



North Carolina Department of Environment and Natural Resources  
Division of Soil & Water Conservation

Beverly Eaves Perdue  
Governor

Patricia K. Harris  
Director

Dee Freeman  
Secretary

**Memorandum**

TO: Environmental Review Commission  
Fiscal Research Division

FROM: David B. Williams, Deputy Director *DBW*

DATE: January 31, 2011

RE: 2010 Annual Report on the Community Conservation Assistance Program

This memo transmits the 2010 Annual Report on the Community Conservation Assistance Program. General Statute 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, to the Environmental Review Commission and the Fiscal Research Division.

If you have any questions or need additional information, please contact me at 715-6103 or by email at David.B.Williams@ncdenr.gov.

Enclosure

cc: Mariah Matheson  
Jennifer McGinness  
David Knight  
Kathy Hardy  
Anita McNeil  
Kari Barsness  
Marilyn Chism  
Lanier McRee

**Report to the Environmental Review Commission  
and Fiscal Research Division of the N.C. General Assembly  
on the Community Conservation Assistance Program**



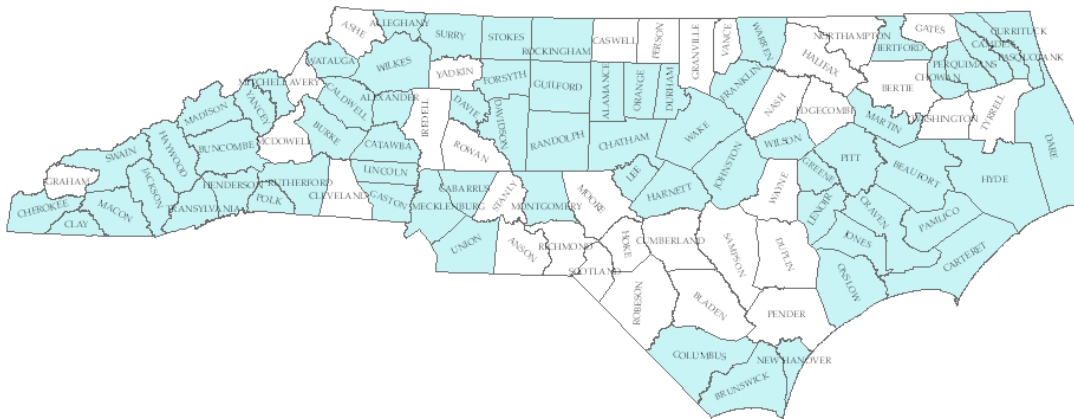
**FISCAL YEAR 2010 ANNUAL REPORT  
January 2011**

General Statute 143-215.74M(e) of Session Law 2006-78 mandates that the Soil and Water Conservation Commission report to the Environmental Review Commission and the Fiscal Research Division a summary of the Community Conservation Assistance Program (herein referred to as CCAP) annually. The purpose of CCAP is to reduce the delivery of nonpoint source (NPS) pollution into the waters of the State by installing best management practices (BMPs) on developed lands, not directly involved in agricultural production. Through this voluntary, incentive-based conservation program, landowners are provided educational, technical and financial assistance.

Eligible landowners, including homeowners, businesses, schools, parks, churches, and others, may be reimbursed up to 75 percent of the cost of retrofitting BMPs. Soil and Water Conservation Districts (districts) provide educational services to local governments and the public and direct technical and financial assistance to property owners. The Soil and Water Conservation Commission administers the program through the Division of Soil and Water Conservation. CCAP BMPs include: abandoned well closures, backyard rain gardens, backyard wetlands, bioretention areas, cisterns, critical area plantings, diversions, grassed swales, impervious surface conversions, permeable pavement, pet waste receptacles, riparian buffers, stormwater wetlands, stream restoration, and stream and shoreline protection. During PY2010, the CCAP Advisory Committee utilized the technical skills of its members to review and refine the marsh sill BMP for recommendation to the Soil and Water Conservation Commission for adoption. This new practice is consistent with, and contributes to goals of the Coastal Habitat Improvement Program. More information regarding CCAP BMPs can be found in Appendix A.

During Fiscal Year (FY) 2010 the Division of Soil and Water Conservation received recurring appropriated funds for CCAP in the amount of \$200,000. A portion of these funds support a full-time permanent employee to coordinate the program and administer the funds for program implementation. The majority of the state appropriations are allocated to local districts for BMP installation. At their August 14, 2009 meeting, the Soil and Water Conservation Commission allocated \$143,840 of the \$200,000 appropriated to be distributed to interested districts according to the parameters outlined in 15A NCAC 06I .0103(9). The districts that received an allocation of CCAP state funds in FY2010 are displayed in Figure 1 below.

Figure 1: Soil and Water Conservation Districts Receiving CCAP State Appropriated Funds in FY2010



In addition to the State appropriation, on August 14, 2009, the Commission authorized distribution of over \$551,611 in unencumbered BMP implementation funds to 37 districts. These funds were obtained through three grants, two from the Clean Water Management Trust Fund and one from the Clean Water Act Section 319 Program. New program funding for FY2010 included \$95,000 allocated to four coastal districts, Brunswick, Carteret, New Hanover and Onslow, from the NC Environmental Enhancement Grant Program. These funds, in combination with the recurring state appropriation, allowed this program to address water quality concerns and reach citizens across the state.

Significant advancements in program development and project installations were seen during this third program year.

Program highlights and accomplishments in FY2010 include the following:

- The CCAP Advisory Committee met quarterly during FY2010 to provide oversight and technical review of the program. This group was active in improving program policies, promoting partnership involvement, and recommending new BMPs for adoption. The membership of the CCAP Advisory Committee is shown in Appendix B.
- Marsh sills are a significant new BMP added to the program. Marsh sills protect estuarine shorelines from erosion, combining engineered structures with natural vegetation to reduce wave action, while protecting or restoring marsh habitat. This practice will be beneficial in encouraging environmentally friendly shoreline stabilization projects.
- North Carolina State University Department of Biological and Agricultural Engineering provided technical hands-on CCAP design training for 33 district staff at the District Employees Workshop in August 2009. To date, 133 district employees have completed the CCAP design training. An additional 27 Division employees have participated in these trainings.
- 164 project contracts were submitted to encumber \$811,281, and \$255,987 was expended on completed BMP projects exclusive of staff time and overhead, using both state appropriations and grant funds.
- BMPs installed include approximately:
  - 5 acres of bioretention areas and wetlands
  - 17 acres of critical area plantings
  - 4 acres of riparian buffer areas

- 41 abandoned well closures
  - 36 cisterns
  - 99 pet waste receptacles
  - 2500 feet of stream stabilization or restoration
- Pictures of selected BMPs are included in Appendix C.
- CCAP contracts encumbered using state funds are listed by county and contract number in Appendix D.
- The job approval authority process continued to be improved and implemented to ensure district employees are certified to design and approve installation of CCAP BMPs. Hands-on training and installation opportunities were increased to provide experience, and design tools were developed to increase technical capacity within districts statewide. To date, 41 district employees have CCAP job approval authority for select conservation practices.

The N.C. Community Conservation Assistance Program is securing a future for Soil and Water Conservation Districts as North Carolina's landscape, community and pollutant sources change. Demand for the program from districts across the state continues to exceed the current funding. During FY2010, over \$2.5 million was requested from the 68 participating districts.

Many existing water quality initiatives are geared towards new construction, such as Low Impact Development, the State's Erosion and Sediment Control statute, and design standards. CCAP is unique, in that it is a retrofit only program. The results illustrate the important accomplishment of the General Assembly in creating the only state-wide program that addresses non-point water pollution sources from already developed areas. In addition, CCAP will be a cost effective mechanism for implementing the Jordan Lake Existing Development Rule.

Future program goals include:

- Increasing program funding to accommodate the existing project needs
- Increasing technical assistance funding to support district staff
- Increasing funding to provide additional engineering support
- Expanding the water quality benefits tool to measure the impact of all BMPs in reducing stormwater conveyed pollutants
- Continuing training on BMP design and installation
- Expanding outreach efforts and distribution of materials statewide
- Expanding efforts by the CCAP Advisory Committee to increase program recognition and support through partnership opportunities
- Updating program policies and BMP design tools
- Revising program and design manuals to ensure consistency

For more information on the CCAP, please refer to the appendices:

- Appendix A: CCAP PY2010 Detailed Implementation Plan
- Appendix B: CCAP Advisory Committee members
- Appendix C: Picture of selected projects completed during PY2010
- Appendix D: Summary of all state funded CCAP contracts in FY2010

## **Appendix A: Community Conservation Assistance Program Detailed Implementation Plan: Program Year 2010**

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 ft<sup>2</sup>.
- (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 ft<sup>2</sup>.
- (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 ft<sup>2</sup>.
- (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 ft<sup>2</sup>.
- (6) A cistern is a system of collection and diversion practices to prevent stormwater from flowing across impervious areas, collecting sediment and reaching the storm drains. Benefits may include the reduction of stormwater 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.
- (16) Marsh sills protect estuarine shorelines from erosion, combining engineered structures with natural vegetation to maintain, restore, or enhance the shoreline's natural habitats. A sill is a coast-parallel, long or short structure built with the objective of reducing the wave action on the shoreline by forcing wave breaking over the sill. Sills are used to provide protection for existing coastal marshes, or to retain sandy fill between the sill and the eroding shoreline, to establish suitable elevations for the restoration or establishment of coastal marsh and/or riparian vegetation.

## **Appendix B: Community Conservation Assistance Program Advisory Committee: Program Year 2010**

The Community Conservation Assistance Program Advisory Committee was established to assist with the development and implementation of the NC Community Conservation Assistance Program (CCAP). Following the appropriation of State funds, the purpose of the CCAP Advisory Committee expanded to include reviewing best management practices (BMPs) and making recommendations to the Soil and Water Conservation Commission. In addition to the continual review of current program BMPs, the Advisory Committee focuses on the consideration of potential new BMPs and improving the technical aspects program.

The Advisory Committee consists of the following members:

1. The Director of the Division of Soil and Water Conservation or the Director's designee, who shall serve as the Chair of the Advisory Committee.
2. The President of the North Carolina Association of Soil and Water Conservation Districts or the President's designee.
3. The Director of the Cooperative Extension Service at North Carolina State University or the Director's designee.
4. The Executive Director of the North Carolina Association of County Commissioners or the Executive Director's designee.
5. The Executive Director of the North Carolina League of Municipalities or the Executive Director's designee.
6. The State Conservationist of the Natural Resources Conservation Service of the United States Department of Agriculture or the State Conservationist's designee.
7. The Executive Director of the Wildlife Resources Commission or the Executive Director's designee.
8. The President of the North Carolina Conservation District Employees Association or the President's designee.
9. The President of the North Carolina Association of Resource Conservation and Development Councils or the President's designee.
10. The Director of the Division of Water Quality or the Director's designee.
11. The Director of the Division of Forest Resources or the Director's designee.
12. The Director of the Division of Land Resources or the Director's designee.
13. The Director of the Division of Coastal Management or the Director's designee.
14. The Director of the Division of Water Resources or the Director's designee.
15. The President of the Carolinas Land Improvement Contractors Association or the President's designee.



## Appendix C: Selected Pictures of CCAP Funded Projects during PY2010



Stream restoration (before), Caldwell County



Stream restoration (after), Caldwell County



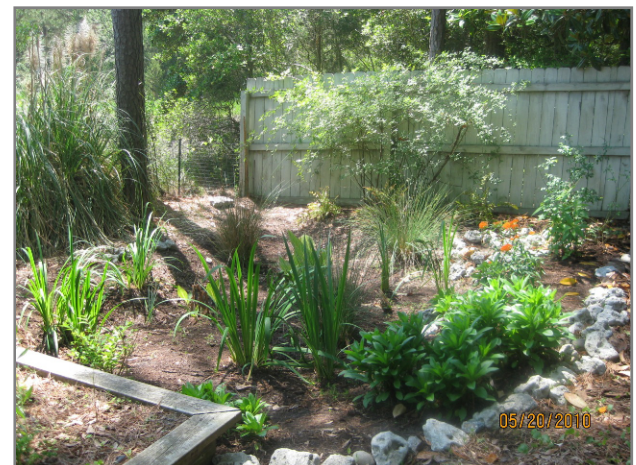
Cisterns, Wake County



Pet waste receptacle, Johnston County



Bioretention area, Dare County



Backyard rain garden, New Hanover County



Appendix D:

CCAP FY2010 Contracts  
Funded by State Appropriations

County	Contract Number	Best Management Practices	Contract Amount
Yancey	00-2010-501	bioretention area	\$1,953
Alamance	01-2010-501	abandoned well closure	\$736
Alamance	01-2010-502	abandoned well closure	\$356
Alamance	01-2010-504	abandoned well closure	\$175
Alamance	01-2010-505	cistern	\$1,560
Alexander	02-2010-501	stormwater wetland	\$3,149
Alexander	03-2010-501	stormwater wetland	\$1,856
Brunswick	10-2010-501	bioretention area	\$3,539
Buncombe	11-2010-502	streambank protection	\$1,624
Burke	12-2010-502	cistern	\$3,435
Burke	12-2010-513	cistern	\$666
Cabarrus	13-2010-502	bioretention area, critical area planting	\$3,583
Caldwell	14-2010-508	critical area planting	\$3,355
Catawba	18-2010-501	cistern	\$3,555
Chatham	19-2010-501	backyard rain garden	\$1,654
Chatham	19-2010-504	grassed swale	\$2,144
Clay	22-2010-501	stormwater wetland	\$2,277
Currituck	27-2010-501	backyard rain garden	\$1,500
Dare	28-2010-501	pet waste receptacles	\$1,951
Davidson	29-2010-501	abandoned well closure	\$1,050
Davidson	29-2010-502	abandoned well closure	\$1,125
Davidson	29-2010-503	abandoned well closure	\$1,163
Durham	32-2010-503	diversion	\$474
Durham	32-2010-504	cistern	\$327
Durham	32-2010-505	backyard rain garden	\$356
Durham	32-2010-506	backyard rain garden	\$322
Durham	32-2010-508	pet waste receptacles	\$997
Durham	32-2010-511	cistern	\$2,021
Forsyth	34-2010-503	backyard rain garden	\$1,165
Forsyth	34-2010-516	backyard rain garden	\$726
Forsyth	34-2010-518	backyard rain garden	\$1,609
Gaston	36-2010-505	pet waste receptacles	\$3,939
Guilford	41-2010-505	backyard rain garden, cistern	\$2,779
Harnett	43-2010-501	abandoned well closure	\$750
Harnett	43-2010-502	abandoned well closure	\$638
Henderson	45-2010-505	backyard wetland, diversion, riparian buffer, streambank protection	\$3,669
Hertford	46-2010-501	abandoned well closure	\$356
Hertford	46-2010-502	backyard rain garden	\$841
Hertford	46-2010-503	pet waste receptacles	\$303
Jackson	50-2010-501	cistern	\$2,385
Johnston	51-2010-501	streambank protection	\$447
Johnston	51-2010-503	pet waste receptacles	\$2,280
Lenoir	54-2010-501	pet waste receptacles	\$1,553
Lincoln	57-2010-501	pet waste receptacles	\$2,400
Mecklenburg	60-2010-506	bioretention area	\$3,637
Mitchell	61-2010-501	streambank protection	\$1,875
New Hanover	65-2010-518	bioretention area	\$4,338
Onslow	67-2010-501	pet waste receptacles	\$1,938
Onslow	67-2010-504	bioretention area	\$2,076
Pamlico	69-2010-501	district BMP	\$1,727
Pasquotank	70-2010-501	stormwater wetland	\$2,050
Pitt	74-2010-502	pet waste receptacles	\$812

**Appendix D:****CCAP FY2010 Contracts  
Funded by State Appropriations**

<b>County</b>	<b>Contract Number</b>	<b>Best Management Practices</b>	<b>Contract Amount</b>
Pitt	74-2010-503	grassed swale	\$2,242
Randolph	76-2010-504	backyard rain garden	\$645
Rockingham	79-2010-502	critical area planting	\$2,676
Rutherford	81-2010-502	streambank protection	\$1,899
Surry	86-2010-501	pet waste receptacles	\$1,895
Surry	86-2010-502	abandoned well closure	\$760
Transylvania	88-2010-501	streambank protection	\$2,224
Union	90-2010-501	abandoned well closure	\$968
Union	95-2010-502	abandoned well closure	\$1,100
Wilkes	97-2010-501	cistern	\$2,396
Wilson	98-2010-501	stormwater wetland	\$2,223
<b>Total</b>			<b>\$110,224</b>