Percent of Total	3%	97%	100%

A total of sixteen municipalities and ten counties are part of the Nutrient Offset Programs in the Neuse and Tar-Pamlico river basins. These local governments are listed below.

Neuse	Tar-Pamlico
154 NCAC 28 0235	15A NCAC 2B .0258
TOWNS & CITIES (10) Cary, Durham, Garner, Goldsboro, Havelock, Kinston, New Bern, Raleigh, Smithfield, Wilson COUNTIES (5) Durham, Orange, Johnston, Wake, Wayne	TOWNS & CITIES (6) Greenville, Henderson, Oxford, Rocky Mount, Tarboro, Washington COUNTIES (5) Nash, Beaufort, Edgecombe, Franklin, Pitt

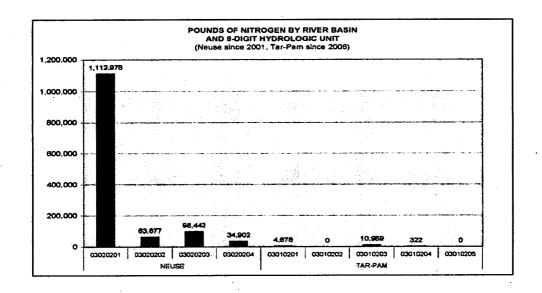
IV. Pounds of Nutrients by River Basin and County

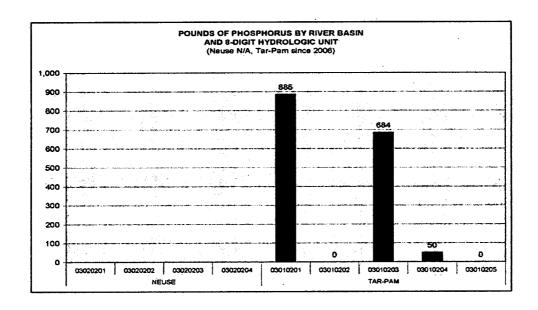
The figure below illustrates the requirement amounts in pounds of nitrogen and phosphorus that the EEP is responsible for providing through the Nutrient Offset Program. The figure also shows the distribution of these requirements among participating counties. Wake County is by far the most active area for nutrient-offset payments.



V. Pounds of Nutrients Required by Basin

The following figures show the pounds of nitrogen and phosphorus reduction required by river basin and eight-digit cataloging unit.





VI. Nutrient Reduction Provided

EEP has provided over 500,000 pounds of nutrient reductions in the Tar-Pamlico and Neuse river basins through the restoration of riparian buffers or the implementation of stormwater wetlands. The table below summarizes the reductions achieved by river basin and cataloging unit (CU).

Basin	Nutrient	CU	Number of Sites (Nutrient Offset Credits	Counties
NEUSE	Nitrogen	03020201	8	407,058	Wake,
	Nitrogen	03020202	1	5,070	Johnston Wayne
	Nitrogen	03020203	2	145,842	Greene
	Nitrogen	03020204		5,820	Craven
TAR-PAM	Nitrogen	03020101	1	840	Franklin
	Phosphorus	03020101	4 104	840	Franklin
TOTAL			14	565,470	

Reductions provided are currently lower than those required. This gap is the result of EEP suspending the acquisition of restoration projects during 2006 and 2007 while the legislature resolved fee issues as described in the main portion of this document. EEP is actively procuring projects to achieve required reductions



Transitioning the EEP Nutrient Offset Program to an Actual Cost Method

James B. Stanfill Ecosystem Enhancement Program

October 9, 2008

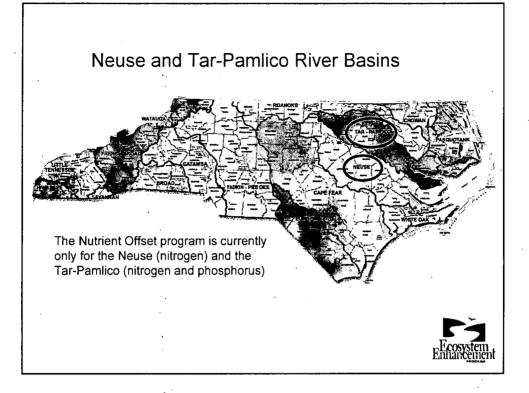
Transitioning the EEP Nutrient Offset Program to an Actual Cost Method

Background History

Actual Cost Objectives

Actual Cost Method

Next Steps



History

1996-1998

- Legislation and rules establish WRP Nutrient Offset Program
- Fee established at \$11 pound Nitrogen for Neuse

2001

• First payment received, May 2001

2005

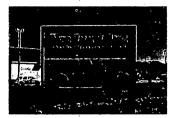
• Fee adjustment initiated



History

2006

• EMC adds Tar-Pamlico River basin



- EMC sets new fees
 - Nitrogen

\$57 per pound

- Phosphorus

\$45 per 0.10 pound

• First Tar-Pamlico payment

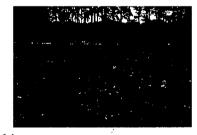


History

August 2006

Session Law 2006-216

- Reset fees
 - \$11 per pound Nitrogen
 - \$11 per 0.10 pound Phosphorus



- Required refunds for any fees paid in excess
- Commissioned ERC cost study

History

2007

- · RTI International completes cost study and recommends fee structure
- Session Law 2007-438
 - 1. Reset Fees:
 - Neuse
 - » \$28.35 per pound nitrogen
 - Tar Pamlico
 - » \$21.67 per pound nitrogen
 - » \$28.62 per 0.10 pound phosphorus
 - 2. Transition to actual cost method by Sept. 1, 2009
 - 3. Progress reports due Sept. 1, 2008 and March 1, 2009
 - 4. Required mitigation to occur in same watershed as impact

Actual Cost Method Objectives:

- Must use actual costs of generating nutrient reduction credits.
- > All costs must be accounted for in the method.
- ➤ Must be a self-sustaining financial model.

Actual Cost Method Objectives:

- Rates must change (upwards or downwards) as actual costs change.
- Method must be applicable at either Cataloging Unit (CU), Basin, or State levels.
- ➤ Must be applicable to either nitrogen or phosphorus offsets.

Actual Cost Method Objectives:

- ➤ Must be understandable and easy to use.
- ➤ Must be predictable and equitable.
- > Transition Plan by September 2009.

Actual Cost Method

Simple Premise:

Actual Costs / Total Pounds = Actual Cost per pound

Draft Actual Cost Method

 $ActualCostRate = rac{ActualCosts}{TotalPoundsOffset} + AdjustmentFactor$

Draft Actual Cost Method

 $Actual Cost Rate = \underbrace{\frac{Actual Costs}{Total Pounds Off set}}_{+ Adjust ment Factor} + Adjust ment Factor$

 $egin{array}{ll} Actual Costs = Project Costs + Administration Costs \end{array}$

Completed Projects Terminated Projects Projects in Process Staff
Supplies
Rent

Draft Actual Cost Method

 $ActualCostRate = \frac{ActualCosts}{TotalPoundsOffset} + AdjustmentFactor$



Draft Actual Cost Method

$$ActualCostRate = \frac{ActualCosts}{TotalPoundsOffset} + \underbrace{AdjustmentFactor}$$

Purpose:

Adjusts rates up or down so that collected fees equal actual costs

Adjustment Factor

$$AdjustmentFactor = \frac{(ActualCosts - ActualReceipts)}{(Time*TotalPoundsPaidPerYear)}$$

Essential element

- >Unexpected costs and savings will occur on incomplete projects.
- >Adjustments can be moderated by spreading over many payments.

Actions Taken to Support Actual Cost Method

- Improved Financial Accounting System
 - Comprehensive project and program costs
 - Receipts collected from applicants
 - Mitigation requirements
 - · Facilitates on demand actual-cost calculations
 - Prototype expected November 2008
- Coordination with Division of Water Quality

Next Steps

- Engage Stakeholders
- Completion of Database
- Report to ERC in March 2009
- Pursue Establishment of Agreed-Upon Method in Rule



Questions?

NC Ecosystem Enhancement Program
1652 Mail Service Center
Raleigh, NC 27699-1652
(919) 715-0476
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NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES CUSTOMER SERVICE CENTER EXPRESS PERMIT REVIEW AND ONE STOP PERMIT ASSISTANCE AND COORDINATION APRIL 2008

This report fulfills the requirements of § 143B-279.12(e) and § 143B-279.13(c) to provide information on environmental permit processing times and report on the progress of the Express Permit Review Program. A breakdown of processing times for FY 2006-07 is provided on the attached charts for Air Quality permits, Coastal Area Management Act major permits, State Stormwater permits, Erosion and Sedimentation Control Plans, Water Quality Wetland 401 Certifications, Water Quality Land Application Non-Discharge Permits and Public Water Supply Plans. It also provides an update on the Express Permit Review Program.

The number of permits issued through the regular review process for these programs is similar to previous years. However there has been a 15 percent growth in the express programs, which reflects its continued popularity. More than 13,700 permits were issued in the seven programs tracked in FY 2006-07. Eighty-four percent of those issued under regular review and 99 percent under express review were issued in less than 90 days. Of the 1,181 express permits issued that year, 82 percent were issued in 30 days or less. The express processing time generally takes 20 to 50 percent of the time of the regular permit review. (See attached chart)

The most complex permits, such as Title V Air Quality permits, consistently require longer review time and sometimes more than 90 days. These are the permits required for major air emission sources. New requirements, industry specific control equipment and review by US EPA are reasons for the longer processing times. All of the 965 air quality permits for small or minor sources were issued in less than 90 days.

Coastal Area Management (CAMA) Act major permits also take more review time-statutorily they can take up to 150 days. The fragile coastal environment, review by a large number of state and federal agencies, and design challenges to ensure environmentally effective projects require a longer review time. The average processing time for major CAMA permits reviewed under the express process was 35 days. The most complex projects are not usually taken into the express program because the target processing time is 30 days.

The most significant increase in processing time between FY 2005-06 and FY 2006-07 was in the Water Quality State Stormwater Program. Last year 83 percent of the state stormwater permits in the regular program were issued within 90 days, compared with 73 percent this year. Under the express state stormwater program 98 percent were issued within 90 days, but only 68 percent were issued within the 30-day target processing time of the express program. An analysis to identify the causes for the delays showed that in the Wilmington Region, the number of applications almost doubled for several months, and experienced staff was not hired quick enough to meet the demand. Incomplete applications, wait time for additional information and inadequate tracking and quality control measures contributed to unacceptable review delays, especially in the express stormwater program. In the Washington Regional Office 30 percent of the applications required at least one additional information submittal, adding an average of 30 days to the processing time. In the Wilmington Regional Office, about 60 percent of the applications required more information and additional review time which added about 28 days to the processing times. Staff turnover in the regular program, new rules and incomplete initial applications in both programs were key factors for delays.

Additional reviewers were added to the express program. Other procedural improvements included: a workload analysis, earlier tracking of submittals to better predict and meet demands and

instituting a number of measures to improve the quality of applications. The changes were made with input from applicants, engineers and DENR staff. We now have more timely reviews and goals are currently being met. New tracking and reporting will allow continued monitoring of this progress.

Based on this data and other permit improvement discussions, the lack of complete well-documented applications is the single biggest factor in a protracted review process. Permit programs were asked for information on the number of applications requiring additional information and the amount of time it added to the review process. While not all programs have been collecting this information, each one stated that a large percentage of applications had to be sent back or put on hold because there was insufficient design or technical documentation to make a permit decision.

Nearly one-half of the express sedimentation and erosion control plans required additional information. Air Quality estimated that more than 20 percent of the small permits and 27 percent of synthetic minor air permits did not provide sufficient application documentation. The delay awaiting this information and additional review necessary added an average 13 to 20 days to the processing time. Information presented earlier shows that time waiting and subsequent reviews added almost a month to the state stormwater application processing time.

It is extremely important to improve the overall quality of initial permit applications. In the express program, additional fees are being charged for re-submittal, as allowed by the statute. In the Wilmington region, the express staff invites consultants to meet with permitting staff, ask questions and discuss frequent mistakes in a monthly open-discussion forum. The Water Quality staff has scheduled a number of training sessions for staff, local governments and consultants on how to meet the state stormwater requirements. The Division of Air Quality has posted on its website tips on improving the quality of its Title V applications.

Hiring and retaining experienced permit reviewers continues to be an obstacle to meeting permit processing goals and deadlines. Growth and new development in the state continue to put pressure on the environment and environmental permitting. Coastal, land application and state stormwater permits require increasingly complex designs which often must be re-designed to meet environmental requirements.

The One-Stop Permit Assistance and Coordination program provides permit information and develops guidance materials for small businesses and non-express clients. Its staff also facilitates express review. Throughout the state, coordinators help businesses identify environmental permits that may be needed for proposed projects and work with program staff to see that all requirements are clearly communicated early in the planning process. Nearly 200 permit lists were generated for companies looking to start or expand a business in North Carolina in FY 2006-07 and about 50 face-to-face meetings were held to provide site-specific guidance. Examples of companies that benefitted from this customized assistance included alternative energy businesses (bio-diesel, ethanol and wind-power prospective companies), a Business Park and distribution center, wineries, and manufacturing and recycling businesses.

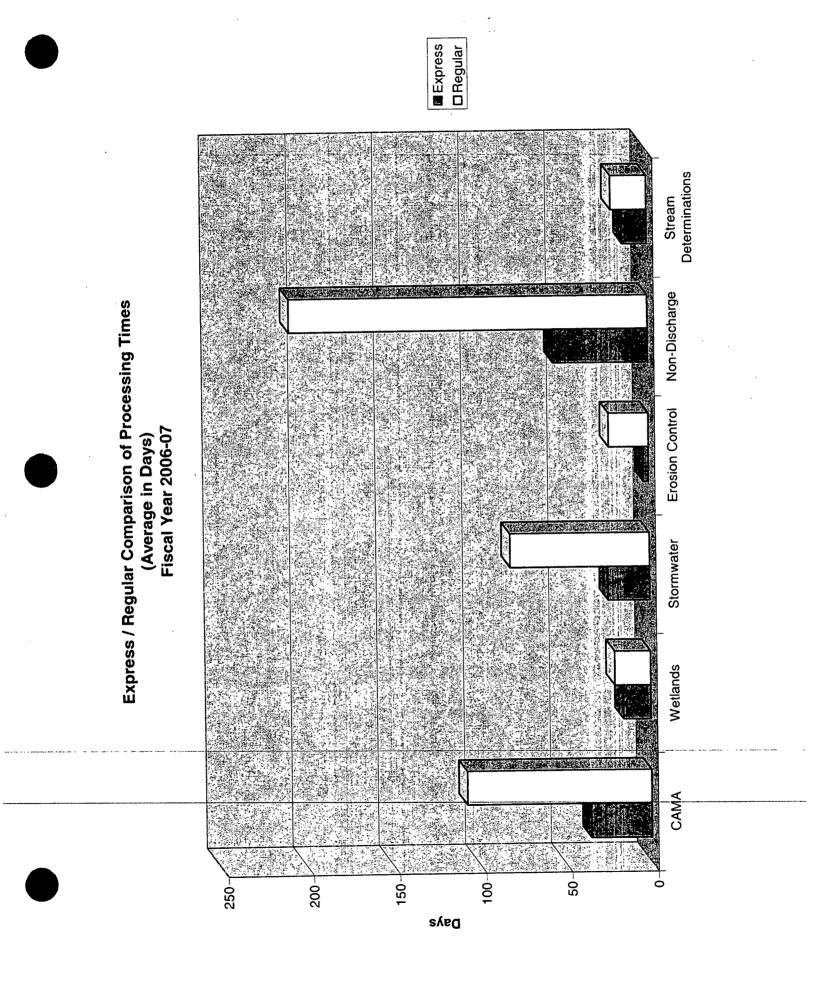
The department will seek ways to improve the permitting process and increase public awareness of environmental requirements as growth impacts the state's natural resources. Expanding permit guidance materials, holding additional permit training programs, and providing more timely information on new rules or application requirements are planned for the coming year. Our goal is to expand express review to other permit programs.

									•
		A ASSOCIATION .	Permit Information for July 1, 2006 - June 30, 2007 (Note # 1)	or July 1, 2006 -	June 30, 2007	(Note # 1)			į
Division	Water Quality	Water Quality	Water Quality		Air Quality		Coaste	Coastal Management	
Permit Type	Wetlands	State Stormwater	Non-Discharge	Small Non-Title V	Synthetic Minor Non-Title V	Title V	CAMA - Major	CAMA - General	CAMA - Minor
Total # of Applications	1904	597	86	634	331	236	173	2573	100
Standard Review Time (days)	60 days	90 days	90 days	90 days	90 days	270 days to Notice	75 days (can extend to 150)	N/A	25 days
Average Processing Time	20.7	81	208	39	41	172	107	<7 days	< 25 days
(Says)		とはない ことを奏を変わるない	的 1985年 1985年 1985年 1985年 1985年 1985年 1985年 1985年 1985年 1985年 1985年 1985年 1985年 1985年 1985年 1985年 1985年 1985年 1	(1) 10 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	では、これの対象を開発が	AND THE PARTY.			
# of Applications (took <	1417	113	8	279	145	38	0	2573	100
Ave. Time < 30 days	12.2	11.7	21	16	16	14	N/A	< 7 days	<25 days
# of Applications (took >	487	104	15	355	186	198	173	0	0
Ave. Time > 30 days	45.5	.49.5	41	57	61	202	107	N/A	N/A
# of Applications (took >	0	218	14	147	16	149	167	0	0
Ave. Time . > 60 days	0	75	69	76	77	253	109	N/A	N/A
# of Applications (took > 90 days processing time)	0	159	49	0	0	94	124	0	0
Ave. Time. > 90 days	0	951	305	0	0	358	611	N/A	N/A
Reason(s) permit issuance took > 90 days (ex. Add info)	0	Incomplete applications and staffing vacancies contribute to longer processing times.	Rules changes & new requirements under 15A NCAC 2T went into effect in 2006 and caused changes to permitting processes that the consulting community & staff needed to adjust to.			Requires Public Notice and Review by the EPA.	Project complexities continue to rise, as do environmental agency concerns on such projects and staff furnover of other agencies involved in CAMA major permit review has led to delays.		An additional 1,191 minor permits were issued by local governments.
Estimated % of permits < 90 days	100%	73%	80%	100%	100%	%85	31%	100%	100%
Note # 1: Processing tim	nes do not inc	lude days spent waiting fo	Note # 1: Processing times do not include days spent waiting for additional information or "add info".	"add info".					

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		Permit In	formation for J	Permit Information for July 1, 2006 through June 30, 2007.	ıne 30, 2007.		
Land Resources	Environmental Health		3	Express Permitting (Targets for Review Under Express)	for Review Under	Express)	
Erosion and Sedimentation	Public Water Supply Plans	Express CAMA	Express 401	Express State Stormwater	Express Erosion Control	Express Non-Discharge	Express Stream Determinations
3546	2293	48	33	444	531	28	-64
30 days	(Note # 2)	75 days / extend to 150 days	30 days	30 days	3 days	90 days	14 days
23	27	35	15.8	24	3	55	14
· · · · · · · · · · · · · · · · · · ·	(東)第二十四十四年	小衛 然のは、ことのない			医肾清燥 建混合物分裂	· 新国人共和国共享的	是为现在的成为中国国际
3532	2060	\$	30	299	531	4	26
23	- 19	27	13.8	17.6	3	15	4
14	233	43	3	101	0	16	N/A
31	95	26	37.5	40.9		47	N/A
0	144	0	0	33	0	8	0
n/a	128	N/A	N/A	69	N/A	99	N/A
0	93	0	0	=	0	3	0
n/a	159	N/A	N/A	.130	N/A	132	N/A
	Each review of a specific project restarts the 30-day			Incomplete applications and staffing vacancies contribute to longer processing times.		Rules changes & new requirements under 15A NCAC 2T went into effect in 2006 and caused changes to permitting processes that the consulting community & staff needed to adjust to.	
100%	%96	%001	100%	%86	100%	%68	100%
Note # 2: 15A NC Department at lex	2AC 18C, 0301(c) ast 30 days prior to	-All reports, engin	neering plans and the De	Note # 2: 15A NCAC 18C.0301(c) -All reports, engineering plans and specifications and other data intended for approval shall be submitted to the Department at least 30 days prior to the date upon which action by the Department is desired.	ata intended for a	approval shall be submi	itted to the

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REPORT OF THE NORTH CAROLINA UTILITIES COMMISSION TO

THE GOVERNOR OF NORTH CAROLINA, THE ENVIRONMENTAL REVIEW COMMISSION AND THE JOINT LEGISLATIVE UTILITY REVIEW COMMITTEE

REGARDING

AN ANALYSIS OF RATE STRUCTURES, POLICIES, AND MEASURES TO PROMOTE RENEWABLE ENERGY GENERATION AND DEMAND REDUCTION IN NORTH CAROLINA



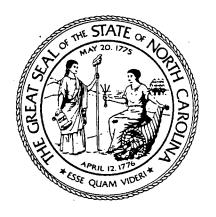
September 1, 2008

ANNUAL REPORT OF THE NORTH CAROLINA UTILITIES COMMISSION TO

THE GOVERNOR OF NORTH CAROLINA, THE ENVIRONMENTAL REVIEW COMMISSION AND THE JOINT LEGISLATIVE UTILITY REVIEW COMMITTEE

REGARDING

RENEWABLE ENERGY AND ENERGY EFFICIENCY PORTFOLIO STANDARD IN NORTH CAROLINA

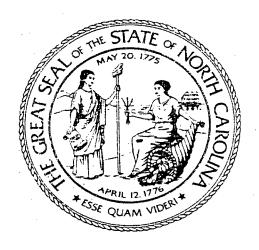


October 1, 2008

Implementation of the "Clean Smokestacks Act"

A Report to the Environmental Review Commission and the Joint Legislative Utility Review Committee

Submitted by the North Carolina Department of Environment and Natural Resources and the North Carolina Utilities Commission



Report No. VI

June 1, 2008

2008

ENVIRONMENTAL REVIEW COMMISSION November 25

MINUTES

North Carolina General Assembly

ENVIRONMENTAL REVIEW COMMISSION MINUTES

9:30 a.m., Tuesday, November 25, 2008 Room 544, Legislative Office Building Raleigh, North Carolina

The Environmental Review Commission met at 9:30 a.m. on Tuesday, November 25, 2008 in Room 544 of the Legislative Office Building. Co-Chairman Pryor Gibson presided. Co-Chairman Gibson called the meeting order at 9:45 a.m.

Welcome and Attendance

Members present were Co-Chairman Charlie Albertson; Co-Chairman Lucy Allen; Co-Chairman Pryor Gibson, III; Co-Chairman Daniel Clodfelter; Senator Stan Bingham; Senator Katie Dorsett; Senator Eleanor Kinniard; Senator A.B. Swindell; Senator Fletcher Hartsell, Advisory member; Representative Pricey Harrison; Representative Carolyn Justice; Representative Edith Warren; Representative Larry Womble; Representative Charles C. Thomas, Advisory member; Representative Russell E. Tucker, and Representative Ruth Samuelson. Commission staffs in attendance are Commission Counsel, George Givens; Assistant Counsel Jennifer McGinnis, Commission Analyst Jennifer Mundt; Research Assistant Mariah Matheson, and Commission Clerk, Daladier C. Miller, Acting Commission Clerk.

Report to the Commission and Explanation of Agenda Items.

Mr. George Givens, Commission Counsel noted that the following reports on the agenda have been submitted by DEHNR, are being distributed as read-only items, and may be re-distributed in connection with an agenda item at a future meeting of the Commission, depending upon the level of interest in the reports:

Mr. Givens stated that if anyone would like to have copies of the read-only reports, they should contact Ms. Mariah Matheson at (919) 733-2578.

Part C:

Item 7). Annual report on the compliance/enforcement of water quality laws for facilities that discharge into surface waters. 1 October 2008. Statutory Authority: G.S. 143-215.10M.

Item 8). Annual report on permitting and inspecting animal waste Management systems/Animal Waste Compliance Report. Statutory Authority: G.S. 143-215.8B (d).

Item 9). Annual report on Basinwide Water Quality Management Plans. October 1, 2008. Statutory Authority: G.S. 143-215 8B (d).

Item 10) Annual report on implementation of the sedimentation Pollution Control Act of 1973. October 1, 2008. Statutory Authority: G.S. 113A-67.

Mr. Givens called attention to Part G, item number 15, of the agenda; Alcoa Power Generating Inc./Stanley County Documents, which reads: The Commission Counsel has requested that Alcoa Power Generating Inc., provide certain information to the Commission in connection with the study of impacts on the State of the potential issuance of a new 50-year license by the Federal Energy Regulatory Commission to Alcoa Power Generating, Inc. (Authority: S.L. 2008-137, Secs. 1 and 2).

In response, on October 17, 2008 Stanley County submitted briefing informational document, including an executive summary and exhibits, and October 20, 2008 Alcoa Power Generating, Inc. submitted briefing document and exhibits. Because of the size of these documents, they are being made available only electronically via the Commission website. A separate folder has been established or created for the purpose. The URL for this folder is (http://ncleg.net/gascripts/DocumentSites/browseDocsite.asp?nID+12)

Approval of Minutes for November 25, 2008

Representative Alice Underhill moved for approval of the minutes. The minutes were approved by unanimous vote.

Presentation of the Draft 2008 Report of the Water Allocation Study (S.L. 2007-518, Sec. 1. (a) as amended by S.L. 2008-10) and issues related to increasing water supply and reservoir construction (S.L. 2008-143, Sec. 6).

Mr. Richard Whisnant, Principal Investigator, Associate Professor of Public Law and Government was recognized by Co-Chairman, Pryor Gibson to discuss the Draft 2008 Report of the Water Allocation Study Team to the North Carolina Environmental Review Commission. He noted that the Water Allocation Study Team recommends that the General Assembly take the following measures in 2009 in order to put North Carolina in a more secure position with respect to its water supply: (a copy of this report is including in the minutes as **Exhibit B**.

- Clearly state policy goals to guide administrative and judicial decisions.
- Establish a permit for large water withdrawals.
- Conform existing laws to each other and to policy goals.
- Establish proactive, adaptive, river basin water supply planning.
- Simplify and integrate water-funding information.

- Address critical research and study needs.
- Ensure that water infrastructure is maintained.
- Reward and spread best practices and leadership efforts in water efficiency.
- Create more storage.

Mr. Whisnant called attention to four scenarios. They are as follows:

- 1. Private firm buys old intake and consumes or exports water, even while downstream industries or water systems are running dry.
- 2. Private firm pumps groundwater and uses or exports it, even while adjoining farmer's wells dry up.
- 3. City is unaware of its precarious water supply and leaky pipes until it fails to deliver on promises to new development.
- 4. Strong population and commercial growth in the headquarters leaves a water system no or few options for additional supply. (See Exhibit B, Pages 4 through 7 of the Draft Report for details).

Co-Chairman Gibson recognized Mr. William Holman, Principal Investigator, and Visiting Senior Fellow at Nicholas Institute for Environmental Policy Solutions continued to discuss the Draft 2008 Report of the Water Allocation Study Team. Mr. Holman began by thanking the General Assembly for authorizing the study. He also gave an overview of nine recommendations for the upcoming Legislative Session (See Exhibit B, Pages 33 through 49 of the Draft Report).

<u>Update on Water Quantity issues, Including the Report of Drought Management Advisory Council (G.S. 143-355.1 (g) and Progress in Water Supply Planning (G.S. 143-355 (n).</u>

Co-Chairman called upon Mr. Thomas Reeder, Director of the Division of Water Resources, Department of Environment and Natural Resources (DENR) to give a report. Mr. Reeder gave an overview on the following items: (See Exhibit C and for details).

- Drought Update
- Implementation of 2008 Drought Bill
- Daily Water Withdrawals in North Carolina
- Water Supply River Basin Planning
- Activity of Bi-State Commissioners
- Upcoming Interbasin Transfers (IBTs)

Report of the State Water Infrastructure Commission on its Activities and Findings (G.S. 159G-67).

Ms. Jean Crews-Klein, Vice President of Business and Natural Resource Development, Klein Consulting, was recognized to give a report of the State Water Infrastructure Commission on its Activities and Findings (See Exhibit D for details).

- Infrastructure Financing
- Drought Preparation and Water Resource Management
- Reclaimed Water
- Regionalization
- Continued Funding for the SWIC

Report on Contaminated Wells in Montgomery, Moore, and Richmond Counties

Mr. S. Art Barnhardt, Regional Supervisor of the Fayetteville Regional Office, Aquifer Protection Section, Division of Water Quality, DENR was recognized by the Co-Chairman Gibson to give a report on Contaminated Wells in Montgomery, Moore, and Richmond Counties (See Exhibit E for details).

Discussion of the Desirability of Abolishing the Existing Environmental Regulatory Commissions and Replacing Them with a New, Full-Time Environmental Regulatory Commission Modeled on the Utilities Commission (S.L. 2008-181, Sec. 6.4).

Mr. John McAllister, Vice President of Governmental Affairs, North Carolina Chamber and Mr. Thomas G. Bean, Legislative Liaison for North Carolina Wildlife Federation discussed the desirability of abolishing the Existing Environmental Regulatory Commission and replacing them with a new full-time Environmental Regulatory Commission Modeled on the Utilities Commission (See Exhibit F for details).

Update on the Pilot Program to Retrofit School Buses to Reduce Diesel Emissions in Non-Attainment Areas (S.L., 2007-465, Sec. 4(b)

Ms. Anne S. Galamb, Environmental Specialist for the Technical Services Section, Division of Air Quality, DENR gave an update on the Pilot Program to Retrofit School Buses to Reduce Diesel Emissions in Non-Attainment Areas. (See Exhibit G for details).

Report on the Implementation of Animal Waste Management Performance Standards for Swine Farms, the Lagoon Conversion Program, and the Swine Farm Waste Management System Conversion Account (S.L. 2007-523, Sec. 2 (f)

Co-ChairmanGibson recognized Ms. Patricia K. Harris, Director of the Division of Soil and Water Conservation, DENR who gave a report on the Lagoon Conversion Program (See Exhibit H for details). The following items were discussed:

- Lagoon Conversion Program
- Rulemaking To Implement Provisions of S B 1465
- Selection Timeline
- Round 1 Applications
- Producer Concerns
- Existing Lagoon Guidance

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

MEMBERS SENATOR STAN W. BINGHAM SENATOR KATTE G. DORSETT SENATOR JAMES S. FORRESTER SENATOR ELEANOR G. KINNAIRD

SENATOR A.B. SWINDELL SENATOR DAVID F. WEINSTEIN

REPRESENTATIVE JAMES A. HARRELL REPRESENTATIVE PRICEY HARRISON REPRESENTATIVE CAROLYN H. JUSTICE REPRESENTATIVE RUTH SAMUELSON REPRESENTATIVE EDITH D. WARREN REPRESENTATIVE LARRY W. WOMBLE Environmental Review Commission State Legislative Building Raleigh, Porth Carolina



AGENDA

9:30 a.m. Tuesday 25 November 2008 Room 544 Legislative Office Building Raleigh, North Carolina 545 LEGISLATIVE OFFICE BUILDING 300 NORTH SALISBURY STREET RALEIGH, NORTH CAROLINA 27603 (919) 733-2578 FAX: (919) 715-5460

GEORGE F. GIVENS

COMMISSION COUNSEL

SUSAN S. IDDINGS ASSISTANT COMMISSION COUNSEL

JEFF W. HUDSON ASSISTANT COMMISSION COUNSEL

JENNIFER L. McGINNIS
ASSISTANT COMMISSION COUNSEL

JENNIFER R. F. MUNDT COMMISSION ANALYST

MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

1. Call to order

Representative Pryor A. Gibson, Presiding

2. Distriction Introductory remarks by Cochairs (5 minutes).

Representative Pryor A. Gibson Senator Charles W. Albertson Senator Daniel G. Clodfelter Representative Lucy T. Allen

3. Report to the Commission and explanation of agenda items (15 minutes).

George F. Givens, Commission Counsel

Approval of the minutes of the 9 May 2008 and 19 May 2008 meetings of the Commission

4. Presentation of the Draft 2008 Report of the Water Allocation Study (S.L. 2007-518, Sec. 1.(a) as amended by S.L. 2008-10) and issues related to increasing water supply and reservoir construction (S.L. 2008-143, Sec. 6) (60 minutes).

Richard B. Whisnant, Principal Investigator Associate Professor of Public Law and Government University of North Carolina Institute of Government

William E. Holman, Principal Investigator Visiting Senior Fellow Nicholas Institute for Environmental Policy Solutions 5. Update on water quantity issues, including the report of the Drought Management Advisory Council (G.S. 143-355.1(g)) and progress in water supply planning (G.S. 143-355(n)) (25 minutes).

Thomas A. Reeder, Director
Division of Water Resources, Department of Environment and Natural
Resources (DENR)

6. Report of the State Water Infrastructure Commission on its activities and findings (G.S. 159G-67) (25 minutes).

Jean Crews-Klein, Vice President of Business and Natural Resource Development Klein Consulting

7. Report on contaminated wells in Montgomery, Moore, and Richmond counties (30 minutes).

S. Art Barnhardt, Regional Supervisor

Fayetteville Regional Office, Aquifer Protection Section

Division of Water Quality, DENR

8. Discussion of the desirability of abolishing the existing environmental regulatory commissions and replacing them with a new, full time environmental regulatory commission modeled on the Utilities Commission (S.L. 2008-181, Sec. 6.4) (30 minutes).

John W. McAllister, Vice President of Governmental Affairs North Carolina Chamber

Thomas G. Bean, Legislative Liaison North Carolina Wildlife Federation

9. Update on the pilot program to retrofit school buses to reduce diesel emissions in nonattainment areas (S.L. 2007-465, Sec. 4(b)) (10 minutes).

Anne S. Galamb, Environmental Specialist Technical Services Section, Division of Air Quality, DENR

10. Report on the implementation of animal waste management performance standards for swine farms, the Lagoon Conversion Program, and the Swine Farm Waste Management System Conversion Account (S.L. 2007-523, Sec.2(f)) (25 minutes).

Patricia K. Harris, Director Division of Soil and Water Conservation, DENR

- 11. Commission discussion and announcements
- 12. Adjourn

SCHEDULE OF FUTURE MEETINGS:

Below is a schedule of meetings of the Environmental Review Commission for December 2008 through January 2009. This schedule is tentative and subject to adjustment. For planning purposes, however, please reserve these dates. This schedule may be modified to allow for out-of-town business meetings or site visits and in the event that it becomes necessary to cancel a scheduled meeting due to hazardous weather conditions.

Please note the following:

- 1. Meetings of the Commission normally begin at 9:30 a.m. and may run until midafternoon. Meetings of the Commission are open to the public.
- 2. Staff planning meetings normally begin at 10:00 a.m. and adjourn by noon. Staff planning meetings are informal and are open to the public. Commission members are not expected to attend these meetings.
- 3. The 2009 Regular Session is scheduled to begin at 12:00 noon on Wednesday 28 January 2009. The Commission may meet shortly after the beginning of the session to complete ongoing work and to consider any legislative proposals and recommendations and may meet at other times during the legislative session.

Commission Meeting	Location	Staff Planning Meeting	Location
Thursday 18 December 2008	1228 LB	Tuesday 2 December 2008	605 LOB
Thursday 15 January 2009	643 LOB	Tuesday 6 January 2009	605 LOB
Thursday 22 January 2009	544 LOB	Tuesday 6 January 2009	605 LOB

MEETINGS OF INTERESTED PARTIES (605 WORKING GROUPS):

The Commission Counsel will hold meetings of interested parties on specific topics as indicated below:

None at this time.

ADDITIONAL INFORMATION:

Persons having questions about the Commission meeting or other matters related to the Commission may contact Commission Counsel or other Commission staff at (919) 733-2578 or may visit the Commission's website at

http://www.ncleg.net/gascripts/DocumentSites/browseDocSite.asp?nID=12

Environmental Review Commission

November 25, 2008

<u>VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION ASSISTANT</u>

NAME	FIRM OR AGENCY AND ADDRESS
Lu aan C Peruman	MCICNC
DAVID BARNES	PoyrerSparil
PRESTON+ BWARD	MCIC
Butch Gunnells	W Bereinge Asroe
Jewye Suddath	PBV
Chris Valauri	Carolina's Golf Course Syperinger
Brun Powell	Carelines bolflance Spt, Assocration
JOHN GOODMAN	NC CHAMBER
Doug LASSITE	NCSTA
In Pliate	NAMA
Ken Melton	Ken Me Hon & Assoc

Environmental Review Commission

November 25, 2008

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FIRM OR AGENCY AND ADDRESS
Program Evaluation Division / GA
Governor's Office
UNC School of Government.
DL Consmit Netal.
DUKE - NICHOLAS SCHIXX
Duke - Nicholas School
NC Utility Contractors Association
REP. Lucy Allen
Roanuke River Basin Association
NC-DWR
NCAA

Environmental Review Commission

November 25, 2008

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NAME	FIRM OR AGENCY AND ADDRESS
Henry Jones Jarry Bewley	Juden Price, ste
DANIEL BLOW	K+L GATES
Freberg Dollar	Napma
Daniel Currin	NC Green Industry Council
DOUG CHAPMAN	NU STREET INDUSTRY COUNCIL
Sherel Syrum	nc Green Industry Courcil
David Williams	NC-Divi of Suil & Water Cons.
Vewitt Hanles	NCDABCS
Many Wilder	DENR
Pad Harris	DENR-Soil & Water Conservation

Environmental Review Commission

November 25, 2008

<u>VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION ASSISTANT</u>

NAME	FIRM OR AGENCY AND ADDRESS
Lisa Markin	Ne Home Builders
SEPHEN & BARNHAR OF	DENR-DWQ-AQUITER Protection
HENRY WADE	NGDACS
Pap	NeFo
Chris bulenson	
Jeey W. Covington	Cty. of Greenslove / NC SWANA
John Morris	netived
Tom Hunt	Crop Protection Assoc. N.C.
BRIAN MC (RODDEN)	Hydro Logics, Inc
DON RAYNO.	NCOENR-DWR
LINWOOD PEEKE	NODENR-DWR

House	COMM. ON
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11/20/04

Name of Committee

Date

VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMITTEE CLERK

NAME	FIRM OR AGENCY AND ADDRESS
ATAMU DILLAHUNT	NEJC
Jamie Kritzer	DENR
Tom Cons	TNC
Jou Fifehett	NCGA
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Environmental Review Commission

November 25, 2008

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Jim Nance	North State Auguisitions, LCC Albrimarle, N.C. 2001-
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Davis McNaught	Ewiroundal Defer Fond
Tracy Kimbrell	Parker Poe
GEORGE MEMAHON	AR CADIS
Any PICKLE	NICHOLAS INSTITUTE / DUCE UM WAS
Stere Wall	DENR
Marke Taylor	Parke Pot
BRUCE THOMBON	
Tony M. Dennis	Chairman Stanly County Comm
Roger Diek	Albemarlo, NO oitreen
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Environmental Review Commission

November 25, 2008

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	NAME	FIRM OR AGENCY AND ADDRESS
	George Everett	Duke Energy
	Mary P Thompson	DENIR
	PODIN Smith	DENR
	Elizabeth Biser	DENR
	Tom Fransen	DENR DWR
	TREEDER	
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	RICHARD WASNAMT	UNC 506
	Richard Rogers	cumtr

Environmental Review Commission

November 25, 2008

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NAME	FIRM OR AGENCY AND ADDRESS
FRED TARVER	NC DENR - DIV, West-Bes
Amy Mc Conkey	Smith Anderson Western Predmant Courcel of
Tony Galleyos	Grossoument Coucil of
DONNIE REDMOND	DENR-DAQ
ANNE GALAMB	DENR-DAQ
JOHN SHAW	SELF
famor penter	506
Tommy Stevens	NCRC
Paul Sherman	NCFB
Londa andreus	NCFB
amy Full la	H. W

Environmental Review Commission

November 25, 2008

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NAME	FIRM OR AGENCY AND ADDRESS
Havry wardap	CITY OF CONCORD
Wilmer MeHon	City of Kannapolis
TERRY GROSS	CITY OF CONCORD
AMY SIMES	DENR
DON SAFRIT	McKim & Creed / NC ANOWA WEA
Jean Klein	
Rose-Knight	State Waster Inf. Comm. Wrick Robbins / Wate Industria.
W. Daviel Amborn	Electri Cities of N.C. Inc.
Jeff Manning	DEUR-DWQ
PAnc Meyn	NCACC
Anotheramor	reacc
Rockowsy	

Environmental Review Commission

November 25, 2008

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NAME)	FIRM OR AGENCY AND ADDRESS
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TimStephens	NL Constaltedant
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Environmental Review Commission

November 25, 2008

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NAME	FIRM OR AGENCY AND ADDRESS
Jim GULICK	NCAGO
,	

General Assembly of North Carolina

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Environmental Review Commission State Legislative Building Raleigh, Porth Carolina



25 November 2008

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MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

MEMORANDUM

To:

Members of the Environmental Review Commission

From:

Mariah Matheson, Commission Assistant

Re.

Disposition of Reports and Other Information Received by the Commission

The following reports and other information have been submitted to the Commission since the last reports distribution on 9 October 2008. These reports are distributed, held, or otherwise accounted for as follows:

- A. The following report has been submitted by the Principal Investigators of the Water Allocation Study and is being distributed in connection with today's agenda as follows:
 - Draft report on the allocation of surface water resources and their availability and maintenance in the State and issues related to increasing water supply and reservoir construction. 1 October 2008. Authority: S.L. 2007-518, Sec. 1.(a) as amended by S.L. 2008-10 and S.L. 2008-143, Sec. 6. Agenda Item #4
- B. The following reports have been submitted by the Department of Environment and Natural Resources (DENR) (or other entity as indicated) and are being distributed in connection with today's agenda as follows:
 - Annual report by the Drought Management Advisory Council, including a review of drought advisories issued by the Council and any recommendations to improve coordination among local, State, and federal agencies; public water systems; and water users to improve the management and mitigation of the harmful effects of drought. 1 October 2008. Statutory Authority: G.S. 143-355.1(g). Agenda Item #5
 - 3) Annual report on the progress of water supply planning. 1 September 2008. Statutory Authority: G.S. 143-355(n). Agenda Item #5
 - 4) Annual report by the State Water Infrastructure Commission on its activities and findings. 1 November 2008. Statutory Authority: G.S. 159G-67. Agenda Item #6

- Report on the pilot program to retrofit certain school buses in nonattainment areas. 1 September 2008. Authority: S.L. 2007-465, Sec. 4(b). Agenda #9
- Annual report on animal waste management performance standards for swine farms, the Lagoon Conversion Program, and the Swine Farm Waste Management System Conversion Account. 1 October 2008. Authority: S.L. 2007-523, Sec.2(f). Agenda Item #10
- C. The following reports have been submitted by DENR, are being distributed today as read-only items, and may be re-distributed in connection with an agenda item at a future meeting of the Commission, depending upon the level of interest in the report:
 - 7) Annual report on the compliance/enforcement of water quality laws for facilities that discharge into surface waters. 1 October 2008. Statutory Authority: G.S. 143-215.9A.
 - 8) Annual report on permitting and inspecting animal waste management systems/Animal Waste Compliance Report. 1 October 2008. Statutory Authority: G.S. 143-215.10M.
 - 9) Annual report on Basinwide Water Quality Management Plans. 1 October 2008. Statutory Authority: G.S. 143-215.8B(d).
 - 10) Annual report on implementation of the Sedimentation Pollution Control Act of 1973. 1 October 2008. Statutory Authority: G.S. 113A-67.
- D. The following report has been submitted by DENR and is being distributed today as a read-only report.
 - 11) Annual report on the cost of the Title V program. 1 November 2008. Statutory Authority: G.S. 143-215.3A(c).
- E. The following reports have been submitted by DENR and are being held for distribution in connection with an agenda item at a future meeting of the Commission.
 - Annual report on the impacts on water quality and other environmental impacts from the new urban waterfront area development authorized by this act and evaluate the costs and benefits from the development to the area in which the development is located. 1 October 2008. Authority: S.L. 2004-117, Sec. 4.
 - Annual report on the activities and allocations from the Parks and Recreation Trust Fund from the prior fiscal year. 1 October 2008. Statutory Authority: G.S. 113-44.15(c).
- F. The following report has been submitted by the Department of Transportation and is being held for distribution in connection with an agenda item at a future meeting of the Commission.
 - Annual report on development and implementation of a plan to reduce vehicle miles traveled by State and private sector employees and vehicle emissions resulting from job-related travel, including commuting to and from work. 1 October 2008. Statutory Authority: G.S. 143-215.107C(d) and (e).

Environmental Review Commission Reports Distribution – 25 November 2008 Page 3

G. Alcoa Power Generating Inc./Stanley County documents.

The Commission Counsel has requested that Alcoa Power Generating Inc. provide certain information to the Commission in connection with the study of impacts on the State of the potential issuance of a new 50-year license by the Federal Energy Regulatory Commission to Alcoa Power Generating, Inc. (Authority: S.L. 2008-137, Secs. 1 and 2.) In response, on 17 October 2008 Stanley County submitted a briefing informational document, including an executive summary and exhibits, and on 20 October 2008 Alcoa Power Generating, Inc. submitted a briefing informational document, including an executive summary and exhibits. Because of the size of these documents, they are being made available only electronically via the Commission website. A separate folder has been established or created for this purpose. The URL for this folder is (http://www.ncleg.net/gascripts/DocumentSites/browseDocSite.asp?nID=12).

Please contact George Givens, Jeff Hudson, Jennifer McGinnis, Jennifer Mundt, or Mariah Matheson at (919) 733-2578 if you have any questions or comments.

North Carolina Department of Environment and Natural Resources



Michael F. Easley, Governor William G. Ross, Jr., Secretary

MEMORANDUM

To:

Environmental Review Commission Members

From:

William G. Ross, Jr. William & faction

Subject:

Status Report on Individually Permitted Discharging Systems

Beginning July 1, 2007, and Ending June 30, 2008

Fiscal Year 2007-2008

Pursuant to General Statutes 143-215.9A, the Department of Environment and Natural Resources submits the subject fiscal year report.

If any additional information or clarification is needed, please contact Vanessa Manuel at 919/807-6392.

ATTACHMENTS

Cc:

Coleen H. Sullins, Director, Division of Water Quality Dr. Lynn Muchmore, Director, Fiscal Research

Kristin Walker, Fiscal Research

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Table 1	Enforcement actions taken, Civil Penalties assessed and collected, and Remissions Requested from July 1, 2007, through June 30, 2008.
Table 2	Permits Issued and Inspections completed from July 1, 2007, through June 30, 2008.
Table 3	Special Orders by Consent (SOCs) active and pending from July 1, 2007, through June 30, 2008.
Table 4	Names and locations of individually permitted discharging facilities as of August 25, 2008.
Addendum	Support information

Table 1
Status of Civil Penalty Assessments
For the Period Beginning July 1, 2007, and Ending June 30, 2008*

	ARO	FRO	MRO	RRO	WARO	WIRO	WSRO	State Totals
Total Number Of Enforcement Actions Assessed [†]	62	48	127	100	33	54	90	514
Total Number Of Enforcement Actions Assessed In The Central Office	10	3	11	6	-1	3:	6	. 39
Total Number Of Enforcement Actions Assessed By The Regional Supervisors	52	45	116	94	33	51	84	475
Enforcement Actions Generated From Limit &/or Monitoring Violations	40	42	118	94	33	751	84	462
Enforcement Actions Generated From Other Permit Condition Violations	2 12 com	Ĝ.	9	6	0 1	2-h3,1-s	6	42
Total Civil Penalties Assessed	\$43,230.90	\$45,070.32	\$302,887.94	\$129,270.85	\$38,122.18	\$128,612.20	\$155,235.86	\$842,430.25
Total Civil Penalties Collected	\$46,326.30	\$88,275.74	\$164,229.92	\$168,248.93	\$40,129.48	\$61,469.13	\$143,780.91	\$712,460.41
Total Number Of Remission Requests	15 7	4	25	17	2.2	22	7 · 3	92
Total Number Of Enforcement Actions With Partial Or Full Remission By The Director		0	14	7.		0	6	29
Total Number Of Remission Requests Pending The Director's Decision	5	1 .	39	21	3	4	13	86
Total Number Of Remission Requests Pending The EMC's Final Agency Decision	7	6	39	20	3	2	14	91
Total Number Of Contested Cases (known at this time)	0	1 .	1	0	0	0	0	2

Fiscal year numbers are reported as of 8/25/2008 and may vary from actual due to delays in data entry

^{*} Data based on penalty assessment approved date, violations assessed may have occurred outside of the fiscal year date range

^{**} Includes assessments by the Environmental Sciences Section

Penalties collected may not include penalties assessed during this reporting quarter and may include penalties assessed outside this fiscal year date range.

Table 2
Status of Individually Permitted Facilities
For the Period Beginning July 1, 2007, and Ending June 30, 2008*

	ARO	FRO	MRO	RRO	WARO	WIRO	WSRO	State Totals
Total Number Of Individually Permitted Facilities	278	83	244	193	131	122	264	1315
Major Municipal Permitted Facilities	21	22	29	31	16	12	26	157
Major Non-Municipal Permitted Facilities	13	7	17	8	8	13	7.	73
Minor Municipal Permitted Facilities	25	18	25 -	14	19	19	21	141
Minor Non-Municipal Permitted Facilities	219	36	173	140	88	78	210	944
Number Of NPDES Permits Issued	79	2	16	89.	65.	52	57	360
Major Municipal Permits Issued	7	~ 0	4	11	9	7	2:	40
Major Non-Municipal Permits Issued	4	0	2	2		7.		19
Minor Municipal Permits Issued	8	0 -	0	1	8	5	4	26
Minor Non-Municipal Permits Issued	62	2	z. 10.	77	47	. 35	48	281
Total Number Of Compliance Evaluation Inspections Completed	188	. 66	120	128	93	36.	227	858
Total Number Of Other Inspections Completed	40	22	42	37	8	30	58	237

Table 3
Status of Special Orders By Consent (SOCs)
For the Period Beginning July 1, 2007, and Ending June 30, 2008*

	ARO	FRO	MRO	RRO	WARO	WIRO	WSRO	State Totals
Total Number of Individually Permitted Facilities With Active SOCs	4	4	0	3	4	1	9	25
Total Number of Individually Permitted Facilities Requesting New or Amended SOCs	1	1	0	3	3	2	0	10

Fiscal year numbers are reported as of 8/25/2008 and may vary from actual due to delays in data entry.

Table 4 - NPDES Permit Holders: Names and Locations

Region	Permit Number	Owner	Facility	City	County Name
Asheville	NC0000078	Davidson River Village LLC	Former Ecusta Mill	Brevard	Transylvania
Asheville	NC0000094	Fletcher Warehousing Company	Fletcher Warehousing Company	Fletcher	Henderson
Asheville	NC0000108	159 Babcock Co LLC	Excelsior Packaging Group	Rosman	Transylvania
Asheville	NC0000175	Unimin Corporation	Quartz Operation	Spruce Pine	Mitchell
Asheville	NC0000264	Jackson County	Jackson County Industrial Park WWTP	Whittier	Jackson
Asheville	NC0000272	Blue Ridge Paper Products Inc	Canton Mill	Canton	Haywood
Asheville	NC0000311	M-B Industries Inc	M-B Industries WWTP	Rosman	Transylvania
Asheville	NC0000353	Feldspar Corporation	Spruce Pine facility	Spruce Pine	Mitchell
Asheville	NC0000361	Unimin Corporation	Schoolhouse Quartz facility	Spruce Pine	Avery
Asheville	NC0000396	Progress Energy Carolinas Inc	Asheville Steam Electric Power Plant	Arden	Buncombe
Asheville	NC0000400	K T Feldspar Corporation	K-T Feldspar Corp-Spruce Pine	Spruce Pine	Mitchell
Asheville	NC0004243	Coats American Inc	Coats American-Sevier Plant	Marion	McDowell
Asheville	NC0004391	Grover Industries Inc	Tryon Plant WWTP	Tryon	Polk
Asheville	NC0004405	Cliffside Sanitary District	Cliffside Sanitary District WWTP	Cliffside	Rutherford
Asheville	NC0004464	Polk County	Woodland Mills WWTP	Mill Spring	Polk
Asheville	NC0005088	Duke Energy Carolinas LLC	Cliffside Steam Station	Cliffside	Rutherford
Asheville	NC0005258	Sgl Carbon LLC	SGL Carbon Corporation	Morganton	Burke
Asheville	NC0006254	Omni Supply	River Road Site	Patterson	Caldwell
Asheville	NC0006564	Baxter Healthcare Corporation	Baxter Healthcare Corporation	Marion	McDowell
Asheville	NC0020214	Tuckaseigee Water & Sewer Authority	Sylva WWTP	Sylva	Jackson
Asheville	NC0020290	Town of Burnsville	Burnsville WWTP	Burnsville	Yancey
Asheville	NC0020460	USDA US Forest Service	Sliding Rock Recreation Area	Pisgah Forest	Transylvania
Asheville	NC0020478	USDA US Forest Service	Lake Powhatan Recreation Area	Asheville	Buncombe
Asheville	NC0020486	USDA US Forest Service	North Mills River Recreation Area	Waynesville	Henderson
Asheville	NC0020664	Town of Spindale	Spindale WWTP	Spindale	Rutherford
Asheville	NC0020800	Town of Andrews	Andrews WWTP	Andrews	Cherokee
Asheville	NC0020940	Town of Murphy	Murphy WWTP	Murphy	Cherokee
Asheville	NC0021148	USDA US Forest Service	Jackrabbit Mountain Recreation Area WWTP	Murphy	Clay
Asheville	NC0021229	Town of Old Fort	Old Fort WWTP	Old Fort	McDowell
Asheville	NC0021369	Town of Columbus	Columbus WWTP	Columbus	Polk
Asheville	NC0021407	Town of Highlands	Highlands WWTP	Highlands	Macon
Asheville	NC0021423	Town of Spruce Pine	Spruce Pine WWTP	Spruce Pine	Mitchell
Asheville	NC0021547	Town of Franklin	Franklin WWTP	Franklin	Macon
Asheville	NC0021601	Town of Tryon	Tryon WWTP	Tryon	Polk
Asheville	NC0021733	Town of Marshall	Marshall WWTP	Marshall	Madison
Asheville	NC0021857	Town of Newland	Newland WWTP	Newtand	Avery
Asheville	NC0021890	Town of Granite Falls	Granite Falls WWTP	Granite Falls	Caldwell
Asheville	NC0021946	Town of Rosman	Rosman WWTP	Rosman	Transylvania
Asheville	NC0022454	Midway Medical Center	Midway Medical Center-Canton	Canton	Haywood
Asheville	NC0022756	Linville Land Harbor Prop Owners Assoc	Linville Land Harbor WWTP	Linville	Avery
Asheville	NC0022900	Carolina Water Service Inc Of NC	Sugar Mountain WWTP	Banner Elk	Avery
			-		

Table 4 - NPDES Permit Holders: Names and Locations

Region	Permit Number	Owner	Facility	City	County Name
Asheville	NC0022985	Carolina Water Service Inc Of NC	Fairfield Sapphire Valley WWTP	Sapphire	Jackson
Asheville	NC0023001	Carolina Water Service Inc Of NC	Bear Paw WWTP	Murphy	Cherokee
Asheville	NC0023086	Fontana Village Resort	Peppertree Fontana Village	Fontana Dam	Graham
Asheville	NC0023124	GGCC Utility Inc	GGCC Utility WWTP	Linville	Avery
Asheville	NC0023281	Tapoco Lodge Inc	Tapoco Lodge & Village WWTP	Tapoco	Graham
Asheville	NC0023566	Taylor Togs Inc	Taylor Togs WWTP	Micaville '	Yancey
Asheville	NC0023591	Silver Line Plastics Corp	Silver Line Plastics Corporation	Asheville	Buncombe
Asheville	NC0023736	City of Lenoir	Gunpowder Creek WWTP	Lenoir	Caldwell
Asheville	NC0023981	City of Lenoir	Lower Creek WWTP	Lenoir	Caldwell
Asheville	NC0024295	Transylvania Utilities Inc	Connestee Falls WWTP	Brevard	Transylvania
Asheville	NC0024376	The Wilds Christian Association Inc	The Wilds Christian Camp	Brevard	Transylvania
Asheville	NC0024431	Kanuga Conferences Inc	Kanuga Conferences WWTP	Hendersonville	Henderson
Asheville	NC0024805	NCDOT	Haywood County Rest Area	Sylva	Haywood
Asheville	NC0024911	Metropolitan Sewerage District of Buncombe Coun	ct of Buncombe Count French Broad River WRF	Asheville	Buncombe
Asheville	NC0025101	USDI National Park Service	Smokemont WWTP	Cherokee	Swain
Asheville	NC0025135	Huffman Finishing Inc	Huffman Finishing	Granite Falls	Caldwell
Asheville	NC0025321	Town Of Waynesville	Waynesville WWTP	Waynesville	Haywood
Asheville	NC0025381	Town of Lake Lure	Lake Lure WWTP	Lake Lure	Rutherford
Asheville	NC0025461	Town of Bakersville	Bakersville WWTP	Bakersville	Mitchell
Asheville	NC0025534	City of Hendersonville	Hendersonville WWTP	Hendersonville	Henderson
Asheville	NC0025836	Town of Hot Springs	Hot Springs WWTP	Hot Springs	Madison
Asheville	NC0025879	Town of Robbinsville	Robbinsville WWTP	Robbinsville	Graham
Asheville	NC0025909	Town of Rutherfordton	Rutherfordton WWTP	Rutherfordton	Rutherford
Asheville	NC0025917	Town of Rhodhiss	Rhodhiss WWTP	Rhodhiss	Burke
Asheville	NC0025933	Days Inn of Candler, Inc.	Days Inn West WWTP	Candler	Buncombe
Asheville	NC0025984	Town of Forest City	Forest City WWTP	Forest City	Rutherford
Asheville	NC0026557	Town of Bryson Clty	Bryson City WWTP	Bryson City	Swain
Asheville	NC0026573	City of Morganton	Catawba River Pollution Control Facility	Morganton	Burke
Asheville	NC0026654		Crossnore WWTP	Crossnore	Avery
Asheville	NC0026697	Clay County Water & Sewer District	Hayesville WWTP	Hayesville	Clay
Asheville	NC0027332	Tennessee Valley Authority	Chatuge Hydro Plant	Hendersonville	Clay
Asheville	NC0027341	Tennessee Valley Authority	Fontana Hydro Plant	Asheville	Graham
Asheville	NC0027359	Tennessee Valley Authority	Hiwassee Hydro Plant	Murphy	Cherokee
Asheville	NC0027685	NC Department of Correction	Avery Correctional Center	Newland	Avery
Asheville	NC0028975	City of Saluda	Saluda WWTP	Saluda	Polk
Asheville	NC0029831	Carolina Energies Inc	Sugar Hill Truck Stop	Marion	McDowell
Asheville	NC0029882		Briarwood WWTP	Leicester	Buncombe
Asheville	NC0030139	White Oak Manor	White Oak Manor- Rutherfordton	Rutherfordton	Rutherford
Asheville	NC0030422	John C Francis	Green Valley Mobile Home Park	Waynesville	Haywood
Asheville	NC0030783	Caldwell County Schools	Baton Elementary School	Granite Falls	Caldwell
Asheville	NC0030996	The Switzerland Inn	The Switzerland Inn	Little Switzerland	McDowell

Table 4 - NPDES Permit Holders: Names and Locations

e NC0031879 City of Marion Copening Creek WWTP e NC0032314 Town of Banner Elk Banner Elk WWTP e NC0032315 Town of Banner Elk Le Balsan Center for Hope & Recovery e NC0032361 Evergeene Foundation The Balsan Center for Hope & Recovery e NC00323727 Tyon of Highlander The Balsan Center for Hope & Recovery e NC0033237 Tyon of Highlander Camp Lightlander e NC00332430 Canny Ballander Camp Lightlander e NC0033260 Shelles McCot Ageander Camp Lideas WWTP e NC0033260 Shelles McCot Ageander Camp Lideas WWTP e NC003360 Shelles Bulk Villaged of Education Polk Central School e NC003360 Shelles Bulk Villaged of Education Polk Central School e NC0034307 Young Life Windy Gap Camp Polk Central School e NC0034307 Young Life Windy Gap Camp Polk Central School e NC0034307 Young Life Windy Gap Camp Polk Central School <t< th=""><th>Region</th><th>Permit Number</th><th>Owner</th><th>Facility</th><th>Citv</th><th>County Name</th></t<>	Region	Permit Number	Owner	Facility	Citv	County Name
NC0032115 Town of Banner Elk Banner Elk WW/P NC0032145 Town of Banner Elk Linied World Mission NC0032361 Levegraen Foundation The Balasm Center for Hope & Recovery NC0032367 Town of Highlands Am Steel WITP NC003327 Tyoo Electronics Corporation Tyoo Electronics Corporation NC0033267 Tyoo Electronics Corporation Tyoo Electronics Corporation NC0033567 Tyoo Electronics Corporation Tyoo Electronics Corporation NC0033567 San Development Corporation Tyoo Electronics Corporation NC0033568 Polk County Board of Education Polk Central School NC0033569 Navey Development Corporation Polk Central School NC0033560 Navey Toverelopment Corporation Polk Central School NC0033561 Navey Development Corporation Polk Central School NC0033562 Tyou Electronics County Board of Education Polk Central School NC0033562 Town County Board of Education Polk Central School NC0033662 Town County Board of Education Polk Central School NC0033677 Macklew County Schools	Asheville	NC0031879	City of Marion	Corpening Creek WWTP	Marion	McDowell
NC0032174 United World Mission United World Mission United World Mission NC003278 Evergreen Foundation The Balsam Center for Hope & Recovery NC003278 Town of Highlands Alth Street WTP NC0032806 Marquis Property Management LLC Morningstar of Jackson NC0032373 Tyce Electronics Octopration Camp Judaea NC0033261 Shelley McCoy Alexander Camp Highlander NC0033262 Silver Blatt, Williage Camp Judaea NC0033263 Rovery Development Corporation Camp Highlander NC0033266 Silver Blatt, Williage Pole Central School NC0033267 Marquis Margion County Board of Education Pole Central School NC00340304 Young Life Windy Gap Camp Young Life Windy Gap Camp NC0034031 Town of Tryon Lean March Electronics County Schools NC0034032 Town of Tryon Lean Middle School WWTP NC0034033 Town of Tryon Tryon Middle School WWTP NC0034034 Town of Tryon Town of Tryon NC0034040 Town of Tryon Town of Tryon NC0034040<	Asheville	NC0032115	Town of Banner Elk	Banner Elk WWTP	Banner Elk	Avery
NC0032816 Evergreen Foundation The Balsam Canter for Hope & Recovery	Asheville	NC0032174	United World Mission	United World Mission	Union Mills	Rutherford
NC0032378 Town of Highlands	Asheville	NC0032361	Evergreen Foundation	The Balsam Center for Hope & Recovery	Sylva	Haywood
NC0033227 Marquis Property Management LLC Monimigata of Jackson NC0033227 Shelley McCoy Alexandra Cyro Electronics Corporation NC0033223 Shelley McCoy Alexandra Camp Highlander NC0033430 Camp Judaea WWTP NC0033653 Pork County Board of Education Polk Central School NC0033650 Silver Bulf Village Month Report Alley Reat Home NC0033650 Silver Bulf Village Month Read Mark Care LLC NC0034304 Febrarier's Fairwink Reat Home Polk Central School NC0034304 Febrarier's Fairwink Reat Home Polk Central Read Read Mark Care LLC NC0034304 Febrarier's Fairwink Reat Home Polk Central Read Read Mark Care LLC NC0034327 Febrarier's Fairwink Reat Home Property Microbial County Adult Care LLC Cedathorok Real Home NC00353217 McDowell County Adult Care LLC Cedathorok Real Home Cedathorok Real Home NC00353217 McDowell County Adult Care LLC Delay Shoals Fair Home NC00353231 McDowell County Adult Care LLC Cedathorok Real Home NC00353231 McDowell County Adult Care LLC Delay Mark Real Mark Real Mark Real Mar	Asheville	NC0032778	Town of Highlands	4th Street WTP	Highlands	Macon
NC0033257 Tyoc Electronics Corporation Tyoc Electronics Corporation NC0033257 Shelley McCoy Alexander Camp Judaea WWTP NC0033653 Poll County Board of Education Foll Central School NC0033650 Silver Bluff Village Poll County Board of Education NC0033660 Aleay Development Corporation Mountain Glan Golf Club NC0033661 Avery Development Corporation Incurred Elementary School WWTP NC0034207 Young Life Winky Gap Camp Fleisher's Flair wink Sext Home NC0034304 Fleisher's Fairwaw Rest Home Tryon Middle School NC0034922 Town of Tryon Rest Home NC00352167 McDowell County Adult Care LLC Celathrook Residential Center NC0035217 Shufford Yans LLC Celathrook Residential Center NC0035218 Cheroise County Schools Hisher's Flair Amen School NC0035219 Cheroise County Schools Cheroise Camps Inc NC00352614 Shufford Yans LLC Dudley Shools WWTP NC00352615 Blue Star Camps Inc Cheroise Camps WWTP NC00353624 Camp Carolwool Inc Cheroise Camps WWTP	Asheville	NC0032808	Marquis Property Management LLC	Morningstar of Jackson	Sylva	Jackson
NC0033251 Shelley McCoy Alexander Camp Lidgean Camp Lidgean NC0033535 Polk County Board of Education Polk Central School NC003360 Silver Bluff Village Polk Central School NC0034207 Nc0034207 Alexander Alexander NC0034207 Madison County Board of Education Laurel Elementary School WWTP NC0034207 Nc0034207 Madison County Board of Education Laurel Elementary School WWTP NC0034304 Young Life Windy Gap Camp Flesher's Fariview Rest Home Proing Life Windy Gap Camp NC0034302 Town of Typo Typo Middle School NC0035217 McDowell County Adult Care LLC Cedarbrook Residential Center NC0035217 McDowell County Schools Hiwassee Dam School NC0035251 Shirificid Yamar LLC Hiwassee Dam School NC0035251 Shirificid Yamar LLC Hiwassee Dam School NC0035251 Shirificid Yamar LLC Hiwassee Dam School NC0035251 Shirificid Yamar LLC Blue Star Camps WWTP NC0035251 Shirificid Yamar Schools Skyline Lodge & Village NC0035251 <td>Asheville</td> <td>NC0033227</td> <td>Tyco Electronics Corporation</td> <td>Tyco Electronics Corporation</td> <td>Fairview</td> <td>Buncombe</td>	Asheville	NC0033227	Tyco Electronics Corporation	Tyco Electronics Corporation	Fairview	Buncombe
NC00335430 Camp Judaea Camp Judaea WWTP NC0033553 Polk County Board of Education Polk Certail School NC0033600 Silver Bulf Village Pageon Valley Rest Home NC0033650 Akery Development Corporation Mountain Glen Gelf Club NC0034304 Madison County Board of Education Voung Life Windy Gap Camp NC0034304 Mountain Glen Gelf Elementary School WWTP Poly Life Windy Gap Camp NC0034304 Fiesher's Fairview Rest Home Poung Life Windy Gap Camp NC0035157 McDowall County Adult Care LLC Cedarbrook Residential Center NC0035217 Shuford Yams LLC Cedarbrook Residential Center NC0035218 Shuford Yams LLC Dudley Shoals Plant NC003521 Shuford Yams LLC Dudley Shoals Plant NC003521 Shuford Camps Inc Blue Star Camps WWTP NC003521 Blue Star Camps Inc Blue Star Camps WWTP NC003523 Carclina Water Service Inc Of NC Blue Star Camps WWTP NC003569 Skyline Lodge & Village Skyline Lodge & Village WWTP NC0036692 Skyline Lodge & Village Resort Spa NC	Asheville	NC0033251	Shelley McCoy Alexander	Camp Highlander	Hendersonville	Henderson
NC0033553 Polk County Board of Education Polk Central School NC0033686 Silve lauf Village NC0034207 Madison County Board of Education Mountain Galer Golf Club NC0034207 Madison County Board of Education Laurel Elementary School WWTP NC0034207 Madison County Board of Education Laurel Elementary School WWTP NC0034932 Flesher's Fairwew Rest Home Flesher's Fairwew Rest Home NC0034932 Town of Tyon Tyon Middle School NC0034932 Town of Tyon Toyn Middle School NC0035157 McDown County Schools Tryon Middle School NC0035386 Cherokee County Schools Cherokee County Schools NC0035386 Cherokee County Schools Cherokee County Schools NC0035386 Cherokee County Schools Cherokee County WWTP NC0035386 Cherokee County Schools Cherokee County WWTP NC0035641 Fleitcher Academy Inc Fleitcher Academy WWTP NC0035684 Carolina Water Service Inc ORV Bon Worth WWTP NC0035684 Carolina Water Service Inc ORV Bon Worth WWTP NC0035684	Asheville	NC0033430	Camp Judaea	Camp Judaea WWTP	Hendersonville	Henderson
NC0033600 Silver Bluff Village Pigeon Valley Rast Home NC00334307 Avery Davalopment Corporation Mountain Clair Colif Club NC0034307 Madison County Board of Education Laurel Elementary School WWTP NC0034304 Young Life Windy Gap Camp Flesher's Fairview Rest Home NC0034304 Flesher's Fairview Rest Home Flesher's Fairview Rest Home NC0034305 Town of Tryon County Life Windy Gap Camp NC0034306 Flesher's Fairview Rest Home Flesher's Fairview Rest Home NC0034307 Town of Tryon County Chronity Camp NC0035516 Shuford Varns LLC Codarbook Residential Center NC0035231 Chercheckee County Schools Chercheckee County Schools NC0035251 Blue Star Camps Inc Camp Campool WWTP NC0035251 Blue Star Camps Inc Elebe Star Camps WWTP NC003666 Skyline Lodge & Village Skyline Lodge & Village NC003666 Skyline Lodge & Village Skyline Lodge & Village NC0037737 Wese Inc DBA Natahala Village Resort Spa Singing Waters Camping Resort NC0039666 Skyline Lodge & Village	Asheville	NC0033553	Polk County Board of Education	Polk Central School	Mill Spring	Polk
NC0033685 Avery Development Corporation Mountain Glen Golf Club NC0034207 Madison County Board of Education Laural Elementary School WWTP NC0034207 Young Life Windy Gap Camp Young Life Windy Gap Camp NC0034924 Flesher's Fairview Rest Home Flesher's Fairview Rest Home NC0034922 Town of Tryon Cadatrook Residental Center NC0035157 McDowell County Schools Hiwassee Dam School NC003526 Cherokee County Schools Hiwassee Dam School NC003583 Camp Carolwood Inc Blue Star Camps Inc NC0036641 Fletcher Academy Inc Fletcher Academy WWTP NC0036842 Skyline Lodge & Village Skyline Lodge & Village NC0036843 Skyline Lodge & Village Skyline Lodge & Village NC0036854 Skyline Lodge & Village Skyline Lodge & Village NC0037176 Bon Worth Inc Bon Worth WWTP NC0037177 Wesse Inc DBA Hatahala Village Resort Spa Skyline Lodge & Village NC0037777 Wesse Inc DBA Hatahala Village Resort Spa Singing Waters Camping Resort NC0039187 Linwille Resorts Inc Volosges	Asheville	NC0033600	Silver Bluff Village	Pigeon Valley Rest Home	Canton	Haywood
NC0034207 Madison County Board of Education Laurel Elementary School WWTP NC0034304 Young Life Windy Gap Camp Flesher's Fairview Rest Home NC0034922 Town of Tryon Flesher's Fairview Rest Home NC0034932 Town of Tryon Tryon Middle School NC0035211 Shuford Yams LLC Cedarbrook Residential Center NC0035236 Chenckee County Schools Hwassee Dam School NC0035281 Blue Star Camps Inc Electher Academy WITP NC00356261 Fletcher Academy WITP Blue Star Camps Inc NC00356264 Canno Carolina Water Service Inc Of NC Bent Creek WWTP NC0036642 Carolina Water Service Inc Of NC Bent Creek WWTP NC0036643 Siyline Lodge & Village Siyline Lodge & Village NC0036644 Carolina Water Service Inc Of NC Bent Worth WITP NC0036645 Siyline Lodge & Village Siyline Lodge & Village NC0036640 Siyline Lodge & Village Siyline Lodge & Village NC0036657 Bun Worth Inc Bon Worth WITP NC0036664 Siyline Lodge & Village Nordoge & Village NC0	Asheville	NC0033685	Avery Development Corporation	Mountain Glen Golf Club	Newland	Avery
NC0034304 Young Life Windy Gap Camp Young Life Windy Gap Camp Young Life Windy Gap Camp NC0034924 Flesher's Fairview Rest Home Instruct's Fairview Rest Home Instruct's Fairview Rest Home NC0034924 Town of Tryon Town of Tryon Town of Tryon NC0034932 Town of Tryon Town of Tryon NC0035167 McDowell County Adult Care LLC Cedathrook Residential Center NC0035286 Camp Carolwool Schools Hiwassee Dam School NC0035621 Shuford Yams LLC Dudley Shoals Plant NC0035621 Bine Star Camps Inc Camp Carolwool WyPP NC0035621 Fletcher Academy Inc Camp Carolwool WyPP NC0035621 Fletcher Academy WVTP Fletcher Academy WWTP NC0035621 Fletcher Academy Inc Camp Carolwool WyPP NC0035621 Fletcher Academy WWTP Blue Star Camps WYTP NC0035621 Fletcher Academy WWTP Blue Star Camps WYTP NC0035621 Fletcher Academy WWTP Blue Star Camps WYTP NC003562 Fletcher Academy WWTP NC0035774 NC0035777 Var Top Homeowner's Association Wy Town W	Asheville	NC0034207	Madison County Board of Education	Laurel Elementary School WWTP	Marshall	Madison
NC0034934 Fiesher's Fairview Rest Home Flesher's Fairview Rest Home NC0034932 Town of Typon Tryon Maddle School NC0035157 McDownell County Adult Care LLC Cedathrook Residential Center NC0035211 Shuford Yams LLC Ludley Shoals Plant NC003538 Cherokee County Schools Hiwassee Dam School NC003538 Cherokee County Schools Hiwassee Dam School NC0035621 Blue Star Camps Inc. Camp Cardwood Inc NC0035621 Blue Star Camps Inc. Camp Cardwood WWTP NC003664 Fletcher Academy Inc Blue Star Camps Inc. NC0036692 Skyline Lodge & Village Skyline Lodge & Village NC0036692 Pine Mountain Property Owners Assoc Pine Mountain Lakes WWTP NC0037711 Vz Top Homeowner's Association Inc VZ TOP Homeowner's Association Inc NC0037717 Vx End Homeowner's Association Inc VZ TOP Homeowner's Association NC NC0033771 Vx End Homeowner's Association Inc VZ TOP Homeowner's Association WTP NC0033771 Vx End Homeowner's Association Inc VZ TOP Homeowner's Association NC NC0033418 Linville Res	Asheville	NC0034304	Young Life Windy Gap Camp	Young Life Windy Gap Camp	Weaverville	Buncombe
NC0034932 Town of Tyon Tryon Middle School NC0035157 McDowell County Adult Care LLC Cedarborok Residential Center NC0035217 McDowell County Schools Hwassee Dam School NC0035393 Cherokee County Schools Hwassee Dam School NC0035631 Blue Star Camps Inc Camp Carolwood WWTP NC0036641 Fletcher Academy WWTP Bent Cared WWTP NC0036692 Skyline Lodge & Village Skyline Lodge & Village NC0036693 Skyline Lodge & Village Skyline Lodge & Village NC0036692 Skyline Lodge & Village Skyline Lodge & Village NC0036693 Skyline Lodge & Village Skyline Lodge & Village NC0036692 Skyline Lodge & Village Skyline Lodge & Village NC0036693 Skyline Lodge & Village Skyline Lodge & Village NC0036692 Skyline Lodge & Village Skyline Lodge & Village NC0036693 Skyline Lodge & Village Skyline Lodge & Village NC0036694 Ban Worth Inc VZ TOP Homeowner's Association Inc NC0038677 Valey View of Asheville LLC Singing Waters Camping Resort	Asheville	NC0034924	Flesher's Fairview Rest Home	Flesher's Fairview Rest Home	Fairview	Buncombe
NC0035517 McDowell County Adult Care LLC Cedarbrook Residential Center NC0035211 Shuford Yarns LLC Hiwassee Dam School NC0035321 Cherokee County Schools Camp Carolwood WWTP NC0035639 Camp Carolwood Inc Camp Carolwood WWTP NC003664 Fletcher Academy Inc Blue Star Camps WWTP NC0036635 Rivine Lodge & Village Fletcher Academy WWTP NC0036636 Carolina Water Service Inc Of NC Blue Star Camps WWTP NC0036635 Rivine Lodge & Village WWTP Skyline Lodge & Village WWTP NC0036636 Rivine Lodge & Village WWTP Bon Worth Inc NC0037176 Mc0037717 Var De Homeowner's Association Inc Skyline Lodge & VIIIage WWTP NC0037777 Var De Homeowner's Association Inc Valley WwTP Ohio Electric Motors Inc NC0037777 Valley View of Asheville LLC Ohio Electric Motors Inc Ohio Electric Motors Inc NC0039167 Valley View of Asheville LLC Ulmille Association WWTP NC00402578 Inckaseigee Water & Sewer Authority Jackson County WTP NC00400257 NC Detwerd Bound Schools Gateway Alternate School </td <td>Asheville</td> <td>NC0034932</td> <td>Town of Tryon</td> <td>Tryon Middle School</td> <td>Tryon</td> <td>Polk</td>	Asheville	NC0034932	Town of Tryon	Tryon Middle School	Tryon	Polk
NC0035211 Shuford Yarrs LLC Dudley Shoals Plant NC0035386 Cherokee County Schools Hiwassee Dam School NC0035631 Blue Star Camps Inc Blue Star Camps WWTP NC0036621 Blue Star Camps Inc Blue Star Camps WWTP NC0036622 Skyline Lodge & Village Skyline Lodge & Village WWTP NC0036623 Skyline Lodge & Village Skyline Lodge & Village WWTP NC0036624 Fletcher Academy Inc Fletcher Academy WWTP NC0036624 Skyline Lodge & Village Skyline Lodge & Village WWTP NC0036627 Skyline Lodge & Village Skyline Lodge & Village WWTP NC0037717 Vz Top Homeowner's Association Inc VZ TOP Homeowner's Association WWTP NC0037717 Vese Inc DBA Natahala Village Resort Spa Nantahala Village NC0038687 Legasus Of North Carolina LLC Singing Waters Camping Resort NC0039167 Valley View Charlie LLC Valley View Shopping Center NC003917 Tuckassigee Water & Sewer Authority Jackson County WWTP NC00403918 Tuckassigee Water & Sewer Authority Jackson County WWTP NC00403918 NC DENKIDIvision of Fo	Asheville	NC0035157	McDowell County Adult Care LLC	Cedarbrook Residential Center	Nebo -	McDowell
NC0035386 Cherokee County Schools Hiwassee Dam School NC0035939 Camp Carolwood Inc Camp Carolwood WWTP NC0036251 Fletcher Academy WWTP NC003664 Fletcher Academy WWTP NC0036692 Skyline Lodge & Village NC0036693 Skyline Lodge & Village NC0036694 Carolina Water Service Inc Of NC NC0036695 Skyline Lodge & Village NC0036696 Skyline Lodge & Village NC003777 Bon Worth Inc NC003777 Var ToP Homeowner's Association Inc NC003777 Verse Inc DBA Natahala Village Resort Spa NC003777 Verse Inc DBA Natahala Village Resort Spa NC003867 Legasus Of North Carolina LLC NC003867 Legasus Of North Carolina LLC NC0039167 Valley View of Asheville LLC NC0039178 Valley View of Asheville LLC NC0039187 Valley View of Asheville LLC NC0039187 Linville Resorts Inc NC0039188 Tuckaseigee Water & Sewer Authority NC0040391 NC0040291 NC0040391 NC Outward Bound School	Asheville	NC0035211	Shuford Yarns LLC	Dudley Shoals Plant	Granite Falls	Caldwell
NC0035539 Camp Carolwood Inc Camp Carolwood Inc Camp Carolwood WVTP NC0036251 Blue Star Camps Inc Fletcher Academy WWTP NC0036641 Fletcher Academy Inc Fletcher Academy WWTP NC0036684 Carolina Water Service Inc Of NC Bent Creek WWTP NC0036685 Skyline Lodge & Village Skyline Lodge & Village NC0036692 Skyline Lodge & Village Pine Mountain Lakes WWTP NC0037716 Bon Worth Inc VZ TOP Homeowners Association WWTP NC0037717 Wees Inc DBA Natahala Village Resort Spa Nantahala Village NC0037737 Wees Inc DBA Natahala Village Resort Spa Nantahala Village NC0038167 Valley View of Asheville LLC Singing Waters Camping Resort NC0038167 Valley View of Asheville LLC Valley View Shopping Center NC0039167 Valley View of Asheville LLC Valley View Shopping Center NC00391687 Tuckaseigee Water & Sewer Authority Jackson County WWTP NC00391687 Tuckaseigee Water & Sewer Authority Jackson County WWTP NC0040339 NC Delward Bound School Springele County School NC0040355	Asheville	NC0035386	Cherokee County Schools	Hiwassee Dam School	Murphy	Cherokee
NC0036251 Blue Star Camps Inc Blue Star Camps WWTP NC0036641 Fletcher Academy Inc Fletcher Academy WWTP NC003664 Carolina Water Service Inc Of NC Bent Creek WVTP NC0036692 Skyline Lodge & Village NC00366935 Skyline Lodge & Village NC00367176 Bon Worth Inc NC00337771 Vz Top Homeowner's Association Inc NC00337771 Vz Top Homeowner's Association Inc NC0037777 Vese inc DBA Natahala Village Resort Spa NC0038687 Legasus Of North Carolina LLC NC0039167 Valley View of Asheville LLC NC0039176 Ohio Electric Motors Inc NC0039177 Legasus Of North Carolina LLC NC0039177 Valley View of Asheville LLC NC0039177 Linville Resorts Inc NC0039178 Tuckassigee Water & Sewer Authority Jackson Shopping Center NC0040357 Tuckassigee Water & Sewer Authority Jackson County WWTP NC0040359 NC DelNR/Division of Forest Resources B.H. Corpening Forestry Training Center NC0040359 NC Outward Bound School Springdale County Club WWTP	Asheville	NC0035939	Camp Carolwood Inc	Camp Carolwood WWTP	Lenoir	Caldwell
NC0036641 Fletcher Academy Inc Fletcher Academy WWTP NC0036684 Carolina Water Service Inc Of NC Bent Creek WWTP NC0036692 Skyline Lodge & Village Skyline Lodge & Village NC0036935 Pine Mountain Lakes WWTP Pine Mountain Lakes WWTP NC0037176 Bon Worth Inc VZ TOP Homeowners Association WWTP NC0037737 Wess Inc DBA Natahala Village Resort Spa Nantahala Village NC0039167 Vz Top Homeowner's Association Inc VZ TOP Homeowners Association WWTP NC00391737 Wess Inc DBA Natahala Village Resort Spa Nantahala Village NC0039167 Valley View of Asheville LLC Singing Waters Camping Resort NC0039177 Valley View of Asheville LLC Valley View Shopping Center NC003917 Valley View of Asheville LLC Valley View Shopping Center NC003917 Valley View of Asheville LLC Valley View Shopping Center NC0040357 Tuckaseigee Water & Sewer Authority Jackson County WWTP NC004002957 NC DenR/Division of Forest Resources B.H. Corpening Forestry Training Center NC00400295 Royal Oaks Inc NC Outward Bound School NC Outward	Asheville	NC0036251	Blue Star Camps Inc	Blue Star Camps WWTP	Hendersonville	Henderson
NC0036684 Carolina Water Service Inc Of NC Bent Creek WWTP NC0036692 Skyline Lodge & Village Skyline Lodge & Village NC0036935 Pine Mountain Property Owners Assoc Pine Mountain Lakes WWTP NC0037176 Bon Worth Inc Bon Worth WWTP NC0037717 Verse Inc DBA Natahala Village Resort Spa Natahala Village Resort Spa NC0037737 Wese Inc DBA Natahala Village Resort Spa Natahala Village Resort Spa NC0039162 Ohio Electric Motors Inc Valley View Shopping Center NC0039178 Valley View of Asheville LLC Valley View Shopping Center NC0039187 Valley View Shopping Center Linville Resorts WWTP NC0039187 Tuckaseigee Water & Sewer Authority Jackson County WWTP NC0040291 NC DENR/Division of Forest Resources B.H. Corpening Forestry Training Center NC0040291 NC Outward Bound School NC Outward Bound School NC0040355 Royal Oaks Inc Springdale Country Club WWTP NC00403754 NC Outward Bound School NC Outward Bound School NC0041161 Caldwell Country Schools Happy Valley Elementary School NC00413	Asheville	NC0036641	Fletcher Academy Inc	Fletcher Academy WWTP	Fletcher	Henderson
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NC0036935 Pine Mountain Property Owners Assoc Pine Mountain Lakes WWTP NC0037176 Bon Worth Inc Bon Worth WWTP NC0037711 Vz Top Homeowner's Association Inc VZ TOP Homeowners Association WWTP NC0037737 Wese Inc DBA Natahala Village Resort Spa Nantahala Village NC0038687 Legasus Of North Carolina LLC Singing Waters Camping Resort NC0039167 Valley View of Asheville LLC Ohio Electric Motors WWTP NC003946 Linville Resorts Inc Linville Resorts WWTP NC003946 Linville Resorts Inc Linville Resorts WWTP NC0039578 Tuckaseigee Water & Sewer Authority Jackson County WWTP NC0040291 NC DENR/Division of Forest Resources B.H. Corpening Forestry Training Center NC040393 NC Delwell County School Springdale Country Club WWTP NC041161 Caldwell County Schools Happy Valley Elementary School NC041181 Caldwell County Schools Kings Creek Elementary School NC041181 Caldwell County Schools Only Schools	Asheville	NC0036692	Skyline Lodge & Village	Skyline Lodge & Village WWTP	Highlands	Macon
NC0037176 Bon Worth Inc Bon Worth Inc NC0037711 Vz Top Homeowner's Association Inc VZ TOP Homeowners Association WWTP NC0037737 Wese Inc DBA Natahala Village Resort Spa Nantahala Village NC0038687 Legasus Of North Carolina LLC Singing Waters Camping Resort NC0039152 Ohio Electric Motors Inc Ohio Electric Motors Inc NC0039446 Linville Resorts Inc Valley View Shopping Center NC0039578 Tuckaseigee Water & Sewer Authority Jackson County WWTP NC0040291 NC DENR/Division of Forest Resources B.H. Corpening Forestry Training Center NC0040292 NC Outward Bound School NC Outward Bound School NC Outward Bound School NC0040355 Royal Oaks Inc Springdale Country Club WWTP NC Outward Bound School NC0040754 NC Outward Bound School NC Outward Bound School Caldwell Country Schools NC0041181 Caldwell Country Schools Happy Valley Elementary School NC004130 Caldwell Country Schools Caldwell Country Schools	Asheville	NC0036935	Pine Mountain Property Owners Assoc	Pine Mountain Lakes WWTP	Connellys Springs	Burke
NC0037711 Vz Top Homeowner's Association Inc VZ TOP Homeowner's Association Inc VZ TOP Homeowner's Association WWTP NC0038687 Legasus Of North Carolina LLC Singing Waters Camping Resort NC0039162 Ohio Electric Motors Inc Ohio Electric Motors WWTP NC0039187 Valley View of Asheville LLC Valley View Shopping Center NC0039187 Valley View of Asheville LLC Linville Resorts WWTP NC0039187 Luckaseigee Water & Sewer Authority Jackson County WWTP NC0040291 NC DENR/Division of Forest Resources B.H. Corpening Forestry Training Center NC0040395 NC Dutward Bound School Springdale County Club WWTP NC0040355 Royal Cask Inc Springdale County Club WWTP NC0040154 NC Outward Bound School Gateway Alternate School NC0041167 Caldwell County Schools Happy Valley Elementary School NC0041181 Caldwell County Schools Caldwell County Schools NC0041190 Caldwell County Schools Caldwell County Schools	Asheville	NC0037176	Bon Worth Inc	Bon Worth WWTP	Hendersonville	Henderson
NC0037737 Wese Inc DBA Natahala Village Resort Spa Nantahala Village NC0038687 Legasus Of North Carolina LLC Singing Waters Camping Resort NC0039152 Ohio Electric Motors Inc Ohio Electric Motors WWTP NC0039187 Valley View of Asheville LLC Valley View Shopping Center NC0039446 Linville Resorts Inc Linville Resorts WWTP NC0040291 Luckaseigee Water & Sewer Authority Jackson County WWTP NC0040291 NC DENR/Division of Forest Resources B.H. Corpening Forestry Training Center NC0040339 NC DENR/Division of Forest Resources B.H. Corpening Forestry Training Center NC0040339 NC Outward Bound School Springdale Country Club WWTP NC0041157 Caldwell Country Schools Gateway Alternate School NC0041181 Caldwell Country Schools Kings Creek Elementary School NC0041900 Caldwell Country Schools Caldwell Country Schools	Asheville	NC0037711	Vz Top Homeowner's Association Inc	VZ TOP Homeowners Association WWTP	Highlands	Macon
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NC0039152 Ohio Electric Motors Inc Ohio Electric Motors WWTP NC0039187 Valley View of Asheville LLC Valley View Shopping Center NC003946 Linville Resorts Inc Linville Resorts WWTP NC0039578 Tuckaseigee Water & Sewer Authority Jackson County WWTP NC0040291 Days Inn - Marion NC0040399 NC DENR/Division of Forest Resources B.H. Corpening Forestry Training Center NC0040339 NC DENR/Division of Forest Resources B.H. Corpening Forestry Training Center NC0040355 Royal Oaks Inc Springdale County Club WWTP NC004154 NC Outward Bound School NC Outward Bound School NC0041161 Caldwell County Schools Gateway Alternate School NC0041181 Caldwell County Schools Happy Valley Elementary School NC041200 Caldwell County Schools Caldwell County Schools	Asheville	NC0038687	Legasus Of North Carolina LLC	Singing Waters Camping Resort	Tuckasegee	Jackson
NC0039187 Valley View of Asheville LLC Valley View Shopping Center NC003946 Linville Resorts Inc Linville Resorts WWTP NC0039578 Tuckaseigee Water & Sewer Authority Jackson County WWTP NC0040291 Days Inn - Marion NC0040339 NC DENR/Division of Forest Resources B.H. Corpening Forestry Training Center NC0040355 Royal Oaks Inc Springdale Country Club WWTP NC0040754 NC Outward Bound School NC Outward Bound School NC0041167 Caldwell County Schools Gateway Alternate School NC0041181 Caldwell County Schools Happy Valley Elementary School NC041200 Caldwell County Schools Caldwell County Schools	Asheville	NC0039152	Ohio Electric Motors Inc	Ohio Electric Motors WWTP	Barnardsville	Buncombe
NC003946 Linville Resorts Inc Linville Resorts WWTP NC0039578 Tuckaselgee Water & Sewer Authority Jackson County WWTP NC0040291 Days Inn - Marion NC0040339 NC DENR/Division of Forest Resources B.H. Corpening Forestry Training Center NC0040355 Royal Oaks Inc Springdale Country Club WWTP NC0040754 NC Outward Bound School NC Outward Bound School NC0041167 Caldwell Country Schools Gateway Alternate School NC0041181 Caldwell Country Schools Happy Valley Elementary School NC041200 Caldwell Country Schools Caldwell Country Schools	Asheville	NC0039187	Valley View of Asheville LLC	Valley View Shopping Center	Candler	Buncombe
NC0039578 Tuckaseigee Water & Sewer Authority Jackson County WWTP NC0040291 Days Inn - Marion NC0040339 NC DENR/Division of Forest Resources B.H. Corpening Forestry Training Center NC0040355 Royal Oaks Inc Springdale Country Club WWTP NC0040754 NC Outward Bound School NC Outward Bound School NC0041167 Caldwell Country Schools Gateway Alternate School NC0041181 Caldwell Country Schools Kings Creek Elementary School NC0041200 Caldwell Country Schools Caldwell Country Schools	Asheville	NC0039446	Linville Resorts Inc	Linville Resorts WWTP	Linville	Avery
NC0040291 Days Inn - Marion NC0040339 NC DENR/Division of Forest Resources B.H. Corpening Forestry Training Center NC0040355 Royal Oaks Inc Springdale Country Club WWTP NC0040354 NC Outward Bound School NC Outward Bound School NC0041157 Caldwell Country Schools Gateway Alternate School NC0041181 Caldwell Country Schools Kings Creek Elementary School NC0041190 Caldwell Country Schools Oak Hill Flementary School	Asheville	NC0039578		Jackson County WWTP	Sylva	Jackson
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NC0040355 Royal Oaks Inc Springdale Country Club WWTP NC0040754 NC Outward Bound School NC Outward Bound School NC0041157 Caldwell County Schools Gateway Alternate School NC0041181 Caldwell County Schools Happy Valley Elementary School NC0041190 Caldwell County Schools Caldwell County Schools	Asheville	NC0040339		B.H. Corpening Forestry Training Center	Crossnore	Avery
NC0040754 NC Outward Bound School NC Outward Bound School NC0041157 Caldwell County Schools Gateway Alternate School NC0041181 Caldwell County Schools Happy Valley Elementary School NC0041190 Caldwell County Schools Kings Creek Elementary School NC041190 Caldwell County Schools	Asheville	NC0040355	Royal Oaks Inc	Springdale Country Club WWTP	Canton	Haywood
NC0041157 Caldwell County Schools Gateway Alternate School NC0041181 Caldwell County Schools Happy Valley Elementary School NC0041190 Caldwell County Schools Kings Creek Elementary School NC0041200 Caldwell County Schools	Asheville	NC0040754	NC Outward Bound School	NC Outward Bound School	Morganton	Burke
NC0041181 Caldwell County Schools Happy Valley Elementary School NC004190 Caldwell County Schools Cak Hill Flementary School	Asheville	NC0041157	Caldwell County Schools	Gateway Alternate School	Granite Falls	Caldwell
NC004190 Caldwell County Schools Kings Creek Elementary School	Asheville	NC0041181	Caldwell County Schools	Happy Valley Elementary School	Lenoir	Caldwell
NCOOM Schools County Schools	Asheville	NC0041190	Caldwell County Schools	Kings Creek Elementary School	Lenoir	Caldwell
	Asheville	NC0041220	Caldwell County Schools	Oak Hill Elementary School	Lenoir	Caldwell

Table 4 - NPDES Permit Holders: Names and Locations

Region	Permit Number	Owner	Facility	City	County Name
Asheville	NC0041696	Town of Valdese	Lake Rhodiss WWTP	Valdese	Burke
Asheville	NC0042277	City of Hendersonville	Hendersonville WTP	Hendersonville	Henderson
Asheville	NC0042358	Adams Apple Homeowners Association Inc	Adams Apple Condominiums WWTP	Banner Elk	Avery
Asheville	NC0043125	Patterson School Inc	Patterson School	Lenoir	Caldwell
Asheville	NC0043231	Cedar Rock Country Club	Cedar Rock Country Club	Lenoir	Caldwell
Asheville	NC0044164	City of Lenoir	Lake Rhodhiss WTP	Lenoir	Caldwell
Asheville	NC0044199	LSAA, Inc. dba Sam's Mart	Sam's Mart #45	Waynesville	Haywood
Asheville	NC0044784	City of Brevard	Cathey's Creek WTP	Brevard	Transylvania
Asheville .	NC0048305	Carolina Yarn Processors Inc	Carolina Yarn Processors	Tryon	Polk
Asheville	NC0048658	A & D Water Service Inc	Sherwood Forest WWTP	Cedar Mountain	Transylvania
Asheville	NC0048755	Monte Carlo Trailer Park	Monte Carlo Trailer Park	Lenoir	Burke
Asheville	NC0049409	Town Of Waynesville	Waynesville WTP	Waynesville	Haywood
Asheville	NC0049620	Town of Hot Springs	Hot Springs Housing Authority WWTP	Hot Springs	Madison
Asheville	NC0050075	Caldwell County Schools	Collettsville Elementary School	Collettsville	Caldwell
Asheville	NC0051021	Eagle's Nest Foundation	Eagle's Nest Foundation-Camp	Pisgah Forest	Transylvania
Asheville	NC0051381	Highlands Falls Community Association	Highlands Falls Country Club WWTP	Highlands	Macon
Asheville	NC0052043	Toxaway Falls Inc	Toxaway Falls WWTP	Leicester	Transylvania
Asheville	NC0055221	City of Marion	Marion WTP	Marion	McDowell
Asheville	NC0055336	Camp Carolina	Camp Carolina WWTP	Brevard	Transylvania
Asheville	NC0055611		Blackberry Sewer System	Blowing Rock	Caldwell
Asheville	NC0055905	Waterford Place Property Owners Assoc	Waterford Place WWTP	Brevard	Transylvania
Asheville	NC0056561	Town of Maggie Valley	Maggie Valley WWTP	Maggie Valley	Haywood
Asheville	NC0056961	City of Asheville	DeBruhl WTP	Swannanoa	Buncombe
Asheville	NC0057151	Town of Mars Hill	Mars Hill WWTP	Mars Hill	Madison
Asheville	NC0057193	Nantahala Outdoor Center	Nantahala Outdoor Center	Bryson City	Swain
Asheville	NC0057541	Cummings Cove Company LLC	Cummings Cove WWTP	Hendersonville	Henderson
Asheville	NC0058378	Elk River Utility Inc	Elk River WWTP	Boomer	Avery
Asheville	NC0058581	The Brow Association Inc	White Oak Mountain Condominiums	Columbus	Polk
Asheville	NC0059200	Trillium Links & Village LLC	Trillium Links & Village LLC	Cashiers	Jackson
Asheville	NC0059421	A&D Water Service Inc	Sapphire Lakes Plant WWTP #1	Sapphire	Transylvania
Asheville	NC0059439	A&D Water Service Inc	Sapphire Lakes Plant WWTP #2	Sapphire	Transylvania
Asheville	NC0059552	Highlands Falls Community Association	Highlands Falls WWTP	Highlands	Macon
Asheville	NC0060194	City of Morganton	Catawba River WTP	Morganton	Burke
Asheville	NC0060208	Jai-Ambe Company Inc	Super 8 Motel	Marion	McDowell
Asheville	NC0060283	Paris Banks	Ridgeview Acres Mobile Home Park	Asheville	Buncombe
Asheville	NC0060534	City of Brevard	Brevard WWTP	Pisgah Forest	Transylvania
Asheville	NC0060844	Laurel Hills Homeowners Association	Laurel Hills WWTP	Franklin	Macon
Asheville	NC0061123	The Mountain Retreat & Learning Center	The Mountain Retreat & Learning Center WWTH Highlands	F Highlands	Macon
Asheville	NC0061182	Buncombe County Board of Education	North Buncombe High School	Weaverville	Buncombe
Asheville	NC0061620	Hide Away Campground Inc	Hide Away Campground WWTP	Bryson City	Swain
Asheville	NC0061930	Mark Laurel Homeowner's Association	Mark Laurel WWTP	Highlands	Macon

Table 4 - NPDES Permit Holders: Names and Locations

Asheville Asheville		Owner	Facility	Cit [*]	COUNTY NEWS
Asheville	NC0062413	Linville Ridge Country Club	Linville Ridge Country Club WWTP	Linville	Avery
The state of the s	NC0062553	Wade Hampton Property Owners Association	Wade Hampton Golf Club WWTP	Cashiers	Jackson
Asheville	NC0062634	Wedgefield Acres Mobile Home Park	Wedgefield Acres MHP WWTP	Asheville	Buncombe
Asheville	NC0062928	Ferguson Farthing & Jaros	Ferguson Farthing & Jaros	Cherokee	Buncombe
Asheville	NC0062961	RCS Properties	Tynecastle WWTP	Banner Elk	Averv
Asheville	NC0063312	McKee Development	Cedar Creek WWTP	Cashiers	Jackson
Asheville	NC0063321	Tuckaseigee Water & Sewer Authority	Cashiers Plant #3 WWTP	Cashiers	Jackson
Asheville	NC0064416	Cullasaja Homeowner's Association	Cullasaja WWTP	Highlands	Jackson
Asheville	NC0065889	Indian Creek Resort LLC	Indian Creek Resort WWTP	Lake Toxaway	Transvivania
Asheville	NC0065986	Robert B Briggs	Dogwood Trails Subdivision	Maggie Valley	Haywood
Asheville	NC0066249	Country Acres Mobile Home Park	Country Acres MHP WWTP	Arden	Henderson
Asheville	NC0066362	Benson Apartments	Benson Apartments	Hendersonville	Henderson
Asheville	NC0066664	Henderson County Board Of Education	Rugby Middle School	Hendersonville	Henderson
Asheville	NC0066681	Henderson County Board Of Education	West Henderson High School	Hendersonville	Henderson
Asheville	NC0066729	Mitchell County Board of Education	Tipton Hill Elementary School WWTP	Green Mountain	Mitchell
Asheville	NC0066737	Mitchell County Board of Education	Mitchell High School WWTP	Bakersville	Mitchell
Asheville	NC0066788	Buncombe County Board of Education	Fairview Elementary School	Fairview	Buncombe
Asheville	NC0066796	Buncombe County Board of Education	Leicester Elementary School	Leicester	Buncombe
Asheville	NC0066958	Jackson County Board of Education	Blue Ridge School	Glenville	Jackson
Asheville	NC0067148	McDowell County Schools	Nebo Elementary School WWTP	Marion	McDowell
Asheville	NC0067288	Veolia Water North America Operating Services	Hunter's Glen WWTP	Etowah	Henderson
Asheville	NC0067318	Macon County Schools	Nantahala School	Topton	Macon
Asheville	NC0067326	Macon County Schools	Cullasaja School	Franklin	Macon
Asheville	NC0067342	North View Mobile Home Park	North View Mobile Home Park	Asheville	Buncombe
Asheville	NC0067351	Haywood County Board of Education	Bethel School WWTP	Waynesville	Haywood
Asheville	NC0068152	Buncombe Properties	Eden's Glen Mobile Village WWTP	Weaverville	Buncombe
Asheville	NC0068799	Greystone Enterprises Inc	Greystone Subdivision	Hendersonville	Henderson
Asheville	NC0068918	Resources Planning Corporation	Cedar Hill WWTP	Cashiers	Jackson
Asheville	NC0069370	Emeritus Corp DBA Pine Park	Pine Park Retirement Inn	Hendersonville	Henderson
Asheville	NC0069892	Town of Andrews	Andrews WTP	Andrews	Cherokee
Asheville	NC0069957	Laurelwood Mobile Home Park	Laurelwood Mobile Home Park	Candler	Buncombe
Asheville	NC0069965	Larry G Scott	Scotty's Mobile Village	Marion	McDowell
Asheville	NC0070394	Indian Bend Properties Inc	Willowbrook Park WWTP	Franklin	Macon
Asheville	NC0071005	Lynnbrook Estates Homeowners Assoc	Lynnbrook Estates WWTP	Columbus	Polk
Asheville	NC0071200	City of Marion	Catawba River WWTP	Marion	McDowell
Asheville	NC0071323	Etowah Sewer Company	Etowah Sewer Company WWTP	Etowah	Henderson
Asheville	NC0071862	Henry K Odom	Magnolia Place WWTP	Hendersonville	Henderson
Asheville	NC0071897	Henderson's Assisted Living	Henderson's Assisted Living	Hendersonville	Henderson
Asheville	NC0072729	USDI National Park Service	Mount Pisgah WWTP	Asheville	Haywood
Asheville	NC0073393		Dana Hill WWTP	Hendersonville	Henderson
Asheville	NC0073741	Veolia Water North America Operating Services	Mountain Valley WWTP	Etowah	Henderson



Table 4 - NPDES Permit Holders: Names and Locations

Region	Permit Number	Owner	Facility	City	 County Name
Asheville	NC0073814	Buncombe County Board of Education	North Buncombe Elementary School	Weaverville	Buncombe
Asheville	NC0073962		Blue Ridge Youth Center WWTP	Newland	Avery
Asheville	NC0074110	Mizpah Healthcare Inc	Mountain View Assisted Living	Hendersonville	Henderson
Asheville	NC0074250	Warner Bradley	Gateway Chevron WWTP	Whittier	Jackson
Asheville	NC0074306	Town of Forest City	Forest City WTP	Forest City	Rutherford
Asheville	NC0074624	Western Carolina University	Western Carolina University WTP	Cullowhee	Jackson
Asheville	NC0075353	McDowell Assisted Living LLC	McDowell Assisted Living WWTP	Marion	McDowell
Asheville	NC0075388	Havon Inc	Pleasant Cove Home WWTP	Candler	Buncombe
Asheville	NC0075612	Wildcat Cliffs Country Club.	Wildcat Cliffs Country Club WWTP	Highlands	Macon
Asheville	NC0075647	Hidden Gap Mobile Home Park	Hidden Gap Mobile Home Park WWTP	Dana	Henderson
Asheville	NC0075680	She-Can Company	Rosewood Mobile Home Park	Arden	Buncombe
Asheville	NC0075736	Whiteside Estates Inc	Whiteside Estates Incorporated	Highlands	Jackson
Asheville	NC0075965	Town of Burnsville	Burnsville WTP	Burnsville	Yancey
Asheville	NC0076082	Biltmore Investments LTD	Bear Wallow Valley MHP WWTP	Hendersonville	Henderson
Asheville	NC0076147	San Giusto Estates	San Giusto Estates	Fletcher	Buncombe
Asheville	NC0076180	Jeld-Wen Inc	Jeld-Wen Fiber of NC	Marion	McDowell
Asheville	NC0076431	Carolina Water Service Inc Of NC	Wolf Laurel WWTP	Mars Hill	Madison
Asheville	NC0076708	Riverwind Homeowners Association	Riverwind Mobile Home Park	Greensboro	Henderson
Asheville	NC0078697	RJGInc	Six Oaks Complex	Tuxedo	Henderson
Asheville	NC0079090	Coldwater Farms, Inc.	Coldwater Trout Farm	Robbinsville	Graham
Asheville	NC0079251	Clement Pappas NC Inc	Clement Pappas plant	Mountain Home	Henderson
Asheville	NC0079448		Fair Haven Home	Bostic	Rutherford
Asheville	NC0079481	Dennis J Whitson	Harmony Estates WWTP	Marion	McDowell
Asheville	NC0079561	Town of Elk Park	Elk Park WWTP	Elk Park	Avery
Asheville	NC0080098	Coastal Ventures Group II LLC	Blue Ridge Country Club WWTP	Marion	McDowell
Asheville	NC0080659	Madison County Board of Education	Madison County Middle School WWTP	Marshall	Madison
Asheville	NC0081001	Morgan Mills Resorts Inc	Morgan Mills Resorts WWTP	Brevard	Transylvania
Asheville	NC0082546	Town of Granite Falls	Granite Falls WTP	Granite Falls	Caldwell
Asheville	NC0082716		English Wolf Lodge- WWTP	Mars Hill	Madison
Asheville	NC0082767	Town of Spruce Pine	Spruce Pine WTP	Spruce Pine	Mitchell
Asheville	NC0083071	Town of Robbinsville	Robbinsville WTP	Robbinsville	Graham
Asheville	NC0083178	Woodfin Sanitary W&S	Sugarcamp Fork WTP	Weaverville	Buncombe
Asheville	NC0083275	Town of Forest City	Harris Plant	Rutherfordton	Rutherford
Asheville	NC0083313	Brookside Village Association	Brookside Village WWTP	Hendersonville	Henderson
Asheville	NC0083712	Town of Mars Hill	Mars Hill WTP	Mars Hill	Madison
Asheville	NC0084441	Smoky Mountain Country Club Estates	Smoky Mountain Country Club	Whittier	Swain
Asheville	NC0084620	Unimin Corporation	Crystal Operation	Spruce Pine	Mitchell
Asheville	NC0085031	Conoco Convenience Store	Conoco Convenience Store	Brevard	Transylvania
Asheville	NC0085154	Town of Weaverville	lvy River WTP	Weaverville	Buncombe
Asheville	NC0085294	Pavillon International	Britten Creek WWTP	Mill Spring	Polk
Asheville	NC0085341		17 Riverbend Road	Black Mountain	Buncombe
			Dane Griff		•

Table 4 - NPDES Permit Holders: Names and Locations

NC0086549	Region	Permit Number	Owner	Facility	City	County Name
NC008554	Asheville	NC0085448	Gordon Patrizio	· 6 Riverbend Road	Asheville	Buncombe
Condescription City of Asservation Cardier Travel Centers	Asheville	NC0085464		1 Riverbend Road	Asheville	Buncombe
NC0085639 Unimin Corporation Red Hill Quartz Processing Plant NC0085635 TA Operating Corporation Red Hill Quartz Processing Plant NC0085635 Piol Travel Centers LLC Filed Travel Centers 4393 NC0086638 SiNF USA Inc Plant Travel Centers 4393 NC0086639 SINF USA Inc Plant Travel Centers 4393 NC0086630 SINF USA Inc Plant Travel Centers 4393 NC0086631 Buncombe County Utilities Girms Site remediation NC0086323 Head-waters Outfliess Adventure Village Adventure Village WVPTP NC0086334 Buncombe County Utilities Amount of Plant Anneward NC0086325 Town of Trocast City With WITP NC0086334 Junialuska Highlands Homeowners Association Claumbla Forest City WWTP NC0086705 Columbia Forest City Wood Products Columbia Forest City WWTP NC0087060 Champion Hills Evoperty Owners Association Champion Hills WWTP NC0087060 Champion Hills Evoperty Owners Association Champion Hills WWTP NC0087060 Minitier Samitary District Winktier Samitary District NC0087060 Winktier Sami	Asheville	NC0085511	City of Asheville	Mills River Regional WTP	Mills River	Henderson
NC0085522 TA Operating Corporation Candler Travel Center NC0086573 Piol Travel Centers LLC Rosman Maintenance Facility NC0086677 Piol Travel Center #533 Piol Travel Center #533 NC0086678 Six Usin Lill Enterprises inc Western Justice Academy WWTP NC0086673 Headwalers Outfitters Adventure Village Adventure Village WWTP NC0086673 Headwalers Outfitters Adventure Village Adventure Village WWTP NC00866735 Buncombe County Board of Education Tryon WTP NC00866735 Buncombe County Board of Education Tryon WTP NC00866736 Louraluske Highlands Homeowners Association Cane Creek Elementary School NC0086737 Louraluske Highlands Homeowners Association Cane Creek Elementary School NC00870764 Town of Froest City Cooper Risk New TP NC00870765 Town of Froest City New Type Tryon WTP NC00870766 Town of Froest City New Type Tryon WTP NC00870767 Town of Froest City New Type Tryon WTP NC00870767 The Hampton Club Inc Longer Risk WWTP NC00870767 The Hampton Club Inc	Asheville	NC0085839	Unimin Corporation	Red Hill Quartz Processing Plant	Spruce Pine	Mitchell
NCD086058 NCDOT Rosenan Maintenance Facility NCD086059 Pilot Travel Center \$123 NCD086058 NCD086058 Six USA Initiation Mestern Justice Academy WWTP NCD086028 Six USA Initiation Maintenance Facility NCD086028 Six USA Initiation Maintenance Facility NCD086028 Sugar Hill Enterprises Inc Clank Beadwaled Defeated of Education NCD086029 Junaluska Highlands Homeowners Association Clank Elementary School NCD086020 Town of Troan Town of Troan NCD086020 Town of Troan Clank Bear Hill Enterprises Inc NCD086020 Town of Troan Clank Bear Hill Enterprises Inc NCD086020 Town of Troan Clank Bear Hill Enterprises Inc NCD086020 Town of Troan Clank Bear Hill Enterprises Inc NCD08700 Town of Forest City NCD0870 NCD08700 The Hampton Club Inc Whittels Sanitary District WWTP NCD08700 The Hampton Club Inc Whatehill Fame Subdivision WWTP NCD08700 The Hampton Club Inc Whatehill Remark WILL NCD088006 V	Asheville	NC0085952	TA Operating Corporation	Candler Travel Center	Candler	Buncombe
NC0086063 Pilot Travel Centers LLC Pilot Travel Center #393 NC0086088 SKF USA in County Utilities Western Justice Academy WWTP NC0086088 SKF USA in County Utilities Girmes Site remediation NC0086428 Sugar Hill Entenprises Inc Adventure Village WWTP NC0086428 Sugar Hill Entenprises Inc Adventure Village WWTP NC0086428 Buncomine County Board of Education Included Marion Travel Plaza WWTP NC0086428 Buncomine County Board of Education Included Marion Travel Plaza WWTP NC0087076 Chample Highlands Homeowners Association Included Marion Plaza WWTP NC0087076 Chample Highlands Homeowners Association Columbia Florest Plywood Products NC0087106 Chample Hills Property Owners Association Columbia Florest Plyword Products NC0087106 Chample Hills Property Owners Association Columbia Florest Plyword Plaza Revented R	Asheville	NC0085979	NCDOT	Rosman Maintenance Facility	Rosman	Transylvania
NC0086080 SKF USA Inc.	Asheville	NC0086053	Pilot Travel Centers LLC	Pilot Travel Center #393	Waynesville	Haywood
NC0086288 SKF USA Inc. Climaes Site remediation	Asheville	NC0086070	Henderson County Utilities	Western Justice Academy WWTP	Edneyville	Henderson
NC0086323 Headwaters Outritters Adventure Village Adventure Village Adventure Village NC0086436 Sugger Hill Enterprises inc Marion Travel Plaza WWTP NC0086436 Buncombe Country Board of Education Creek Elementary School NC0086436 Town of Tryon Tryon WTP NC0086707 Town of Forest City Columbia Forest Plywood Products NC0087076 Columbia Forest City Riverstone Industrial Park WWTP NC0087076 Cooper Ris Is Inc Cooper Ris Healing Farm NC0087076 Cooper Ris Is Inc Cooper Ris Healing Farm NC0087076 Whitter Sanitary District Whitter Subdivision WWTP NC0087076 Whitter Sanitary District Whitter Subdivision WWTP NC0087077 Inch Hampton Club Inc Wade Hampton Holk WWTP NC008707 Inch Hampton Club Inc Water Hill Farm WWTP NC008870 Value Heights LP Linville Heights WWTP NC008811 Value Point Ris Inch Club Inc NC008815 NC008812 Linville Riverbend Rv Park Linville Riverbend Rv Park NC008815 Linville Riverbend Rv Park Linville Rv Par	Asheville	NC0086088	SKF USA Inc	Girmes Site remediation	Asheville	Buncombe
NC0086428 Sugar Hill Enterprises Inc Marlon Travel Plaza WWTP NC0086843 Lunaluska Highlands Homeowners Association Tyon WTP NC0086843 Lunaluska Highlands Homeowners Association Tyon WTP NC0086843 Lunaluska Highlands Homeowners Association Tyon WTP NC0087076 Columbia Forest Plywood Products Riverstone Industrial Park WWTP NC0087106 Champion Hills Property Owners Association Cooper Rils Healths WWTP NC0087102 Cooper Rils Inc Cooper Rils Health Early District Matchill Farms Subdivision WWTP NC0087602 Whittier Sanitary District Waterhill Farms Subdivision WWTP NC0087602 Whittier Sanitary District Waterhill Farms Subdivision WWTP NC0087761 Lunille Heights LP Linville Heights WWTP NC0087891 Variesy County South Too River WWTP NC00887891 Variesy County South Too River WWTP NC00887891 Variesy County South Too River WWTP NC00887891 Variesy County South Too River WWTP NC00887891 Variesy County South Too River WWTP NC00887891 Variesy County South Too River WWTP NC00887891 Variesy County South Too River WWTP NC00887891 South Welf LLC Soenic Wolf Mountain WWTP NC00887891 County Water LLC Soenic Wolf Mountain WWTP NC00887891 County Off LLP Revision Powelopment NC00887891 County Off LLP Revision Development NC00887891 Own of Ewin Ewin NC00887891 Own of Ewin Ewin NC00887891 Own of Ewin Ewin NC00887891 Own of Ewin Water Cloup of NC LLP Revision NC008888 Soenic Wolf Bordoration Ewin NC008888 Own of Ewin Water Cloup of NC LLP Revision NC008889 Out North Utility Services Inc Onus Fi Bragg WWTP NC008889 Out North Utility Services Inc Onus Fi Bragg WWTP NC008889 Out North Utility Services Inc Onus Fi Bragg WWTP NC008889 Out North Utility Services Inc Onus Fi Bragg WWTP NC008889 Out North Utility Services Inc Onus Fi Bragg NC008889 Out North Utility Services Inc Onus Fi Bragg NC	Asheville	NC0086223	Headwaters Outfitters Adventure Village	Adventure Village WWTP	Brevard	Transylvania
NC0086436 Buncombe County Board of Education Cane Creek Elementary School NC0086435 Town Off Tyon Invalous WIPP NC008640 Junaluska Highlands Homeowners Association Junaluska Highlands WIPP NC0087064 Columbia Forest Plywood Products Columbia Forest Plywood Products NC0087084 Town Off Forest City Revestione Industrial Park WWTP NC0087106 Champion Hills Property Owners Association Champion Hills WWTP NC008756 HRS Land Development LLC Leggestone Subdivision WWTP NC008756 HRS Land Development LLC Whittler Sanitary District NC008776 The Hampton Club Inc Whittler Sanitary District NC008776 The Hampton Club Inc Whittler Sanitary District NC008776 The Hampton Club Inc Whittler Sanitary District NC008776 Tree Hampton Club Inc Whittler Sanitary District NC008876 Tree Hampton Club Inc Whittler Sanitary District NC008876 Visita Developers, LLC South Toe River WWTP NC008816 Scenic Wolf Development LLC South Toe River WWTP NC008816 Bright Water LLC	Asheville	NC0086428	Sugar Hill Enterprises Inc	Marion Travel Plaza WWTP	Marion	McDowell
NC0086525 Town of Tryon Tryon WTP NC0086343 Junaluska Highlands Homeowners Association Junaluska Highlands WTP NC0087076 Columbia Forest Plywood Products Columbia Forest Plywood Products NC0087084 Town of Forest City Riversione industrial Park WWTP NC0087106 Champion Hills Property Owners Association Champion Hills Property Owners Association NC0087126 Champion Hills Property Owners Association Champion Hills Property Owners Association NC0087607 Whittier Sanitary District Wintle Sanitary District NC0087607 Whittier Sanitary District Whittier Sanitary District NC0087607 Whittier Sanitary District Water MWTP NC0087607 Whittier Sanitary District Water MWTP NC0087607 Whittier Sanitary District Water Hill Farms Subdivision WWTP NC0087607 Whittier Sanitary District Water Hills Heaping WWTP NC0088760 Whittier Beriepins LLC South Toe River WWTP NC0088163 Scenic Wolf Development LLC The Rapids at Fench Broad NC0088163 Scenic Wolf Development LLC The Rapids at Fench Broad River Group of NC LLP	Asheville	NC0086436		Cane Creek Elementary School	Fletcher	Buncombe
NC0086843 Junaluska Highlands Homeowners Association Junaluska Highlands WTP NC0087076 Columbia Forest Plywood Products Columbia Forest Plywood Products NC0087084 Town of Forest City Riverstone Industrial Park WWTP NC0087108 Champion Hills Property Owners Association Champion Hills WWTP NC0087736 Cooper Rils Inc Cooper Rils Inc NC0087763 Whittee Sanitary District WWTP NC0087763 Whittee Sanitary District WWTP NC0087763 Whittee Sanitary District WWTP NC0087763 The Hampton Club Inc Wade Hampton Horizons Estate NC0087763 The Hampton Club Inc Wade Hampton Horizons Estate NC0087763 The Hampton Club Inc Wade Hampton Horizons Estate NC0088764 Vista Developers, LLC Blacksmith Run NC0088163 Scenic Wid Development LLC Inville Riverbend Rv Park NC0088164 Binght Water LLC The Rapids at French Broad NC0088165 French Broad River Group of NC LLP Reversible Montal Broad NC000881767 French Broad River Group of NC LLP Reversible Montal Broad <td>Asheville</td> <td>NC0086525</td> <td>Town of Tryon</td> <td>Tryon WTP</td> <td>Tryon</td> <td>Polk</td>	Asheville	NC0086525	Town of Tryon	Tryon WTP	Tryon	Polk
NC0087076 Columbia Forest Plywood Products Columbia Forest Plywood Products NC0087084 Town of Forest City Riverstone Industrial Park WWTP NC0087106 Champion Hills Property Owners Association Champion Hills Property Owners Association NC0087122 Cooper Rils Inc Cooper Rils Inc NC0087536 HRS Land Development LLC Ledgestone Subdivision WWTP NC0087637 Whitter Sanitary District Waterilli Farms Subdivision WWTP NC0087636 Whitter Sanitary District Waterilli Farms Subdivision WWTP NC0087761 Linville Heights LP Waterilli Farms Subdivision WWTP NC0087763 Linville Heights LP Linville Heights WWTP NC00887891 Vancey County Back Hampton Horizons Estate NC0088163 Linville Heights LP Linville Heights WWTP NC0088164 Bight Water LLC Back Family WuTP NC0088188 Scenic Wolf Development LLC Scenic Wolf Development LLC NC0088189 Scenic Wolf Development LLC Scenic Wolf Development LLC NC0088189 Fench Broad River Group of NC LLP Riverside Memorisal County Creek Development NC00088189<	Asheville	NC0086843	Junaluska Highlands Homeowners Association	Junaluska Highlands WTP	Hazelwood	Haywood
NC0087084 Town of Forest City Riverstone Industrial Park WWTP NC0087126 Champion Hills Property Owners Association Champion Hills WWTP NC0087122 Cooper Ris Healing Fam NC008756 HRS Land Development LLC Logoper Ris Healing Fam NC008765 Whittier Sanitary District Whittier Sanitary District WWTP NC008765 Rilandwell Inc Whittier Sanitary District WWTP NC008776 Linville Heights LP Wade Hampton Horizons Estate NC008776 Linville Heights LP South Toe River WWTP NC008876 Vista Developers, LLC Blacksmith Run NC0088168 Scenic Wolf World Development LLC South Toe River WWTP NC0088169 Vista Developers, LLC Blacksmith Run NC0088169 Vista Developers, LLC Blacksmith Run NC0088169 Vista Developers, LLC Blacksmith Run NC0088404 Bright Water LLC Scenic Wolf World Toe-elopment LC NC0088439 Dennis J Fullenkamp Cranberry Creek Development NC0088439 Dennis J Fullenkamp Cranberry Creek Development NC00088439 Denni	Asheville	NC0087076	Columbia Forest Plywood Products	Columbia Forest Plywood Products	Old Fort	McDowell
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NC0087122 Cooper Riis Inc Cooper Riis Inc Cooper Riis Inc NC0087566 HRS Land Development LLC Ledgestone Subdivision WWTP NC0087602 Whitter Sanitary District Water Hill Farms Subdivision WWTP NC0087700 The Hampton Club Inc Wade Hampton Horizons Estate NC0087701 The Hampton Club Inc Wade Hampton Horizons Estate NC0087702 The Hampton Club Inc Wade Hampton Horizons Estate NC0087703 Inville Heights LP Linville Heights WWTP NC0088781 Yara Developers, LLC Blacksmith Reverbend Rv Park NC0088188 Scenic Wolf Development LLC Scenic Wolf Mountain WWTP NC0088188 Scenic Wolf Development LLC The Rapids at French Broad NC0088189 Scenic Wolf Development LLC The Rapids at French Broad NC0088189 Scenic Wolf Development LLC The Rapids at French Broad NC0088189 Scenic Wolf Development LLC The Rapids at French Broad NC00088171 Forman Sinch Marker Group of NC LLP The Rapids at French Broad Ille NC0003522 West Point Place L L C West Point WuTP NC000	Asheville	NC0087106	Champion Hills Property Owners Association	Champion Hills WWTP	Hendersonville	Henderson
NC0087556 HRS Land Development LLC Ledgestone Subdivision WWTP NC0087602 Whittier Sanitary District Whittier Sanitary District NC0087633 Rilandwell Inc Wader Hampton Hamms Subdivision WWTP NC0087700 The Hampton Club Inc Wader Hampton Horizons Estate NC0087761 Linville Heights WWTP Linville Heights WWTP NC0088763 Vista Developers, LLC Blacksmith Run NC0088163 Linville Riverbend Rv Park Linville Heights WWTP NC0088163 Linville Riverbend Rv Park Linville Riverbend Rv Park NC0088163 Linville Riverbend Rv Park Linville Riverbend Rv Park NC008816404 Bright Water LLC The Rapids at French Broad NC0088168 Bright Water LLC The Rapids at French Broad NC0088169 Dennis J Fullenkamp Cranberty Creek Development NC0088169 Dennis J Fullenkamp Cranberty Creek Development NC00881767 French Broad River Group of NC LLP Riverview Development Ille NC0001121 Dynapar Corporation Erwin WWTP Ille NC00003572 West Point House	Asheville	NC0087122	Cooper Riis Inc	Cooper Riis Healing Farm	Mill Spring	Polk
NC0087602 Whittier Sanitary District Whittier Sanitary District Whittier Sanitary District Whittier Sanitary District WW/TP NC0087763 Rilandwell Inc Waterhill Farms Subdivision WWTP NC0087751 Linville Heights LP Inville Heights LP NC0088763 Vista Developers, LLC Blacksmith Run NC0088168 Vista Developers, LLC Blacksmith Run NC0088169 Vista Developers, LLC Blacksmith Run NC0088169 Linville Riverbend Rv Park Linville Riverbend Rv Park NC0088169 Scenic Wolf Development LLC Scenic Wolf Mountain WWTP NC0088169 Scenic Wolf Development LLC Transle Rapids at French Broad NC0088175 Franch Broad River Group of NC LLP Riverview Development NC0088175 Franch Broad River Group of NC LLP Riverview Development Ille NC0001121 Dynapar Corporation Erwin WWTP Ille NC0001322 West Point Place L L C West Point Place WTP Ille NC0003573 El Dulport de Nemours and Company Codar Creek Site NC0003579 DAK Americas, LLC American American Lill	Asheville	NC0087556	HRS Land Development LLC	Ledgestone Subdivision WWTP	Fairview	Buncombe
NC0087653 Rilandwell Inc Waterhill Farms Subdivision WWTP NC0087700 The Hampton Club Inc Wade Hampton Horizons Estate NC0087751 Linville Heights LP Linville Heights WWTP NC0088056 Vista Developers, LLC Black mith Run NC0088163 Linville Riverbend Rv Park Linville Riverbend Rv Park NC0088164 Bright Water LLC Scenic Wolf Mountain WWTP NC0088175 French Broad River Group of NC LLP The Rapids at French Broad NC0088188 Scenic Wolf Development LLC The Rapids at French Broad NC0088199 Dennis J Fullenkamp Cranberry Creek Development NC0088176 French Broad River Group of NC LLP Riverview Development NC0003522 West Point Place L LC West Point Place WWTP Ille NC0003522 West Point Place WYTP Ille NC0003573 E I DuPont de Nemours and Company Dupont Fayetteville Works Ille NC0003564 Old North Utility Services Inc Onus Ft Bragg Fort Bragg WWTP & WTP Ille NC0005363 Progress Energy Carolinas Inc Weatherspoon Steam Electric Plant <td< td=""><td>Asheville</td><td>NC0087602</td><td>Whittier Sanitary District</td><td>Whittier Sanitary District WWTP</td><td>Whittier</td><td>Jackson</td></td<>	Asheville	NC0087602	Whittier Sanitary District	Whittier Sanitary District WWTP	Whittier	Jackson
NC0087700 The Hampton Club Inc Wade Hampton Horizons Estate NC0087751 Linville Heights LP Linville Heights WWTP NC0087891 Yancey County South Toe River WWTP NC0088153 Vista Developers, LLC Blacksmith Run NC0088163 Linville Riverbend Rv Park Linville Riverbend Rv Park NC0088163 Linville Riverbend Rv Park Linville Riverbend Rv Park NC0088163 Scenic Wolf Development LLC Scenic Wolf Mountain WWTP NC0088439 Dennis J Fullenkamp The Rapids at French Broad NC0088439 Dennis J Fullenkamp Cranberry Creek Development NC0088757 French Broad River Group of NC LLP Riverview Development Ille NC0001121 Dynapar Corporation Riverview Development Ille NC0001352 West Point Place L L C West Point Place WWTP Ille NC000352 West Point Place L L C West Point Place WWTP Ille NC000352 West Point Place WWTP Alamac American Knits LLC Ille NC000354 Alamac American Knits LLC Alamac American Knits LLC Ille </td <td>Asheville</td> <td>NC0087653</td> <td>Rilandwell Inc</td> <td>Waterhill Farms Subdivision WWTP</td> <td>Fairview</td> <td>Buncombe</td>	Asheville	NC0087653	Rilandwell Inc	Waterhill Farms Subdivision WWTP	Fairview	Buncombe
NC0087751 Linville Heights LP Linville Heights WWTP NC0087891 Yancey County South Toe River WWTP NC0088056 Vista Developers, LLC Blacksmith Run NC0088163 Linville Riverbend Rv Park Linville Riverbend Rv Park NC0088164 Bright Water LLC Scenic Wolf Mountain WWTP NC0088404 Bright Water LLC Scenic Wolf Mountain WWTP NC0088404 Bright Water LLC The Rapids at French Broad NC0088409 Dennis J Fullenkamp Cranberty Creek Development NC0008404 Bright Water LLC Riverview Development NC0008409 Dennis J Fullenkamp Cranberty Creek Development NC0008409 Dennis J Fullenkamp Riverview Development NC00012121 Dynapar Corporation Riverview Development Ille NC0001406 Town of Erwin Erwin WWTP #2 Ille NC0003522 West Point Place L L C West Point Place WWTP Ille NC0003573 E I DuPont de Nemours and Company Dupont Fayetteville Works Ille NC0003564 Alamac American Knit LLC Meat Point Plac	Asheville	NC0087700	The Hampton Club Inc	Wade Hampton Horizons Estate	Cashiers	Jackson
NC0087891 Yancey County South Toe River WWTP NC0088056 Vista Developers, LLC Blacksmith Run NC0088153 Linville Riverbend Rv Park Linville Riverbend RV Park NC0088188 Scenic Wolf Development LLC Scenic Wolf Mountain WWTP NC0088404 Bright Wafer LLC The Rapids at French Broad NC0088439 Dennis J Fullenkamp Cranberry Creek Development NC0088757 French Broad River Group of NC LLP Riverview Development Ile NC0001121 Dynapar Corporation Erwin WWTP #2 Ile NC0003522 West Point Place L L C West Point Place WWTP Ile NC0003523 El DuPont de Nemours and Company Dupont Fayeteville Works Ille NC0003719 DAK Americas Inc Onus Ft Bragg Fort Bragg WWTP Ille NC00036418 Alamac American Knit LLC Alamac American Knit Lumberton Ille NC0005363 Progress Energy Carolinas Inc Weatherspoon Steam Electric Plant Ille NC0005479 Laurinburg-Maxton Alirport Commission Wagram plant NC0007684 Harnett County Utilities <t< td=""><td>Asheville</td><td>NC0087751</td><td>Linville Heights LP</td><td>Linville Heights WWTP</td><td>Banner Elk</td><td>Avery</td></t<>	Asheville	NC0087751	Linville Heights LP	Linville Heights WWTP	Banner Elk	Avery
NC0088056 Vista Developers, LLC Blacksmith Run NC0088153 Linville Riverbend Rv Park Linville Riverbend Rv Park NC0088188 Scenic Wolf Development LLC Scenic Wolf Mountain WWTP NC0088404 Bright Water LLC The Rapids at French Broad NC0088439 Dennis J Fullenkamp Cranberry Creek Development NC0088757 French Broad River Group of NC LLP Riverview Development Ile NC0001121 Dynapar Corporation Danaher Industrial Controls WWTP Ile NC0003522 West Point Place L L C West Point Place WWTP Ile NC0003523 E I DuPont de Nemours and Company Dupont Fayetteville Works Ile NC0003564 Oid North Utility Services Inc Onus Ft Bragg Fort Bragg WWTP Ile NC0003664 Oid North Utility Services Inc Onus Ft Bragg Fort Bragg WWTP Ile NC0005663 Progress Energy Carolinas Inc Wagram plant Ile NC0005679 Laurinburg-Maxton Altport Commission Wagram plant Ille NC0005764 Harnett County Utilities	Asheville	NC0087891	Yancey County	South Toe River WWTP	Micaville	Yancey
NC0088153 Linville Riverbend Rv Park Linville Riverbend Rv Park Linville Riverbend Rv Park NC0088188 Scenic Wolf Development LLC Scenic Wolf Mountain WWTP NC0088404 Bright Water LLC The Rapids at French Broad NC0088439 Dennis J Fullenkamp Cranberry Creek Development NC0088757 French Broad River Group of NC LLP Riverview Development Ile NC000121 Dynapar Corporation Erwin WWTP #2 Ile NC0003522 West Point Place L L C West Point Place WWTP Ille NC0003573 E I DuPont de Nemours and Company Dupont Fayetteville Works Ille NC000364 Old North Utility Services Inc Onus Ft Bragg Fort Bragg WWTP & WTP Ille NC0005363 Progress Energy Carolinas Inc Weatherspoon Steam Electric Plant Ille NC0005479 Laurinburg-Maxton Aliport Commission Lauriel Hill/Maxton WVTP Ille NC0005762 Westpoint Home Inc Wagram plant Ille NC0005764 Harnett County Utilities Hamett County Regional WTP	Asheville	NC0088056	Vista Developers, LLC	Blacksmith Run	Hendersonville	Henderson
NC0088188 Scenic Wolf Development LLC Scenic Wolf Mountain WWTP NC0088404 Bright Water LLC The Rapids at French Broad NC0088439 Dennis J Fullenkamp Cranberry Creek Development NC0088757 French Broad River Group of NC LLP Riverview Development Ile NC0001121 Dynapar Corporation Erwin WWTP #2 Ile NC0003522 West Point Place L L C West Point Place WWTP Ille NC0003573 E I DuPont de Nemours and Company Dupont Fayetteville Works Ille NC0003564 Old North Utility Services Inc Onus Ft Bragg Fort Bragg WWTP & WTP Ille NC0005363 Progress Energy Carolinas Inc Weatherspoon Steam Electric Plant Ille NC0005479 Laurinburg-Maxton Aliport Commission Laurie Hill/Maxton WWTP Ille NC0005762 Westpoint Home Inc Wagram plant Ille NC0007684 Harnett County Utilities Harnett County Regional WTP	Asheville	NC0088153	Linville Riverbend Rv Park	Linville Riverbend RV Park	Crossnore	Avery
NC0088404 Bright Water LLC The Rapids at French Broad NC0088439 Dennis J Fullenkamp Cranberry Creek Development NC0088757 French Broad River Group of NC LLP Riverview Development Ile NC0008121 Dynapar Corporation Danaher Industrial Controls WWTP Ile NC0001121 Dynapar Corporation Erwin WWTP #2 Ile NC0003522 West Point Place L L C West Point Place WWTP Ille NC0003573 E I DuPont de Nemours and Company Dupont Fayetteville Works Ille NC000364 Old North Utility Services Inc Onus Ft Bragg Fort Bragg WWTP & WTP Ille NC0004618 Alamac American Knits LLC Weatherspoon Steam Electric Plant Ille NC00056363 Progress Energy Carolinas Inc Weatherspoon Steam Electric Plant Ille NC0005762 Westpoint Home Inc Wagram plant NC0005762 Westpoint Home Inc Wagram plant NC0007684 Harnett County Utilities Hamett County Regional WTP	Asheville	NC0088188	Scenic Wolf Development LLC	Scenic Wolf Mountain WWTP	Mars Hill	Madison
NC0088439 Dennis J Fullenkamp Cranberry Creek Development NC0088757 French Broad River Group of NC LLP Riverview Development Ile NC0001121 Dynapar Corporation Danaher Industrial Controls WWTP Ile NC0001406 Town of Erwin West Point Place L L C Ile NC0003522 West Point Place L L C West Point Place WWTP Ile NC0003573 E I DuPont de Nemours and Company Dupont Fayetteville Works Ile NC000364 Old North Utility Services Inc Onus Ft Bragg Fort Bragg WWTP & WTP Ille NC0004618 Alamac American Knits LLC Weatherspoon Steam Electric Plant Ille NC0005363 Progress Energy Carolinas Inc Weatherspoon Steam Electric Plant Ille NC0005479 Laurinburg-Maxton Aliport Commission Wagram plant NC000562 Westpoint Home Inc Wagram plant NC0007684 Harnett County Utilities Harnett County Utilities	Asheville	NC0088404	Bright Water LLC	The Rapids at French Broad	Asheville	Buncombe
NC0088757 French Broad River Group of NC LLP Riverview Development	Asheville	NC0088439	Dennis J Fullenkamp	Cranberry Creek Development	Elk Park	Avery
NC0001121 Dynapar Corporation Danaher Industrial Controls WWTP NC0001406 Town of Erwin Erwin WWTP #2 NC0003522 West Point Place L L C West Point Place WWTP NC0003573 E I DuPont de Nemours and Company Dupont Fayetteville Works NC0003719 DAK Americas, LLC Cedar Creek Site NC000364 Old North Utility Services Inc Onus Ft Bragg Fort Bragg WWTP & WTP NC0004618 Alamac American Knits LLC Alamac American Knit / Lumberton NC0005363 Progress Energy Carolinas Inc Weatherspoon Steam Electric Plant NC0005762 Westpoint Home Inc Wagram plant NC0007684 Harnett County Utilities Hamett County Regional WTP	Asheville	NC0088757	French Broad River Group of NC LLP	Riverview Development	Alexander	Buncombe
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NC0003522 West Point Place L L C West Point Place WWTP NC0003573 E1 DuPont de Nemours and Company Dupont Fayetteville Works NC0003719 DAK Americas, LLC Cedar Creek Site NC000364 Old North Utility Services Inc Onus Ft Bragg Fort Bragg WWTP & WTP NC0004618 Alamac American Knits LLC Alamac American Knit / Lumberton NC0005363 Progress Energy Carolinas Inc Weatherspoon Steam Electric Plant NC0005762 Westpoint Home Inc Wagram plant NC0007684 Harnett County Utilities Hamett County Regional WTP	Fayetteville	NC0001406	Town of Erwin	Erwin WWTP #2	Erwin	Harnett
NC0003573 E I DuPont de Nemours and Company Dupont Fayetteville Works NC0003719 DAK Americas, LLC Cedar Creek Site NC0003964 Old North Utility Services Inc Onus Ft Bragg Fort Bragg WWTP & WTP NC0004618 Alamac American Knits LLC Alamac American Knit / Lumberton NC0005363 Progress Energy Carolinas Inc Weatherspoon Steam Electric Plant NC0005479 Laurinburg-Maxton Airport Commission Lauriel Hill/Maxton WWTP NC0005762 Westpoint Home Inc Wagram plant NC0007684 Harnett County Utilities Hamett County Regional WTP	Fayetteville	NC0003522	West Point Place L L C	West Point Place WWTP	Elizabethtown	Bladen
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NC0003964 Old North Utility Services Inc Onus Ft Bragg Fort Bragg WWTP & WTP NC0004618 Alamac American Knits LLC Alamac American Knit / Lumberton NC0005363 Progress Energy Carolinas Inc Weatherspoon Steam Electric Plant NC0005479 Laurinburg-Maxton Airport Commission Laurel Hill/Maxton WWTP NC0005762 Westpoint Home Inc Wagram plant NC0007684 Harnett County Utilities Hamett County Regional WTP	Fayetteville	NC0003719	DAK Americas, LLC	Cedar Creek Site	E Fayetteville	Cumberland
NC0004618 Alamac American Knits LLC Alamac American Knit / Lumberton NC0005363 Progress Energy Carolinas Inc Weatherspoon Steam Electric Plant NC0005479 Laurinburg-Maxton Airport Commission Laurel Hill/Maxton WWTP NC0005762 Westpoint Home Inc Wagram plant NC0007684 Harnett County Utilities Hamett County Regional WTP	Fayetteville	NC0003964	Old North Utility Services Inc Onus Ft Bragg	Fort Bragg WWTP & WTP	Fort Bragg	Cumberland
NC0005363 Progress Energy Carolinas Inc Weatherspoon Steam Electric Plant NC0005479 Laurinburg-Maxton Airport Commission Laurel Hill/Maxton WWTP NC0005762 Westpoint Home Inc Wagram plant NC0007684 Harnett County Utilities Harnett County Regional WTP	Fayetteville	NC0004618	Alamac American Knits LLC	Alamac American Knit / Lumberton	Lumperton	Robeson
NC0005479 Laurinburg-Maxton Airport Commission Laurel Hill/Maxton WWTP NC0005762 Westpoint Home Inc NC0007684 Harnett County Utilities	Fayetteville	NC0005363	Progress Energy Carolinas Inc	Weatherspoon Steam Electric Plant	Lumberton	Robeson
NC0005762 Westpoint Home Inc Wagram plant Harnett County Utilities Harnett County Regional WTP	Fayetteville	NC0005479	Laurinburg-Maxton Airport Commission	Laurel Hill/Maxton WWTP	Laurel Hill	Scotland
NC0007684 Harnett County Utilities Harnett County NTP	Fayetteville	NC0005762	Westpoint Home Inc	Wagram plant	Wagram	Scotland
	Fayetteville	NC0007684	Harnett County Utilities	Hamett County Regional WTP	Lillington	Harnett

Table 4 - NPDES Permit Holders: Names and Locations

Region	Permit Number	Owner	Facility	City	County Name
Fayetteville	NC0020095	Town of St Pauls	St. Pauls WWTP	Saint Pauls	Robeson
Fayetteville	NC0020117	City of Clinton	Norman H. Larkins WPCF	Clinton	Sampson
Fayetteville	NC0020427	City of Rockingham	Rockingham WWTP	Rockingham	Richmond
Fayetteville	NC0020656	City of Laurinburg	Leith Creek WWTP	Laurinburg	Scotland
Fayetteville	NC0021105	Town of Mount Gilead	Mount Gilead WWTP	Mount Gilead	Montgomery
Fayetteville	NC0021504	Town of Biscoe	Biscoe WWTP	Biscoe	Montgomery
Fayetteville	NC0021610	Town of Clarkton	Clarkton WWTP	Clarkton	Bladen
Fayetteville	NC0021636	Harnett County Utilities	North Harnett Regional WWTP	Lillington	Harnett
Fayetteville	NC0021661	City of Laurinburg	Pilkington North American WWTP	Laurinburg	Scotland
Fayetteville	NC0021784	Town of Ellerbe	Ellerbe WWTP	Ellerbe	Richmond
Fayetteville	NC0022489	Wheels Estates of Spring Lake LLC	Dilton Mobile Home Park	Fayetteville	Cumberland
Fayetteville	NC0023353	Town of White Lake	White Lake WWTP	Elizabethtown	Bladen
Fayetteville	NC0023957	PWC/Fayetteville	Cross Creek WWTP	Fayetteville	Cumberland
Fayetteville	NC0024571	City of Lumberton	Lumberton WWTP	Lumperton	Robeson
Fayetteville	NC0025569	Town of Garland	Garland WWTP	Garland	Sampson
Fayetteville	NC0025577	Town of Red Springs	Red Springs WWTP	Red Springs	Robeson
Fayetteville	NC0026352	Town of Bladenboro	Bladenboro WWTP	Bladenboro	Bladen
Fayetteville	NC0026514	City of Raeford	Raeford WWTP	Raeford	Hoke
Fayetteville	NC0026671	Town of Elizabethtown	Elizabethtown WWTP	Elizabethtown	Bladen
Fayetteville	NC0026816	Town of Roseboro	Roseboro WWTP	Roseboro	Sampson
Fayetteville	NC0026921	Town of Parkton	Parkton WWTP	Parkton	Robeson
Fayetteville	NC0027103	Town of Pembroke	Pembroke WWTP	Pembroke	Robeson
Fayetteville	NC0027120	Town of Maxton	Maxton WWTP	Maxton	Robeson
Fayetteville	NC0028916	Town of Troy	Troy WWTP	Troy	Montgomery
Fayetteville	NC0029769	NC Department of Correction	Scotland County Correctional Center	Wagram	Scotland
Fayetteville	NC0030970	Town of Spring Lake	Spring Lake WWTP	Spring Lake	Cumberland
Fayetteville	NC0031470	Harnett County Utilities	Cooper's Ranch WWTP	Spring Lake	Harnett
Fayetteville	NC0032913	Bladen County Schools	East Arcadia Elementary School WWTP	Elizabethtown	Bladen
Fayetteville	NC0035904	NC Department of Correction	McCain Correctional Hospital WWTP	Raleigh	Hoke
Fayetteville	NC0036773	City of Laurinburg	Laurinburg WTP	Laurinburg	Scotland
Fayetteville	NC0037508	Moore County Public Utilities	Moore County WPCF	Aberdeen	Moore
Fayetteville	NC0041408	Anson County	Anson County Regional WWTP	Wadesboro	Anson
Fayetteville	NC0043176	City of Dunn	Dunn WWTP	Dunn	Harnett
Fayetteville	NC0043320	Burlington Industries LLC	Richmond Plant	Cordova	Richmond
Fayetteville	NC0044725	Laurinburg-Maxton Airport Commission	Laurinburg Industrial WWTP	Maxton	Scotland
Fayetteville	NC0047562	City of Hamlet	Hamlet WWTP	Hamlet	Richmond
Fayetteville	NC0048101	Wakefield Communities - Fuquay Varina LLC	Senters Rest Home	Fuquay Varina	Harnett
Fayetteville	NC0048577	Robeson County Water Department	Maxton WTP	Maxton	Robeson
Fayetteville	NC0049514	Pilkington North America Inc	Plant 75	Laurinburg	Scotland
Fayetteville	NC0049778	Town of Southern Pines	Southern Pines WTP	Pinebluff	Moore
Fayetteville	NC0050105	PWC/Fayetteville	Rockfish Creek WWTP	Fayetteville	Cumberland

Table 4 - NPDES Permit Holders: Names and Locations

NC0058297 Litrabethroun Power LLC Litrabethroun Power LLC Litrabethroun Power LLC Litrabethroun Power LLC Litrabethroun Power LLC Litrabethroun Power LLC Litrabethroun Power LLC Start WVTP NC0058548 Town of Floabins Start WVTP NC0058545 Town of Floabins Start WVTP NC0058542 Town of Rowalton Power LLC Start WVTP NC0058542 Town of Rowalton Power LLC Start WVTP NC0058542 Town of Newton Grove Nc0058542 Town of Newton Grove Nc0058542 Town of Newton Grove Nc0058542 Town of Newton Grove Nc0058542 Town of Newton Grove Nc0058542 Town of Newton Grove Nc0058543 Nc0058543 Anson County WTP NC0074393 Nc0058543 Anson County Public Utilities Nc0058543 Nc0058544 Nc0058543 Nc0058544 Nc0058544 Nc0058544 Nc0058544 Nc0058544 Nc0058544 Nc0058544 Nco058544 Nco058544 Nco058544 Nco058544 Nco058545 Ncontrible Partment Nco068545 Nco058545 Ncontrible Partment Nco068545 Ncontrible Partment Nco068545 Ncontrible Partment Nco068545 Ncontrible Partment Nco068545 Ncontrible Partment Nco068545 Ncontrible Partment Nco068544 Nco068545 Ncontrible Partment Nco068545 Ncontrible Partment Nco068545 Ncontrible Partment Nco068545 Ncontrible Partment Nco068546 Ncontrible Partment Nco068547 Nco068547 Nco068547 Ncondesser Ncondes	Region	Permit Number	Owner	Facility	City	County Name
NC0056329T Elizabehtnown Power LLC Elizabehtnown Power LLC NC005630A Lumberton Power LLC Lumberton Power LLC NC005631A Lumberton Power LLC Star WWTP NC006432B Town of Sam Robbins WWTP NC0064521 Harnett County Utilities Robbins WWTP NC0064521 Town of Rowland Robbins WWTP NC0064521 Town of Rowland Robbins WWTP NC0073877 Town of Rowland Robbins WWTP NC0074373 Anson of Newton Crowe Not Robbins WWTP NC0074373 Anson of Newton Crowe Not Robbins WWTP NC0074373 Anson of Newton Crowe Not Robbins WWTP NC0074373 Anson of Newton Crowe Not Robbins WWTP NC0074373 Anson of Newton Crowe Not Robbins WWTP NC0074867 Robbins WWTP Anson Crowe NC0074873 Robbins WWTP Anson Crower NC0074874 Robbins WWTP Anson Robbins WWTP NC00778955 City of Dunn Angel WWTP NC00789677 Town of Angel Town Angel WWTP	Fayetteville	NC0057525		Kennedy Terrell Apartments WWTP	Lakeview	Moore
NC006891 Lumberton Power LLC Lumberton Power LLC NC0068264 Town of Start Nc0068265 Town of Start Nc0068262 Town of Start Nc0068262 Town of Start Nc0068262 Town of Robbins Nc0068262 Town of Robbins Robbins WWTP Nc0068612 Town of Rowland Nc0078363 Town of Rowland Nc0078363 Town of Rowland Nc0078363 Town of Rowland Power Nc0078363 Nc0078363 Town of Ansandra Nc0078363 Town of Ansandra Nc0078363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088363 Town of Ansandra Nc0088636 Town of Ansandra Town of Ansandra Nc0088636 Town of Ansandra Nc0088636 Town of Ansandra Nc0088636 Town of Ansandra Nc0088636 Town of Ansandra Nc0088636 Town of A	Fayetteville	NC0058297	Elizabethtown Power LLC	Elizabethtown Power LLC	Elizabethtown	Bladen
NC0056848 Town of Star	Fayetteville	NC0058301	Lumberton Power LLC	Lumberton Power LLC	Lumberton	Robeson
NC0062856 Heater Utilities Inc NC0062856 Town of Robbins WYTP	Fayetteville	NC0058548	Town of Star	Star WWTP	Star	Montgomery
NC0062855 Town of Robbins Robbins WWTP NC00684521 Town of Robbins Rowland WWTP NC00684521 Town of Rowland Rewind WWTP NC0074397 Town of Rowland Rewind Growe WWTP NC0074397 Town of Rowland Rewind Growe WWTP NC0074397 Anson County Public Utilities Verse WWTP NC0077307 PWC/Feastewille Hoffer WITP NC0078344 Smithfield Packing Company Inc. Tanheal Plant NC0078355 City of Dum Anson County WIP NC0083237 Town of Ansonwille Ansonwille WWTP NC0083237 Town of Ansonwille Ansonwille WWTP NC0083329 Robeson County Water Department Lumber Bridge WITP NC0083337 Robeson County Water Department Antioon WIP NC0086364 Town of Fairmont Antioon WIP NC0086559 Town of Fairmont Proseson County Water Department Paramemetal Sow Farm NC0086569 Town of Fairmont Antioon WIP Antioon WIP NC00866659 Town of Fairmont Department Paramemetal S	Fayetteville	NC0061719	Heater Utilities Inc	Woodlake Country Club WWTP	Vass	Moore
NC0069521 Hannet County Utilities Ewinn WWTP NC0069512 Town of Rowled Rowland WWTP NC0072877 Town of Rowled Newfoot Gove WWTP NC0074373 Ance County Public Utilities Vass WWTP NC0074393 Ance County Public Utilities Arson County WTP NC0074305 Ance County Public Utilities Arson County WTP NC0078365 City of Dunn Wilkingering Pines WTP NC0078365 City of Dunn Montgorinery County NC0078365 City of Dunn Montgorinery County NC0061826 County Order Ansonwille WWTP NC0061827 Town of Ansonwille Ansonwille WWTP NC0061826 Town of Ansonwille Ansonwille WWTP NC0061827 Town of Ansonwille Ansonwille WWTP NC00661826 Town of Ansonwille Ansonwille WWTP NC0066637 Town of Fairmont Antibot WTP NC0066644 Div Farms of Rose Hill LLC Div Farms Mag 4 Sow Farm NC0066644 Div Farms of Rose Hill LLC Div Farms Mag 4 Sow Farm NC0066644 Div	Fayetteville	NC0062855	Town of Robbins	Robbins WWTP	Robbins	Moore
NO00058612 Town of Rowland Rowland WMYTP NC0072877 Town of Newton Grove Newton Grove WVTP NC0074373 Moore County Auss WWTP NC0074379 Arean County Auss WWTP NC0077101 Carolina Water Service Inc Of NC Whispering Pines WTP NC00773101 Carolina Water Service Inc Of NC Whispering Pines WTP NC00773101 Carolina Water Service Inc Of NC Tarheal Plant NC007834 Smithfield Packing Company Inc Tarheal Plant NC008032 Montgornery County Montgornery County WTP NC008032 Montgornery County Richmond County WTP NC008032F Town of Anson/lea Anson/lea WVPP NC008032F Town of Anson/lea Anson/lea WVPP NC008032F Town of Anson/lea Anson/lea WVPP NC008032F Town of Anson/lea Anson/lea WVPP NC008032F Town of Anson/lea Anson/lea WVPP NC008032F Town of Anson/lea Anson/lea WVPP NC008032F Town of Anson/lea Anson/lea NC008032F Town of County	Fayetteville	NC0064521	Harnett County Utilities	Erwin WWTP	Ewin	Harnett
NC0072877 Town of Newton Grove Newton Grove Newton Grove NC0074373 Moore County Public Utilities Vass WWTP NC0074390 PWC/Fayetteville Hoffer WTP NC00774390 PWC/Fayetteville Hoffer WTP NC00708344 Smithfield Packing Company Inc Tambeel Plant NC0080322 Moriting And Packing Company Inc AB Uzzle WTP NC0081281 City of Dunn AB Uzzle WTP NC0081281 Richmond County Richmond County WTP NC0081281 Town of Angier Ansonville WWTP NC0085856 Town of Angier Ansonville WWTP NC0086585 Town of Angier Ansonville WWTP NC0086585 Hoke County Ansonville WYTP NC0086585 Hoke County Water Department Ansonville WYTP NC0086585 How of Elimont Parason-Andrew WTP NC0086549 Robesson County Water Department Parason-Andrew WTP NC0086549 Robesson County Water Department Raemon Well WTP NC0086649 County Of Elimon Reamon Well WTP NC0086649	Fayetteville	NC0069612	Town of Rowland	Rowland WWTP	Rowland	Robeson
NC007333 Moore County Public Utilities Vass WMTP NC0073789 Anson County Anson County WTP NC0073781 Carolina Water Service Inc Of NC Whispering Pines WTP NC0078653 Montgomery County Anson County WTP NC008832 Montgomery County Montgomery County WTP NC0088557 Town of Angier Ansonville WWTP NC0086357 Town of Angier Angier WWTP NC0086357 Town of Angier Angier WWTP NC0086357 Town of Angier Angier WWTP NC0086358 Robeson County Water Department Lumber Bridge WTP NC0086359 Town of Angier Angier WWTP NC0086350 Town of Fairmont Angier WWTP NC0086351 Hoke County Angier WWTP NC0086649 Robeson County Water Department Angier WWTP NC0086649 Robeson County Water Department Parason-Anders WTP NC0086649 Robeson County Water Department Angier WWTP NC0086649 Robeson County Water Department Robeson County Water Department NC00866891	Fayetteville	NC0072877	Town of Newton Grove	Newton Grove WWTP	Newton Grove	Sampson
NC0076399 Anson County Anson County NC0076393 PWCFapateville Hoffer WTP NC0077834 Smithfield Packing Company Inc Tarheel Plant NC0078344 Smithfield Packing Company Inc Tarheel Plant NC0078355 City of Dunn A.B. Lozie WTP NC0081825 Andigomeny County Richmond County WTP NC0081825 Town of Ansonville Ansonville WWTP NC0085865 Town of Anjerr Robeson County Water Department Kichmond County WTP NC0085865 Town of Anjerr Angler WWTP NC0086566 Robeson County Water Department Angler WWTP NC0086560 Town of Failmont Angler WWTP NC0086560 Town of Failmont Angler WWTP NC0086560 Town of Failmont Angler WWTP NC0086561 Town of Failmont Angler WWTP NC0086656 Town of Failmont Angler WWTP NC0086650 Town of Failmont Angler WWTP NC0086650 Town of Failmont Angler WWTP NC0086666 Angler WWTP Angler	Fayetteville	NC0074373	Moore County Public Utilities	Vass WWTP	Vass	Moore
NC0078783 PWC/F ayetteville Hoffer WTP NC0077101 Carolina Water Service Inc Of NC Whispening Pines WTP NC0078955 City of Dunn A.B. Uzzle WTP NC0080322 Montgomery County A.B. Uzzle WTP NC0080322 Montgomery County A.B. Uzzle WTP NC0080327 Town of Ansonville Angier WWTP NC0081281 Town of Ansonville Angier WWTP NC0081282 Town of Ansonville Angier WWTP NC0081280 Town of Ansonville Angier WWTP NC0081280 Town of Ansonville Water Department Angier WWTP NC0086304 Robeson County Water Department Angier WWTP NC0086649 Town of Fairmont Antioch WTP NC0086649 County Antioch WTP NC0086649 County Antioch WTP NC0086649 County Water Department Raemon Well WTP NC0086649 County Of Clinton Antioch WTP NC0086649 County Of Clinton County Water Department Raemon Well WTP NC00866649 County Of Clinton	Fayetteville	NC0074390	Anson County	Anson County WTP	Lilesville	Anson
NC0077101 Carolina Water Service Inc Of NC Whispering Pines WTP NC0078344 Simitrified Texking Company Inc 1 Earheel Plant NC0078355 City of Dulin A Lozale WTP NC0081281 Richmond County Richmond County WTP NC0081281 Richmond County Water Department Ansonville WWTP NC0082587 Town of Anger Anger NC0082587 Town of Anger Anger NC0085865 Robesson County Water Department Kenric Road WTP NC0085865 Town of Fairmont Anger WWTP NC0086649 Town of Fairmont Anger WWTP NC0086649 Town of Fairmont Params Mag 4 Sow Farm NC0086649 Town of Fairmont Params Mag 4 Sow Farm NC0086649 Town of Fairmont Params Mag 4 Sow Farm NC0086649 Robeson County Water Department Raemon-Anders WTP NC0086649 Robeson County Water Department Sanchas Drive WTP NC0086649 Robeson County Water Department Sanchas Drive WTP NC0086649 Robeson County Water Department Resemen Well WTP	Fayetteville	NC0076783	PWC/Fayetteville	Hoffer WTP	Fayetteville	Cumberland
NC0078344 Smithfield Packing Company Inc Tarheel Plant NC008955 City of Dunn A.B. Uzzle WTP NC0081221 Richmond County Mongomeny County WTP NC0081225 Town of Anger Ansonville NC0081225 Town of Anger Ansonville NC00812267 Town of Anger Anger WWTP NC00812267 Town of Anger Anger WWTP NC00812267 Town of Anger Anger WWTP NC00812267 Town of Anger Anger WWTP NC00861426 Robeson County Water Department Lumber Bridge WTP NC0086145 Hoke County Antion WTP NC0086145 Town of Fairmont Antion WTP NC0086149 City of Clinton Parson-Anders WTP NC0086149 City of Clinton Parson-Anders WTP NC0086149 City of Clinton Barson-Anders WTP NC0086149 City of Clinton County Water Department Sanchas Drive WTP NC0088184 Kobeson County Water Department Sanchas Drive Sanchas Sanchas Sanchas Sanchas Sanchas Sanchas Sanchas Sanchas Sanchas Sanchas Sanchas Sanchas Sanchas Sanchas	Fayetteville	NC0077101	Carolina Water Service Inc Of NC	Whispering Pines WTP	Carthage	Moore
NC0078955 City of Dunn A.B. Uzzle WTP NC0080322 Montgomery County Montgomery County WTP NC0081825 Town of Ansonville Richmond County WTP NC0081826 Town of Ansonville Ansonville WWTP NC0085837 Town of Ansonville Angler WWTP NC0086037 Hoke County Water Department Kenric Road WTP NC0086049 Robeson County Water Department Antioch WTP NC0086649 Hoke County Antioch WTP NC0086649 City of Clinton Params of Rose Hill LLC NC0086649 City of Clinton Params of Rose Hill LLC NC0086649 City of Clinton Params of Rose Hill LLC NC0086649 City of Clinton Params of Rose Hill LLC NC0086649 City of Clinton Params of Rose Hill LLC NC0086649 City of Clinton Params of Rose Hill LLC NC0086649 City of Clinton Params of Rose Famous WIP NC0086649 City of Clinton Cookson temedatation WIP NC0086640 City of Clinton Cookson temedatation will WIP NC006866	Fayetteville	NC0078344	Smithfield Packing Company Inc	Tarheel Plant	Tar Heel	Bladen
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NC0081281 Richmond County Richmond County WTP NC0081825 Town of Ansonville Ansonville WWTP NC00828204 Town of Ansonville Ansonville WWTP NC0082685 Town of Ansonville Ansonville WWTP NC0082685 Robeson County Water Department Lumber Bridge WTP NC00866037 Hoke County Anticot WTP NC0086614 Hoke County Anticot WTP NC0086649 City of Clinton Params Mag 4 Sow Farm NC0086649 City of Clinton Params Mag 4 Sow Farm NC0086691 Robeson County Water Department Raemon Well WTP NC0086694 City of Clinton Params Mag 4 Sow Farm NC0086691 Robeson County Water Department Raemon Well WTP NC0086694 Robeson County Water Department Sanchez Drive WTP NC0086894 Robeson County Water Department South Harnett Regional WWTP NC0088640 City of Clinton South Harnett Regional WWTP NC0088641 Keener Lumber Co. Smithfield Plant NC0088641 Keener Lumber Co. Smithfield Plant NC0004260	Fayetteville	NC0080322	Montgomery County	Montgomery County WTP	Mount Gilead	Montgomery
NC0081825 Town of Ansonville Ansonville WWTP NC0082597 Town of Angler Angler WWTP NC0082597 Town of Angler Angler WWTP NC0085265 Robeson County Water Department Lumber Bridge WTP NC0086037 Hoke County Antioch WTP NC0086639 Hoke County Antioch WTP NC0086644 D M Farms of Rose Hill LLC DM Farms Mag 4 Sow Farm NC0086694 Robeson County Water Department Parson-Anders WTP NC0086894 Robeson County Water Department Raemon Well WTP NC0086894 Robeson County Water Department Sanchez Drive WTP NC0086894 Robeson County Water Department Sanchez Drive WTP NC0086894 Robeson County Water Department Sanchez Drive WTP NC0086894 Robeson County Water Department Sanchez Drive WTP NC0086894 Robeson County Water Department Sanchez Drive WTP NC0086894 Robeson County Water Department Sanchez Drive WTP NC0086894 Robeson County Water Department Sanchez Drive WTP NC00068894 Robeson County Water Departme	Fayetteville	NC0081281	Richmond County	Richmond County WTP	Rockingham	Richmond
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NC0086037 Hoke County Arabia WTP NC0086045 Hoke County Anticch WTP NC0086550 Town of Fairmont Fairmont Regional WWTP NC0086614 DM Farms of Rose Hill LLC DM Farms Mag 4 Sow Farm NC0086649 City of Clinton Parson-Anders WTP NC0086894 Robeson County Water Department Raemon Well WTP NC0086891 Robeson County Water Department Raemon Well WTP NC0086894 Cookson D O G South Harnett Regional WWTP NC0088986 Harmett County Utilities South Harnett Regional WWTP NC0088986 Harmett County Utilities South Harnett Regional WWTP NC00088986 Harmett County Utilities South Harnett Regional WWTP NC00088986 Harmett County Utilities South Harnett Regional WWTP NC00088986 Harmett County Utilities South Harnett Regional WWTP NC0008898 Aluminum Company Of America SKF Gastonia Facility NC0004308 Aluminum Company Of America Badin Works NC0004885 PPG Industries Fiber Glass Products Inc Charlotte Terminal NC0004880	Fayetteville	NC0085685	Robeson County Water Department	Lumber Bridge WTP	Lumber Bridge	Robeson
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NC0086550 Town of Fairmont Fairmont Regional WWTP NC0086614 D.M Farms of Rose Hill LLC DM Farms Mag 4 Sow Farm NC0086649 City of Clinton Parson-Anders WTP NC0086891 Robeson County Water Department Raemon Well WTP NC0086891 Robeson County Water Department Sanchez Drive WTP NC0088081 Cookson D O G Cookson remediation site NC00088082 Harnett County Utilities South Harnett Regional WWTP NC00088084 Keener Lumber Co Smithfield Plant NC0004260 SKF USA Inc E-flex WWTP NC0004260 SKF USA Inc SKF Gastonia Facility NC0004308 Aluminum Company Of America Badin Works NC0004309 Aluminum Company Of America Badin Works NC0004375 Clariant Corporation Mount Holly East (MHE) Facility NC0004685 PPG Industries Fiber Glass Products Inc PPG - Shelby facility NC0004685 PPG Industries Fiber Glass Products Inc PPG - Shelby facility NC0004685 Pharr Yarns Inc Pharr Yarns Inc NC0004839 Hampton Capital Pa	Fayetteville	NC0086045	Hoke County	Antioch WTP	Red Springs	Hoke
NC0086614 D M Farms of Rose Hill LLC DM Farms of Rose Hill LLC NC0086649 City of Clinton Parson-Anders WTP NC0086894 Robeson County Water Department Raemon Well WTP NC0086891 Robeson County Water Department Sanchez Drive WTP NC0088081 Cookson D O G Cookson remediation site NC0088366 Harnett County Utilities South Harnett Regional WWTP NC0004120 E-flex LLC E-flex WWTP NC0004260 SKF USA Inc SKF Gastonia Facility NC0004308 Aluminum Company Of America Badin Works NC0004308 PPG Industries Fiber Glass Products Inc PRG Industries Siber Glass Products Inc NC0004723 Kinder Morgan Southeast Terminals, LLC Charlotte Terminal 3 NC0004815 Kinder Morgan Southeast Terminals, LLC Pharr Yarns Industrial WWTP NC0004818 Hampton Capital Partners LLC/ DBA Gulistan Carpet	Fayetteville	NC0086550	Town of Fairmont	Fairmont Regional WWTP	Fairmont	Robeson
NC0086649 City of Clinton Parson-Anders WTP NC0086894 Robeson County Water Department Raemon Well WTP NC0086991 Robeson County Water Department Sanchez Drive WTP NC0088081 Cookson D O G Cookson remediation site NC0088366 Harnett County Utilities South Harnett Regional WWTP NC0088641 Keener Lumber Co Smithfield Plant NC0004260 SKF USA Inc E-Flex WWTP NC0004260 SKF USA Inc SKF Gastonia Facility NC0004308 Aluminum Company Of America SKF Gastonia Facility NC0004308 PPG Industries Fiber Glass Products Inc PPG - Shelby facility NC0004723 Kinder Morgan Southeast Terminals, LLC Charlotte Terminal 3 NC0004812 Pharr Yams Inc Pharr Yams Industrial WWTP NC0004839 Kinder Morgan Southeast Terminals-Charlotte Terminal 2 NC0004898 Hampton Capital Partners LLC/ DBA Guilstan Carp Guilstan Carpet	Fayetteville	NC0086614	D M Farms of Rose Hill LLC	DM Farms Mag 4 Sow Farm	Rose Hill	Sampson
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NC0086991 Robeson County Water Department Sanchez Drive WTP NC0088081 Cookson D O G Cookson remediation site NC0088366 Harnett County Utilities South Harnett Regional WWTP NC0088641 Keener Lumber Co - Smithfield Plant NC0004120 E-flex LLC E-Flex WWTP NC0004260 SKF USA Inc SKF Gastonia Facility NC0004308 Aluminum Company Of America Badin Works NC0004375 Clariant Corporation Mount Holly East (MHE) Facility NC0004685 PPG Industries Fiber Glass Products Inc PPG - Shelby facility NC0004774 Duke Energy Carolinas LLC Charlotte Terminal 3 NC0004812 Pharr Yams Inc Pharr Yams Industrial WWTP NC0004839 Kinder Morgan Southeast Terminals-Charlotte Terminal 2 NC0004898 Hampton Capital Partners LLC/ DBA Gulistan Carp Gulistan Carpet	Fayetteville	NC0086894	Robeson County Water Department	Raemon Well WTP	Maxton	Robeson
NC0088081 Cookson D O G Cookson remediation site NC0088366 Harnett County Utilities South Harnett Regional WWTP NC0088641 Keener Lumber Co Keener Lumber Co - Smithfield Plant NC0004120 E-flex LLC E-flex WWTP NC0004260 SKF USA Inc SKF Gastonia Facility NC0004308 Aluminum Company Of America Badin Works NC0004375 Clariant Corporation Mount Holly East (MHE) Facility NC0004685 PPG Industries Fiber Glass Products Inc PPG - Shelby facility NC0004723 Kinder Morgan Southeast Terminals, LLC Charlotte Terminal 3 NC0004812 Pharr Yams Inc Pharr Yams Industrial WWTP NC0004839 Kinder Morgan Southeast Terminals-Charlotte Terminal 2 NC0004898 Hampton Capital Partners LLC/ DBA Gulistan Carp Gulistan Carpet	Fayetteville	NC0086991	Robeson County Water Department	Sanchez Drive WTP	Lumberton	Robeson
NC008866 Harnett County Utilities South Harnett Regional WWTP NC0088641 Keener Lumber Co Keener Lumber Co - Smithfield Plant NC0004120 E-flex LLC E-Flex WWTP NC0004260 SKF USA Inc SKF Gastonia Facility NC0004308 Aluminum Company Of America Badin Works NC0004305 Clariant Corporation Mount Holly East (MHE) Facility NC0004885 PPG Industries Fiber Glass Products Inc PPG - Shelby facility NC0004723 Kinder Morgan Southeast Terminals, LLC Charlotte Terminal 3 NC0004812 Pharr Yams Inc Pharr Yams Industrial WWTP NC0004839 Kinder Morgan Southeast Terminals-Charlotte Terminal 2 NC0004898 Hampton Capital Partners LLC/ DBA Gulistan Carp Gulistan Carp Gulistan Carpet	Fayetteville	NC0088081	Cookson D O G	Cookson remediation site	Ansonville	Anson
NC0088641 Keener Lumber Co Smithfield Plant NC0004120 E-flex LLC E-Flex WWTP NC0004260 SKF USA Inc SKF Gastonia Facility NC0004308 Aluminum Company Of America Badin Works NC0004308 Aluminum Company Of America Mount Holly East (MHE) Facility NC0004805 PPG Industries Fiber Glass Products Inc PPG - Shelby facility NC0004723 Kinder Morgan Southeast Terminals, LLC Charlotte Terminal 3 NC0004812 Pharr Yarns Inc Pharr Yarns Inc NC0004839 Kinder Morgan Southeast Terminals-Charlotte Terminal 2 NC0004898 Hampton Capital Partners LLC/ DBA Gulistan Carpet	Fayetteville	NC0088366	Harnett County Utilities	South Harnett Regional WWTP	Lillington	Harnett
NC0004120 E-flex LLC E-Flex WWTP NC0004260 SKF USA Inc SKF Gastonia Facility NC0004308 Aluminum Company Of America Badin Works NC0004375 Clariant Corporation Mount Holly East (MHE) Facility NC0004375 Clariant Corporation PPG Industries Fiber Glass Products Inc PPG - Shelby facility NC0004723 Kinder Morgan Southeast Terminals, LLC Charlotte Terminal 3 NC0004812 Pharr Yarns Inc Pharr Yarns Inc NC0004839 Kinder Morgan Southeast Terminals-Charlotte Terminal 2 NC0004898 Hampton Capital Partners LLC/ DBA Gulistan Carpet	Fayetteville	NC0088641	Keener Lumber Co	Keener Lumber Co - Smithfield Plant	Clinton	Sampson
NC0004260 SKF USA Inc SKF Gastonia Facility NC0004308 Aluminum Company Of America Badin Works NC0004375 Clariant Corporation Mount Holly East (MHE) Facility NC0004375 Clariant Corporation PPG Industries Fiber Glass Products Inc PPG - Shelby facility NC0004723 Kinder Morgan Southeast Terminals, LLC Buck Steam Station NC0004812 Pharr Yarns Inc Pharr Yarns Inc NC0004839 Kinder Morgan Southeast Terminals-Charlotte Terminal 2 NC0004898 Hampton Capital Partners LLC/ DBA Gulistan Carpet	Mooresville	NC0004120	E-flex LLC	E-Flex WWTP	Lawndale	Cleveland
NC0004308 Aluminum Company Of America Badin Works NC0004375 Clariant Corporation Mount Holly East (MHE) Facility NC0004685 PPG Industries Fiber Glass Products Inc PPG - Shelby facility NC0004723 Kinder Morgan Southeast Terminals, LLC Charlotte Terminal 3 NC0004812 Pharr Yarns Inc Pharr Yarns Inc NC0004839 Kinder Morgan Southeast Terminals-Charlotte Terminal 2 NC0004898 Hampton Capital Partners LLC/ DBA Gulistan Carpet	Mooresville	NC0004260	SKF USA Inc	SKF Gastonia Facility	Gastonia	Gaston
NC0004375 Clariant Corporation Mount Holly East (MHE) Facility NC0004685 PPG Industries Fiber Glass Products Inc PPG - Shelby facility NC0004723 Kinder Morgan Southeast Terminals, LLC Charlotte Terminal 3 NC0004774 Duke Energy Carolinas LLC Buck Steam Station NC0004812 Pharr Yams Inc NC0004839 Kinder Morgan Southeast Terminals-Charlotte Term Charlotte Terminal 2 NC0004898 Hampton Capital Partners LLC/ DBA Gulistan Carp Gulistan Carpet	Mooresville	NC0004308	Aluminum Company Of America	Badin Works	Badin	Stanly
NC0004685 PPG Industries Fiber Glass Products Inc PPG - Shelby facility NC0004723 Kinder Morgan Southeast Terminals, LLC Charlotte Terminal 3 NC0004774 Duke Energy Carolinas LLC Buck Steam Station NC0004812 Pharr Yams Inc NC0004839 Kinder Morgan Southeast Terminals-Charlotte Term Charlotte Terminal 2 NC0004898 Hampton Capital Partners LLC/ DBA Gulistan Carp Gulistan Carpet	Mooresville	NC0004375	Clariant Corporation	Mount Holly East (MHE) Facility	Charlotte	Mecklenburg
NC0004723 Kinder Morgan Southeast Terminals, LLC Charlotte Terminal 3 NC0004774 Duke Energy Carolinas LLC Buck Steam Station NC0004812 Pharr Yams Inc. NC0004839 Kinder Morgan Southeast Terminals-Charlotte Terri Charlotte Terrinal 2 NC0004898 Hampton Capital Partners LLC/ DBA Gulistan Carp Gulistan Carpet	Mooresville	NC0004685	PPG Industries Fiber Glass Products Inc	PPG - Shelby facility	Shelby	Cleveland
NC0004774 Duke Energy Carolinas LLC Buck Steam Station NC0004812 Pharr Yarns Inc NC0004839 Kinder Morgan Southeast Terminals-Charlotte Terri Charlotte Terrinal 2 NC0004898 Hampton Capital Partners LLC/ DBA Gulistan Carp Gulistan Carpet	Mooresville	NC0004723	Kinder Morgan Southeast Terminals, LLC	Charlotte Terminal 3	Paw Creek	Mecklenburg
NC0004812 Pharr Yarns Inc NC0004839 Kinder Morgan Southeast Terminals-Charlotte Terr Charlotte Terminal 2 NC0004898 Hampton Capital Partners LLC/ DBA Gulistan Carp Gulistan Carpet	Mooresville	NC0004774	Duke Energy Carolinas LLC	Buck Steam Station	Salisbury	Rowan
NC0004839 Kinder Morgan Southeast Terminals-Charlotte Terri Charlotte Terminal 2 NC0004898 Hampton Capital Partners LLC/ DBA Gulistan Carp Gulistan Carpet	Mooresville	NC0004812	Pharr Yams Inc	Pharr Yarns Industrial WWTP	Mc Adenville	Gaston
NC0004898 Hampton Capital Partners LLC/ DBA Gulistan Carp Gulistan Carpet	Mooresville	NC0004839	Kinder Morgan Southeast Terminals-Charlotte Terr	Charlotte Terminal 2	Paw Creek	Mecklenburg
	Mooresville	NC0004898	Hampton Capital Partners LLC/ DBA Gulistan Carp	Gulistan Carpet	Turnersburg	Iredell

Table 4 - NPDES Permit Holders: Names and Locations

Region	Permit Number	Owner	Facility	City	County Name
Mooresville	NC0004944	Performance Fibers Operations Inc	Performance Fibers Operations, Inc.	Salisbury	Rowan
Mooresville	NC0004952	CNA Holdings Inc	Ticona Facility	Shelby	Cleveland
Mooresville	NC0004961	Duke Energy Carolinas LLC	Riverbend Steam Station	Mount Holly	Gaston
Mooresville	NC0004979	Duke Energy Carolinas LLC	Plant Allen Steam Station	Belmont	Gaston
Mooresville	NC0004987	Duke Energy Carolinas LLC	Marshall Steam Station	Terrell	Catawba
Mooresville	NC0005061	Smurfit-Stone Container Enterprises, Inc.	Jefferson Smurfit WWTP	Shelby	Cleveland
Mooresville	NC0005126	Tyson Poultry Inc	Harmony plant	Harmony	Iredell
Mooresville	NC0005177	FMC Corporation	Lithium Division Plant	Bessemer City	Gaston
Mooresville	NC0005185	Magellan Terminals Holdings L P	Charlotte II Terminal	Paw Creek	Mecklenburg
Mooresville	NC0005274	Kings Mountain Venture #1 LLC	Kings Mountain Venture #1, LLC	Lowell	Gaston
Mooresville	NC0005771	Transmontaigne Operating Company LP	Charlotte/Paw Creek Terminal #1	Paw Creek	Mecklenburg
Mooresville	NC0006033	Town of Cramerton	Eagle Road WWTP	Cramerton	Gaston
Mooresville	NC0006190	Delta Apparel Inc	Delta Apparel / Maiden	Maiden	Catawba
Mooresville	NC0006220	City of Kannapolis	Kannapolis WTP	Kannapolis	Rowan
Mooresville	NC0006351	Chemical Specialties Inc	Chemical Specialties	Harrisburg	Cabarrus
Mooresville	NC0020036	Town of Stanley	Lola Street WWTP	Stanley	Gaston
Mooresville	NC0020052	Town of McAdenville	McAdenville WWTP	Mc Adenville	Gaston
Mooresville	NC0020184	City of Gastonia	Long Creek WWTP	Dallas	Gaston
Mooresville	NC0020401	City of Hickory	Northeast WWTP	Hickory	Catawba
Mooresville	NC0020591	City of Statesville	Third Creek WWTP	Statesville	Iredell
Mooresville	NC0020737	City of Kings Mountain	Pilot Creek WWTP	Kings Mountain	Cleveland
Mooresville	NC0020966	Town of Spencer Mountain	Spencer Mountain WWTP	Gastonia	Gaston
Mooresville	NC0021156	City of Mount Holly	Mount Holly WWTP	Mount Holly	Gaston
Mooresville	NC0021181	City of Belmont	Belmont WWTP	Belmont	Gaston
Mooresville	NC0021628	Town of Norwood	Norwood WWTP	Norwood	Stanly
Mooresville	NC0021962	CITGO Petroleum Corporation	Charlotte Terminal	Charlotte	Mecklenburg
Mooresville	NC0021971	BP Products North America Inc	Charlotte BP Terminal/Paw Creek	Charlotte	Mecklenburg
Mooresville	NC0022187	Motiva Enterprises LLC	Paw Creek Terminal	Paw Creek	Mecklenburg
Mooresville	NC0022497	Cross Country Campground	Cross Country Campground	Denver	Catawba
Mooresville	NC0022934	UCS, Inc	UCS, Inc - Main Plant	Lincolnton	Gaston
Mooresville	NC0023191	David L Millsaps	Seven Cedars Mobile Home Park WWTP	Statesville	Iredell
Mooresville	NC0023540	Belmont Textile Machinery Company	Belmont Textile Machinery WWTP	Mount Holly	Gaston
Mooresville	NC0023761	National Fruit Product Company Inc	National Fruit Product Company	Lincolnton	Lincoln
Mooresville	NC0023884	City of Salisbury	Salisbury-Rowan WWTP	Salisbury	Rowan
Mooresville	NC0024155	City of High Shoals	River Street WWTP	High Shoals	Gaston
Mooresville	NC0024244	City of Albemarle	Long Creek WWTP	Albemarle	Stanly
Mooresville	NC0024252	City of Conover	Northeast WWTP	Conover	Catawba
Mooresville	NC0024279	City of Conover	Southeast WWTP	Conover	Catawba
Mooresville	NC0024333	City of Monroe	Monroe WWTP	Monroe	Union
Mooresville	NC0024392	Duke Energy Carolinas LLC	McGuire Nuclear Power Plant	Huntersville	Mecklenburg
Mooresville	NC0024538	City of Shelby	Shelby WWTP	Shelby	Cleveland

Table 4 - NPDES Permit Holders: Names and Locations

Region	Permit Number	Owner	Facility	City	County Name
Mooresville	NC0024937	Charlotte-Mecklenburg Utilities	Charlotte-Sugar Creek WWTP	Charlotte	Mecklenburg
Mooresville	NC0024945	Charlotte Mecklenburg Utility Department	Irwin Creek WWTP	Charlotte	Mecklenburg
Mooresville	NC0024970	Charlotte Mecklenburg Utility Department	McAlpine Creek WWTP	Charlotte	Mecklenburg
Mooresville	NC0025259	Carolina Water Service Inc Of NC	Lamplighter Subdivision WWTP	Charlotte	Mecklenburg
Mooresville	NC0025496	City of LincoInton	Lincolnton WWTP	Lincolnton	Lincoln
Mooresville	NC0025542	City of Hickory	Catawba WWTP	Catawba	Catawba
Mooresville	NC0025861	City of Lowell		Lowell	Gaston
Mooresville	NC0026271	Town of Taylorsville	Taylorsville WWTP	Taylorsville	Alexander
Mooresville	NC0027197	City of Shelby	Shelby WTP	Shelby	Cleveland
Mooresville	NC0027502	Town of Landis	Landis WTP	China Grove	Rowan
Mooresville	NC0028169	B V Hedrick Gravel & Sand Company	Aquadale Quarry	Norwood	Stanly
Mooresville	NC0028606	NCDOT	I-77 Rest Area Iredell County	Union Grove	Iredell
Mooresville	NC0028711	Mecklenburg County Schools	Berryhill Elementary School WWTP	Charlotte	Mecklenburg
Mooresville	NC0028941	Aqua North Carolina Inc	Pine Valley Subdivision WWTP	Salisbury	Rowan
Mooresville	NC0029181	Carolina Water Service Inc Of NC	Forest Ridge WWTP	Matthews	Mecklenburg
Mooresville	NC0029297	Catawba County Schools	Fred T. Foard High School	Newton	Catawba
Mooresville	NC0029742	NC Department of Correction	Iredell Correctional Center WWTP	Statesville	Iredell
Mooresville	NC0030210	Charlotte Mecklenburg Utility Department	Mallard Creek WWTP	Charlotte	Mecklenburg
Mooresville	NC0030597	Union County Public Schools	New Salem Elementary School	Marshville	Union
Mooresville	NC0031038	Colonial Pipeline Company	Paw Creek Terminal	Paw Creek	Mecklenburg
Mooresville	NC0031836	City of Statesville	Fourth Creek WWTP	Statesville	Iredell
Mooresville	NC0032662	City of Claremont	North WWTP	Claremont	Catawba
Mooresville	NC0032760	Carolina Water Service Inc Of NC	Kings Grant WWTP	Gastonia	Gaston
Mooresville	NC0032867	Roadside Truck Plaza Inc	Roadside Truck Plaza WWTP	Kings Mountain	Cleveland
Mooresville	NC0032891	Kinder Morgan Southeast Terminals LLC	Charlotte Terminal 1	Paw Creek	Mecklenburg
Mooresville	NC0033421	Carolina Water Service Inc Of NC	College Park WWTP	Gastonia :	Gaston
Mooresville	NC0033570	Chemetall Foote Corporation	Chemetall Foote Corporation	Kings Mountain	Cleveland
Mooresville	NC0034703	Rowan-Salisbury Schools	Knollwood Elementary School	Salisbury	Rowan
Mooresville	NC0034711	Athena Cedar LLC	Cedar Park Estates WWTP	Concord	Cabarrus
Mooresville	NC0034754	Commscope Inc	Commscope WWTP	Sherrills Ford	Catawba
Mooresville	NC0034762	Goose Creek Utility Company	Fairfield Plantation WWTP	Matthews	Union
Mooresville	NC0034860	Schneider Mills Inc	Schneider Mills WWTP	Taylorsville	Alexander
Mooresville	NC0034959	Rowan-Salisbury Schools	West Rowan High School	Mount Ulla	Rowan
Mooresville	NC0034967	Carolina Glove Company	Carolina Glove Company	Taylorsville	Alexander
Mooresville	NC0035033	Carolina Water Service Inc Of NC	Cabarrus Woods WWTP	Harrisburg	Cabarrus
Mooresville	NC0035041	Carolina Water Service Inc Of NC	Hemby Acres WWTP	Indian Trail	Union
Mooresville	NC0036196	City of Newton	Clark Creek WWTP	Newton	Catawba
Mooresville	NC0036269	Water and Sewer Authority of Cabarrus County	Rocky River WWTP	Concord	Cabarrus
Mooresville	NC0036277	Charlotte-Mecklenburg Utilities	McDowell Creek WWTP	Huntersville	Mecklenburg
Mooresville	NC0037184	Lakeside Investment Properties	Oak Haven Mobile Home Park	Salisbury	Rowan
Mooresville	NC0037371	Iredell-Statesville Schools	North Iredell High School	Olin	Iredell
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Names and Locations	
Table 4 - NPDES Permit Holders:	

Region	Permit Number	Owner	Facility		
Mooresville	NC0039594	Town of Maiden	Maiden WWTP	Maiden	County Name
Mooresville	NC0040070	City of Gastonia	Gastonia WTP	Gastonia	Gaston
Mooresville	NC0040797	City of Hickory	Henry Fork WWTP	Hickory	Catawba
Mooresville	NC0041246	Lincoln County Schools	West Lincoln High School	Lincolnton	Lincoln
Mooresville	NC0041718	Davidcyn Apartments	Davidcyn Apartments	Misenheimer	Stanly
Mooresville	NC0042293	Speciality Lighting Inc	Speciality Lighting	Shelby	Cleveland
Mooresville	NC0042439	Westside Swim & Racquet Club	Westside Swim & Racquet Club	Salisbury	Rowan
Mooresville	NC0043532	Town of Oakboro	Oakboro WWTP	Oakboro	Stanly
Mooresville	NC0044024	City of Albemarle	Highway 52 WTP	Albemarle	Stanly
Mooresville	NC0044059	Catawba County Schools	Bunker Hill High School	Claremont	Catawba
Mooresville	NC0044121	City of Hickory	Hickory WTP	Hickory	Catawba
Mooresville	NC0044253	NC Lions	NC Lions/ Camp Dogwood	Sherrills Ford	Catawba
Mooresville	NC0044440	City of Cherryville	Cherryville WWTP	Cherryville	Gaston
Mooresville	NC0044717	Water and Sewer Authority of Cabarrus County	Mount Pleasant WTP	Mount Pleasant	Cabarrus
Mooresville	NC0045012	Hill Haven Residential Care	Hill Haven Residential Care	Statesville	Iredell
Mooresville	NC0045438	Catawba County Schools	Sherrills Ford Elementary School	Catawba	Catawba
Mooresville	NC0045471	Barium Spings Home for Children	Barium Springs Home WWTP	Barium Springs	Iredeli
Mooresville	NC0045993	Alivac	Monroe Plant	Monroe	Union
Mooresville	NC0046213	Marathon Petroleum Company LLC	Charlotte Terminal	Paw Creek	Mecklenburg
Mooresville	NC0046531	Refuel America Inc	Refuel Terminal Operations - Charlotte	Paw Creek	Mecklenburg
Mooresville	NC0046728	Town of Mooresville	Rocky River WWTP	Mooresville	Iredell
Mooresville	NC0046892	Motiva Enterprises LLC	Charlotte South Terminal	Paw Creek	Mecklenbura
Mooresville	NC0047091	K B I LLC Kurlander Boggs Investments LLC	Silver Maples Community	Concord	Cabarrus
Wooresville	NC0049867	Town of Cleveland	Cleveland WWTP	Cleveland	Rowan
Mooresville	NC0049905	Associated Asphalt, Inc.	Salisbury Terminal	Salisbury	Rowan
Mosterille	NC0051608		Bandys High School	Catawba	Catawba
Mooresville	NC0051632	Carolina Water Service Inc Of NC	Huntwick WWTP	Harrisburg	Cabarrus
Mooresville	NC0051918	Cleveland County Water	Cleveland County WTP	Lawndale	Cleveland
Mooresville	NC0057404	Heater Utilities Inc	Bridgeport WWTP	Cramerton	Iredell
Mooreeville	NC00500401	Go Go Properties LLC	The Hideaways WWTP	Charlotte	Mecklenburg
Mooresville	NC0030004	Gougn Econ Inc	Gough Econ WWTP	Charlotte	Mecklenburg
Mooresville	NC0050570	Carallas Materials	Country Valley WW I P	Newton	Catawba
Mooresville	8/C8C000N	Carolina water service inc of NC	Emerald Point WWTP	Charlotte	Mecklenburg
Moorogville	NC0060383	Heater Utilities Inc	Spinnaker Bay WWTP	Sherrills Ford	Catawba
Mooroovillo	NC0000733	Carolina water Service Inc Of NC	Saddlewood WWTP	Gastonia	Gaston
Mooresville	NC0061034	Kowan Associates & Mercantile	Rowan Associates & Mercantile WWTP	Salisbury	Rowan
Mooresville	NCUU6ZZ78		Berkley Oaks WWTP	Gastonia	Gaston
Mooresville	NC0062383		Queens Harbor WWTP	Charlotte	Mecklenburg
Mooresville	NC0062430		Lake Norman State Park/Swimming	Troutman	Iredell
Moresville	NC0062448	NCDENK Division of Parks & Recreation	Lake Norman State Park/Campgrnd	Troutman	Iredell
INIOOLESVIIIE	NC0062481	Heater Utilities Inc	Mallard Head WWTP	Mooresville	Iredell
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Table 4 - NPDES Permit Holders: Names and Locations

NOD063355 Heaster Utilities in Concessed WITP SMERINE FOOD NOD063567 Heaster Utilities in Concessed with the Concessed Mode of Market Market Market Willies in Concessed Mode of Market Ma	Region	Permit Number	Owner	Facility	City	County Name
N.CO053789 (Aster Utilities Inc.) Council a Village Mobile Home Park Council a Village Mobile Home Park Caroline Village Mobile Home Park Caroline Village Mobile Home Park Haritshurg Haritshurg N.CO05389 (Acaroline Village Mobile Home Park N.CO05380 (Acaroline Village Mobile Home Park Mint Hill Festival WWTP Mint Hill Festival WWTP Charlotte Mint Hill Festival WWTP Charlotte Mobile Home Park Mint Hill Festival WWTP Charlotte Mobile Home Park Mint Hill Festival WWTP Charlotte Mobile Home Park Mint Hill Festival WWTP Charlotte Mobile Home Park Mint Hill Festival WWTP Charlotte Mobile Home Park Mint Hill Festival WWTP Charlotte Mobile Home Park Charlotte Mobile Home Park Mint Hill Festival WWTP Charlotte Mobile Home Park Charlotte Mobile Home Park Mint Hill Festival WWTP Charlotte Mobile Home Park Charlotte Mobile Home Park Mint Hill Festival WWTP Charlotte Mobile Home Park Charlotte Mobile Home Park Charlotte Mobile Home Park Charlotte Mobile Home Park Charlotte Mobile Home Park Charlotte Mobile Home Park Charlotte Mobile Home Park Charlotte Mobile Home Park Charlotte Mobile Home Park Charlotte Mobile Home Park Charlotte Mobile Home Park Charlotte Mobile Home Park Charlotte Mobile Home Park Charlotte Mobile Home Park Char	Mooresville	NC0063355	Heater Utilities Inc	Killian Crossroads WWTP	Sherrills Ford	Catawba
N.C0063792 Caroline Williee InC Clanning WANTP Home Park Hinth Hill Essible WWTP Hinth Hill N.C0063397 Higalew Enterprises LLC Whispering Pines Reat Home Sheiby Sheiby N.C0063397 Higalew Enterprises LLC Whispering Pines Reat Home Sheiby N.C0063392 White Forest WWT Trust White Forest WWTP Character N.C0063392 White Forest WWTP Character N.C0063392 White Forest WWTP Character N.C0063392 Town of Groen Character N.C0063392 Town of Groen Character N.C0063392 Town of Groen Character N.C0063392 Town of Groen Character N.C0063392 Town of Groen Character N.C0063392 Town of Groen Character N.C0063393 Town of Spencer Nountain Spencer Mountain WTP Character N.C0063394 Character Utilities Inc Character Mountain Spencer Mountain WTP Character N.C00663397 Character County Spencer Nountain Spencer Mountain WTP Character	Mooresville	NC0063584	Heater Utilities Inc	Oxford Glen WWTP	Charlotte	Mecklenburg
NO.0063799 Healer Utilities Inc Mint Hill Mint Hill Mint Hill NC.0063799 Healer Utilities Inc Whispering Plans Rest Home Charlotte NC.0063360 Healer Utilities Inc Whispering Plans Rest Home Charlotte NC.0063360 Healer Utilities Inc Healer Utilities Inc Charlotte NC.0063734 Healer Utilities Inc Charlotte Charlotte NC.0063735 Healer Utilities Inc County Wood WWTP Grover NWTP NC.0065737 Healer Utilities Inc County Wood WWTP Charlotte NC.0065739 Healer Utilities Inc County Wood WWTP Charlotte NC.0065739 Healer Utilities Inc County Wood WWTP Charlotte NC.0065739 Cleveland County Schools Charlotte Charlotte NC.0065739 Cleveland County Schools Charlotte Charlotte NC.0065739 Cleveland County Schools Charlotte Charlotte NC.0065739 Cleveland County Schools Charlotte Charlotte NC.0065739 Cleveland County Fulls (works Charlotte Charlotte NC.0065739 Cleveland County Pulls (works Charlotte Charlotte NC.0065739 Cleveland County Pulls (works <td< td=""><td>Mooresville</td><td>NC0063762</td><td></td><td>Carolina Village Mobile Home Park</td><td>Harrisburg</td><td>Cabarrus</td></td<>	Mooresville	NC0063762		Carolina Village Mobile Home Park	Harrisburg	Cabarrus
NC0063392 Whispening Pines Rate (Minispines LLC) Whispening Pines Rate (Pine) Shelby NC0063392 White Forest WWT Trust White Forest WWTP NC0063499 White Forest WWTP Nc0063499 NC0063492 White Forest WWT Trust White Forest WWTP Nc0064734 Reader Dulling Shelp NC0063493 Face Norman Motel Bradfield Farms Water Company Bradfield Farms Water Company Bradfield Farms Water Company NC0065749 Heater Utilities Inc County Wood WWTP Growell NC0065740 Heater Utilities Inc County Wood WWTP Charlest County Co	Mooresville	NC0063789	Heater Utilities Inc	Mint Hill Festival WWTP	Mint Hill	Mecklenburg
NCD0653929 White Forest WWT Trust Habot Estates WWTP Chaintee NCD065392 White Forest WWT Trust White Forest WWTP Sherritee Found NCD0654734 Take Norman Motel Lake Norman Motel Sherrite Found NCD065242 Town of Service County WIPP Sherrite Found NCD065242 Town of Service County WIPP Sherrite Found NCD065242 Heater Utilities inc County Wood WWTP Grower NCD065743 Heater Utilities inc County Wood WWTP Chaintie NCD065749 Heater Utilities inc County Wood WWTP Chaintie NCD0657540 Heater Utilities inc County Wood WWTP Chaintie NCD065764 Rocky River Run Subdivison Chaintie Chaintie Chaintie NCD065764 Rocky River Run Subdivison Chainties WWTP Chainties Chaintie Chainties Chaintie NCD065803 Chainties Water Association Murray Water Run Subdivison Rocky River Run Subdivison Chainties Chainties Inc NCD0658175 Ridge Community WWTP Chainties Chainties Inc Chainties Chainties Inc <td>Mooresville</td> <td>NC0063797</td> <td>Higalaw Enterprises LLC</td> <td>Whispering Pines Rest Home</td> <td>Shelby</td> <td>Cleveland</td>	Mooresville	NC0063797	Higalaw Enterprises LLC	Whispering Pines Rest Home	Shelby	Cleveland
NCD064599 Lake Numan Motel Lake Numan Motel WINE Forst WWIT P Mocross/lile NCD064734 Rake Numan Motel Lake Numan Motel Lake Numan Motel Lake Numan Motel Bradited Farms WHYTP Sherrills Ford NCD065344 Hown of Grover County WhyTP County WHYTP Grover From County Count	Mooresville	NC0063860	Heater Utilities Inc	Harbor Estates WWTP	Charlotte	Mecklenburg
N.C00664599 Lake Norman Motel Lake Norman Motel Clarke Norman Motel Sherrills Ford N.C00665242 Town of Garner Water Company Beaffeld Farms Water Company Beaffeld Farms WATP Grover N.C00665242 Town of Garner County Word WWTP Grover N.C0066573 Header Utilities inc Ashe Plantation WWTP Charlotte N.C0066574 Header Utilities inc Ashe Plantation WWTP Charlotte N.C0066573 Header Utilities inc Ashe Plantation WWTP Charlotte N.C0066539 (Cleveland County Schools Casaer Elementary School WWTP Charlotte N.C0066539 (Cleveland County Schools Casaer Elementary School WWTP Casaer N.C0066539 (Cleveland County Schools Casaer Casaer N.C0066539 (Cleveland County Schools Casaer Casaer N.C0066539 (Cleveland County Schools Casaer Casaer N.C0066539 (Cleveland County Schools Careway WWTP Casaer N.C0066539 (Cleveland County Schools Careway County WWTP Casaer N.C0066530 (Cleveland County Schools Careway County WWTP Careway County WWTP <t< td=""><td>Mooresville</td><td>NC0063932</td><td>White Forest WWT Trust</td><td>White Forest WWTP</td><td>Mooresville</td><td>Mecklenburg</td></t<>	Mooresville	NC0063932	White Forest WWT Trust	White Forest WWTP	Mooresville	Mecklenburg
NC0065243 Readfield Famns Water Company Bradled Famns WWPP Sherrilis Ford NC0065243 Town of Grover County Whord WWTP Grover NC0065543 Header Utilities inc Ashie Plantation WWTP Grover NC0065749 Header Utilities inc Ashie Plantation WWTP Charlotte NC0065740 Header Utilities inc Will Work Case K WWTP Charlotte NC0065741 Town of Spancer Mountain Spancer Mountain WTP Charlotte NC0065754 Rocky River Fun Subdivison Craffmaster Furniture Fould Charlotte NC0065755 Meriners Water Mountain WTP Case Flantantiang School WWTP Charlotte NC0065765 Meriners Water Homeowners Association Rocky River Run Subdivison Hiddentie NC0065765 Meriners Water Homeowners Association Rocky River Run Subdivison Rocky River Run Subdivison Rocky River Run Subdivison NC0069345 Town of Delinity Stories Association Number Order Creek WWTP Indian Trail NC0069345 Union County Public Works Creden Creek WWTP Indian Trail NC0070289 Ridgewood Farms Subdivision	Mooresville	NC0064599	Lake Norman Motel	Lake Norman Motel	Sherrills Ford	Catawba
NODO65242 Town of Grover Country WOOD Country Processed Country Processed Cover NC0065424 Heater Utilities inc Asine Plantation WWTP Asine Plantation WWTP Charlotte NC0065430 Heater Utilities inc Asine Plantation WWTP Charlotte NC0065431 Town of Spanicer Mountain Spanicer Mountain WTP Charlotte NC0066532 Cleveland County Schools Casar Clear Elementary School WWTP Casar NC0066832 Cleveland County Schools Casar Elementary School WWTP Casar NC0068833 Town of Dallas Confination Fronting Indeed to Carlotte NC0068834 Town of Dallas Confine Mariner WATP Charlotte NC0068935 Carathoraster Funiture inc Carathoraster Funiture facilities Charlotte NC0068935 Carathoraster Funiture inc Carathoraster Funiture facilities Charlotte NC0069335 Carathoraster Putilities inc Carathoraster Funiture facilities Carathoraster Funiture inc Charlotte NC0069335 Union County Public Works Seer Association Tallwood Estates WWTP Cha	Mooresville	NC0064734	Bradfield Farms Water Company	Bradfield Farms WWTP	Sherrills Ford	Cabarrus
NODO65584 Heater Utilities Inc Country WROOD WWTP Monnee NC0065735 Heater Utilities Inc Willow Octeak WWTP Charlotte NC006573 Heater Utilities Inc Willow Octeak WWTP Charlotte NC0066377 Heater Utilities Inc Willow Octeak WWTP Casstroid NC0066397 Chevland Ceurby Schools Cast Elementaria Inc Cass Elementaria Inc NC0066397 Crevina Ceurby Schools Rocky River Run Subdivison Rocky River Run Subdivison NC0068305 Mariners Watch Homeowners Association Mariners Watch Homeowners Association Mariners Watch Homeowners Association Mariners Watch Homeowners Association Mariners Watch Homeowners Association Mariners Watch Homeowners Association Mariners Watch Homeowners Association Mariners Watch Homeowners Association Mariners Watch Homeowners Association Mariners Watch Homeowners Association Mariners Watch Homeowners Association Mariners Watch Homeowners Association Mariners Watch Homeowners Association Mariners Watch WWTP Cassionia NC0069345 Criaewba County Public Works Calewba County Public Works Croinfage Community WWTP Cassionia NC0069345 Union County Public Works C	Mooresville	NC0065242	Town of Grover	Grover WWTP	Grover	Cleveland
NC0069173 Heater Utilities Inc Ashe Plantation WWTP Chariotte Chariotte NC0066143 Heater Utilities Inc Willow Creek WWTP Chariotte NC0066141 Town of Spencer Mountain Spencer Mountain WTP Chariotte NC0066324 Rocky River Run Subdivison Caser Elementary School WWTP Caser NC0068368 Confinaster Furniture Inc Chariotte Matthews NC0068368 Town of Dallas Confinaster Furniture Inc Chariotte NC0068368 Incom of Dallas Southgate WTP Chariotte NC0068363 Heater Utilities Inc Southgate WTP Chariotte NC0068363 Heater Utilities Inc Southgate WTP Chariotte NC0069347 Rodge Community Sever Association Multiple WMTP Chariotte NC0069343 Heater Utilities Inc Chariotte County Public Works Crocked Creek WWTP Chariotte NC0069344 Rodge Community Sever Association Ridge-wood Fame Subdivision Chariotte Chariotte NC0069345 Lidge Community Sever Association Ridge-wood Fame Subdivision Chariotte	Mooresville	NC0065684	Heater Utilities Inc	Country Wood WWTP	Monroe	Union
NC00663173 Heater Utilities inc Williw Creek WWTP Creek MWTP Charlotte NC0066397 Cleveland County Schools Schools Schools Casar Elementary School WWTP Gasar Cleveland County Schools NC0066397 Cleveland County Schools Rocky River Run Subdivison Matthews Matthews NC00680764 Rocky River Run Subdivison Cardmaster Funiture Inc Cardmaster Funiture Facility Hoddenleb NC00680705 Mariners Watch Homeowners Association Cardmaster Funiture Facility Hoddenleb NC00680705 Mariners Watch Homeowners Association Southgate WITP Charlotte NC00680705 Mariners Watch Homeowners Association Southgate WITP Charlotte NC00680706 Clarawb Commy Public Works Talwood Estates WWTP Classlonia NC006807070289 Clarawb County Public Works Talwood Estates WWTP Indian Trail NC00707089 Ridgewood Farms Subdivision Response of Charlotte Response Community WWTP Howard NC00707089 Ridgewood Farms Subdivision Response Community WWTP Homeowers Association Response WWTP Homeowers Association	Mooresville	NC0065749	Heater Utilities Inc	Ashe Plantation WWTP	Charlotte	Mecklenburg
NC0066141 Town of Spencer Mountain Spencer Mountain WTP Gasarchia NC0066397 Cleveland County School Casar Elementary School WWTP Casar NC0066402 Craftmaster Furniture Inc Craftmaster Furniture Inc Craftmaster Furniture Facility Hiddentie NC0068632 Craftmaster Furniture Inc Craftmaster Furniture Inc Craftmaster Furniture Inc Indentity NC0068036 Town of Dallas Town of Dallas Dallas WWTP Dallas WWTP NC0068035 Hearer Utilities Inc Dallas WWTP Dallas WWTP Castonia NC0069345 Catawba County Historical Association Murray's Mill Historical States WWTP Gastonia NC0069345 Union County Public Works Carolina Water Service Inc OI NC Riegewood Farms Subdivision Indian Trail NC0070289 Inion County Public Works Carolina Water Service Inc OI NC Riegewood Farms Subdivision Charlotte NC0071743 Tab Diocess of Charlotte Carolina Water Service Inc OI NC Riegewood Farms WWTP Harrisburg NC0077289 Lake Norman Wood's Homeowners Association Lake Norman Wood's Homeowners Association Rea Enterprise	Mooresville	NC0065773	Heater Utilities Inc	Willow Creek WWTP	Charlotte	Mecklenburg
NC0068397 Cleveland County Schools Casar Elementary School WWTP Casar NC0068402 Rocky Siver Run Subdivison Rocky River Run Subdivison National Subdivison National Subdivison National Subdivison National Subdivison National Subdivison National Subdivison National Subdivison National Subdivison Craftmaster Emiliture Facility Chariotte NC0068035 Maniners Watch Homeowners Association Raige Community Sewer Association Raige Community Sewer Association Raige Community Sewer Association Raige Community WWTP Chariotte NC00680475 Ridgewood Farms Subdivision Muray's Mill Historical Site Newton Chariotte NC00680476 Catawba County Historical Association Muray's Mill Historical Site Newton NC00680476 Catawba County Historical Association Muray's Mill Historical Site Newton NC00670289 Ridgewood Farms Subdivision Ridgewood Farms Subdivision Newton NC0071280 Ridgewood Farms Subdivision Ridgewood Farms Subdivision Newton NC0071281 Lake Norman Woods Homeowners Association Rake Norman Woods WWTP Hainis Springs NC0072661 <td>Mooresville</td> <td>NC0066141</td> <td>Town of Spencer Mountain</td> <td>Spencer Mountain WTP</td> <td>Gastonia</td> <td>Gaston</td>	Mooresville	NC0066141	Town of Spencer Mountain	Spencer Mountain WTP	Gastonia	Gaston
NC0067644 Rocky River Run Subdivison Rocky River Run Subdivison Rocky River Run Subdivison Matthews NC0068702 Confinanter Infinites in Confinances Watch Homeowners Association Confinance Watch WITP Homeowners Association Confinite With WITP Homeowners Association Dallass WWTP Dallass NC0068026 Town of Dallass Town of Dallass Southgate WITP Carache Carache NC0068025 Hadge Community Sewer Association Ridge Community WITP Gastonia NC0069241 Union County Public Works Cracked Creek WWTP Indian Trail NC0070289 Ridgewood Famms Subdivison Ridgewood Famms Subdivison Indian Trail NC0071242 The Diocese of Charlotte Carolina Water Service in C five Riverpointe WWTP Carolina Water Service in C five NC0071743 The Diocese of Charlotte Carolina Springs Riverpointe WWTP Carolina Springs NC0077528 Lake Norman Woods Homeowners Association Lake Norman Woods WWTP Harrisburg NC0077528 Lake Norman Woods Holling Springs Fox Run WTP Fox Run WTP NC0077264 Shurtape Technologies, LLC	Mooresville	NC0066397	Cleveland County Schools	Casar Elementary School WWTP	Casar	Cleveland
NC0068632 Craftmaster Furniture Inc Craftmaster Furniture Inc Craftmaster Furniture Inc Inclode8702 Hiddenite NC0068705 Mariness Vatch Homeowners Association Mariness Watch Dallas Dallas NC0069035 Heater Utilities Inc Southgate WTP Dallas NC0069347 Ridge Community Sever Association Ridge Community WWTP Castonia NC0069347 Union County Public Works Tallwood Estates WWTP Indian Trail NC0070289 Ridgewood Farms Subdivision Ridgewood Farms Subdivision Ridgewood Farms Subdivision NC0071434 The Diocesse of Charlotte Crooked Creek WWTP Indian Trail NC0071435 Lake Norman Woods Homeowners Association Ringewood Farms Subdivision Ringewood Farms Subdivision NC0071437 The Diocesse of Charlotte Crooked Creek WWTP Hickory NC0071447 The Diocesse of Charlotte Crooked Creek WWTP Hickory NC0071458 Lake Norman Woods Homeowners Association Lake Norman Woods WWTP Hill Rickory NC00772661 Heater Utilities Inc Microoff Rickory Hunley Creek WWTP Harrickory <td>Mooresville</td> <td>NC0067644</td> <td>Rocky River Run Subdivison</td> <td>Rocky River Run Subdivison</td> <td>Matthews</td> <td>Mecklenburg</td>	Mooresville	NC0067644	Rocky River Run Subdivison	Rocky River Run Subdivison	Matthews	Mecklenburg
NC0068305 Mariners Watch Homeowners Association Mainers Watch WWTP Charlotte NC0068888 Town of Dallas Dallas WWTP Dallas WWTP NC00693035 Heater Utilities Inc Gastonia Gastonia NC0069345 Catawba County Historical Association Rudge Community WWTP Gastonia NC0069345 Catawba County Historical Association Murray's Mill Historical Site Newton NC0069345 Catawba County Historical Association Murray's Mill Historical Site Newton NC0069345 Union County Public Works Tallwood Estates WWTP Indian Trail NC0077242 Carolina Water Service Inc Of NC Riverpointe WWTP Monroe NC0071242 Carolina Water Service Inc Of NC Riverpointe WWTP Charlotte NC0071243 The Diocese of Charlotte Catholic Contrement Security Charlotte NC0071244 The Diocese of Charlotte Catholic Contrement WWTP Hinkory NC0071528 Lake Norman Woods WWTP Harrisburg Sherilis Service NC00725061 Heater Utilities Inc Fox Run WTP Harrisburg NC	Mooresville	NC0068632	Craftmaster Furniture Inc	Craftmaster Furniture Facility	Hiddenite	Alexander
NC006888B Town of Dallas Dallas WWTP Dallase NC0068035 Heater Utilities Inc Southgate WTP Gastonia NC0068125 Gatawba Community Sewer Association Ridge Community WWTP Gastonia NC0068345 Catawba Community Sewer Association Murays Mill Historical Site Newton NC0068523 Union County Public Works Crooked Creek WWTP Indian Trail NC0070289 Union County Public Works Crooked Creek WWTP Mornoe NC0071242 Carolina Water Service inc Of NC Riverpointe WWTP Mornoe NC0071242 Carolina Water Service inc Of NC Riverpointe WWTP Hickory NC0071242 Carolina Water Service inc Of NC Riverpointe WWTP Hickory NC0071242 Carolina Water Service inc Of NC Riverpointe WWTP Hickory NC0071243 The Diocese of Charlotte Catawbeach Funewomers Association Lake Norman WORD Hickory NC0071628 Lake Norman Woods WWTP Heartschullis Ford Hickory Hickory NC0072261 Heater Utilities Inc For Run WTP Boiling Springs <td< td=""><td>Mooresville</td><td>NC0068705</td><td>Mariners Watch Homeowners Association</td><td>Mariners Watch WWTP</td><td>Charlotte</td><td>Mecklenburg</td></td<>	Mooresville	NC0068705	Mariners Watch Homeowners Association	Mariners Watch WWTP	Charlotte	Mecklenburg
NC0069035 Heater Utilities Inc Southgate WTP Gastonia NC0069175 Ridge Community Sewer Association Ridge Community Sewer Association Ridge Community Sewer Association Nor0069175 Ridge Community Sewer Association Nor006953 Catawba County Historical Association Nor006953 Nor006953 Nor006953 Nor006953 Nor006953 Nor006953 Nor006953 Nor006953 Nor006953 Nor006953 Nor006953 Nor006953 Nor006953 Nor006953 Nor006953 Nor006953 Nor006953 Nor006953 Nor006953 Nor006954 No	Mooresville	NC0068888	Town of Dallas	Dallas WWTP	Dallas	Gaston
NC0069175 Ridge Community Sewer Association Ridge Community Sewer Association Ridge Community Sewer Association Ridge Community WWTP Catawba County Historical Association Murray's Mill Historical Site Newton NC0069345 Union County Public Works Tallwood Estates WWTP Indian Trail NC0069841 Union County Public Works Crooked Creek WWTP Indian Trail NC0070289 Ridgewood Farms Subdivision Ridgewood Farms Subdivision Crooked Creek WWTP NC0071242 Carolina Water Service Inc Of NC Riverpointe WWTP Hickory NC0071242 Carolina Water Service Inc Of NC Riverpointe WWTP Hickory NC0071243 Town of Boiling Springs Catholic Conference Center WWTP Hickory NC0071641 Aqua North Carolina Inc McCarron Subdivision WWTP Hirkory NC0072661 Heater Utilities Inc Fox Run WTP Rounty NC0072663 Heater Utilities Inc Fox Run WTP Matthews NC0072664 Incoln County Public Works Hunley Creek WWTP High Shoals NC0072665 Aqua North Carolina Inc State Street WWTP High Shoals	Mooresville	NC0069035	Heater Utilities Inc	Southgate WTP	Gastonia	Gaston
NC0069345 Catawba County Historical Association Murray's Mill Historical Site Newton NC0069323 Union County Public Works Tallwood Estates WWTP Inclain Trail NC0069323 Union County Public Works Croked Creek WWTP Monroe NC0071242 Ridgewood Farms Subdivision Ridgewood Farms Subdivision Charlotte NC0071242 Carolina Water Service Inc Of NC Riverpointe WWTP Charlotte NC0071247 The Diocese of Charlotte Catholic Conference Center WWTP Hickory NC0071247 The Diocese of Charlotte Catholic Conference Center WWTP Hickory NC0071247 The Diocese of Charlotte Catholic Conference Center WWTP Hickory NC0071247 The Diocese of Charlotte Catholic Conference Center WWTP Sherilits Ford NC00712508 Lake Norman Woods Homeowners Association Lake Norman Woods WWTP Harrisburg NC0072604 Heaster Utilities Inc Fox Run WTP Rabe Enterprises Deriver NC0072640 City of High Shoals NC007264 Shurtaper Technolis NMIloworkox Subdivision WWTP Deriver NC0074	Mooresville	NC0069175	Ridge Community Sewer Association	Ridge Community WWTP	Gastonia	Gaston
NC0069523 Union County Public Works Tallwood Estates WWTP Indian Trail NC0069841 Union County Public Works Crooked Creek WWTP Monroe NC0070289 Ridgewood Farms Subdivision Ridgewood Farms Subdivision Crooked Creek WWTP Monroe NC0071424 Tacolina Water Service Inc Of NC Catholic Conference Center WWTP Charlotte NC0071528 Lake Norman Woods Homeowners Association Lake Norman Woods WWTP Hickory NC0071781 Aqua North Carolina Inc McCarron Subdivision WWTP Harrisburg NC0072061 Heater Utilities Inc Fox Run WTP Boiling Springs NC0072662 Fab Enterprises Inc Fox Run WTP Matthews NC0072664 Shurtape Technologies, LLC Stony Point Plant Stony Point Plant NC0072664 Shurtape Technologies, LLC Stony Point Plant Stony Point Plant NC0072664 Shurtape Technologies, LLC Stony Point Plant Davidson NC0072664 Shurtape Technologies, LLC Stony Point Plant Millowbrook Subdivision WWTP Davidson NC0074033 Catawba County Schools Gr	Mooresville	NC0069345	Catawba County Historical Association	Murray's Mill Historical Site	Newton	Catawba
NC0069841 Union County Public Works Crooked Creek WWTP #2 Monroe NC00770289 Ridgewood Farms Subdivision Ridgewood Farms Subdivision Charlotte NC0071242 Carolina Water Service Inc Of NC Riverpointe WWTP Riverpointe WWTP NC0071447 The Diocese of Charlotte Charlotte Charlotte NC0071781 Aqua North Carolina Inc McCarron Subdivision WWTP Harrisburg NC0071943 Town of Boiling Springs McCarron Subdivision WWTP Harrisburg NC00725061 Heater Utilities Inc Fox Run WTP Matthews NC00725061 Heater Utilities Inc Fox Run WTP Matthews NC0072607 Fa Be Enterprises Inc Fox Run WTP Matthews NC0072607 Shurtape Technologies, LLC State Street WWTP Boiling Springs NC0072607 Shurtape Technologies, LLC State Street WWTP Davidson NC0072607 Aqua North Carolina Inc Formey Creek WWTP Davidson NC0072607 Lincoin County Formey Creek WWTP Davidson NC0074208 City of High Shoals Millo	Mooresville	NC0069523	Union County Public Works	Tallwood Estates WWTP	Indian Trail	Union
NC0070289 Ridgewood Farms Subdivision Ridgewood Farms Subdivision NC0071242 Carolina Water Service Inc Of NC Riverpointe WWTP Charlotte NC0071247 The Diocese of Charlotte Catholic Conference Center WWTP Hickory NC0071528 Lake Norman Woods Homeowners Association Lake Norman Woods WWTP Hickory NC0071781 Aqua North Carolina Inc McCarron Subdivision WWTP Harrisburg NC0072508 Union County Public Works Hunley Creek WWTP Gastonia NC0072261 Fa Be Enterprises Inc Fa-Be Enterprises Denver NC0072664 Shurtape Technologies, LLC Stony Point Plant Stony Point NC0072864 Shurtape Technologies, LLC Stony Point Plant Stony Point NC0072864 Shurtape Technologies, LLC Stony Point WWTP Denver NC0072865 Shurtape Technologies, LLC Stony Point Stony Point Stony Point NC0072864 Shurtape Technologies, LLC Stony Point Stony Point Stony Point NC0072865 Shurtape Technologies, LLC Stony Point Stony Point Stony Point NC0072866 </td <td>Mooresville</td> <td>NC0069841</td> <td>Union County Public Works</td> <td>Crooked Creek WWTP #2</td> <td>Monroe</td> <td>Union</td>	Mooresville	NC0069841	Union County Public Works	Crooked Creek WWTP #2	Monroe	Union
NC0071242 Carolina Water Service Inc Of NC Riverpointe WWTP Charlotte NC0071447 The Diocese of Charlotte Catholic Conference Center WWTP Hickory NC0071528 Lake Norman Woods Homeowners Association Lake Norman Woods WWTP Hickory NC0071531 Aqua North Carolina Inc McCarron Subdivision WWTP Harrisburg NC0071561 Heater Utilities Inc Fox Run WTP Boiling Springs NC0072508 Union County Public Works Hunley Creek WWTP Matthews NC0072641 Fa Be Enterprises Inc Story Point Plant Story Point Plant NC0072654 Shurtape Technologies, LLC Story Point Plant Story Point Plant NC0072664 Shurtape Technologies, LLC Story Point Plant High Shoals NC0072664 Shurtape Technologies, LLC Story Point Plant Story Point Plant NC0073690 City of High Shoals Story Point Plant High Shoals NC0074012 Lincoln County Formay Creek WWTP Davidson NC0074268 City of Gastonia Crowders Creek WWTP Crowders Creek WWTP NC0074565 <td>Mooresville</td> <td>NC0070289</td> <td>Ridgewood Farms Subdivision</td> <td>Ridgewood Farms Subdivision</td> <td>The state of the s</td> <td>Cabarrus</td>	Mooresville	NC0070289	Ridgewood Farms Subdivision	Ridgewood Farms Subdivision	The state of the s	Cabarrus
NC0071447 The Diocese of Charlotte Catholic Conference Center WWTP Hickory NC0071528 Lake Norman Woods Homeowners Association Lake Norman Woods WWTP Sherrills Ford NC0071781 Aqua North Carolina Inc McCarron Subdivision WWTP Harrisburg NC0071943 Town of Boiling Springs Boiling Springs WWTP Harrisburg NC0072061 Heater Utilities Inc Fox Run WTP Gastonia NC0072508 Union County Public Works Hunley Creek WWTP Matthews NC007264 Shurtape Technologies, LLC Stony Point Plant Stony Point Plant NC007264 Shurtape Technologies, LLC Stony Point Plant Stony Point Plant NC007264 Shurtape Technologies, LLC Stony Point Plant High Shoals NC007264 Shurtape Technologies, LLC Stony Point Plant Denver NC0073539 Aqua North Carolina Inc Nillowbrook Subdivision WWTP Denver NC0074268 City of Gastonia City of Gastonia Crowders Creek WWTP Sherrills Ford NC0074268 Heater Utilities Inc Pler 16 Marina WWTP Sherrills Ford	Mooresville	NC0071242	Carolina Water Service Inc Of NC	Riverpointe WWTP	Charlotte	Mecklenburg
NC0071528 Lake Norman Woods Homeowners Association Lake Norman Woods WWTP Sherrills Ford NC0071781 Aqua North Carolina Inc McCarron Subdivision WWTP Harrisburg NC0071943 Town of Boiling Springs Boiling Springs WWTP Boiling Springs NC0072061 Heater Utilities Inc Fox Run WTP Matthews NC0072508 Union County Public Works Hunley Creek WWTP Deriver NC0072604 Shurtape Technologies, LLC Stony Point Plant Stony Point Plant NC0072940 City of High Shoals State Street WWTP Davidson NC0072339 Aqua North Carolina Inc Willowbrook Subdivision WWTP Davidson NC0074238 City of Gastonia Crowders Creek WWTP Gastonia NC0074286 City of Gastonia Pier 16 Marina WWTP Sherfills Ford NC0074235 Heater Utilities Inc Pier 16 Marina WWTP Sherfills Ford NC0074268 City of Gastonia Pier 16 Marina WWTP Sherfills Ford	Mooresville	NC0071447	The Diocese of Charlotte	Catholic Conference Center WWTP	Hickory	Catawba
NC0071781 Aqua North Carolina Inc McCarron Subdivision WWTP Harrisburg NC0071943 Town of Boiling Springs Boiling Springs WWTP Boiling Springs NC0072061 Heater Utilities Inc Fox Run WTP Gastonia NC0072621 Fa Be Enterprises Hunley Creek WWTP Matthews NC0072621 Fa Be Enterprises Inc Stony Point Plant Denver NC0072640 Shurtape Technologies, LLC Stony Point Plant Stony Point NC0072640 City of High Shoals State Street WWTP High Shoals NC0073639 Aqua North Carolina Inc Willowbrook Subdivision WWTP Davidson NC0074012 Lincoln County Forney Creek WWTP Denver NC0074233 Catawba County Schools Blackburn Elementary School Newton NC0074268 City of Gastonia Crowders Creek WWTP Sherrills Ford NC0074268 Heater Utilities Inc Pier 16 Marina WWTP Sherrills Ford NC0074268 Madellan Terminals Holdings L P Charlotte/Southern Facilities Terminal Parcellities Terminal	Mooresville	NC0071528	Lake Norman Woods Homeowners Association	Lake Norman Woods WWTP	Sherrills Ford	Catawba
NC0071943 Town of Boiling Springs Boiling Springs WWTP Boiling Springs NC0072061 Heater Utilities Inc Fox Run WTP Gastonia NC0072508 Union County Public Works Hunley Creek WWTP Matthews NC0072621 Fa Be Enterprises Inc Fa-Be Enterprises Denver NC0072654 Shurtape Technologies, LLC Stony Point Plant Stony Point Plant NC0072654 City of High Shoals State Street WWTP High Shoals NC0073539 Aqua North Carolina Inc Willowbrook Subdivision WWTP Davidson NC0074012 Lincoln County Fomey Creek WWTP Davidson NC0074233 Catawba County Schools Blackburn Elementary School Newton NC0074268 City of Gastonia Crowders Creek WWTP Sherrills Ford NC0074535 Heater Utilities Inc Pier 16 Marina WWTP Sherrills Ford NC0074535 Madellan Terminals Holdings L P Charlotte/Southern Facilities Terminals Payoritem Facilities Terminals	Mooresville	NC0071781	Aqua North Carolina Inc	McCarron Subdivision WWTP	Harrisburg	Mecklenburg
NC0072061 Heater Utilities Inc Fox Run WTP Gastonia NC0072508 Union County Public Works Hunley Creek WWTP Matthews NC0072621 Fa Be Enterprises Inc Fa-Be Enterprises Denver NC0072664 Shurtape Technologies, LLC Stony Point Plant Stony Point Plant NC0072664 Shurtape Technologies, LLC Stony Point Plant High Shoals NC0072664 Shurtape Technologies, LLC Stony Point Plant High Shoals NC0072664 City of High Shoals Willowbrook Subdivision WWTP Davidson NC0074012 Lincoln County Catawba County Schools Blackburn Elementary School Denver NC0074233 Catawba County Schools Blackburn Elementary School Newton NC0074268 City of Gastonia Crowders Creek WWTP Sherrills Ford NC0074535 Heater Utilities Inc Pier 16 Marina WWTP Sherrills Ford NC0074505 Madellan Terminals Holdings L P Charlotte/Southern Facilities Terminals Paw Creek	Mooresville	NC0071943	Town of Boiling Springs	Boiling Springs WWTP	Boiling Springs	Cleveland
NC0072508 Union County Public Works Hunley Creek WWTP Matthews NC0072621 Fa Be Enterprises Inc Fa-Be Enterprises Denver NC0072664 Shurtape Technologies, LLC Stony Point Plant Stony Point Plant NC0072940 City of High Shoals State Street WWTP High Shoals NC0073539 Aqua North Carolina Inc Willowbrook Subdivision WWTP Davidson NC0074233 Catawba County Schools Blackburn Elementary School Newton NC0074268 City of Gastonia Crowders Creek WWTP Gastonia NC007456 Heater Utilities Inc Pier 16 Marina WWTP Sherrills Ford NC0074535 Magellan Terminals Holdings L P Charlotte/Southern Facilities Terminal Paw Creek	Mooresville	NC0072061	Heater Utilities Inc	Fox Run WTP	Gastonia	Gaston
NC0072621 Fa Be Enterprises Inc Fa-Be Enterprises Denver NC0072664 Shurtape Technologies, LLC Stony Point Plant Stony Point Plant Stony Point NC0072940 City of High Shoals Willow State Street WWTP High Shoals NC0073539 Aqua North Carolina Inc Willowbrook Subdivision WWTP Davidson NC0074233 Catawba County Schools Blackburn Elementary School Newton NC0074268 City of Gastonia Crowders Creek WWTP Gastonia NC0074568 City of Gastonia Pier 16 Marina WWTP Sherrills Ford NC0074535 Heater Utilities Inc Charlotte/Southern Facilities Terminal Paw Creek	Mooresville	NC0072508	Union County Public Works	Hunley Creek WWTP	Matthews	Union
NC0072664 Shurtape Technologies, LLC Stony Point Plant Stony Point Plant Stony Point NC0072940 City of High Shoals State Street WWTP High Shoals NC0073539 Aqua North Carolina Inc Willowbrook Subdivision WWTP Davidson NC0074012 Lincoln County Blackburn Elementary School Denver NC0074233 Catawba County Schools Blackburn Elementary School Newton NC0074268 City of Gastonia Crowders Creek WWTP Gastonia NC0074535 Heater Utilities Inc Pier 16 Marina WWTP Sherrills Ford NC007405 Magellan Terminals Holdings L P Charlotte/Southern Facilities Terminal Paw Creek	Mooresville	NC0072621	Fa Be Enterprises Inc	Fa-Be Enterprises	Denver	Lincoln
NC0072940 City of High Shoals State Street WWTP High Shoals NC0073539 Aqua North Carolina Inc Willowbrook Subdivision WWTP Davidson NC0074012 Lincoln County Formey Creek WWTP Denver NC0074233 Catawba County Schools Blackburn Elementary School Newton NC0074268 City of Gastonia Crowders Creek WWTP Gastonia NC0074535 Heater Utilities Inc Pier 16 Marina WWTP Sherrills Ford NC007405 Magellan Terminals Holdings L P Charlotte/Southern Facilities Terminal Paw Creek	Mooresville	NC0072664	Shurtape Technologies, LLC	Stony Point Plant	Stony Point	Alexander
NC0073539 Aqua North Carolina Inc Willowbrook Subdivision WWTP Davidson NC0074012 Lincoln County Fomey Creek WWTP Denver NC0074233 Catawba County Schools Blackburn Elementary School Newton NC0074268 City of Gastonia Crowders Creek WWTP Gastonia NC0074535 Heater Utilities Inc Pier 16 Marina WWTP Sherrills Ford NC0074705 Magellan Terminals Holdings L P Charlotte/Southern Facilities Terminal Paw Creek	Mooresville	NC0072940	City of High Shoals	State Street WWTP	High Shoals	Gaston
NC0074012 Lincoln County Schools Blackburn Elementary School Denver NC0074233 Catawba County Schools Blackburn Elementary School Newton NC0074268 City of Gastonia Crowders Creek WWTP Gastonia NC0074535 Heater Utilities Inc Pier 16 Marina WWTP Sherrills Ford NC0074705 Magellan Terminals Holdings L P Charlotte/Southern Facilities Terminal Paw Creek	Mooresville	NC0073539	Aqua North Carolina Inc	Willowbrook Subdivision WWTP	Davidson	Mecklenburg
NC0074233 Catawba County Schools Blackburn Elementary School Newton NC0074268 City of Gastonia Crowders Creek WWTP Gastonia NC0074535 Heater Utilities Inc Pier 16 Marina WWTP Sherrilis Ford NC0074705 Magellan Terminals Holdings L P Charlotte/Southern Facilities Terminal Paw Creek	Mooresville	NC0074012	Lincoln County	Forney Creek WWTP	Denver	Lincoln
NC0074268 City of Gastonia Crowders Creek WWTP Gastonia NC0074535 Heater Utilities Inc Pier 16 Marina WWTP Sherrilis Ford NC0074705 Magellan Terminals Holdings L P Charlotte/Southern Facilities Terminal Paw Creek	Mooresville	NC0074233	Catawba County Schools	Blackburn Elementary School	Newton	Catawba
NC0074535 Heater Utilities Inc Pier 16 Marina WWTP Sherrills Ford NC0074705 Magellan Terminals Holdings L P Charlotte/Southern Facilities Terminal Paw Creek	Mooresville	NC0074268	City of Gastonia	Crowders Creek WWTP	Gastonia	Gaston
NC0074705 Magellan Terminals Holdings L P Charlotte/Southern Facilities Terminal Paw Creek	Mooresville	NC0074535	Heater Utilities Inc	Pier 16 Marina WWTP	Sherrills Ford	Iredell
	Mooresville	NC0074705	Magellan Terminals Holdings L P	Charlotte/Southern Facilities Terminal	Paw Creek	Mecklenburg

Table 4 - NPDES Permit Holders: Names and Locations

Region	Permit Number	Owner	Facility	City	County Name
Mooresville	NC0074756	Greater Badin Water & Sewer District	Badin WWTP	Badin	Stanly
Mooresville	NC0074772	Heater Utilities Inc	Diamond Head WWTP	Mooresville	Iredell
Mooresville	NC0074799	Pines Mobile Home Park	Pines Mobile Home Park	Gastonia	Gaston
Mooresville	NC0074900	Hydraulics Ltd	Hydraulics Ltd	Sherrills Ford	Iredell
Mooresville	NC0075205	Aqua North Carolina Inc	Alexander Island WWTP	Sherrills Ford	Iredell
Mooresville	NC0075523	RDH Tire & Retread	RDH Tire & Retread	Cleveland	Rowan
Mooresville	NC0075701	City of Albemarle	Tuckertown WTP	New London	Stanly
Mooresville	NC0076333	Statesville Auto Auction	Statesville Auto Auction WWTP	Statesville	Iredell
Mooresville	NC0076643	General Electric Company - Salisbury	Hickory Plant	Hickory	Catawba
Mooresville	NC0076775	Alcoa Power Generating Inc Yadkin Division	Falls Powerhouse	Badin	Stanly
Mooresville	NC0077364	Carolina Water Service Inc Of NC	Cabarrus Woods Well 6 WTF	Harrisburg	Cabarrus
Mooresville	NC0077615	Homer Prevette	Homer's Truck Stop	Statesville	Iredell
Mooresville	NC0077704	Cabarrus County Schools	Mount Pleasant High School	Concord	Cabarrus
Mooresville	NC0077763	City of Belmont	Belmont WTP	Belmont	Gaston
Mooresville	NC0078361	Salisbury-Rowan Utilities	Second Creek WWTP	Salisbury	Rowan
Mooresville	NC0079740	City of Kings Mountain	Ellison WTP	Kings Mountain	Cleveland
Mooresville	NC0079758	National Welders Supply Co Inc	National Welders Supply Co	Charlotte	Mecklenburg
Mooresville	NC0079774	Davidson Downes Subdivision	Davidson Downes Subdivision	Mount Mourne	Iredell
Mooresville	NC0079898	CNA Holdings Inc	Needmore Road Landfill	Salisbury	Rowan
Mooresville	NC0080195	Forest Hills Mobile Home Estate	Forest Hills Mobile Home Estate WTP	Lincolnton	Gaston
Mooresville	NC0080381	City of Monroe	John Glenn WTP	Monroe	Union
Mooresville	NC0080586	Carolina Stalite Company	Carolina Stalite Company	Albemarle	Rowan
Mooresville	NC0080691	Heater Utilities Inc	Windemere WWTP	Sherrills Ford	Iredell
Mooresville	NC0080781	Duke Energy Carolinas LLC	Lincoln Combustion Turbine Plant	Stanley	Lincoln
Mooresville	NC0081370	City of Claremont	McLin Creek WWTP	Claremont	Catawba
Mooresville	NC0081621	Water and Sewer Authority of Cabarrus County	Muddy Creek WWTP	Midland	Cabarrus
Mooresville	NC0081931	Alcoa Power Generating Inc Yadkin Division	High Rock Powerhouse	Badin	Rowan
Mooresville	NC0081949	Alcoa Power Generating Inc Yadkin Division	Tuckertown Powerhouse	Badin	Stanly
Mooresville	NC0081957	Alcoa Power Generating Inc Yadkin Division	Narrows Powerhouse	Badin	Stanly
Mooresville	NC0082694	Town of Dallas	Dallas WTP	Dallas	Gaston
Mooresville	NC0082821	Southern States Cooperative Inc	Southerm States Fertilizer Plant	Statesville	Iredell
Mooresville	NC0083119	City of Concord	Coddle Creek WTP	Concord .	Cabarrus
Mooresville	NC0083887	City of Charlotte	Charlotte Douglas International Airport	Charlotte	Mecklenburg
Mooresville	NC0084280	Plantation Pipe Line Company	Stifford Ferry Road site	Charlotte	Mecklenburg
Mooresville	NC0084301	Celanese Acetate LLC	Celanese Acetate / Mecklenburg	Charlotte	Mecklenburg
Mooresville	NC0084387	Charlotte Mecklenburg Utility Department	Lee S. Dukes WTP	Huntersville	Mecklenburg
Mooresville	NC0084468	Heater Utilities Inc	Keltic Meadows WTP #2	Gastonia	Gaston
Mooresville	NC0084549	Charlotte Mecklenburg Utility Department	Franklin WTP	Charlotte	Mecklenburg
Mooresville	NC0084565	Carolina Water Service Inc Of NC	The Harbour - Wells 1 & 2 WTP	Mooresville:	Iredell
Mooresville	NC0084573	Lincoln County	Lincoln County WTP	Denver	Lincoln
Mooresville	NC0084638	Rhodia Inc	Rhodia remediation site	Gastonia	Gaston

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Region	Permit Number	Owner	Facility	Sil.	County Name
Mooresville	NC0084662	Textron Inc	Textron remediation site	Gastonia	Gaston
Mooresville	NC0084689	City of Mount Holly	Mount Holly WTP	Mount Holly	Gaston
Mooresville	NC0085057	Unocal Corporation	Orr Road remediation site	Charlotte	Mecklenburg
Mooresville	NC0085120	Lowes Home Centers Inc	Iredell Distribution Center WWTP	Oiin	Iredell
Mooresville	NC0085359	Union County Public Works	Twelve Mile Creek WWTP	Waxhaw	Union
Mooresville	NC0085588	City of Lincolnton	Lincolnton WTP	Lincolnton	Lincoln
Mooresville	NC0085731	Hines Charlotte Carillon LP	Carillon Building	Charlotte	Mecklenburg
Mooresville	NC0085812	Union County Public Works	Grassy Branch WWTP	Monroe	Union
Mooresville	NC0085928	American Truetzschler Inc	Truetzschler remediation site	Charlotte	Mecklenburg
Mooresville	NC0086002	Livingstone Coating Corporation	Livingstone Coating Corporation	Charlotte	Mecklenburg
Mooresville	NC0086142	Heater Utilities Inc	Oakley Park WTP	Gastonia	Gaston
Mooresville	NC0086169	Corning Inc	Fiber Optic Facility	Midland	Cabarrus
Mooresville	NC0086185	Lincoln County Schools	Pumpkin Center Schools WWTP	Lincolnton	Lincoln
Mooresville	NC0086193	Heater Utilities Inc	Maplecrest WTP	Gastonia	Gaston
Mooresville	NC0086304	Catawba County Schools	Mill Creek Middle School	Newton	Catawba
Mooresville	NC0086487	Dawson International Properties	Albemarie site	Albemarle	Stanly
Mooresville	NC0086517	Cousins Real Estate	Charlotte Gateway Village, LLC	Charlotte	Mecklenburg
Mooresville	NC0086592	Carolina Water Service Inc Of NC	The Point / Well 1 WTP	Mooresville	Iredell
Mooresville	NC0086606	Carolina Water Service Inc Of NC	The Harbour - Well #4 WTP	Mooresville	Iredell
Mooresville	NC0086673	SNL Corporation	Aqua-Air Site	Charlotte	Mecklenburg
Mooresville	NC0086886	First Union Commons	First Union Commons	Charlotte	Mecklenburg
Mooresville	NC0087033	Town of Harmony	Harmony WWTP	Harmony	Iredell
Mooresville	NC0087858	Equipment And Supply Inc	Union County remediation site	Monroe	Union
Mooresville	NC0088226	Wachovia Bank N A	Wachovia Tryon Street BTS	Charlotte	Mecklenburg
Mooresville	NC0088374	City of High Shoals	River Street WWTP	High Shoals	Gaston
Mooresville	NC0088595	Abs 2525 South LLC	Southhaus	Charlotte	Mecklenburg
Mooresville	NC0088676	Town of Norwood	Norwood WTP	Norwood	Stanly
Mooresville	NC0088684	Daniel Jonathan Stowe Conservancy	Daniel Stowe Botanical Garden	Belmont	Gaston
Mooresville	NC0088722	Lincoln County	Killian Creek WWTP	Stanley	Lincoln
Raleigh	NC0000752	Kapstone Kraft Paper Corporation	Roanoke Rapids Mill	Roanoke Rapids	Halifax
Raleigh	NC0000892	Arclin USA Inc	Arclin USA, Inc	Moncure	Chatham
Raleigh	NC0001376	Riverplace II LLC	Riverplace II LLC	Wake Forest	Wake
Raleigh	NC0001589	Hospira, Inc.	Hospira, IncRM1	Rocky Mount	Nash
Raleigh	NC0001899	Performance Fibers Inc	Performance Fibers / Moncure	New Hill	Chatham
Raleigh	NC0002852	Town of Franklinton	Franklinton WTP	Franklinton	Franklin
Raleigh	NC0002861	City Of Sanford	Sanford WTP	Sanford	Lee
Raleich	NC0003042	City of Roxboro	Roxboro WTP	Roxboro	Person
Raleich	NC0003379	Eaton Corporation	Roxboro plant	Roxboro	Person
Ralaigh	NC0003425	Progress Energy Carolinas Inc	Roxboro Steam Electric Power Plant	Roxboro	Person
Raleigh	NC0003433	Progress Energy Carolinas Inc	Cape Fear Steam Electric Power Plant	Moncure	Chatham
Doloich	NCOOCTO	Transmontainne Operating Company LP	Selma South terminal	Selma	Johnston

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Region	Permit Number	Owner	Facility	City	County Name
Raleigh	NC0007528	City of Raleigh	G.G. Hill WTP	Wake Forest	Wake
Raleigh	NC0007536	Town of Stantonsburg	Stantonsburg WTP	Stantonsburg	Wilson
Raleigh	NC0007625	City of Creedmoor	Creedmoor WTP	Creedmoor	Granville
Raleigh	NC0020061	Town of Spring Hope	Spring Hope WWTP	Spring Hope	Nash
Raleigh	NC0020231	Town of Louisburg	Louisburg WWTP	Louisburg	Franklin
Raleigh	NC0020354	Town of Pittsboro	Pittsboro WWTP	Pittsboro	Chatham
Raleigh	NC0020389	Town of Benson	Benson WWTP	Benson ·	Johnston
Raleigh	NC0020435	Town of Pinetops	Pinetops WWTP	Pinetops	Edgecombe
Raleigh	NC0020559	City of Henderson	Henderson WRF	Henderson	Vance
Raleigh	NC0020605	Town of Tarboro	Tarboro WWTP	Tarboro	Edgecombe
Raleigh	NC0020834	Town of Warrenton	Warrenton WWTP	Warrenton	Warren
Raleigh	NC0021024	City of Roxboro	Roxboro WWTP	Roxboro	Person
Raleigh	NC0021954	CITGO Petroleum Corporation	Selma terminal	Selma	Johnston
Raleigh	NC0022217	Motiva Enterprises LLC	Motiva Enterprises LLC-Apex	Apex	Wake
Raleigh	NC0023337	Town of Scotland Neck	Scotland Neck WWTP	Scotland Neck	Halifax
Raleigh	NC0023442	Wood Resources LLC	Moncure Plywood, LLC	Moncure	Chatham
Raleigh	NC0023841	City of Durham	North Durham WRF	Durham	Durham
Raleigh	NC0023906	City of Wilson	Wilson WWTP	Wilson	Wilson
Raleigh	NC0024147	City Of Sanford	Big Buffato WWTP	Sanford	
Raleigh	NC0024201	Roanoke Rapids Sanitary District	Roanoke Rapids WWTP	Weldon	Halifax
Raleigh	NC0025054	City of Oxford	Oxford WWTP	Oxford	Granville
Raleigh	NC0025241	Orange Water And Sewer Authority	Mason Farm WWTP	Chapel Hill	Orange
Raleigh	NC0025305	UNC At Chapel Hill	UNC Cogeneration Facility	Chapel Hill	Orange
Kaleigh	NC0025402	Town of Enfield	Enfield WWTP	Enfield	Halifax
Raleigh	NC0025437	Town of Rich Square	Rich Square WWTP	Rich Square	Northampton
Kaleigh	NC0025453	Town of Clayton	Little Creek WWTP	Clayton	Johnston
Raleigh	NC0025691	Town of Littleton	Littleton WWTP	Littleton	Halifax
Raleigh	NC0025721	Town of Weldon	Weldon WWTP	Weldon	Halifax
Kaleigh	NC0026051	Durham County	Triangle WWTP	Durham	Durham
Kaleign	NC0026433	Town of Hillsborough	Hillsborough WWTP	Hillsborough	Orange
Kaleign	NC0026441	Town of Siler City	Siler City WWTP	Siler City	Chatham
Kaleigh	NC0026662	Town of Princeton	Princeton WWTP	Princeton	Johnston
Kaleign	NC0027006	Marathon Petroleum Company LLC	Selma Terminal	Selma	Johnston
Kaleigh	NC0027227	Arc Terminals Holdings LLC	Selma Terminal	Selma	Johnston
Kaleigh	NC0027626	NC Department of Correction	Caledonia WWTP	Tillery	Halifax
Raleigh	NC0027642	NC Department of Correction	Odom Correctional Institute WWTP	Jackson	Northampton
Kaleigh	NC0029033	City of Raleigh	Neuse River WWTP	Raleigh	Wake
Kaleigh	NC0029131	Kittrell Job Corps Center	Kittrell Job Corps Center	Kittrell	Vance
Raleigh	NC0030317	City of Rocky Mount	Tar River Regional WWTP	Rocky Mount	Edgecombe
Kaleigh	NC0030384	Piedmont Health Services Inc	Moncure Community Health Center	Moncure	Chatham
Raleigh	NC0030716	Johnston County Department Of Public Utilities	Central Johnston County WWTP	Smithfield	Johnston

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NC00303799 City of Rabight Smith Creek WWTP	Region	Permit Number	Owner	Facility	City	County Name
NC0031011 Colonial Pipeline Company Saina Terminal NC0032875 Kinder Mogan Southeast Terminals LLC Saina Terminal NC0032876 Kinder Mogan Southeast Terminals LLC Saina Terminal NC0035886 County Of Charles For Southean By Saina Brain Terminal NC0035816 Person County Schools By Saina Brain Hall Brain Will Plant Brain Abile Independent Elementary School NC0035816 Person County Schools Southean Nash Middle School NC0035817 NC0035817 Progress Energy County Schools Southean Nash Middle School WWTP NC0035817 NC0035817 Progress Energy County Schools Southean Nash Middle School WWTP NC0035826 Halifax County Schools Elementary Schools NC00358374 Aqua North Carolinas Inc Carolina Trace WITP NC00358375 Halifax County Schools Bakers Elementary School WWTP NC00358376 Halifax County Schools Bakers Elementary School WWTP NC0035840 County Schools Bakers Elementary School WWTP NC0035841 Carolina Trace Utilities Inc Carolina Trace WWTP NC0035841 Carolina Trace Utilities Inc	Raleigh	NC0030759	City of Raleigh	Smith Creek WWTP	Wake Forest	Wake
NC0032875 Kinde Morgan Southeast Terminals LLC Salma Terminal 4	Raleigh	NC0031011	Colonial Pipeline Company	Selma Terminal	Selma	Johnston
NC0035491 Varnoe County Schools E.O. Young, Jr. Elementary School NC0035606 County of Chatham BP Products North America Inc. BP Salma terminal NC0035145 Person County Schools Woodland Elementary School NC0037615 Nash/Rocky Mount Schools Southern Nash Middle School NC0037616 Nash/Rocky Mount Schools Southern Nash Middle School NC0037617 Nash/Rocky Mount Schools Southern Nash Middle School NC0037617 Nash/Rocky Mount Schools Southern Nash Middle School NC003860 Halflax County Schools Estatal Inc. NC0038617 Halflax County Schools Estatal Inc. NC0038628 Halflax County Schools Elementary School WWTP NC0038639 Halflax County Schools Determentary School WWTP NC0038639 Johnston County Schools Description WTP NC0038639 Johnston County Schools Description WTP NC003864 Aqua North Carolina Inc Carolina Trace WWTP NC003868 Population County Schools Waters Elementary School WWTP NC003868 Population County Schools Male Schoo	Raleigh	NC0032875	Kinder Morgan Southeast Terminals LLC	Selma Terminal 4	Selma	Johnston
NC0035866 Country of Chethnam Bynaum WWITP NC0035864 De Products Worth America Inc BP Salina seminal NC00358145 De Production Software Morth America Inc Woodland Elementary School NC0037868 Person County Schools Stonblish Home Park About Morth Middle School NC0037816 Nash/Rocky Mount Schools Schools Hower Park Schools Hower Park NC0038610 Nash/Rocky Mount Schools Schools School NC0038610 Halfax County Schools Schools Hower Park NC0038610 Halfax County Schools Pittimentary School WWTP NC0038610 Halfax County Schools Baleas Elementary School WWTP NC0038624 Halfax County Schools Baleas Elementary School WWTP NC0038631 Carolina Trace Utilities Inc Carolina Trace WWTP NC0038631 Carolina Trace Utilities Inc Homes Remembrary School WWTP NC0038331 Carolina Trace Utilities Inc Homes Remembrary School WWTP NC0038331 Chatham County Schools Balmake Mobile Home Park NC0038331 Chatham County Schools Bernelal Morter Elementary School WWTP N	Raleigh	NC0035491	Vance County Schools	E.O. Young, Jr. Elementary School	Middleburg	Vance
NC00336145 PP Products North America Inc BP Selma terminal NC0033636 Person County Schools Woodand Elementary School NC0037865 Arbor Hills Midel School Woodand Elementary School NC0037865 Arbor Hills Mobile Home Park Southern Nash Middle School NC003380 S. Construction & Rental Inc Sac Construction & Rental Inc NC0033810 S. Construction & Rental Inc Mayo Steam Electric Power Plant NC0033810 Halflax County Schools Bakers Elementary School WWTP NC0033810 Halflax County Schools Bakers Elementary School WWTP NC00338244 Halflax County Schools Bakers Elementary School WWTP NC0033833 Longon Trace Utilities Inc Canning Trace WWTP NC0033834 Canning Trace Utilities Inc Canning Trace WWTP NC0033834 Charlam County Schools Bonies Elementary School WWTP NC0033834 Charlam County Schools Bonies Elementary School WWTP NC0033834 Charlam County Schools Bonies Elementary School WWTP NC0033834 Charlam County Schools Bonies Elementary School WWTP NC0033834 Charlam	Raleigh	NC0035866	County of Chatham	Bynum WWTP	Pittsboro	Chatham
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NC0037885 Nash/Rocky Mount Schools Southern Nash High School NC0038300 S. Construction & Rentell inc S.S. Mobile Home Park NC0038307 Progress Energy Carolinas inc S.S. Mobile Home Park NC0038307 Progress Energy Carolinas inc Mayo Steam Electric Power Plant NC0038307 Pright Allifax County Schools Plantam Middle School WWTP NC003850 Halifax County Schools Plantam Middle School WWTP NC0038610 Halifax County Schools Plantam Middle School WWTP NC0038630 Halifax County Schools Plantam Middle School WWTP NC003864 Halifax County Schools Plantam Tace WWTP NC003864 Halifax County Schools Dawson Elementary School WWTP NC003864 Carolina Trace Utilities Inc Carolina Trace WWTP NC003864 Carolina Trace Utilities Inc Carolina Trace WWTP NC003889 Contract Carolina Inc Carolina Trace WWTP NC003889 Contract Carolina Trace Utilities Inc Carolina Trace WWTP NC003898 Ciniprop Inc Carolina Trace WWTP NC003888 Ciniprop Inc Carolina Trace WWTP	Raleigh	NC0037869	Arbor Hills Mobile Home Park	Arbor Hills MHP WWTP	Hillsborough	Orange
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NC003850 Halifax County Schools Eastman Middle School WWTP NC0038610 Halifax County Schools Bakers Elementary School WWTP NC0038634 Halifax County Schools Bakers Elementary School WWTP NC0038634 Halifax County Schools Dawson Elementary School WWTP NC0038634 Halifax County Schools Dawson Elementary School WWTP NC0038784 Aqua North Carolina Inc Carolina Trace WWTP NC0038383 Carolina Trace Utilities Inc Hill Forest Rest Home NC003838 Johnston County Board of Education Cornth-Holder Elementary School WWTP NC003838 Johnston County Schools Waters Elementary School WWTP NC0038381 Chatham County Schools Waters Elementary School WWTP NC0038381 Chatham County Schools Central Chatham High School NC0038381 Chatham County Schools Waters Elementary School WWTP NC0038381 Chatham County Schools Waters Elementary School WWTP NC0038381 Chatham County Schools Roncure Facility NC0038381 Chatham County Schools Roncure Facility NC0038381 Town of Bunn	Raleigh	NC0038377	Progress Energy Carolinas Inc	Mayo Steam Electric Power Plant	Roxboro	Person
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NC0039471 Chatham County Schools Bennett Elementary School WWTP NC0039586 Progress Energy Carolinas Inc Shearon Harris Nuclear Power Plant NC0040266 Knightdale Estates MHP Limited Partnership Knightdale Estates MHP WWTP NC0040266 Aqua North Carolina Inc Barclay Downs WWTP NC0042289 Town of Bunn Moncure Facility NC0042286 Trails Property Owners Assoc Trails WWTP NC0042281 Trails Property Owners Assoc Lake Royale WWTP NC0042280 Trails Association CLP Birchwood Mobile Home Park NC0042280 Ward Trails Association CLP Fearington Village WWTP NC0043257 Nature Trails Association CLP Fearington Village WWTP NC0043559 Fearington Utilities Inc Ward Transformer Company NC0045608 Ward Transformer Company Heritage Meadows WWTP NC0045608 C&J Bradshaw LLC South Durham WRF NC004829 Cedar Village Apartments Cedar Village Apartments NC0048629 Cath Village Apartments Long Creek Court WWTP	Raleigh	NC0039381	Chatham County Schools	Central Chatham High School	Bear Creek	Chatham
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NC0040606 Aqua North Carolina Inc Barclay Downs WWTP NC0040711 Atc Panels Inc Moncure Facility NC0042269 Town of Bunn Bunn WWTP NC0042285 Trails Property Owners Assoc Trails WWTP NC0042510 Total Environmental Solutions Inc Lake Royale WWTP NC0042503 Birchwood Mobile Home Park Birchwood Mobile Home Park NC0043257 Nature Trails Association CLP Nature Trails Mobile Home Park NC0043559 Fearrington Utilities Inc Fearington Village WWTP NC004750 C&J Bradshaw LLC Heritage Meadows WWTP NC047597 City of Durham South Durham WRF NC004829 Cedar Village Apartments Cedar Village Apartments NC004829 Cedar Village Apartments Long Creek Court WWTP	Raleigh	NC0040266	Knightdale Estates MHP Limited Partnership	Knightdale Estates MHP WWTP	Knightdale	Wake
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NC0043559 Fearrington Utilities Inc Fearrington Village WWTP NC0045608 Ward Transformer Company Ward Transformer Company NC0047279 C&J Bradshaw LLC Heritage Meadows WWTP NC0047597 City of Durham South Durham WRF NC0048429 Cedar Village Apartments Cedar Village Apartments NC0048631 Interstate Property Management Inc Long Creek Court WWTP	Raleigh	NC0043257	Nature Trails Association CLP	Nature Trails Mobile Home Park WWTP	Chapel Hill	Chatham
NC0045608 Ward Transformer Company Ward Transformer Company NC0047279 C&J Bradshaw LLC Heritage Meadows WWTP NC0047597 City of Durham South Durham WRF NC0048429 Cedar Village Apartments Cedar Village Apartments NC0048631 Interstate Property Management Inc Long Creek Court WWTP	Raleigh	NC0043559	Fearrington Utilities Inc	Fearrington Village WWTP	Pittsboro	Chatham
NC0047279 C&J Bradshaw LLC Heritage Meadows WWTP NC0047597 City of Durham South Durham WRF NC0048429 Cedar Village Apartments NC0048631 Interstate Property Management Inc Long Creek Court WWTP	Raleigh	NC0045608	Ward Transformer Company	Ward Transformer Company	Raleigh	Wake
NC0047597 City of Durham South Durham WRF NC0048429 Cedar Village Apartments NC0048631 Interstate Property Management Inc Long Creek Court WWTP	Raleigh	NC0047279	C&J Bradshaw LLC	Heritage Meadows WWTP	Oxford	Granville
NC0048429 Cedar Village Apartments Cedar Village Apartments NC0048631 Interstate Property Management Inc	Raleigh	NC0047597	City of Durham	South Durham WRF	Chapel Hill	Durham
NC0048631 Interstate Property Management Inc Long Creek Court WWTP	Raleigh	NC0048429	Cedar Village Apartments	Cedar Village Apartments	Carrboro	Chatham
THE RESIDENCE OF THE PARTY OF T	Raleigh	NC0048631	Interstate Property Management Inc	Long Creek Court WWTP	Kittrell	Vance
NC0048879 Town of Cary	Raleigh	NC0048879	Town of Cary	North Cary WRF	Cary	Wake

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Region	Permit Number	Owner	Facility	City	County Name
Raleigh	NC0049034	Wake County	Mount Auburn Training Center	Garner	Wake
Raleigh	NC0049204	Kinder Morgan Southeast Terminals, LLC	Selma Terminal 1	Selma	Johnston
Raleigh	NC0049662	Aqua North Carolina Inc	Hawthorne Subdivision WWTP	Raleigh	Wake
Raleigh	NC0050415	Edgecombe County Schools	Phillips Middle School	Battleboro	Edgecombe
Raleigh	NC0050431	Edgecombe County Schools	North Edgecombe High School	Tarboro	Edgecombe
Raleigh	NC0050661	Town of Macclesfield	Macclesfield WWTP	Macclesfield	Edgecombe
Raleigh	NC0051314	North Chatham Water & Sewer Company LLC	Cole Park Plaza Shopping Center WWTP	Pittsboro	Chatham
Raleigh	NC0051322	Carolina Water Service Inc Of NC	Ashley Hills WWTP	Knightdale	Wake
Raleigh	NC0052311	Magellan Terminals Holdings L P	Selma Terminal	Selma	Johnston
Raleigh	NC0055051	Bill Clark Homes of Raleigh, LLC	Buckhorn Ridge Subdivision	Holly Springs	Wake
Raleigh	NC0055701	Aqua North Carolina Inc	Nottingham WTP	Garner	Wake
Raleigh	NC0056278	River Mill COA Inc	River Mill WWTP	Raleigh	Wake
Raleigh	NC0056391	Aqua North Carolina Inc	Cross Creek Mobile Estates	Raleigh	Wake
Raleigh	NC0056413	Aqua North Carolina Inc	Chatham Water Reclamation Facility	Chapel Hill	Chatham
Raleigh	NC0056499	Uniprop Inc	Mill Run Mobile Home Park	Garner	Wake
Raleigh	NC0056731	The Chesson Group	Grande Oak Subdivision WWTP	Durham	Durham
Raleigh	NC0057606	Town of Stantonsburg	Stantonsburg WWTP	Stantonsburg	Wilson
Raleigh	NC0058416	South Granville Water & Sewer Authority	SGWASA WTP	Butner	Granville
Raleigh	NC0058505	Aqua North Carolina Inc	Mallard Crossing WWTP	Raleigh	Wake
Raleigh	NC0059099	Aqua North Carolina Inc	Lake Ridge Aero Park WWTP	Durham	Durham
Raleigh	NC0059242	Town of Broadway	Broadway WWTP	Broadway	Lee
Raleigh	NC0060526	Pope Industrial Park II Ltd Partnership	Pope Industrial Park	Raleigh	Wake
Raleigh	NC0060577	Aqua North Carolina Inc	Beachwood WWTP	Raleigh	Wake
Raleigh	NC0060771	Indian Creek Overlook Owners Assoc Inc	Indian Creek Overlook	Garner	Wake
Raleigh	NC0061638	Nero Utility Services Inc	Amherst WWTP	Raleigh	Wake
Raleigh	NC0062219	Carolina Water Service Inc Of NC	Kings Grant Subdivision WWTP	Knightdale	Wake
Raleigh	NC0062715	Heater Utilities Inc	Crooked Creek WWTP	Fuquay Varina	Wake
Raleigh	NC0062740	Aqua North Carolina Inc	Briarwood Farms WWTP	Cary	Wake
Raleigh	NC0063096	Town of Holly Springs	Holly Springs WWTP	Holly Springs	Wake
Raleigh	NC0063614	Aqua North Carolina Inc	Wildwood Green WWTP		Wake
Raleigh	NC0063746	Clarke Utilities Inc	Deer Chase WWTP	Wake Forest	Wake
Raleigh	NC0064050	Town of Apex	Apex Water Reclamation Facility	Apex	Wake
Raleigh	NC0064246	- 1	Pace Mobile Home Park	Clayton	Johnston
Raleigh	NC0064378	Carolina Water Service Inc Of NC	Willowbrook WWTP	Clayton	Wake
Raleigh	NC0064564	Aqua North Carolina Inc	Neuse Colony WWTP	Clayton	Johnston
Raleigh	NC0064891	Town of Kenly	Kenly Regional WWTP	Kenly	Johnston
Raleigh	NC0065081	Primary Energy Of North Carolina LLC - Roxboro	Roxboro plant	Roxboro	Person
Raleigh	NC0065102	Town of Cary	South Cary WRF	Apex	Wake
Raleigh	NC0065706	Crosby Utilities Inc	Cottonwood / Baywood WWTP	Knightdale	Wake
Raleigh	NC0065714	Aqua North Carolina Inc	Tradewinds WWTP	Raleigh	Wake
Raleigh	NC0066150	Town of Fuquay-Varina	Brighton Forest WWTP	Varina	Wake

Table 4 - NPDES Permit Holders: Names and Locations

Region	Permit Number	Owner	Facility	City	County Name
Raleigh	NC0066192	Town of Halifax	Halifax WWTP	Halifax	Halifax
Raleigh	NC0066516	Town of Fuquay-Varina	Terrible Creek WWTP	Fuquay Varina	Wake
Raleigh	NC0069311	Franklin County Public Utilities	Franklin County WWTP	Youngsville	Franklin
Raleigh	NC0072125	City of Rocky Mount	Tar River WTP	Rocky Mount	Nash
Raleigh	NC0072133	City of Rocky Mount	Sunset Avenue WTP	Rocky Mount	Nash
Raleigh	NC0072575	Pilgrim's Pride Corporation of Georgia Inc	Pilgrim's Pride Processing Plant	Sanford	Lee
Raleigh	NC0073318	7	Whippoorwill Valley WWTP	Wake Forest	Wake
Raleigh	NC0073679	Heater Utilities Inc	Oak Hollow WTP	Cary	Wake
Raleigh	NC0074446	And the second s	Hilltop Mobile Home Park WWTP	Chapel Hill	Orange
Raleigh	NC0076457	Kinder Morgan Southeast Terminals, LLC	Selma Terminal 3	Selma	Johnston
Raleigh	NC0077437	Edgecombe Genco LLC	Battleboro plant	Battleboro	Edgecombe
Raleigh	NC0079014	Virginia Electric and Power Compny	Rosemary Power Station	Roanoke Rapids	Halifax
Raleigh	NC0079227	Schlage Lock Company	Nash remediation site	Rocky Mount	Nash
Raleigh	NC0079316	City of Raleigh	Little Creek WWTP	Zebulon	Wake
Raleigh	NC0080519	Lampe & Malphrus Lumber	10th Street Wet-Decking site	Smithfield	Johnston
Raleigh	NC0080896	Town of Pittsboro	Pittsboro WTP	Pittsboro	Chatham
Raleigh	NC0081469	Colonial Pipeline Company	RDU Delivery facility	Raleigh	Wake
Raleigh	NC0081493	Bost Distributing Corporation	Bost Distributing WWTP	Sanford	Lee
Raleigh	NC0081591	Town of Cary	Cary & Apex WTP	Арех	Wake
Rafainh	NC0081795	Goldston-Gulf Sanitary District	Goldston-Gulf WTP	Goldston	Chatham
Ralaigh	NC0082210	Orange Water And Sewer Authority	Jones Ferry Road WTP	Carrboro	Orange
Daloich	NC0082376	City of Raleigh	E.M. Johnson WTP	Raleigh	Wake
Daloigh	NC0082759	Orange Alamance Water System	Orange-Alamance Water System WTP	Efland	Orange
Raloigh	NC0082996	Heater Utilities Inc	Hollybrook WTP	Cary	Wake
Raioign	NC0083038	Saint-Gobain Containers	Saint-Gobain Containers	Henderson	Vance
Palaigh	NC0083101	City of Henderson	Kerr Lake Regional WTP	Henderson	Vance
Palaigh	NC0083135	B&B Produce Inc	B&B Produce Incorporated	Benson	Johnston
Doloich	NC0083348	Town of Smithfield	Smithfield WTP	Smithfield	Johnston
Dalaigh	NC0083747	Ditchman Creek Inc	Twin Lake WTP	Raleigh	Wake
Raleich	NC0083852	Pilorim's Pride Corporation	Pilgrim's Pride Corporation, Sanford Facility	Sanford	Lee
Ralainh	NC0084034	Town of Enfield	Enfield WTP	Enfield	Halifax
Ralaidh	NC0084093	County of Chatham	Jordan Lake WTP	Apex	Chatham
Raleich	NC0084514	Raleigh Durham Airport Authority	RDU International Airport-WWTP	Raleigh	Wake
Raleich	NC0084697	Phillips Petroleum	Amoco Fabrics & Fibers site	Rocky Mount	Edgecombe
Raleigh	NC0084735	Johnston County Department Of Public Utilities	Johnston County WTP	Smithfield	Johnston
Raleigh	NC0085111	Carolina Water Service Inc Of NC	Heather Glen WTP	Durham	Durham
Dalaigh	NC0085863	Agua North Carolina Inc	Waterfall Plantation WTP	Raleigh	Wake
Dologh	NC0085936	Jerry G Williams & Sons Inc	Wet Log Deck Storage site	Smithfield	Johnston
Doloich	NC0086061	Town of Bailey	Bailey Well #1 WTP	Bailey	Nash
Ralaigh	NC0086126	Alcatel USA Sourcing LP	Alcatel Network Systems	Raleigh	Wake
Doloich	NC0086266	Carolina Water Service Inc Of NC	Woodtrace WTP	Wendell	Wake
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Table 4 - NPDES Permit Holders: Names and Locations

Region	Permit Number	Owner	Facility	City	County Name
Raleigh	NC0086541	Town of Bailey	Bailey Well #2 WTP	Bailey	Nash
Raleigh	NC0086690	Heater Utilities Inc	Stansted Well #2 (WTP)	Cary	Wake
Raleigh	NC0086827	Brenntag Southeast Inc	Brenntag / Durham remediation	Durham	Durham
Raleigh	NC0087572	Southern Wood Piedmont Company	Southern Wood Piedmont Company	Gulf	Chatham
Raleigh	NC0087629	NCDOT	Asphalt Testing Site #6	Pittsboro	Chatham
Raleigh	NC0087840	Town of Middlesex	Well #4 WTP	Middlesex	Nash
Raleigh	NC0087912	WilcoHess LLC	WilcoHess LLC #197	Wake Forest	Franklin
Raleigh	NC0087998	Aqua North Carolina Inc	Rand Meadows Phase II	Apex	Wake
Raleigh	NC0088048	Crabtree Bane, LLC	Stonegate Mobile Home Park WTP	Durham	Orange
Raleigh	NC0088129	NC State University	University - Lot 86	Raleigh	Wake
Raleigh	NC0088137	City of Raleigh	Raleigh Convention Center	Raleigh	Wake
Raleigh	NC0088218	Kinder Morgan Southeast Terminals, LLC	Selma Terminal 2	Selma	Johnston
Raleigh	NC0088285	City Of Raleigh Public Utility Department	Dempsey E. Benton WTP	Garner	Wake
Raleigh	NC0088412	Aqua North Carolina Inc	Stonehenge Subdivision WTP	Raleigh	Wake
Raleigh	NC0088587	Arcola Lumber Co Inc	Arcola Lumber Co., Inc.	Warrenton	Warren
Raleigh	NC0088714	Iom Developers Inc	Lassiter Farm Subdivision Community Well	Raleigh	Wake
Washington	NC0000680	Domtar Paper Company LLC	Domtar Paper Company, LLC	Plymouth	Martin
Washington	NC0000744	Captain Charlie's Seafood Inc	Captain Charlie's / Englehard	Engelhard	Hyde
Washington	NC0001058	DSM Pharmaceuticals Inc	DSM Pharmaceuticals	Greenville	Pitt
Washington	NC0001074	Mount Olive Pickle Company	Mount Olive Pickle Company	Mount Olive	Wayne
Washington	NC0001732	Daniels Seafood Company	Daniels Seafood / Nags Head	Wanchese	Dare
Washington	NC0001881	Phillips Plating Company Inc	Phillips Plating Company	Bridgeton	Craven
Washington	NC0002071	Pamlico Packing Company Inc	Pamlico Packing Company	Vandemere	Pamlico
Washington	NC0002402	Perry-Wynns Fish Company	Perry-Wynns Fish Company	Colerain	Bertie
Washington	NC0003051	Town of Mount Olive	Mount Olive WTP #3	Mount Olive	Wayne
Washington	NC0003174	Fulcher's Point Pride Seafood	Fulcher's Point Pride Seafood	Oriental	Pamlico
Washington	NC0003191	Weyerhaeuser Company	New Bern Mill	New Bern	Craven
Washington	NC0003255	PCS Phosphate Company Inc	Aurora Mine	Aurora	Beaufort
Washington	NC0003417	Progress Energy Carolinas Inc	Lee Steam Electric Plant	Raleigh	Wayne
Washington	NC0003760	E I Dupont De Nemours	E.I. Dupont-Kinston	Kinston	Lenoir
Washington	NC0003816	US MCAS Cherry Point (MCALF-Atlantic)	Cherry Point WWTP	Cherry Point	Craven
Washington	NC0004057	Carolina Seafood Company Inc	Carolina Seafood	Aurora	Beaufort
Washington	NC0004081	Aurora Packing Company Inc	Aurora Packing Company	Aurora	Beaufort
Washington	NC0007510	Town of Columbia	Columbia WTP	Columbia	Tyrrell
Washington	NC0007552	Town of Edenton	Freemason WTP	Edenton	Chowan
Washington	NC0007617	Garland F Fulcher Seafood	Garland F Fulcher Seafood	Oriental	Pamlico
Washington	NC0007978	South Mills Water Association Inc	South Mills Water Association WTP	South Mills	Camden
Washington	NC0020028	Town of Plymouth	Plymouth WWTP	Plymouth	Washington
Washington	NC0020044	Town of Williamston	Williamston WWTP	Williamston	Martin
Washington	NC0020443	Town of Columbia	Columbia:WWTP	Columbia	Tyrrell
Washington	NC0020575	Town of Mount Olive	Mount Olive WWTP	Mount Olive	Wayne

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	Permit Number	Owner	Facility	City	County Name
Washington	NC0020648	City of Washington	Washington WWTP	Washington	Beaufort
Washington	NC0020842	Town of Snow Hill	Snow Hill WWTP	Snow Hill	Greene
Washington	NC0021253	City of Havelock	Havelock WWTP	Havelock	Craven
Washington	NC0021342	Town of Trenton	Trenton WWTP	Trenton	Jones
Washington	NC0021482	Town of Maysville	Maysville WWTP	Maysville	Jones
Washington	NC0021521	Town of Aurora	Aurora WWTP	Aurora	Beaufort
Washington	NC0021644	Town of La Grange	La Grange WWTP	La Grange	Lenoir
Washington	NC0021849	Town of Hertford	Heriford WWTP	Hertford	Perquimans
Washington	NC0023116	Town of Lewiston-Woodville	Lewiston-Woodville WWTP	Lewiston Woodville	Bertie
Washington	NC0023710	Martin County Economic Development Corporation McMurray Building	tion McMurray Building	Jamesville	Martin
Washington	NC0023931	Greenville Utilities Commission	GUC WWTP	Greenville	Pitt
Washington	NC0023949	City of Goldsboro	Goldsboro WWTP	Goldsboro	Wayne
Washington	NC0024236	City of Kinston	Kinston Regional Water Reclamation Facility	Kinston	Lenoir
Washington	NC0025011	City of Elizabeth City	Elizabeth City WWTP	Elizabeth City	Pasquotank
Washington	NC0025348	City of New Bern	New Bern WWTP	New Bern	Craven
Washington	NC0025712	Town of Hookerton	Hookerton WWTP	Hookerton	Greene
Washington	NC0026042	Town of Robersonville	Robersonville WWTP	Robersonville	Martin
Washington	NC0026492	Town of Belhaven	Belhaven WWTP	Belhaven	Beaufort
Washington	NC0026751	Town of Windsor	Windsor WWTP	Windsor	Bertie
Washington	NC0027600	Town of Creswell	Creswell WTP	Creswell	Washington
Washington	NC0028835	Perdue Farms Inc	Lewiston MIII	Lewiston Woodville	Bertie
Washington	NC0029572	Town of Farmville	Famville WWTP	Farmville	Pitt
Washington	NC0030406	Town of River Bend	River Bend WWTP	New Bern	Craven
Washington	NC0031828	Town of Vanceboro	Vanceboro WWTP	Vanceboro	Craven
Washington	NC0031925	Town of Roper	Roper WTP	Roper	Washington
Washington	NC0032077	Contentnea Metropolitan Sewerage District	Contentnea Sewerage District WWTP	Grifton	Pitt
Washington	NC0032565	Lenoir County Public Schools	North Lenoir High School WWTP	La Grange	Lenoir
Washington	NC0032719	Chowan County	Valhalla WTP	Edenton	Chowan
Washington	NC0033111	Carolina Water Service Inc Of NC	Fairfield Harbour S/D WWTP	Fairfield	Craven
Washington	NC0033782	Public Schools of Gates County	Gatesville Elementary School WWTP	Gatesville	Gates
Washington	NC0033791	Public Schools of Gates County	Sunbury / Open Gates Alternative School WWT	(Gatesville	Gates
Washington	NC0033804	Public Schools of Gates County	T.S. Cooper Elementary School WWTP	Gatesville	Gates
Washington	NC0035670	Dare County	Skyco Regional WTP	Manteo	Dare
Washington	NC0035858	Town of Jamesville	Jamesville WWTP	Jamesville	Martin
Washington	NC0036315	Town of Roper	Roper WWTP	Roper	Washington
Washington	NC0036447	City of Elizabeth City	Elizabeth City WTP	Elizabeth City	Pasquotank
Washington	NC0036919	Town of Pantego	Pantego Municipal Center WWTP	Pantego	Beaufort
Washington	NC0037231	Martin County Schools	Bear Grass Elementary School WWTP	Williamston	Martin
Washington	NC0040584	Clared, LLC	Pantego Rest Home	Pantego	Beaufort
Washington	NC0041386	NC Department of Commerce	Wanchese Harbor Project	Wanchese	Dare
		Organia Continue District	Octobro Davorea Oemosis WTD	Change	(5,1)

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Region	Permit Number	Owner	Facility	City	County Name
Washington	NC0043583	Pasquotank County	Pasquotank County WTP	Elizabeth City	Pasquotank
Washington	NC0043974	Public Schools of Gates County	Buckland Elementary School	Gatesville	Gates
Washington	NC0044776	Town of Hamilton	Hamilton WWTP	Hamilton	Martin
Washington	NC0048151	Etheridge Seafood Company	Etheridge Seafood Company	Wanchese	Dare
Washington	NC0048861	Town of Creswell	Creswell WWTP	Creswell	Washington
Washington	NC0051373	Perquimans County	Winfall WTP	Winfall	Perquimans
Washington	NC0056065	NCDOT	Marine Maintenance facility	Manns Harbor	Dare
Washington	NC0056618	Carolina Pines Utilities Inc	Carolina Pines Estates WWTP	New Bern	Craven
Washington	NC0060321	First Craven Sanitary District	First Craven Sanitary District	New Bern	Craven
Washington	NC0061492	Maury Sanitary Land District	Maury Sanitary Land District WWTP	Maury	Greene
Washington	NC0068233	Hyde County Water System	Fairfield WTP	Fairfield	Hyde
Washington	NC0068861	Perquimans County	Bethel WTP	Bethel	Perquimans
Washington	NC0069426	Dowry Creek Community Association Inc	Dowry Creek WWTP	Belhaven	Beaufort
Washington	NC0070157	Dare County	Kill Devil Hills Reverse Osmosis WTP	Kill Devil Hills	Dare
Washington	NC0070211	Rose Bay Oyster Company	Rose Bay Oyster Company	Swanquarter	Hyde
Washington	NC0072150	Currituck County	Currituck County WTP	Maple	Currituck
Washington	NC0073229	Weyerhaeuser Company	Greenville Lumber Mill	Grifton	Pitt
Washington	NC0074837	Town of Bridgeton	Bridgeton WWTP	Bridgeton	Craven
Washington	NC0075281	Craven County Wood Energy, LP	Craven County Wood Energy	Trent Woods	Craven
Washington	NC0076571	Gulfrock Seafood	Gulfrock Seafood	Engelhard	Hyde
Washington	NC0077992	Hyde County Water System	Ponzer WTP	Pantego	Hyde
Washington	NC0078131	City of Havelock	Brown Blvd WTP	Havelock	Craven
Washington	NC0079057	Town of Manteo	Manteo WWTP	Manteo	Dare
Washington	NC0080071	Town of Vanceboro	Vanceboro WTP	Vanceboro	Craven
Washington	NC0081191	City of Washington	Washington WTP	Washington	Beaufort
Washington	NC0081850	Town of Winfall	Winfall WTP	Winfall	Perquimans
Washington	NC0082139	Greenville Utilities Commission	Greenville WTP	Greenville	Pitt
Washington	NC0083216	Town of Chocowinity	Hughes Street WTP	Chocowinity	Beaufort
Washington	NC0083224	Town of Chocowinity	Edgewood Drive WTP	Chocowinity	Beaufort
Washington	NC0083909	Dare County	Rodanthe/Waves/Salvo Reverse Osmosis WTP Rodanthe	Rodanthe	Dare
Washington	NC0084808	Beaufort County Water System	Richland WTP	Aurora	Beaufort
Washington	NC0085081		Dalton House Motel/Restaurant	Columbia	Tyrrell
Washington	NC0085502	Eastern Fuels Inc	W. H. Cox Service Center	Engelhard	Hyde
Washington	NC0085707	Dare County/Cape Hatteras Water Assoc	Cape Hatteras Reverse Osmosis WTP	Buxton	Dare
Washington	NC0086231	Aluminum Casting Technology, Inc.	Ahoskie plant	Ahoskie	Hertford
Washington	NC0086291	Town of Edenton	Beaver Hill WTP	Edenton	Chowan
Washington	NC0086584	Town of Belhaven	Belhaven WTP	Belhaven	Beaufort
Washington	NC0086681	Camden County	Camden County Reverse Osmosis WTP	Camden	Camden
Washington	NC0086797	Town of River Bend	River Bend WTP 1 & 2	New Bern	Craven
Washington	NC0086801	Town of Mount Olive	Gordon Street WTP	Mount Olive	Wayne
Washington	NC0086918	Eastern Wayne Sanitary District	Rockford Church Road WTP	Seven Springs	Wayne

Table 4 - NPDES Permit Holders: Names and Locations

Reajon	Permit Number	Owner	Facility	City	County Name
Washington	NC0086924	Tyrrell County	Reverse Osmosis WTP	Columbia	Tyrrell
Washington	NC0086932	Dare County	Stumpy Point Reverse Osmosis WTP	Manteo	Dare
Washington	NC0086941	Southeastern Wayne Sanitary District	Southeastern Wayne S D WTP	Goldsboro	Wayne
Washington	NC0086959	Northwestern Wayne Sanitary District	Memorial Church Road WTP	Goldsboro	Wayne
Washington	NC0087009	Washington County	Washington County WTP	Roper	Washington
Washington	NC0087041	Town of Chocowinity	Hill Road WTP	Chocowinity	Beaufort
Washington	NC0087092	Tyrrell County	Tyrrell County WTP	Columbia	Tyrrell
Washington	NC0087491	Beaufort County Water District VI	Chocowinity/Richland Township WTP	Chocowinity	Beaufort
Washington	NC0087670	Currituck County	Southern Outer Banks Water System WTP	Currituck	Currituck
Washington	NC0087726	Fork Township Sanitary District	Fork Township WTP	Goldsboro	Wayne
Washington	NC0088072	Sea Safari Ltd	Sea Safari Ltd	Belhaven	Beaufort
Washington	NC0088111	Neuse Regional Water & Sewer Authority	Neuse Regional WTP	Kinston	Lenoir
Washington	NC0088234		Captain Neill's Seafood	Columbia	Tyrrell
Washington	NC0088251	Tyrrell County	Tyrrell County Prison RO WTP	Columbia	Tyrrell
Washington	NC0088323	Pamlico County	Grantsboro WTP	Grantsboro	Pamlico
Washington	NC0088331	Pamlico County	Kershaw WTP	Arapahoe	Pamlico
Washington	NC0088340	Pamlico County	Millpond WTP	Bayboro	Pamlico
Washington	NC0088358	Pamlico County	Vandemere WTP	Vandemere	Pamlico
Washington	NC0088391	Stumpy Point Water & Sewer District	Stumpy Point WWTP	Manteo	Dare
Washington	NC0088447	Town of Oriental	Town of Oriental WTP	Oriental	Pamlico
Washington	NC0088480	Pasquotank County	Pasquotank County Reverse Osmosis Plant	Elizabeth City	Pasquotank
Washington	NC0088561	Town of Ahoskie	Ahoskie WWTP	Ahoskie	Hertford
Washington	NC0088650	Currituck County	Mainland WTP	Maple	Currituck
Washington	NC0088668	Hyde County	Engelhard WTP	Engelhard	Hyde
Wilmington	NC0000663	DAK Americas LLC	Cape Fear WWTP	Wilmington	Brunswick
Wilmington	NC0001112	Invista S A R L	Wilmington Facility WWTP	Wilmington	New Hanover
Wilmington	NC0001228	Global Nuclear Fuel - Americas LLC	Wilmington-Castle Hayne WWTP	Wilmington	New Hanover
Wilmington	NC0001422	Progress Energy Carolinas Inc	Sutton Steam Electric Plant	Wilmington	New Hanover
Wilmington	NC0001970	Bay Valley Foods, LLC	Bay Valley Foods / Faison	Faison	Duplin
Wilmington	NC0002305	Guilford Mills Inc	Guilford East Mill WWTP	Kenansville	Duplin
Wilmington	NC0002585	A-1 Cleaners & Laundry Inc	A-1 Cleaners WWTP	Jacksonville	Onslow
Wilmington	NC0002879	Cape Fear Public Utility Authority	Sweeney WTP	Wilmington	New Hanover
Wilmington	NC0002933	Town of Calypso	Calypso WTP	Calypso	Duplin
Wilmington	NC0003298	International Paper Company	Riegelwood Mill WWTP	Riegelwood	Columbus
Wilmington	NC0003344	House of Raeford Farms, Inc.	House of Raeford Farms, Inc.	Wallace	Duplin
Wilmington	NC0003395	Hexion Speciality Chemicals Inc	Acme Facility	Riegelwood	Columbus
Wilmington	NC0003450	Town of Wallace	Wallace WWTP #2	Wallace	Duplin
Wilminaton	NC0003794	Corning Inc	Wilmington Plant	Wilmington	New Hanover
Wilmington	NC0003875	Elementis Chromium L P	Castle Hayne Manufacturing Facility WWTP	Castle Hayne	New Hanover
Wilmington	NC0005801	Georgia-Pacific Wood Products LLC	Georgia-Pacific Wood Products (Whiteville Plyw Whiteville	Whiteville	Columbus
Wilmington	NC0006785	National Spinning Company, Inc	Whiteville Plant	Whiteville	Columbus
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Table 4 - NPDES Permit Holders: Names and Locations

Region	Permit Number	Owner	Facility	City	County Name
Wilmington	NC0007064	Progress Energy Carolinas Inc	Brunswick Steam Electric Plant	Southport	Brunswick
Wilmington	NC0020346		Magnolia WWTP	Magnolia	Duplin
Wilmington	NC0020702	Town of Wallace	Wallace WWTP	Wallace	Duplin
Wilmington	NC0020729	Town of Fair Bluff	Fair Bluff WWTP	Fair Bluff	Columbus
Wilmington	NC0021113	Town Of Burgaw	Burgaw WWTP	Burgaw	Pender
Wilmington	NC0021334	City of Southport	Southport WWTP	Southport	Brunswick
Wilmington	NC0021555	Town of Newport	Newport WWTP	Newport	Carteret
Wilmington	NC0021831	Town of Beaufort	Beaufort WWTP	Beaufort	Carteret
Wilmington	NC0021865	Town of Chadbourn	Chadbourn WWTP	Chadbourn	Columbus
Wilmington	NC0021881	Town of Lake Waccamaw	Lake Waccamaw WWTP	Lake Waccamaw	Columbus
Wilmington	NC0021903	Town of Warsaw	Warsaw WWTP	Warsaw	Duplin
Wilmington	NC0021920	City of Whiteville	Whitemarsh WWTP	Whiteville	Columbus
Wilmington	NC0022462	Sherwood Mobile Home Park Associates LP	Sherwood Mobile Home Park WWTP	Midway Park	Onslow
Wilmington	NC0023230	Onslow Water & Sewer Authority	Richlands WWTP	Richlands	Onslow
Wilmington	NC0023256	Town of Carolina Beach	Carolina Beach WWTP	Carolina Beach	New Hanover
Wilmington	NC0023477	Southern States Chemical Inc	Wilmington Acid Plant	Wilmington	New Hanover
Wilmington	NC0023825	Cecil C Morton	Webb Apartments WWTP	Jacksonville	Onslow
Wilmington	NC0023965	Cape Fear Public Utility Authority	James A. Loughlin Northside WWTP	Wilmington	New Hanover
Wilmington	NC0023973	Cape Fear Public Utility Authority	Mkean Maffitt (Southside) WWTP	Wilmington	New Hanover
Wilmington	NC0025763	Town of Kure Beach	Kure Beach WWTP	Kure Beach	New Hanover
Wilmington	NC0026000	Town of Tabor City	Tabor City WWTP	Tabor City	Columbus
Wilmington	NC0026018	Town of Beulaville	Beulaville WWTP	Beulaville	Duplin
Wilmington	NC0026611	Town Of Morehead City	Morehead City WWTP	Morehead City	Carteret
Wilmington	NC0027065	Archer Daniels Midland Company	Southport Manufacturing Facility WWTP	Southport	Brunswick
Wilmington	NC0028215	Beacham Associates Ltd	Beacham Apartments #2 WWTP	Jacksonville	Onslow
Wilmington	NC0028223	Beacham Associates Ltd	Beacham Apartments #1 WWTP	Jacksonville	Onslow
Wilmington	NC0028827	Snug Harbor Management LLC	Snug Harbor on Nelson Bay WWTP	Sealevel	Carteret
Wilmington	NC0029122	US Army / Military Ocean Terminal - Sunny Point	Military Ocean Terminal / Sunny Point	Southport	Brunswick
Wilmington	NC0030431		Hewitts Mobile Home Park WWTP	Hubert	Onslow
Wilmington	NC0030813	Onslow Water & Sewer Authority	Kenwood WWTP	Jacksonville	Onslow
Wilmington	NC0031577	Carolina Water Service Inc Of NC	White Oak Estates WWTP	Jacksonville	Onslow
Wilmington	NC0032221	Carolina Water Service Inc Of NC	Belvedere WTP	Hampstead	Pender
Wilmington	NC0032239	Carolina Water Service Inc Of NC	Regalwood WWTP	Jacksonville	Onslow
Wilmington	NC0034339	Gary L Watkins	Cabin Creek Campground & MHP WWTP	Jacksonville	Onslow
Wilmington	NC0034991	Centerline Utilities of Eastern NC Inc	Hickory Grove WWTP	Jacksonville	Onslow
Wilmington	NC0036153	Town of Swansboro	Swansboro WWTF	Swansboro	Onslow
Wilmington	NC0036226	Scientific Water & Sewerage Corporation	Lauradale WWTP	Jacksonville	Onslow
Wilmington	NC0036668	Town of Kenansville	Kenansville WWTP	Kenansville	Duplin
Wilmington	NC0036676	Rexon LTD	Collins Estates Mobile Home Park WWTP	Midway Park	Onslow
Wilmington	NC0039527	Cape Fear Public Utility Authority	Walnut Hills WWTP	Wilmington	New Hanover
Wilmington	NC0040061	Brunswick County	Beaverdam Creek WTP	Southport	Brunswick

Table 4 - NPDES Permit Holders: Names and Locations

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	Permit Number	OWIGE	THE STATE OF THE S		
Wilmington	NC0042251	Pender County Schools/Board of Education		Burgaw	Pender
Wilmington	NC0043711	Onslow County Schools/Board of Education		Jacksonville	Onslow
Wilmington	NC0043745	Columbus County Schools/Board of Education	Old Dock Elementary School WWTP	Whiteville	Columbus
Wilmington	NC0043788	Columbus County Schools/Board of Education		Columbia	Columbus
Wilmington	NC0043796	Columbus County Schools/Board of Education	Acme Delco Elementary School WWTP	Riegelwood	Columbus
Wilmington	NC0044806	Town Of Atlantic Beach	Atlantic Beach WTP	Atlantic Beach	Carteret
Wilmington	NC0044873	Brunswick County	Carolina Shores WWTF	Calabash	Brunswick
Wilmington	NC0045276	Brunswick County Schools/Board of Education	ol WWTP	Ash	Brunswick
Wilmington	NC0047759	Taylor Hospital & Extended Care	Taylor Extended Care WWTP	Sealevel	Carteret
Wilmington	NC0049387	Onslow Water & Sewer Authority	Hunters Creek WWTP	Jacksonville	Onslow
Wilmington	NC0049743	New Hanover County	New Hanover County Landfill Leachate WWTP	Wilmington	New Hanover
Wilmington	NC0050849	Onslow County Schools/Board of Education	Silverdale Elementary School WWTP	Jacksonville	Onslow
Wilmington	NC0051471	Eugene A Butts	Big Pines Mobile Home Park WWTP	Midway Park	Onslow
Wilmington	NC0051853	Aragona Brothers Inc	Southgate Mobile Home Park WWTP	Jacksonville	Onslow
Wilmington	NC0051969	Bowden Nursing Home Inc	Hermitage House Rest Home WWTP	Castle Hayne	New Hanover
Wilmington	NC0055107	Aqua North Carolina Inc	Dolphin Bay WWTP	Wilmington	New Hanover
Wilmington	NC0056863	Town of Rose Hill	Rose Hill WWTP	Rose Hill	Duplin
Wilmington	NC0056952	Blue Creek Utilities Inc	Blue Creek WWTP	Jacksonville	Onslow
Wilmington	NC0057053	Centerline Utilities of Eastern NC Inc	Springdale Acres WWTP	Jacksonville	Onslow
Wilmington	NC0057533	Brunswick County	Hood Creek (Northwest) WTP	Bolivia	Brunswick
Wilmington	NC0057703	Aqua North Carolina Inc	The Cape WWTP	Wilmington	New Hanover
Wilmington	NC0058271	Coastal Carolina Clean Power LLC	Kenansville Facility	Kenansville	Duplin
Wilmington	NC0058971	New Hanover County	WASTEC Incinerator WWTP	Wilmington	New Hanover
Wilmington	NC0059234	BASF Corporation	Wilmington Facility WWTP	Wilmington	New Hanover
Wilmington	NC0062294	Rock Creek Environmental Company	Rock Creek Golf & Country Club WWTP	Jacksonville	Onslow
Wilmington	NC0062359	Horse Creek Farms Utilities Corporation	Horse Creek Farms WWTP	Jacksonville	Onslow
Wilmington	NC0062642	Webb Creek Water & Sewage Inc	Webb Creek WWTP	Hubert	Onslow
Wilmington	NC0063029	Commanding Officer US Marine Corps - Camp Leig Camp Leieune Advanced WWTP	Camp Lejeune Advanced WWTP	Camp Lejeune	Onslow
Wilmington	NC0063711	Duplin County/Albertson Water & Sewer District	Duplin County/Albertson W&S District WTP	Albertson	Duplin
Wilmington	NC0065099	Primary Energy of North Carolina LLC	Southport Facility	Southport	Brunswick
Wilmington	NC0065307	Worsley Operating Corporation	Scotchman #303 Truck Stop WWTP	Wilmington	New Hanover
Wilmington	NC0065480	Aqua North Carolina Inc	Bean Rivage Plantation WWTP	Wilmington	New Hanover
Wilmington	NC0066320	House Of Raeford Farms Inc	Rose Hill Plant	Rose Hill	Duplin
Wilmington	NC0066711	Hess Corporation	Wilmington terminal	Wilmington	New Hanover
Wilmington	NC0071706	Hinson Arms Apartments	Hinson Arms Apartments WWTP	Jacksonville	Onslow
Wilmington	NC0072168	Georgia-Pacific Wood Products LLC	Georgia-Pacific Wood Products, LLC (Whiteville Horse Shoe	Horse Shoe	Columbus
Wilmington	NC0072699	Town of Beaufort	Pine Street WTP	Beaufort	Carteret
Wilmington	NC0072702	Town of Beaufort	Glenda Drive WTP	Beaufort	Carteret
Wilmington	NC0073172	Vopak Terminal Wilmington Inc	Wilmington Terminal	Wilmington	New Hanover
Wilmington	NC0073181	Exxon Mobil Chemical Company	South Wilmington Terminal	Wilmington	New Hanover
Wilmington	NC0074942	Greens Oyster Company Inc	Green's Oyster Company Processing Facility	Shallotte	Brunswick

Table 4 - NPDES Permit Holders: Names and Locations

Rogion	Permit Number	TOWNO	Facility	City	County Name
Wilmington	NC0075540	runswick Sanitary District	Belville WWTP	Leland	Brunswick
Wilmington	NC0076732		New Hanover Terminal	Wilmington	New Hanover
Wilmington	NC0076830		Lloyd's Oyster Company Processing Facility	Shallotte	Brunswick
Wilmington	NC0077143	poration	West Carteret WTP	Newport	Carteret
Wilmington	NC0077500		Ferry Division WTP	Cedar Island	Carteret
Wilmington	NC0081736	New Hanover County	Highway 421 WWTP	Wilmington	New Hanover
Wilmington	NC0082295	Fortron Industries	Fortron Industries WWTP	Wilmington	New Hanover
Wilmington	NC0082520	Town of Pine Knoll Shores	Pine Knoll Shores WTP	Jacksonville	Carteret
Wilmington	NC0082970	CTI of North Carolina Inc	Wilmington Facility	Wilmington	New Hanover
Wilmington	NC0083089	oration	Bogue Banks Water Corporation	Emerald Isle	Carteret
Wilmington	NC0083321	Onslow Water & Sewer Authority	Hubert WTP	Hubert	Onstow
Wilmington	NC0083551	Onslow Water & Sewer Authority	Dixon WTP	Sneads Ferry	Onslow
Wilmington	NC0083658	AAF-McQuay Inc	Heathcraft remediation site	Wilmington	New Hanover
Wilmington	NC0084123	Bayshore Marina Homeowners Association	Bayshore Marina & Racquet Club	Sneads Ferry	Onslow
Wilmington	NC0084395	Terraine Inc	ABC One Hour Cleaners remediation site	Jacksonville	Onslow .
Wilmington	NC0085481	Pender County Schools/Board of Education	Penderlea Elementary School WWTP	Burgaw	Pender
Wilmington	NC0085553	Village of Bald Head Island	Bald Head Island WTP	Bald Head Island	Brunswick
Wilmington	NC0086819	Brunswick County	Northeast Brunswick Regional WWTP	Leland	Brunswick
Wilmington	NC0086975	Carteret County	Laurel Road WTP	Beaufort	Carteret
Wilmington	NC0087947	Columbus County	Columbus County WWTP	Whiteville	Columbus
Wilmington	NC0088277	DEL Labratories Inc	Del Labs - Rocky Point	Rocky Point	Pender
Wilmington	NC0088307	Cape Fear Public Utility Authority	New Hanover County Well Field System WTP	Wilmington	New Hanover
Wilmington	NC0088455	City of Jacksonville	Gateway Boulevard Nanofitration WTP	Jacksonville	Onslow
Winston-Salem	NC0000019	United Chemi-Con Inc	United Chemi-Con, Inc.	Lansing	Ashe
Winston-Salem	NC0000639	Sapona Manufacturing Company Inc	Sapona Manufacturing Company	Cedar Falls	Randolph
Winston-Salem	NC0000795	Kinder Morgan Southeast Terminals LLC	Greensboro Terminal I	Greensboro	Guilford
Winston-Salem	NC0001384	Tietex Interiors	Williamsburg Plant	Rocky Mount	Caswell
Winston-Salem	NC0001643	Mgm Transport Inc	MGM Transport WWTP	Eden	Rockingham
Winston-Salem	NC0002828	Wek Industries	Wek Industries	Reidsville	Rockingham
Winston-Salem	NC0003441	Dow Roofing Systems A Wholly Owned Subsidiary	Carolina Plant	Westfield	Stokes
Winston-Salem	NC0003468	Duke Energy Carolinas LLC	Dan River Steam Station	Eden	Rockingham
Winston-Salem	NC0003492	R J Reynolds Tobacco Company	Brook Cove facility	Walnut Cove	Stokes
Winston-Salem	NC0003671	Magellan Terminals Holdings L P	Greensboro Terminal II	Greensboro	Guilford
Winston-Salem	NC0004626	Ppg Industries Fiber Glass Prosucts Inc	PPG Industries Fiber Glass Products	Lexington	Davidson
Winston-Salem	NC0005266	Louisiana Pacific Corporation	LP Roaring River WWTP	Roaring River	Wilkes
Winston-Salem	NC0005312	True Elkin Inc	True Elkin, Inc.	Elkin	Sumy
Winston-Salem	NC0006548	Wayne Farms LLC	Wayne Farms LLC - Dobson Plant	Dobson	Surry
Winston-Salem	NC0007323	Town of Yanceyville	Yanceyville WTP	Yanceyville	Caswell
Winston-Salem	NC0007820	Town of Franklinville	Franklinville WWTP	Franklinville	Randolph
Winston-Salem	NC0020338	Town of Yadkinville	Yadkinville WWTP	Yadkinville	Yadkin
Winston-Salem	NC0020451	Town of West Jefferson	West Jefferson WWTP	West Jefferson	Ashe.
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Locations
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Table

Owner	Facility	City	County Name
ćin	Elkin WWTP	Elkin	Surry
Town of Boone	Jimmy Smith WWTP	Boone	Watauga
Town of North Wilkesboro	Thurman Street WWTP	North Wilkesboro	Wilkes
Town of Boonville	Boonville WWTP	Boonville	Yadkin
City Of Mount Airy	Mount Airy WWTP	Mount Airy	Surry
City of Graham	Graham WWTP	Graham	Alamance
Town of Dobson	Dobson WWTP	Dobson	Surry
City of Mebane	Mebane WWTP	Mebane	Alamance
Town of Mocksville	Dutchman's Creek WWTP	Mocksville	Davie
Town of Jonesville	Jonesville WWTP	Jonesville	Yadkin
Town of Jefferson	Jefferson WWTP	Jefferson	Ashe
Town of Wilkesboro	Cub Creek WWTP	Wilkesboro	Wilkes
Town of Mayodan	Mayodan WWTP	Mayodan	Rockingham
Cranbrook Village Communities LLC	Cranbrook Village Communities WWTP	Greensboro	Guilford
Motiva Enterprises LLC	Greensboro Terminal	Greensboro	Guilford
Affordable Residential Communities	Autumn Forest WWTP	Browns Summit	Guilford
Town of Beech Mountain	Grassy Gap Creek WWTP	Banner Elk	Watauga
Affordable Residential Communities	Woodlake WWTP	Greensboro	Guilford
Wilderness N C Inc	SFD/64 Lumber Plant	Lexington	Davidson
City of Burlington	Eastside WWTP	Burlington	Alamance
City of Burlington	Southside WWTP	Burlington	Alamance
City of Thomasville	Hamby Creek WWTP	Thomasville	Davidson
City of High Point	East Side WWTP	High Point	Guilford
City of High Point	Westside WWTP	Thomasville	Davidson
City of Greensboro	North Buffalo Creek WWTP	Greensboro	Guilford
Duke Energy Carolinas LLC	Belews Creek Steam Station	Walnut Cove	Stokes
Davie County Water System	Cooleemee WWTP	Cooleemee	Davie
City of Reidsville	Reidsville WWTP	Reidsville	Rockingham
City of Eden	Mebane Bridge WWTP	Eden	Rockingham
	Dry Creek WWTP	Eden	Rockingham
City of Randleman	Randleman WWTP	Randleman	Randolph
Town of Walnut Cove	Walnut Cove WWTP	Walnut Cove	Stokes
City of Asheboro	Asheboro WWTP	Asheboro	Randolph
Transmontaigne Operating Company LP	Southeast terminal	Greensboro	Guilford
Town of Ramseur	Ramseur WWTP	Ramseur	Randolph
Town of Pilot Mountain	Pilot Mountain WWTP	Pilot Mountain	Surry
Town of Denton	Denton WWTP	Denton	Davidson
Town of Sparta	Sparta WWTP	Sparta	Alleghany
Town of Blowing Rock	Blowing Rock WWTP	Blowing Rock	Watauga
Bassett Furniture Industries	Bassett Furniture Industries	Mount Airy	Surry
O I distribution I to the second of the seco	Stoneville Onarry	Winston Salem	Rockingham

Table 4 - NPDES Permit Holders: Names and Locations

Region	Permit Number	Owner	Facility	City	County Name
Winston-Salem	NC0028037	City of Lexington	Lexington WTP #1 & 2	Lexington	Davidson
Winston-Salem	NC0028614	NCDOT	I-77 Rest Area Yadkin County	Hamptonville	Yadkin
Winston-Salem	NC0028746	Aqua North Carolina Inc	Briarwood Subdivision WWTP	King	Stokes
Winston-Salem	NC0029190	NCDOT	Surry County Rest Area		Surry
Winston-Salem	NC0029246	Norfolk Southern Railway Company		Linwood	Davidson
Winston-Salem	NC0029599	Yadkin County Board of Education	•	Yadkinville	Yadkin
Winston-Salem	NC0029602	Yadkin County Board of Education	Forbush Elementary School WWTP	East Bend	Yadkin
Winston-Salem	NC0029611	Yadkin County Board of Education	Д	East Bend	Yadkin
Winston-Salem	NC0029726	NC Department of Correction	Guilford Correctional Center WWTP	Mc Leansville	Guilford
Winston-Salem	NC0029947	Davidson County Schools	entary School WWTP	Lexington	Davidson
Winston-Salem	NC0029980	Millercoors LLC	MillerCoors LLC	Eden	Rockingham
Winston-Salem	NC0030180	NC Department of Correction	TP	Blanch	Caswell
Winston-Salem	NC0030325	Veolia Water North America Operating Services	Buffalo Meadows WWTP	West Jefferson	Ashe
Winston-Salem	NC0030473	Mill Ridge Property Owners Association	Mill Ridge Development WWTP	Banner Elk	Watauga
Winston-Salem	NC0030848	James Vannoy & Sons Construct	Jefferson Apparel Company WWTP	Jefferson	Ashe
Winston-Salem	NC0031046	Colonial Pipeline Company	Greensboro Terminal	Greensboro	Guilford
Winston-Salem	NC0031160	NCDENR Division of Parks & Recreation	Pilot Mountain State Park WWTF	Pinnacle	Surry
Winston-Salem	NC0031607	Alamance-Burlington School System	Western Alamance Middle School	Elon College	Alamance
Winston-Salem	NC0032123	Carolina Water Service Inc Of NC	Hound Ears WWTP	Boone	Watauga
Winston-Salem	NC0032131	Tweetsie Railroad	Tweetsie Railroad	Blowing Rock	Watauga
Winston-Salem	NC0032158	ססכ ררכ	Roaring River Chalets	Blowing Rock	Watauga
Winston-Salem	NC0032166	Appalachian State University	Camp Broadstone WWTP	Banner Elk	Watauga
Winston-Salem	NC0032182	Sunset Apartments	Sunset Apartments	Boone	Watauga
Winston-Salem	NC0032191	Hebron Colony Ministries Inc	Hebron Colony & Grace Home WWTP	Boone	Watauga
Winston-Salem	NC0032212	Water Quality Services	Yonahlossee WWTP	Boone	Watauga
Winston-Salem	NC0033448	MS & SR Enterprises, LLC	Country House Village WWTP	Banner Elk	Watauga
Winston-Salem	NC0034452	Aqua North Carolina Inc	Willow Creek WWTP	High Point	Davidson
Winston-Salem	NC0034827	Forsyth County School System	Old Richmond Elementary School	Winston Salem	Forsyth
Winston-Salem	NC0035149	Seven Devils Resort	Seven Devils Resort	Blowing Rock	Watauga
Winston-Salem	NC0035173	KobeWieland Copper Products LLC	Kobewieland Copper Products	Pine Hall	Stokes
Winston-Salem	NC0036242	Sofield's Children LTD Partnership DBA Sofield Prowoodland Hills Apartments WWTP	rd Woodland Hills Apartments WWTP	Boone	Watauga
Winston-Salem	NC0036561	United Church Retirement Home	United Church Retirement Home	Lexington	Davidson
Winston-Salem	NC0037001	Rockingham County Board of Education	Bethany Elementary School	Reidsville	Rockingham
Winston-Salem	NC0037311	Allegiance Healthcare Investors LLC	Creekside Manor Assisted Living	Kernersville	Forsyth
Winston-Salem	NC0037834	City of Winston-Salem	Archie Elledge WWTP	Winston Salem	Forsyth
Winston-Salem	NC0038041	PSI Properties Inc	Laurel Seasons WWTP	Boone	Watauga
Winston-Salem	NC0038164	Guilford County Schools	Nathanael Greene Elementary School WWTP	Liberty	Guilford
Winston-Salem	NC0038709	Wilkes County Schools	Roaring River Elementary School	Roaring River	Wilkes
Winston-Salem	NC0038822	Central Care Inc	Central Care WWTP	Mount Airy	Surry
Winston-Salem	NC0038997	Roaring Gap Club Inc	Roaring Gap Club WWTP	Roaring Gap	Alleghany
Winston-Salem	NC0039420	Virginia DOT	Virginia DOT/I-77 Rest Area	Pine Hall	Surry

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Region	Permit Number	Owner	Facility	City	County Name
Winston-Salem	NC0039608	Sofield's Children LTD Partnership DBA Sofield Pro	ership DBA Sofield PrdSummit Woods Apartments WWTP	Blowing Rock	Watauga
Winston-Salem	NC0040011	Town of Yanceyville	Yanceyville WWTP	Yanceyville	Caswell
Winston-Salem	NC0040045	Bills Truck Stop Inc	Bill's Truck Stop WWTP	Linwood	Davidson
Winston-Salem	NC0040908	Randolph County Board Of Education	Tabernacle Elementary School	Asheboro	Randolph
Winston-Salem	NC0040924	Randolph County Board Of Education	Seagrove Elementary School	Seagrove	Randolph
Winston-Salem	NC0040975	Randolph County Board Of Education	Coleridge Elementary School	Ramseur	Randolph
Winston-Salem	NC0041483	Sunrise & Sons, LLC	Sunrise Park	Greensboro	Guilford
Winston-Salem	NC0041599	Davidson County Schools	Central Middle & Senior High School WWTP	Lexington	Davidson
Winston-Salem	NC0041629	Davidson County Schools	Extended Day School WWTP	Lexington	Davidson
Winston-Salem	NC0041866	Surry County Schools	Mountain Park Elementary	State Road	Surry
Winston-Salem	NC0041939	Surry County Schools	J. Sam Gentry Middle School	Mount Airy	Surry
Winston-Salem	NC0041947	Surry County Schools	North Surry High School	Mount Airy	Surry
Winston-Salem	NC0041955	Surry County	Beulah Community Center	Mount Airy	Surry
Winston-Salem	NC0042145	Davidson County Schools	Midway Elementary School WWTP	Lexington	Davidson
Winston-Salem	NC0042501	Kinder Morgan Southeast Terminals LLC	Greensboro Terminal	Winston Salem	Guilford
Winston-Salem	NC0042528	B Everett Jordan & Son-1927 LLC	B Everett Jordan 1927 LLC	Saxapahaw	Alamance
Winston-Salem	NC0042749	Davidson County Schools	Southwood Elementary School WWTP	Lexington	Davidson
Winston-Salem	NC0043290	Town of Danbury	Danbury WTP	Danbury	Stokes
Winston-Salem	NC0044211	Brintle Enterprises	Brintles Truck Stop	Mount Airy	Surry
Winston-Salem	NC0044423	Appalachian State University	Appalachian State WTP	Boone	Watauga
Winston-Salem	NC0044750	Britthaven Of Madison	Britthaven of Madison WWTP	Madison	Rockingham
Winston-Salem	NC0044954	Stokes County Schools	South Stokes High School	Walnut Cove	Stokes
Winston-Salem	NC0044962	Stokes County Schools	North Stokes High School	Danbury	Stokes
Winston-Salem	NC0045128	Alamance-Burlington School System	Sylvan Elementary School	Snow Camp	Alamance
Winston-Salem	NC0045144	Alamance-Burlington School System	Western Alamance High School	Elon College	Alamance
Winston-Salem	NC0045152	Alamance-Burlington School System	Jordan Elementary School	Graham	Alamance
Winston-Salem	NC0045161	Alamance-Burlington School System	Altamahaw/Ossipee Elementary School	Elon College	Alamance
Winston-Salem	NC0045292	City of Graham	Graham / Mebane WTP	Mebane	Alamance
Winston-Salem	NC0046019	NCDENR Division of Parks & Recreation	The Summit at Haw River State Park WWTP	Browns Summit	Rockingham
Winston-Salem	NC0046035	High Point Healthcare, Inc.	High Point Healthcare	High Point	Forsyth
Winston-Salem	NC0046043	Oak Ridge Military Academy	Oak Ridge Military Academy	Oak Ridge	Guilford
Winston-Salem	NC0046302	Town of Mayodan	Mayodan WTP	Mayodan	Rockingham
Winston-Salem	NC0046345	City of Reidsville	Reidsville WTP	Reidsville	Rockingham
Winston-Salem	NC0046418	Wilkes County Schools	Mountain View Elementary School	Hays	Wilkes
Winston-Salem	NC0046426	Wilkes County Schools	Traphill Elementary School WWTP	Traphill	Wilkes
Winston-Salem	NC0046809	Pentecostal Holiness Church	Western NC Conference Center WWTP	Browns Summit	Guilford
Winston-Salem	NC0047384	City of Greensboro	T.Z. Osborne WWTP	Mc Leansville	Guilford
Winston-Salem	NC0049174	Smoketree Lodge	Smoketree Lodge	Banner Elk	Watauga
Winston-Salem	NC0050342	City of Winston-Salem	Muddy Creek WWTP	Winston Salem	Forsyth
Winston-Salem	NC0050610	Water Quality Utilities	The Ponds WWTP	Banner Elk	Watauga
Winston-Salem	NC0050792	Aqua North Carolina Inc	Melbille Heights WWTP	Asheboro	Randolph



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Region	Permit Number	Owner	Facility	City	County Name
Winston-Salem	NC0050903	Town of Mocksville	Bear Creek WWTP	Mocksville	Davie
Winston-Salem	NC0051161	Plantation Pipe Line Company	Greensboro Petroleum Breakout Facility	Greensboro	Guilford
Winston-Salem	NC0051489	Three R's Mobile Home Park	Three R's Mobile Home Park	Winston Salem	Forsyth
Winston-Salem	NC0051713	Shoreline LLC	Lakeview Mobile Home Park	High Point	Forsyth
Winston-Salem	NC0055158	Town of Bermuda Run	Bermuda Run WWTP	Advance	Davie
Winston-Salem	NC0055191	Aqua North Carolina Inc	Penman Heights WWTP	High Point	Randolph
Winston-Salem	NC0055212	Auman's Mobile Home Park LLC	Auman's Mobile Home Park WWTP	High Point	Forsyth
Winston-Salem	NC0055255		Crown Mobile Home Park	Greensboro	Guilford
Winston-Salem	NC0055271	Shields Mobile Home Park	Shields Mobile Home Park	Elon College	Alamance
Winston-Salem	NC0055590	Town of Wilkesboro	Wilkesboro WTP	Wilkesboro	Wilkes
Winston-Salem	NC0055786	City of Lexington	Lexington Regional WWTP	Lexington	Davidson
Winston-Salem	NC0055913	Monroe's Móbile Home Park	Monroe's Mobile Home Park WWTP	Browns Summit	Guilford
Winston-Salem	NC0056201	Countryside LLC	Countryside Mobile Home Park WWTP	Sophia	Randolph
Winston-Salem	NC0056791	Horizons Residential Care Center	Horizons Residential Care Center	Rural Hall	Forsyth
Winston-Salem	NC0057720	John Henry Spainhour	Hidden Lakes Village, LLC	King	Stokes
Winston-Salem	NC0058815	Hope Valley Inc	Hope Valley WWTP	Dobson	Surry
Winston-Salem	NC0058891	Hawksnest Utilities	Valley Creek WWTP	Banner Elk	Watauga
Winston-Salem	NC0059218	Captain Stevens Seafood Restaurant	Captain Stevens Seafood Restaurant	Lexington	Davidson
Winston-Salem	NC0059251	Lee Simaan	Quail Acres Mobile Home Park	Stokesdale	Rockingham
Winston-Salem	NC0059536	Hilltop Living Center	Hilltop Living Center	Linwood	Davidson
Winston-Salem	NC0059625	South Saxapahaw Home Owners	South Saxapahaw WTP	Saxapahaw	Alamance
Winston-Salem	NC0060259	Willow Oak LLC	Willow Oak Mobile Home Park	Reidsville	Rockingham
Winston-Salem	NC0060461	Carolina Water Service Inc Of NC	Abington WWTP	Winston Salem	Forsyth
Winston-Salem	NC0060542		Gold Hill Mobile Home Park	Stokesdale	Rockingham
Winston-Salem	NC0060623	Sterling A Weaver	Stone Highway Mobile Home Park	Eden	Rockingham
Winston-Salem	NC0060691	Candle Corporation of America	Blyth Homescents International	Elkin	Surry
Winston-Salem	NC0061204	Scarlett Acres Mobile Home Park	Scarlett Acres MHP WWTP	Walkertown	Forsyth
Winston-Salem	NC0061425	Water Quality Services	Willow Valley Resort WWTP	Boone	Watauga
Winston-Salem	NC0061808	Yoco Inc	Neighbors Fuel Center #12	Mount Airy	Surry
Winston-Salem	NC0063720	Aqua North Carolina Inc	Forest Ridge WWTP	Clemmons	Forsyth
Winston-Salem	NC0064726	Town of East Bend	East Bend Industrial Park WWTP	East Bend	Yadkin
Winston-Salem	NC0065358	factur	ed Home Community LL∮Hidden Forest Mobile Home Park WWTP	Pleasant Garden	Randolph
Winston-Salem	NC0065412	Rea Enterprises Inc	Pleasant Ridge WWTP	Reidsville	Rockingham
Winston-Salem	NC0065587	Aqua North Carolina Inc	Frye Bridge WWTP	Clemmons	Forsyth
Winston-Salem	NC0065617	Hidden Valley Inc	Hidden Valley WWTP	Boone	Watauga
Winston-Salem	NC0066028	Town of Lansing	Lansing WWTP	Lansing	Ashe
Winston-Salem	NC0066966	Quarterstone Farm Association Inc	Quarterstone Farm WWTP	Greensboro	Guilford
Winston-Salem	NC0066991	Watauga County Board of Education	Bethel Elementary School	Sugar Grove	Watauga
Winston-Salem	NC0067008		Old Cove Creek School	Sugar Grove	Watauga
Winston-Salem	NC0067016		Parkway Elementary School	Boone	Watauga
Winston-Salem	NC0067024	Watauga County Board of Education	Valle Crucis Elementary School	Valle Crucis	Watauga

Table 4 - NPDES Permit Holders: Names and Locations

County Name	Forsyth	7	Wilkes	Guilford	Watauga	Davidson	Watauga	Yadkin	Davidson	Guilford	Yadkin	Watauga	Guilford	J.	Guilford	Randolph	Guilford	Forsyth	Wilkes	Wilkes	Randolph	Rockingham	Alamance	Guilford	Forsyth	Wilkes	Alleghany	Rockingham	Forsyth	Yadkin	Forsyth	Wilkes	Forsyth	Guilford	Guilford	Guilford	Stokes	Davidson	Wilkes	Ashe	Alamance
Col	For	Surry	ii M	Gui			Wa	Yac	Day	G	Yac	Wa	J U	Surry		Rai	ng O			3	Ra	8	Ala	ng S	ΩĒ	3	¥ Y	8	Fo	Υa				JO.	હ	อี	Š			As	A
City	Kernersville	Pilot Mountain	Wilkesboro	Greensboro	Banner Elk	Winston Salem	Boone	Boonville	Lexington	Greensboro	East Bend	Boone	Stokesdale	Dobson	Greensboro	Franklinville	Greensboro	Walkertown	North Wilkesboro	Hays	Asheboro	Reidsville	Osipee	Greensboro	Kernersville	Ronda	Roaring Gap	Reidsville	Rural Hall	Yadkinville	Winston Salem	Ronda	Winston Salem	High Point	Greensboro	Greensboro	Danbury	Denton	North Wilkesboro	Jefferson	Burlington
Facility	Mikkola Downs Subdivision WWTP	Pilot Mountain WTP	Mountain Home Assisted Living	Greensboro Terminal	Pond Creek WWTP	Quail Run Mobile Home Park	Art Plaza WWTP	Starmount High School WWTP	Kurz Transfer Products	Apex Oil Company	Forbush High School WWTP	Valle Landing Shopping Center WWTP	Countryside Manor WWTP	Surry County Office	AA Greensboro terminal	Ramseur WTP	Greensboro Terminal I	Cains Way Mobile Home Park	Wilkes County Airport	North Wilkes High School WWTP	Farmer Elementary School	Hidden Valley WWTP	Homers Mobile Home Park	Brenntag / Greensboro remediation	Greystone Subdivision WWTP	Ronda Industrial Park WWTP	Olde Beau Golf Club WWTP	Betsy Jeff Penn 4H Education	R.H. Johnson Construction WWTP	Yadkinville WTP	RA Thomas WTP	Ronda Plant	Salem Business Park remediation site	Frank L. Ward WTP	N.L. Mitchell WTP	Lake Townsend WTP	Danbury WWTP	Denton WTP	Reddies River WTP	Jefferson WTP	J.D. Mackintosh, Jr. WTP
Owner	Agua North Carolina Inc	Town of Pilot Mountain	Davis Davis & Dodson LLC	Transmontaigne Operating Company LP	Town of Beech Mountain	Quail Run Mobile Home Park	Clevon Woods Association	Yadkin County Board of Education	Kurz & Partners, L.P.	Apex Oil Company	Yadkin County Board of Education	Valle Landing Property Owners Association Inc	Mervyn R King	NCDOT	Associated Asphalt Greensboro Inc	Town of Ramseur	Magellan Terminals Holdings L P	Cains Way Homeowners Association	Wilkes County Airport	Wilkes County Schools	Randolph County Board Of Education		Tim Homer	Brenntag Southeast Inc	Agua North Carolina Inc	Northwest Textile Inc	Agua North Carolina Inc	NC State University	R H Johnson Construction Company	Town of Yadkinville	City of Winston-Salem	Precision Fibers	Lucent Technologies Inc	City of High Point	City of Greensboro	City of Greensboro	Stokes County	Town of Denton	Reddies River Water Works	Town of Jefferson	City of Burlington
Permit Number	NC0067091	NC0068365	NC0068543	NC0069256	NC0069761	NC0070033	NC0070408	NC0070459	NC0070637	NC0071463	NC0071773	NC0072559	NC0073571	NC0073822	NC0074241	NC0074454	NC0074578	NC0075027	NC0075078	NC0076066	NC0076287	NC0077135	NC0077968	NC0078000	NC0078115	NC0078140	NC0078158	NC0078271	NC0079049	NC0079260	NC0079821	NC0080748	NC0080853	NC0081256	NC0081426	NC0081671	NC0082384	NC0082949	NC0083291	NC0083470	NC0083828
Region	-Salem		T			Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salam	Wilston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Winston-Salem	Wineton-Salem	Wineton-Salem	Wineton-Salem	Winston-Salem

Table 4 - NPDES Permit Holders: Names and Locations

Region	Permit Number	Owner	Facility	City	County Name
Winston-Salem	NC0083925	Heater Utilities Inc	Salem Glen Subdivision WWTP	Clemmons	Davidson
	NC0083933	Heater Utilities Inc	ГР	Winston Salem	Forsyth
Winston-Salem	NC0083941	Heater Utilities Inc	Spring Creek WWTP	Winston Salem	Davidson
Winston-Salem	NC0084077	Hancock Country Hams Inc	Hancock remediation site	Franklinville	Randolph
Winston-Salem	NC0084212	Davie County	Sparks Road WTP	Mocksville	Davie
Winston-Salem	NC0084409	Heater Utilities Inc	Wellesley Place WWTP	Lewisville	Forsyth
Winston-Salem	NC0084425	Davidson Water Inc	Davidson Water WTP	Lexington	Davidson
Winston-Salem	NC0084492	Cemex Construction Materials LP	CEMEX Construction Materials / Colfax	Colfax ·	Guilford
Winston-Salem	NC0084786	Furniture Illustrators Inc	WTP	Trinity .	Randolph
Winston-Salem	NC0084816	Thomasville Furniture Industries, Inc.	Hooker Furniture plant	Pleasant Garden	Guilford
Winston-Salem	NC0084832		Nikolas' Restaurant & High Meadow Inn LLC	Roaring Gap	Alleghany
Winston-Salem	NC0085189	Virginia H Doyle	Jose's Restaurant WWTP	Stoneville	Rockingham
Winston-Salem	NC0085626	Town of Madison	Madison WTP	Madison	Rockingham
Winston-Salem	NC0085871	Flakt Products Inc	Flakt Products remediation site	Winston Salem	Forsyth
Winston-Salem	NC0086011	City of Winston-Salem	Neilson WTP	Clemmons	Forsyth
Winston-Salem	NC0086029	Trinity American Corporation	Glenola remediation site	High Point	Randolph
Winston-Salem	NC0086665	Duke Energy Carolinas LLC	Rockingham County Combustion Turbine Facilit Reidsville	Reidsville	Rockingham
Winston-Salem	NC0086762	City of Winston-Salem	Northwest WTP	Winston Salem	Forsyth
Winston-Salem	NC0086983	Caswell County Schools	South Elementary WTP	Mebane	Caswell
Winston-Salem	NC0087645	Town of Milton	Milton WWTP	Milton	Caswell
Winston-Salem	NC0087866	Piedmont Triad Regional Water Authority	Randleman Lake WTP	Randleman	Randolph
Winston-Salem	NC0087921	High Country Bank-A Division of Ydkin Valley Bank	ion of Ydkin Valley Bank Green Valley Townhomes	Boone	Watauga
Winston-Salem	NC0087963		Buckeye Creek WWTP	Blowing Rock	Watauga
Winston-Salem	NC0087980	Stokes County Schools	Pine Hall Elementary School WWTP	Pine Hall	Stokes
Winston-Salem	NC0088099	Town of Beech Mountain	Buckeye WTP	Beech Mountain	Watauga
Winston-Salem	NC0088170	Laurel Mountain Builders LP	Whispering Streams WWTP	Fleetwood	Ashe
Winston-Salem	NC0088200	City of Thomasville	City of Thomasville WTP	Thomasville	Davidson
Winston-Salem	NC0088242	Taylor & McChesney LLC	Conrad Farm WWTP	Lewisville	Forsyth
Winston-Salem	NC0088315	Gatekeeper Group	Deep Gap Development	Blowing Rock	Watauga
Winston-Salem	NC0088498	Aqua North Carolina Inc	Mitchell Bluff Subdivision Well #1	Elkin	Surry
Winston-Salem	NC0088501	Aqua North Carolina Inc	Stonington Subdivision - Well #1	Kernersville .	Forsyth
Winston-Salem	NC0088528	Aqua North Carolina Inc	Hillcrest Subdivision- Well #3	Mount Airy	Surry
Winston-Salem	NC0088536	Aqua North Carolina Inc	Bannertown Hills Subdivision - Well #2	Mount Airy	Surry
Winston-Salem	NC0088552	Aqua North Carolina Inc	Colonial Woods Subdivision - Well #2	Mount Airy	Surry
Winston-Salem	NC0088579	Shulls Mill Properties Inc	Stone Bridge Subdivision	Boone	Watauga
Winston-Salem	NC0088609	Aqua North Carolina Inc	Windgate Subdivision - #1	Dobson	Surry
Winston-Salem	NC0088617	Aqua North Carolina Inc	Snow Hill Subdivision	Dobson	Surry
Winston-Salem	NC0088625	Aqua North Carolina Inc	The Hollows Subdivision	Mount Airy	Surry
Winston-Salem	NC0088633	Aqua North Carolina Inc	Reeves Woods Subdivision Well #2	Mount Airy	Surry
Winston-Salem	NC0088692	Sparks Oil Company	J.W. Smith/ Camp Spring 76	Reidsville	Caswell
Count:	1311				

ADDENDUM

The following is provided to support the information in the above status report.

- The Division of Water Quality does not have the data or management system in place to currently track information on the number of violations found during each inspection, the date of the violation, or the nature of the violation. A Basinwide Information Management System is, however, under development to address these needs. Funding has been allocated for the initial development phase. Completion of the system will require further funding. Therefore, at this time, the Division is unable to provide such information as requested in the amended G.S. 143-215.9A(a)(3).
- As found in Table 2, "Other Inspections" include:
 - Audit Inspections, a comprehensive review of all elements of a municipal's pretreatment program including a records review & an inspection of an industrial facility conducted once every 5 years;
 - Bioassay Compliance Inspections, evaluates the biological effect of a permittee's effluent discharge on test organisms using acute and chronic toxicity testing;
 - □ Compliance Sampling Inspections, a sampling inspection designed to verify the permittee's compliance with applicable permit self-monitoring requirements -- analytical results from representative samples collected during the inspection are used to evaluate the permittee's compliance;
 - □ **Diagnostic Inspections**, focuses on Publicly Owned Treatment Works that have not achieved permit compliance the purpose is to identify the causes of noncompliance, suggest immediate remedies, and support current or future enforcement action;
 - Operation & Maintenance Inspections, focuses on the operation and maintenance aspect of a facility;
 - Performance Audit Inspections, inspections that include actual observation of the permittee performing the self-monitoring process from sample collection and flow measurements through laboratory analyses, data work-up and reporting;
 - Pre-Treatment Inspections, an annual inspection of a municipal's pretreatment program; and
 - ☐ Toxicity Sampling Inspections, same as CSI however, increased emphasis is placed on toxic substances regulated by the NPDES Permit.
- Effective July 1, 1998, the Director of the Division of Water Quality delegated each Regional Water Quality Supervisor the authority to sign all Civil Penalty Assessments for fast-track enforcement actions for violations of NPDES Permit effluent limits and/or monitoring frequencies in accordance with NCGS 143-215.6A.
- As found in Table 1, "Other Permit Condition Violations" may include
 - discharge violations (resulting from collection system overflows);
 - submitting late Discharge Monitoring Reports;
 - submitting late Toxicity Tests; and
 - permit condition violations (examples, violations of pre-treatment program, improper operation & maintenance of treatment works, or by-pass of treatment works)
- Due to the length of the post assessment process, total civil penalties assessed and total civil penalties collected will not coincide.



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

September 30, 2008

TO:

Senator Dan Clodfelter Senator Charlie Albertson Representative Pryor Gibson Representative Lucy Allen

FROM:

William G. Ross Jr., Secretary

RE:

Animal Waste Management Annual Report

G.S. 143-215.10M requires the Department of Environment and Natural Resources to report to the Environmental Review Commission each year on permitting, inspection, and compliance activity of animal waste operations across the state. Attached is this year's report. If you have any questions please contact Ted Bush at (919) 715-6172.

Attachment

cc: Coleen H. Sullins



Fiscal Year Data: July 1, 2007 through June 30, 2008

Note: Fiscal year numbers are reported as of September 9, 2008 and may vary from actual due to delays in data entry and continued refinements to database.

INSPECTIONS	ARO	FRO	MRO	RRO	WARO*	WIRO	WSRO	State Totals
DWQ Total number of inspections completed	33	800	102	314	491	584	108	2432
Routine DWQ annual compliance inspections	29	775	97	255	473	556	94	2279
Inspections conducted due to complaints	2	3	0	4	6	8	5	28
Follow-up of previous review or inspection	2	12	4	18	9	10	9	64
Emergency Notification	0	1	1 ·	1	2	7	0	12
Lagoon Evaluations	0	4	0	5	1	0	0	10
Other inspections	0	5	0	31	0	3	0	39
DSWC Total number of compliance inspections completed*					47	134	4.4	181
Routine DSWC annual compliance inspections	1.474				46	125		171
Inspections conducted due to complaints		Maria Escapa			0	1		1 [.]
Follow-up of previous review or inspection		of the land		use and	0	2		2
Emergency Notification					0	0		0 -
Response to DWQ referral					1	3		4
Other inspections					0	3		3
DSWC Total number of operation reviews completed.	19	785	69	149	566	691	100	2379
Routine operation reviews	19	778	69	149	561	655	100	2331
Technical Assistance	0	4	0	0	1	9	0	14
Follow-up of previous review or inspection	0	2	0	0	4	5	0	11
Emergency Notification	0	1	0	0	0	0	0 ·	1
Other inspections	0	0	0	0	0	22	0	22
Totals	52	1585	171	463	1057	1275	208	4992
Total number of Animal Operations requiring Inspections and Operations Reviews during this year	22	760	95	251	549	684	100	2461

^{*}Pilot Project. Routine Compliance Inspections will only be conducted in Brunswick, Columbus, Jones, and Pender Counties by DSWC. Rountine Operation Reviews are normally conducted in the Pilot Counties in the spring and routine Compliance Inspections are conducted in the fall. Brunswick County was added to the Pilot Project on July, 1 1999, and Pender County was added on January 1, 2006. DWQ maintains regulatory oversight of the program.

^{**}DSWC numbers include site visits completed by Soil & Water Conservation District and NRCS staff.

Fiscal Year Data: July 1, 2007 through June 30, 2008

Note: Fiscal year numbers are reported as of September 9, 2008 and may vary from actual due to delays in data entry and continued refinements to database.

ANIMAL OPERATIONS PERMITS ISSUED	ARO	FRO	MRO	RRO	WARO	WIRO	wsRo	State Totals
Swine	0	445	4	79	298	366	8	1200
Cattle	4	2	12	2	0	0	15	35
Poultry	0	2	3	10	0	0	0	15
Horses	0	0	0	1	0	0	1	2
ials	4	449	19	92	298	366	24	1252

DEFICIENCIES AND VIOLATIONS IDENTIFIED	1 ARO	が 基FRO L	MRO	RRO M	WARO	_{fr} WIRO	WSRO St	≫ • Stäte Totals
Deficiencies and Violations found during DSWC operations reviews and DWQ inspections**	19	34	34	21	76	88	18	290
Number of facilities receiving a deficiency or six violation from inspections	2	28	24	7	46	16	5	128
Enforcement actions initiated for violations noted during this quarter.	0	2	0	1	10	4	1	18

^{*}Violation totals inlude violations noted during both operation reviews and compliance inspections and may include multiple violations at a single facility.

^{**}Enforcement actions being developed by the regional staff are normally not shown as actions initiated during that quarter. These actions will be included in the next year-to-date totals.

DEFICIENCIES AND VIOLATIONS IDENTIFIED	Total number of inspections with identified problem	Percent of total problems identified	Percent of total inspections complet (4992)
Discharges from Animal Waste Management System	45	15.5%	0.9%
Of the total discharges identified, the number of discharges that reached surface waters of the state	(18)	(6.2%)	(0.4%)
Inadequate Freeboard (Certified Farms)	27	9.3%	0.5%
Of the total inspections identified with inadequate freeboard, the number of inspections with freeboard noted at less than 1 foot	(2)	(0.7%)	(0.0%)
No Certified Operator in Charge	74	25.5%	1.5%
Evidence of over application	82	28.3%	1.6%
Does not meet setbacks	8	2.8%	0.2%
Inadequate land	3	1.0%	0.1%
Crop differs from that stated in Certified Animal Waste Management Plan	51	17.6%	1.0%
ale"	290	100.0%	5.8%

^{*4992} inspections and reviews were conducted. There were 7 potential problems evaluated in each report. Therefore, the total possible deficiencies and violations that could have been noted was 34944. The 290 problems identified represents 0.83% of the total potential number.

Fiscal Year Data: July 1, 2007 through June 30, 2008

Note: Fiscal year numbers are reported as of September 9, 2008 and may vary from actual due to delays in data entry and continued refinements to database.

DEFICIENCIES AND VIOLATIONS IDENTIFIED	ARO	FRO	MRO	RRO 3	WARO	WIRO	WSRO	State Total
Discharges from Animal Waste Management System	1	6	7	6	11	13	1	45
Of the total discharges identified, the number of discharges that reached surface waters of the state	(1)	(1)	(7)	(1)	(2)	(6)	(0)	(18)
Inadequate Freeboard (Certified Farms)	2	4	8	4	1	6	2	27
Of the total inspections identified with inadequate freeboard, the number of inspections with freeboard noted at less than 1 foot	(0)	(0)	(1)	(1)	(0)	(0)	(0)	(2)
No Certified Operator in Charge	2	5	4	4	7	50	2	74
Evidence of over application	3	11	4	4	47	10	3	82
Does not meet setbacks	1	0	0	3	0	4	0	8
Iñadequate land	1	0	0	0	2	0	0	3
Crop differs from that stated in Certified Animal Waste Management Plan	9	8	11	0	8	5	10	51
	19	34	34	21	76	88	18	290

DEFICIENCIES AND VIOLATIONS IDENTIFIED	Swine	Cattle	Poultry	Horses	State Totals
Discharges from Animal Waste Management System	33	11	1	0	45
Of the total discharges identified, the number of discharges that reached surface waters of the state	(9)	(9)	(0)	(0)	(18)
Inadequate Freeboard (Certified Farms)	12	13	2	0	27
Of the total inspections identified with inadequate freeboard, the number of inspections with freeboard noted at less than 1 foot	(1)	(1)	(0)	(0)	(2)
No Certified Operator in Charge	65	8	0	1	74
Evidence of over application	70	10	2	0	82
Does not meet setbacks	5	1	2	0	8
Inadequate land	2	1	0	0	3
Crop differs from that stated in Certified Animal Waste Management Plan	22	29	0	0	51
otals	209	73	7	1	290



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

October 1, 2008

TO:

Senator Dan Clodfelter Senator Charlie Albertson

Representative Pryor Gibson Representative Lucy Allen

FROM:

William G. Ross Jr., Secretary

RE:

Annual Report on Basinwide Water Quality Management Plans

G.S. 143-215.8B requires the Department of Environment and Natural Resources to report to the Environmental Review Commission each year on the progress in developing and implementing basinwide water quality management plans and on increasing public involvement and public education in connection with basinwide water quality management planning. If you have any questions please contact Alan Clark at (919) 807-6441.

Attachment

cc: Coleen Sullins



Annual Report from the Division of Water Quality's Basinwide Planning Program – October 1, 2007 through September 30, 2008

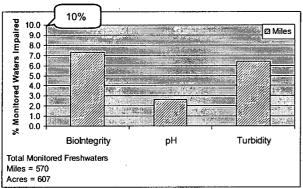
During the past year the Basinwide Planning Unit has been developing the Broad, Yadkin and Neuse River Basin Water Quality Management Plans. Those plans will be complete by February 2009.

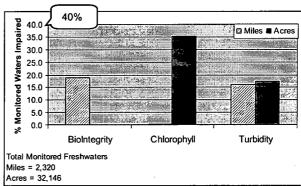
Staff activities related to development and implementation of current plans included:

- Participating in the Falls Lake Technical Advisory Committee, the Falls Lake Nutrient Management
 Stakeholder Process, the Neuse River Basin Oversight Committee, and other local watershed meetings
 in the Neuse River Basin. These activities are related to development of nutrient management strategies
 for drinking water supplies per SB 981 (Session Law 2005-190).
- Working with local resource agencies in the French Broad Basin to implement watershed management plans through identification of project needs and funding sources.
- Participating in multi-agency meetings related to cleaning up Ore Knob acid-mine drainage impacts in Ashe County in the New River basin and to reviewing on-going activities in the New River identified in the 2006 Basinwide plan.
- Working with Dan River Association to address impairments identified in the Dan River Watershed (Roanoke River Basin).
- Participating in New River Roundtable meetings to direct restoration activities in the New River (White Oak River Basin).
- Assisting the Rowan County Soil & Water Conservation District with projects to address impacts from dairy farms on Second Creek (Yadkin-Pee Dee River Basin).

The graphs below show the major pollutants or indicators and the percentages of impaired monitored freshwaters by miles and acres they impact identified in the draft Broad, Neuse and Yadkin-Pee Dee River Basinwide Water Quality Plans. For the Neuse and Yadkin-Pee Dee River Basins, only those parameters that were exceeded in more than 10 percent of the waters are shown. BioIntegrity (biological integrity as indicated by benthic macroinvertebrates and fish communities), while not a pollutant, is an indicator of impaired aquatic life and shows the impacts of a variety of insults to the aquatic system, such as excessive stormwater runoff, erosion, toxicants, metals, and other pollutants. Turbidity is a measure of clarity of the water and is frequently related to sediment impacts. Metals were elevated in some locations; however, only mercury in the Neuse and Yadkin-Pee Dee River Basins exceeded the 2008 evaluation criteria in fish tissue. Mercury impaired less than one percent of the monitored freshwaters in the Yadkin-Pee Dee and, therefore, is not depicted on the graph.

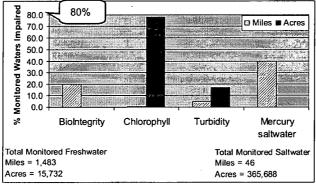
Percentage of Impaired Monitored Freshwaters in the Broad, Neuse and Yadkin-Pee Dee River Basins by Indicator or Pollutant





Broad River Basin

Yadkin-Pee Dee River Basin



Neuse River Basin

Report to the Environmental Review Commission On the Implementation of the Sedimentation Pollution Control Act By the Department of Environment and Natural Resources Division of Land Resources, Land Quality Section

October 1, 2008

§ 113A-67. Annual report. The Department shall report to the Environmental Review Commission on the implementation of this Article on or before 1 October of each year. The Department shall include in the report an analysis of how the implementation of the Sedimentation Pollution Control Act of 1973 is affecting activities that contribute to the sedimentation of streams, rivers, lakes, and other waters of the State. The report shall also include a review of the effectiveness of local erosion and sedimentation control programs.

The following information is submitted to fulfill this reporting requirement.

Executive Summary

The number of new projects approved this past fiscal year decreased, possibly as a reflection of the national economy. The growth of delegated local erosion and sediment control programs is also taking a portion of the new projects formally administered by the state. There are now 52 county or municipal governments that have received delegation from the Sedimentation Control Commission. Existing staff resources are being shifted to provide better oversight of these programs. Existing procedures for appealing the assessment of a civil penalty assessed by a local government have been the subject of legal dispute. Amending the Sedimentation Pollution Control Act of 1973 (SPCA) to specifically address the appeal of civil penalties assessed by local governments would foster uniformity among local erosion and sedimentation control ordinances.

The introduction of a centralized, on-line database for management of all phases of the erosion and sedimentation control program has been challenging, but holds great potential to streamline data management, word processing and easy access to records. Additional portions of the *Erosion and Sedimentation Control Planning and Design Manual* covering seeding specifications, tree protection and stream bank stabilization have been revised. Information on native plant species has been added for riparian buffer plantings.

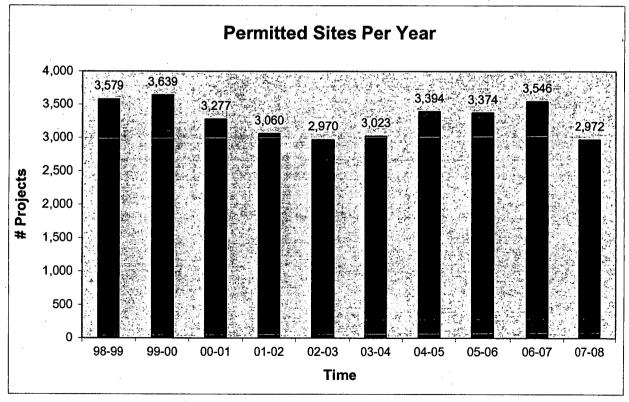
Development on steep slopes for several projects in the mountains of North Carolina has caused problems this past year when the slopes were graded too steep and became unstable, the installation and maintenance of erosion and sedimentation measures were inadequate to prevent offsite sedimentation, and the developments experienced financial difficulties. Several local governments have addressed steep slope development in their local erosion and sedimentation control ordinances, or have passed separate steep slope ordinances to better address long term erosion and sedimentation control for this type development.

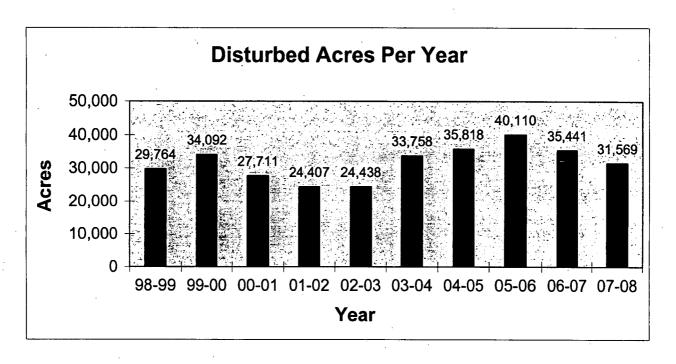
The Sedimentation Control Commission convened a working group of stakeholders to develop a draft rule to clarify the self-inspection requirements of G.S. 113A-54.1(d) in the SPCA. The Commission has given its approval to take the draft rule to public hearing. The draft rule should start through the rule making process this fall.

Background

"The sedimentation of streams, lakes and other waters of this State constitute a major pollution problem. Sedimentation occurs from the erosion or depositing of soil and other materials into the waters, principally from construction sites and road maintenance. The continued development of this State will result in an intensification of pollution through sedimentation unless timely and appropriate action is taken. Control of erosion and sedimentation is deemed vital to the public interest and necessary to the public health and welfare, and expenditures of funds for erosion and sedimentation control programs shall be deemed for a public purpose". —Preamble to the Sedimentation Pollution Control Act of 1973

The number of new projects under State jurisdiction decreased from 3,546 last year to 2,972 this year. The actual area of land-disturbance covered by new approved erosion and sedimentation control plans decreased to 31,569 acres for the 2007-2008 fiscal year from the total last year of 35,441 acres. This total does not include areas administered by local governments, or land disturbed by the Department of Transportation.





Implementation

The Division of Land Resources, Land Quality Section, administers the SPCA within the Department of Environment and Natural Resources. The Sedimentation Control Commission has also delegated administration of the SPCA to 52 county or municipal governments. These local program delegations do not regulate land-disturbing activities conducted by local, State or United States government or persons with the power of eminent domain (e.g. public utilities), which remain under jurisdiction of the Land Quality Section. The Sedimentation Control Commission delegated program authority to the towns of Archdale and Wilson in 2008.

The Land Quality Section has 64 full time equivalent positions (FTE) to handle the administration, plan review, inspection and enforcement of the sedimentation program. Fifty-eight of the positions are located in the Department's seven regional offices, where they conduct inspections and review erosion and sedimentation control plans.

Regional activities for the 2007-2008 Fiscal Year include:

4,611 erosion and sedimentation control plan reviews, 15,806 sedimentation site inspections, 492 notices of violation, and 88 enforcement case referrals.

The Land Quality Section Program collaborates closely with the Division of Water Quality's stormwater management program in permitting, inspection and enforcement activities. The Land

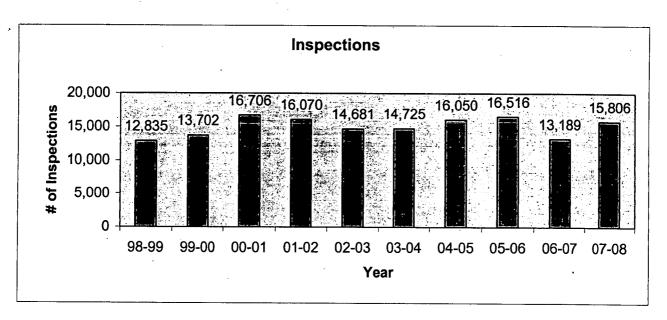
Quality Section encloses a copy of the general stormwater permit for construction activities with each erosion and sedimentation control plan approval, and provides the Division of Water Quality with a copy of the financial responsibility/ownership form that accompanies each plan submittal. When sedimentation inspection reports document potential violations of the general stormwater permit for construction activities, a copy is furnished to the Division of Water Quality. Any enforcement activities are coordinated between the agencies.

Plan Approval

The SPCA requires a review of the required erosion and sedimentation control plan within 30 days of first submittal or 15 days of resubmittal. However, an Express Permitting program for erosion and sedimentation control plans provides for plan review within three days for an additional fee, and is now available at all regional offices. During the 2007-2008 Fiscal Year, Express Permit reviews increased slightly to 584, compared to 530 the year before. The most express reviews were in the Winston-Salem and Raleigh regions.

Inspection

Inspectors from the seven regional offices inspect land-disturbing activities and complete sedimentation inspection reports. The reports document field observations and compliance or non-compliance with the SPCA. The infrequency of inspections remains a chronic problem that limits the effectiveness of the sedimentation program. Regional staff completed 15,806 sedimentation inspection reports in the 2007-2008 Fiscal Year. Approximately 6.5 percent of the inspections were in response to the 1,034 complaints received from the public. Almost 39 percent of the complaints concerned activity in the Asheville Region, reflecting public awareness and concern for protecting valuable mountain water resources.



Enforcement

The Division of Land Resources documents compliance or non-compliance with the SPCA through sedimentation inspection reports. Most violations are resolved by providing an inspection report to the responsible party and requesting correction of the deficiencies. Of the 15,806 inspections conducted during the 2007-2008 Fiscal Year, 492 (3%) resulted in a Notice of Violation. The Notices of Violation led to 88 requests from the regional offices for additional enforcement action (18% of NOV's issued). The vast majority of these were initial penalties of \$5000 or less.

Local Programs

The Sedimentation Control Commission encourages local governments to administer a delegated erosion and sedimentation control program by providing a model ordinance, cost share funding for start-up and technical assistance. Once a program is delegated to a local government, the Land Quality Section provides periodic oversight to ensure that the local programs are meeting the standards for the State program. State personnel informally assist and advise the local staff on problematic sites. A review of each local program is scheduled at least every two years. Land Quality and the Attorney General's Office review the city or county ordinance to ensure that it is as stringent as State law and rules. The Land Quality Regional Engineer and Sediment Specialist and/or their assistants meet with the local program staff during the review. A detailed report is provided back to the local government, noting strengths, deficiencies and corrective actions. A summary report is presented to the Sedimentation Control Commission at its quarterly meetings. The Commission then takes action to continue the delegation, place the program on probation, or give 30 days' notice that the Commission will assume administration and enforcement of the program.

Fourteen local program reviews were conducted during the past fiscal year. The local governments ranged in size from the Town of Lake Lure to the City of Charlotte. One of the reviews last year resulted in the Sedimentation Control Commission placing an existing program on probation for staffing and enforcement deficiencies. The county involved responded by filling a vacant inspection position and amending the county ordinance. Four new local sedimentation programs were created during the 2006-2007 fiscal year. These programs were reviewed in August and September 2008 to evaluate their progress. One of the programs was not providing written site inspections or plan approvals. The Sedimentation Control Commission placed it in on probation pending subsequent review. Two new programs were added during the 2007-2008 fiscal year, the towns of Archdale and Wilson.

Database Management

On July 1, 2008, Land Quality began using a central database for management of sedimentation program functions after four years of development in conjunction with DENR Information Technology Services. Plan reviews, fee receipts, inspections, complaints, notices of violation, local program activity, and NC DOT inspections are recorded in a single database.

Training

Four workshops were held for design professionals, along with the annual workshop for local government erosion and sedimentation control personnel. Additional workshops were held for the

city employees of Charlotte, Hickory and Jacksonville. N.C. State University is independently offering training workshops on various aspects of erosion and sedimentation control. The N. C. Department of Transportation requires its employees and contractors to obtain certification in erosion and sediment control and stormwater management through one-day courses offered by N. C. State University.

Pending Statutory Amendments

House Bill 2506 was introduced during the 2008 Short Session to clarify the enforcement procedures of delegated local programs at the request of local governments. The bill provided specific procedures for appealing a civil penalty assessed by local government, directed that civil penalties go to the Civil Penalty and Bond Forfeiture Fund, and provided local governments the same stop work authority as the Division of Land Resources. A committee substitute was reported favorably from the House Committee on Environment and Natural Resources. The bill was referred to the Finance Committee without further action during the session.

Regulatory Issues

The SPCA was amended in 2006 to require for inspections of land-disturbing activity by the landowner or the financially responsible party as follows:

§ 113A-54.1(e) The landowner, the financially responsible party, or the landowner's or the financially responsible party's agent shall perform an inspection of the area covered by the plan after each phase of the plan has been completed and after establishment of temporary ground cover in accordance with G.S. 113A-57(2). The person who performs the inspection shall maintain and make available a record of the inspection at the site of the land-disturbing activity. The record shall set out any significant deviation from the approved erosion control plan, identify any measures that may be required to correct the deviation, and document the completion of those measures. The record shall be maintained until permanent ground cover has been established as required by the approved erosion and sedimentation control plan.

The goal of the self-inspection requirement is to engage the responsible party in actively monitoring their development for compliance. To clarify the necessary content of the records and the phases of a plan referenced in the statute, the Sedimentation Control Commission initiated rulemaking. The Technical Advisory Committee to the Commission, and a stakeholders group both provided input into the draft rule. The Commission approved a draft rule at the August 2008 meeting.

North Carolina

Drought Management Advisory Council

Activities Report - 2008

Oct. 1, 2008

North Carolina Division of Water Resources

Department of Environment and Natural Resources

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Introduction

This is the fourth Annual Report of the North Carolina Drought Management Advisory Council on the implementation of North Carolina General Statute 143-355.1, which created the council in 2003. The General Assembly amended the statute in 2004 adding a new section requiring an annual report: "(g) The Council shall report on the implementation of this section to the Secretary, the Governor, and the Environmental Review Commission no later than Oct. 1 each year was added. The report shall include a review of drought advisories issued by the council and any recommendations to improve coordination among local, state, and federal agencies, public water systems and water users to improve the management and mitigation of the harmful effects of drought. (2003-387, s. 2; 2004-195, s. 2.5,)"

Drought Management Advisory Council

The Drought Monitoring Council was an interagency coordination and information exchange body created in 1992. The council did a credible job of monitoring and coordinating drought responses in 2002 and increased public awareness of its functions and effectiveness. The General Assembly recognized the Drought Monitoring Council's leadership and performance by giving it an official statutory base and by changing its name to Drought Management Advisory Council (DMAC), reflecting the broader role of the council, which goes beyond monitoring drought conditions.

North Carolina General Statute 143.355.1., ratified July 17, 2003, assigned the DMAC an important new role, the need for which became evident in 2002. A number of local governments indicated that it would be helpful to have official, objective drought status advisories, to give them a reliable basis for their management responses. The new statute assigned that role to the DMAC and specifies the drought advisories to be based on technical data and crafted to fit varying conditions in different parts of the state. This process avoids the problems that some states have experienced in declaring drought warnings statewide, when conditions did not warrant it in all parts of the state.

Section 1 of this act also makes drought response provisions mandatory in local government water supply plans and extends this planning responsibility to all community water systems that serve 1,000 or more connections or 3,000 or more individuals.

The intent of the statute was for the DMAC to continue with essentially the same membership and functions that the Drought Monitoring Council previously exercised, but with new statutory authority and a new responsibility for providing a system of drought advisories when needed. Most importantly, the operation of the DMAC continues the same role as the Drought Monitoring Council did in support of the North Carolina Emergency Operations Plan.

Drought legislation, Section 16 of Session Law 2008-143

An act to improve drought preparedness and response in North Carolina as recommended by the Environmental Review Commission was signed into law by Gov. Mike Easley on July 31, 2008. Section 16 of SL 2008-143 called for minor changes in the law (2003) establishing the Drought Management Advisory Council. The law now requires that appointees to the council have expertise in water resource evaluation and management related to drought and drought impacts. It removes language that previously allowed DENR to expand the membership of the

council. DENR can invite representatives of other organizations, including water systems regulated by the N.C. Utilities Commission, to "participate in the work of the Council." The DMAC will provide consistent and accurate information on drought conditions in the state to the U.S. Drought Monitor, the Environmental Management Commission, the secretary of the Department of Environment and Natural Resources, the Environmental Review Commission, and the public.

In the matter of DMAC issuing drought classification and response actions by county, SL 2008-143 requires that if the U.S. Drought Monitor of North Carolina shows more than one drought designation in a county, the drought classification for the county is the highest drought designation that applies to at least twenty five percent (25%) of the land area of the county. Drought response actions are based on the drought classification for each county within a drought area that is listed each Thursday on the DMAC Web page (<www.ncdrought.org>).

The law states that the council may recommend to the secretary a drought designation for a county that is different from the designation based on the U.S. Drought Monitor of North Carolina if the depiction of drought does not accurately reflect localized conditions. In recommending a drought designation that differs from the U.S. Drought Monitor designation, the council will consider stream flows, ground water levels, the amount of water stored in reservoirs, weather forecasts, the time of year and other factors that are relevant to determining the location and severity of drought conditions. (See appendix A for view of and link to the DMAC web page)

Drought Assessment Oct. 2007 -- Oct. 2008

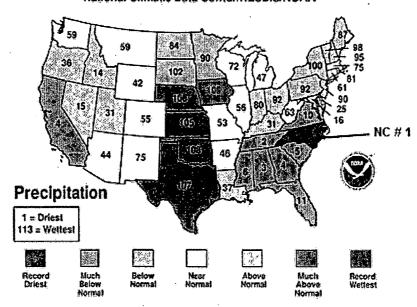
Since the last DMAC Annual Report (#3) in 2007, drought continued to persist and expand in North Carolina. The drought in 2007 was the worst for North Carolina since record keeping began in North Carolina in 1895. In 2007, drought conditions in the state went from normal to record drought in less than year.

The year 2007 was recorded by the National Weather Service as the driest year in more than 100 years in North Carolina. Records were set in many areas for number of days of low humidity and number of days with temperatures above 90 F.

Forest landowners and many residents in wildfire-prone areas were impacted by the drought. The lack of rainfall left pine straw and other vegetation crispy and dry and fueled far more wildfires than we typically average. As a result, local firefighters and the Division of Forest Resources fought 30 percent more wildfires than North Carolina's 5,000 wildfire-a-year average. The 7,200 wildfires in 2007 burned more acreage than had burned in any year during the last two decades.

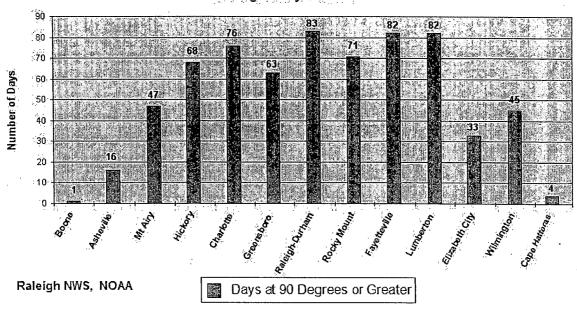
January-December 2007 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



High temperature exceeds 90 degrees!!

90 Degree Days in 2007



The Dept of Agriculture and Consumers Services has worked to help producers with drought related issues during the fall of 2007 through the year of 2008. Many livestock farmers took advantage of our Hay Relief effort that helped get much needed forage to livestock operations

in the western part of the state. As 2008 came around, our efforts focused on what farmers could do to minimize their water usage. Our staff worked in cooperation with the Rural Center and the Soil & Water Conservation Districts to help farmers clean out ponds, dig new wells, and conserve more water in livestock operations. Staff is also a part of the many legislative activities surrounding water usage and drought management. USDA in partnership with NCDA&CS is now conducting a water usage survey to calculate the water usage by agriculture in the state so that the legislature can make a wise decision on drought management legislation and how it could affect our agricultural economy.

Soil moisture was not a grave problem during the planting season of 2008. However the lack of rains through out the spring and summer months stunted or prohibited crop growth in some areas. Some areas had record low yields while some other areas seemed to make it through the drought because of isolated showers which doused fields at the right times of the growing season.

At one point, as many as 30 cities and towns were forced to confront the realization that they may run out of water or have to ration water. Many of those were within 100 days of running out of water.

In Siler City, officials had to ship in water supplies by truck. Rocky Mount sought and received the state's permission to extend a pipeline to Wilson to keep from running out of water.

In many ways, it was fortunate that in North Carolina we had confronted a serious drought before – just five years earlier. In 2002, we experienced what we thought was the drought to end all droughts.

In October, 2007 Gov. Mike Easley activated the State Emergency React Team at a Level 3 (SERT) of the North Carolina Emergency Operations Plan (NCEOP). In addition the Agriculture Task Force, Economic Impact Task Force, Energy Loss Task Force, and Health Task Force were activated to join in with the Water Sources Task Force that was activated in August 2007. The task forces are part of the of the Drought Assessment and Response Plan, NCEOP.

The U.S. Drought Monitor of North Carolina on Dec. 25, 2007 (<www.ncdrought.org>) the reference for drought classifications and response actions, showed all 100 counties in drought; 78 counties with exceptional drought (D4) conditions with the remaining 22 counties with extreme (D3) or severe (D2) drought. The drought monitor labels drought by intensity, with D1 being the least intense and D4 as being the most intense. D0 signifies no drought but is a watch area either drying out and possibly heading for drought, or recovering from drought but not yet back to normal, suffering long-term impacts such as low reservoir levels or minimum streamflow for the time of year.

The Technical Drought Advisory Team, a sub group of the council participates each Tuesday in a telecom to gather and feed information to the National Drought Monitor author about local drought conditions in North Carolina that are valid on 8 a.m. EST each Tuesday. The team includes DMAC technical experts and National Weather Service offices located in

Tennessee, South Carolina and Virginia. The Drought Monitor is published on Thursday morning of each week.

Council Meetings

The DMAC chairman called for meetings of the council on Dec. 20, 2007, Mar. 6, May 29, and Aug. 14, 2008 in Raleigh. Average attendance was about 50 representatives including representatives from the Office of the Governor. The total number of people in attendance at the Dec. 20 DMAC meeting was approximately near 90 people, including Gov. Mike Easley and representatives from the media. Many of the meetings were available on web-streaming

Items on the meeting agenda included assessment and forecast reports about the seasonal drought outlook and the impact of drought on streamflow and ground water levels, lake and reservoir levels, agriculture, forestry and public water systems and special reports from the Office of the Governor.

Press Releases

Press releases were sent out after each DMAC meeting. More than 20 news releases were issued concerning drought conditions and current drought advisories.

On-Going Drought Assessment 2007-2008

- 1. The technical team of the DMAC continued to hold a weekly telecom on Tuesday to assess drought conditions. Information they pulled together was included in the weekly update reported to the author of the U.S. Drought Monitor that was released each Thursday.
- 2. The Water Sources Task Force as part of the N.C. Emergency Response Plan updates and reviews weekly with the state's public water supply section the drought vulnerability of water systems.
- 3. The DMAC Web site, www.ncdrought.org, provides real-time data and is the reference for drought classifications and response actions for water users in the state.
- 4. The Web site allows users to search a statewide database of local water systems and weekly water use reports. This easy-to-use Web site provides information on total water use in local systems as well as the percentage change in water consumption. About half of the systems we track are reporting this information.
- 5. At the river basin level, weekly conference calls to coordinate releases from reservoirs, hydroelectric power generation, etc. to conserve as much water as possible and to balance upstream and downstream needs. The Corps of Engineers and the utility companies, owners of the biggest reservoirs, are all working together in this effort.

- 6. DENR personnel performed weekly, then bi-weekly, drought monitoring in the Neuse, Tar and Cape Fear river basins, beginning in early October 2007. Physical data and field observations of the river conditions were collected and analyzed and these results were shared with the Army Corps of Engineers to assist in decision-making regarding the water releases from Jordan Lake and Falls Lake. Drought monitoring was also conducted in the Tar River, beginning in June 2007.
- 7. DENR personnel performed reconnaissance visits to about 50 sites in the Cape Fear River Basin. Based on these visits, much of the Cape Fear Basin was rescheduled for water quality sampling in 2009.
- 8. A fish community drought recovery study was initiated in March 2008 for three sites that had either no water or no flow in December 2007. These sites will be sampled monthly until the fish community returns to pre-drought conditions.
- 9. Additional sampling was conducted in the Little River in Durham and in Mill Creek in Moore County in January 2008 to better document impacts at sites where flow had ceased.
- 10. DENR staff and personnel from the U.S. Geological Survey monitored hundreds of surface water gauges and 46 groundwater wells to continually measure and assess drought conditions throughout 2007 and 2008.
- 11. DWR Water level readings in November 2008 for many of their 49-drought indicator observation wells have water levels at or near 2007 levels for this time of year.

Drought Response Activities

- 1. The Water Sources Task Force was activated by the DMAC at the August 2007 council meeting and joined the DMAC technical team in the weekly telecom. The Water Sources Task Force is part of the N.C. Emergency Response Plan and worked with the state's public water supply section, or PWSS, in DENR's regional offices and DWR to identify water systems considered the most vulnerable to drought.
- 2. First task of the Water Sources Task Force was to identify the water systems most vulnerable to drought and the result was 102 water systems that are listed on:
 - http://www.ncwater.org/Drought Monitoring/reporting/weekstatust123.php
- 3. On-site Meetings with 33 Tier-1 and Tier-2 water system officials, DENR and League of Municipalities staff was arranged by the League of Municipalities.

Tier Definitions

- **Tier-1:** systems are considered to be in a crisis mode (or) have less than 100 days of present supply remaining (or) are likely to be in a crisis if conditions persist because they lack interconnections for emergency water supply.
- Tier-2: systems are not in crisis now but could be within the next few months.
- Tier-3: systems are not yet in a vulnerable position but are subject to change as the drought continues.

This ranking is a subjective assessment based on best professional judgment and experience of PWSS field staff coupled usually with recent communication with the systems. Systems remain at their highest Tier-level until a resource is online (operating) that will provide an emergency water supply to minimize the system's vulnerability to drought

- 4. The Water Sources Task Force had meetings with all of the Tier-1 systems to help in identifying a near-term water supply solution and funding to obtain an emergency supply of potable water.
- 5. The N.C. Division of Forest Resources initiated a statewide ban on open burning and cancelled all burning permits Feb. 14. The burn ban was lifted March 1, due to recent rains across the state
- 6. The N.C. Utilities Commission issued a November 2007 order requiring all of their utilities to notify customers they must discontinue outdoor water use.
- 7. The North Carolina Emergency Operations Drought and Response Plan was activated at a level 3 on Oct 25, 2007, by Gov. Mike Easley. At a level 3, the NCEO Drought and Response Plan would be carried out with the cooperation of the Division of Emergency Management, Department of Environment and Natural Resources and the DMAC.
- 8. The remaining task forces were activated in October 2007 and are designed to assess the range of needs that can result from drought. The task forces for Agriculture, Economic Impact, Energy Loss, and Health and the Water Sources Task Force met biweekly and made assessment reports of drought impacts and conditions.
- 9. In fall of 2007, Rocky Mount and Siler City reported to the DMAC that they were having a water supply emergency. Raw water from Jordan Lake, 200,000 + gallons per day, had to be shipped in by truck to the Siler City water treatment plant to

maintain an adequate finished water supply to keep chicken processors in operation. The chicken processing operations are a major part of the Chatham County economy.

Rocky Mount sought and received the state's permission to extend a pipeline to Wilson to keep from running out of water. Emergency assistance was provided by DENR, the U.S. Army Corps of Engineers, the Water Sources Task Force, and the N.C. Rural Center with permitting approvals and crisis drought funding. Additional water was obtained through interconnections between Rocky Mount and Wilson, Goldsboro and Wayne County and Siler City's potable water interconnection with Sanford.

- 10. The N.C. Department of Environment and Natural Resources continue to track and be in regular contact with water systems most vulnerable to drought and identify their needs and resources, particularly in regard to connection to alternative or backup water sources.
- 11. On Oct. 22, 2007, Gov. Easley requested that all community water systems reduce water-use consumption and start weekly water use reporting to DENR. http://www.ncwater.org/Drought Monitoring/reduction/weeklyreport.php
- 12. Regional drought meetings were held in Raleigh, Greensboro and Asheville for local government officials and major water users. The meetings addressed current and future climate and water resource impacts, water conservation, water supply system efficiencies, rate structures and case studies from local water systems.
- 13. N.C. Utilities Commission issued an order in November 2007 requiring all of their water utilities to notify customers they must discontinue outdoor water use.
- 14. The Division of Pollution Prevention and Environmental Assistance (DPPEA) worked with local water systems to train their business and industries on water conservation approaches and sources of further assistance/information.
- 15. DPPEA conducted water conservation audits at some major water users or critically impacted facilities.
- 16. At the request of and in cooperation with the Department of Commerce, developed a brochure and pay envelope stuffer that companies can provide their employees on water conservation at home.
- 17. DPPEA started contacting home improvement companies (i.e., Home Depot and Lowes) about highlighting and expanding the number of water conservation devices and fixtures in their stores and on their Web sites.
- 18. Gov. Mike Easley brought 30 of the state's worst hit water systems together on Jan. 14, 2008 in Greensboro to review the status of these systems. Those at the conference reviewed what their plans are if the drought deepens and made sure they have reserve

- sources of water available. In addition, those water systems that needed assistance for water audits, funding for drought, and related water needs from the state were able to make sure they got the help they needed to have effective emergency plans in place.
- 19. Tier 1 systems met with Infrastructure Funding Agencies in Valdese that was called by the N.C. Rural Center on Jan 29, 2008.
- 20. The N.C. Utilities Commission order that was issued in November 2007 requiring all of their utilities to notify customers they must discontinue outdoor water use was modified on May 23, 2008. These restrictions were modified depending on the current drought classification and advisory for their county as shown on DMAC Web page (www.ncdrought.org).
- 21. DPPEA continue to work successfully to provide technical help to more than 70 North Carolina organizations including industries, businesses and government agencies to identify ways to reduce and conserve water.
- 22. Division of Water Resources (DWR) identified 30 priority systems for water audits. As of Oct. 2008, twenty-two water systems requested help conducting water audits of their systems. DWR has obtained services of five engineering firms to conduct the water audits and report their findings to the DWR. Studies began in April, 2008 and 13 have been completed.
- 23. Each week, DWR and PWSS place on the state's drought and water conservation Web sites the status of water conservation for public water systems. This online, real-time database provides a consistent way to document and track impacts to public water supply systems. The system tracks more than 600 water systems statewide. http://www.ncwater.org/Drought_Monitoring/reporting/displaystate.php
- 24. DWR sponsored a tabletop drought exercise in May to test the abilities of federal, state and local participants to respond to the crisis brought on by an increasingly severe drought. A "Drought Toolbox" was one product of the exercise and a follow-up workshop was conducted for systems in the Neuse River Basin.
- 25. On October 3, 2008, Gov. Mike Easley asked the U.S. Department of Agriculture to declare 59 of North Carolina's 100 counties disaster areas because of drought-related crop losses. Agriculture department loss assessment reports show excessive agricultural losses for at least one major crop, and significant losses on corn, soybeans, hay, and pasture and other forage crops.
- 26. Water systems continue to respond favorably to requests by Gov. Mike Easley to call for water conservation and water use restrictions and to work to reduce year-round water use. Millions of North Carolina residents, or most of those who receive water from systems the state tracks, are subject to voluntary or mandatory water use restrictions.

27. PWSS Regional offices and DWR staff continue to stay in touch with Tier 1 systems not taking action to help alleviate drought at this time to help in identifying a nearterm water supply solution and funding to obtain an emergency supply of potable water.

Critical Local Government Drought Response Projects:

The following table summarizes one of DENR's and Drought Management Advisory Council most critical, ongoing drought related activities. In response to the 2007 drought, DENR Staff identified those North Carolina communities that are most at-risk of "running out of water" and then identified the most practical short-term projects that could supply an expedient, supplemental water source to these "at-risk" communities. In order to facilitate the implementation of these supplemental water supply projects, DENR staff working with the League of Municipalities, coordinated and arranged meetings between these identified communities and agencies that could potentially fund their proposed water supply projects. DENR continues to monitor, provide technical assistance and assist with the ultimate completion of these much-needed projects.

Note: The following abbreviations are used in this table to designate the various funding sources:

NCRC - N.C. Rural Center

PWSS - DENR Public Water Supply Section State Revolving Fund

ARC - Appalachian Regional Commission

USDA - U.S. Dept of Agriculture

Project Description	Tier	Potential Funding	Comments	
	Rating			
Bessemer City –	1	\$100K funding in 2009	Local funding not available.	
Interconnection with		Governor's Budget.		
Gastonia				
Boone - ASU	1	\$168K from NCRC.	Agreement for	
Interconnection			interconnection has been	
			approved by both Boone	
·		·	and ASU.	
Boone – New intake	1	Primary funding for this project	Request for permits	
on South Fork of the		is expected from USDA.	underway.	
New River.			·	
Boone – Blowing	1	\$1.5M pending approval from	Environmental impact	
Rock Interconnection	i	NCRC. Application for \$2.2M	analysis will be required.	
		to PWSS. \$300K from ARC.		
Hendersonville –	1	\$500K from NCRC. Application	Funds requested from Army	
Water main with		for \$2.5M expected to PWSS.	Corps not available until	
temp pump station			2009. Intake area will need	
on French Broad.			to be reclassified by NC	
			DWQ.	
	1			

North Carolina Drought Management Advisory Council, Annual Report - 2008

Project Description	Tier Rating	Potential Funding	Comments	
Lenoir – New raw water intake and pump station,	1	\$500K from NCRC. \$5.8M application undergoing review at PWSS. \$300K from ARC.	NCRC approved. Plans for permanent intake are currently in the design phase.	
Mars Hill — Weaverville Interconnection	1	\$500K from NCRC. Application for \$600K to NC Commerce. \$300K from ARC. USDA low interest loan for \$600K.	Mars Hill and Weaverville have both passed resolutions in support of this project.	
Marshall – 2 new wells, storage tank, & line repair.	1.	NC Commerce reviewing application for \$600K. \$300K from ARC. Low interest loan for \$750K to USDA.	Funding approved; in design phase project completion 2009.	
Robbinsville – 3 new wells & piping.	1	\$193K from NCRC. Possible funding in 2009 Governor's Budget.	Funding received from NCRC, test wells installed early 2009.	
Regional interconnect – Hendersonville, Saluda, Tryon, & Columbus	1	\$1.73M from NCRC. \$1.43M application expected to PWSS. \$300K from ARC.	Columbus, Saluda, and Tryon have all passed resolutions of support.	
Valdese – Temp water lines to Lake Rhodhiss.	1	\$40K from NCRC. \$80K from ARC.	In place 2008	
Rocky Mount – interconnect with Wilson	Е	\$500K from NCRC	Operational early 2008	
Siler City – interconnect with Sanford	Е	\$500K from NCRC	Operational 2007	
Wilkesboro – dredging intake pool & Wilkesboro connect	1	\$259K from NCRC approved for dredging, application for Wilkesboro connect	Dredging to be completed in 2008.	
Yadkinville – Possible interconnection with Davie County	1	\$100K funding in 2009 Governor's Budget.	Yadkinville working to interconnect with Davie County	
King – Forsyth County interconnect.	2	\$100K funding in 2009 Governor's Budget.	King to submit application to DENR	

Water Reclamation and Reuse Activities:

- DENR personnel developed an expedited permitting process in order to respond to the high level of interest from municipalities and industries in using reclaimed water for non-potable water uses. Additional information on the use of reclaimed water can be found on the Division of Water Quality's Web site at: http://h2o.enr.state.nc.us/admin/pubinfo/ReclaimedWaterInfoOct07.htm
- DENR personnel are engaged in rule revisions that will provide even greater uses for reclaimed water in North Carolina in the future.
- In order to facilitate and encourage the collection and reuse of rain water, DENR personnel are developing a policy that will provide stormwater control and treatment credit for the harvesting and reuse of rain water. This policy is expected to become effective in the summer of 2009.
- DENR staff created a fact sheet on the use of gray water in an effort to address residents' questions concerning the residential use of gray water.

Informational, Outreach, and Educational Activities:

- Created DENR Water Conservation Web site, http://p2pays.org/water/, precursor to http://www.savewaternc.org site. Pages adapted from <p2pays.org/water> site to new site provided information for citizens, water systems, state agencies and businesses/industries, as well as drought information. The state's water conservation Web site, www.savewaternc.org, is a joint effort between the state departments of Environment and Natural Resources and Crime Control and Public Safety and the Office of Governor. In addition to containing information on water conservation, the site will serve as the clearinghouse for all North Carolina drought information.
- DENR funded a production company to develop two drought response public service announcements for broadcast television stations across the state. The total cost for these public service announcements was approximately \$100,000.
- DENR Staff produced and delivered a wide range of educational and water conservation materials for educators, children, and adults. These materials were distributed to a broad audience all across the State.
- DENR Personnel developed memorandums regarding the amount of allowable reduction of water usage in food service and lodging establishments. These memorandums have been distributed to county health departments.
- DENR Staff have participated in a variety of drought-related symposiums, outreach events, conferences and forums that are too numerous to list here.

 DENR Staff have provided numerous drought reports and updates to the news media, concerned citizens, the General Assembly, and the Environmental Management Commission.

River Basin Management

The DMAC and the Water Sources Task Force is participating in weekly conference calls with managers of major reservoirs, including the Corps of Engineers private power companies, and the Tennessee Valley Authority, to review specific drought conditions in each basin and discuss changes needed in reservoir management to conserve stored water. These conference calls have resulted in significant adjustments in reservoir release policies, with a resulting increase in the conservation of stored water and a reduction in our risk of depleting reservoirs. These changes are made with the participation of the Division of Water Quality, the U.S. Army Corps of Engineers, and the Wildlife Resources Commission. River basins with on-going telecoms include the Neuse, Catawba, Roanoke, Yadkin, Cape Fear and Tennessee Valley.

State water resource experts met Feb. 25 with water users of the Neuse River basin to discuss the future water usage plans in the basin.

DMAC Web Site

The DMAC Web site (<u>www.ncdrought.org</u>) depicts the U.S. Drought Monitor for North Carolina that is updated and released on Thursday morning each week. The drought conditions reported are valid each week on Tuesday 8 a.m. EST. The weekly release includes drought advisories issued by the DMAC for all water users located in or dependent on water resources from the areas of the state experiencing drought conditions. Advisories are color-coded and range from abnormally dry (D0) to exceptional drought (D4).

The U.S. Drought Monitor establishes a baseline for hydrological and agricultural drought conditions. North Carolina is fortunate because it has the DMAC to work closely with the U.S. Drought Monitor to adjust designations to better reflect North Carolina's local conditions.

The DMAC Web site also has a number of tabs that link to available resources of information, some with real-time data about current conditions, news, information about the DMAC, contact information and education about drought, archives (N.C. monitor) and water conservation tips.

The drought advisory requests the implementation of drought response actions until further notice for all water users located in or dependent upon water resources from the areas of the state experiencing drought.

Drought Classfication and Drought Advisories Issued

The DMAC issued official drought advisories based on drought classification to provide all water users with a reliable basis for managing and calling for drought response actions in their region. The list of counties under drought advisories was updated each week (www.ncdrought.org) to reflect local drought classifications on the weekly U.S. Drought Monitor of North Carolina (USDM-NC).

The USDM-NC April 24, 2007 release showed severe drought conditions returning to the southern mountains with exceptional drought returning to North Carolina during the first week of October 2007.

From August 2007, to February 2008, the entire state experienced some level of drought classification. Figure 1 summarizes the percent of the state each week under drought advisories as issued by the DMAC.

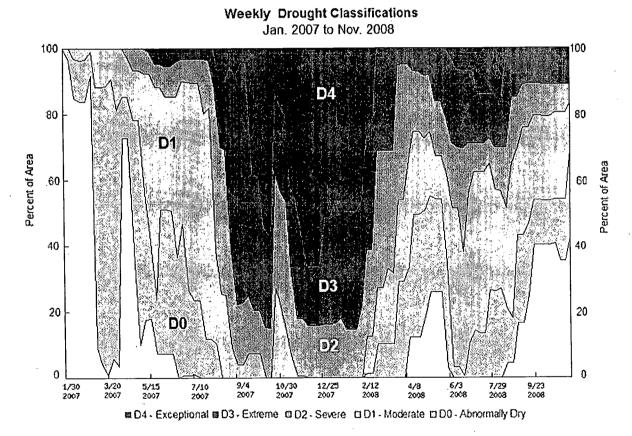


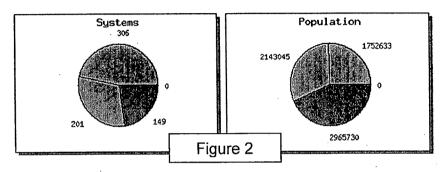
Figure 1

If you're interested to see if your community has enacted water conservation measures, go to:

http://www.ncwater.org/Drought Monitoring/reporting/displaystate.php

Water Conservation level status, Statewide Statewide summary data for tracked water systems

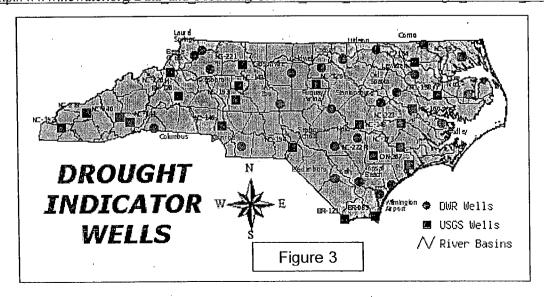
		Systems	i.	Population	
	Status	Number	Percent	Number	Percent
	Not Restricted	306	46.6	1,752,633	25.5
. 🖪	Voluntary Conservation	201	30.6	2,143,045	31.2
\$14°	Mandatory Conservation	149	22.7	2,965,730	43.2
And the second	Emergency	0		0	
	Total	656	•	6,861,408	



Improving Coordination and Drought Depiction

Drought Indicator Wells ---- Drought indicator wells are a network of wells that monitor the effects of droughts and other climate variability on groundwater levels in the surficial aquifers (water table). The Division of Water Resources' goal is to increase the number and geographic distribution of drought indicator wells. DWR has 46 actively monitored wells in the network and a short-term goal of adding two wells to that network this fiscal year. The long term goal m goal is to have at least 60 drought indicator wells. This will allow a much more complete assessment of impending or actual drought conditions in each of the major river basins of the state.

http://www.ncwater.org/Data and Modeling/Ground Water Databases/Drought Indicator Wells/

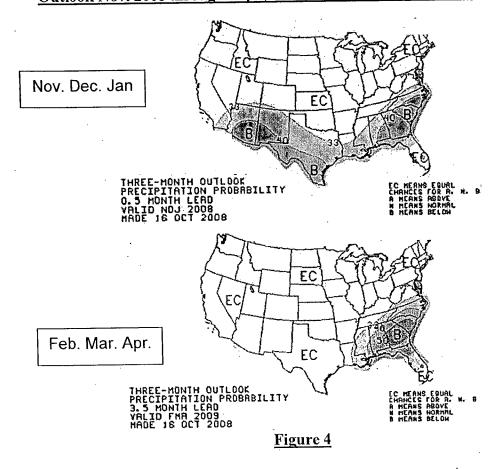


River Basin Drought Management Plans -- As part of the relicensing of hydropower projects in the Catawba-Wateree and Yadkin-Pee Dee river basins, procedures have been established and tested for adjusting operations during periods of low-inflow to conserve the limited water supply during the 2007 drought. The Low-Inflow Protocol (LIP) provides trigger points and procedures for how the projects will be operated as well as water withdrawal reduction measures and goals for other water users during periods of low-inflow. Planning is underway with stakeholders in the Neuse River Basin to work with the Division of Water Resources and others to fund and develop a drought management model for the basin. The Division of Water Resources is working with the U.S. Army Corps of Engineers and stakeholders on updating drought management plans on Falls and Jordan reservoirs.

Water Resources Information --

The Division of Water Resources continues to work with the N.C. State Climate Office, the U.S. Army Corps of Engineers, the N.C. Ground Water Management Section, and the U.S. Geological Survey and have developed a water resources information, storage, analysis, and retrieval system (WRISARS). This program will provide an archive of historical and on-the-spot data about hydrology (including stream flow, groundwater and reservoir data), weather and climate, and water use in North Carolina. Products are now available for public use at http://www.ncwater.org/wrisars/index.php

Outlook Nov. 2008 through Arpil, 2009, Climatic Prediction Center, NOAA



STATE WATER FRASTRUCTURE COMMISSION

1651 MAIL SERVICE CENTER RALEIGH, NC 27699-1651

> Bill Holman, Chairman Senate Pro Tem's Appointee

APPOINTED MEMBERS
Representative Bill Owens
Speaker of the House Appointee

Harold Herring
Executive Director
Regional Water and Sev

Neuse Regional Water and Sewer
Authority
Governor's' Appointee

Dr. Downey Brill

Professor, NCSU Chancellor's Appointee

Steve Cavanaugh

Cavanaugh Associates
Association of Consulting
Engineering Companies Appointee

Richard Whisnant

Assistant Professor UNC School of Government Water Resources Research Institute Appointee

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Deputy Secretary, North Carolina
Department of Environment and
Natural Resources

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North Carolina Rural Economic Development Center, Inc.

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North Carolina League of

Municipalities

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Treasurer

David Thompson

Executive Director

North Carolina Association of

County Commissioners

Richard Rogers

Executive Director
Clean Water Management Trust
Fund

Vacant

North Carolina Department of Commerce

Jean Crews-Klein

Received ERC 4 Nov 2008

November 3, 2008

Mr. George F. Givens Commission Counsel Environmental Review Commission 545 Legislative Office Building Raleigh, NC 27603

RE: 2008 Annual Report

State Water Infrastructure Commission

Dear Mr. Givens:

Enclosed please find 30 copies of the 2008 Annual Report for the State Water Infrastructure Commission (SWIC). The report includes a summary of our activities for the period November 1, 2007 through October 31, 2008 and recommendations for consideration by the Environmental Review Commission as we head toward the upcoming legislative session. SWIC has focused its efforts this year on tools for enhancing Statewide water efficiency.

Should you have any questions on the above, please contact Chairman Holman or myself. We appreciate your continued support of the State Water Infrastructure Commission.

Sincerely,

Jean Crews-Klein, Staff to Commission

Lan Creusklein

JCK:hps

Enclosure - 2008 Annual Report

Department of Environment and Natural Resources Division of Water Resources STATUS REPORT TO THE GENERAL ASSEMBLY ON WATER SUPPLY PLANNING SEPTEMBER 1, 2007 THROUGH AUGUST 31, 2008

Assuring a sustainable water supply for North Carolina is the primary mission of the Division of Water Resources (DWR or the Division). To carry out this responsibility, the Division administers several monitoring, planning and regulatory programs.

The Division, in partnership with the US Geological Survey, monitors the availability of water across the state by means of a network of monitoring wells and stream gages. DWR receives and maintains water use data from water users under programs that require the mandatory registration of large water withdrawals, the development of Local Water Supply Plans and adherence to the Central Coastal Plain Capacity Use Area rules. Additional information is received from annual water use reporting by withdrawers required to register and systems required to submit a Local Water Supply Plan and special data requests during drought conditions.

DWR assists community water systems with the preparation of Local Water Supply Plans and prepares the North Carolina Water Supply Plan. The Division is in the process of preparing long term water supply plans for each river basin in partnership with local governments and other water users.

DWR also issues permits for water withdrawals in designated capacity use areas, manages applications for certification of interbasin transfers of surface water, chairs the Drought Management Advisory Council, manages drought response activities and is the lead agency for the Department of Environment and Natural Resources for the relicensing of hydropower projects. All of these activities affect and are affected by water supply planning issues.

This status report provides an update on these water supply programs and on other related Division activities for the period from September 1, 2007 to August 31, 2008.

Water Availability Monitoring

The Division maintains ground water and surface water monitoring networks directly and in partnership with federal agencies. The data from these networks provide essential information on the conditions of water resources throughout the state. North Carolina cooperates with the United States Geological Survey to maintain stream gage sites with near-real time data collection capabilities. Also, the Division maintains a large network of ground water monitoring wells. Data from these wells are collected by DWR personnel quarterly. Fifty-seven percent of these wells have data recorders that accumulate daily water level data.

To improve the accessibility and usefulness of this data for water resource management, the Division has joined with the State Climate Office at NC State University, the US Army Corps of Engineers, the United States Geological Survey and others to develop a uniform database to store and disseminate water resources data. The product of this effort is the "Water Resources Information, Storage, Analysis, and Retrieval System" (WRISARS) available on the Division's website at www.ncwater.org.

The ongoing support of the General Assembly has allowed the Division to improve data collection in the Coastal Plain by expanding the monitoring well network. Eight new wells at two monitoring stations were added over the last year to aid in management of the regional aquifer systems that are being stressed by over-pumping. The Division will continue to expand the monitoring well network as funds permit to improve data for ground water management.

Water Supply Planning

In the aftermath of serious droughts in the 1980s the General Assembly established a water supply planning program under General Statutes 143-355(l) and (m) to assure the availability of adequate supplies of good quality water to protect the public health and to support desirable economic growth. Currently, Local Water Supply Plans are required from units of local government that supply or plan to supply water to the public and from large community water systems that regularly serve 1,000 or more service connections or 3,000 or more individuals.

Local Water Supply Plans describe current water use and future water needs and identify the water system's expected future sources of water. The plans must be adopted by the water system's local governing board and be updated at least every five years. The Division of Water Resources is responsible for reviewing Local Water Supply Plans for completeness and consistency with the statutes. The local plans provide a valuable source of data for local and regional water supply planning. Information from the local plans is available on the Division's web site at www.ncwater.org.

The number of water systems required to prepare a Local Water Supply Plan changes over time due to the growth in the number of customers served by individual systems and the consolidation of systems. At this time, 544 water systems are expected to submit Local Water Supply Plans. The 114 water systems that get their water from the Neuse and Roanoke River Basins were asked to update their plans in 2007 based on water usage and system characteristics in 2006. The remaining systems are required to update their plans in 2008 based on conditions in 2007. Of the 544 water systems expected to submit a local plan 439 (81%) have done so while 65 (12%) are working on draft plans. All but about twenty of the submitted plans have been prepared and submitted electronically using the Division's webbased online local water supply planning program indicating the general capability and acceptance of electronic data submission. The remainder of the plans received were submitted on paper forms. Online submissions simplify the process, aid database development and provide the opportunity for real time technical assistance from Division staff during plan preparation and review.

Previously the General Assembly added a provision to the local water supply planning statute requiring water systems to include a description of how they "will respond to drought and other water shortage emergencies and continue to meet essential public water supply needs during the emergency". Rules adopted by the Environmental Management Commission governing water use during droughts provide guidance on what should be included in these Water Shortage Response Plans. In addition, the rules include default water shortage response actions that must be taken by water systems that are required to prepare a Local Water Supply

Plan and do not have a written Water Shortage Response Plan in place when the NC Drought Management Advisory Council designates their region as suffering from Extreme or Exceptional Drought conditions. Of the water systems that submitted a 2006 or 2007 local plan, 59 percent included a Water Shortage Response Plan. Division staff members provide assistance with developing Water Shortage Response Plans and review submitted plans.

North Carolina Water Supply Plan

The Division uses the information from the LWSPs and other sources to develop the North Carolina Water Supply Plan (NCWSP), mandated by G.S. 143-355(m). The NCWSP presents a summary of water use by major river basin and identifies areas of concern where water availability or conflicts between users may limit the ability to meet water demands. The 2001 NCWSP is available on the Division's web site at www.ncwater.org. The plan is based on information from the 1992 and 1997 LWSPs and 1999 water withdrawal registrations submitted pursuant to General Statute 143-215.22H. No changes were made to this document during the period covered by this report. The next version of the NCWSP will be updated to reflect information in the River Basin Water Supply Plans discussed in the next section.

River Basin Water Supply Plans

To further the legislative goal of assuring the availability of adequate supplies of water, the Division of Water Resources is developing a river basin water supply plan for each of the major river basins in the state. River basin water supply planning is a tool to support sustainable management of our river basins. This program will provide reliable, quantitative methods to plan for sustainable water use and an objective basis for management and regulatory decisions.

The river basin water supply plans provide a basin analysis of estimated future water supply withdrawals using a computer-based hydrologic model that characterizes water flow in a basin. The hydrologic model provides a tool to analyze the effects of future water withdrawals and wastewater discharges over the range of high and low river flows that have occurred in the basin. By projecting water needs to 2050 and evaluating these future demands with a hydrologic model, we are able to identify areas where supplies may not be adequate to meet projected demands and where potential water use conflicts may occur. The river basin water supply plans and associated hydrologic models will provide the Division, local governments and other water users a reliable, quantitative framework within which to plan for sustainable and cost-effective water sources to meet future needs.

The Division developed a Cape Fear River Basin Water Supply Plan in 2002 as a tool for the analysis of allocations of water supply storage in B. Everett Jordan Lake. This model has been updated with the technical and financial support of water users in the basin that have recognized the value of the model as a water supply planning tool. The Division is in the process of revising the Cape Fear River Basin Water Supply Plan based on the updated model and water demand information for the water systems in the basin. In the last year the Division has met with water users in the basin to explain the process, to collect updated information and to review preliminary results of the modeling. The model is being modified to more accurately represent the current situation and the future water supply scenarios will be re-run

and reviewed with the basin partners. The Cape Fear River Basin Water Supply Plan will be updated after the updated modeling is complete.

The Division has contracted for the development of a hydrologic model for the Neuse River Basin to support the development of the Neuse River Basin Water Supply Plan. This project got underway in early summer 2008 and is expected to produce a usable model by mid 2010. Division staff members are working in close coordination with the contractor and water withdrawers in the basin to compile a seventy-six year set of historical hydrologic and water use data for the foundation of the computer model.

As noted in previous status reports, hydrologic models were constructed for the Catawba and Yadkin river basins in conjunction with the relicensing of the hydropower projects on these rivers. The Division worked closely with stakeholders and with the utility companies in these basins to estimate long-term water supply needs that were then included in the modeling of management options for the future. These analyses formed the basis of settlement agreements and license applications submitted to the Federal Energy Regulatory Commission. Data from the River Basin Water Supply Plans will be available to the Division of Water Quality for use in the development of their Basinwide Water Quality Plans.

When the licenses for the hydropower projects are issued, finalizing the management schemes that will apply for the duration of the new licenses, the water supply components of the modeling will be reviewed and basin water supply plans will be developed.

Drought Management

Drought has been a significant issue during the time covered by this report. September 2007 saw all of North Carolina experiencing moderate to exceptional drought conditions. These conditions persisted and worsened until by the end of the year two-thirds of the state was in exceptional drought conditions with several large urban water systems facing serious water shortages. Implementation of their existing water shortage response plans did not reduce withdrawals enough to keep water supplies from declining. Working closely with the Division of Emergency Management, DENR sponsored a meeting with the most seriously impacted communities in January 2008 to offer assistance and encouragement for them to revise their drought response plans. In May 2008 DWR, with the assistance of the Division of Emergency Management, conducted a drought response simulation exercise with the major water utilities in the Triangle area which was followed by in-depth discussions with these systems on how to improve their drought response plans. The Department continues to provide assistance with water audits and the development of supplemental water supplies to communities impacted by the ongoing drought.

Central Coastal Plain Capacity Use Area

Rules creating the Central Coastal Plain Capacity Use Area (CCPCUA) and establishing a water withdrawal permitting system became effective August 1, 2002. The rules were fashioned to gradually reduce withdrawals from the endangered Black Creek and Upper Cape Fear aquifers in the fifteen designated counties. The rules require stepped reductions in withdrawals from the endangered aquifers over a sixteen-year transition period

and encourage the development of alternative sustainable sources of water. Anyone wishing to withdraw more than 100,000 gallons a day of ground water must apply for and receive a permit from the Division of Water Resources. As of August 31, 2008, there were 206 active permits for ground water withdrawals in the Central Coastal Plain Capacity Use Area. At that time there were two applications for new permits and twelve applications for renewals or amendments under review.

The CCPCUA rules, which became effective in August 2002, provide an initial sixyear period for systems to develop plans to adjust water withdrawals and develop alternative sources. Affected water withdrawers are required to make reductions in water use from the impacted aquifers at the end of this period to meet the first of three reduction thresholds. The Division continually monitors conditions in the affected aquifers and regularly updates the Environmental Management Commission.

Public water supply systems have made significant progress toward meeting these goals through development of regional water authorities and other water sharing arrangements. A new surface water treatment plant using water from the Neuse River went online the first week of September. This plant will make a significant contribution to the overall effort to reduce ground water withdrawals from one of the most impacted areas of the Central Coastal Plain. Additional information on the Central Coastal Plain Capacity Use Area and the associated rules can be found on the Division's website at www.ncwater.org.

Interbasin Transfer of Surface Water

Many communities in North Carolina are located on or near the high ground that creates the divides between river basins. Other communities are located in the headwaters of river basins where the limited water supply has proven to be inadequate as the economy and population of the state has grown. In these situations, municipal water systems may need to move water between river basins. Carefully regulated interbasin transfers can, in some cases, be the most practical, economical and environmentally sound way to provide water and sewer service to the residents of some communities and to support the growth of the State's economy. However, the regulation of surface water transfers must be applied in a way that will assure that the economy and resources of the source river basin are protected.

The 2007 session of the General Assembly made significant changes to the existing legislation regulating surface water transfers. Session Law 2007-518 repealed G.S. 143-215.22I and replaced it with G.S 143-215.22L which became effective on August 31, 2007 except for some types of proposed surface water transfers in the Central Coastal Plain Capacity Use Area for which the new regulations become effective on January 1, 2011. The river basin boundaries established by this statute are defined in G.S. 143-215.22G and its associated map that has been filed with the Secretary of State. Extensions of these basins into neighboring states, for the purposes of notifications specified in G.S. 143-215.22L, were further defined by Session Law 2008-198.

Anyone wishing to initiate a transfer of two million gallons of surface water a day, to increase a transfer permitted under relevant statutes prior to July 1, 1993, or to increase a transfer above their system's capacity to transfer water on July 1, 1993, such that the new transfer would be more than two million gallons a day, must obtain permission from the Environmental Management Commission.

G.S. 143-215.22L specifies detailed notification and procedural requirements that must be met as well as a list of potential impacts in the source and receiving basins that must be considered by the EMC in determining whether or not to grant a certificate. The process requires an environmental analysis and provides opportunities for public comment. If the EMC concludes, based on the findings of fact, that the benefits outweigh the detriments a certificate is issued for a specific volume of water and will include provisions to mitigate detriments. The EMC can issue a certificate for a volume other than that requested and can attach conditions to the certificate.

While many communities move water between river basins, prior to 2007 there have only been three Interbasin Transfer Certificates issued under G.S. 143-215.22I and precursor legislation. Charlotte Mecklenburg Utilities has a certificate to transfer up to 33 million gallons per day from the Catawba River to the Rocky River basin. Cary, Apex, Morrisville, and Wake County jointly hold a certificate to transfer up to 24 million gallons per day from the Haw River basin to the Neuse River basin. The Piedmont Triad Regional Water Authority was issued a certificate to transfer up to 30.5 million gallons per day from the Deep River to the Haw River and Yadkin River basins.

In March 2007 the Environmental Management Commission issued an Interbasin Transfer Certificate to the Cities of Concord and Kannapolis to transfer up to 10 million gallons per day from the Catawba River Basin and 10 million gallons per day from the Yadkin River Basin to the Rocky River Basin. This decision is being challenged under the Administrative Procedures Act.

Interbasin Transfer Requests

The Greenville Utilities Commission is working with several neighboring communities to develop a regional solution to replace ground water currently being pumped from the regulated aquifers in the Central Coastal Plain Capacity Use Area. Sharing surface water to reduce ground water withdrawals will require an IBT certificate. The decision on whether or not to issue an IBT certificate will be made under the procedures and standards set out in G.S. 143-215.22I on July 1, 2007 as provided for in Session Law 2007-518.

Division staff members expect to receive applications for certification of interbasin transfers from several other communities in the near future.

Hydropower Facility Relicensing

The Federal Energy Regulatory Commission (FERC) licenses non-federal hydroelectric generation projects on navigable waterways. The licenses, issued for 30 to 50 years, govern how the hydroelectric projects are managed and therefore how the rivers on which they are located are affected. Upon expiration of an existing license, the licensee has to apply for a new license in order to continue operating the project. Three major projects in the Nantahala and Tuckasegee river basins have license applications that are under review by FERC. Also, three projects that include most of the major reservoirs on the Catawba and Yadkin-Pee Dee Rivers in North Carolina have licenses that expired in 2008. The licensee's applications for new licenses are currently under review and environmental analysis by FERC.

DWR has worked closely with the licensees to ensure that water supply issues are given due consideration in the relicensing process. Development of river basin water supply plans for the Catawba-Wateree and Yadkin-Pee Dee river basins has been greatly facilitated by the computer models developed in conjunction with the relicensing process. In the Catawba-Wateree River Basin, the licensee funded an independent study of future water use in North Carolina and South Carolina through 2058. The results of this study were used in the analysis of alternative operating scenarios.

Recent legislative actions affecting future Water Supply Planning

Session Law 2008-143 recently enacted by the General Assembly and signed by Governor Easley includes provisions that will impact the water supply planning program.

Public water systems in North Carolina use a wide variety of combinations of water sources and system configurations to reliably provide water to their customers. Since the beginning of the water supply planning program, the Local Water Supply Plans submitted by units of local government and large community water systems have been reviewed for completeness and consistency with the statutes. Language in the existing statutes provides water systems with a lot of flexibility as to the level of detail and documentation on which they could base their local plan and on which the Division could base its decisions on completeness and consistency. With the passage of Session Law 2008-143 the Division, acting for the Department, is now responsible for approving or disapproving these plans and the evaluation of local municipalities' calculations of future needs will be subject to disapproval based on a set of criteria that must of necessity be applicable statewide.

Session Law 2008-143 further tightened the requirements addressing what must be included in a Water Shortage Response Plan and gives the Department authority to approve or disapprove them. A Water Shortage Response Plan is required as part of a water system's Local Water Supply Plan. This legislation also gave the Secretary of Environment and Natural Resources the authority to issue civil penalties for failure to implement drought response measures when they are required by a water system's Water Shortage Response Plan or the Drought Management Advisory Council's drought designations.

Protocols for review and approval of Local Water Supply Plans and the associated Water Shortage Response Plans will be developed in the coming months. In addition, procedures to monitor and track implementation of Water Shortage Response Plans to provide the necessary documentation for issuance of civil penalties will also have to be developed.

Session Law 2007-518 changed how decisions about certification of surface water transfers are made and required the Environmental Review Commission to study a collection of issues that have the potential to make significant changes to how water resources and public water supplies will be managed in the future. It requires the ERC to recommend measures to regulate water withdrawals for consumptive and non-consumptive uses after studying the availability of water and how water resources are allocated in the State. The recommendations must include the establishment of a statewide plan for water resource development projects. The study will review all State laws regulating water resources for consistency with the recommendations and with the additional goal of avoiding or minimizing potential interstate conflicts related to water resources.

The results of this study and its recommendations will not be known for some time. However, they could lead to very significant changes in how the State's water resources and water supply planning are managed in the future.

In the recent budget revisions, the General Assembly funded four additional full time staff positions to support river basin planning, Local Water Supply Plan review and water use data collection as well as expanding water conservation outreach. The addition of these positions will strengthen the water supply planning and drought management activities of the Division and will improve our ability to assist local governments to provide sustainable water services and minimize the detrimental impacts of future droughts.



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

November 24, 2008

The Honorable Charles W. Albertson, Co-Chair The Honorable Daniel G. Clodfelter, Co-Chair The Honorable Lucy T. Allen, Co-Chair The Honorable Pryor A. Gibson, Co-Chair Environmental Review Commission

Subject:

School Bus Retrofits in Nonattainment Areas

Dear Senator Albertson, Senator Clodfelter, Representative Allen, Representative Gibson:

The 2007 General Assembly established a pilot program to provide funds for local school administrative units to retrofit school buses in order to reduce diesel emissions. Attached is the first report on this pilot program.

The Federal funding to cover 80% of the program costs just became available on October 1, 2008. This initial report discusses the plans and expectations of the pilot program. Next year's report should include specific results as emissions control devices are retrofitted onto school buses.

The Department of Environment and Natural Resources is excited and proud to work with the Department of Public Instruction and the Department of Transportation in completing this project to protect the health of one of our most sensitive populations, young children.

Sincerely,

William G. Ross, Jr., Secretary

Copy to:

June Atkinson, State Superintendent, DPI
Lyndo Tippett, Secretary, NCDOT
Keith Overcash, DAQ
Sheila Holman, DAQ
Donnie Redmond, DAQ
Heather Hildebrant, DAQ
Derek Graham, DPI
Terry Arellano, NCDOT

1601 Mail Service Center, Raleigh, North Carolina 27699-1601

Phone: 919-733-4984 \ FAX: 919-715-3060 \ Internet: www.enr.state.nc.us/ENR/



Implementation of "School Bus Retrofits in Nonattainment Areas"

A Report to the

Environmental Review Commission,

Department of Public Instruction, and

Department of Transportation

Submitted by the

Department of Environment and Natural Resources

September 1, 2008

The 2007 General Assembly established a pilot program to provide funds for local school administrative units to retrofit school buses in order to reduce diesel emissions from certain diesel school buses registered in counties located in areas designated as nonattainment or maintenance for ozone or particulate matter. The legislation requires the Department of Environment and Natural Resources to submit an annual status report to the Department of Public Instruction (DPI), the North Carolina Department of Transportation (NC DOT), and the Environmental Review Commission on the pilot program provided for in this act.

Specifically, Session Law 2007-465 requires:

"SECTION 4.(b) Annual Report Required. – On or before 1 September 2008, and again on or before 1 September 2009, the Department of Environment and Natural Resources shall submit a report to the Department of Public Instruction, the Department of Transportation, and the Environmental Review Commission on the pilot program under this act. This report shall include the information submitted under subsection (a) of this section and shall also include:

- (1) The total number of school buses that have the retrofit technology installed and operational under this pilot program, including a breakdown by location, vehicle model year, engine year, and the type of verified diesel emission control device used for each school bus.
- (2) The anticipated emissions reductions based on the emissions certification of the verified diesel emission control devices used and the annual miles the school buses are expected to drive.
- (3) Any recommendations to further reduce diesel emissions from school buses and whether the program to retrofit certain school buses registered in a county that is located in an area that is designated by the United States Environmental Protection Agency as nonattainment or maintenance for ozone or particulate matter is accomplishing its purpose to reduce diesel emissions, improve air quality, and protect students' health.
- (4) The feasibility and the cost of expanding the funding for this pilot program for all eligible school buses for local school administrative units in counties that are located in an area that is designated by the United States Environmental Protection Agency as nonattainment or maintenance for ozone or particulate matter.
- (5) The feasibility and the cost of expanding this pilot program statewide."

Through coordination with DPI and DOT, the Division of Air Quality (Division) submits the following report.

(1) The total number of school buses that have the retrofit technology installed and operational under this pilot program, including a breakdown by location, vehicle model year, engine year, and the type of verified diesel emission control device used for each school bus.

Complete funding is expected to become available in October 2008; until then no school buses will be retrofitted under this pilot program. The bulk of the funding provided in this pilot program comes from \$2 million in Federal Congestion Mitigation and Air Quality (CMAQ) funds, awarded through the NCDOT, matched by the \$500,000 appropriated from DPI. At the time of the bill's adoption, the window to schedule CMAQ funding for the 2008 Federal fiscal year had closed, making it necessary to schedule this project with CMAQ funding for the 2009 Federal fiscal year (which commences October 1, 2008). The Division has submitted the CMAQ application required to justify this project as an allowable CMAQ activity and is in the process of completing the required agreement with NCDOT to make the funds available for authorization by the Federal Highway Administration (FHWA). NCDOT anticipates requesting this funding authorization from FHWA in early October 2008. Once FHWA authorizes the funding and NCDOT issues a notice to proceed, the project may commence and the Division may request reimbursement from the NCDOT as eligible expenses accrue.

(2) The anticipated emissions reductions based on the emissions certification of the verified diesel emission control devices used and the annual miles the school buses are expected to drive.

Through this pilot project, retrofits to school buses utilizing diesel particulate filters (DPF) in combination with closed crankcase ventilation systems (CCVS) will be given the highest priority. With this combination of retrofits, particulate matter can be reduced by between 85-90% from the tail pipe and approximately 100% from the crankcase. This combination of retrofits will have the greatest impact on the in cabin air quality and thus the greatest impact on children's health. The cost of this combination is \$6500 to \$8000 per unit. It should be noted that this cost does not include the replacement filters for the CCVSs or the maintenance costs associated with the DPFs. Assuming an average unit price of \$7250, 345 buses would be able to be retrofitted. In the 20 full counties and three partial counties that make up North Carolina's nonattainment or maintenance areas for either ozone or particulate matter, the average bus was built in 2000 and travels 14,114 miles per year. With this average annual mileage and retrofitting 345 school buses, the total annual emission reductions would be 0.87 tons/year of particulate matter, 3.46 tons/year of hydrocarbons, and 9.62 tons/year of carbon monoxide. While it is expected that the Division with assistance from DPI will be able to identify 345 school buses that meet the requirements (bus route, bus age, bus make/model) to be retrofit with a DPF/CCVS combination, if level 2 or 1 controls have to be selected, the total emissions reduced will be less.

(3) Any recommendations to further reduce diesel emissions from school buses and whether the program to retrofit certain school buses registered in a county that is located in an area that is designated by the United States Environmental Protection Agency as

nonattainment or maintenance for ozone or particulate matter is accomplishing its purpose to reduce diesel emissions, improve air quality, and protect students' health.

In addition to retrofitting existing school buses with emission control devices (DPFs or Diesel Oxidation Catalysts (DOCs) in combination with CCVSs), a program to accelerate the replacement of older school buses with newer buses that come installed with active DPF devices would have a significant effect on air quality and children's health. Not only do these newer buses reduce particulate emissions but they also emit less NOx, which would help reduce the formation of ozone in these sensitive areas. These original equipment manufacturer (OEM) DPF buses also have fewer maintenance requirements and greater flexibility in route shifting compared to retrofitted DPF buses. In addition, DPI should continue to encourage bus drivers to reduce their idling time.

(4) The feasibility and the cost of expanding the funding for this pilot program for all eligible school buses for local school administrative units in counties that are located in an area that is designated by the United States Environmental Protection Agency as nonattainment or maintenance for ozone or particulate matter.

Many of the school districts in the nonattainment and maintenance areas have been proactive in securing funding for the retrofit of school buses in their areas. Retrofits have been funded through the Toyota Supplemental Environmental Project, EPA's Clean School Bus Program, and North Carolina's Mobile Source Emissions Reduction Grant Program. Currently there are 4,407 school buses in the eligible counties that are not equipped with any emission control devices. The cost to expand the program to all buses in the currently eligible counties would depend on the primary intent of the pilot program. If the goal is to primarily address children's health and exposure to particulates, the focus needs to be on Closed Case Ventilation Systems as they directly reduce in-cabin emissions. CCVS are not currently verified without being combined with either a DOC or a DPF. The least expensive combination is a CCVS with a DOC that has a unit cost of approximately \$1400 per unit with particulate emission reductions of up to 40% from the tailpipe and 100% from the crankcase. Therefore, if this combination of controls (DOC plus CCVS) was selected for the 4,062 remaining buses (4,407 minus the 345 buses retrofitted through this pilot program) the cost would be approximately \$5.7 million.

(5) The feasibility and the cost of expanding this pilot program statewide.

With enough funding, it is certainly feasible to retrofit all school buses with some level of control. It would be difficult to estimate the total costs to retrofit the entire state unless a level 1 control (DOC) with a CCVS was assumed to be the standard. This is because DPFs have limited applications. School buses retrofitted with DPFs must meet specific requirements that are based on not only bus make/model but are also route dependant. This creates a situation where fleet managers do not have as much flexibility in shifting buses among routes. DPFs also have significantly greater maintenance requirements compared to DOCs. Currently there are 10,208

school buses statewide without emission control devices. After the 345 school buses are retrofitted, there will be 9,863 school buses remaining to be retrofitted. The cost to retrofit these buses with a DOC/CCVS combination would be \$13.8 million.

In the coming months, the Division expects to see the pilot program well under way. The Division has already met with several of the retrofit vendors to secure pricing for the various retrofit technologies. In addition, the Division is working with DPI to identify the buses that have enough estimated remaining life based on DPI's retirement criteria to justify the expense of the level 3 (DPF with CCVS) controls. Lastly, the Division has worked with other states who have completed similar pilots, to learn how to best prepare the request for proposals to ensure the State gets the best emission control at the best price.

THE ENVIRONMENTAL REVIEW COMMISSION AND FISCAL RESEARCH DIVISION OF THE NORTH CAROLINA GENERAL ASSEMBLY

2008 INTERIM REPORT ON THE LAGOON CONVERSION PROGRAM FOR INNOVATIVE SWINE WASTE MANAGEMENT SYSTEMS November 25, 2008

North Carolina Department of Environment and Natural Resources
Division of Soil and Water Conservation

I. REPORT CONTENTS

- II. Introduction
- III. Selection Process
- IV. First Round Applications Selected
- V. Economic Challenges
- VI. Next Steps

II. INTRODUCTION

Through Senate Bill 1465, the Lagoon Conversion Program (LCP) was established by the General Assembly and signed into law on August 31, 2007 as General Statute 143-215.10I. The intent of this program is to reduce environmental hazards of swine production and to turn swine waste into value-added by-products by converting conventional anaerobic lagoon and sprayfield waste systems to proven, innovative animal waste management systems.

The Division of Soil and Water Conservation (DSWC) within the NC Department of Environment and Natural Resources (NCDENR) was charged with the responsibility of administering the LCP through the NC Agriculture Cost-Share Program for Nonpoint Source Pollution Control pursuant to G.S. 143-215.74. The General Assembly appropriated \$2,000,000 for the first round of projects. These funds are capped at

\$500,000 per application and are to be allocated at 90% of the average cost for each system with the recipient to provide the remaining 10% either directly or through in-kind services.

The LCP is intended to be *technology-neutral*, however, until the performance standards are made permanent through rulemaking, approved technologies for the first round of funding must be consistent with the NC State University Animal and Poultry Waste Management Center's March 2006 report entitled, "Development of Environmentally Superior Technologies – Phase 3 Report: for Technology Determinations per Agreement Between the Attorney General of North Carolina and Smithfield Foods, Premium Standard Farms, and Frontline Farmers" (APWMC Phase 3 Report). At this time, the following innovative animal waste management systems have met the performance standards in the APWMC Phase 3 Report:

- Super Soils Solids Separation/Nitrification Denitrification/Soluble Phosphorus Removal System (only system approved for treatment of liquid portion of waste); to be used in conjunction with one of the following solids treatment systems:
- Super Soils Centralized Composting System (solids)
- ORBIT High Solids High Temperature Anaerobic Digester (solids)
- Gasification of Solids System (solids)
- BEST Fluidized Bed Combustion Solids System in Idaho (solids)

Senate Bill 1465 prohibits permitting of a new or expanding swine management system utilizing an anaerobic lagoon and sprayfield as the swine farm's primary method of treatment and land application. Senate Bill 1465 also charged the Environmental Management Commission (EMC) to adopt rules to make the performance standards permanent thus allowing for the construction of innovative swine waste management systems for either new farms or for the expansion of existing farms. The swine waste management system performance standards are to:

- Eliminate swine waste discharge to surface water and groundwater through direct discharge, seepage or runoff
- Substantially eliminate atmospheric emission of ammonia
- Substantially eliminate odor detectable beyond the swine farm property boundaries
- Substantially eliminate disease-transmitting vectors and pathogens
- Substantially eliminate nutrient and heavy metals in soils and groundwater

On November 13, 2008, the EMC approved rules to implement the new provisions of Senate Bill 1465. The rules have been submitted to the Rules Review Commission (RRC) for final approval on December 18, 2008. If approved by the RRC, the rules including the new performance standards may become effective as early as January 1, 2009. See Attachment A for the proposed definitions and changes to 15A NCAC 02T .1307 Swine Management System Performance Standards.

Other components of the rule were changed to facilitate the new performance standards and the lagoon conversion program. See:

 Attachment B for 15A NCAC 02T .1308 Evaluation and Approval of Swine Waste Management Systems

- Attachment C for 15A NCAC 02T .1309 Lagoon Conversion Requirements
- Attachment D for 15A NCAC 02D .1808 Evaluation of New or Modified Swine Farms

III. SELECTION PROCESS

In October 2007, the DSWC Director appointed a LCP Advisory Committee to develop the program's criteria and selection process, and overall guidance for program implementation. Members are:

- Mary Combs, State Conservationist, Natural Resources Conservation Services/US Dept. of Agriculture
- · Molly Diggins, State Director, NC Sierra Club
- Lamont Futrell, Swine Producer and President, Frontline Farmers
- Dewitt Hardee, Environmental Program Manager, NC Dept. of Agriculture and Consumer Services
- Heather Jacobs, Riverkeeper, Pamlico-Tar River Foundation
- Deborah Johnson, Chief Executive Officer, NC Pork Council
- Dr. Joe Rudek, Senior Scientist, Environmental Defense
- Coleen Sullins, Director, Division of Water Quality, NC Dept. of Environment and Natural Resources
- Dr. Mike Williams, Director, Animal Poultry Waste Management Center, NC State University

The LCP Advisory Committee met four times during the last quarter of 2007. The Committee determined early in the process that until the Performance Standard Rules were made permanent in 2009, the program's first round of funding would only be considered for (1) *existing* swine farms and (2) centralized waste collection and treatment systems serving a minimum of one existing swine farm, that proposes to install the approved technologies outlined in the APWMC Phase 3 Report. Applications must include pilot scale or full scale data to substantiate the proposed technology is capable of meeting the specified performance standards.

The Committee also compiled a rating matrix to reflect the criteria written in Senate Bill 1465, section 2.(d)(2) to give funding priority to "...systems that are affordable, easily maintained, produce marketable by-products, reduce or eliminate the emission of ammonia and greenhouse gases and are capable of being connected to a centralized waste collection and treatment system". Through the rating matrix, priority points were awarded to projects that:

- Will result in complete removal of the swine waste management system from the 100 year floodplain
- Have the capability to connect to a centralized waste collection and treatment system
- Will be more easily maintained as determined by the type and level of waste operator certification needed to operate the system

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- Is more affordable based on the fixed cost of converting the existing system to treat both the liquid and solid waste components per 1,000 lbs. of steady state live weight
- Will reduce or eliminate ammonia emissions from the swine housing. (Note: approved innovative waste management system must address ammonia emissions from the system's collection, treatment and storage components, therefore priority points will be given to projects that also address swine housing.)
- Capture or offset methane and/or other greenhouse gases
- Have established markets for the generated waste by-products
- Have good compliance histories for the current year and previous three years as determined by the potential environmental impact model developed through the *Pilot Program for Inspections of Animal Waste Management Systems*.

DSWC staff and the LCP Advisory Committee determined all selected applicants must undergo a financial review to ensure solvency and a technical review to ensure the proposed project meets the performance standards established in the APWMC Phase 3 Report. The NC Agricultural Finance Authority agreed, at no cost to the program, to compile the reporting form and evaluate completed financial reports provided by first round applicants. The financial evaluations must be completed and approved by the NC Agricultural Finance Authority, prior to approval for funding of the selected applications, to ensure the swine farms and/or centralized systems are solvent and to reduce potential for financial failure of the projects. The technical review of the projects will be provided by a team of engineers and technical specialists from DSWC, Division of Water Quality (DWQ), and the NCSU Animal and Poultry Waste Management Center, prior to approval for funding of the selected applications. Selected projects will undergo construction checks and continual monitoring, as determined by each facility's permit, by various technical staff with the DSWC, DWQ, NCSU Animal and Poultry Waste Management Center, and the local Soil and Water Conservation Districts.

State appropriated funds for selected innovative swine waste management systems will be allocated through the NC Agriculture Cost-Share Program (ACSP). Applicants must complete and submit the required ACSP forms to their respective local Soil and Water Conservation District. Because ACSP is a water quality program and only addresses existing water quality issues, the program will only allow funding for existing swine farms and for centralized waste collection and treatment systems receiving waste from a minimum of one existing swine farm. Once the DSWC Director approves applications for participation, the NC Soil and Water Conservation Commission must concur and approve the allocation of cost-share funds to the respective Soil and Water Conservation Districts in order for the process to proceed in accordance with the ACSP.

The LCP will use a rolling application process allowing applications to remain "active" even if they are not approved for funding. Participants may submit updated applications to reflect improvements such as further development and/or modification of the system, new or additional data, updated business model, and adjusted cost projections.

The following timeline was established, with guidance from the LCP Advisory Committee, for selection of the first round applicants for the program:

Feb. 1, 2008 - Request for applications

March 17, 2008 - Applications for round 1 funding due
March, 2008 - NCDENR in-house review of applications
April, 2008 - Site visits conducted at potential project sites

May 5, 2008 - DSWC approves initial group applications for further review

May 8, 2008 - Financial reports due from potential applicants

May 23, 2008 - DSWC Director selects applicants for first round funding Soil & Water Conservation Commission approves allocations

IV. FIRST ROUND APPLICATIONS SELECTED

By March 17, 2008, the DSWC had received seven applications, totaling almost \$4M for consideration for the LCP.

	R	equested	Match	T	otal Cost
1. Centralized - Sampson	\$	500,000	\$ 75,000	\$	575,000
2. Farm - Sampson	\$	500,000	\$ 56,000	\$	556,000
3. Farm - Sampson	\$	500,000	\$ 56,000	\$	556,000
4. Farm - Pitt	\$	432,216	\$ 48,024	\$	480,240
5. Farm - Wilson	\$	500,000	\$ 175,865	\$	675,865
6. Centralized - Greene	\$	475,877	\$ 52,876	\$	528,753
7. Farm - Greene	\$	475,877	\$ 52,876	\$	528,753
Totals	\$:	3,383,970	\$ 516,641	\$:	3,900,611

On March 24, staff from the DSWC and DWQ conducted a preliminary review of the applications. The first three applications from Sampson County utilized the proven Super Soils USA, Inc. technologies and were picked to proceed in the selection process. Projects #4 and #5 from Pitt and Wilson Counties were also approved to proceed in the selection process, however staff noted concerns with adequate system sizing and whether the systems could meet the ammonia emissions performance standard listed in APWMC Phase 3 Report. The two applications from Greene County listed in the table as #6 and #7 were rejected for round 1 funding due to lack of pilot scale or full scale data to substantiate the systems' abilities to meet specified performance standards.

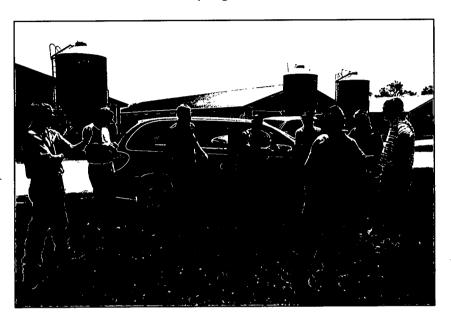
Swine farm applications #2 through #5 all utilized existing anaerobic lagoons as components of the proposed innovative waste management systems. All applicants expressed concerns for the need to maintain current anaerobic lagoon and sprayfield systems in the event the innovative waste management system failed. To address this concern, a workgroup of LCP Advisory Committee members, Divisions of Water Quality and Soil and Water Conservation staff, and NCDENR's legal counsel was given the task to determine the permissibility of maintaining and/or incorporating a swine operation's "existing" anaerobic lagoon into a new innovative animal waste management system under the LCP.

The workgroup determined it was permissible to use an "existing" anaerobic lagoon in the LCP under the following conditions:

- 1. The permit for the anaerobic lagoon issued prior to 1 September 2007 is maintained as a valid permit, including compliance with its requirements such as maintaining the system components, submitting required reports and seeking renewal when necessary. The innovative system is not permitted as a *new* or *expanding* facility, but rather a *converted* facility. In essence, the farm will maintain two permits, the anaerobic lagoon system permit (NPDES or state general permit) and the converted innovative system permit. The converted innovative system permit does not allow the farm to increase its steady state live weight (herd size).
- 2. If the farm plans to maintain the "existing" anaerobic lagoon, the structure shall not continue to receive waste. All permit conditions apply under the farm's NPDES or state general permit including maintenance of compliant sludge and freeboard levels. In addition, the waste application system and receiving crops (e.g. sprayfields) must be maintained in accordance with the farm's existing permit.
- 3. The "existing" anaerobic lagoon may be incorporated as a component of the new innovative animal waste management system as long as the earthen structure is not located within the 100 yr. floodplain and:
 - As a treatment component, it is designed and constructed with a synthetic liner to eliminate discharge to groundwater or
 - As a storage component for final effluent only, it meets current permitting requirements. (Note: while the water quality parameters are not defined for final effluent, the waste system must reduce total nitrogen mass by 75% from influent levels for the whole farm, <u>and</u> phosphorus, copper and zinc mass by 50% from influent levels for the whole farm in accordance with the APWMC Phase 3 Report. Nitrogen, phosphorus, copper and zinc transported off of the farm is considered a reduction.)
- 4. In the event the new waste system fails (e.g. system is unable to meet performance standards as established in the permit), the farm may petition the Soil and Water Conservation Commission to allow it to *revert* back to the existing anaerobic lagoon and waste application (sprayfield) system without penalty through a "No Fault Failure" clause in the LCP contract. The "No Fault Failure" clause cannot be used if it is determined that the owner or operator either failed to properly maintain the "existing" anaerobic lagoon and land application system, or failed to properly construct, operate and maintain the innovative waste management system.
- 5. If a farm elects to *revert* back to the existing anaerobic lagoon and waste application (sprayfield) system for reasons other than system failure, the farm owner will be required to reimburse the cost-share funds back to the state at a pro-rated amount as required by the NC Agriculture Cost-Share Program.

Reversion will not be permitted if it is determined the owner or operator failed to properly maintain the "existing" anaerobic lagoon and land application system.

On April 24, 2008 site visits of the remaining five projects were conducted by a review team of representatives from the DSWC, DWQ, NCSU Animal and Poultry Waste Management Center and Environmental Defense. Each project was discussed at length including noted areas for improvement. Applicants were given the opportunity to ask questions and learn more about the program,



Each applicant was given a letter from the DSWC Director containing guidance for use of an existing lagoon along with copies of documents related to the entity's financial report and general tax information. DSWC staff advised applicants to consult with a qualified tax professional since ACSP recipients receiving cost share funds of more than \$600 in a calendar year, will also receive a 1099-G form for income tax purposes. Documentation included:

- Memo from DSWC Director requesting a financial report be completed and returned to DSWC by May 8, 2008, and a memo from the NC Agricultural Finance Authority Executive Director discussing the request for information and the use of enclosed USDA Farm Business Plan Worksheet forms for this program.
- A copy of the Federal Register Notice Volume 52, Number 53 dated March 19, 1987 stating that the USDA Secretary "determined that all cost-share payments under this program (NC Agricultural Cost-Share Program) are for soil and water conservation and protecting or restoring the environment. Subject to further determination by the Secretary of Treasury, this determination permits payment recipients to exclude from gross income, for federal tax purposes, all or part of such payments made under the North Carolina Agriculture Cost-Share Program". Applicants are advised to consult with a qualified tax professional to review IRS publication 225 (Farmer's Tax Guide) to determine tax status of cost share payments and expenses for soil and water conservation purposes.

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 The Division of Water Quality (DWQ) Application for Tax Certification and Exemption (form TC-WQ), to be used only for waste treatment systems and equipment as authorized by the DWQ.

On May 2, 2008 a second review of applications was conducted by members of the LCP Advisory Committee and DENR staff. The committee recommended approval of the three Sampson County applications and recommended placing applications #4 and #5 in a holding pattern pending additional information.

In addition to site visits, environmental compliance checks of the swine farms and centralized waste collection and treatment system were completed on May 7 by DSWC staff. The compliance checks were conducted for the current year and previous three years as determined by a potential environmental impact model developed through the *Pilot Program for Inspections of Animal Waste Management Systems*. All of the proposed projects were rated as having low potential for environmental impact.

Dr. Frank Bordeaux with the NC Agricultural Finance Authority provided DSWC, through a May 16, 2008 memorandum, the initial financial review results of the applications. In the memo it states, "Our analysis consisted of reviewing "net worth" as expressed by material supplied by the applicants. Our conclusion was that the applicants are probably economically viable in the aspects reviewed."

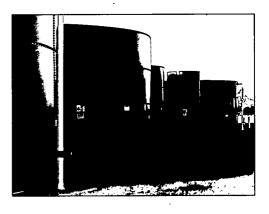
Based on the applications, site visits and financial and technical review recommendations, DSWC Director Patricia Harris selected the following projects for round one funding:

- 1. Super Soils Systems USA, Inc. Centralized Composting System Expansion in Sampson County. This centralized system utilizes solids from swine farms and composts the material for stabilization and pathogen reduction. The resulting Class A compost will be used as a basic material in the manufacturing of soil amendments including container mix, potting soil and fertilizer. These value-added by-products will be sold in bulk or bagged for distribution in markets throughout the southeastern United States. The expansion of this existing operation is needed to facilitate additional solids from the following two farms in addition to a third swine farm funded by the Clean Water Management Trust Fund
- 2. The Tyndall Hog & Chicken Farm, Inc. is a 5,880 head feeder-to-finisher operation in Sampson County. The farm will implement the Super Soils waste treatment technology to separate solids for transport offsite, followed by soluble nitrogen and phosphorus removal from the remaining effluent. The treated effluent will be used to fill the waste collection pits in the houses. The solids will be transported to the Super Soils Centralized Composting System. Over time, the existing lagoon will be converted to an irrigation storage pond to support existing crop production.

3. The Pope & Son Swine Farm is an 8,820 head feeder-to-finisher operation in Sampson County. The farm will also implement the Super Soils waste treatment technology to separate solids for transport offsite, followed by soluble nitrogen and phosphorus removal from the remaining effluent. The treated effluent will be used to fill the waste collection pits in the houses. The solids will be transported to the Super Soils Centralized Composting System. Over time, the existing lagoon will be converted to an irrigation storage pond to support existing crop production.



Super Soils Systems USA, Inc.
Centralized Composting System for treatment of solids into a Class A compost for use in various soil amendments



Super Soils Systems USA, Inc.
on farm circulating loop liquid treatment system
utilizing nitrification and denitrification processes
for removal of soluble nitrogen & phosphorous

On May 27, 2008, the NC Soil and Water Conservation Commission approved allocating \$1.5M to the Sampson Soil and Water Conservation District to fund the three projects. The Sampson County applicants were notified by phone of the approved allocations. DSWC staff continued to work with applicants to answer questions. On August 1, 2008, grant award letters were sent to officially notify the Sampson County applicants of the allocation approvals. The letter also included the required DWQ permit applications and ACSP application forms due back to DSWC on October 1, 2008.

DSWC staff continued to work with applicants #4 and #5 through review of additional information. The refined applications were reviewed on August 8, 2008 by engineers and technical specialists with DSWC, DWQ, NCSU Animal and Poultry Waste Management Center and Environmental Defense. The review team agreed the proposed anaerobic digestion with methane capture for energy generation systems were viable, but the technology basis for the projects remains deficient and warrants additional information to ensure the systems would meet the specified performance standards, particularly for reduction in ammonia emissions. On September 4, 2008, the engineering firm representing both applicants withdrew the LCP proposals from consideration, citing that when "the LCP issued guidance on April 15, 2008 limiting the use of existing anaerobic lagoons to final storage only, and then only with documentation of a maximum hydraulic conductivity rate, it required additional construction expenditure for each project and eliminated some benefits to the farmer. Without the use of the existing structure, proving the performance criteria such as the

substantial elimination of ammonia emissions added significant expense to these particular sites."

V. ECONOMIC CHALLENGES

On October 3, 2008, Pope and Son Swine Farm withdrew their application from the program citing concerns with the present economic climate and uncertainty.

Based on information provided by the National Pork Producers Council and the NC Pork Council, the pork industry is facing an uncertain time including market volatility of unprecedented proportion. Nationally, the pork industry has experienced losses close to \$2B for the first four months of 2008. From May through August, producers held their own however in the last 90 days volatility has been the norm both in terms of costs and revenue. Most operations have lost 25% or more of their equity. In North Carolina, it's been estimated the general herd inventory has been reduced by at least 5% among most of the integrators with significant sow liquidation in a few of the production companies. In general, contract growers have been insulated from herd reductions but many are now realizing the seriousness of the situation as integrators cope with high input costs, low market prices and increasing market volatility. In North Carolina, both company and contract grower-owned farms now exist that are not populated and will likely remain empty for months to come.

VI. NEXT STEPS

The two remaining applicants in the LCP have submitted their ACSP forms and are currently completing their permit applications for approval. Both entities remain committed to the program. Also, DSWC staff remains positive that both projects will be installed by July 1, 2009 despite the fact that the program is now operating 60 days behind the ambitious schedule initially proposed.

A meeting of the LCP Advisory Committee will be scheduled between December 2008 and February 2009 to update the members on the progress of the program, make adjustments to the established selection process in anticipation of permanent Performance Standards, and assess the current economic situation to determine when the round 2 *Call for Proposals* will be implemented.

RULES TO IMPLEMENT GENERAL STATUTE 143-215.10I SWINE WASTE MANAGEMENT SYSTEM PERFORMANCE STANDARDS (Approved November 13, 2008 by the EMC)

15A NCAC 02T .1307 is adopted with changes as published in 23:03 NCR 197 as follows:

1 2

2	•	
3	15A NCAC 02T .1307	SWINE WASTE MANAGEMENT SYSTEM PERFORMANCE STANDARDS
4	(a) This Rule applies t	o animal waste management systems subject to regulation under G.S. 143-215.10(I).
5	(b) An animal waste	management system that serves a swine farm subject to regulation under G.S. 143-
6	215.10(I), shall meet or	exceed all of the following performance standards:
7	(1) Elimi	nate the discharge of animal waste to surface waters and groundwater through direct
8	disch	arge, seepage, or runoff. To meet this standard:
9	(A)	Earthen structures must be designed and constructed with synthetic liners to
10		eliminate seepage.
11	(B)	Solids storage structures shall meet proper-applicable engineering practices and
12		applicable-NRCS design standards.
13	(C)	The Certified Animal Waste Management Plan (CAWMP) must meet current NRCS
14	•	Standards standards for a Comprehensive Nutrient Management Plan (CNMP) as
15		defined by Part 600, Subpart E of the NRCS National Planning Procedures
16		Handbook, which are hereby incorporated by reference, including any subsequent
17	,	additions or amendments. The handbook may be downloaded at no cost from the
18		NRCS website: http://www.nrcs.usda.gov/technical/afo/cnmp_guide_index.html
19	(D)	Swine waste treatment structures that automatically convey swine waste using
20	•	pumps must have audible and visible high water alarms with an auto dialer device set
21		to contact the farm owner or farm manager manager; or have a gravity overflow to a
22	•	basin that can contain the flow rate of the largest pump in the system for the
23		maximum amount of time that an operator will not be on-site. on-site: An alternative
24		to this option is or a secondary containment structure designed, constructed, and
25		operated to contain the steady-state-volume of the largest animal waste treatment
26		structure and the flow rate of the largest pump in the system for the maximum
27		amount of time that an operator will not be on-site.
28	(E)	No more than the equivalent volume of one month of design flow of untreated swine
29		waste shall be accumulated and stored prior to the initiation of treatment.
30	(2) Subs	tantially eliminate atmospheric emission of ammonia. To meet this standard:
31	(A)	Combined ammonia emissions from swine waste treatment and storage structures
32		may not exceed an annual average of 0.2 kg NH ₃ -N/wk/1,000 kg of steady-state live

weight;

ATTACHMENT A

RULES TO IMPLEMENT GENERAL STATUTE 143-215.10I SWINE WASTE MANAGEMENT SYSTEM PERFORMANCE STANDARDS (Approved November 13, 2008 by the EMC)

34		(B)	Ammonia emissions from land application sites shall not exceed an annual average
35	•		of 0.2 kg NH ₃ -N/wk/1,000 kg of steady-state live weight; and
36		(C)	Ammonia emissions from the swine farm must not exceed an annual average of 0.9
37			kg NH ₃ -N/wk/1,000 kg of steady-state live weight.
38	(3)	Substa	ntially eliminate the emission of odor that is detectable beyond the boundaries of the
39		parcel	or tract of land on which the swine farm is located. To meet this standard, Swine-swine
40		waste	management systems must reduce odor levels, frequency, and duration from the whole
41		farm, s	such that there is no objectionable odor, as defined the requirements of 15A NCAC 02D
42	•	.1808,	.1808 are met at the property boundary.
43	(4)	Substa	intially eliminate the release of disease-transmitting vectors and airborne pathogens. To
44		meet t	his standard:
45		(A)	Swine waste management systems shall meet the vector attraction reduction
46			requirements in Rule .1107 of this Subchapter for the land application of separated
47			solids and biological residuals.
48	•	(B)	Swine waste management systems shall meet the pathogen reduction requirements in
49			Rule .1106 of this Subchapter for Class A biosolids that are to be land applied
50			pursuant to .1106(a)(1) or for Class B biosolids that are to be otherwise applied to
51			land.
52		(C)	Fecal coliform concentrations in the final liquid effluent shall not exceed an annual
53		<i>:</i>	average of 400,000-7,000 Most Probable Number/100mL.
54	(5)	Substa	antially eliminate nutrient and heavy metal contamination of soil and groundwater. To
55		meet t	his standard, Swine-swine waste management systems that land apply effluent shall:
56		(A)	Meet the current NRCS requirements for a Comprehensive Nutrient Management
57			Plan (CNMP) as defined by Part 600, Subpart E of the NRCS National Planning
58			Procedures Handbook; and
59		(B)	Demonstrate through predictive calculations or modeling that land application of
60			swine waste at the proposed rate will not cause or contribute to a violation of
61			groundwater standards under 15A NCAC 2L.
62			
63	History Note:	Autho	rity G.S. 143-215.1; 143-215.3(a); 143-215.10A; 143-215.10I;
64		Eff. J	January 1, 2009.

RULES TO IMPLEMENT GENERAL STATUTE 143-215.10I EVALUATION AND APPROVAL OF SWINE WASTE MANAGEMENT SYSTEMS (Approved November 13, 2008 by the EMC)

15A NCAC 02T .1308 is adopted with changes as published in 23:03 NCR 197 as follows: 1 2 3 **EVALUATION AND APPROVAL OF SWINE WASTE MANAGEMENT** 15A NCAC 02T .1308 4 **SYSTEMS** 5 (a) This Rule shall provide establishes requirements for the evaluation, approval and permitting of swine waste 6 management systems that are required to meet the performance standards in Rule .1307 of this Section. 7 (b) APPLICATION: The applicant shall submit a permit application in writing to the Division to qualify 8 showing that a swine waste management system as meeting meets the performance standards. The application 9 shall include the following: 10 operation and maintenance procedures, system classification, proposed management entity (1) 11 and system operator requirements; a description of the swine waste management system, including materials used in 12 (2) construction, and its proposed use: 13 a summary of any pertinent literature, published research, and previous experience with and 14 (3) performance of a waste management system of similar waste characteristics; 12 months of results Results of 12 months of testing, research or monitoring of pilot- or full-16 (4) scale operational system(s); and shall identify whether the testing, research or monitoring 17 18 provided was conducted by a third party research or testing organization; documentation of the protocol used to evaluate the performance of the swine waste 19 (5) 20 management system; 21 the identity and qualifications, if applicable, of any proposed research or testing organization (6) 22 and the principal investigators, and an affidavit certifying that the organization and principal 23 investigators have no conflict of interest and do not stand to gain financially from the sale of 24 the technology; an affidavit certifying that the swine waste management system submitted for approval is the 25 (7) same as the certified or listed product; or identify any modifications made to the submitted 26 27 system; 28 a procedure to address system malfunction and replacement; (8) 29 notification of any proprietary or trade secret information, system, component, or device; (9) Engineering design documents. If required by G.S. 89C, a professional engineer shall prepare 30 (10)31 these documents. The following documents shall be provided to the Division by the applicant: [Note: The North Carolina Board of Examiners for Engineers and Surveyors has determined, 32 via letter dated December 1, 2005, that preparation of engineering design documents pursuant 33

to this Paragraph constitutes practicing engineering under G.S. 89C.]

34

RULES TO IMPLEMENT GENERAL STATUTE 143-215.10I EVALUATION AND APPROVAL OF SWINE WASTE MANAGEMENT SYSTEMS (Approved November 13, 2008 by the EMC)

35		(A)	engineering plans for the entire system, including treatment, storage, application, and
36			disposal facilities and equipment except those previously permitted unless those
37			previously permitted are directly tied into the new units or are critical to the
38			understanding of the complete process;
39		(B)	specifications describing materials to be used, methods of construction, and means
40			for ensuring quality and integrity of the finished product including leakage testing;
41			and
4 2		(C)	engineering calculations including hydraulic and pollutant loading for each treatment
43			unit, treatment unit sizing criteria, hydraulic profile of the treatment system, total
14			dynamic head and system curve analysis for each pump, buoyancy calculations, and
45			irrigation design.design:
46	(11)	a comp	olete animal waste management system permit application in accordance with Section
47 ·		.0100 d	of this Subchapter. Subchapter; and
48	(12)	upon a	pproval by the Division, in In lieu of the requirements of Items (3)(6), through (6), the
49		applica	nt may submit data from a full-scale facility previously permitted by the Division.
50	(c) APPROVA	L OF N	EW OR EXPANDING SWINE WASTE MANAGEMENT SYSTEMS: The Division
51	shall review all	applicati	ons submitted in accordance with Rule .0107 of this Subchapter. The Division shall
52	approve the swi	ne waste	management system in accordance with Rule .0108 of this Subchapter, $\frac{1}{2}$ and when the
53	applicant can she	ow that t	he performance standards of Rule .1307 of this Section will be met.
54	(d) MONITOR	ING RE	QUIREMENTS: Once the newly permitted system comes into steady state conditions
55	reaches full ca	pacity o	r within 6 months, whichever comes sooner, the permittee shall monitor system
56	performance she	all be m	onitored for two years with quarterly sampling to assure that the treatment system is
57	meeting perform	nance sta	andards. If, after two years the treatment system is compliant with Rule .1307 of this
58	Section, monito	ring-the	permittee shall monitor for compliance with of the performance standards in Rule .1307
59	shall be perform	ied on th	e following schedule:
60	(1)	Ammo	onia emissions monitoring from swine waste treatment and storage structures shall be
61		require	ed as follows:
62		(A)	Ammonia air emissions from open-air structures shall be directly sampled once per
63			calendar year, with alternating years having sampling during the warm and cold
64			summer and winter seasons, or
65		(B)	Liquid from open-air waste treatment and storage structures shall be sampled at a
66			minimum of once per quarter.
67	(2)	Monit	oring of odor intensity shall be required on an annual basis, with alternating years
68		having	sampling during the warm and cold summer and winter seasons.

ATTACHMENT B

RULES TO IMPLEMENT GENERAL STATUTE 143-215.10I EVALUATION AND APPROVAL OF SWINE WASTE MANAGEMENT SYSTEMS (Approved November 13, 2008 by the EMC)

69	(3)	Effluent monitoring shall be required at a minimum of once per quarter.
70	•	
71	History Note:	Authority G.S. 143-215.1; 143-215.3(a); 143-215.10A; 143-215.10I;
72		Eff. January 1, 2009.

RULES TO IMPLEMENT GENERAL STATUTE 143-215.10I LAGOON CONVERSION REQUIREMENTS

(Approved November 13, 2008 by the EMC)

1 15A NCAC 02T .1309 is adopted with changes as published in 23:03 NCR 197 as follows: 2 3 15A NCAC 02T .1309 LAGOON CONVERSION REQUIREMENTS 4 (a) This Rule applies to existing animal waste management systems that convert from anaerobic lagoons as the 5 primary method of treatment to innovative an animal waste management systems system that meets the 6 requirements of Rule .1307 of this Section, and have not expanded the steady-state live weight of the swine 7 8 An innovative animal waste management system shall meet the requirements of Rules .1307 and .1308 of this 9 Section. (c)(b) Upon approval by the Division, a permittee may abandon and close out an innovative animal waste management system permitted under Rules .1307 and .1308 of this Section and revert to the requirements 10 of Rule .1304 or .1305 of this Section-Section. The Division shall approve the reversion if all of the following 11 12 criteria are met: 13 (1) The innovative animal waste management system is properly constructed according to the 14 approved design and specifications, specifications approved by the Division; 15 The innovative animal waste management system is properly operated and maintained. (2) maintained in accordance with the rules in this Section; 16 17 (3) The permit for the anaerobic lagoon animal waste management system issued prior to 1 September 2007 pursuant to Session Law 2007-523(1)(b) remains valid; valid; and 18 The anaerobic lagoon animal waste management system has been maintained and may-can 19 (4) 20 operate in compliance with the requirements of its permit. 21 22 Authority G.S. 143-215.1; 143-215.3(a); 143-215.10A; 143-215.10I; History Note: Eff. January 1, 2009. 23

RULES TO IMPLEMENT GENERAL STATUTE 143-215.10I EVALUATION OF NEW OR MODIFIED SWNE FARMS (Approved November 13, 2008 by the EMC)

1 15A NCAC 02D .1808 is adopted with changes as published in 23:03 NCR 197 as follows: 2 3 **EVALUATION OF NEW OR MODIFIED SWINE FARMS** 15A NCAC 02D .1808 (a) Purpose. The purpose of this Rule is to specify the methods for evaluating new or modified swine farms for 4 5 compliance with the performance standards standard in G.S. 143-215.10I (b)(3). (b) Applicability. This rule shall apply applies to new or modified swine farms that shall required by G.S. 143-6 7 215.10I to meet the performance standards standard in G.S. 143-215.10I (b)(3). (c) Requirements. New or modified swine farms subject to this rule shall comply with the requirements in this 8 9 Section .1800 of this Chapter and the performance standards in G.S. 143-215.10I(b)(3). Section. (d) Evaluation of new or modified swine farms. For the purpose of evaluating odor at new or modified swine 10 11 farms for compliance with the performance standards-standard in G.S. 143-215.10I (b)(3), the following shall 12 apply: 13 (1) When a field olfactometry method and instrumentation is used to determine odor intensity at the designated evaluation location, as specified in Paragraph .1802(e) of this Section, the 14 15 measured dilution-to-threshold ratio shall be less than or equal to 7:1 as determined using the published manufacturer's instrument procedures and instructions; or 16 17 When odor intensity is determined using an Odor Intensity Referencing Scale (OIRS) as (2) 18 specified in ASTM 544-99, the instantaneous observed level shall be less than the equivalent of 225 parts per million n-butanol in air. In addition, the average of 30 consecutive 19 observations conducted over a minimum of 30-minutes at designated evaluation locations 20 shall be less than the equivalent of 75 parts per million n-butanol in air and a minimum of 4 21 readings out of the minimum 30 readings shall be less than or equal to the equivalent 25 parts 22 23 per million n-butanol in air. 24 G.S. 143-215.10I; 143-215.3(a)(1); 143-215.107(a)(11); 143-215.108(a); 25 History Note: 26 Eff. January 1, 2009.

Annual Report

With

Recommendations Supporting Enhanced Water Efficiency

The North Carolina State Water Infrastructure Commission

2

The Governor and Members of the North Carolina General Assembly

November 1, 2008

The State Water Infrastructure Commission was created by act of the North Carolina General Assembly in 2005. The purpose of the Commission is to identify the State's water infrastructure needs, develop a plan to meet those needs, and monitor implementation of the plan. The Commission is comprised of 13 members representing North Carolina local governments and members of the water infrastructure and water resources professions.

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Contributors: Karen Brashear, Bill Holman, Don Safrit, Robin Smith, Coleen Sullins

Acknowledgements: Pat Davis, Dr. Garry Grabow, Preston Howard, Jon Risgaard,

Mike Shafer, Dr. Mark Sobsey, Henry Webster

Executive Summary

development of these resources in the best interest of all its citizens and declares the General Assembly affirms the State's ultimate responsibility for the preservation and Recognizing that the water and air resources of the State belong to the people, the prudent utilization of these resources to be essential to the general welfare.

North Carolina General Statutes Article 21, Section 143-211(a)

Executive Summary

put forward recommendations each year which we believe will encourage stronger State and local commitment to our water enhancing the environmental sustainability of our State. As charged by the North Carolina General Assembly, the group has Since first convening in 2005, the members of the State Water Infrastructure Commission have been firmly committed to

as part of an overarching policy shift by the State on water efficiency, they have potential to change the way we think about and gains for our State. This year we have examined three water efficiency tools: Water Audits and Leak Detection, Reclaimed value our water resources Water and Water Rates/Rate Structures. Each alone has the potential to reduce the amount of water we use daily. Together, Outlined in this 2008 Annual Report are a series of "do-able" recommendations that we believe will deliver water efficiency

drive up the costs of treatment and rising construction prices all contribute to the growing expense of new construction and basin to another. The costs associated with all these options are significant. New regulations, problems with water quality that are not so plentiful we can attempt to secure an Interbasin transfers of water, moving large quantities of water from one river available, we can develop new supplies, build new intakes, drill new wells and develop new treatment facilities. Where supplies have distinct choices how we meet both current and future demand. On the one hand, where ground water or surface water is major renovations of treatment and distribution systems. Water systems across the State are making choices today regarding where their next increment of water will be found. We

appliances and fixtures and by changing our habits associated with water use to become more water efficient daily water use, and reduce consumption through conservation tools such as low-flow showerheads, water conserving through changes to rates and rate structures. On the demand side (the customer side) we can become more conscious of our drinking-quality water - lawn and golf course irrigation and irrigation of crops among others. We can price water appropriately drinking, bathing, cooking, food processing - and substitute reclaimed wastewater for the uses that do not require treated is leaking from the system and prioritize repairs. We can use highly treated drinking water only for the purposes neededmeasures. On the supply side (the water system side) we can conduct water audits and determine where and how much water supplies. We can reduce the demand for highly treated drinking water through a variety of conservation and efficiency On the other hand, we can begin to look seriously at the water savings found through more efficient use of our existing

Our recommendations for consideration by the Governor and the members of the North Carolina General Assembly include the

Infrastructure Financing

Estimates of needed infrastructure investment to meet 2030 demands exceed \$16 billion for North Carolina. Current Recommendation: Establish permanent State funding for water, wastewater and stormwater improvements. (2008) unmet need in funding application submitted to State funding agencies exceeds \$100 million.

Median Household Income Threshold used for determining grant eligibility under current State law. The SWIC should recommend changes, if any, to the legislature by March 30, 2009 with sensitivity incorporated for economically Recommendation: Establish a stakeholder process to determine whether and if so, how much to increase in the distressed communities

geographic distribution of funds and be used as an assessment tool in the gauging of need for State-level infrastructure Recommendation: Develop an annual process for reporting on all state and federal grant and loan resources utilized for water, wastewater and stormwater projects. The report should catalog the types of projects funded, show the investment

Drought Preparedness and Water Resource Management

directed the State Water Infrastructure Commission to develop guidelines for water rate structures that are adequate to Recommendation: Section 17 of Session Law 2008-143, Improve Drought Preparedness and Response (HB 2499), maintain and operate water systems and consistent with the State guidance on water conservation. Utilize the Water Rates Guidelines being developed by the State Water Infrastructure Commission as a policy guide for discussion on allocation of State funding for water infrastructure.

demonstrate they have met thresholds to be established by State funding agencies. SWIC will support the funders of encourages water systems applying for State infrastructure funds to become more efficient by requiring them to water infrastructure to implement Section 9 of SL 2008-143. Recommendation: Section 9 of Session Law 2008-143, Improve Drought Preparedness and Response (HB 2499)

development; improvements to the State Building Code to support water conservation strategies such as water efficient of water; system pressure management to reduce water leaks; local land use policies to support water-efficient fixtures and appliances and water reuse. techniques such as developing new utility business models based upon selling water services instead of selling gallons practices by local systems. Additional public policy, regulation and education is needed to encourage the use of Department of Environment and Natural Resources, additional incentives are needed to encourage water efficient **Recommendation:** Once the statewide water efficiency standards have been developed and implemented by the

Water Audits

conducting water audits as a means to increase water system efficiency and financial stability Recommendation: Require the AWWA Water Audit methodology or an equal standard for guidance to local systems

format for collecting the data can be readily adjusted to collect the additional and important information on non-revenue from these water audits. Local Water Supply Plans are required for public water systems are a five year interval. The Division of Water Resources consider modifications to the Local Water Supply Plan format to collect needed information Recommendation: SWIC recommends that North Carolina Department of Environment and Natural Resources -

approving debt to finance water infrastructure. State infrastructure funders - DENR and the Rural Center - should consider including the costs of financing a water audit for needy communities in their grant and loan packages. Water audits should be reported to Division of Water Resources and made available to the public. Recommendation: The North Carolina Local Government Commission should consider requiring a water audit before

Reclaimed Water

to standards above the quality on influent water to most of the state's drinking water systems. Reclaimed water is a vital Statute(s) to categorize water reuse as a "water resource". Reclaimed water is highly treated wastewater, water treated part of our water resource future in North Carolina and should be utilized to replace treated drinking water for uses not Recommendation: Consider a change to the reference in the North Carolina Administrative Code and related requiring treated drinking-quality water. 野に緑色

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incentives for reclaimed water. Replacement of highly treated drinking water with reuse water makes sense if we are to effectively and efficiently manage of our State's water resources. Other uses for reclaimed water may be available in Recommendation: Continue discussion of the permitted uses for reclaimed water to include the more options and other states in the US and abroad, including aquifer storage and recovery (ASR), aquifer recharge, stream augmentation and potable reuse. The SWIC will continue its review of appropriate uses of reclaimed water. Recommendation: Reduce the competitive price disadvantages to expanded use of reclaimed water. So long as those should seriously consider requiring large users of surface water and ground water to apply for water withdrawal permits. always suffer a price disadvantage. Comprehensive management of all the State's water will help prioritize uses of who need water can secure it cheaply and with little or no administrative permitting challenge, reclaimed water will water and eliminate one of the competitive disadvantages for using reclaimed water. The 2009 General Assembly

> both financial and natural. SWIC recognizes the need for continued education of water consumers on the value of these resources. Reclaimed Water is best managed at the local level- it is a localized resource. Therefore, strong local policy water reuse programs. In North Carolina, local government system owners make the policy decisions on rates and rate structures, how the systems are managed and determine how prepared systems are for the future. SWIC recognizes and management structures provide the best opportunity for effective operation of water resource programs, including Recommendation: Develop or enhance existing local policy frameworks and institutions for management of water the value of thinking beyond local borders when sustainably managing water resources and encourages the use of basinwide management and planning that supports regional collaborations and enables the wise use of resources

training for local elected officials and other decision-makers. local planning frameworks and management institutions and encourages State financial support of education and

Regional Partnerships

regional efforts and specifically encourages the State to consider the following: effective management structure for infrastructure systems. SWIC reiterates in this 2008 Annual Report the value of concluded that regional partnerships, when the partners are ready for regional collaboration, provide an efficient and explored the value of regional partnerships to drinking water, wastewater and stormwater infrastructure systems. SWIC policy development, funding, and technical assistance. In FY '07-'08, the State Water Infrastructure Commission Recommendation: Support the development of regional infrastructure partnerships through direct State investment in

- configuration where they cannot participate as an equal. i.e., not yet managing their systems efficiently and effectively, into a regional for regionalization. This may prevent bringing systems that are not ready Develop and implement a set of criteria for evaluating system "readiness"
- that could then inform local decision makers, funders and the public. Fund a study to identify the most promising regions for water regionalization
- the engineering, planning and legal work associated with forming a regional Provide Start-Up funding for regional projects to match local investments for

Fund the State Water Infrastructure Commission

and continue its ongoing work with the Water Allocation Study of the Environmental Review Commission. matters for the State of North Carolina. This funding will allow the SWIC to complete its charge in the 2008 Drought Bill Commission provides a necessary forum for discussion and decision-making on water resources and infrastructure Assembly appropriate \$250,000 per year to fund the ongoing work of SWIC. The State Water Infrastructure Recommendation: The State Water Infrastructure Commission recommends that the Governor and 2009 General Table of Contents

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Members of the State Water Infrastructure Commission

Members of the State Water Infrastructure Commission: January 2008 – December 2010

Standing Members

Bill Holman, Chairman, Appointee of Speaker Pro Tem

William Laxton, Deputy-Assistant Secretary, NC Department of Environment and Natural Resources

Vacant, NC Department of Commerce

Billy Ray Hall, President, NC Rural Economic Development Center

Ellis Hankins, Executive Director, NC League of Municipalities

Vance Holloman, Deputy State Treasurer, Office of State Treasurer

David Thompson, Executive Director, NC Association of County Commissioners

Richard Rogers, Executive Director, Clean Water Management Trust Fund

Appointed Members

Dr. Downey Brill, Professor, NC State University (Chancellor's Appointee)

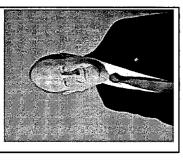
Steve Cavanaugh, P.E., Cavanaugh Associates (American Council of Engineering Companies Appointee)

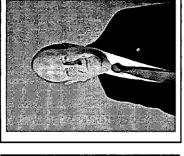
Harold Herring, Executive Director, Neuse Regional Water and Sewer Authority (Appointee of the Governor)

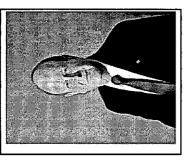
The Honorable Bill Owens, NC House of Representatives (Appointee of House Speaker)

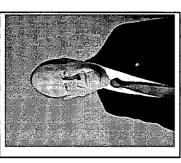
Richard Whisnant, Associate Professor, UNC School of Government (Appointee of Water Resources Research Institute)

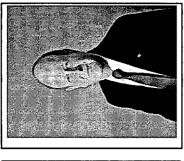






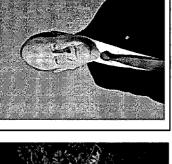














Bill Laxton

Bill Holman, Chairman



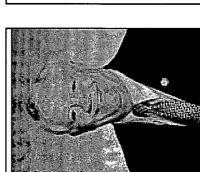
Ellis Hankins

David Thompson

Vance Holloman







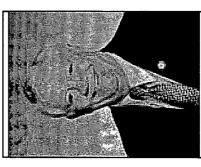
Rep. Bill Owens

Harold Herring

Richard Rogers

Dr. Downey Brill

Steve Cavanaugh, P.E.





Richard Whisnant

Introduction

Introduction

shows an expected 30 percent increase in population between 2010 and 2030, bringing the State's population to more than 12 million North Carolina's population is growing. This growth is expected to continue through the year 2030. Information from the State Data Center

overnight on what was once productive farmland. The skyrocketing cost of mountain and beach property. Longer waiting time at recreational overcrowding and plans for the development of new school facilities. Traffic congestion. New subdivisions that bud and blossom seemingly facilities, shops and restaurants. Most of us are already experiencing the impacts of that population growth. It comes in many forms that touch our lives everyday. School

As population increases, so does the amount of water we use. In the decade between 1995 and 2005, fresh water withdrawals by public systems increased 20 percent in North Carolina. This year as the drought of 2008 reached its height, water systems across the State efficiently as possible. stressed by growth. The combination of these forces calls into question whether we are managing this precious resource as effectively and experienced water shortages never before experienced. Weather events and climate change place additional pressure on supplies already

associated with all these options are significant. New regulations, problems with water quality that drive up the costs of treatment and rising attempt to secure a permit for the Interbasin transfers of water, moving large quantities of water from one river basin to another. The costs new supplies, building new intakes, drilling new wells and developing new treatment facilities. Where supplies are not so plentiful we can choices how we meet both current and future demand. On the one hand, where ground water or surface water is available, we can develop construction prices all contribute to the growing expense of new construction and major renovations of treatment and distribution systems. Water systems across the State are making choices today regarding where their next increment of water will be found. We have distinct

and fixtures and by changing our habits associated with water use can become more conscious of our daily water use, and reduce consumption through low-flow showerheads, water conserving appliances among others. We can price water appropriately through changes to rates and rate structures. On the demand side (the customer side) we water system side) we can conduct water audits and determine where and how much water is leaking from the system and prioritize repairs reclaimed wastewater for the uses that do not require treated drinking-quality water – lawn and golf course irrigation and irrigation of crops We can use highly treated drinking water only for the purposes needed- drinking, bathing, cooking, food processing – and substitute reduce the demand for highly treated drinking water through a variety of conservation and efficiency measures. On the supply side (the On the other hand, we can begin to look seriously at the water savings found through more efficient use of our existing supplies. We can The State Water Infrastructure Commission has dedicated the 2007-2008 year of work to exploring efficiency options that can help us meet management of our State's water resources. While there are many other techniques and efficiency strategies available, the SWIC focused Infrastructure Commission offers an examination of water reuse, water audits, and rates/rate structures as three tools for enhanced he growing demand for water which can reduce the stress on our State's water resources. In this Annual Report, the State Water on these because they can provide measurable, near-term results for the State.

occur, and offer the following report from the State Water Infrastructure Commission to help guide the public policy changes that are needed sustainable water future for the State. We commend their work on this paradigm shift from "water waste" to "water efficiency" which must remarkable effort is being delivered by a variety of people and resources to change how we value water and in so doing, create a more In exploring these topics, SWIC members heard from a variety of experienced professionals in the water industry. We discovered that to support that shift.

Bill Holman, Chairman North Carolina State Water Infrastructure Commission

Background on the State Water Infrastructure Commission

Greater Coordination Among Agencies that Make Loans and Grants for Water Projects by Establishing the Water Infrastructure Procedures that Apply to These Loans and Grants to Reflect the Exhaustion of the 1998 Clean Water Bond Proceeds, and to Provide for 454, "An Act to Establish Uniform Criteria for Drinking Water, Wastewater and Stormwater Loans and Grants, to Clarify and Revise the the NC House of Representatives and supported widely by members of the General Assembly. The bill is codified as Session Law 2005-Carolina General Assembly. Passage of this bill was led by The Honorable John Kerr of the NC Senate and The Honorable Pryor Gibson of The State Water Infrastructure Commission (SWIC) was created through passage of House Bill 1095 during the 2005 Session of the North

supporting best management practices for needed infrastructure investments were refined and updated to better align with current trends, and 2) to define the role of the State in providing financial resources and infrastructure. Of significance to the creators of SWIC were: 1) to make certain that the State's policies governing infrastructure financing The drive for creating the SWIC was to have available a forum where members could engage in proactive policy discussions relating to

collaborative effort between major State funders of infrastructure including the Department of Environment and Natural Resources, the Clean Water Management Trust Fund and the Rural Economic Development Center. Together, these three entities have served as the protected public health and the environment and created opportunities for economic growth and development. administering agents of State funds and through this continue to make important water, wastewater and storm water investments that have The creation of the Commission and the modifications to the State's existing water and wastewater finance law were the product of a

Specifics of the Legislation

wastewater and stormwater infrastructure. symbolized the intent of the drafters to create a more cohesive set of guidelines for management of State funding resources for Grant Act of 1987, the new section title is simply and inclusively, Water Infrastructure. This decision, as others in this revision to existing law infrastructure improvements and focus for those investments. Water Infrastructure, in this case, refers inclusively to drinking water The legislation offered numerous modifications to Section 159G. Previously called the North Carolina Clean Water Revolving Loan and

fund- the Water Infrastructure Funds - where the accounts for the Clean Water State Revolving Fund and the Drinking Water Revolving The newly adopted version made a number of technical corrections, consolidating the existing State water and wastewater funds into one

established for the purpose of receiving State funds for loans and grants. The new version also established a set of common criteria upon Fund would now be housed. Along with these accounts, the Drinking Water Reserve and the Wastewater Reserve accounts were which certain points in applications reviewed would be determined.

State's water infrastructure needs, develop a plan to meet those needs, and monitor the implementation of these plans. The Commission Article 4 established the State Water Infrastructure Commission. The purpose of the Commission as set out in the law is to identify the consists of both appointed (6) and standing (7) members.

Appointments were completed in May 2006 and the Commission held its first meeting that month. Specific duties of the Commission include:

- 1. To assess and make recommendations on the role of the State in the development and funding of wastewater, drinking water, and storm water infrastructure in the State.
- 2. To analyze the adequacy of projected funding to meet projected needs over the next five years.
- To propose State priorities for funding.
- 4. To make recommendations on ways to maximize the use of current funding resources, whether federal, State, or local, and to ensure that funds are used in a coordinated manner.
- To review the application of management practices in wastewater, drinking water, and stormwater utilities and determine the best 5
- To assess the role of public-private partnerships in the future provision of utility service. . 9
- 7. To assess the application of the river basin approach to utility planning and management.
- 8. To assess the need for a "troubled system" protocol.

Review of Commission Work 2006-2007

Commission Examines Regional Partnerships and Supports Infrastructure Financing in 2006-2007

Carolina and in other states and heard from numerous regional system owners on the "why" and "how" their regional partnerships were partnerships. To develop these recommendations, the SWIC conducted research on the practice of regionalization both within North Review Commission offering a series of recommendations outlining how the State might support the development of regional infrastructure Completing its second year of activity, the Commission submitted its 2007 report to the Governor and the members of the Environmental

support additional State funding in the 2007-08 legislative session and acted as a sounding board for the North Carolina Funder's Forum, the consortium of State, Federal and Non-Profit funders of infrastructure in the State. Continuing in its efforts to assist in refining the State's role in infrastructure development and finance, the SWIC also allocated efforts to

Regional Partnerships

successfully delivery of safe and affordable service to its customers connections - regional treatment systems- but in the collaborative thinking that must be in place to support the partnership. SWIC found discourage regional efforts. In summary, the SWIC found that the benefits of regional partnerships were found not only in the regional that regional collaborations and partnerships, when founded on a principal of equity and fairness among partners, provided most The SWIC examined benefits of regionalization, but paid particular attention to the policy and regulatory barriers that might exist which

The SWIC noted the benefits of regional partnerships to be the following:

Regional collaborations, whether they involve a physical connection between systems or a managerial or administrative connection, and demands including attracting and maintaining qualified staff. These economies of scale can be seen in the improved quality of delivery, improved ability to keep pace with regulatory changes infrastructure are fixed costs - planning, permitting, and engineering- that will not increase significantly by adding another partner can provide an economy of scale that systems operating alone cannot achieve. Many of the costs associated with constructing

- facilities by requiring connection to an existing regional facility with available capacity. Reducing the number of plants in operation can lessen operations and maintenance costs and duplication of service. Regional collaboration involving a physical connection between systems can reduce the need for establishing new treatment
- paying "their fair share". Working in a regional collaboration may offer a better way to face increasing costs of replacement and new As the federal investment in infrastructure continues to decline and change form from grant to loan, more emphasis is being placed infrastructure funding. Locally, system owners are challenged to maintain rates at levels that demonstrate their customers are on State and local resources to fund needed improvements. States across the country are grappling with defining their role in infrastructure and operation and maintenance.
- In today's environment of scarce financial resources and looming capital needs for infrastructure improvements, funders may provide priority to regional systems as a more cost-effective investment of the funding resource.

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- Establishing a network of regional infrastructure systems can provide needed assurance for backup supplies in emergency situations such as those caused by hurricanes, flooding and drought. Health risks often associated with these emergency situations can be mitigated through regional collaboration.
- In order to be successful in the global economy, local governments and states are challenged to think about economic development on a regional basis, evaluating and capitalizing on regional assets. In today's environment, this may be the only way to ensure that their regions are efficient and competitive. Water infrastructure is a essential support for economic development. Safe and vital regional infrastructure networks must be in place to support future economic development.

visionary - to see beyond the immediate challenge to a future several years hence. It also requires system owners to come together without SWIC found several immediate and significant barriers to developing regional systems within the State. Primary among these was the perception of "loss" associated with regionalization. Regional systems are founded on cooperation and require system owners to be

decision-making and play a major role in whether regions develop or not. fear of loss of identity and control – a tall order for most of us. Local politics, whether we like it or not, continues to stand in the way of good

State would allow strategic development of regional facilities. Multi-year, predictable public investment needed s needed to support regional see the benefit of regional collaboration, but have limited capital to contribute. SWIC determined that predictable revenue available from the including studies, preliminary engineering and permitting. SWIC noted that this is exceptionally challenging for smaller systems that may financial grant assistance to regional start-ups. In most cases, regional partners had had to pay all the costs of developing the partnership SWIC also found financial barriers to regionalization. Our existing funding environment provides only minimal (\$40,000 per community)

deficiencies are corrected distribution and collection systems that can render them poor candidates for physical connection to another system until those internal candidates for regionalization. However, many of these same small systems have significant structural problems within their treatment, ability of the system to operate efficiently as an independent entity. Thus, many small systems appeared on the surface to be good For small systems, SWIC noted that the distance between systems and the relatively small number of users per system limited the financial

development of regional infrastructure seems to make sense to both protect the environment and public health as the population pressures increase, regionalization runs headlong into the Interbasin Transfer Rules as they are now established in the State Finally, SWIC found through a brief review of existing public policy that both regulatory and legal barriers exist in North Carolina to regionalization. As the State grows in population competing uses for water have emerged and will continue to emerge. While the

provide an important service to the State actual physical connection between systems or a management or administrative connection such as sharing operators and equipment, SWIC concluded its examination of regional partnerships in the fall of 2007, finding that regional collaborations, whether they involve an

especially in an environment of scarce financial resources and demanding political accountability, makes sense in a regional context. How we do that in North Carolina can be improved Thinking regionally is thinking collaboratively. Working together to address our State's infrastructure and water management challenges,

SWIC set forth the following recommendations in 2006-2007:

- Remove existing barriers to regional cooperation.
- Develop and implement a set of criteria for evaluating system "readiness" for regionalization
- that systems seeking State funds have analyzed all regional alternatives available State funders of infrastructure should develop a "Cooperation Alternatives Analysis" process and documentation as a way to ensure

- Federal and State funders of infrastructure should execute a Memorandum of Understanding to support funding collaboration on regional projects.
- Fund a study to identify the most promising regions for water regionalization that could then inform local decision makers, funders and the public.
- Start-up funds for regional efforts should be made available for strategic investment in regional collaborations.
- System regionalization should also allow for cooperation between private and public water entities.
- Encourage the state Division of Water Resources to explore and employ water resource management strategies that compliment regionalization such as allowing communities to bank the excess water capacity for future use.
- materials are also need for the consuming public on the value of regionalization as a tool for managing the state's water resources. System owner education on fiscal management and its relationship to regional partnerships is necessary and needed. Educational

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Infrastructure Financing

During the 2007-2008 Short Session of the General Assembly, the SWIC reiterated its commitment to both short-term critical needs funding and a longer-term permanent strategy for infrastructure development and funding. The SWIC recommended appropriation of \$50 million to address immediate and critical water infrastructure needs in fiscal years 2007-2008. The SWIC noted that the last major State investment in drinking water and wastewater infrastructure was the through the Clean Water Bond Act of 1998. These important funds have been exhausted and many necessary projects were still unfunded. SWIC supported a \$50 million appropriation in the short session which would ensure that systems with time-sensitive and critical needs would have the resource they

competing needs of the State, the General Assembly was unable to act on the recommendation for dedication of a permanent source of At the close of the 2007-2008 Session, the General Assembly had appropriated \$50 million for critical drinking water and wastewater revenue for water and sewer infrastructure improvements. In the face of at least \$16.6 Billion in capital needs to improve the state's maintains that dedication of a permanent source of State revenue for infrastructure is the preferred option for addressing this need. drinking water, wastewater and stormwater infrastructure, the growing population of the State and the recent drought event, SWIC needs. These funds are to being administered by the North Carolina Rural Economic Development Center. In light of numerous

Water Efficiency: Commission Work 2007-2008

Water Efficiency: Commission Work 2007-2008

of the drought designations. Another 20 were in extreme drought and 13 in severe drought. There were no moderate drought counties. were brought into clear focus. By the end of December 2007, 67 counties were designated as under "exceptional drought", the most severe As the State Water Infrastructure Commission released its Annual Report in November of 2007, the consequences of the ongoing drought

drought had spread across the State, engulfing 55 additional counties in exceptional drought conditions were affected, but because of the speed with which the drought progressed. Within four months, as shown by the graphics below, the This drought of 2007 was more remarkable than the recent drought of 2002, not only because all 100 counties in the State of North Carolina

Figure 1: NC Drought Status 8/07 and 12/07

Drought status is assigned to each county through a consensus of opinion by members of the North Carolina Drought Management Advisory Council. Members are professionals in weather and climate and evaluate data on existing conditions for rainfall, stream flow, wildfire activity and other similar indicators. The group recommends an assignment to the U.S. Drought Monitor and weekly updates to the maps and county designations are made and posted each Thursday.

Drought Status: August 2007

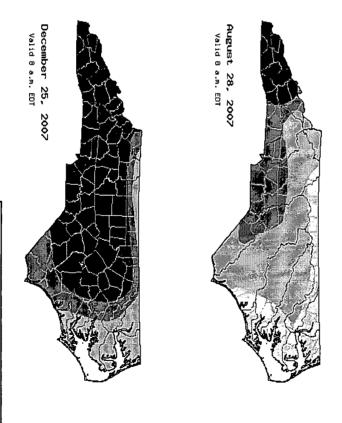
12 – Exceptional drought 29 – Extreme drought

Drought Status: December 2007

16 – Moderate drought

43 – Severe drought

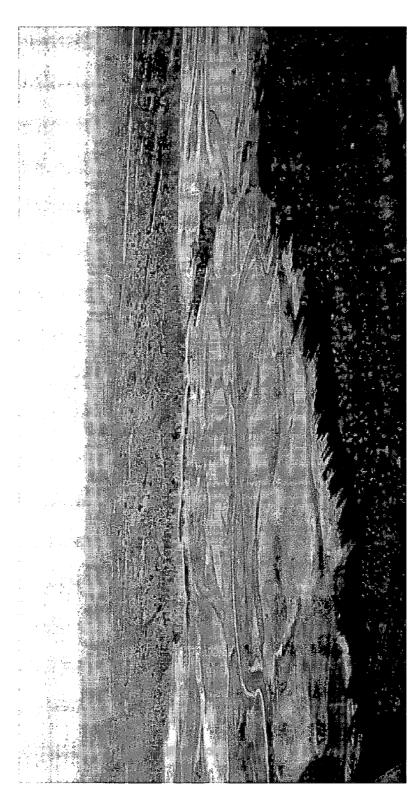
67 – Exceptional drought 20 – Extreme drought 13 – Severe drought



Source: NC Drought Management Advisory Council

Falls Lake water supply had dwindled to less than 70 days of supply remaining. In Durham, the supply was down to 50 days remaining. On By December 2007, the severity of the drought made water conservation a reality for many water systems and consumers. In Raleigh, the December 20, 2007, Governor Easley conducted a press conference as part of the NC Drought Monitoring Advisory Council Meeting and called for 30 percent conservation reduction in all systems, and 40 percent in those hardest hit by the drought.

Figure 2: Falls Lake, Raleigh Water Supply, Winter 2007



Source: Google Images

In addition, the Governor asked systems to adopt water conservation pricing systems, announced creation of a drought website, and called for the 30 most drought-affected communities to convene in January 2008 to determine their plans for water supply should the drought

leepen.

systems this was the first time attention was placed on the reduction of water use on the supply side. Water audits, leak detection and supply and demand side conservation. Water systems were called upon to conserve water through their own operations. For many conservation pricing became regular parts of the conversation on how North Carolina would deal with its most severe drought. While most previous drought response efforts had been focused on demand side – consumer – reduction, this call by the State was for both

Population Growth and Water Demand

the State's population to more than 12 million people (see Figure 3). a whole since the year 2000. ² In the twenty year period between 1985 and 2005, North Carolina's population grew by 39 percent. Growth meeting the water demands for a growing population. Population growth in North Carolina has exceeded population growth in the nation as through 2030 calculated by the State Data Center shows an expected 30 percent increase in population between 2010 and 2030, bringing The drought of 2008 created real water shortages in many areas of the State. For most systems, it amplified the apparent challenge of

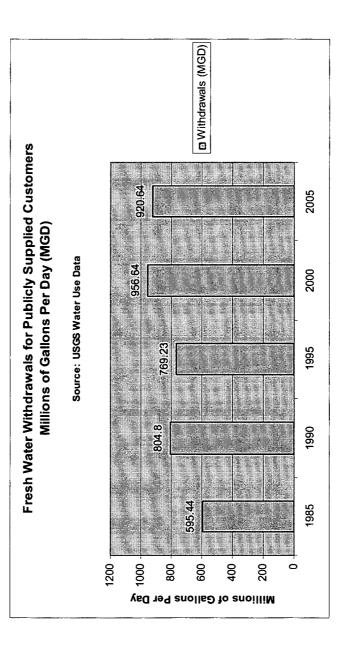
10,000,000 12,000,000 14,000,000 2,000,000 6,000,000 8,000,000 4,000,000 1990 1995 Source: NC State Data Center **NC Population 1985-2030** 2000 2005 2010 2020 NC Population

Figure 3: North Carolina Population 1985-2030

Note: Population figures for 2010, 2020 and 2030 are estimates provided by the State Data Center.

Carolina increased more than water use from private (domestic) wells, and the commercial, industrial, mining, livestock and crop irrigation between 1985 and 2005 from 595.44 MGD to 920.64 MGD. ⁴ Our water use as customers of public systems has exceeded our population Jnlike many other states in the nation where agricultural irrigation accounts for the majority of water use, people drive water use in North Carolina. According to data gathered on water use by the United States Geological Survey, water supplied by public systems in North sectors combined. ³ As shown in the chart below, withdrawals of ground and surface waters by public systems increased 55 percent growth, reflecting an increased use of water per capita.

Figure 4: Fresh Water Withdrawals for Publicly Supplied Customers: 1985-2005



increase. As shown in **Figure 5** below, the increase in water use in these counties was 282.52 MGD from 1985 to 2005 – a doubling of use. The overwhelming majority of that water use increase occurred in the top twenty counties of the State when ranked by the amount of The aggregate change in water use in the remaining 80 counties in the State was 42.97 MGD.

Figure 5: Top Twenty Counties Ranked by Increased Water Use in MGD 1985-2005

Total	20	19	18	17	16	15	14	13	12	11	10	9	æ	7	တ	5	4	ω	2		
	Guilford	Orange	Onslow	Rutherford	Dare	Lee	Catawba	Wayne	Craven	Cabarrus	Johnston	Davie	Rockingham	Forsyth	Durham	Gaston	Cumberland	Bladen	Wake	Mecklenburg	County
281.85	41.69	7.52	6.74	5.10	3.48	3.55	14.77	4.99	4.46	4.73	2.57	1.50	9.51	33.78	19.95	12.92	18.26	1.06	34.36	50.91	1985
378.20	44.18	9.49	8.91	10.03	3.77	5.05	17.93	7.47	11.49	6.91	5.37	2.12	12.79	41.87	22.21	30.96	29.94	1.75	40.94	65.02	1990
396.80	42.36	10.75	8.48	10.09	4.33	5.05	17.22	9.15	10.33	9.16	4.61	2.36	21.5	43.35	20.93	33.47	25.17	2.32	43.22	72.95	1995
558.85	56.65	12.96	17.32	11.62	6.03	7.22	18.07	12.02	12.49	21.02	6.89	3.16	17.67	46.61	30.47	28.75	39.73	30.91	72.76	106.5	2000
564.37	45.94	11.83	11.47	9.87	8.38	8.55	21.82	12.13	11.68	12.19	10.21	10.37	20.92	46.14	33.87	27.52	35.13	28.34	77.53	120.48	2005
282.52	4.25	4.31	4.73	4.77	4.90	5.00	7.05	7.14	7.22	7.46	7.64	8.87	11.41	12.36	13.92	14.60	16.87	27.28	43.17	69.57	Change in MGD 1985-2005
100%	10%	57%	70%	94%	141%	141%	48%	143%	162%	158%	297%	591%	120%	37%	70%	113%	92%	2574%	126%	137%	Percent Change 1985- 2005

Commission Defines 2008 Work Plan

mindset- will require a significant shift in thinking on part of the consumer and our public policy. In 2008, the SWIC provided a needed forum would inhibit the expanded use of water efficiency measures in public systems across North Carolina. The SWIC members recognized that water systems owners and consumers alike are being called upon to change how we value water. Recent events such as the droughts of 2002 and 2008 and the underlying increase in water use call on us to become more efficient in our use of this resource. SWIC members Against this backdrop, the State Water Infrastructure Commission designed its work agenda to determine if policy barriers existed which recognized that moving from our current mindset of cheap, readily available and limitless supply to one recognizing limits – an efficiency for discussion on water efficiency measures.

how funders of infrastructure are working together to become more coordinated and efficient in the use financial resources. In addition, the The SWIC has also continued to devote efforts to examining infrastructure funding, including allocation and distribution of funds but also SWIC has been participating with the ongoing Water Allocation Study sponsored by the State Environmental Review Commission. A summary of activities and findings follows.

What is "Water Efficiency"?

conservation. Water Conservation, defined as, "any beneficial reduction in water loss, waste or use" means reducing the amount of water used. ⁶ Until recently, the water industry practices, education and public policy have focused on water

use 125 gallons, we are not being "water efficient". and the amount of water used or delivered. 7 If we need 25 gallons of water to shower, but we an indicator of the relationship between the amount of water required for a particular purpose minimal amount of water feasible. Best put by respected author Amy Vickers, water efficiency is Water efficiency is different. To be water efficient means accomplishing the task with the

Why Be Water Efficient?

programs, and practices. supply by promoting water efficiency and enhancing the market for water-efficient products program is a partnership sponsored by EPA which seeks to protect the future of our nation's water population. Nationally, the Environmental Protection Agency (EPA) research has shown that at least 36 states are anticipating local, regional, or statewide water shortages by 2013. 8 EPA's WaterSense North Carolina is not alone in grappling with the impacts of increased water demand of a growing

supplies for future generations, save money, and protect the environment. By using water more efficiently, both drinking water systems and customers can help preserve water waste, it can help stabilize costs and defer the development of new supplies further into the future water systems respond to these conditions by finding ways within their own operation to reduce serve to drive up the cost of water and push us forward into developing new supplies. When local drinking water, wastewater and stormwater and unpredictable variations in weather and climate al experiencing in North Carolina. Population growth and concentration, increasing regulation of way we use water. Being water efficient particularly makes sense given the conditions we are of water, to find better, more effective ways of doing things and to make behavioral changes in the Being "water efficient" places a different lens on our water use. It challenges us to reduce the waste

> stress in water supplies and drinking glasses! This increased day – enough to fill 1,600 of 100 gallons of water each Americans now use an average doubled. However, in that available water supplies. both human health and the distribution systems, threatening demand has put additional same period, public demand U.S. population nearly Between 1950 and 2000, the population is putting stress on environment. for water more than tripled! Across the country, our growing

Source: EPA WaterSense Website



Water Efficiency Drought Response Measures Selected

supplies while still maintaining safe operations and continuing to serve their customers. In the absence of a prescriptive, mandatory State By February 2008, the drought had reached its peak. Local water system owners and operators were struggling to respond to dwindling though, some systems chose not to enforce mandatory conservation. Water rates and rate schedules were as variant. The disparity of measures, rate surcharges, and the closure of high volume water-related businesses such as car washes. Even in the face of drought, policy directive, each system was responding as its elected leaders saw fit, with either voluntary or mandatory water conservation esponse to the severe drought conditions raised serious questions about the sustainability of water supplies for the future.

across the State. Many stakeholders, including the North Carolina League of Municipalities, the Association of County Commissioners, and 2008-143, it contains a number of new policy directives giving the State more precise avenues to handle water emergencies (See Appendix In May 2008, policy staff from the Department of Environment and Natural Resources presented legislation to reduce drought vulnerability language. The bill, known as House Bill 2499 – "The Drought Bill" - was signed into law on July 31, 2008. Now codified as Session Law A). The law also reflects a move forward in thinking about how we value and manage water resources and begins to incorporate water representatives of public utilities, private businesses and the agricultural and industrial sectors were involved in developing the final efficiency measures for public systems.

and Water Rates and Rate Setting. SWIC has explored the current State policy status to determine where barriers might exist to expanded water systems with responding to the drought and to longer-term improved management: Water Audits and Leak Detection, Water Reuse To compliment these efforts the SWIC selected three water efficiency measures to examine, each with significant potential to assist local utilization of these measures and examined whether the State is making the best use of regulation to support enhanced management of water resources. The SWIC provides this Report as a summary of its work.

Water Audits and Leak Detection

future the time for development of new water supplies gains to the system, it would not only protect the water resource from needless waste, but would allow the water systems to push into the Charlotte-Mecklenburg region for that year - due to leaks and unmetered connections. Measured in 2005, public water systems loose more than 35 billion gallons of drinking water they pay to treat - enough to supply the entire ⁹ If that water could be captured through efficiency

What is a Water Audit?

"lost" in the system. using billing records. or the surface water treatment plant. Accounting is also done to measure the volume of water sold system. Accounting on paper is generally done to determine the volume of water produced by wells through a water audit. The audit procedure is set to measure "water in" and "water out" of the Evaluating where water goes once it enters into the distribution system can be accomplished Water produced less water sold yields a preliminary, estimated figure of water

water professionals, participated on this task force. The group published its results in 2000 as the "M36" publication entitled, *Water Audits and Leak Detection*. 10 Works Association (AWWA), the major trade and professional association for engineers and other effort to develop a workable water audit structure for drinking water utilities. The American Water Task Force, a five-country group formed by the International Water Association (IWA), launched its efficiently, the methodology of the water audit has been recently refined. In 1997 the Water Loss With building pressures on water supplies and the need to manage systems and resource more

publication is now available and in use across the globe. accounted for via metering and estimation, either as a form of consumption or loss. 11 This is based upon creating a water budget and is premised on the thinking that all water can be Method, including the means to calculate the performance indicators. The format of the water audit publication, Water Audits and Leak Detection, to provide guidance on the IWA/AWWA Water Audit In 2003 the AWWA Water Loss Control Committee began the effort to rewrite the AWWA M36

Each year public water systems loose more than 35 billion gallons of drinking water they pay to treat. That is enough water to supply the entire Charlotte- Mecklenburg region for one year.

Water 2030 Report, 2006

Charlotte-Mecklenburg Utilities is a non-profit, public utility that provides quality drinking water and sanitary sewer services to more than 750,000 customers in the City of Charlotte and greater Mecklenburg County -- including the towns of Matthews, Mint Hill, Pineville, Huntersville, Davidson, and Cornelius.

Charlotte Utilities Website

understanding of the end points of water use. It is also notable that it provides a way to calculate the value of water that fails to produce It is notable in that this new methodology moves thinking away from calculating how much water is "lost" to developing an greater revenue and a greater understanding of costs and benefits – the economic value – of making various repairs to the system. Figure 1. below, illustrates the water balance formula.

Figure 6: IWA/AWWA Water Balance

Revenue Water			Non-Revenue	Water (NRW)		
Billed Metered Consumption (including water exported) Billed Unmetered Consumption	Unbilled Metered Consumption Unbilled Unmetered Consumption	Sonsumption ering Inaccuracies	Errors	Leakage on Transmission and Distribution Mains	Leakage and Overflows at Utility's Storage Tanks	Leakage on Service Connections up to point of Customer metering
The state of the s	Unbilled Meteric	Unauthorized Consumption Apparent Losses Gustomer Metering Inaccuracies	Data Handling Errors	Leakage on Transr Distribution Mains	Leakage and ON Storage Tanks	Leakage on Se up to point of C
Billed Authorized Consumption	Unbilled Authorized: Consumption	Apparent Losse			RealLosses	
Authorized	Consumption			Water Losses		
	System	Input Volume	corrected for known	errors)		

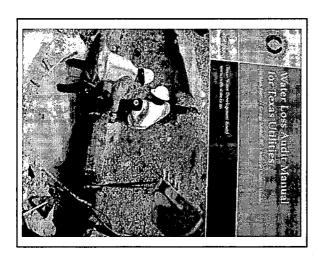
SWIC Examines Texas Water Audit Program

governments some of which had accumulated experience with a water audit. the UNC Environmental Finance Center, AWWA, the Rural Water Association, NC League of Municipalities and various other loca provide water auditing services to the 30 most drought impacted systems, the Department of Environment and Natural Resources (DENR) the task force. Agencies and organizations represented on the Task Force included the five consulting firms selected by the State to and to report back on the utility of this water audit standard to North Carolina. SWIC member, Steve Cavanaugh P.E., was asked to chair SWIC. In response to the presentation the SWIC members appointed a Task Force to further evaluate the new IWA/AWWA methodology In February 2008 members of the North Carolina AWWA Water Loss Control Committee presented the AWWA Water Audit Standard to

construction projects. Revolving Fund and the Drinking Water State Revolving Fund and is authorized to sell state-backed bonds for water and wastewater development of water for Texas. Today it provides all state-level water planning and education, administers to the EPA Clean Water State organization is to provide leadership, planning, financial assistance, information and education for the conservation and responsible Development Board (TWDB) to review the Texas program and offer comments on the usefulness of the water auditing process for both local government and the State-level planning process. The TWDB was created by the Texas Legislature in 1957. The mission of the of their State Water Management Program. The Task Force invited Mr. Mark Mathis, Leak Detection Program Manager, of the Texas Water The State of Texas was selected as a premier example of a state which had implemented the water audit process as a fundamental strategy

on a five year interval indicators. 13 Texas State law requires that utilities submit a water audit to the State standard prior AWWA model and because it has clearly defined terms and meaningful performance utilize this guideline because it provides more useful information for the water system than the The Texas Water Audit methodology follows the guidelines of the audit prescribed by IWA/AWWA, but is adapted to the configuration of Texas water systems. Texas chose to

relative to proper operation and maintenance and State of North Carolina would be enhanced stewardship of both water and capital resources Water Resources within DENR. The Task Force members concluded that the benefit to the process which requires submittal of a plan on a five-year interval to the State's Division of could be readily implemented through modification of the ongoing Local Water Supply Plan development of a North Carolina standard. Members of the Task Force determined that this adoption by North Carolina of the IWA/AWWA Water Audit Model as a guideline for The Task Force reported back to the SWIC in June 2008 with findings that supported the



The Task Force recommended that implementation of the guidelines should be preceded and supported by education and training on the value of water audits and water establishment of water system benchmarks to be used for both current and long-term planning efforts.14 loss reductions practices.

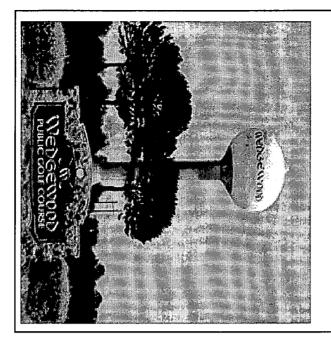
Findings of the State Water Infrastructure Commission on Water Audits

useful application in large water systems, and required information that many of the State's smaller systems likely would not be able to of the information gathered by the Division of Water Resources. SWIC found that no policy barriers currently existed to deter this modification. The SWIC recognized the utility of the updated IWA/AWWA model but acknowledged that the model was developed for most produce. Thus, the SWIC recommends adoption of the IWA/AWWA model as a guideline for development of a North Carolina water audit determined that having a format adopted for use North Carolina in conjunction with the Local Water Supply Plans would increase the utility Following discussion, the SWIC adopted a position of support for the use of a standardized water audit format in North Carolina. format

City of Wilson Reclaimed Water Program

The City of Wilson was one of the first municipalities in North Carolina to undertake development of a reclaimed water system. As a discharger into the Neuse River Basin, the city was under requirements to reduce the amount of nutrients discharged to Contentnea Creek, a contributory to the Neuse River. The City is required to reduce Total Nitrogen (TN) being discharged into the creek by 30 percent. The City's reclaimed water program will help achieve the goal of reduction by lowering the volume of discharge and the amount of nutrient delivered to the creek.

The City's reclaimed water program serves two industrial parks, two golf courses and the public Rose Garden.



Reclaimed Water

local systems can increase the efficiency of water use manage water supplies. By recycling the water available from wastewater discharges, water - water reuse - represents an opportunity to increase the efficiency with which we With population increases and the growth in demand for water, the use of reclaimed

What is Reclaimed Water?

the development of new supplies and infrastructure investments. If peak demand can be systems must be sized to meet peak demand. Meeting the peak demand often drives wastewater as a substitute for treated drinking water for end uses that do not require resources is supported. reduced through increasing the efficiency of use, the sustainability of the system and the potable water quality. In accordance with State and Federal regulation, drinking water Water Reuse – as known as reclaimed water - involves the use of highly-treated

SWIC Explores Options for and Barriers to Reclaimed Water

summary of information and findings are captured in this Report. conducted its own research and also invited professionals in the water industry to Carolina American Water Works Association (AWWA) Water Reuse Committee. A Environment and Natural Resources (DENR) and members and Chair of the North programs, the State of North Carolina represented by officials from the Department of represented in the panels included Public Health, Agriculture, Industry, Local reuse which were open to the public and drew significant attendance. The interests provide their perspectives. SWIC sponsored a series of panel discussions on water Governments already employing water reuse as part of their water management To gain an understanding of the current policy and practice of water reuse, the SWIC The use of reclaimed water in North Carolina is driven by both water quality and water North Carolina water reuse programs as municipal and other dischargers looked for quantity considerations. Water quality concerns provided the initial impetus for the assimilative capacity in receiving waters and Total Mass Daily Loads (TMDLs) options other than continued discharge to nutrient sensitive waters. Limited continue to drive water reuse from the water quality perspective.

substitute for treated drinking water to stretch the utility of infrastructure investments about the availability of water supply to meet future water demands. Water quantity shortages in areas of the piedmont and western portions of the State, and in larger More recently, the State program and the practice of reuse has reflected concerns metropolitan cities, have drawn attention to the value of reclaimed water as a and supply.

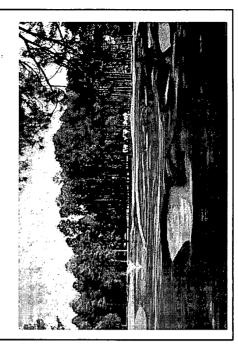
North Carolina Reclaimed Water Laws and Regulation

North Carolina is NCGS Article 21, Section 143-213, (18)a. Effectively, it delegates the adopted the first water reuse rules in 1996, codified as 15A NCAC 2H .0200. The rules within DENR initially developed the program as a means to encourage the alternative particularly important for coastal areas of North Carolina where protection of shellfish evolved on a state by state basis responding to needs for end uses and water quality concerns in each of those states. ¹⁵ The survey of other states' regulations and use of high quality effluents rather than direct discharge to surface waters. This was responsibility for defining the reuse program to the State Department of Environment and Natural Resources and establishes rule making authority with the Environmental waters from pollutants was a priority. The authorizing Statute for reclaimed water in egulations - only guidelines - for the development of reclaimed water systems and Environmental Protection Agency (EPA) first published in 1992 and existing reuse programs in Florida and California. It is important to note that there are no federal North Carolina's water reuse program began officially in 1996. Staff and Officials Management Commission (EMC). The Environmental Management Commission the end uses. Therefore, the reclaimed water programs in existence today have were modeled with significant attention to the guidance available from the

City of Goldsboro Reclaimed Water Program

The City of Goldsboro has recognized the value of using high quality reuse water and began using reuse for outdoor irrigation on two large city projects; the city golf course and the 114 acres of farmlands for hay production.

Reuse water is also made available, after reuse training, to other city departments, businesses, and Seymour Johnson Air Force Base through bulk hauling. The types of permitted reuse applications from the reuse bulk hauling program are: fire fighting, fire training, vehicle and equipment washing, concrete cutting, decorative ponds and fountains, industrial cooling or boiler water, irrigation of public and private landscapes and turfs, concrete production, sewer cleaning, street sweeping, and power washing. The availability of reuse water for these applications has been very beneficial, particularly in the mandatory conservation phase of the drought.



aimed at augmenting potable water supplies. North Carolina regulations are among the more comprehensive of these Only a subset of states, including North Carolina: have regulations written specifically to encourage and direct wastewater reclamation guidelines revealed that many states apply and adapt their land application of treated wastewater regulations for water reclamation projects

uses, nor for direct reuse as a raw potable water supply. for toilet flushing in single family residences, irrigation of direct food chain crops, the filling of swimming pools, hot-tubs, spas or similar roadways. ¹⁷ Reclaimed water is to be used for purposes beneficial to the State and for the purpose of conservation of the State's water resources by reducing the use of a water resource (potable water, surface water, and groundwater). ¹⁸ Reclaimed water may not be used accessible to the public such as lawns, golf courses, cemeteries, parks, schools, industrial or commercial sites, highway medians and permitting and options for the use of reclaimed water. Reclaimed water can be used for land application to areas intended to be The current rules found at 15A NCAC 02T .0900 provide for system-level (referred to hereafter as "municipal") treatment regulations

aggregate 54 MGD permitted flow (including municipal, industrial and private systems). (See Appendix B) Cary were the first permitted projects in the State. Currently, there are 84 active and pending reuse projects in North Carolina with an Reclaimed water projects have been permitted for North Carolina municipal systems since 2001. The City of Charlotte and the Town of

Proposed Modifications to the Reclaimed Water Rules

month, waiving the notice requirement. and, in a move that reflected the importance and timeliness of the amendments, referred the document to the full Commission the same Water Rules. 19 The amendment was heard by the Water Quality Committee of the Environmental management Commission in September State Department of Environment and Natural Resources - Division of Water Quality proposed a series of modifications to the Reclaimed Following a stakeholder process which included representatives of major water using sectors in North Carolina and water professionals, the

Notably, the proposed rule changes do the following: The proposed amendments address many of the water industry concerns with regard to barriers to expanded use of reclaimed water.

Allows for two classes of reclaimed water - Class A and Class B. water. Refer to the Figure 7 below for a comparison of effluent requirements Class B is established as the minimum standard for reuse

Figure 7: Current and Proposed Reclaimed Water Effluent Treatment Standards

Class B Reclaimed Waters	Daily Max.	15 mg/l	10 mg/l	6 mg/l	25 /100 ml			10 NTUs				
ABSSBR	Monthly Avg.	10 mg/l	5 mg/l	4 mg/l	14 mg/100	<i>Im</i>	(geomean)					
Class A Reclaimed Waters	Daily Max.	10 mg/l	10 mg/l	2 mg//	25 /100 ml			5 NTUs	25/100ml	25/100ml	25/100ml	
Glass A Re	Monthly Avg.	5 mg/l	5 mg/l	1 mg/l	14 mg/100	<i>lm</i>	(geomean)		3/100ml	5/100ml	5/100ml	
Stanolard	Delly Max.	15 mg/l	10 mg/l	6 mg/l	25 /100 ml			10 NTUs				
Gurrent S	Monthly Avg.	10 mg/l	5 mg/l	4 mg/l	14 mg/100 ml	(geomean)						
	Parameter	BODS	TSS	NH3	Fecal	Coliform		Turbidity	E. Coli	Coliphage	Clostridrium	Perfringens

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Permits the use of Class, B reclaimed water for wetland augmentation where a net benefit to the ecological function of the water body can be demodistrated. ĸ

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cooked or thermally processed prior to consumption. Class B reclaimed water are permitted for food chain crops that will be Permits the application of Class A reclaimed water for irrigation of direct food chain crops that will not be peeled, skinned, processed as above prior to consumption. *ي*

These The DENR staff is currently developing the fiscal note which must accompany the proposed amendment to public hearing. amendments, if finally approved by the EMC following a public hearing, could possibly take effect in late 2009.

Reclaimed Water Recognized in Public Policy as a "Valuable Resource" in 2008

meeting the existing and future water supply needs of the State. Water reuse is recognized as able to provide benefits that are environmentally acceptable and protect public health. ²⁰ The law directs the EMC to promulgate rules that identify and facilitate acceptable option for meeting future water needs as part of the Local Water Supply Plans and in applications by local systems for State-provided infrastructure funding. uses of reclaimed water and facilitate permitting of reclaimed water facilities. The law also requires that water reuse be considered as an Bill". Codified as Sessions Law 2008-143, the law provides that it is the public policy of the State that the use of reclaimed water is critical to In addition to the DENR proposed rule modifications, water reuse was recognized as a valuable resource by House Bill 2499, the "Drought

Barriers to Expanded Use of Reclaimed Water in North Carolina

demonstrate its utility, 2) when the laws and regulations provide incentives for reuse and 3) when the pricing of water services more accurately reflected the full costs thereby reducing the risks of investment in costly reuse infrastructure. A summary of barriers to expanded use of reclaimed water brought forward by panelists follow. management of water resources would most likely occur 1) there was sufficient collective experience with water reuse at the system level to During the panel discussions sponsored by SWIC, it became readily apparent that the expansion of water reuse as a tool for efficient

▶ Perceived Negative Impacts to Public Health

appropriate actions to minimize them to acceptable levels is not only possible but has already has been accomplished in states such as wastewater. Invited speaker, Dr. Mark Sobsey, Kenan Distinguished Professor, UNC School of Public Health, acknowledged expert on management program. health. Public education is essential to the expanded use of reclaimed waters and is not yet funded as part of a statewide water resource Florida and California. Water reclamation and reuse is possible in all situations and settings and can be done in ways that protect public practices that are health-risk based. ²¹ Noting research and practice worldwide, Dr. Sobsey conveys that recognizing the risks and taking public health risks related to reclaimed water, affirms that public health risks can be addressed by responsible regulations, policies and Policy makers, regulators and consumers, alike, express concerns regarding the potential for microbiological contaminants in reclaimed

▶ Competitive Price Disadvantages

Both rates and rate structures are established at the local level and may or may not adequately cover the costs of treatment and distribution. extracted at no cost, in unlimited quantity, and undervalued in price, creates a significant comparative disadvantage for the expanded use of Essentially, groundwater and surface water are available free and unlimited. In addition, the pricing of water by local systems is unregulated. Reuse Water experiences a competitive disadvantage in relation to the use of ground and surface waters by water systems. Currently in Reclaimed water systems are costly, requiring advanced treatment technologies and separate distribution systems. Water that can be North Carolina there are no extraction costs for water and regulatory limits on withdrawals are defined only in capacity use areas. reclaimed water.

► Setback (Buffer) Requirements

reclaimed water to streams and other water bodies that would subsequently be used for shell fishing purposes. The North Carolina program water facility, they would be purchase highly treated wastewater -water treated to tertiary standards and safe for the environment and public standards may be significantly less than those required for reclaimed water. In contrast, if the irrigator is purchasing water from a reclaimed brought forward in the panel discussions, North Carolina regulation currently allows irrigators (such as golf courses) to withdraw water from a stream and apply that water, with no attention or regulation as to water quality, to the land or crops - even crops for human consumption. This absence of regulation permits the application of wastewater discharged from an upstream wastewater facility where effluent treatment Setback requirements stipulate the distances (in linear feet) that must exist between the application of reclaimed water to land as irrigation water and surface waters. At the time that the setbacks were determined (1996), they were based upon the programs and experiences in other states. Setbacks were established in part to reduce the runoff and therefore the increased load of pollutants potentially caused by required an additional 50 to 100 feet of buffer than many other state's and no corresponding reduction in the fecal coliform limit. ²² As

► Reclaimed Water for Agricultural Uses

and can require less restrictive effluent limits. Opportunities for the application of reclaimed water to agricultural lands are plentiful in North Carolina and could be facilitated, as part of an overarching statewide water management strategy, by relaxing the treatment requirements wastewater to restricted access agricultural fields, crops, and woodlands has been permitted and practiced in North Carolina for decades for non-food crops. As cited by Dr. Garry Grabow of North Carolina State University, a perception change in application rates for effluent Current regulations require the treatment of reclaimed municipal wastewater to tertiary effluent limits. Land application of municipal

nutrient loading. would also need to occur. 23 Land application of reclaimed water would be based on crop needs, not on assimilative capacity of the crop and

► Groundwater Recharge through Aquifer Storage and Recovery and Stream Augmentation

waters is NCGS 143-214.2(b). particularly those along the eastern seaboard, as a means to augment water supplies and to create a barrier against the further intrusion of saltwater inland into fresh water supplies. ²⁴ The North Carolina General Statute identified as the impediment to this end use for reclaimed limited to treated drinking water. Aquifer Storage and Recovery using reclaimed water has been used successfully in other states (Florida), natural features is not currently permitted under the North Carolina reuse program. Injection of waters for storage and future use is currently Recharge of groundwater through the injection, infiltration and storage of reclaimed water within an underground capsule confined by Attention has been drawn in recent years to locations in eastern North Carolina where groundwater was found to be depleted by overuse.

▶Inconsistencies in Regulatory Treatment of Gray Water, Harvested Rain Water and Reclaimed Water

water requires no certified operator, no monitoring or reporting. contain high levels of pathogens – is permitted for use in urinals and toilet flushing after being filtered, chlorinated and dyed. Use of gray from with water quality perspective and available end uses. Gray water is defined by the North Carolina Plumbing Code as "waste discharged from lavatories; bathtubs, showers; clothes washers and sinks." ²⁵ Under the current plumbing code, gray water – which may thereby enhancing the sustainability of water supplies for the future. Regulatory treatment of each is unique and inconsistent particularly Gray water, harvested rainwater and reclaimed water are currently available options for reducing the use of potable (treated) drinking water,

can be used for lawn watering and individual homeowners are allowed to design and pipe their own systems operator and no reporting. Rainwater can also be used for toilet flushing under a current interpretation of the administrative code. Rainwater no size limit and no filtering required on the discharge end. Use of harvested rainwater requires no monitoring, no treatment, no certified rainwater as an alternate water supply method specifically to reduce the use of treated drinking water in schools. There is no detention limit, Harvested rainwater is defined as rainwater captured for reuse. In 2007, the North Carolina Plumbing Code added the use of harvested

harvested rainwater and gray water, is not available for uses inside a single family residence reuse system, and monitoring and reporting on a regular, prescriptive schedule. Reclaimed water, though treated to a higher standard than authorized purposes under the law. Reclaimed water is highly regulated, limited in end use, requires a certified operator to manage the Reclaimed water is defined as wastewater treated to meet the performance levels in compliance with State rules and beneficially used for

Findings of the Commission on Water Reuse

The members of the State Water Infrastructure Commission support the expanded use of reclaimed water, gray water, harvested rain water and stormwater subject to adequate provisions to protect public health. The SWIC has adopted a resolution in support of the use of The SWIC supports the proposed rule enhancements for reclaimed water which are currently being considered by the EMC. SWIC notes with concern the inconsistencies in regulatory treatment of gray water, harvested rainwater, stormwater and reclaimed water and supports reclaimed water (See Appendix C) which it has distributed to the Governor, members of the North Carolina General Assembly and others. the timely reconciliation of these differences.

Water Rates and Rate Structures

states across the country, the need exists to price water services so that they more accurately reflect the costs involved in the production, Carolina. Pricing of water services is a statement of value of the resource and the service of the provider. In North Carolina, as in other The level at which water and wastewater rates are set and the structure under which the charges are defined are varied across North reatment and distribution of drinking water and the collection, treatment and discharge of wastewater effluent.

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The SWIC has been working with the staff of the Environmental Finance Center (EFC) at the University of North Carolina at Chapel Hill – Municipalities conducts an annual survey of all water utilities in North Carolina for the purpose of collecting information on rates and rate School of Government to evaluate rates and rate structure in North Carolina. The EFC together with the North Carolina League of structures. Findings of their efforts in summary form are available on the EFC website.

This year, the SWIC engaged the EFC to assist in meeting the requirements established for SWIC in the "Drought Bill" (Session Law 2008-143). Specifically, the SWIC is charged as follows:

available to the Department of Environment and Natural Resources, the North Carolina Utilities Commission, and to all local to the Environmental Review Commission on its progress in developing the guidelines no later than January 1, 2009. government water systems and large community water systems, as defined in G.S. 143-350. The Commission shall report conservation and recommend rate structures that support water conservation. Copies of the guidelines shall be made maintenance or improvement of the water system. The guidelines shall also consider the effect of water rates on water Government Commission, shall develop guidelines for water rate structures that are adequate to pay the cost of Department of Environment and Natural Resources, the School of Government at the University of North Carolina at Chapel maintaining, repairing, and operating the system, including payment of principal and interest on indebtedness incurred for Hill, the North Carolina Utilities Commission, the Public Staff of the North Carolina Utilities Commission, and the Local SESSION LAW 2008-143: SECTION 17. The State Water Infrastructure Commission, in consultation with the

The research effort has been designed to study the relationships between water usage for specific utilities and 1) pricing signals, 2) the application of conservation policies, 3) utility demographic data, 4) climate data and 5) other factors that are likely to influence water public water system customers. The pricing data for the study will come from database developed by the survey conducted by the NC small sample of Utility Commission Regulated Utilities. The research will target 65% of these utilities serving at least 80% of the State's usage. ²⁶ The survey sample will include the majority of the non-Public Utility Commission regulated water systems within the state and League of Municipalities (NCLM) and the UNC School of Government Environmental Finance Center (EFC).

Findings of the Commission on Rates and Rate Setting

The State Water Infrastructure Commission will report to the Environmental Review Commission in January 2009 on its preliminary findings

Our Recommendations for 2008-2009

Infrastructure Financing

Recommendation: Establish permanent State funding for water, wastewater and stormwater improvements

submitted to State funding agencies exceeds \$100 million. 27 economic growth the Commission's first priority is to recommend that the Governor and the 2009 General Assembly provide a investment to meet 2030 demands exceed \$16 billion for North Carolina. Current (2008) unmet need in funding application permanent State funding source for drinking water, wastewater and stormwater infrastructure. Estimates of needed infrastructure Justification: To ensure that North Carolina can protect human health, preserve its water resources for the future and sustain

Household Income Threshold used for determining grant eligibility under current State law. Recommendation: Establish a stakeholder process to determine whether and if so, how much to increase in the Median

changes, if any, to the legislature by March 30, 2009 with sensitivity incorporated for economically distressed communities determine whether and if so, how much to increase the median household income threshold. The SWIC should recommend Stakeholder Process, including water systems and funders, should be convened by the State Water Infrastructure Commission to many systems are well above the 1.5% high unit cost threshold and the amount of available grant funds has decreased. The water – what we are willing to pay for it- is changing and most systems have increased rates within the last two years. The rates of pressures on our state's water resources have increased due to events such as drought and population increase. How we value threshold of 1.5 percent of median household income for both water and wastewater service. In the decade since its adoption, the estimated average household user fee for water and sewer service in the area served by the project that exceeds the high-unit-cost 1095). A high-unit-cost grant is available for the portion of the construction costs of a water or wastewater project that results in an grant funds. The 2005 General Assembly codified the high unit cost threshold in SL 2005-454, Clarify Clean Water Funding (HB measure called the "high unit-cost threshold" for determining the eligibility of public systems and non-profit corporations for state rates to finance water infrastructure and the ability of residential customers to pay higher rates. The legislature adopted a threshold Justification: Ten years ago, in the Clean Water Bond Act of 1998 the General Assembly considered both local efforts to raise Recommendation: Continue to work with the Program Evaluation Division of the North Carolina State Legislature as the work toward recommendations on refining State infrastructure funding for consideration by the legislative body. Justification: Representatives of SWIC have met with the Program Evaluation Staff and support their efforts to examine the current infrastructure financing available in North Carolina with an eye toward refining that system. SWIC has participated in their current evaluation and will offer response to their findings in November 2008.

Recommendation: Develop an annual process for reporting on all state and federal grant and loan resources utilized for water, wastewater and stormwater projects.

the State for infrastructure improvements. Such a report could catalog the types of projects funded, show the geographic distribution Justification: The State Water Infrastructure Commission should collaborate with the UNC School of Government - Environmental Finance Center to develop the process for and create the reports necessary to document the amounts and uses of funding across of funds and be used as an assessment tool in the gauging of need for State-level infrastructure investment.

Drought Preparedness and Water Resource Management

Recommendation: Utilize the Water Rates Guidelines being developed by the State Water Infrastructure Commission as a policy guide for discussion on allocation of State funding for water infrastructure.

systems and consistent with the State guidance on water conservation. SWIC has contracted with the Environmental Finance Center Commission, the Local Government Commission, and others to develop water rate guidelines. A progress report will be provided to Justification: Section 17 of Session Law 2008-143, Improve Drought Preparedness and Response (HB 2499), directed the State at the School of Government - UNC at Chapel Hill for research support. SWIC will work with DENR, the Public Staff of the Utilities Water Infrastructure Commission to develop guidelines for water rate structures that are adequate to maintain and operate water the Environmental Review Commission by January 1, 2009 and the report of findings delivered to the Commission and to State Funders by July 1, 2009. The findings of this report should help to inform discussion on future allocation of State infrastructure

water efficiency measures by water systems Recommendation: Implement Water Efficiency Provisions of SL 2008-143 and Increase State support for the implementation of

systems applying for State infrastructure funds to become more efficient by requiring them to demonstrate they have met thresholds 2008-143 and will anticipate reports from this group on their findings. to be established by State funding agencies. SWIC will support the funders of water infrastructure to implement Section 9 of SL Justification: Section 9 of Session Law 2008-143, Improve Drought Preparedness and Response (HB 2499) encourages water

Recommendation: Develop additional State policy and incentives to implement water efficiency measures in local/regional

wastewater systems. reduced interest rates combined with grant funds, when available, for efficiency improvements within the public water and water conservation strategies such as water efficient fixtures and appliances and water reuse. Incentives could include tax savings water leaks; local land use policies to support water-efficient development; improvements to the State Building Code to support business models based upon selling water services instead of selling gallons of water; system pressure management to reduce Additional public policy, regulation and education is needed to encourage the use of techniques such as developing new utility Environment and Natural Resources, additional incentives are needed to encourage water efficient practices by local systems **Justification**: Once the statewide water efficiency standards have been developed and implemented by the Department of for the purchase of water-efficient appliances such as washing machines and dishwashers for the individual homeowner and

Water Audits

water audits as a means to increase water system efficiency and financial stability. Recommendation: Require the AWWA Water Audit methodology or an equal standard for guidance to local systems conducting

conducting a water audit to account for water uses and to determine the amount of non-revenue producing water in the local system Justification: The American Water Works Association's (AWWA) Water Loss Committee has developed a standardized format for This standard has been adopted and modified for specific state conditions by both Texas and New Mexico and is being considered by many others as guidance for collecting water use and loss data on local systems. At its July meeting the SWIC adopted a resolution urging the use of water audits, consistent with AWWA guidelines. Use of this standard or an equal would allow the State to determine systems most at risk for loss and those having made improvements to reduce the loss of water that would otherwise produce revenue for the system. Such information could be used in allocation of funds for needed repairs. Water audits for water systems prepared by private engineering firms and funded by DENR and water audits for businesses prepared by retired engineers through the Division of Pollution Prevention and Environmental Assistance during the 2007-2008 drought were very valuable. Recommendation: SWIC recommends that North Carolina Department of Environment and Natural Resources - Division of Water Resources consider modifications to the Local Water Supply Plan format to collect needed information from these water audits.

Justification: Local Water Supply Plans are required for public water systems are a five year interval. The format for collecting the data can be readily adjusted to collect the additional and important information on non-revenue water.

of financing a water audit for needy communities in their grant and loan packages. Water audits should be reported to Division of Recommendation: The North Carolina Local Government Commission should consider requiring a water audit before approving debt to finance water infrastructure. State infrastructure funders - DENR and the Rural Center - should consider including the costs Water Resources and made available to the public.

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capital resources relative to proper operation and maintenance and establishment of water system benchmarks to be used for both Justification: The benefit of these requirements to the State of North Carolina will be enhanced stewardship of both water and current and long-term planning efforts.

Reclaimed Water

categorize water reuse as a "water resource". **Recommendation:** Consider a change to the reference in the North Carolina Administrative Code and related Statute(s) to

encourage broader use. The SWIC will continue in this work and deliver a recommendation to the Environmental Review water to identify policy barriers for expanded use of reclaimed water. The SWIC is considering whether to recommend that the water to public hearing. Throughout 2008 the State Water Infrastructure Commission has invited a number of experts on reclaimed utilized to replace treated drinking water for uses not requiring treated drinking-quality water. At its September 2008 meeting the of the state's drinking water systems. Reclaimed water is a vital part of our water resource future in North Carolina and should be Commission in 2009. General Assembly and/or Environmental Management Commission define reclaimed water and stormwater as a resource and Environmental Management Commission voted to send draft rules proposing major changes in the regulation and uses of reclaimed Justification: Reclaimed water is highly treated wastewater, water treated to standards above the quality on influent water to most

Recommendation: Continue discussion of the permitted uses for reclaimed water to include the more options.

and recovery (ASR), aquifer recharge, stream augmentation and potable reuse. The SWIC will continue its review of appropriate reclaimed water. Other uses for reclaimed water may be available in other states in the US and abroad, including aquifer storage manage of our State's water resources. The Environmental Management Commission's proposed rules increase the uses of uses of reclaimed water. Justification: Replacement of highly treated drinking water with reuse water makes sense if we are to effectively and efficiently

Recommendation: Reduce the competitive price disadvantages to expanded use of reclaimed water.

unlimited unless the applicant is located in a state-designated capacity use area. So long as those who need water can secure it Justification: Under current policy and regulation, withdrawal of water from the State's surface waters or groundwater is free and

disadvantages for using reclaimed water. The 2009 General Assembly should seriously consider requiring large users of surface Comprehensive management of all the State's water will help prioritize uses of water and eliminate one of the competitive cheaply and with little or no administrative permitting challenge, reclaimed water will always suffer a price disadvantage. water and ground water to apply for water withdrawal permits.

Recommendation: Develop or enhance existing local policy frameworks and institutions for management of water resources.

reuse programs. In North Carolina, local government system owners make the policy decisions on rates and rate structures, how the borders when sustainably managing water resources and encourages the use of basinwide management and planning that supports regional collaborations and enables the wise use of resources – both financial and natural. SWIC recognizes the need for continued systems are managed and determine how prepared systems are for the future. SWIC recognizes the value of thinking beyond local education of water consumers on the value of these local planning frameworks and management institutions and encourages State Justification: Water Reuse/Reclaimed Water is best managed at the local level- it is a localized resource. Therefore, strong local policy and management structures provide the best opportunity for effective operation of water resource programs, including water inancial support of education and training for local elected officials and other decision-makers.

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Regional Partnerships

Recommendation: Support the development of regional infrastructure partnerships through direct State investment in policy development, funding, and technical assistance.

Carolina. Through these systems, residents and business well outside the reach of an small, local system can be served more cost-Justification: Regional collaborations, whether they involve an actual physical connection between systems or a management or collaborations, initiated on the local level and many without state financial support, strengthen the infrastructure system in North effectively, drinking water can be moved from areas of availability to areas of scarcity and the impact of emergencies such as administrative connection such as sharing operators and equipment, provide an important service to the State. These drought can be mitigated.

collaboration, provide an efficient and effective management structure for infrastructure systems. SWIC offered a series of and stormwater infrastructure systems. SWIC concluded that regional partnerships, when the partners are ready for regional of regional efforts and specifically encourages the State to consider the following: to remove existing legal, regulatory and policy barriers to regional cooperation. SWIC reiterates in this 2008 Annual Report the value recommendations on how the State of North Carolina might enhance its support of regional partnerships in a role that would function In FY '07-'08, the State Water Infrastructure Commission explored the value of regional partnerships to drinking water, wastewater

- configuration where they cannot participate as an equal. bringing systems that are not ready i.e., not yet managing their systems efficiently and effectively, into a regional Develop and implement a set of criteria for evaluating system "readiness" for regionalization. This may prevent
- makers, funders and the public. Fund a study to identify the most promising regions for water regionalization that could then inform local decision
- work associated with forming a regional entity. Provide Start-Up funding for regional projects to match local investments for the engineering, planning and legal

Fund the State Water Infrastructure Commission

appropriate \$250,000 per year to fund the ongoing work of SWIC Recommendation: The State Water Infrastructure Commission recommends that the Governor and 2009 General Assembly

the North Carolina General Assembly. The creation of the Commission and the modifications to the State's existing water and Justification: The State Water Infrastructure Commission was created through passage of House Bill 1095 in the 2005 Session of

Development Center. These three entities have served as the agents of the State in making important water, wastewater and storm water investments that have protected public health and the environment and have created opportunities for economic growth and wastewater financing laws were the product of a collaborative effort between major State funders of infrastructure including the Department of Environment and Natural Resources, the Clean Water Management Trust Fund and the Rural Economic development

financing and development of infrastructure. The State Water Infrastructure Commission provides a necessary forum for discussion In the current national environment, states are being called upon to define a broader and more comprehensive role in both the and decision-making on water resources and infrastructure matters for the State of North Carolina.

The Commission will benefit from a permanent staff comprised of an Executive Director in the short-term. Continuity is necessary to address the work of the Commission and to provide support for the members in their work.

Communications between the Commission and members of the public is essential to its effectiveness and success. These enhanced communications can be achieved through development of a website. Endnotes

Endnotes

- North Carolina Drought Management Advisory Council. Website: http://www.ncdrought.org.
- ²U.S. Census of Population 2000 and NC State Data Center, 2008.
- ³ United States Geological Survey, North Carolina Water Science Center. Website: http://nc.water.usgs.gov
- ⁴ United States Geological Survey, North Carolina Water Science Center. Website: http://nc.water.usgs.gov
- ⁵United States Geological Survey, North Carolina Water Science Center. Website: http://nc.water.usgs.gov
- ⁶ Handbook of Water Use and Conservation for Homes, Landscapes, Businesses, Industries and Farms, Amy Vickers. 2001, page 434
- ⁷Handbook of Water Use and Conservation for Homes, Landscapes, Businesses, Industries and Farms, Amy Vickers. 2001. page 434
- ⁸U.S. Environmental Protection Agency. WaterSense website: http://www.epa.gov/watersense
- ⁹Rural Economic Development Center, Inc., Report 3: Water, Sewer & Stormwater Capital Needs (2006)
- http://www.awwa.org/Resources/Content.cfm?ItemNumber=588 ¹⁰ Water Audits and Leak Detection. The M36 publication. 2008. American Water Works Association website:
- ¹¹ Water Audits and Leak Detection. The M36 publication. 2008. American Water Works Association website: http://www.awwa.org/Resources/Content.cfm?ItemNumber=588
- 12 The Texas Water Development Board website: http://www.txwdb.state.texas.us
- http://www.txwdb.state.texas.us ¹³ Texas Water Loss Audit, Mark Mathis, George Kunkel, P.E., and Andrew Chastain Howley. March 2008. Downloaded from
- ¹⁴ Summary Report: Water Audit task Force. State Water Infrastructure Commission, Water Audit Task Force. June 2008
- Compared to National Water Reuse Regulation Trends. Hilger and Sobsey, 2003. WRRI Report No. 346 ¹⁵ An Assessment of the North Carolina Water Reuse Regulations: Their Application to a New Reclamation Facility and Their Key Features When

- 16 An Assessment of the North Carolina Water Reuse Regulations: Their Application to a New Reclamation Facility and Their Key Features When Compared to National Water Reuse Regulation Trends. Hilger and Sobsey, 2003. WRRI Report No. 346.
- ¹⁷ North Carolina Reclaimed Water Rules: 15A NCAC 02T .0900. Website: http://h2o.enr.state.nc.us/lau/documents/Section.0900-ReclaimedWaterSystems 002.pdf
- ¹⁸ North Carolina Reclaimed Water Rules: 15A NCAC 02T .0900. Website: http://h2o.enr.state.nc.us/lau/documents/Section.0900-ReclaimedWaterSystems 002.pdf
- ¹⁹ Proposed Modification to the North Carolina Reclaimed Water Rules: 15A NCAC 02T .0900. EMC Website: http://h2o.enr.state.nc.us/admin/emc/AGENDASEPT2008.htm
- ²⁰ Sessions Law 2008-143. NCGA Website: http://www.ncga.state.nc.us/Sessions/2007/Bills/House/HTML/H2499v6.html
- ²¹ Presentation by Dr. Mark Sobsey to State Water Infrastructure Commission, August 2008.
- ²² An Assessment of the North Carolina Water Reuse Regulations: Their Application to a New Reclamation Facility and Their Key Features When Compared to National Water Reuse Regulation Trends. Hilger and Sobsey, 2003. WRRI Report No. 346.
- ²³ Presentation by Dr, Garry Grabow to State Water Infrastructure Commission, August 2008.
- ²⁴ Florida Reclaimed Water Rules. Website: http://www.dep.state.fl.us/water/reuse/final_610.htm
- 25 North Carolina Plumbing Code, Chapter 6.
- ²⁶ Research proposal from UNC School of Government Environmental Finance Center, September 2008.
- ²⁷ Conversations and data from State Funders, October 2008.

Appendix A

Session Law 2008-143

SECTION 9. Article 38 of Chapter 143 of the General Statutes is amended by adding a new section to read:

'§ 143-355.4. Water system efficiency.

- Local government water systems and large community water systems shall require separate meters for new in-ground irrigation systems that are connected to their systems.
- To be eligible for State water infrastructure funds from the Drinking Water Revolving Fund or the Drinking Water Reserve Fund or any other grant or loan of funds allocated by the General Assembly whether the allocation of funds is to a State agency or to a nonprofit organization for the purpose of extending waterlines or expanding water treatment capacity, a local government or large community water system must demonstrate that the system:
- Has established a water rate structure that is adequate to pay the cost of maintaining, repairing, and operating the system, including reserves for payment of principal and interest on indebtedness incurred for maintenance or improvement of the water system during periods of normal use and periods of reduced water use due to implementation of water conservation measures. The funding agency shall apply guidelines developed by the State Water Infrastructure Commission in determining the adequacy of the water rate structure to support operation and maintenance of the system.
- Has implemented a leak detection and repair program.
- (3) Has an approved water supply plan pursuant to G.S. 143-355.
- Meters all water use except for water use that is impractical to meter, including, but not limited to, use of water for firefighting and to flush waterlines. 4
- Does not use a rate structure that gives residential water customers a lower per-unit water rate as water use increases. 3
 - (6) Has evaluated the extent to which the future water needs of the water
 - system can be met by reclaimed water.
- Has implemented a consumer education program that emphasizes the importance of water conservation." SECTION 10. Article 38 of Chapter 143 is amended by adding a new section to read: 0

§ 143-355.5. Water reuse; policy; rule making.

- Water Reuse Policy. It is the public policy of the State that the reuse of treated wastewater or reclaimed water is critical to meeting the existing and future water supply needs of the State. The General Assembly finds that reclaimed water systems permitted and operated under G.S. 143-215.1(d2) in an approved wastewater reuse program can provide water for many beneficial purposes in a way that is both environmentally acceptable and protective of public health.
- Rule Making. The Commission shall encourage and promote safe and beneficial reuse of treated wastewater as an alternative to surface water Identify acceptable uses of reclaimed water, including toilet flushing, fire protection, decorative water features, and landscape discharge. The Commission shall adopt rules to:
- (2) Facilitate the permitting of reclaimed water systems.

 (3) Establish standards for reclaimed water systems that are adequated.

irrigation

Establish standards for reclaimed water systems that are adequate to prevent the direct distribution of reclaimed water as potable

Appendix B

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WQ0015929	WQ0015869	WQ0015052	WQ0014306	WQ0013785	WQ0013676	WQ0013398	WQ0013252		WQ0013200		WQ0012821	WQ0012748		WQ0012151	WQ0011777	WQ0011614	WQ0011453	WQ0010892		WQ0007569		WQ0006878	WQ0006085	WQ0001664		WQ0000088	Permit Number	h Carolina V	
K & M Development	Lake Osseroga Association Inc	Enviro-Tech of North Carolina Inc	Sandler Utilities at Mill Run LLC	Brunswick County	Beacon's Reach Master Assoc Inc	904 Georgetown Treatment Plant LLC	Department	Charlotte Mecklenburg Utility	Southeast Brunswick Sanitary District		US Marine Corps - Camp Lejeune	Authority	South Brunswick Water & Sewer	Brunswick County	Neon Impressions Inc	Ocean Ridge Properties, Inc.	Brunswick County	Smithfield Packing Company Inc		of North Carolina	Carolina Water Service, Incorporated	Brunswick County	Town of Ocean Isle Beach	of North Carolina	Carolina Water Service, Incorporated	Governors Club Limited Partnership	er Organiza	North Carolina Water Reuse Projects - Pending and Active	
K&M Dev-High Vista Falls	The Cottages at Lake Osseroga	Village at Ocean Hill	Eagle Creek	Winding River Plantation WWTF	Beacons Reach WWTF	Sandpiper Bay WWTF	CMUD-Mallard Creek Reclamation		WWTP	Southeast Brunswick Sanitary District	U S Marine Corps-Golf Course	Sea Trail WWTF		St. James Plantation WWTF	Neon Impressions Inc-Triangle	Ocean Ridge Plantation WWTF	Brunswick Community College WWTF	Heel Division	Smithfield Packing Company - Tar	Brandywine Bay WWTF		Carolina Shores Conjunctive Re-Use	Ocean Isle Beach SBR WWTF	Belvedere Plantation WWTF		Governors Club	Facility Name	ınd Active	
In review	Active	Active	Active	In review	Active	Active	Active		Active		Active	In review		Active	Active	In draft	In draft	Active		Active		In draft	Active	In review		Active	Permit Status		
45,000	8,000	164,000	321,000	500,000	135,000	550,000	4,000,000		500,000		1,650,000	500,000		600,000	1,200	900,000	30,000	2,100,000		350,000		300,000	1,050,500	110,000		300,000	Permitted Flow (GPD)	June 2008	
	4/14/2003	4/16/2004	5/14/2004		3/15/2002	7/29/2004	3/21/2003		12/10/2001		3/1/2004			10/1/2002	8/22/2001			10/14/2004		8/22/2003			4/29/2004			8/2/2004	issue Date	008	

Issue Date	11/16/2004	1/16/2004	12/20/2002		5/14/2001						8/19/2003			10/31/2003	7/26/2002		8/4/2000					7/2/2001		11/16/2001	2/12/2001	12/19/2003		4/26/2001	1/10/2002
Permitted Flow (GPD)	25,000		4,200				32,500				30,495,500			194,000	104,900		100,000				4,100,000	100,000		5,200	10,959	25,000		30,000	50,000
Permit Status	Active	Active	Active		Expired		In draft	In review	In review		Active		In review	Active	Active		Active		In review		In review	Active	In review	Active	Active	Active		Active	Active
Facility Name	Point On Norman-Village Pt	Raleigh City-Pud Reuse	Macclesfield Town-Sant Sewer	North Cary WRF Bulk Reclaimed	Water Distribution Program		Ginguite Woods	Heilig William-Heilig	New Bern City-Martin Mariett	Goldsboro WRF Reclaimed Water	Project	North Cary WRF Reclaimed Water	Distribution System/Program	The Preserve at Jordan Lake	Mahler's Glen	South Cary WRF Bulk Reclaimed	Water Distribution Program	South Cary WRF Reclaimed Water	Distribution System/Program	Wilson Reclaimed Water Distribution	System	Castle Bay WWTF	Macclesfield Town-1999 Sew	Washington City	Warsaw Conjunctive Use Irrigation	NC DENR-Aquarium Pine Knoll	Carolina Beach Conjunctive Use	Spray Irrigation	Tillery Tradition Incorporated-Golf
Owner Organization Name	Point On Norman	City of Raleigh	Town of Macclesfield		Town of Cary	Ginguite Woods Wtr Reclamation	Assoc Inc	Heilig William	City of New Bern		City of Goldsboro		Town of Cary	Bluegreen Carolina Lands LLC	Delphin Properties LLC		Town of Cary		Town of Cary		City of Wilson	R L Blanton & Co Inc	Town of Macclesfield	City of Washington	Town Of Warsaw	NCDENR		Town of Carolina Beach	The Tillery Tradition Inc
Permit Number	WQ0015931	WQ0016222	WQ0016816		WQ0017064		WQ0017224	WQ0017507	WQ0017634		WQ0017791		WQ0017923	WQ0018146	WQ0018174		WQ0018379		WQ0018489		WQ0018709	WQ0018755	WQ0018857	WQ0019179	WQ0019229	WQ0019331		WQ0019336	WQ0019390
	22	23	24	25		56		27	28	29		30		31	32	33		34		35		36	37	38	39	40	4		45

63 63	60 59	56 57	55 5 55 4 3	49 50 51	46 47 48	45 45	ò
WQ0021734 WQ0021863	WQ0020809 WQ0021530 WQ0021731	WQ0020500 WQ0020627 WQ0020808	WQ0020302 WQ0020409 WQ0020410	WQ0019702 WQ0019908 WQ0019962 WQ0019992 WQ0020248	WQ0019632 WQ0019664	WQ0019471 WQ0019569 WQ0019631	Permit Number
Charlotte Mecklenburg Utility Department Town of Apex	Farmville Golf & Country Club Inc Anson County Town of Jefferson	Town Of Morehead City Johnston County 3M Company Inc	Green Hill Country Club Town of Zebulon Town of Zebulon	Brunswick County Johnston Co Country Club City of Hendersonville Town of Louisburg City of Sanford	Johnston County Town of Erwin	Colvard Farms Development Company L L C Johnston County	Owner Organization Name
Franklin WTP Town of Apex Reclaimed Water System	Farmville Golf & Country Club Reclaimed Water System Anson County DPU Wastewater Reuse System	Morehead City WWTP Directional Drill Under Holts Lake Pittsboro, NC Plant	Water Reclamation Plant Effluent Reuse Zebulon-Spray Irrigation Improv. Zebulon-Spray Irrigation Improv.	Reuse Johnston Co Country Club Hendersonville City Louisburg Town-Golf Reuse Golf Course Irrigation-Sanford	Johnston County Reclaimed Water Distribution System Erwin Town-Water Reclamatio6 Northeast Brunswick Conjunctive Use	Colvard Farms Johnston County Landfill	Facility Name
Active Active	Active Active	Active Active	In review In review Active	In review Active Active Active Active	Active In review	Active Active In review	Permit Status
100,000	180,000 11,090 32,000	7,300 5,900	13,200 10,500 250,000	243,500 39,185 13,200 220,350	266,918	380 39,770 266,918	Permitted Flow (GPD)
10/23/2002 5/21/2003	2/13/2003 12/11/2002 12/19/2002	12/20/2002 3/28/2002 5/7/2002	12/11/2002	6/19/2002 9/28/2001 6/12/2002 2/13/2002	6/13/2003	2/20/2004	Issue Date

lssue Date	7/21/2003	12/11/2002	12/19/2002	12/20/2002		2/13/2003		6/10/2004	10/22/2003		1/16/2004					4/28/2004					7/15/2004	9/24/2004				
Permitted Flow (GPD)	23,640	11,090	32,000	30,000	432,000	120,000		23,240	48,000		18,000	270,000				0	0		1,838,500		140,000					0
Permit Status	Active	Active	Active	Active	In review	Active		Active	Active	In review	Active	In review		In review	`	Active	In review	In review	In review		Active	Active	In review	In review		In draft
Facility Name	Henderson Farms WWTF	Anson County Regional WWTP	Jefferson WWTP	Morehead City WWTP	Little Creek WWTP	Farmville WWTP	Town of Benson Reclaimed Water	System	Scotland Neck WWTP	Macon County Irrigation Site	Slash Condominiums	Buck Mountain Development	Coastal Carolina Country Club Golf	Course	Lexington Golf Course - Wastewater	Reuse System	Swansboro WWTP	Burgaw WWTP	West Regional WWTF	Pikeville Wastewater Treatment	Facility	West Bay	Little Creek WWTP	Rockbridge Subdivision	North Cary WRF Reclaimed Water	Distribution System/Program
Owner Organization Name	Henderson Farms LLC	Anson County	Town of Jefferson	Town Of Morehead City	Town of Clayton	Town of Farmville		Town of Benson	Town of Scotland Neck	Macon County	Slash Creek LLC	Heater Utilities Inc		Coastal Carolina Country Club		City of Lexington	Town of Swansboro	Town Of Burgaw	Brunswick County		Town of Pikeville	BLE LLC	Town of Clayton			Town of Cary
Permit Number	WQ0022052	WQ0022056	WQ0022120	WQ0022156	WQ0022224	WQ0022228		WQ0022501	WQ0022697	WQ0022711	WQ0022725	WQ0022870		WQ0023193		WQ0023213	WQ0023261	WQ0023420	WQ0023693		WQ0023934	WQ0024023	WQ0024223	WQ0024320		WQ0024332
	64	65	99	29	89	69	20		71	72	73	74	75		9/		77	78	79	80		81	85	83	84	

STATE WATER INFRASTRUCTURE COMMISSION

Resolution

In Support of Appropriate and Responsible Use of Water

demand for water resources and services will substantially increase; and Whereas, the population of North Carolina is projected to increase from over 9,000,000 in 2008 to over 12,000,000 by 2030 and the

landscape irrigation, industrial processing, cleaning, and cooling; and Whereas, limited drinking water supplies are currently used for many non-potable water services, including toilet and urinal flushing,

drinking and other potable uses, and other sources of water should be developed to provide for non-potable services; and Whereas, limited drinking water supplies will become increasing valuable as the population increases, should be conserved for

stormwater will improve; and and implement tiered or conservation pricing to fund capital and operating costs, and the economics of using treated wastewater and Whereas, although drinking water is undervalued and under priced in many communities, many communities will raise water rates

Whereas, many of North Carolina's rivers, lakes, drinking water supplies, and estuaries are nutrient sensitive and impaired and future discharges of treated wastewater and stormwater into surface waters are likely to be capped and reduced; and

effluents; and **Whereas**, many of North Carolina's systems have increased the quality and efficiency of their treatment facilities, via both technological and operational improvements and advances, and as a result of significant investments, are producing high quality

dust control, and fire fighting; and urinal flushing, landscape irrigation, vehicle washing, power washing, street cleaning, industrial processing, boiler make up, cooling, Whereas, treated wastewater or reclaimed water and stormwater, can be used for many non-potable services, including toilet and

Whereas, these uses of reclaimed water and stormwater are protective of both public health and the environment; and

reduce the costs of treating drinking water, improve water quality, and make communities more resilient to both droughts and floods; drinking water systems, reduce the capital costs of developing and constructing new drinking water supplies and treatment works, Whereas, increasing the use of reclaimed water and stormwater will increase the quantity of water available, extend the life of

Whereas, technical, financial, regulatory, legal, and public perception barriers have slowed use of reclaimed water and stormwater for non-potable services in North Carolina; and

Whereas, the General Assembly of North Carolina established the State Water Infrastructure Commission to identify the State's water infrastructure needs and to recommend changes in policies to meet those needs.

NOW, THEREFORE BE IT RESOLVED BY THE MEMBERS OF THE STATE WATER INFRASTRUCTURE COMMISSION MEETING AT THE ALBERT COATES CENTER IN RALEIGH ON TUESDAY, JUNE 10, 2008:

Protection of public health and the environment is the State's top priority in providing water services.

Reclaimed water and stormwater are potential new supplies to meet the increasing demands for non-potable uses of water, to stretch existing supplies of drinking water, and to reduce water pollution.

the use of reclaimed water and stormwater and recommend removal of barriers to appropriate agencies, where appropriate. The State The State Water Infrastructure Commission will carefully evaluate the technical, financial, regulatory, legal, and perception barriers to Water Infrastructure Commission will evaluate whether the considering reclaimed water as a "waste" water as defined in GS 143-213(18) is a barrier to increasing the use of reclaimed water. The State Water Infrastructure Commission supports local and regional planning to identify the most cost-effective locations for use of reclaimed water and stormwater and urges funding agencies to provide incentives to local governments who develop and adopt plans.

infrastructure for new development and redevelopment where local plans indicate it is cost effective in order to avoid costly retrofits The State Water Infrastructure Commission encourages municipalities and counties to require reclaimed water and stormwater and urges funding agencies to provide incentives to local governments who implement these policies.

This Resolution adopted this 10^{th} day of June, 2008.

Bill Holman, Chairman

STATE OF NORTH CAROLINA

TITLE V AIR QUALITY PERMIT PROGRAM

ACCOUNTABILITY REPORT

PURSUANT TO

N.C.G.S. 143-215.3A(c)

15A NCAC 2Q .0206(f)

40 CFR 70.9

NOVEMBER 2008

DIVISION OF AIR QUALITY

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

B. Keith Overcash, P.E. Director

FOR ADDITIONAL INFORMATION

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EXECUTIVE SUMMARY

The largest industrial facilities with emissions of air pollution in North Carolina are subject to the Title V permits program. The Title V program (referring to "Title V" of the Federal Clean Air Act), established in 1994, consolidates all Federal and state air quality regulations for a particular facility into a single permit. The Federal Clean Air Act requires the Title V program be funded entirely from fees collected from those facilities.

The enclosed annual report discusses the costs and other aspects of North Carolina's Title V permit program.

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INTRODUCTION

North Carolina state law requires that the Department of Environment and Natural Resources (DENR):

"... shall report to the Environmental Review Commission and the Fiscal Research Division on the cost of the Title V Program on or before 1 November of each year. The reports shall include, but are not limited to, fees set and established under this Article, fees collected under this Article, revenues received from other sources for environmental permitting and compliance programs, changes made in the fee schedule since the last report, anticipated revenues from all other sources, interest earned and any other information requested by the General Assembly." (NCGS 143-215.3A, attached as Appendix A)

This report describes the Title V Permit Program in North Carolina as carried out by DENR's Division of Air Quality. The report focuses on funding and staffing issues. It does not cover Title V permit programs under the jurisdiction of local air pollution control programs in Buncombe, Forsyth, and Mecklenburg counties.

Congress established the Title V Permit Program under the Federal Clean Air Act (1990 Amendments), primarily as a way to consolidate all air regulations affecting major emitters of air pollution into a single document. Under the Clean Air Act, Title V permits are required for certain industry groups as designated by the EPA as well as facilities that emit at least:

- 100 tons per year of any regulated pollutant, or
- 10 tons per year of any hazardous air pollutant, or
- 25 tons per year of any combination of hazardous air pollutants.

This Accountability Report includes:

- A discussion of program accomplishments and goals
- A discussion of current issues affecting the Title V program
- A detailed description of the Title V permit fee structure for calendar year 2009
- A detailed, line-item budget for state fiscal year 2008
- An account of Title V receipts and expenditures from state fiscal years 1992 to 2008
- Various appendices, including a list of acronyms used in this report
- An organization chart for total staff in the Division of Air Quality and Title V related positions

CURRENT STATUS AND RECENT ACCOMPLISHMENTS

A historical perspective of North Carolina's Title V Permit Program is included in Appendix B. This section focuses on the program's current status and recent accomplishments.

The Title V permit program encompasses the full range of activities associated with implementing the program, including:

- Reviewing, issuing, modifying, and renewing Title V permits
- Advising the regulated community on applicability issues
- Routinely inspecting permitted facilities
- Responding to citizens' complaints or concerns
- Gathering emissions inventory data
- Operating a network of air monitors
- Performing public outreach, including issuing daily air quality advisories to citizens
- Long-range planning (including computer modeling) to maintain adequate air quality for future generations
- Working with legislators and appointed officials to ensure adequate statutory and regulatory authority to carry out the DAQ's mission
- Taking enforcement actions against violators, including assessing penalties, revoking permits, and taking legal action to close down the worst offenders

The DAQ has a total staff of 303 managers, engineers, scientists, technicians, and administrators. About 10% of the positions are vacant at any time due to turnover. Although almost every position in the Division has some Title V responsibility, the full-time equivalent (FTE) staff dedicated to the Title V program is about 138 positions. The remaining staff is responsible for non-Title V permits, area sources, mobile sources, and toxics programs; these act vities are funded with receipts outside of the Title V program and are not the subject of this report. The DAQ staff size has been relatively stable for about ten years and no growth in staff is anticipated in the future (assuming carbon dioxide does not become a regulated pollutant).

DENR operates a Small Business Assistance Program, employs a Small Business Ombudsman, and appoints a Compliance Advisory Panel to conduct citizen overview of small business activity. Title V fees also fund these programs, although they operate independent of the DAQ.

The DAQ reports its activities to the US EPA on a federal fiscal year (FFY) basis. In the most recently completed FFY (October 1, 2007 through September 30, 2008), the DAQ

- Completed 270 permit actions (issued permits) for the regulated community
- Inspected 100% of permitted Title V facilities (343 inspections)
- Issued 83 Notices of Violations (NOV) to 70 different facilities
- Initiated 32 enforcement actions against 32 facilities, resulting in penalties of over \$156,000 (penalties collected are transferred to local schools)

PROGRAM ISSUES

The most pressing issue facing the Title V program is its long-term funding, which forced the DAQ to undertake rulemaking last year for the purpose of increasing the Title V fees. Other issues facing the program include

- New Federal regulatory programs
- Better documentation of staff time charged to Title V
- Program review by the Office of the State Auditor
- Personnel issues, including potential retirements

Title V permit fee increases

The DAQ completed the rulemaking process last year that increased Title V permit fees. This was the first non-inflationary fee increase since the Title V permit program was established in 1994.

Salary costs represent the major expense related to the Title V permit program. The North Carolina General Assembly approved salary increases for state employees in 2006, 2007, and 2008. Employee fringe benefits, office space, and other support costs are paid from the Title V permit fees on a pro rata basis relative to the total positions in the Division and are subject to inflation. Title V permit fees have not kept up with these rising expenses.

In pursuing the fee increase, the Division

- Discussed the concept with affected industries in advance of the proposal. DAQ received feedback from the regulated community on an early draft of the fee increase rule change and phased the increase over a longer period of time based upon that feedback.
- Took the draft rule to the Environmental Management Commission (EMC) in September 2007.
- Held a public hearing in November 2007. The EMC did not receive <u>any</u> adverse comments on the proposed rule change during the recent public comment period on the proposed rule.
- The EMC approved the rules at their January 2008 meeting.
- The fee increases became effective March 1, 2008.

Appendix C discusses the fee increase in more detail. No new positions were established by the fee increase.

New Federal regulatory programs

Title V permits are valid for five years after issuance, but it is rare that a Title V permit expires without being modified. Oftentimes the permit is modified at the facility's request, due to an expansion or a change in their process. But revised Federal regulations are also responsible for many permit modifications. Each of these modifications requires a careful review by a permit engineer.

A list of the most common Federal regulations would include:

- Maximum Available Control Technology (MACT)
- Reasonably Available Control Technology (RACT)
- Compliance Assurance Monitoring (CAM)
- Clean Air Interstate Rule (CAIR)
- Clean Air Mercury Rule (CAMR)
- Best Available Retrofit Technology (BART)

Although listed on a single line above, a Federal regulatory program may actually entail dozens of different rules, each specific to a particular industry or industrial process. These rules are under constant change, due to new technologies, new science, court challenges, and other factors.

Additionally, the US EPA:

- Has issued new national ambient air quality standards for fine particles,
- Has issued new national ambient air quality standards for ozone, and
- May be required to regulate greenhouse gas emissions.

The DAQ must modify its strategy to ensure attainment with each of these evolving standards, which may require new regulations for existing and new industrial sources.

The point being, and the reason it is listed as a program issue, it is a continual challenge for an air quality engineer to maintain his/her expertise on emerging technologies and regulatory requirements. Losing experienced engineers and training new recruits is not only demanding for the Division, but can create delays in industrial expansion as permit process times are extended. Worse, it can expose citizens to unhealthy environmental conditions if an engineer misses a requirement that should be included in the facility's permit.

New accounting procedures for timesheets

In the summer of 2006, the US EPA conducted a routine review of the state's Title V program. The EPA was critical of the manner in which Division employees accounted for time spent on Title V work versus other work. Specifically, the EPA was concerned that non-Title V funds were potentially being used to fund Title V expenses. The Federal Clean Air Act requires that the Title V permit program be fully funded by Title V fees and no other funding sources. To be clear, the EPA did not specifically accuse the Division of misusing funds, but they were concerned about that potential. In response, the Division revamped its timesheet procedures beginning with the October 2006 pay period. Each employee was assigned two different funding codes (one Title V and one non-Title V), and was given a table of activities indicating which activities were to be charged to which funding code. DAQ believes we have resolved this issue to EPA's satisfaction.

Program Review by the Office of the State Auditor

The annual report of November 2006 indicated the DAQ would develop and research staffing levels in both the permitting section and the entire Division. The Director has volunteered to allow the

Office of the State Auditor to conduct an audit of the DAQ Central Office permitting procedures to gain insight into and improve efficiency in issuing Title V permits. The audit was performed in the spring of 2008. A large part of the audit was dedicated to improving permit cycle efficiency through the application of "Lean Office" methods. The Office of the State Auditor brought in the North Carolina State University (NCSU) Industrial Extension Service (IES) to provide a comprehensive Lean Office review of the permitting process and provide recommendations to improve cycle time. The audit results can be found on the North Carolina Office of the State Auditor's website at http://www.ncaudifor.net/EPSWeb/Reports/Performance/PER-2007-7236.pdf.

Personnel issues, including potential retirements

For the first time in its history, the DAQ is facing serious turnover among its managers and most-experienced technical staff. The air program was first established in the late 1960s and expanded in the '70s and '80s by hiring mostly young engineers – there were no experienced air quality engineers in those days. Those initial hires are now reaching retirement age. For example, the lead engineer ("guru") for developing the air rules retired in 2007 with 39 years of service, the Deputy Director is expected to retire at the end of 2008, and the Director is eligible for full retirement at any time. There are many other examples where the Division faces losing long-time air quality staff with 30+ years of service

The Division is concerned with losing this "institutional knowledge," and also wants to ensure an orderly succession of its senior managers. We realize that, like other state agencies, the DAQ has a bit of a "silo mentality". Employees tend to stay in one area of the program, developing tremendous expertise in that aspect, but perhaps lacking the breadth of experience that would benefit them as a senior manager.

To improve this situation, the Division has initiated a trial "rotation" program where employees are reassigned for six months to a position in another branch of the Division. The employees are expected to totally immerse themselves in the new position, leaving their former duties to another employee who has rotated into that position. The program is currently voluntary, and both managers and staff are eligible to participate. In two years, about a dozen employees have participated, and the program has generally been successful. There are some productivity losses as participants move up the learning curve in their new position and as they develop working relations with the affected staff. However, participants have responded very positively to the new perspective they gain on how various work products of the Division fit together — which was a primary goal of the initiative. Other DENR divisions have taken notice and are interested in initiating their own rotation programs.

CALENDAR YEAR 2008 PERMIT FEES TABLE

Notes and explanation

The federal Clean Air Act requires that the entire cost of the Title V Permit Program, including both direct and other related expenses, be funded by facilities' permit fees and that Title V permit fees be used only for this purpose. The Clean Air Act set a presumptive minimum in 1990 of \$25 per ton of air pollutant emissions. Annually, EPA publishes an update to the presumptive minimum, which includes a cost-of-living increase. In September 2008, EPA's update increased the presumptive minimum to \$43.75.

The Clean Air Act Advisory Council established by the General Assembly recommended in 1992 that, because of the amount of work required to issue every Title V permit, regardless of the facility's emissions, half of the total title V fees come from an application fee (an annual flat fee for each permit) and the other half of the revenue come from annual per-ton charges.

The table on the following page provides the projected receipts for DAQ for FFY-10 using the presumptive minimum and DAQ's system, which follows the recommendations of the Clean Air Act Advisory Council.

2009 PROJECTED TITLE V PERMIT FEES

ESTIMATES BASED OF PRESUMPTIVE MINIMUM

Title V Presumptiv	ve Minimum 284164 Tons	\$43.75	= .	\$12,432,175.00
ESTIMATES BAS	SED ON NC FEES RULE	•		\$9,671,797.00
	•	Average Title V S	5/ton	\$34.04
NC Estimates (Bas	sed on calculations below)			
		% of Presumptive	2	77.80%
TITLE V	Annual Fees	Permits	Fee Rate	Fee Subtotal
	Basic	337	\$6,500.00	\$2,190,500.00
·	Tons/Tonnage Factor (7/1/08-12/31/0 Tons/Tonnage Factor 1/1/09-6/30/09)		\$22.50 \$25.00	\$6,748,895.00
	Non-Attainment	. 4	\$3,500.00	\$14,000.00
TITLE V	Application fees	·		·
	Significant Modification	40	\$8,910.00	\$356,400.00
	Minor Modification	200	\$867.00	\$173,400.00
	Ownership Change	17	\$62.00	\$1,054.00
	New	5 .	\$8,910	\$44,550
	PSD or NSR/NAA	6	\$13,488.00	\$80,928.00
	PSD & NSR/NAA	2	\$26,235.00	\$52,470.00
	Construction Notices	48	\$200.00	\$9,600.00

TITLE V EXPENDITURES STATE FISCAL YEAR 2007

29-Jun-08

Account #	Account Descrip	tion	Expenditure
	-		
531212	SPA-REG SALARIES-RECPT		6,083,933.33
531312	REG(N S) TEMP WAGES-RECP		629.36
531412001	STRAIGHT-TIME OT - RECPT		4,649.27
531422	HOLIDAY PAY - RECEIPTS		145.62
531462	EPA&SPA-LONGVTY PAY-REC		120,136.94
531512	SOCIAL SEC CONTRIB-RECPT		452,697.39
531522	REG RETIRE CONTRIB-RECPT	•	476,132.51
531561	MED INS CONTRIB-APPRO		155.76
531562	MED INS CONTRIB-RECPTS		405,140.58
531576	FLEXIBLE SPENDING SAVING		10,689.33
531631	WRKER COMP-MED PAYMENTS		133.94
532110	LEGAL SERVICES		152.28
532133	EMPLYEE/EMPLYMENT PHYSIC	·	20,198.00
532140	OTH INFORMATION TECH SVC		51,931.64
532160	ENGINEERING SERVICES		0
532170	ADMIN SERVICES		-881.25
532181	FOOD SER AGREEMENT		0
532183	LABORATORY SER AGREEMENT		0
532185	WASTE REM/RECY SER AGREE		2
532199	MISC CONTRACTUAL SERVICE		0
532210	ENRG SER -ELECTRICAL		0
532331	REPAIRS-MOTOR VEHICLES		0
532333	REPAIRS-OTHER EQUIPMENT		0
532410	MAINT AGREEMNT-BUILDINGS		0
532410001	MAINT AGREEMNT-BLDG-HVAC		0
532430	MAINT AGREEMENT-EQUIP		0
532441	MAINT AGRMT-OTHER SOFTWR		0
532512	RENT/LEASE-BLDINGS/OFFIC		0
532521	RENT/LEASE-MOTOR VEHICLE		0
532590	RENT/LEASE OTHER PROPERT		0
532711	TRANSP AIR - IN STATE		0
532712	TRANS AIR-OUT STATE, IN U		. 0
532714	TRANSP-GRND - IN STATE		0
532715	TRANS GRND-OUT STA, IN US	·	0
532717	TRANSP OTHER - IN STATE		0
	TRANS OTH-OUTSTATE, IN U		. 0
	LODGING - IN STATE		0
532722	LODGING-OUT STATE, IN US.		0
532724	MEALS - IN STATE		0
532725	MEALS-OUT OF STATE, IN US		0

TITLE V EXPENDITURES STATE FISCAL YEAR 2007

29-Jun-08

Account #	Account Descrip	tion	Expenditure
532728	MISC - OUT STATE, IN US		- 0
	TELEPHONE SERVICE		388.64
	TELECOMMUN DATA CHRG		. 0
532814	CELLULAR PHONE SERVICES		637.72
532821	COMPUTER/DATA PROCESS SV		0
532840	POSTAGE, FREIGHT & DELIV		9.43
532840001	POST, FR&DEL-MAILING SVCS		954.42
532840003	POST, FR&DEL-POSTAL METER		895.56
532850	PRINT, BIND, DUPLICATE		5,708.24
532860	ADVERTISING		0
532911	PROPERTY-INSURANCE		0
532913	LIABILITY INSURANCE		0
532930	REGISTRATION FEES		-80
532942	OTHER EMP EDUCATIONAL EX		1,179.00
. 533110	GENERAL OFFICE SUPPLIES		49.65
533120	DATA PROCESSING SUPPLIES		0
533150	SECURITY & SAFETY SUPP		. 73
533240	CARPENTRY & HARDWARE SUP		-69.97
533640	OPTICAL SUPPLIES		. 0
533710	SCIENTIFIC SUPPLIES		0
533900	OTHER MATERIALS & SUPP		18
534210	BUILDING ACQUISIT COSTS		0
534511	FURN-OFFICE		0
534521	OFFICE EQUIPMENT		. 0
534523	EQUIP-SCIENTIFIC/MEDICAL		0
534530	OTHER DP EQUIPMENT		0
534711	OTHER COMPUTER SOFTWARE		0
535675	P-CARD CLEARING		. 0
535830	MEMBERSHIP DUES&SUBSCRIP		0
536929	OTHER CONT/GRT-ED-INST		41,661.72
536961	AID TO COUNTIES		12,545.00
536989	OTHER CONTRACTS/GRANTS		62,585.17
	I TRANS TO DPPEA (1615)		10,874.92
	I TFR IND COST 1940/1430		0
	I TFR TO BC14300		417,571.18
538129	I TFR TO REG FIELD OFFIC		. 0

8,220,476.38

HISTORY TITLE V FEES/ASSESSMENTS AND EXPENDITURES (MILLIONS \$)

State Fiscal Year	92	93	94	95	96	26	86	66	00	10	02	03	04		90	20	08
Carried Forward	0.0	9.0	6 .	1.7	2.8	4.5	5.5	5.7	5.4	4.8	4.5	5.6	4.7	4.1	3.4	1.9	8.0
Fees Beginning '95/Assessments before	0.9	3.9	3.5	6.3	7.9	7.6	9.3	7.8	7.9	8.7	9.1	7.7	, 8.2	7.9	7.8	9.7	7.8
Salary Travel Supplies Equipment Contracts Other (Rent, Utilities, Reg Office fund,etc) Small Business Ombudsman's Transfer to DENR Agencies Total Expenses Refund to Sources	0.1 0.1 0.3	0.9 0.1 0.3 0.3 7.2	2.3 0.0 0.1 0.3 0.3 0.3 3.6 3.6	3.6 0.2 0.2 0.5 0.5 0.5 0.5 0.5 0.5 0.5	0.2 0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0	0.2 0.2 0.2 0.3 0.3 0.3 0.3	1.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	5.8 0.1 0.3 0.3 0.3 0.8 0.8	0.0 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	6.4 0.1 0.3 0.3 0.0 0.0 0.0 0.0	5.9 0.1 0.1 0.3 0.3 0.3 0.3 0.3	0.0 0.3 0.9 0.9 0.9 8.5 8	6.2 0.1 0.5 0.0 0.6 0.8 8.8	6.7 0.1 0.1 0.3 0.3 0.5 0.5 8.7	7.2 0.1 0.1 0.3 0.4 0.0 9.2	7.7 0.1 0.1 0.1 0.3 0.1 0.2 8.7	7.5 0.0 0.1 0.0 0.0 0.0 0.5 8.2
TO BE CARRIED FORWARD	9.0	1.8	1.7	2.8	4.5	5.5	5.7	5.4	4 .	4.5	5.7	8.4	4.1	3.3	2.0	0.8	0.4

APPENDIX A

Historical Perspective

The Clean Air Act Amendments of 1970, reviewed and amended by Congress in 1977 and 1990 formed the basis of the federal air pollution control program currently in place. Health-based national ambient air quality standards are the strategic basis of the Clean Air Act. The standards were to be met through the application of control technology that would reduce emissions continuously and result in improved air quality. Costs of technological capability were to be subordinated to public health protection requirements. Also, all requirements were to be national, with no facility having a competitive edge by having to meet less stringent controls. The United States Environmental Protection Agency (US EPA) is responsible for carrying out the program.

Prior to the 1990 Clean Air Amendments, EPA set two kinds of National Ambient Air Quality Standards (NAAQS) specifying maximum acceptable levels of pollutants for outdoor air. Primary standards set limits that protect human health; secondary standards provide welfare protection (i.e. plants, animals, aesthetics and materials). EPA set primary and secondary standards for six criteria pollutants: carbon monoxide, nitrogen dioxide, lead, sulfur dioxide, ozone and particulates. Eight substances were listed as hazardous air pollutants: asbestos, beryllium, mercury, vinyl chloride, radionuclides, inorganic arsenic, benzene, and coke oven emissions. National Emissions Standards for Hazardous Pollutants (NESHAPS) were promulgated for sources of seven of these pollutants.

Most air pollution comes from either stationary sources, such as factories, power plants and smelters, or mobile sources such as cars, trucks and airplanes. To limit mobile source pollution, controls were established for automobile emissions. EPA also set standards that applied to new industrial plants and existing ones that were substantially modified. Additionally, state governments were required to draw up State Implementation Plans (SIP's) that set out other measures to achieve acceptable air quality.

Under the Federal Clean Air Act Amendments of 1990, Congress mandated the Title V Permit Program primarily for regulating major air pollution sources; that is, sources with greater than 100 tons per year of the six criteria air pollutants and/or greater than 10 tons per year of any of the 189 Hazardous Air Pollutants (HAPs) or 25 tons per year of combined HAPs. The North Carolina Environmental Management Commission (EMC) established the state Title V Permit Program in 1994 in accordance with state and federal laws and with guidance from the N.C. Clean Air Act Advisory Council. The state Division of Air Quality (DAQ) carries out the program, which received interim approval from the US EPA on December 15, 1995 and final approval in October 2001.

The DAQ in implementing the program was required to issue permits to existing major stationary facilities. The DAQ issued all permits to all existing facilities by the end of 2004. The DAQ is also required to issue permits to new major stationary facilities.

In North Carolina, the General Assembly enacted laws in 1991 and 1993 authorizing the Title V program. The legislature also established the North Carolina Clean Air Act Advisory Council to develop the programs needed to comply with the Clean Air Act, including the structure of the Title V

permit fees. The Clean Air Act Advisory Council issued a final report in August 1992, and the Environmental Management Commission followed the council's recommendations in adopting rules for the state Title V Permit Program in 1994. The EPA gave interim approval to North Carolina's Title V Permit Program on December 15, 1995, with final approval pending certain rules changes, which have been submitted to EPA. EPA gave final approval in October 2001. The Division of Air Quality started receiving Title V permit applications after EPA's interim approval of the program on December 15, 1995. Facilities were given until December 1996 to submit their applications or they would be considered in violation of the permitting rules. Applications received during the aforementioned timeframe were processed as "Initial Title V Applications" and all other Title V applications received after December 1996 were processed as "First Time Title V Applications." By January 1998, DAQ had 475 Title V applications under review.

Implementation of CAA 1990 - A Historical Perspective

Since program approval, the DAQ has processed (closed-out) a total of 4,317 new, modified and renewal applications to date. To date DAQ has issued 87 First Time Title V permits and is currently reviewing 206 applications. Currently, DAQ has 337 (EPA TOPS Report 10-20-2008) operating facilities classified as Title V facilities.

Accomplishments - Historical Perspective -

- 1. The DAQ has established a Title V Permit Program based on rules adopted by the EMC (15A NCAC 02Q .0500). The program meets the requirements of state law (N.C.G.S. §§143-215.3 and 143-215.108) that authorized the program in North Carolina and set up the North Carolina Clean Air Act Advisory Council. The EPA gave interim approval to the program in 1995, and following the DAQ's revision to the Title V regulations, EPA gave final program approval in October of 2001.
- 2. In 2002 the DAQ revised the Title V application forms including the development of special forms for the renewal of Title V permits. These revised forms are intended to facilitate the application process, and they have been placed on the Division's website http://daq.state.nc.us/
- 3. The Federal Clean Air Act requires that Title V permit holders pay fees sufficient to cover the cost to administer the permitting program. The DAQ has developed and maintained a permit and emissions fee schedule that has historically generated an appropriate amount of revenue to carry out the Title V permitting program. The DAQ will continue to evaluate the fee structure to ensure that the necessary fees are collected.

In 1994 DAQ conducted its first comprehensive emissions inventory for facilities in North Carolina. This comprehensive inventory process has been repeated every three years for all non-Title V facilities until January 2003, when the inventory requirement was changed to every five years for non-Title V facilities. Title V facilities continue to be required to submit an inventory annually. This emission information is stored on a computer database that DAQ uses to calculate fees and for use in

regulatory planning. The DAQ has developed an electronic on-line inventory reporting system that has been available to Permittee's since 2003.

DAQ has provided a range of options to qualify facilities as non-Title V facilities. Many facilities have taken advantage of these options, which is one of the reasons why the number of Title V facilities is much less than initial estimates; that is, 337 operating Title V facilities now versus the 2000 estimated in the Clean Air Act Advisory Council's Final Report. For example, the DAQ established the synthetic minor program so facilities could avoid the Title V permitting program by taking permitted emission limits and/or operating restrictions. Also, the EMC adopted and EPA approved exclusionary rules to allow reasonable potential emission calculations in cases where standard methods would produce unreasonably high potential emissions thus subjecting such facilities to Title V.

APPENDIX B

NC GENERAL STATUTES RELATED TO THE TITLE V PERMIT PROGRAM

§ 143-215.3. General powers of Commission and Department; auxiliary powers.

- (a) Additional Powers. In addition to the specific powers prescribed elsewhere in this Article, and for the purpose of carrying out its duties, the Commission shall have the power:
 - (1d) The Commission may adopt and implement a graduated fee schedule sufficient to cover all direct and indirect costs required for the State to develop and administer a permit program which meets the requirements of Title V. The provisions of subdivision (1b) of this subsection do not apply to the adoption of a fee schedule under this subdivision. In adopting and implementing a fee schedule, the Commission shall require that the owner or operator of all air contaminant sources subject to the requirement to obtain a permit under Title V to pay an annual fee, or the equivalent over some other period, sufficient to cover costs as provided in section 502(b)(3)(A) of Title V. The fee schedule shall be adopted according to the procedures set out in Chapter 150B of the General Statutes.
 - a. The total amount of fees collected under the fee schedule adopted pursuant to this subdivision shall conform to the requirements of section 502(b)(3)(B) of Title V. No fee shall be collected for more than 4,000 tons per year of any individual regulated pollutant, as defined in section 502(b)(3)(B)(ii) of Title V, emitted by any source. Fees collected pursuant to this subdivision shall be credited to the Title V Account.
 - b. The Commission may reduce any permit fee required under this section to take into account the financial resources of small business stationary sources as defined under Title V and regulations promulgated by the United States Environmental Protection Agency.
 - c. When funds in the Title V Account exceed the total amount necessary to cover the cost of the Title V program for the next fiscal year, the Secretary shall reduce the amount billed for the next fiscal year so that the excess funds are used to supplement the cost of administering the Title V permit program in that fiscal year.

§ 143-215.3A. Water and Air Quality Account; use of application and permit fees; Title V Account; I & M Air Pollution Control Account; reports.

- (a) The Water and Air Quality Account is established as a nonreverting account within the Department. Revenue in the Account shall be applied to the costs of administering the programs for which the fees were collected. Revenue credited to the Account pursuant to G.S. 105-449.125, 105-449.134, and 105-449.43 shall be used to administer the air quality program. Except for the following fees, all application fees and permit administration fees collected by the State for permits issued under Articles 21, 21A, 21B, and 38 of this Chapter shall be credited to the Account:
 - (1) Fees collected under Part 2 of Article 21A and credited to the Oil or Other Hazardous Substances Pollution Protection Fund.
 - (2) Fees credited to the Title V Account.

- (3) Repealed by Session Laws 2005-454, s. 7, effective January 1, 2006.
- (4) Fees collected under G.S. 143-215.28A.
- (5) Fees collected under G.S. 143-215.94C shall be credited to the Commercial Leaking Petroleum Underground Storage Tank Cleanup Fund.
- (a1) The total monies collected per year from fees for permits under G.S. 143-215.3(a)(1a), after deducting those monies collected under G.S. 143-215.3(a)(1d), shall not exceed thirty percent (30%) of the total budgets from all sources of environmental permitting and compliance programs within the Department. This subsection shall not be construed to relieve any person of the obligation to pay a fee established under this Article or Articles 21A, 21B, or 38 of this Chapter.
- (b) The Title V Account is established as a nonreverting account within the Department. Revenue in the Account shall be used for developing and implementing a permit program that meets the requirements of Title V. The Title V Account shall consist of fees collected pursuant to G.S. 143-215.3(a)(1d) and G.S. 143-215.106A. Fees collected under G.S. 143-215.3(a)(1d) shall be used only to cover the direct and indirect costs required to develop and administer the Title V permit program, and fees collected under G.S. 143-215.106A shall be used only for the eligible expenses of the Title V program. Expenses of the Small Business Environmental Advisory Panel, the ombudsman for the Small Business Stationary Source Technical and Environmental Compliance Assistance Program, support staff, equipment, legal services provided by the Attorney General, and contracts with consultants and program expenses listed in section 502(b)(3)(A) of Title V shall be included among Title V program expenses.
- (b1) The I & M Air Pollution Control Account is established as a nonreverting account within the Department. Fees transferred to the Division of Air Quality of the Department pursuant to G.S. 20-183.7(c) shall be credited to the I & M Air Pollution Control Account and shall be applied to the costs of developing and implementing an air pollution control program for mobile sources.
- (c) The Department shall report to the Environmental Review Commission and the Fiscal Research Division on the cost of the State's environmental permitting programs contained within the Department on or before 1 November of each year. In addition, the Department shall report to the Environmental Review Commission and the Fiscal Research Division on the cost of the Title V Program on or before 1 November of each year. The reports shall include, but are not limited to, fees set and established under this Article, fees collected under this Article, revenues received from other sources for environmental permitting and compliance programs, changes made in the fee schedule since the last report, anticipated revenues from all other sources, interest earned and any other information requested by the General Assembly.

APPENDIX C

TITLE V PERMIT FEE INCREASE

Update: The following discussion was included in the November 2007 report. The Title V fee increase:

- Went to public hearing on November 7, 2007,
- Was approved by the Environmental Management Commission on January 10, 2008,
- Was discussed and received a favorable report by the Joint Legislative Commission on Governmental Operations' Subcommittee on Transportation/Natural and Economic Resources on February 5, 2008 and the full committee on February 6, 2008,
- Approved by the Rules Review Commission on February 21, 2008, and
- Became effective on March 1, 2008.

Introduction

The Clean Air Act requires the Title V permit program to be funded entirely through Title V permit fees. Funding for the Title V permit program expenses is required to be available prior to disbursement and must be sustainable.

The General Assembly approved salary increases for state employees in 2006 and 2007. Salary costs represent a major expense related to the Title V permit program. There have also been annual increases in costs such as office space, utilities, and other support costs. The Title V permit program costs increased by 7.3 percent and 6.8 percent for fiscal years 2006 and 2007.

The Division of Air Quality (DAQ) collects Title V permit fees throughout the year and experiences fluctuating operating fund balances. In 2003, the balance brought forward represented 66 percent of annual cash disbursements, 54 percent in 2004, and 21 percent in 2007. The projected balance to be carried into 2008 is 9 percent of cash disbursements made in 2007. This balance will not be sufficient to fund and operate the Title V permit program. The Title V permit program account could potentially run into deficits in 2008 unless additional fees are collected.

Due to these added expenses and the requirement to fund the permit program entirely with the fees collected from the Title V facilities, DAQ has begun a rulemaking process to increase the fees to a level sufficient to fund the program at its current level for the foreseeable future. No new positions are established by the proposed fee increase. If Title V permit fees fail to match Title V operating permit program costs, operating costs are legally required to be reduced to match Title V permit fees. Reduced assets (less Title V funded positions) will influence service response time for Title V permits and the level of effort available to conduct thorough compliance facility inspections. An adequate Title V permit program ensures that the State can retain experienced engineers to issue accurate permits in a timely manner and experienced field inspectors to ensure that facilities are operating in accordance with those permits.

Description of Amended Rules

15A NCAC 02Q .0203, Permit and Application Fees, updates calendar year 1994-based fees that are applicable to Title V air pollution sources. The tonnage factor fee is being raised in four steps beginning on the rule effective date, until it reaches \$30.00 per ton on January 1, 2011. A stepped approach was used to increase the Title V tonnage factor fee as recommended by the regulated community. This approach was chosen, opposed to a single large increase, to minimize the sudden impact to the subject fee payers. The related basic permit fee and nonattainment area added fee are being raised to \$6,500 and \$3,500, respectively.

15A NCAC 02D .0204, Inflation Adjustment, describes the method used for calendar year inflation adjustment of these Title V Permit and Application Fees. This inflation adjustment will be placed on hold until after the phased increase of the tonnage fee in 02Q .0203 is complete.

Authority

Please see Appendix B for reference documents that outline DAQ's authority to adopt fee schedules.

Motivation for the Proposed Rules

The reason for this action is to modify annual permit fees for Title V facilities and the inflation adjustment to ensure that the Clean Air Act requirements associated with the Title V permit program are met. This action is needed to ensure the current level of service quality in the Title V permit program is maintained into the foreseeable future. A fee adjustment will help ensure that the needs of the public, the environment, and industry are met.

"Title V" is the permitting program for major emitters of air pollution. "Title V" refers to Title V of the Federal Clean Air Act. The Clean Air Act requires the Title V program to be funded entirely through Title V permit fees. The United States Environmental Protection Agency (U.S. EPA) audited North Carolina's Title V program in June 2006. They found the technical aspects of the program to be satisfactory, but they did raise questions about whether or not permit fees were paying the entire cost of the program.

The current State rules allow annual permit fees for Title V facilities to be adjusted each year for inflation. However, from 2002 to 2006, no increases were made. Separately, the General Assembly approved salary increases for state employees (almost 10% over two years). No appropriations are made to the DAQ for these salary increases, which amounted to annual recurring expenses to the division of \$2 million; these expenses must be paid out of Title V receipts and other non-appropriated funds that DAQ receives. Salary costs represent a major expense related to the Title V program. However, salary increases represents only a portion of costs associated with the Title V program expenses. Salary increases cause the Division's retirement and social security payments to increase. Employee fringe benefits, office space, and other support costs are subject to inflation. Title V costs increased by 7.3 percent and 6.8 percent for fiscal years 2006 and 2007. Funding for the Title V program cost increases is required to be available prior to disbursement and must be sustainable.

Additionally, there is a financial and operational need to carry a forward balance each year to operate the Title V program. Fee receipts are paid annually by facilities throughout the calendar year. In

2003, the balance brought forward represented 66 percent of annual cash disbursements, 54 percent in 2004, and 21 percent in 2007. The projected balance to be carried into 2008 is 9 percent of cash disbursements made in 2007. This balance will not be sufficient to fund and operate the Title V program.

The combination of the Title V fee not keeping up with inflation and the salary and benefit and operational cost increases has seriously depleted the Title V account – in fact, the account could potentially run into deficits in 2008 unless additional fees are collected. The proposed rule will increase Title V receipts to allow the account to "catch up" to an adequate funding level. This will also enable the Division to demonstrate to the U.S. EPA that the program is entirely funded through permit fees, as required by the Clean Air Act. No new positions are established by the proposed fee increase.

Adequate funding of the Title V program is important to North Carolina's major industries and the environment. An adequate Title V program ensures that the State can retain experienced engineers to issue accurate permits in a timely manner and experienced field inspectors to ensure that facilities are operating in accordance with those permits. It is especially important to maintain the Title V permit program as the U.S. EPA has recently tightened the daily particulate standard, has proposed tightening the ozone standard, and is considering establishing greenhouse gas standards.

A Title V facility's annual fee consists of two or three parts:

- a flat basic permit fee,
- a variable tonnage fee that depends on the facility's actual emissions, and
- a flat, nonattainment area added fee which is applicable only to Title V facilities required to comply with 15A NCAC 02D .0531, 15A NCAC 02D .0900 (Volatile Organic Compounds), or 15A NCAC 02D .1400 (Nitrogen Oxides) and either are in a area designated in 40 CFR 81.334 as nonattainment; or are covered by a nonattainment or maintenance State Implementation Plan submitted for approval or approved as part of 40 CFR Part 52, Subpart II.

Identification of the Affected Sources

Amendments of the Annual Permit Fees in 15A NCAC 02Q .0203 and the Inflation Adjustment in 15A NCAC 02Q .0204 will increase the Title V permit fees of all facilities regulated by the State air quality agency. It does not affect facilities regulated by three local air agencies (Mecklenburg County, Forsyth County, and Western North Carolina). The local air agencies set their own Title V fee amounts.

Establishment of the Baseline

The current State rules allow annual permit fees for Title V facilities to be adjusted each year for inflation using a Code of Federal Regulation method that is based on the Consumer Price Index. The fee was initially set at \$14.63 in 1994, and is currently \$18.10. The current basic permit fee is \$6,311 and the nonattainment area added fee is currently \$3,297. The fees charged in 2007 represent the baseline for the purpose of this rulemaking.

Changes from the Baseline

Examining the current size of the Title V industry in North Carolina, the size and cost of the regulatory staff needed to service that industry, and then spreading those costs across industry by the amount of pollution they emit established the proposed fee changes, as shown below.

Year	Tonnage Fee	Basic Permit Fee	Nonattainment Area Added Fee (if applicable)
2007	\$18.10	\$6,311	\$3,297
2008	\$22.50	\$6,500	\$3,500
2009	\$25.00	\$6,500	\$3,500
2010	\$27.50	\$6,500	\$3,500
2011	\$30.00	\$6,500	\$3,500
2012 and	Annual	Annual	Annual
thereafter	CPI increase	CPI increase	CPI increase

The following table summarizes revenues raised by the proposed tonnage fee increase. In addition, each facility's basic fee would rise by \$189/year, and, if located within a nonattainment area, their added fee would rise by \$203/year.

Year	Proposed Tonnage Fee	Total Revenue ⁽¹⁾	Total Impact on All Sources	Impact on Largest Sources ⁽²⁾	Impact on Small Sources ⁽³⁾
2007	\$18.10	\$5,430,000	7 III Source	(Not applicable)	
2008	\$22.50	\$6,750,000	\$1,320,000	\$72,600	\$330
2009	\$25.00	\$7,500,000	\$2,070,000	\$113,850	\$520
2010	\$27.50	\$8,250,000	\$2,820,000	\$155,100	\$710
2011	\$30.00	\$9,000,000	\$3,570,000	\$196,350	\$890
2012+(4)	\$30.60	\$9,180,000	\$3,750,000	\$206,250	\$940

^{(1) &}quot;Total Revenue" is calculated by multiplying the tonnage fee by 300,000 tons, a "typical" annual amount based on major source air permits.

Estimating the Cost to the Existing Affected Sources

Tonnage fees for the largest sources are capped at 4,000 tons per pollutant. The state's three largest sources were each billed for about 16,500 total tons of six different pollutants in their most recent annual bill. Annual increase is the fee increase multiplied by 16,500 tons.

 $^{^{(3)}}$ Small Business Title V facilities having less that 75 tons of all pollutant in their most recent annual bill. Annual impact is the fee difference from baseline multiplied by 75 tons.

⁽⁴⁾ In 2012 and later years, an annual CPI would be applied. A 2% increase is shown for illustration purposes.

A. Summary of Costs/Savings Incurred by the Affected Private Sector Sources: Industrial facilities holding Title V permits typically emit more than 100 tons per year of a specified air pollutant. These facilities are charged an annual tonnage fee up to 4,000 tons per year per pollutant (i.e., a facility emitting 10,000 tons of a pollutant would pay the same as a facility emitting 4,000 tons of that pollutant). Although most Title V facilities are very large, a facility that emits certain hazardous air pollutants may hold a Title V permit for having the potential to emit as little as 10 tons per year. Thus, the very largest facilities would see their annual tonnage fee per pollutant rise from \$72,400 in 2007 to \$90,000 in 2008. Additionally, all facilities, regardless of size, would see their basic permit fee rise from \$6,311 to \$6,500. Those facilities within a nonattainment area would also see that added fee increased from \$3,297 to \$3,500.

B. Costs to Small Business:

A small business as defined by the Office of State Budget and Management (OSBM) is a business entity, including its affiliates, that is independently owned and operated, employs fewer than 500 employees or has gross annual sales of less than \$6 million. A Title V facility has a potential to emit 100 tons of a single pollutant or 10 tons of a hazardous air pollutant or 25 tons of more than one hazardous air pollutant. There may be facilities that meet the OSBM definition of "small business" that are regulated as Title V facilities. The Clean Air Act does not exempt them from paying Title V fees but the fees can be reduced as noted in G.S. 143-215.3(1d) (see Appendix B).

Typically, the Title V program covers larger businesses, but applicability is dependent on potential emission levels rather than business size. Some smaller businesses, such as manufacturers of bricks, fiberglass, foam rubber, plastics, pharmaceuticals, and textiles along with smaller surface coating operations and landfills, are subject to the Title V program because their potential emissions are high enough to trigger Title V thresholds.

The Clean Air Act defines a "Small Business Stationary Source" as a stationary source that employs less than 100 employees and emits less than 75 tons per year of all regulated pollutants. In absence of employment data, and exclusively judging by emissions data, approximately 25% of the Title V sources in North Carolina emit less than 75 tons per year of all regulated pollutants. The total billable emissions from these 85 Title V facilities represent less than one percent of the total financial impact from increasing the Title V tonnage and permit fees. The average impact to these smaller Title V sources would be \$330 in 2008, based on an average of 33 tons per year, for both annual permit fees and tonnage fees. The following table summarizes the aggregate and average impacts on small business stationary sources.

Year	Fee Impact on Smaller Sources	Average Fee Impact
2008	\$28,300	\$330
2009	\$35,300	\$420
2010	\$42,300	\$500
2011	\$49,200	\$580

Currently, facilities are not required to provide the data (e.g., number of employees, annual sales) in their permit application that would enable DAQ to identify which Title V facilities meet the OSBM and/or Clean Air Act definition of "small business." DAQ will look into the possibility of including that data element in future permit applications.

Conclusion

Title V facilities subject to fee increases will experience total aggregate impacts of \$3,750,000 in 2012, based on this economic analysis. This aggregate impact is considered substantial as defined in North Carolina's Administrative Procedures Act in NC § 150B-21.4 Fiscal notes on rules. The amendment to the Title V Annual Permit Fees in 15A NCAC 02Q .0203 will ensure that the North Carolina Title V Permit Program complies effectively with federal Clean Air Act requirements.

APPENDIX D

ACRONYMS

BART Best Available Retrofit Technology

CAIR Clean Air Interstate Rule

CAM Compliance Assurance Monitoring

CAMR Clean Air Mercury Rule

CFR Code of Federal Register

DAQ Division of Air Quality

DENR Department of Environment and Natural Resources

EMC Environmental Management Commission

EPA Environmental Protection Agency

ERC Environmental Review Commission

FTE Full Time Equivalent

FFY Federal Fiscal Year

GACT Generally Available Control Technology

HAP Hazardous Air Pollutant

IES Industrial Extension Service

MACT Maximum Available Control Technology

NAAQS National Ambient Air Quality Standard

NCAC North Carolina Administrative Code

NCGS North Carolina General Statutes

NCSU North Carolina State University

NESHAPS National Emissions Standards for Hazardous Pollutants

NOV Notice of Violation

PE Professional Engineer

RACT Reasonably Available Control Technology

SIP State Implementation Plan

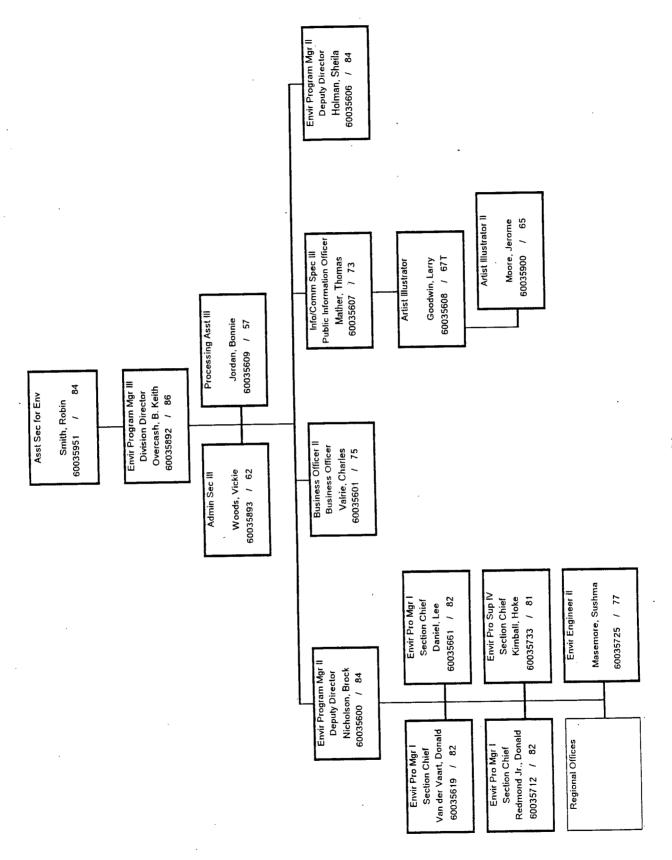
USEPA United States Environmental Protection Agency

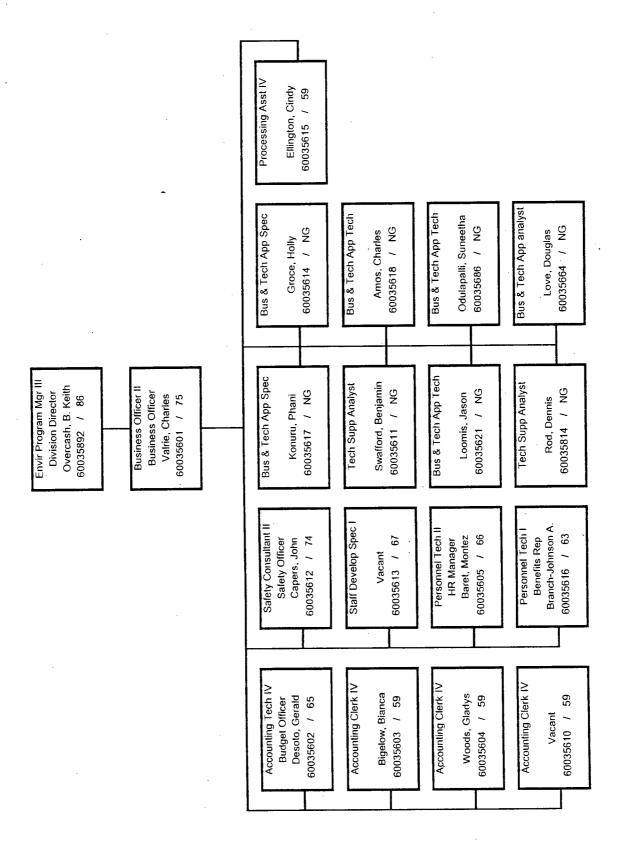
APPENDIX E

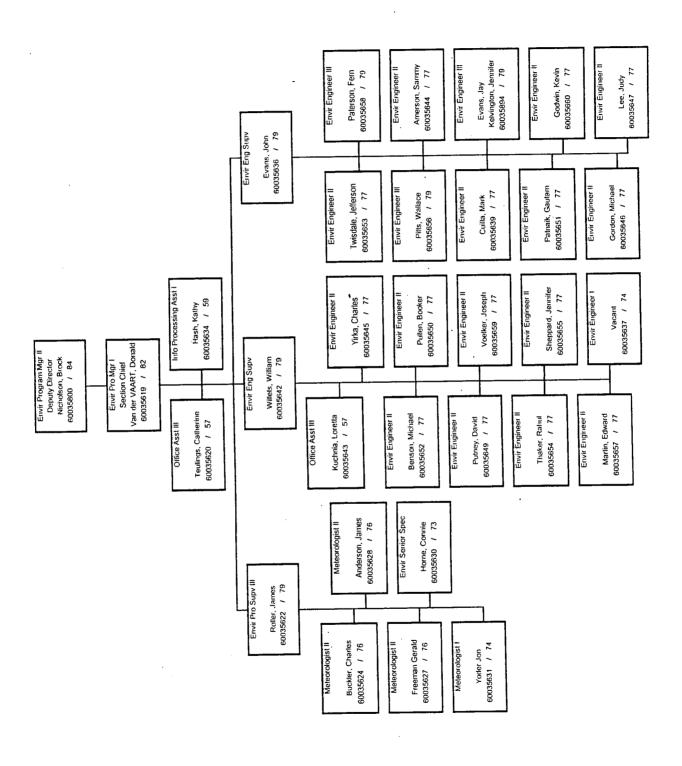
ORGANIZATION CHART EXPLANATION

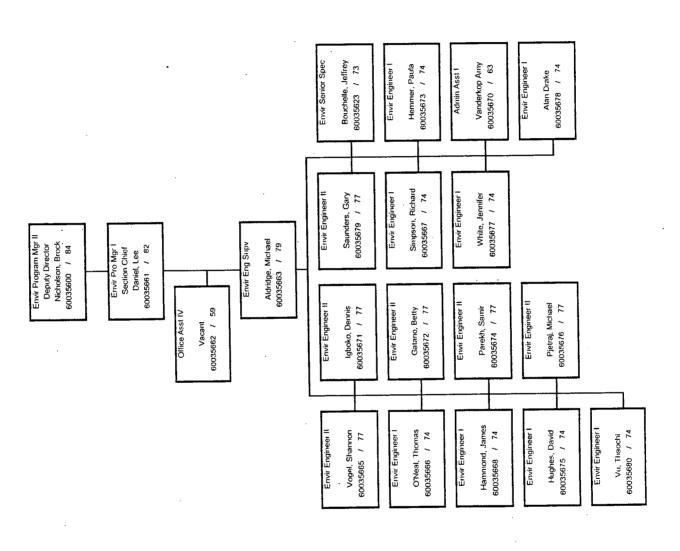
The organization chart shown in this document lists all the positions authorized by State Personnel for the Division of Air Quality. Noting the requirement that all Title V work be funded by Title V fees, each employee is required to code his/her time sheet indicating the amount time spent on different functions. Accordingly, approximately 10% of the division's employees spend all of their time completing Title V tasks, and the other 90% of the staff will spend a portion of their time completing Title V tasks.

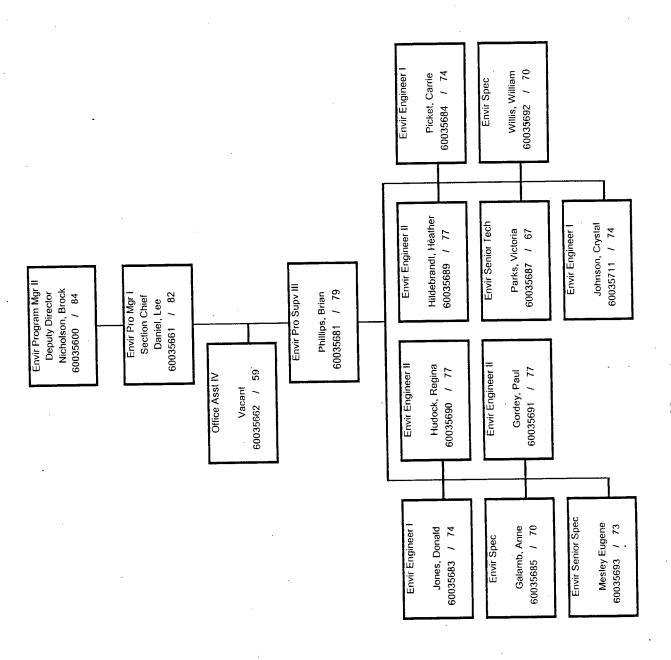
A work group established by the Division Director reviewed the work requirements of the Division's employees and determined that 138 FTE's are needed to complete Title V work on an annual basis.

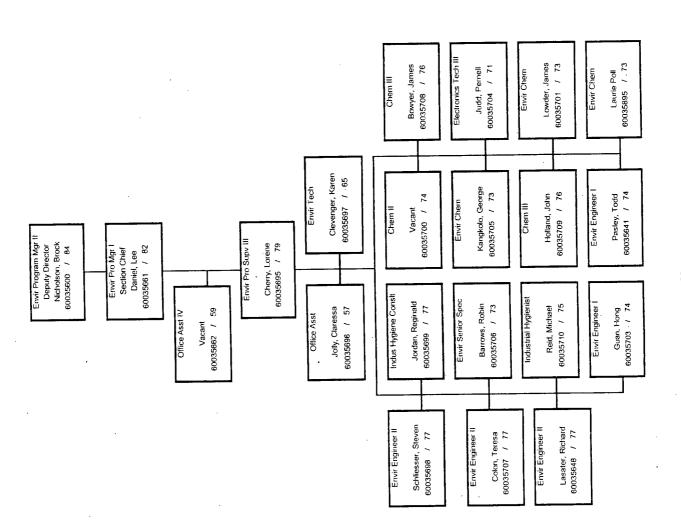


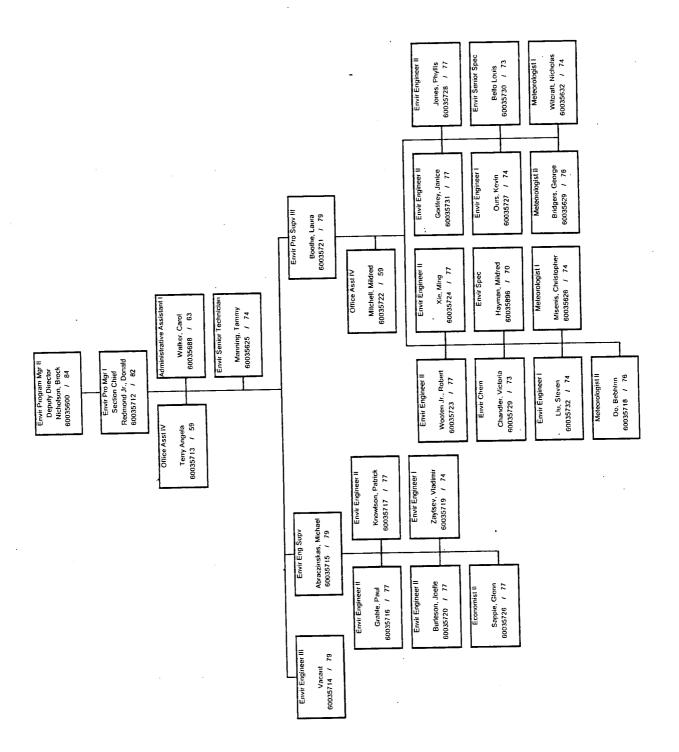


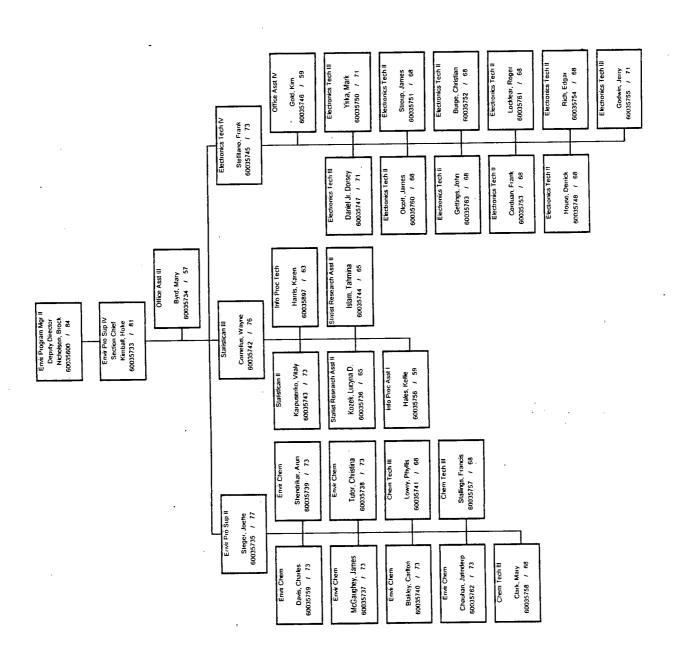


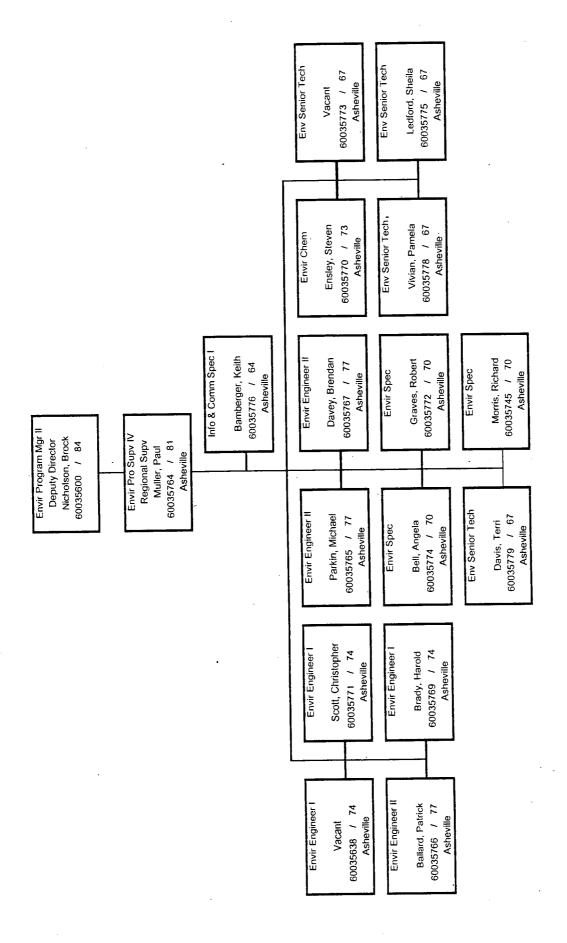


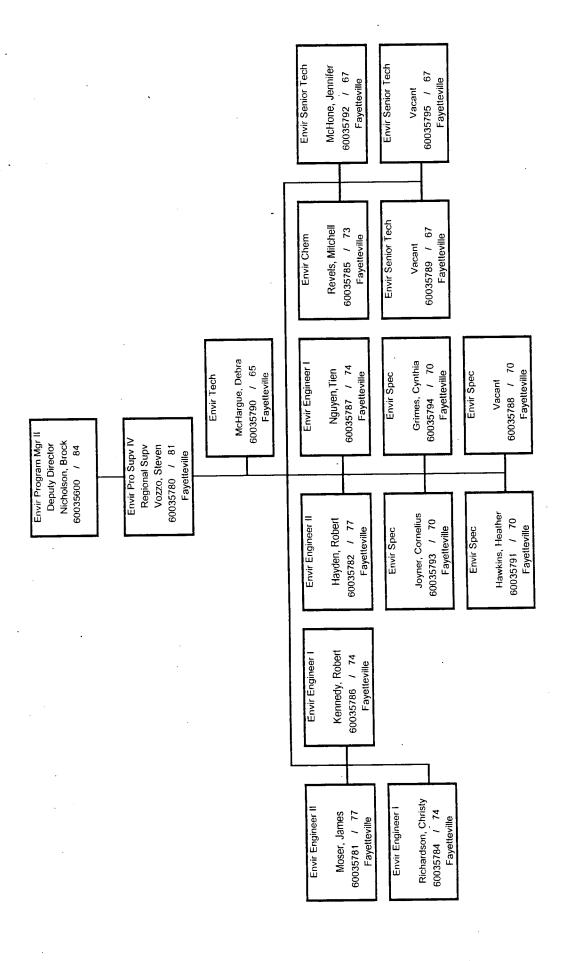


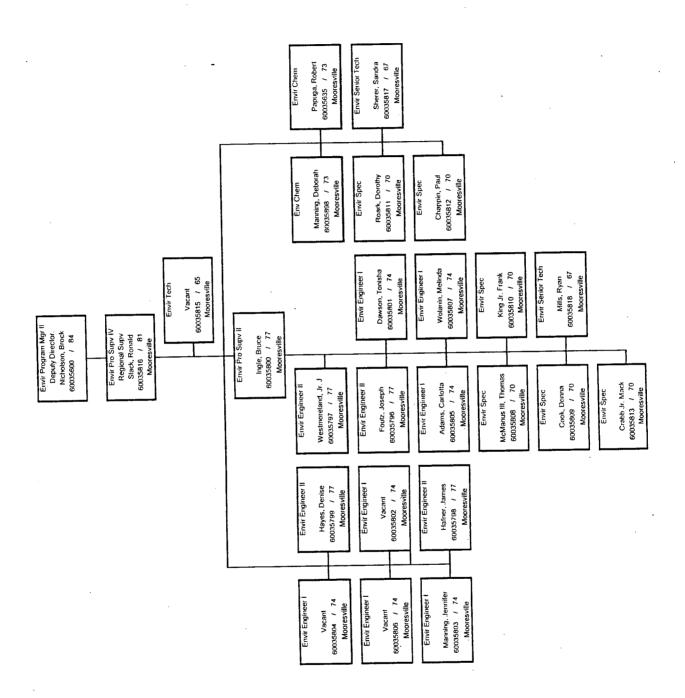


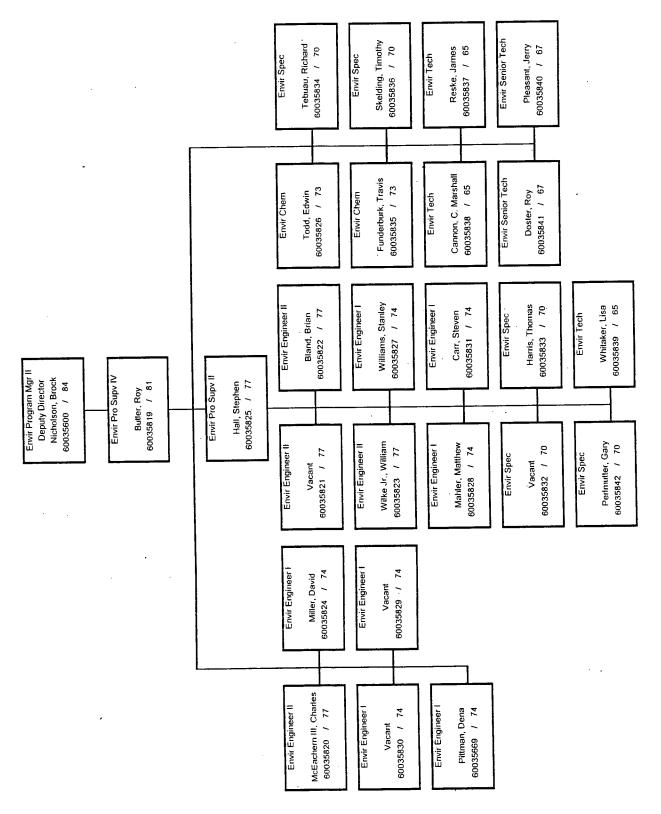


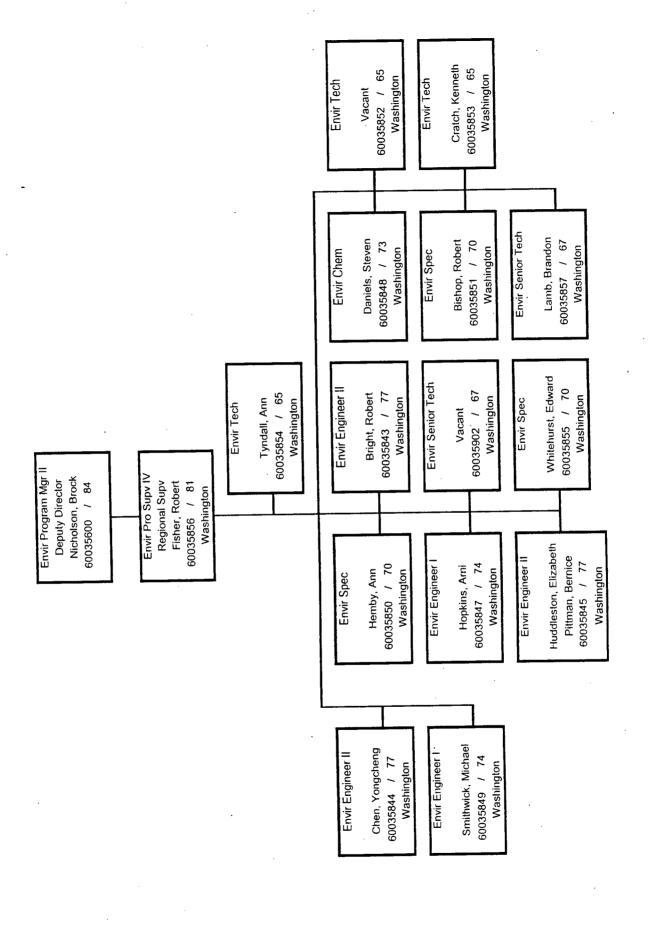


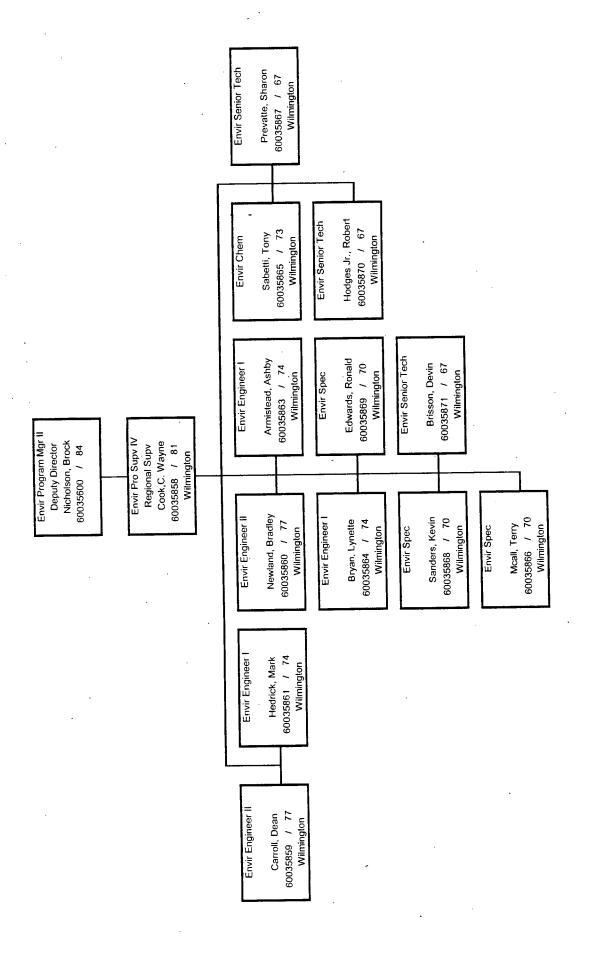


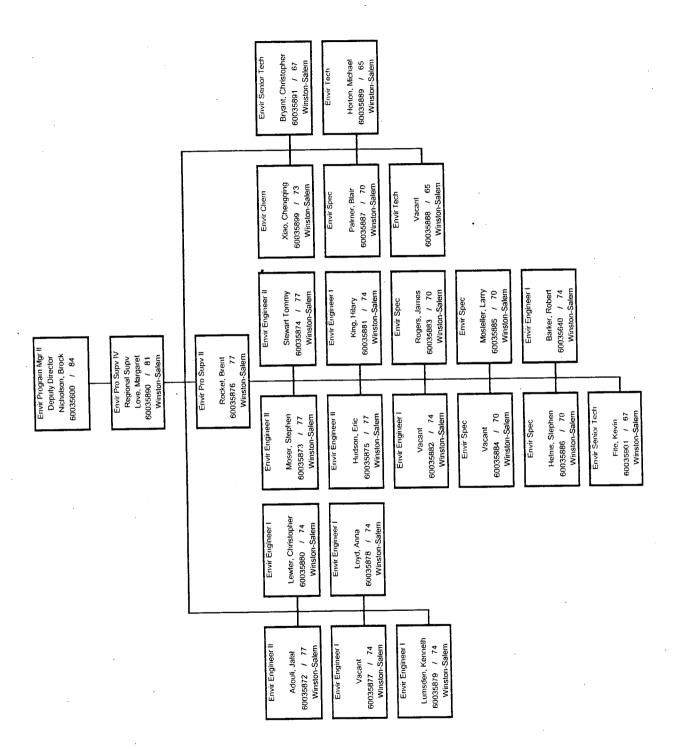












2008

ENVIRONMENTAL REVIEW COMMISSION December 18

MINUTES



Rorth Carolina General Assembly

ENVIRONMENTAL REVIEW COMMISSION MINUTES

December 18, 2008

The Environmental Review Commission was scheduled to meet at 10 a.m., Thursday, December 18 2008 in Room 1228 of the Legislative Building. Co-Chairwoman Lucy Allen presided. The meeting was called to order at 10:11 a.m.

Welcome and Attendance

Members present were Co-Chairman Lucy Allen, Co-Chairman Pryor Gibson, III, Senator Stan Bingham, Co-Chairman Dan Clodfelter, Senator Stan Bingham, Senator Katie Dorsett, Representative Pricey Harrison, Senator Fletcher Hartsell, Representative Carolyn Justice, Senator A. B. Swindell, Representative Charles Thomas, Representative Edith Warren and Senator David Weinstein. Commission staff present was Commission Counsel George Givens, Assistant Counsel Jeffrey Hudson, Assistant Counsel Jennifer McGinnis, Research Assistant Mariah Matheson and Committee Assistant Jessica Kozma Bennett.

A meeting notice was distributed to staff, members and outside parties electronically and is included as an attachment to the minutes as **Exhibit A**. A reminder was sent electronically December 17. The meeting agenda and visitor's registration sheets are attachments to these minutes and referred as **Exhibit B** and **Exhibit C**, respectively.

Co-Chairwoman Allen recognized co-chairs of the Commission; she then recognized staff, thanking them for their work for the Commission.

Report to the Commission and Explanation of Agenda Items

Commission Counsel Givens thanked the chairwoman and said that he regretted that the Commission was not meeting in its usual room, Room 544 of the Legislative Office Building. He reminded members to sign reimbursement forms and said there would not be an upcoming out of town meeting.

Mr. Givens continued noting that there was a public staff meeting held December 2, 2008. He said that the substantive part of the day's meeting would focus on an upcoming water allocation study. He ended his comments saying that coastal hazards

may be taken up at a future meeting. He encouraged members to attend one of two public meetings regarding water allocation to be held subsequent to the day's meeting.

Co-Chairman Gibson said that water allocation needed to be at the "top of the agenda" among items the Commission undertakes.

Approval of the October 9, 2008 and November 25, 2008 minutes

With a motion by Senator Weinstein and seconded by Senator Dorsett, minutes from the October 9 and November 25, 2008 meetings were approved by unanimous vote.

Annual report on development and implementation of a plan to reduce vehicle miles traveled by State and private sector employees and vehicle emissions resulting from job related travel, including commuting to and from work

Ms. Tamra H. Shaw, mobility development specialist with the Public Transportation Division, Department of Transportation was recognized by Chairwoman Allen. A copy of her presentation is included in the minutes as **Exhibit D**.

She began explaining that The Ambient Air Quality Improvement Act of 1999 charged the NCDOT to develop a plan to reduce the growth of commuter VMT by 25 percent by July 1, 2009. A goal of the program is to focus on efforts to reduce roadway space demand through influencing travel choices. Another goal, she said, is to encourage more walking, cycling and use of public transit.

The statewide plan took its first steps in 2004, publishing the statewide plan and funding local programs. Programs today include the Blue Ridge Commuter Connection, SmartCommute@rtp, and the Cape Fear Breeze, among others. The programs now promote challenges to commuters, vanpool programs in Charlotte, the Triad and the Triangle and there is now a statewide rideshare matching web site. Commuter challenges, she continued, are campaigns to increase public awareness of alternative commuting options.

Another program stemming from the program, the "Best Workplaces for Commuters" is a public and private partnership that recognizes employers with outstanding commuter benefits. Statewide, more than 100,000 employees work for such businesses.

Ms. Shaw then reviewed growth in "Share the Ride NC" and public transportation statewide. There are almost 20,000 registrants for "Share the Ride NC" and 55,000 passengers. In the eight years the program has been in place, there has been a 24 percent reduction. Thus, the 25 percent reduction is projected to be met.

In the future, statewide surveys are to be conducted; reductions will continue until 2015, more highway signs will be visible to motorists.

Representative Justice said that perhaps current goals should be increased. Ms. Shaw was thanked by Chairwoman Allen.

<u>Discussion of Draft 2008 Report of the Water Allocation Study (S. L. 2007-518, Sec. 1 (a) as amended by S. L. 2008-10) and issues related to increasing water supply and reservoir construction (S. L. 2008-143, Sec. 6)</u>

Chairwoman Allen then recognized Mr. Bill Holman, principal investigator and visiting senior fellow of the Nicholas Institute for Environmental Policy Solutions with the Nicholas Institute for Environmental Policy Solutions at Duke University.

Mr. Holman thanked the Commission and said he looked forward to the afternoon and evening public hearings. He then said he was there that day to answer questions among members. Chairwoman Allen thanked Mr. Holman and opened the floor for questions.

Co-Chairman Gibson asked how many formalized comments were submitted. Mr. Holman said that so far there were only two submitted. Co-Chairman Gibson followed up and asked about wiki activity, of which Mr. Holman responded that the water wiki still had many hits. Mr. Holman was thanked and Co-Chairwoman Allen moved to the next agenda item.

Annual report on the program to steamline the process for the issuance of an improvement permit or an authorization to construct for an on-site subsurface wastewater system in certain counties

Co-Chairwoman Allen recognized Mr. Terry L. Pierce, director of the Division of Environmental Health (DENR) to discuss a pilot project charged through House legislation. He began his presentation.

Several counties experienced backlogs due to increased development, with Cherokee County having the largest backlog.

To be selected in the program, a county must meet three criteria: a) the population of the county must not exceed 25,000, according to the most recent census; b) the county must not have more than 900 applications for improvement permits or authorizations to construct that are pending before the local health department on the effective side of the act and; c) the board of county commissioners and the local board of health for the county must both approve a resolution requesting to participate in the pilot program. So far to date, the only county that has met the criteria is Cherokee County.

He continued reporting that staff provides technical assistance, orientation and interpretation to help with the permitting. He then reviewed the process of the program.

Among findings, Mr. Pierce reported that any backlog had been eliminated; that there were five full-time Cherokee County employees assigned to onsite wastewater activities. There were 152 construction authorizations issues between May 1, 2007 and October 1, 2007. Another 72 were issued between October 1, 2007 and November 1, 2008. Applications for permits have dropped significantly in 2008.

The co-chairwoman called on questions and comments from membership. Senator Swindell asked if additional positions were added to address the former backlog. Mr. Pierce said that no additional staff was added. Co-Chairperson Gibson suggested that the program be suspended until the economy betters. With no further discussion, Co-Chairwoman Allen thanked Mr. Pierce.

A copy of his report is included in the minutes as **Exhibit E**.

Discussion of alternative methods of disposing of treated wastewater

Co-Chairwoman Allen recognized Mr. Francis A. Sanders, director of operations for Onslow County. Mr. Sanders began his presentation discussing the uses of reclaimed

water. These include: spray irrigation, infiltration ponds, crop irrigation and limited wetlands augmentation. He reviewed land use in Onslow County, and then showed a map depicting saltwater intrusion. Reclaimed water, he said, expanded wetlands and stream augmentation, provided deep well injection and created ocean outfall. On another slide, Mr. Sanders showed the Commission reason to create wetlands augmentation. These include enhancing wetlands during times of drought; and putting water where it is needed; providing for groundwater recharge. He then reviewed deep well injection.

In 1968, Hercules Chemical constructed an injection well. Four years later, wastewater showed up on one of 14 monitoring wells. The wastewater migrated fro one aquifer to another upper aquifer. It has not been permitted in the State since.

Mr. Sanders, however, suggested that deep well injection could include reclaimed water and that the salinity barrier was of beneficial use.

Senator Bingham asked if deep well injection was legal in other states, of which Mr. Sanders answered that it was. Representative Tucker said that DENR had historically done a "heinously bad job" protecting people from drinking contaminated water.

Annual report on the Wastewater Discharge Elimination Program (S.L. 2001-452, Sec. 2.9)

This item was deferred.

Annual report on the implementation of stormwater rules and programs (G.S. 143-214.7©)

Mr. T. Bradley Bennett, stormwater permitting unit supervisor (DENR) was recognized by the chair to give the annual stormwater management program report. Mr. Bennett thanked the chairwoman and began his presentation.

Program areas for stormwater include a state level program and protection of sensitive waters as well as a federal program that is focused on certain activities or communities. Coastal stormwater rules were finalized in January 2008 and are up for legislative review for the 2008 session. Major requirements for the program include sediment and erosion control, buffers for new and re-development, among other items.

A copy of this report is attached to the minutes as Exhibit F.

Other requirements include low density thresholds for development and high density storm control measures.

Technical assistance as well as education and outreach efforts are also part of the program, he reported.

Annual report on the implementation of the Sedimentation Pollution Control Act of 1973 (G.S. 113A-67)

This item was deferred to be heard at the January meeting.

Annual report on fish kills in the previous year

This item was deferred to be heard at the January meeting.

<u>Discussion of the protection of conservation land from eminent domain (S. L. 2008-181, Sec. 6.8)</u>

Co-Chairwoman Allen recognized Mr. Edward Poe, Jr., who addressed the Commission on behalf of the North Carolina Land Trust Council. A copy of his report, entitled "Protecting Conservation Easements in Eminent Domain Proceedings," is attached to the minutes as **Exhibit G.** A second background statement is also attached to the minutes as **Exhibit H.**

He began discussing population growth in the State. North Carolina is projected to be tenth most populous state next year, with a 30 percent growth juxtaposed to 18 percent growth nationally. In 2030, the State is projected to become the seventh most populous state, leaving California, Texas, Florida, Illinois and New York and Pennsylvania as the only larger states.

Mr. Poe continued that the State is losing natural landscapes at a rate of 100,000 acres per year. Metropolitan areas lead the loss of natural space. An example of this is Mecklenburg County, where it is projected that there will be three percent open space by 2030. He then reviewed current policy on open space, including statutory requirements to acquire more open space.

Goals for the Trust include balancing the interest of condemning authorities with the strong public policy favoring conservation easements; ensuring that public policy supporting conservation easements is not subverted through the condemnation process; protecting the State's investment in conservation lands and preserving lands under conservation easements without unreasonably limiting the power of eminent domain.

Mr. Poe made the following recommendations:

- "Following the threshold finding by a Superior Court Judge that reads such action is "unavoidable public necessity and absence of a prudent and feasible alternative.
- To award attorney's fees and costs to purported condemnee if the judge does not make the threshold ruling in the condemnor's favor.
- Award of just compensation based on unrestricted fair market value of the easement-burdened land.
- Twenty-five percent mitigation payment to compensate the not-for-profit condemnee for locating and arranging for a substitute conservation easement or using the proceeds in a manner consistent with the conservation purposes of the conservation easement."

Co-Chairwoman Allen then recognized Kimberly S. Hibbard, associate general counsel for the North Carolina League of Municipalities. Ms. Hibbard told the Commission local governments sometimes have a role as holder of conservation easements, and local governments do exercise the power of eminent domain for infrastructure. She said there were concerns about carving out different types of tests for specific property and tax consequences on such properties. She asked that balance be applied in future policy discussions.

Mr. Jeffrey O'Briant, manager for siting and acquisition for Progress Energy of the Carolinas was recognized by the co-chair. Mr. O'Briant told the Commission that there is the potential for "extreme" challenges.

Lastly, Mr. John Monagham, community relations manager for the North Carolina East Region for Piedmont Natural Gas Company was recognized. Mr. Monagham said that any legislation passed on the protection of such easements could adversely affect the utility business. He then discussed the "delights" of natural gas, and asked that legislators consider any unintended consequences statutory changes would impact on the natural gas industry.

The meeting was adjourned at 12:55 p.m.

Commission Clerk

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

MEMBERS SENATOR STAN W. BINGHAM SENATOR KATIE G. DORSETT SENATOR JAMES S. FORRESTER SENATOR ELEANOR G. KINNAIRD SENATOR A.B. SWINDELL SENATOR DAVID F. WEINSTEIN

REPRESENTATIVE JAMES A. HARRELL REPRESENTATIVE PRICEY HARRISON REPRESENTATIVE CAROLYN H. JUSTICE REPRESENTATIVE RUTH SAMUELSON REPRESENTATIVE EDITH W. WARREN REPRESENTATIVE LARRY W. WOMBLE Environmental Review Commission State Legislative Building Raleigh, Porth Carolina



26 November 2008

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JENNIFER R. F. MUNDT COMMISSION ANALYST

MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK

TO:

Members of the Environmental Review Commission

Interested Parties

FROM:

George F. Givens, Commission Counsel

Jessica Bennett, Commission Clerk

RE:

Notice of Commission Meeting Notice of Planning Meeting Schedule of Future Meetings

Meetings of Interested Parties (605 Working Groups)

Additional Information

COMMISSION MEETING:

The Environmental Review Commission (Commission) will meet at 9:30 a.m. <u>Thursday December 18 2008</u> in Room 1228 of the Legislative Building in Raleigh.

At this meeting, the Commission will begin or continue studies for which the Commission is responsible, hear reports from State agencies, discuss topics to be considered at future meetings, and attend to other matters. Listed below are potential agenda topics for this meeting and for future meetings. More specific information regarding the agenda for the 18 December meeting of the Commission will be developed at the public staff planning meeting described below. Commission staff may publish a revised notice/draft agenda following the public staff planning meeting if circumstances permit.

STUDIES Listed below are topics that the Commission has been specifically authorized or directed by the General Assembly to study during the current legislative interim. (The specific legislative authorization or directive is set out in parentheses.) The list also includes other study topics and issues. (The general powers and duties of the Commission are set out in Article 12D of Chapter 120 of the General Statutes.) The Commission Counsel will, as circumstances permit, discuss the plans for and progress of the study of these topics, including the formation of "605" working groups, at the public staff planning meeting described below.

Allocation of surface water resources and their availability and maintenance in the State, including issues related to the transfer of water from one river basin to another, the withdrawal of water for consumptive use, and the accuracy and tolerance of equipment used to measure the flow of water transferred from one river basin to another river basin. (S.L. 2007-518, Sec. 1.(a) as amended by S.L. 2008-10) Issues related to increasing water supply and reservoir construction. (S.L. 2008-143, Sec. 6)

- Preparation of a revised map entitled "Major River Basins and Sub-basins in North Carolina" as a recommended replacement for the map referenced in G.S. 143-215.22G. The revised map shall define the extent to which any river basin that encompasses any river that flows from another state into North Carolina or that flows from North Carolina into another state extends into an adjacent state. (S.L. 2007-518, Sec. 1.(b)) Determine whether the definition of "river basin" set out in G.S. 143-215.22G should be revised. (S.L. 2007-518, Sec. 1.(b)) as amended by S.L. 2008-125, Sec. 2)
- The costs and benefits of the adoption of the California motor vehicle emissions standards in this State. (S.L. 2008-181, Sec. 6.2)
- 4) The feasibility of implementing a stormwater management program without requiring the issuance of a State permit prior to construction. (S.L. 2008-181, Sec. 6.3)
- The desirability of abolishing the existing environmental regulatory commissions and replacing them with a new, full time environmental regulatory commission modeled on the Utilities Commission. (S.L. 2008-181, Sec. 6.4)
- 6) Methods for implementing a State level permitting system and siting requirements for commercial scale wind energy systems. (S.L. 2008-181, Sec. 6.5)
- 7) Issues related to disclosure of coastal hazards. (S.L. 2008-181, Sec. 6.6)
- 8) A date certain for the phase-out of hog lagoons. (S.L. 2008-181, Sec. 6.7)
- 9) The protection of conservation land from eminent domain. (S.L. 2008-181, Sec. 6.8)
- 10) Issues related to the use of plastic bags. (S.L. 2008-181, Sec. 6.9)
- A ban on toxic brominated fire retardants (in consultation with the Child Fatality Task Force). (S.L. 2008-181, Sec. 6.10)
- 12) Issues related to a recycling program for fluorescent lamps. (S.L. 2008-181, Sec. 6.11)
- The impacts on the State of the potential issuance of a new 50-year license by the Federal Energy Regulatory Commission to Alcoa Power Generating, Inc. (S.L. 2008-137, Secs. 1 and 2)
- 14) Alternative methods of disposing of treated wastewater.
- Other topics carried over from, or not undertaken, in previous interims and other matters that have been referred to the Commission.

REPORTS Listed below are periodic and other reports that are due to be received by the Commission as of the meeting of the Commission described in this Notice (whether or not the report has been received). Reports received by the Commission may be scheduled for presentation at the meeting of the Commission described in this Notice, held for presentation at a future meeting of the Commission, or distributed to members and staff of the Commission as "read-only reports." All reports are included in the records of the Commission and, to the extent possible, are posted on the Commission's website. (Where appropriate and available, citations to the legislation that authorizes or requires the report is set out in parentheses.) (Report due dates are set out italics in parentheses.) The Commission Counsel and staff will solicit recommendations as to whether and when a report should be scheduled for presentation to the Commission or designated "read-only" and, in most cases, will make an initial determination at the public staff planning meeting described below.

General/Miscellaneous:

Annual report on the evaluation and adjustment of the boundaries of the area served by each Metropolitan Planning Organization. (G.S. 136-202(d)) (1 November)

Air Quality:

- Annual report on the desirability of requiring and the feasibility of obtaining reductions in emissions of NOx and SO₂ beyond those required by the Clean Smokestacks Act (S.L. 2002-4, Sec. 11) (1 September)
- Annual report on development and implementation of a plan to reduce vehicle miles traveled by State and private sector employees and vehicle emissions resulting from job-related travel; including commuting to and from work (G.S. 143-215.107C(d) and (e)) (1 October) Received and held for distribution at a future meeting.

Coastal Management:

- Annual report on the progress in developing and implementing the Coastal Habitat Protection Plans and reports on the completion or substantial revision of each draft Coastal Habitat Protection Plan (G.S. 143B-279.8(e) and G.S. 143B-279.8(f)) (1 September)
- Annual report by the Coastal Resources Commission evaluating the impacts on water quality and other environmental impacts from new urban waterfront area development (S.L. 2004-117, Sec. 4) (1 October) Received and held for distribution at a future meeting.

Hazardous Waste Management:

- Report of Superfund cost share fund expenditures for cleanup of sites on the National Priorities List (S.L. 1999-237(15.6)(b)) (Floating, within 30 days of expenditure)
- 22) Annual report on the North Carolina Hazardous Waste Management Plan (G.S. 130A-294(i)) (1 October)
- Annual report on implementation of the Resident Inspectors Program at commercial hazardous waste facilities (G.S. 130A-295.02(m)) (1 October)
- 24) Annual report on the Inactive Hazardous Sites Program. (G.S. 130A-310.10) (1 October)
- Annual report on the Effectiveness of the Brownfields Property Reuse Act (G.S. 130A-310.40) (1 October)
- Annual report on the mercury minimization plan prepared by DENR (G.S. 130A-310.57, Sec. 7) (1 October)
- Report by the Office of the Governor on its efforts in seeking the advice of local governments to determine if the criteria considered to determine whether or to what extent to preempt local ordinances pursuant to 130A-293 should be further amended (S.L. 2007-107, Sec. 1.10(b)) (1 March 2008)
- Report by the Regulation of Hazardous Materials Task Force on its study of issues related to the treatment, storage, and disposal of hazardous materials and review of all current fire code regulations related to the commercial treatment, storage, and disposal of hazardous materials to ensure the Code addresses the needs and safety of citizens (S.L. 2007-107, Sec. 4.1.(j)) (1 April 2008)

Parks and Recreation / Land Conservation:

- 29) North Carolina Natural Heritage Trust Fund Award Report, Fiscal Year 2007-2008 (G.S. 113-77.9(e)) (Semi-annually, within 30 days of each revision)
- 30) Annual report on implementation of the Conservation Easements Program and inventory of all conservation easements held by DENR (G.S. 113A-235(c)) (1 October)
- Parks and Recreation Trust Fund Annual Report, Fiscal Year 2007-2008 (G.S. 113-44.15(c)) (1 October) Received and held for distribution at a future meeting.

Annual report on progress towards attaining the State's goal of protecting one million acres of farmland, open space, and conservation lands (G.S. 113A-241(c)) (1 October)

Land Resources:

Annual report on implementation of the Sedimentation Pollution Control Act of 1973 (G.S. 113A-67) (1 October) Distributed on 25 Nov 2008 as read-only subject to possible oral presentation at a future meeting

Water Quality:

- Semiannual report on the pilot program for inspection of animal waste management systems including a comparison of the costs of conducting operations reviews and inspections under the pilot program with the costs of conducting operations and inspections under G.S. 143-215.10D and G.S. 143-215.10F (15 April and 15 October)
- Annual report on the status of leaking petroleum underground storage tanks, the State cleanup funds, and the Groundwater Protection Loan Fund (G.S. 143-215.94M) (1 September)
- Annual report on the Wastewater Discharge Elimination Program (S.L. 2001-452, Sec. 2.9) (15 October)
- Annual report on the program to streamline the process for the issuance of an improvement permit or an authorization to construct for an on-site subsurface wastewater system in certain counties by authorizing local health departments, authorized agents of DENR, and licensed soil scientists to complete soil and site evaluations in participating counties (S.L. 2006-136, Sec. 3) (1 October)
- 38) Annual report on Roanoke River Basin Bi-State Commission (S.L. 2007-495, Sec. 22) (1 October)
- 39) Annual report by the Yadkin-Pee Dee River Basin Advisory Commission (G.S. 77-117) (1 October)
- 40) Annual report on Catawba/Wateree River Basin Advisory Commission (G.S. 77-117) (1 October 2008)
- Annual report on the implementation of stormwater rules and programs (G.S. 143-214.7(e)) (1 October)
- 42) Implementation of the Ecosystem Enhancement Program and use of the Ecosystem Enhancement Fund, including inventory of property and easements (G.S. 143-214.13) (1 November)
- Annual report on the compliance/enforcement of water quality laws for facilities that discharge into surface waters. (G.S. 143-215.9A) (1 October) Distributed on 25 Nov 2008 as read-only subject to possible oral presentation at a future meeting
- 44) Annual report on Basinwide Water Quality Management Plans. (G.S. 143-215.8B(d)) (1 October)

 Distributed on 25 Nov 2008 as read-only subject to possible oral presentation at a future meeting
- Annual report on permitting and inspecting animal waste management systems/Animal Waste Compliance Report. (G.S. 143-215.10M) (1 October) Distributed on 25 Nov 2008 as read-only subject to possible oral presentation at a future meeting
- 46) Annual report on the Dry-Cleaning Solvent Cleanup Program. (G.S. 143-215.104U) (1 October)
- lmplementation of the Clean Water Management Trust Fund; projects and awarded grants. (G.S. 113A-257) (1 December)

48) Annual report on fish kills in the previous year (G.S. 143B-279.7 (c)) (1 December)

PLANNING MEETING:

To facilitate development of the agenda for the 18 December meeting of the Commission, to begin planning for subsequent meetings of the Commission, and to receive input from interested persons regarding the work of the Commission, the Commission Counsel will hold an informal planning meeting at 10:00 a.m. on Tuesday 2 December 2008 in Room 605 of the Legislative Office Building. Persons who wish to participate in the development of the agenda for meetings of the Commission, or who are interested in any matter before the Commission, are invited to attend.

SCHEDULE OF FUTURE MEETINGS:

Below is a schedule of meetings of the Environmental Review Commission for January 2009. <u>This schedule is tentative and subject to adjustment.</u> For planning purposes, however, please reserve these dates. This schedule may be modified to allow for out-of-town business meetings or site visits and in the event that it becomes necessary to cancel a scheduled meeting due to hazardous weather conditions.

Please note the following:

- 1. Meetings of the Commission normally begin at 9:30 a.m. and may run until mid-afternoon. Meetings of the Commission are open to the public.
- 2. Staff planning meetings normally begin at 10:00 a.m. and adjourn by noon. Staff planning meetings are informal and are open to the public. Commission members are not expected to attend these meetings.
- 3. The 2009 Regular Session is scheduled to begin at 12:00 noon on Wednesday 28 January 2009. The Commission may meet shortly after the beginning of the session to complete ongoing work and to consider any legislative proposals and recommendations and may meet at other times during the legislative session.

Commission Meeting	Location	Staff Planning Meeting	Location
Thursday 15 January 2009	643 LOB	Tuesday 6 January 2009	605 LOB
Thursday 22 January 2009	544 LOB	Tuesday 6 January 2009	605 LOB

MEETINGS OF INTERESTED PARTIES (605 WORKING GROUPS):

The Commission Counsel will hold meetings of interested parties on specific topics as indicated below:

None at this time.

ADDITIONAL INFORMATION:

If you have questions related to the Commission, please feel free to contact the Commission Counsel or other Commission staff at (919) 733-2578.

General Assembly of North Carolina

CO-CHAIRS SENATOR CHARLES W. ALBERTSON SENATOR DANIEL G. CLODFELTER

REPRESENTATIVE LUCY T. ALLEN REPRESENTATIVE PRYOR A. GIBSON

MEMBERS
SENATOR STAN W. BINGHAM
SENATOR KATIE G. DORSETT
SENATOR JAMES S. FORRESTER
SENATOR ELEANOR G. KINNAIRD
SENATOR A.B. SWINDELL
SENATOR DAVID F. WEINSTEIN

REPRESENTATIVE JAMES A. HARRELL REPRESENTATIVE PRICEY HARRISON REPRESENTATIVE CARCLYN H. JUSTICE REPRESENTATIVE RUTH SAMUELSON REPRESENTATIVE EDITH D. WARREN REPRESENTATIVE LARRY W. WOMBLE

Environmental Review Commission State Legislative Building Raleigh, Porth Carolina



AGENDA

10:00 a.m. Thursday 18 December 2008

Room 1228 Legislative Building Raleigh, North Carolina

1. Call to order

Senator Charles W. Albertson, Presiding

2. Introductory remarks by Cochairs (5 minutes).

Senator Charles W. Albertson Senator Daniel G. Clodfelter Representative Lucy T. Allen Representative Pryor A. Gibson

3. Report to the Commission and explanation of agenda items (15 minutes)
George F. Givens, Commission Counsel

Approval of the minutes for the 9 October 2008 and 25 November 2008 meetings of the Commission.

4. Annual report on development and implementation of a plan to reduce vehicle miles traveled by State and private sector employees and vehicle emissions resulting from job-related travel, including commuting to and from work (G.S. 143-215.107C(d) and (e)) (10 minutes)

Tamra H. Shaw, Mobility Development Specialist Public Transportation Division Department of Transportation GEORGE F. GIVENS
COMMISSION COUNSEL
545 LEGISLATIVE OFFICE BUILDING
300 NORTH SALISBURY STREET
RALEIGH, NORTH CAROLINA 27603
(919) 733-2578
FAX: (919) 715-5460

SUSAN S. IDDINGS ASSISTANT COMMISSION COUNSEL

JEFF W. HUDSON ASSISTANT COMMISSION COUNSEL

JENNIFER L. McGINNIS ASSISTANT COMMISSION COUNSEL

JENNIFER R. F. MUND'T COMMISSION ANALYST

MARIAH B. MATHESON COMMISSION ASSISTANT

JESSICA BENNETT COMMISSION CLERK 5. Discussion of Draft 2008 Report of the Water Allocation Study (S.L. 2007-518, Sec. 1.(a) as amended by S.L. 2008-10) and issues related to increasing water supply and reservoir construction (S.L. 2008-143, Sec. 6) (15 minutes)

William E. Holman, Principal Investigator Visiting Senior Fellow Nicholas Institute for Environmental Policy Solutions Duke University

6. Annual report on the program to streamline the process for the issuance of an improvement permit or an authorization to construct for an on-site subsurface wastewater system in certain counties (S.L. 2006-136, Sec. 3) (20 minutes)

Terry L. Pierce, Director Division of Environmental Health Department of Environment and Natural Resources (DENR)

7. Discussion of alternative methods of disposing of treated wastewater (35 minutes)

Francis A. Sanders, Jr., P.E., Director of Operations Onslow Water and Sewer Authority

Colleen H. Sullins, Director Division of Water Quality (DWQ) DENR

8. Annual report on the Wastewater Discharge Elimination Program (S.L. 2001-452, Sec. 2.9) (15 minutes)

Walter "Walt" T. Haven, Head Private Water Supply Branch, On-site Water Protection Section, Division of Environmental Health, DENR

9. Annual report on the implementation of stormwater rules and programs (G.S. 143-214.7(e)) (30 minutes)

T. Bradley Bennett, Stormwater Permitting Unit Supervisor DWQ, DENR

10. Annual report on implementation of the Sedimentation Pollution Control Act of 1973 (G.S. 113A-67) (10 minutes)

Jim D. Simons, State Geologist and Director Division of Land Resources, DENR

11. Annual report on fish kills in the previous year (G.S. 143B-279.7 (c)) (10 minutes)

Mark T. Hale, Senior Environmental Specialist Environmental Sciences Section DWQ, DENR

12. Discussion of the protection of conservation land from eminent domain (S.L. 2008-181, Sec. 6.8) (30 minutes)

W. Edward Poe, Jr. Board Member, Catawba Lands Conservancy On Behalf of the NC Land Trust Council

Kimberly S. Hibbard, Associate General Counsel North Carolina League of Municipalities

Jeffrey T. O'Briant, Manager Siting & Acquisition Progress Energy Carolinas, Inc.

John M. Monaghan, Jr., Community Relations Manager North Carolina East Region Piedmont Natural Gas Company

- 13. Commission discussion and announcements
- 14. Adjourn

SCHEDULE OF FUTURE MEETINGS:

Below is a schedule of meetings of the Environmental Review Commission for the balance of the current interim. This schedule is tentative and subject to adjustment. For planning purposes, however, please reserve these dates. This schedule may be modified to allow for out-of-town business meetings or site visits and in the event that it becomes necessary to cancel a scheduled meeting due to hazardous weather conditions.

Please note the following:

Commission Meeting	Location	Staff Planning Meeting	Location
Thursday 15 January 2009	643 LOB	Tuesday 6 January 2009	605 LOB
Thursday 22 January 2009	544 LOB	Tuesday 6 January 2009	605 LOB

WATER ALLOCATION STUDY: PUBLIC MEETINGS, WRITTEN COMMENT

The Commission Counsel of the Environmental Review Commission (ERC) will hold public meetings from 2:00 p.m. to 4:00 p.m. and from 5:00 p.m. to 7:00 p.m. on Thursday 18 December in Room 1228 of the Legislative Building in Raleigh, North Carolina. The purpose of the meetings is to receive comment on the study of the allocation of water resources in the State, including the draft report received by the ERC on 25 November 2008. At the 2:00 p.m. meeting, the Commission Counsel will receive comment from invited representatives of various interested parties. At the 5:00 p.m. meeting, the Commission Counsel will receive comment from members of the public at large.

The draft report is available at both

http://www.ncleg.net/documentsites/committees/ERC/Water%20Allocation%20Study/Draft%20Interim%20Report/Draft%202008%20Report%20of%20the%20Water%20Allocation%20Study.pdf and http://sogweb.sog.unc.edu/Water/index.php/Main_Page

Public comment received at the meetings will be considered by the Principal Investigators in their preparation of the final version of the 2008 Report of the Water Allocation Study Team (Draft Interim Report), in any recommendations that the ERC may make to the General Assembly based on the 2008 Report, and in decisions about further study to be conducted by the Principal Investigators or other matters to be considered by the ERC in its ongoing study of water allocation issues.

In addition to comment received at the public meetings, written comment submitted to the Principal Investigators by 5:00 p.m., Friday, 9 January 2009, will be considered for the purposes set out above. Written comment should be sent to both the Principal Investigators and the Clerk of the ERC as set out in the Notice of Public Meetings. That notice is available at http://www.ncleg.net/gascripts/DocumentSites/browseDocSite.asp?nID=12&sFolderName=\Water%20Allocation%20Study\Notices

ADDITIONAL INFORMATION:

Persons having questions about the Commission meeting or other matters related to the Commission may contact Commission Counsel or other Commission staff at (919) 733-2578 or may visit the Commission's website at http://www.ncleg.net/gascripts/DocumentSites/browseDocSite.asp?nID=12

VISITOR REGISTRATION SHEET

Environmental Review Commission

December 18, 2008

<u>VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION</u> <u>ASSISTANT</u>

NAME	FIRM OR AGENCY AND ADDRESS
Allen HARdison	Constal Regional Solid Waste
yara Jhompson	whilesheerie
Tracy kimbrell	Parker Roe
Jessica Hayes	NC Home Builders Assn
Lisa Martin	NeHBA
Cady Thomas	NC Ason of lealous
William VANJAA	RSG Engineers
Denitt Harder	·
TomBEAN	NC EDF NEWF NC SEA
Zew Colly	nmRS
JELIN SHAW	State

VISITOR REGISTRATION SHEET

Environmental Review Commission

December 18, 2008

<u>VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMISSION ASSISTANT</u>

NAME	FIRM OR AGENCY AND ADDRESS
Dot Sociem	WCFA
Man Man	NCDWU
John Prayer	NCERA
Jin Stephensen	pccoaltadud
DON SAFRIT	NC AWNA WEA
Bradly Bennetl	NC DWQ
Tol Mamard	GPM; Kyon.
Dove Hezon	WILLIAMS MULZ-U
Hrabeth Tollon	Noemt
Ken melton	Ken Me How & Hossie.
Walt Haven	DEH/OSWP

Environmental Review Commission

December 18, 2008

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Jimmy GENTRY	NC STATE GRANGE
Vernon Cox	DSWC
Allison Fowler	NC State Grange
John Monaghan	Piedmont Natural Gas
Doug LASSILES	NCSTA
Steve Wall	DENR
Elizabeth Biser	DENR
Terry Rerce	DENR-DIVENY HEHA ONWASA
Im Webb	228 George town Rd Inchsonalle NK.
Jany Bewley	61C
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Environmental Review Commission

December 18, 2008

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TRACY DAVIS	DEUR-LAND NERMANES	
Jim Simors	DENR-Lund Resources	
Ton Cons	THC	
George Everett	Duke Energy	
DANIEL WILSON	NC Rural Water Assoc.	
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Environmental Review Commission

December 18, 2008

NAME	FIRM OR AGENCY AND ADDRESS
SCOTT GARDNON	DUKE ENCREY
J four	NCAEC
Bill Mcaulan	PSNC ENERGY
Kating Hawken	Progress Every
Ted Lyon	NC DEH
Jim Lowry	NC Utility Contractors Assn
DARREN ALLEN	RANDOM COUTTY
Panc Meyer	NCACC
John Malista	NC Chamser
JOHN GOODMAN	NC CHAMBER
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Environmental Review Commission

December 18, 2008

NAME	FIRM OR AGENCY AND ADDRESS
Johanna Reese	DOT
Craig Browly	Hunton Williams LU PoBor 109 Rdein 27602
Linda Andrews	NCFB
GRANT SPARKS	DIRECTOR PUBLIC Services/Cityothackson
Jim Allen	Chairman BOARD of directors ONWASA
Zabin Smith	DENR
Frank Sanders	On slow Water & Sewer Anthont
SANDY SANDS	WCSR
Lucius W. Publen	Counsel NC MiniNG ASSOCIATION
Ja Holman	Counsel NC MiniNG ASSOCIATION Nichola, Int / Dice Wiv
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Environmental Review Commission

December 18, 2008

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MARK HAL	NODUP 4401 Reedy CR 2d RAleigh
Jon Risgaard	NCOWQ
Colum H. Siling	NCOWQ
Phil Carra	LASTE TADUSTAILS
Roger Knisht	Wyrick Robbins / Waste Industries
Adam Riggsbee	Restoration Systems
Midalle Frazier	Manning Fultar
	Breun HTON, WILKINS
Joiny Dorset	OCCA.
PRESTON + BWARD	MCIC
Patrick B. Affin	MMR 8
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Environmental Review Commission

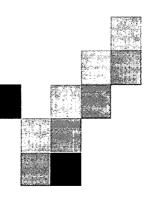
December 18, 2008

NAME	FIRM OR AGENCY AND ADDRESS
Thomas Slusser	DENR-DWR
Manmohan Ment	MCDA+CS
Tommy Stevens	NCPC
	Professor, Duke Law school
Man Malle Asill Ryhe Longest	Professor, Duhe Law school
Jeryl W. Covingon	Cty. of Greensboro
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Environmental Review Commission

December 18, 2008

NAME	FIRM OR AGENCY AND ADDRESS
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JOYSTON	NCAR
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Annual Report on Progress Toward SB 953 Goals

Presented to the Environmental Review Commission By Tamra Shaw, NCDOT, Public Transportation Division Dec. 18, 2008

The Ambient Air Quality Improvement Act of 1999

■ Directed NCDOT to develop a plan to reduce the growth of commuter VMT by 25 percent by July 1, 2009.



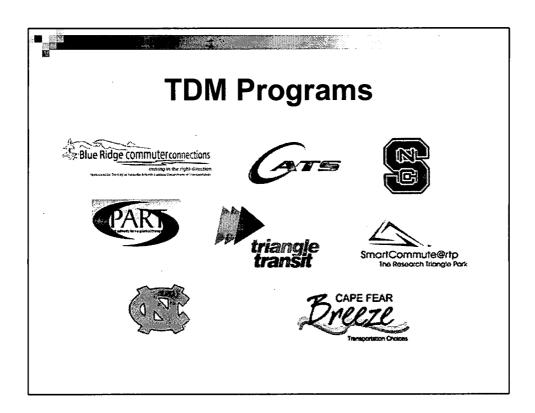
Reducing VMT Using TDM

■ The goal of TDM is to focus on efforts to reduce demand for roadway space by influencing travel choices and the amount and timing of travel, encouraging more walking, cycling, use of public transit, carpooling, vanpooling and telecommuting.



First Steps - 2004

- Publication of the Statewide TDM Plan.
- Initial state funding to local TDM programs. (Earlier support helped to fund vanpool programs in the Charlotte area, the Triad and the Triangle.)





While each TDM program has locally focused TDM activity, ALL PROMOTE:

- A commuter challenge
- Vanpool programs in the Charlotte area, the Triad and the Triangle
- Best Workplaces for Commuters
- The statewide rideshare matching Web site, www.SharetheRideNC.org

Commuter Challenge

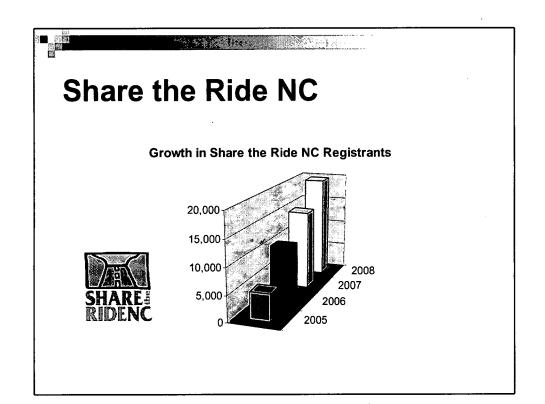
A commuter challenge is a campaign designed to increase general public awareness of alternate commuting options through aggressive marketing and employer site visits.

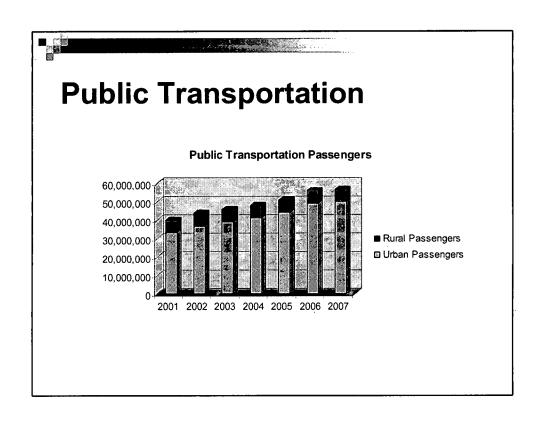


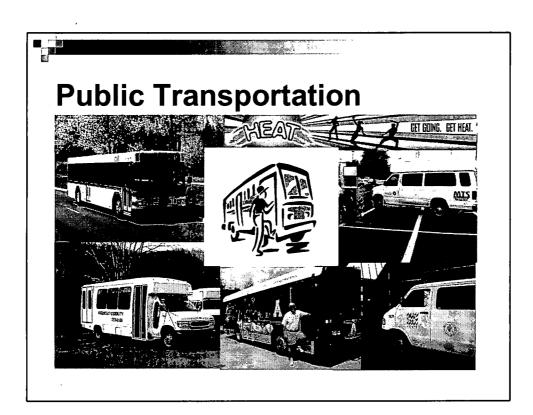
Best Workplaces for Commuters

The Best Workplaces for Commuters Program is a public/private partnership that recognizes employers with outstanding commuter benefits. North Carolina's 66 BWC employers represent more than 100,000 employees.





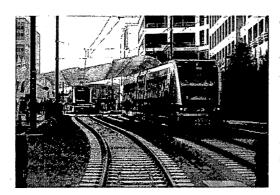




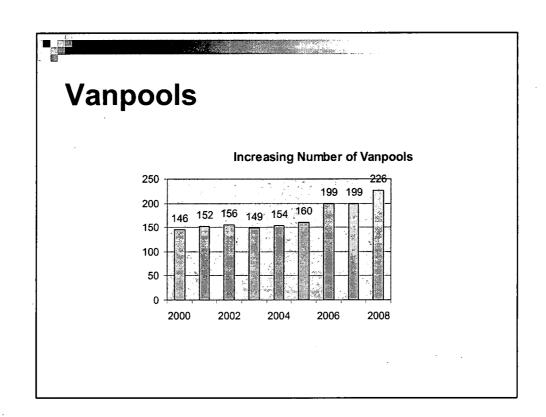
GoPass

The GoPass Program, introduced for state employees in 2003, is a program that allows state employees at participating agencies to ride Triangle Transit and Capital Area Transit fare free. In July and August of 2008, parking coordinators at participating state agencies distributed 4,400 GoPass cards to state employees.

Charlotte's LYNX Blue Line



With initial service in late November 2007, the LYNX Blue Line quickly surpassed ridership estimates. Between service inauguration and June 30, 2008, LYNX carried a total of 2.8 million passengers.





The Bottom Line

- From 2000 to 2008, the projected growth of commuter VMT has been REDUCED by 24.6 percent.
- All indications are that the 25 percent target will be met in 2009.



Innovations & Future Activities

- Triangle area's seven-year TDM plan first of its kind in the state – provides strategies to sustain 25 percent reduction in growth of commuter VMT through 2015.
- Statewide employee commuter survey every two years.
- Initiative to involve local/regional/state chambers of commerce and economic development entities to raise awareness of TDM programs and benefits to employers and employees.
- Systematic methodology to calculate emission reduction and other demand reductions associated with teleworking.
- Standardized ShareTheRideNC.org highway signs statewide.



Innovations & Future Activities

continued

- Public service announcements produced by the state and distributed by local TDM coordinators to use on local media.
- Coordination of local TDM commuter challenges and reporting.
- Possible partnership with health advocacy groups to market the health benefits of TDM.
- Individualized marketing maps and information focused on a specific neighborhood or geographic area.
- Cellular phones used by vanpool drivers to send data regarding vanpool mileage and other information.



Alternative Fuel Vehicles In N.C. Urban Transit

As of October 2007, North Carolina's urban transit bus fleet consisted of 818 alternative fuel vehicles:

682 (83%) ultra-low sulfur diesel buses

- 124 (15%) bio-diesel buses 5 (<1%) hybrid diesel electric buses
- 4 (<1%) hybrid electric trolleys
- 2 (<1%) kerosene buses
- 1 (<1%) compressed natural gas bus
- Systems with hybrids or those awarded grants to purchase hybrids include Asheville, Chapel Hill, Charlotte, Durham, Greensboro, Raleigh and Winston-Salem.
- The N.C. Board of Transportation awarded \$25 million in Congestion Mitigation and Air Quality (CMAQ) Program funds to seven urban and regional transit systems in May 2008.



For more information, contact:



NCDOT/Public Transportation Division

Miriam Perry, *Director*Tamra Shaw, *Mobility Development Specialist*

House Bill 1094 Pilot Project

2008 Annual Report to the North Carolina General Assembly

Terry L. Pierce, Director | Division of Environmental Health

Background

- Several counties experienced backlogs because of an increase in development
- Cherokee County had largest backlog for Improvement Permits with a 6-to-8 month waiting period
- One proposed solution Use licensed soil scientists (LSS) to assist with permitting process

Proposal

"Establish[ed] a pilot program to streamline the process for the issuance of an improvement permit or an authorization to construct for an onsite subsurface wastewater system in certain counties by authorizing local health departments, authorized agents of the Department of Environment and Natural Resources, and <u>licensed soil scientist to</u> <u>complete soil and site evaluations</u> in the participating counties."

Criteria for Selection

- A county must meet three criteria to participate in the pilot program:
 - 1. The population of the county must not exceed 25,000 according to the most recent federal decennial census.
 - 2. The county must have more than 900 applications for improvement permits or authorizations to construct that are pending before the local health department on the effective date of this act.
 - 3. The board of county commissioners and the local board of health for the county must both approve a resolution requesting to participate in the pilot program.

Process

- Cherokee County met the criteria for the pilot project; remains only county to meet this criteria
- DEH staff provides:
 - Technical assistance;
 - Orientation
 - Interpretation
- LSSs required to:
 - Register with the health department
 - Provide proof of liability insurance

Process

- LSS must supply the appropriate information, including the site review, to the health department for the issuance of an Improvement Permit (IP).
- Upon review of application package for accuracy/completeness, the LHD issues an IP.

Findings

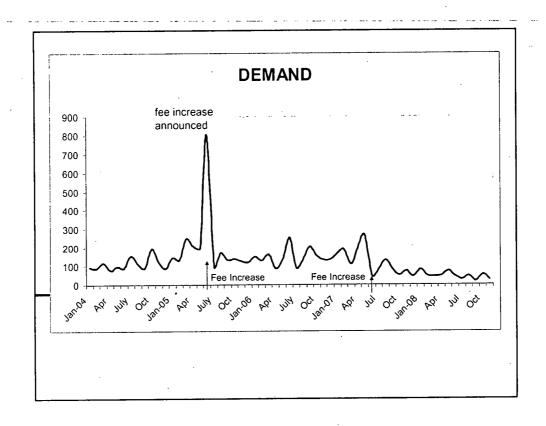
Based on information provided by Cherokee County Health Department

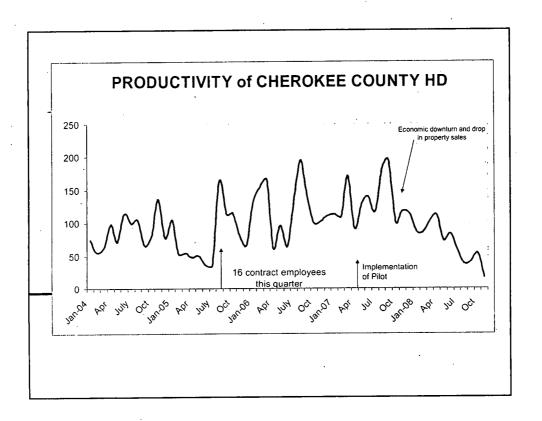
- Backlog has essentially been eliminated.
- Currently, there are five full-time Cherokee County employees assigned to on-site wastewater activities.
- Construction Authorizations issued between May 17, 2007 and Oct. 1, 2007 152
- Construction Authorizations issued between Oct. 1, 2007 and Nov. 1, 2008 72
- Fifteen of the permits were installed and received operation permits.

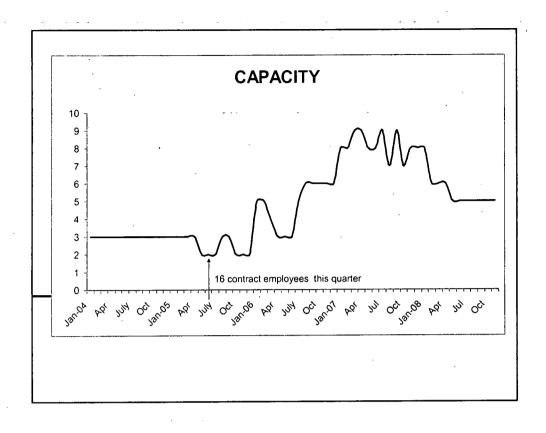
Findings

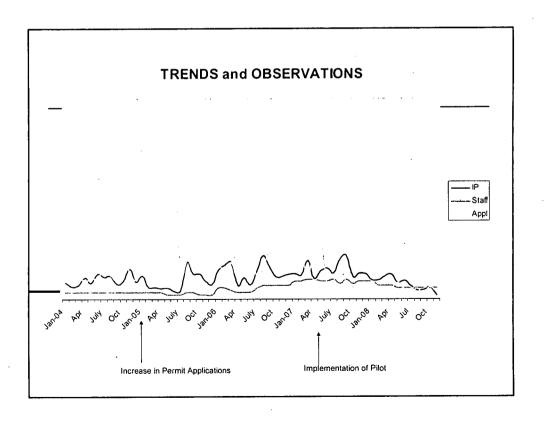
Based on information provided by Cherokee County Health Department

- All proposals have been approved.
 - Approximately 25 proposals have not received permits or were withdrawn from the program by the applicant.
- The last 86 proposals received were reviewed by OSWPS staff, since the health department lacked personnel with adequate training and experience to provide peer review.
- Two systems that received permits were denied at installation by the health department's staff due to inaccurate soil evaluations.









Concerns

■ Staff

- The Cherokee County Health Department needs to maintain staff with adequate training and experience to review LSS proposals.
- Effectiveness of the insurance required.
 - Only valid for six years from the date of the permit.
 - Many of these lots were apparently purchased for speculation or for later use.
 - Result: systems may not be installed until after the insurance expires.

Evaluation – Criteria

- Three criteria (per legislation)
 - i. "the program resulted in a reduction in the length of time improvement permits or authorizations to construct are pending in the participating counties;
 - ii. the program resulted in increased system failures or other adverse impacts; and
 - iii. the program resulted in new or increased environmental impacts."

Evaluation – Results

- Effectiveness of this program in reducing the backlog that existed remains unclear.
 - Current staff levels are at five.
 - Number of applications has been reduced due to the economic situation and the decrease in building.
- Very few of the systems permitted through this pilot program have been installed.
- The few systems that have been installed have not been in use for a period sufficient to assess any failures or environmental impacts.

Recommendations

- While the OSWP Section has been conducting proposal reviews, the Cherokee County Health Department now has in its employment a person with the experience to assume this responsibility.
- The Cherokee County Health Department staff should continue tracking permits issued based on a licensed soil scientist's report.
 - Without such information, it is hard to determine the project's long-term effectiveness.

Summary

- Since its inception last year, licensed soil scientists having experience with submitting proposals and continued educational efforts have resulted in the percent approved initially being increased to approximately 90 percent.
- Two hundred twenty-four (224) permits have been issued by Cherokee County Health Department's environmental health staff using this pilot process.

Summary

- Number of applications for improvement permits has dropped significantly during 2008.
- As of Dec. 4, no active permit application backlog exists for Cherokee County.

Summary

- The goal of two to three weeks for responding to these permit requests has been achieved, so it will be impossible to assess the success of the project in reducing a backlog which no longer exists.
- Unless economic conditions become more favorable, evaluation of this pilot project will continue to be extremely difficult.

Questions?

Terry L. Pierce
Director
Division of Environmental Health
Terry.Pierce@ncmail.net
(919) 733-2870

North Carolina Division of Water Quality



Stormwater Management Program Annual Report G.S. 143-214.7(e)

Environmental Review Commission December 2008

Stormwater Program Areas

- State Stormwater
 - State level program
 - Protection for sensitive waters classification based
- Federal Program
 - National program
 - Focused on certain activities or communities

State Stormwater Coastal Stormwater Program

-	

Coastal Stormwater Rules

- EMC Finalized Rules in January 2008
- Legislative Review in 2008 Session
- S.L. 2008-211 (SB 1967, HB 2138)
- Five Workshops September 2008
- Requirements Effective October 1, 2008

Major Requirements

- Coverage

 - Sediment/Erosion Control or CAMA Major, Non-Residential with 10K sq.ft. of Built-Upon Area
 - · Residential near SA Waters
- Vegetative Buffer
 - 50 Feet for New Development
 - 30 Feet for Redevelopment

Major Requirements

- · Low Density Thresholds
 - 12% Built-upon Area Near SA Waters
 - 24% Built-upon Area Outside SA Waters
- High Density Storm Control
 - 1-year, 24-Hour Storm near SA Waters
 - 1.5 Inch Rainfall Event Outside SA Waters
- Exclusions, etc.

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NPDES Stormwater



Federal Stormwater Industrial and Municipal



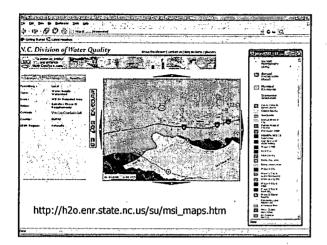


Education/Outreach & Technical Assistance

- Highlight Personal Impact
- Share New Information
- Contact With Permitees
- Technical Documents



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Information Sources

Division of Water Quality Stormwater Permitting Unit http://h2o.enr.state.nc.us/su/stormwater.html

Coastal Stormwater Rule Changes http://h2o.enr.state.nc.us/su/coastal.html

Easements in Eminent Domain Protecting Conservation Proceedings

Presented to
Environmental Review Commission
December 18, 2008

W. Edward Poe, Jr. Board Member, Catawba Lands Conservancy

On Behalf of the NC Land Trust Council

Discussion Points

Sources of Pressure on Infrastructure

North Carolina and Federal Policy

NC Land Trust Public Policy Goals

Current Test for Exercising Power of **Eminent Domain**

Legislative Recommendations

I. Examples

VII. Conclusion

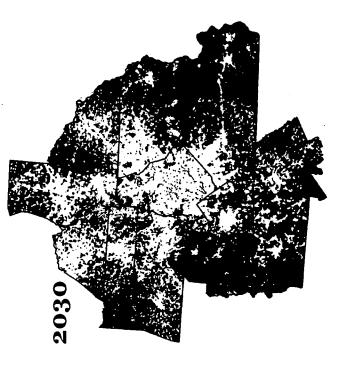
Population Growth

- NC projected to be 10th most populated state by 2010
- NC projected to grow by about 33% in 20 years compared to 18% in US
- NC will become 7th most populous state by 2030
- Only CA, TX, FL, NY, IL, and PA will have larger populations

Vanishing Natural Landscapes

- NC is losing natural areas and farmland at a rate of 100,000 acres per year
- Metro areas under stress; Mecklenburg will have 3% open space by 2030





North Carolina Policy

- NC Gen Statute §113A-241(a) permanently protect an additional 1 million acres by 2010
- policy to conserve and protect State's land & waters Article XIV, Sec. 5 of NC Constitution – State
- NC Gen. Statute §105-130.4 & 105-151.12, et seq. tax policy encouraging grants of conservation easements
- easements are subject to power of eminent domain NC Gen. Statute §121-36 (c) – conservation

Federal Policy

encouraging grants of conservation easements 26 C.F.R. §1.170A-14, et seq. - tax policy

NC Land Trust Public Policy Goals

- Balance the interest of condemning authorities with the strong public policy favoring conservation easements
- easements is not subverted through the condemnation Ensure that public policy supporting conservation process
- Protect the State's and the public's investment in conservation lands
- Preserve lands under conservation easements without unreasonably limiting the power of eminent domain

Current Test for Eminent Domain

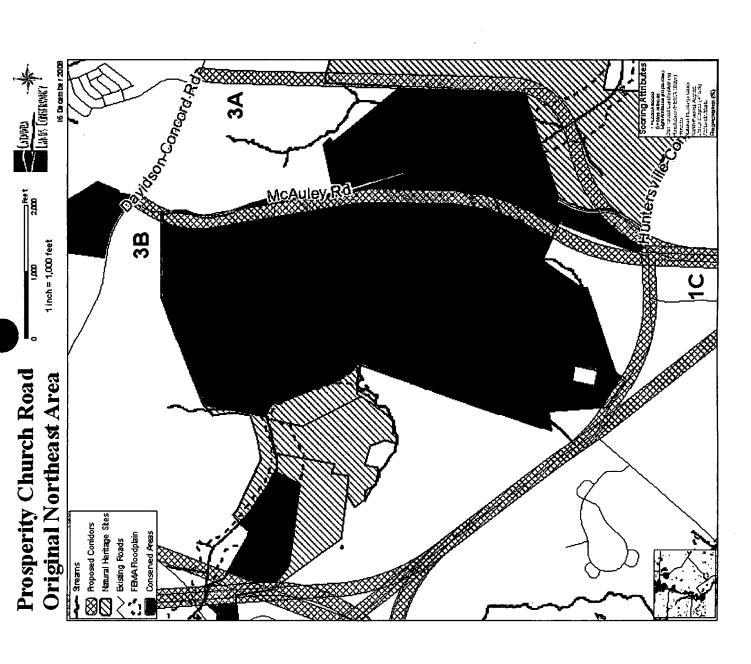
- Public Purpose
- Imminent public need or benefit
- site/route can be overturned only if the Judge rules it to only by the "arbitrary, capricious, unreasonable, and an abuse of discretion" test; e.g., the condemnor's selected be "arbitrary", meaning there were no reasons for the Currently, the condemnor's determination is limited selection
- Payment of just compensation

Legislative Recommendations

- "unavoidable public necessity and absence of a prudent Threshold finding by a Superior Court Judge – and feasible alternative" require the taking
- Award attorney's fees and costs to purported condemnee if the Judge does not make the threshold ruling in the condemnor's favor
- Award of just compensation based on unrestricted fair market value of the easement-burdened land
- 25% mitigation payment to compensate the not-for-profit conservation easement or using the proceeds in a manner condemnee for locating and arranging for a substitute consistent with the conservation purposes of the conservation easement

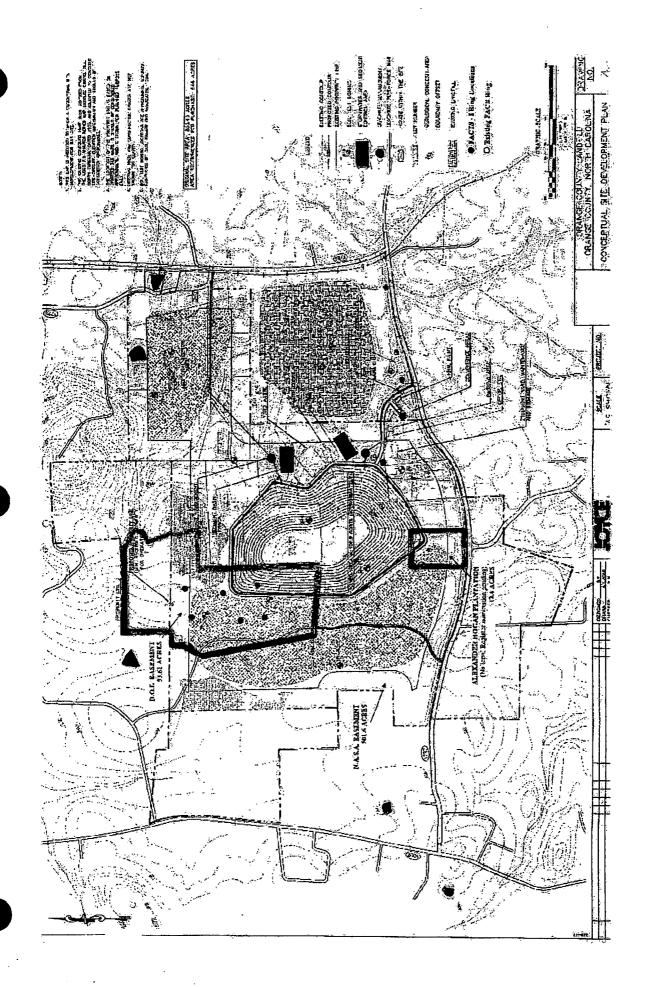
Examples

Ramah Creek Conservation Area – Town of Huntersville



Examples (continued)

Duke Forest (Blackwood Division) – Orange County



Examples (continued)

- Foy Creek/Taylor Conservation Easement NC Department of Transportation
- 140.5 acre conservation easement was donated to NC Coastal Land Trust
- DOT instituted proceedings to condemn land for a storm water infiltration basin for highway improvements
- Land Trust opposed because of impacts on water quality
- With the Land Trust's assistance, another location was found

Conclusion

- Conservation easements are granted in perpetuity
- Conservation easement holders commit to protect/defend the easements permanently
- Conflicts in policies involving State interests are best resolved by the General Assembly
- investment in its natural resources and to prevent further Legislation is needed to protect NC's conservation loss of NC's forests, farms and open spaces

PROTECTING CONSERVATION EASEMENTS
IN EMINENT DOMAIN PROCEEDINGS
Presented by W. Edward Poe, Jr.
On Behalf of the NC Land Trust Council
Environmental Review Commission
December 18, 2008

I. BACKGROUND

As one of the most rapidly developing states in the country, North Carolina is losing natural areas, historic sites and agricultural and forestry lands at a rate of over 100,000 acres per year. Yet, the State's waters, forests, open lands and historic properties are critical to North Carolina's economic future and quality of life. To address this dilemma, the State has adopted a policy to encourage, plan, coordinate and support land protection efforts to preserve and permanently protect within the State an additional one million acres by December 31, 2009.

Concurrent with this rapid pace of development within North Carolina, the public is investing substantial resources in conservation easements. These easements, frequently used by land trusts and government agencies, restrict the development and use of land in order to preserve the land's natural, open, scenic, historic or ecological features. In this way they protect North Carolina's unique natural resources and diminishing, but critically important, natural "capital" of clean air and water, wildlife habitat, and working farmland and forests. Federal and State tax policies encourage grants of conservation easements² and implement Article XIV, Section 5 of the State's Constitution which declares that it is the policy of North Carolina to conserve and protect its lands and waters for the benefit of all of its citizens.³ Without the

¹ N.C. Gen. Stat. § 113A-241(a); See also, N.C. Gen. Stat. § 113A-230, et seq.

² 26 C.F.R. §1.170A-14, et seq.; N.C. Gen. Stat. §§ 105-130.34 and 105-151.12, et seq.

³ Article XIV, Section 5 of the Constitution of the State of North Carolina: "It shall be the policy of the State to conserve and protect its lands and waters for the benefit of all its citizenry, and to this end it shall be a proper function of the State of North Carolina and its political subdivisions to acquire and preserve park, recreational, and service areas, to control and

protection conservative easements afford, North Carolina's surging population growth will overwhelm the State's natural areas, farmland and open space which constitute the green "infrastructure" protecting and improving our overall public health and quality of life.

As undeveloped acreage shrinks within the state and an expanded population requires increased public infrastructure, it is increasingly more certain that condemning authorities in their planning will encounter land subject to conservation easements. Currently, conservation easements in North Carolina are given no protection from the power of eminent domain. North Carolina's easement-enabling statute expressly provides that conservation easements are subject to the power of eminent domain. Moreover the method for calculating just compensation for taking land encumbered by a conservation easement is not currently established in North Carolina's statutes. The purpose of this paper is to outline legislation which, if adopted by the North Carolina General Assembly, would balance the interests of condemning authorities with the strong public policy favoring the use of conservation easements as a land protection tool and the considerable public investment in these easements. Stated more simply, the legislation proposed in this paper is designed to help ensure that the public policy in favor of protecting lands for their conservation, historic or agricultural purposes is not subverted through the condemnation process.

limit the pollution of our air and water, to control excessive noise, and in every other appropriate way to preserve as a part of the common heritage of this state its forests, wetlands, estuaries, beaches, historical sites, open lands, and places of beauty."

⁴ N.C. Gen. Stat. § 121-36(c).

⁵ Limiting the threat posed by eminent domain to these conservation easement-protected, scarce and unique, natural resources will no only help improve our environment and quality of life, but also will buttress the foundation for the State's two largest industries – agriculture and tourism.

⁶ For a scholarly, in-depth treatment of this subject, see "Condemning Conservation Easements: Protecting the Public Interest and Investment in Conservation," 41 U.C. Davis L. Rev. 1897 (June 2008), from which this paper borrows heavily.

II. POLICY DISCUSSION

Like traditional easements, conservation easements, whether characterized as negative restrictions on the development and use of land or as restrictive covenants, are a compensable form of property under the Fifth Amendment⁷ to the United States Constitution. Similar protection is a part of North Carolina's Constitution. They are valid, enforceable and valuable interests in the land they encumber, and are no different than traditional easements for eminent domain purposes. As such, persons whose land is subject to a conservation easement are entitled to just compensation for the taking of the easement-encumbered land.

North Carolina traditionally uses the "before and after" test in eminent domain proceedings. Under N.C. Gen. Stat. §136-112, the measure of damages in NCDOT easement acquisition proceedings is "the difference between the fair market value of the entire tract immediately prior to said taking and the fair market value of the entire tract immediately after the taking..." (emphasis added). Under this test property subject to a conservation easement should be valued in the "before" state assuming it were not subject to the easement and valued likewise for the "after" analysis. To treat conservation easements as non-compensable or limited value property would allow condemnors to acquire conservation easement-burdened land for its "reduced" or "restricted" value. This would encourage condemnation of such land, because it would be less expensive to condemn than similar unencumbered land, a result contrary to the strong public policy favoring the use of such easements as a land-protection tool and the

⁷ ". . .; nor shall private property be taken for public use, without just compensation."

⁸ Article I, Section 19, provides that "No person shall be . . . deprived of his . . . property but by the law of the land."

⁹ The principal parties in an action to condemn land subject to a conservation easement would be the owner of the land and the government or land trust holding the easement. By computing the damages to the entire property without regard to the presence of the conservation easement, the existence of the easement would neither increase the just compensation award payable by the condemning authority nor decrease it. It would simply cause the award to be apportioned between the owner of the encumbered land and the holder of the easement based on their respective interests.

substantial public investment conservation easements. Such a result would chill the interest of prospective easement grantors and the general public in conservation easements for land protection.

The goal is to preserve conservation easements and ensure the long-term protection of easement-burdened lands for perpetual public benefit while not unreasonably limiting the power of eminent domain which is exercised also for the public benefit. This goal can be accomplished in four ways: (1) by requiring condemning authorities to meet certain conditions before condemning land subject to conservation easements; (2) by allowing the condemnee in such actions to recover its attorneys fees and reasonable costs, including surveyors, engineers and appraisers fees if the threshold test discussed in Section III of this paper is not met; (3) by awarding damages in actions to condemn conservation easement-encumbered lands without regard to the presence of the conservation easement, as discussed above; and (4) by adding a mitigation payment (e.g. 25%) to the just compensation awarded to the conservation easement holder (usually a land trust or governmental entity) to be used in a manner consistent with the conservation purposes of the conservation easement. While this latter proposal would require the condemnor technically to pay more than the fair market value of the property actually taken. the excess paid to the easement holder is intended to compensate it for a portion of its cost in finding and purchasing a replacement conservation easement of approximately equal value, or otherwise in using the condemnation proceeds in a manner consistent with the conservation purposes of the conservation easement.

¹⁰ This language is consistent with Treasury Regulations §1.170-A-14(g)(6) and N.C. Gen. Stat §146-30(a).

III. PROPOSED CONDITION PRECEDENT TO BE MET BY CONDEMNORS

In North Carolina, the standard legal tests for exercising the power of eminent domain are imminent public need and an enumerated public purpose as well as payment of just compensation. We propose that an additional constraint be added by statute in the limited circumstance where land subject to a conservation easement is taken by condemnation. This test would be a threshold finding by the Court that "unavoidable public necessity and absence of a prudent and feasible alternative" require the taking. 11 This threshold test could be set up so that a iudge would rule on this issue before the condemnation action could proceed.¹² Note that this is not tantamount to a ban on condemnation of conservation easements, but instead adopts an enhanced public-need test which the condemnor would have to satisfy in the limited circumstance of taking land subject to a conservation easement. By adopting this enhanced public-need standard, the General Assembly would be placing a "check" (i.e. a Superior Court Judge's review) on the condemnor's exercise of the power of eminent domain. This "check" is consistent with balancing the strong public policy favoring preservation and protection of conservation easements with the need of condemnors to acquire property for public improvements. Moreover, adoption of this "legal test" would not be at public expense, since the

¹¹ The statute might be written as follows:

[&]quot;The provisions of any law to the contrary notwithstanding, no county, municipality, other political subdivisions, department or agency of this State, and no other entity having the power of eminent domain pursuant to North Carolina Statutes shall exercise the power of eminent domain on land subject to a conservation easement unless such entity, first demonstrates that the action is justified by unavoidable public necessity and that there is no prudent and feasible alternative.

This determination shall be made by a Judge of the Superior Court. A ruling by said judge that either the taking is not justified by unavoidable public necessity or that there is a prudent and feasible alternative shall entitle the easement holder to recover its reasonable attorneys fees and costs including, without limitation, reasonable surveying, engineering and appraisal costs."

The NCDOT's "quick take" procedure (N.C. Gen. Stat. §136-104) under which title vests and the NCDOT has the immediate right to possession upon filing the Declaration of Taking, Complaint and posting a deposit of its estimate of just compensation would be preceded by this determination by a Superior Court Judge.

condemnation action would be allowed to proceed if the test were satisfied, and, arguably, should not have been proposed if the Court ruled otherwise.

There is precedent for adding a legal test of this nature to eminent domain proceedings involving conservation easements. Texas has a "no feasible and prudent alternative to the use or taking of the land" test. Rhode Island's test is demonstration of "extreme need and the lack of any viable alternative . . ." New Jersey law provides that the Governor must declare "that the action is necessary for the public health, safety and welfare, and that there is no immediately apparent feasible alternative." Florida law provides that "the court must consider the public benefit provided by both the conservation easement and the (public work improvement) in determining which lands may be taken." Finally, as to agricultural lands, Kentucky law provides that the State "shall not locate landfills, sewage treatment plants, or other public service facilities that are not compatible with or complimentary to agricultural production on restricted lands."

IV. FAIR MARKET VALUE COMPUTATION

North Carolina's courts generally use the "before and after" method, discussed earlier in Section II, to value traditional easements for eminent domain purposes. Similarly, when land subject to a conservation easement is condemned, both the servient estate owner (the underlying fee simple owner) and the government entity or land trust holding the easement (the dominant estate owner) should be entitled to compensation based on the value of the property as if it were not subject to the easement (i.e. based on its unrestricted value). The compensation awarded

¹³ TEX. NAT. RES. CODE ANN. § 183.057(a)(1).

¹⁴ R.I. GEN. LAWS § 42-82-6.

¹⁵ N.J. STAT. ANN. § 4:1C-25.

¹⁶ FLA. STAT. § 704.06(11).

¹⁷ KY. REV. STAT. ANN. § 262.910(2)(d).

should be apportioned between the two owners based upon the value of their respective interests. To arrive at a just compensation award using the restricted value of the property caused by imposition of a conservation easement would be a result benefiting the condemnor by allowing it to take property for less than its fair market value. This would turn conservation-burdened land into an attractive, cheap target for condemning authorities. To prevent such a result, the statutes of North Carolina should provide that the appropriate standard for determining just compensation in takings of conservation easement-encumbered land is the difference between the fair market value of the entire tract before the taking and after the taking.

V. JUST COMPENSATION MITIGATION PAYMENT

Conservation easements are assets usually held by a government entity or land trust for the benefit of the public. If land subject to a conservation easement is condemned, then the just compensation paid should be used to accomplish similar conservation or preservation purposes in another manner and location. If the just compensation paid is simply the unrestricted value of the property taken (*i.e.* the land is valued assuming it were not subject to the conservation easement), then the mitigation costs incurred by the property owner in restoring the status quo are borne by the easement holder and thereby reduce just compensation. A policy or laws which place these transactional costs (*e.g.* locating and arranging for a substitute conservation easement or otherwise using the proceeds in a manner consistent with the conservation purposes of the

In <u>City of Charlotte v. The Charlotte Park and Recreation Commission</u>, et al., 278 N.C. 26 (1971), our Court held that the condemnee was entitled to recover the difference between the fair market value before and after the taking, <u>without restrictions as to its use as park land</u>. While this case does not involve taking a conservation easement, the opinion states that the Court is adopting "... the better view, which is supported by the weight of authority..." <u>Id.</u> at 34.

¹⁹ The statute might be written as follows:

[&]quot;In all actions for the condemnation of lands under the statutes of this State, if the subject property is encumbered by a conservation easement, that conservation easement shall be treated as a separately compensable property interest. In each case, in determining the difference between the fair market value of the entire tract before the taking and after the taking, the existence of the conservation easement shall be disregarded, and the conservation easement holder shall be compensated according to applicable law, or according to the terms of the conservation easement."

conservation easement) on the easement holder in fact deprives the holder of a portion of just compensation to which the law entitles it. We propose adding to the amount of just compensation paid by the condemning authority to the easement holder a 25% mitigation payment in the limited circumstances of condemnation of conservation easements. Such a provision would discourage the condemnation of such lands, but would help fund the purchase, protection and preservation of replacement lands (for the benefit of the public) if condemnation were necessary under the circumstances. Said differently, such a mitigation payment would help ensure that condemnation of conservation easements would occur only when the condemnor has concluded that no other practical alternative exists and that the project's importance justifies the additional expense.

VI. CONCLUSION

As a matter of public policy in North Carolina, lands subject to conservation easements should be taken through the power of eminent domain only when absolutely necessary. Imposing a high legal standard for such condemnations, requiring reimbursement of attorneys fees and costs to defend against meritless attempts to acquire such lands, disregarding the presence of the easement for valuation purposes, and invoking a condemnation mitigation payment would help ensure that a condemnor has every financial incentive to engage in systematic, in-depth planning when land subject to a conservation easement is the target of the condemnation proceeding (e.g. such considerations include adverse and environmental effects

²⁰ The statute might be written as follows:

[&]quot;To the amount of just compensation for the taking of lands subject to a conservation easement shall be added 25% of the amount for which the acquisition was made or the action resolved (whether by voluntary agreement or by judgment of the Superior Court for such taking to defray the mitigation costs incurred by the easement holder in locating and acquiring a substantially similar conservation easement or otherwise using the proceeds in a manner consistent with the conservation purposes of the conservation easement."

that cannot be avoided; alternatives to the proposed action; irreversible environmental changes involved, etc.). The substantial benefits which conservation easements provide the public in perpetuity should not be taken through the power of eminent domain without first conducting such an exhaustive analysis and balancing of interests.

W. Edward Poe, Jr.

Board Member, Catawba Lands Conservancy