



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

John E. Skvarla, III
Secretary

MEMORANDUM

TO: ENVIRONMENTAL REVIEW COMMISSION
The Honorable Brent Jackson, Chairman
The Honorable Ruth Samuelson, Co-Chairman
The Honorable Mike Hager, Co-Chairman

FROM: Neal Robbins
Director of Legislative Affairs

SUBJECT: Annual Sedimentation Program Report

DATE: October 1, 2013

Pursuant to G.S. 113A-67, the Department is required to report annually to the Environmental Review Commission on the implementation of the Sedimentation Pollution Control Act of 1973. The attached report satisfies this reporting requirement.

If you have any questions or need additional information, please contact me by phone at (919) 707-8618 or via e-mail at neal.robbins@ncdenr.gov.

cc: Mitch Gillespie, Assistant Secretary for Environment
Carr McLamb, Deputy Director of Legislative Affairs
Fred F. Steen, Office of the Governor
Jennifer Hoffman, Fiscal Research Division
Tracy Davis, Director, Division of Energy, Mineral, and Land Resources

**Report to the Environmental Review Commission
On the Implementation of the
Sedimentation Pollution Control Act of 1973
By the Department of Environment and Natural Resources
Division of Energy, Mineral, and Land Resources
Land Quality Section**

October 1, 2013

Executive Summary

The Department shall report to the Environmental Review Commission on the implementation of the Sedimentation Pollution Control Act (SPCA) of 1973 on or before 1 October of each year. The Land Quality Section in the Division of Energy, Mineral, and Land Resources is responsible for implementing the SPCA. There are also 51 delegated SPCA programs across the state implemented by either county or municipal governments. Although the total number of new projects increased slightly from 1,959 in FY 2011-12 to 2,037 in FY 2012-13, the total number of newly disturbed acres has slightly decreased from 24,495 acres in FY 2011-12 to approximately 24,100 acres in FY 2012-13. Sediment inspections dropped slightly from 15,659 inspections in FY 2011-12 to 15,289 inspections in FY 2012-13. The most significant change in FY 2012-13 was the manner in which the number of open (active/inactive) sediment projects requiring inspection was tabulated. To more accurately reflect the number of inspectable units under the program's jurisdiction, the number of open projects was based on project numbers maintained in the program's database that have not been closed. As a result of counting all open project numbers, which includes additions to residential subdivisions as new projects that were not included in this number in past years, the number of open projects increased from 8,000 projects in recent years to 12,181 projects in FY 2012-13.

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 Division of Energy, Mineral, and Land Resources, Land Quality Section, in the Department of Environment and Natural Resources administers the SPCA. The Sedimentation Control Commission has also delegated administration of the SPCA to 51 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.

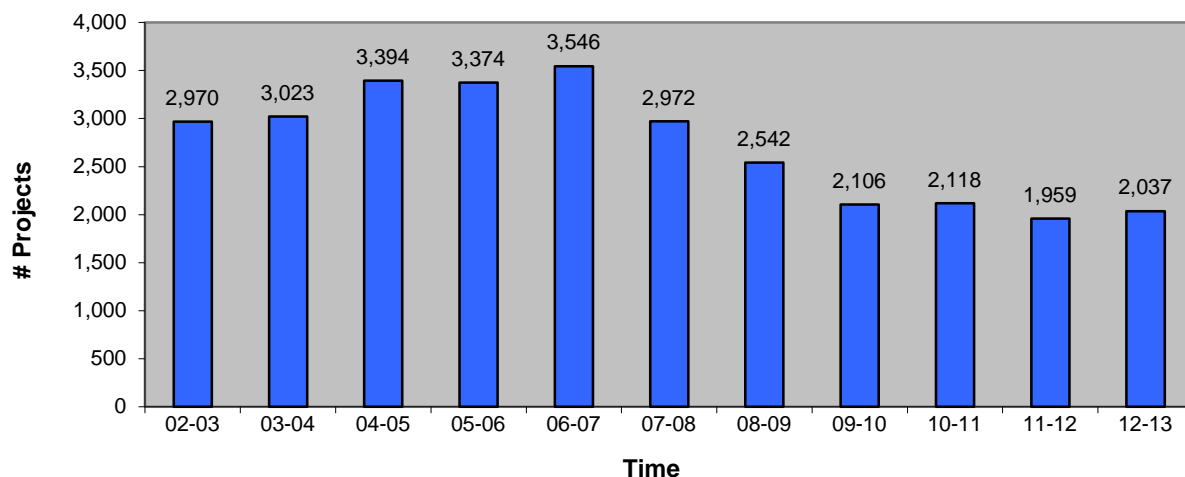
The state sedimentation program also plays a critical role in meeting federal construction stormwater permitting requirements under the Clean Water Act. The United States Environmental Protection Agency (EPA) implements federal permitting requirements for stormwater discharges from active construction sites, but also has the authority to delegate those permitting responsibilities to the states. In many ways, federal construction stormwater requirements mirror the requirements of the state Sedimentation Pollution Control Act and the intent of the federal program is the same – to prevent sedimentation damage to water bodies.

North Carolina has delegated authority that allows DENR - rather than EPA - to issue federal construction stormwater permits in the state. Effective August 1, 2013, the Stormwater Permitting Unit of the Division of Water Resources, including 29 appropriated and receipt based positions administering the construction, industrial, municipal and post construction stormwater programs, was transferred to the Division of Energy, Mineral, and Land Resources, Land Quality Section. The Land Quality Section has already incorporated cross-training of central and regional personnel and consolidation of inspection and monitoring forms between the erosion and sedimentation control program and the construction stormwater program so that one point of contact for meeting both programs' permitting, inspection and reporting requirements can be used to communicate compliance with both program's state and federal provisions.

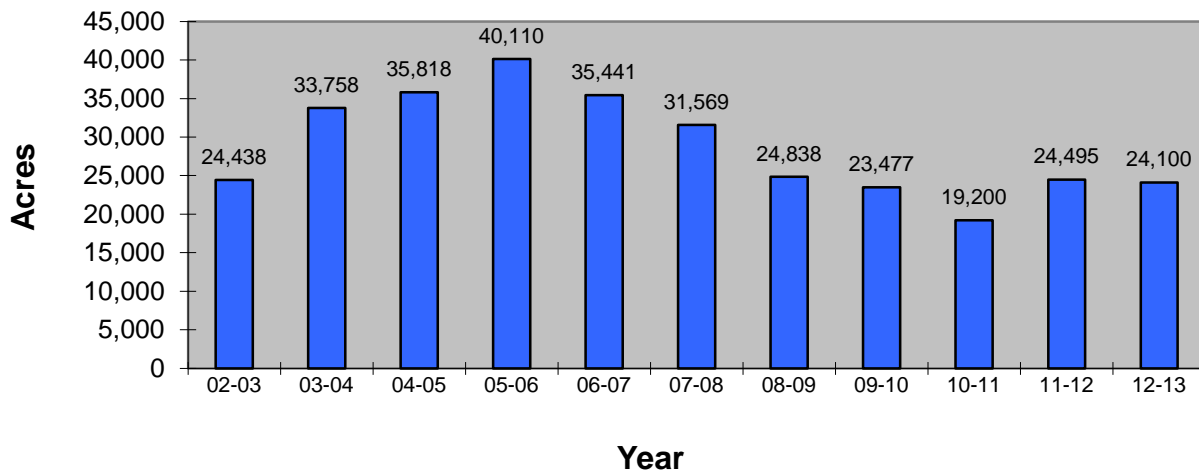
Implementation

The decline in the number of new projects under state jurisdiction has leveled off in recent years with a slight increase to 2,037 new projects in the 2012-13 fiscal year. The actual area of land-disturbance covered by new erosion and sedimentation control plans approved in 2012-13 was approximately 24,100 acres. These totals do not include erosion and sedimentation control plans approved by local government sedimentation programs or land disturbed by the Department of Transportation under its delegated program.

Permitted Sites Per Year



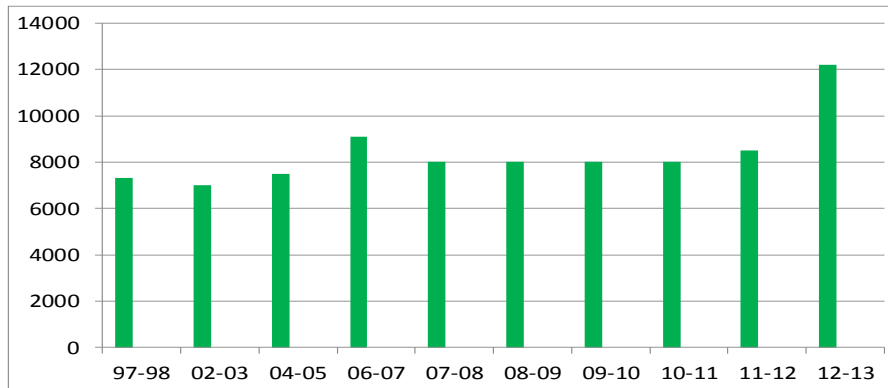
Disturbed Acres Per Year



As stated earlier, the number of open sediment projects requiring inspection by the state program has been estimated at 8,000 projects for several years. Improvements to our database reporting capabilities this year resulted in a total of 12,181 open projects. This increase may reflect a slight net increase in actual projects, but also is the result of the method of counting open projects. Revisions to existing residential subdivision plans are being counted as new individual projects, instead of being counted as part of existing projects. Home builders may have several revisions to one project if new lots are repeatedly added to the project instead of all at once during the original project submittal. The total includes all sites that are either under active construction or are inactive and not completed. While the economic downturn has slowed new project commencement, it has contributed to the consistently high inventory of incomplete projects due to slowdown in project construction or abandonment of a project as a result of foreclosures and bankruptcies.

“Open” Sediment Projects

(active/inactive projects that have not been completed/closed)



The number of full time equivalent positions (FTE) in the Land Quality Section for the erosion and sedimentation control program has declined over the past five fiscal years as follows:

| Fiscal Year | Sediment FTE |
|-------------|--------------|
| 2008-2009 | 61 |
| 2009-2010 | 52 |
| 2010-2011 | 48 |
| 2011-2012 | 44 |
| 2012-2013 | 40 |

The loss of plan review fees based on acreage of disturbed land resulted in a reduction in force of positions supported by fees. Additionally, the number of appropriated positions has been reduced, most recently by four positions in the 2012-2013 fiscal year. The total number of staff in the program has declined by 34% in the last five years. Since the only fee revenue for the program comes from a sedimentation plan review fee for new projects, a downturn in new construction significantly affects staffing levels. However, the reduction in new starts (and therefore fee revenue) does not mean a reduction in total workload because of the large number of open project sites that the staff is responsible for inspecting for compliance with the plan requirements, statutes and rules.

Regional activities for the 2012-13 fiscal year include:

- 2,011 new erosion and sedimentation control plan reviews
- 860 revised erosion and sedimentation control plan reviews
- 15,289 sedimentation site inspections
- 195 notices of violation
- 6 enforcement case referrals

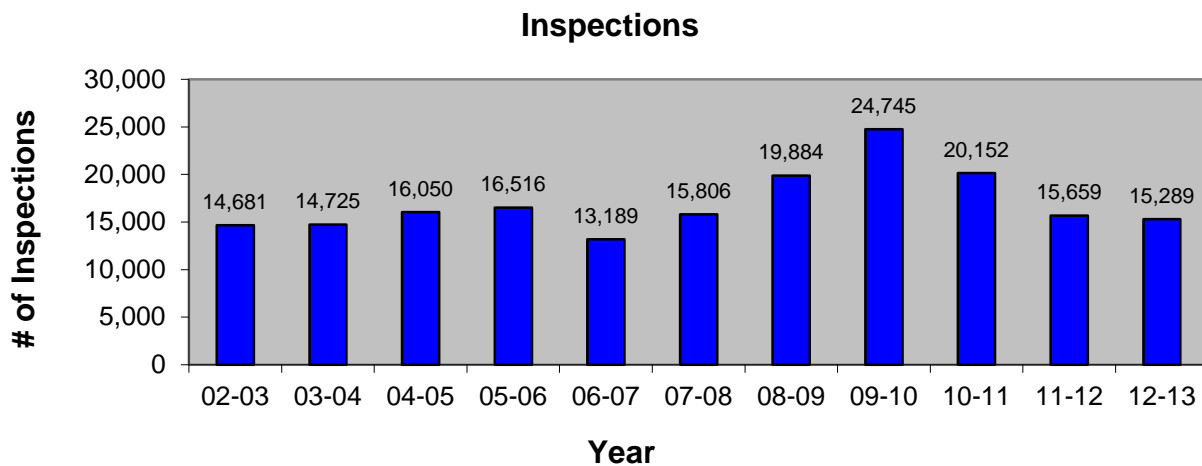
Plan Approval

The SPCA requires review of a proposed erosion and sedimentation control plan within 30 days for a new plan submittal and within 15 days for a revised plan. As mentioned above, newly disturbed acreage in North Carolina decreased slightly last fiscal year. However, the number of new erosion and sedimentation control plans received was 2,037 (up from 1,959 in FY 2011-12) indicating a possible upturn in the construction industry. In addition, the Division encourages applicants to meet with permit review staff in advance of the initial plan submittal to resolve quality and completeness issues prior to formal submittal in an effort to reduce the overall time for plan review and approval.

The Express Permitting Program for erosion and sedimentation control plans provides for plan review within three working days. During FY 2012-13, 625 Express Permit reviews were conducted. This represents an increase of approximately 16% from the 527 express reviews done in the previous year. The Fayetteville region had the most express reviews, reflecting the numerous Department of Defense projects submitted for express review at Fort Bragg.

Inspections

Regional staff conducted 15,289 inspections last year, a slight decline of 370 inspections from the previous year. The reports document field observations and compliance or non-compliance with the SPCA. Based upon current staffing levels, open erosion and sedimentation control projects are inspected, on average, once every nineteen (19) months. The infrequency of inspections remains a chronic problem that limits the effectiveness of the sedimentation program.



The combination of significant cuts to program staff over the past five years and a consistently high inventory of open project sites have put a tremendous strain on the program's ability to carry out its responsibilities. In the last few years, the strain has been increased by the larger than usual number of abandoned projects. Dealing with an unstable site that had been abandoned by the developer requires more time because of the need to find responsible parties and often deal with lien holders to get problems addressed.



Unmaintained Sedimentation Basin filled to the brim with sediment.



Delta of sediment lost into stream below the basin.

Enforcement

The Division of Energy, Mineral, and 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 15,289 inspections conducted during FY 2012-13, 195 (1.3%) resulted in a Notice of Violation (NOV). The NOV's led to 6 requests from the regional offices for additional enforcement action (3.1% of NOV's issued or less than 0.04% of the inspections conducted). Six civil penalties were assessed, including four initial penalties of \$5,000 or less.

The Attorney General's Office continues to work in state courts and federal bankruptcy court to resolve soil erosion, stream sedimentation and landslides at abandoned residential developments resulting from bankruptcy and foreclosure.

Local Programs

The Sedimentation Control Commission encourages local governments to administer a delegated erosion and sedimentation control program by providing a model ordinance 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. The Land Quality Section 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 a 30 day notice that the Commission will assume administration and enforcement of the program.

Twenty seven local program reviews were conducted during FY 2012-13. The regional offices also conducted thirteen informal reviews with local programs last year.

Training

The Division of Energy, Mineral, and Land Resources held five one-day workshops this past year for design professionals, with a total attendance of 350. Representatives from 49 delegated programs participated in the annual workshop for local government erosion and sedimentation control personnel, with a total attendance of 102.

Legislative Changes to the SPCA

The SPCA was amended during the 2013 Session of the General Assembly. Session Law 2013-121 amended G.S. 113A-54.1 to allow the transfer of the approved erosion and sedimentation control plan to the new owner of a property without the consent of the original plan holder when the original owner was deceased, a corporation or company that had been dissolved, had been divested of the property or had sold the property. This amendment gave statutory authorization to existing administrative procedures which

were being used by the Division to handle new ownership of abandoned, foreclosed or bankrupt properties. Session Law 2013-413 amended G.S. 113A-64 to clarify the procedures for appealing a civil penalty assessment by a local government. It also clarified that the clear proceeds of civil penalties collected by local governments be remitted to the Civil Penalty and Forfeiture Fund.

The administration of the SPCA was also indirectly effected by other provisions of Session Law 2013-413. A local erosion and sedimentation control ordinance adopted between August 23, 2013 and October 1, 2014 that is more restrictive than the State's program must be approved unanimously by the elected ruling body of the municipality or county.

Recommendations for Statutory Amendments

Conflicting Ground Cover Requirements

G.S. 113A-57 (2) and (3) should be amended to clarify ground cover requirements for sites one acre or larger in area. Currently, the SPCA requirements do not reflect the requirements of the federal construction stormwater program which are now integrated under the same Division. Ground cover requirements that are specified by the SPCA should be adjusted to match the same groundcover requirements of General Permit NCG010000 to Discharge Stormwater under the National Pollution Discharge Elimination System for Construction Activities.

Allowing Projects to Start When Approved

G.S. 113A-57 (4) should be amended to allow projects to start as soon as the erosion and sedimentation control plan is approved. Currently, the statute can be interpreted to require the applicant to wait 30 days after plan submittal, even if the plan is approved in less than 30 days.

Mandatory Standards

Recommended amendments to the Mandatory Standards in the SPCA to conform to the Construction Stormwater General Permit requirements are provided below:

§ 113A-57. Mandatory standards for land-disturbing activity.

No land-disturbing activity subject to this Article shall be undertaken except in accordance with the following mandatory requirements:

...

(2) The angle for graded slopes and fills shall be no greater than the angle that can be retained by vegetative cover or other adequate erosion-control devices or structures. In any event, slopes left exposed will, within 21 calendar days of completion of any phase of grading, be planted or otherwise provided with temporary or permanent ground cover, devices, or structures sufficient to restrain erosion. Whenever land-disturbing activity that will disturb more than one acre is undertaken on a tract, ground cover shall be provided on slopes in accordance with the conditions of the effective General Permit NCG010000 to Discharge Stormwater under the National Pollution Discharge Elimination System for Construction Activities, issued by the North Carolina Department of Environment and Natural Resources.

(3) Whenever land-disturbing activity that will disturb more than one acre is undertaken on a tract, the person conducting the land-disturbing activity shall install erosion and sedimentation control devices and practices that are sufficient to retain the sediment generated by the land-disturbing activity within the boundaries of the tract during construction upon and development of the tract, and shall plant or otherwise provide a permanent ground cover sufficient to restrain erosion after completion of construction or development within a time period to be specified by rule of the ~~Commission~~. Commission and in accordance with the conditions of the effective General Permit NCG010000 to Discharge Stormwater under the National Pollution Discharge Elimination System for Construction Activities, issued by the North Carolina Department of Environment and Natural Resources.

(4) No person shall initiate any land-disturbing activity that will disturb more than one acre on a tract unless, 30 or more days prior to the proposed initiation date of initiating the activity, an erosion and sedimentation control plan for the activity is filed with the agency having jurisdiction and approved by the agency. An erosion and sedimentation control plan may be filed less than 30 days prior to initiation of a land-disturbing activity if the plan is submitted under an approved express permit ~~program~~, program. In either case, and the land-disturbing activity may be initiated and conducted in accordance with the plan once the plan has been approved. The agency having jurisdiction shall forward to the Director of the Division of Water Quality a copy of each erosion and sedimentation control plan for a land-disturbing activity that involves the utilization of ditches for the purpose of de-watering or lowering the water table of the tract....

Performance Bonds

Problems continue with bankrupt and abandoned projects being left unstabilized and eroding on to adjacent properties and into waters of the state. When this occurs there is no money to provide adequate ground cover to stop the erosion, which in some cases causes severe damage to adjacent property or waters of the state. Nine local governments have erosion and sedimentation control ordinances that require the posting of a bond for land-disturbing activity. Local governments with bond requirements for development have been able to stabilize abandoned developments. Forfeited reclamation bonds and securities have allowed them to establish adequate groundcover on abandoned developments.

It is recommended that the Sedimentation Control Commission be given statutory authority to adopt rules for bonding of land-disturbing activity. Initially, a bond should be required on projects involving 20 acres or more of land-disturbing activity. The potential environmental damage from an abandoned site increases with the size of the area left bare and eroding. The bonding would target larger projects that have the most potential for sediment loss and not place a financial burden on small projects. The amount of the bond should be based on the disturbed acreage and the cost of stabilizing the site with permanent ground cover. The authority for the Commission to require a bond on smaller projects in sensitive watersheds, where sediment could substantially damage the water resource should also be considered. Currently mining activities are bonded in North Carolina. Reclamation costs for abandoned development are comparable to those for a soil mine, which requires a bond of \$2,000 per acre for grading and establishment of permanent ground cover.

Funding Levels

As stated earlier, the approximately 12,000 open erosion and sedimentation control projects are inspected, on average, once every nineteen (19) months based upon current staffing levels. Construction projects have proceeded at a slower pace or have been abandoned before final stabilization. Projects that have limited financial resources or have been abandoned still require continued inspections by Land Quality Section staff.

Many residential subdivisions were abandoned before completion, without sufficient storm drainage facilities or ground cover to prevent soil erosion. The consequence has been many bare sites left exposed to the rain and wind. Stormwater runoff is often concentrated by graded roadbeds, but is not conveyed in a stable manner by storm drains or permanent channels. The result is deep gully erosion of the roadbeds, fill slopes and unstable ditches, causing significant impacts to the environment and safety of citizens. Dramatic collapse of slopes and failure of erosion and sedimentation control measures due to lack of maintenance eventually leads to sediment overflows into streams.

Additional staff time is required to meet and negotiate with developers and banking institutions to ensure that sufficient funds are spent to address severe erosion and sedimentation problems. In some cases, staff has prepared documentation for the Attorney General's Office to present in Federal Bankruptcy Court, to persuade the Court to fund at least temporary site stabilization. Division staff must address sites that have limited available funds, or are in foreclosure or bankruptcy. These projects take time and staff resources away from other active construction projects across the State.

At the current time, there are over 12,000 open construction projects that require inspection by approximately 14 full time equivalent (FTE) Land Quality Section sediment inspection positions. This has resulted in over 870 open projects per FTE. This inspection workload per inspector far exceeds the 550 project per inspector goal established by a past Sedimentation Control Commission study for appropriate implementation of the program.

NCGS 113A-54.2 establishes a fee to cover administrative and personnel costs incurred by the Department for the review of erosion and sedimentation control plans and for related compliance activities statewide, including technical assistance to the regulated community and oversight of delegated local programs. According to the EPA, sedimentation is the number 1 pollutant by volume to the waters of the State and the Nation. As noted above, there are, on any given day, approximately 12,000 open land disturbance sites that could have offsite sedimentation in the State of North Carolina. These sites should be inspected at least once a month according to the recommendation of the Sedimentation Control Commission. Currently, these sites are being inspected on the average of once every 19 months based upon current staffing.

By increasing the current fee from \$65/disturbed acre to \$170/disturbed acre (the median fee of current delegated local programs), the Division would be able to fill its currently vacant sediment plan reviewer and inspector positions, increase its frequency of inspections, provide more timely technical assistance to designers and developers, and improve interaction with delegated local programs by providing timely feedback on existing programs and promoting new delegated programs.