

**Report to the Environmental Review Commission
on the Implementation of the
Sedimentation Pollution Control Act of 1973
and the State Stormwater Program
by the Department of Environmental Quality
Division of Energy, Mineral, and Land Resources**

October 1, 2019

Introduction

Pursuant to Session Law 2017-10 (Senate Bill 131), the Department of Environmental Quality (DEQ) is required to submit a combined report to the Environmental Review Commission by October 1 of each year that provides an annual update on the implementation of both the State Sedimentation Pollution Control Program and the State Stormwater Program housed within the Division of Energy, Mineral, and Land Resources. This report contains two sections that outline how the Department has implemented these programs through its seven Regional Offices and Central Office as well as in coordination with multiple local government programs that implement these programs through Local, State and Federal laws, rules and permits.

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Executive Summary – Annual Sedimentation Program Report

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 Division of Energy, Mineral, and Land Resources is responsible for implementing the SPCA. There were also 53 delegated SPCA programs across the state implemented by either county or municipal governments. In September of 2018, an additional local program was gained when the Town of Fuquay-Varina received delegation authority for the SPCA, thus increasing the count to 54 delegated programs. The total number of new applications received by the Department increased from 2,473 in FY 2017-18 to 2,534 new applications in FY 2018-19. In addition, the total number of newly disturbed acres increased from 28,024 acres in FY 2017-18 to 28,408 acres in FY 2018 - 19. Sediment inspections increased slightly from 10,288 in FY 2017-18 to 10,573 inspections in FY 2018-19.

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 (DEMLR) in the Department of Environmental Quality administers the SPCA. The Sedimentation Control Commission has also delegated administration of the SPCA to 54 county or municipal governments and the North Carolina Department of Transportation. The local program delegations do not regulate land-disturbing activities conducted by local, State or United States governments or persons with the power of eminent domain (e.g. public utilities), which remain under jurisdiction of the DEMLR.

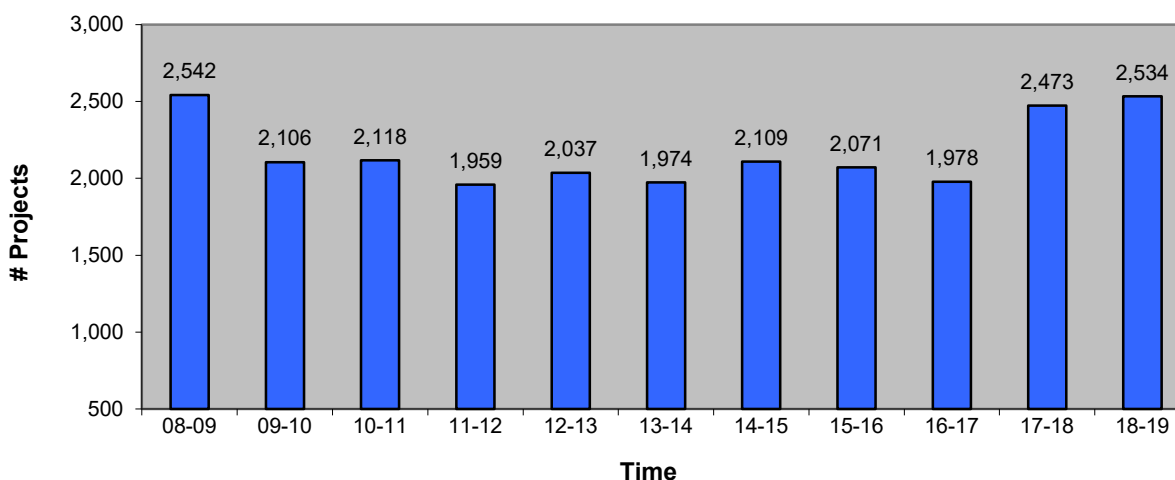
The state sedimentation program also plays a critical role in meeting federal construction stormwater permitting requirements under the Clean Water Act. The United States Environmental Protection Agency (EPA) implements federal permitting requirements for stormwater discharges from active construction 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 damage to water bodies.

North Carolina has delegated authority that allows DEQ - rather than EPA - to issue federal construction stormwater permits in the state. DEMLR has 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 programs' state and federal provisions.

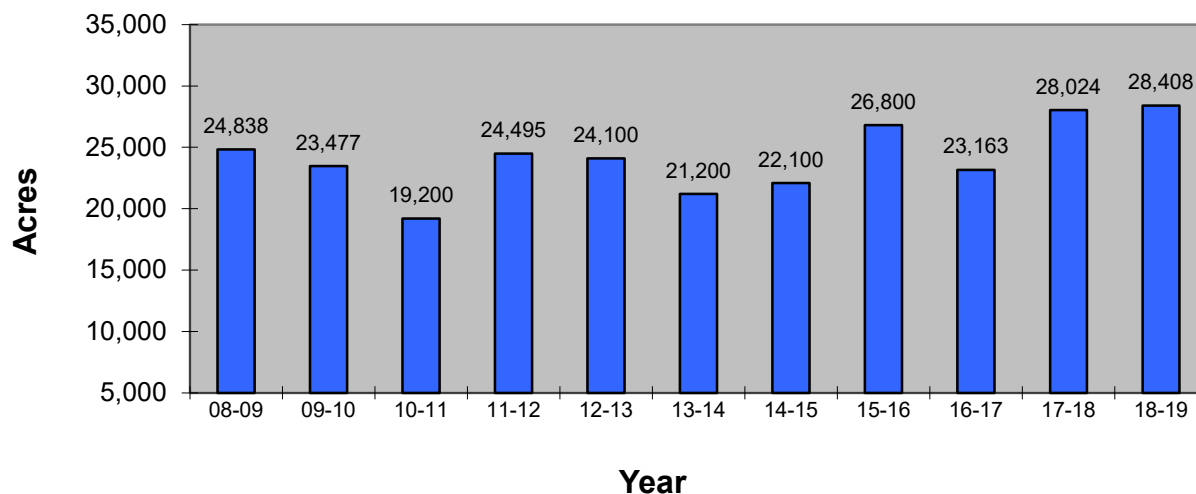
Program Implementation

The decline in the number of new projects under state jurisdiction leveled off in recent years, but has since increased with 2,534 new applications received in FY 2018-19. The actual area of land-disturbance covered by new erosion and sedimentation control plans approved in FY 2018-19 increased to approximately 28,408 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.

Permit Applications Received Per Year

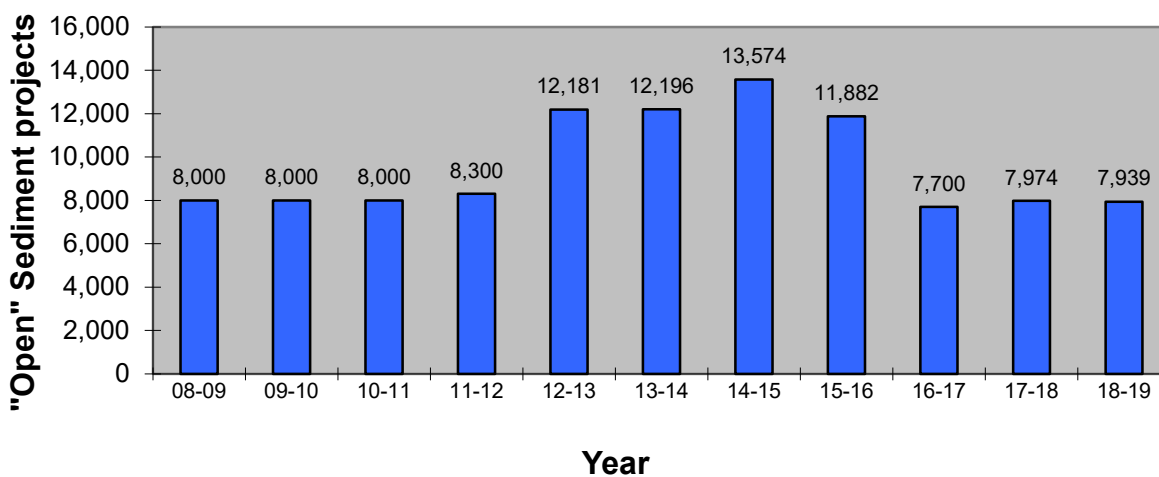


Disturbed Acres Per Year



The number of open sediment projects requiring inspection by the state program has been estimated at 8,000 projects for several years. However, improvements to our database reporting capabilities during FY 2012-13 resulted in a more accurate estimate of 12,181 open projects at that time. Since that time, the number fluctuated and then dropped to 7,700 open projects during fiscal year of 2016-17 as a result of improved database management and an increased effort to inspect and close out completed and stabilized projects that had remained inactive during and following the Great Recession. The number has since remained below 8,000 open projects, and can be accurately reported as 7,939 for FY 2018-19. The total includes all sites that are either under active construction or are inactive and not completed.

"Open" Sediment Projects (active/inactive projects that have not been completed/closed)



The number of full-time equivalent positions (FTE) in DEMLR's Sedimentation Control Program declined for several fiscal years until steadying shown below:

Fiscal Year	Sediment FTE	Fiscal Year	Sediment FTE
2008-2009	65	2014-2015	39.6
2009-2010	61	2015-2016	36.95
2010-2011	52	2016-2017	36
2011-2012	44	2017-2018	36
2012-2013	40	2018-2019	36.4
2013-2014	40		

Since the fee revenue for the program comes from a sedimentation plan review fee for new projects, an increase in new construction has consequently provided some increase in our funding for vacant positions and operation. As the numbers show, there exists a lag between the number of new projects and the number of staff available for inspections. Program staff are working to fill the number of vacancies in the Land Quality Section.

Regional activities for the 2018-19 fiscal year include:

- 2,222 new erosion and sedimentation control plan reviews
- 591 sedimentation express plan reviews
- 721 revised erosion and sedimentation control plan reviews
- 10,573 sedimentation site inspections
- 211 notices of violation
- 10 enforcement case referrals

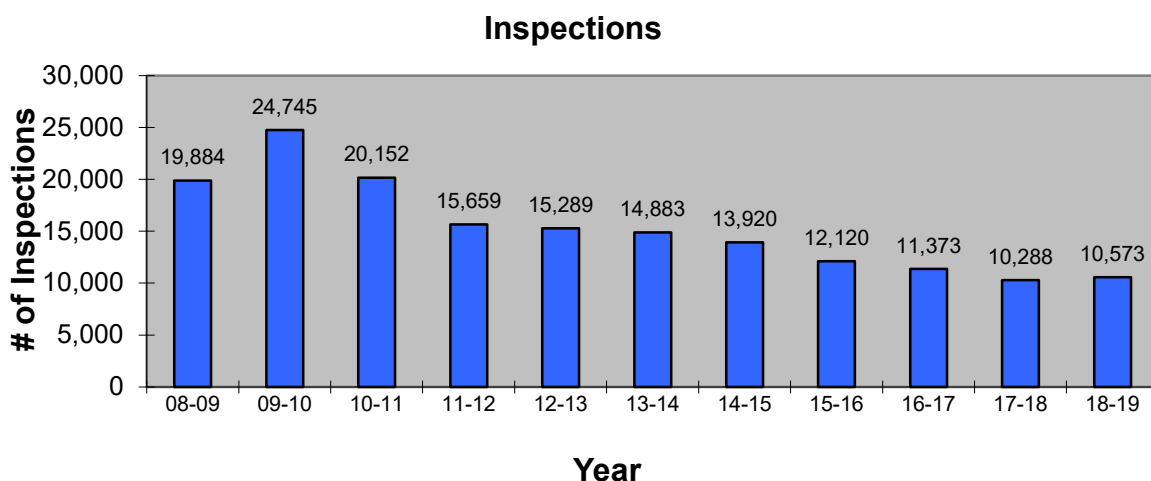
Plan Approval

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 increased since the last fiscal year. The number of new erosion and sedimentation control plans received was 2,534 (up from 2,473 in FY 2017-18). For the past several years, the total number of new projects has fluctuated slightly but consistently remained around 2,000. In addition, DEMLR 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 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 as little as three working days. During FY 2018-19, 591 Express Permit reviews were conducted. This represents a 15% decrease in express permit reviews from the 694 express reviews completed in the previous year. The Mooresville, Winston-Salem and Raleigh regions have the most express reviews, reflecting the number of urban and residential area development submitted for express review, including the Winston-Salem and Charlotte areas.

Inspections

Regional staff conducted 10,573 inspections last year, a slight increase of 285 inspections from the previous year. Inspection 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 8 to 9 months. Those under enforcement are usually inspected more frequently.



The following are photos of good and poor practices found on construction sites during inspections. (Figures 1-8)



*Figure 1 -
Unmanaged Concrete Washout Area*



*Figure 2 -
Good Construction Entrance*



*Figure 3 -
Poor Practice - No Construction Entrance*



*Figure 4 -
Example of Good Application of Ground Cover*



*Figure 5 -
No Ground Cover*



*Figure 6 -
Rill Erosion on side slope of the Sediment Basin*



*Figure 7 -
Good Vegetative Stabilization*



*Figure 8 -
Good Inlet Protection*

Enforcement

DEMLR 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 10,573 inspections conducted during FY 2018-19, 211 (2.0%) resulted in a Notice of Violation (NOV). The NOVs led to 10 requests from the regional offices for additional enforcement action (4.7% of NOVs issued or less than 0.09% of the inspections conducted). Ten civil penalties have been assessed so far, seven of which were initial penalties of \$5,000 or less.

The Attorney General's Office provides litigation support to DEQ by filing actions in state courts and federal bankruptcy court to defend the agency's civil penalty assessments, complaints for injunctive relief, and to collect unpaid civil penalties.

New Program Efforts

North Carolina Session Law, 2013-413, requires a periodic review of all rules used by state agencies. The Division of Energy, Mineral and Land Resources (DEMLR) and the Sedimentation Control Commission have initiated the review of the sedimentation and erosion control rules codified in Chapter 04 of Title 15A of the North Carolina Administrative Code. In order to assure that the interests of all affected parties to the sedimentation control program are represented in review of these rules, the DEMLR staff established a "Sediment Rules Review Workgroup" composed of 19 members with a broad variety of interests. They met 11 times during a two-year period and proposed revisions to 27 of the 39 sedimentation control rules and recommended repeal of 12 of the rules. The proposed changes to the rules are now out for a final review and comment by the public. The result of the extensive public effort is a set of rules that are more up-to-date, easier to understand and provide more consistency with other programs being implemented in the state. The Sedimentation Control Commission will consider for adoption, the proposed changes to the rules at their November 2019 meeting.

The Department of Information Technology (DIT) determined that the DEMLR Sedimentation Program's project database tracking system called ECLIPS (AMANDA) was inadequate to the task, and the Division has since migrated back to the existing IBEAM data management system due to technical and funding issues with ECLIPS (AMANDA). The conversion back to IBEAM is now complete. The program is also working with the DIT to develop a Microsoft Dynamics Customer Relationship Management database model as part of their initiative to streamline the permitting system across all divisions within the NCDEQ. This model will have many of the capabilities intended with the ECLIPS. The Division is currently designing new, more automated workflows in an effort to reduce administrative errors, paperwork, cross-referrals, and overall permit processing times.

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, DEMLR 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. DEMLR reviews the city or county ordinance to ensure that it is as stringent as state law and rules. DEMLR's Regional Engineer and State 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 acts to continue the delegation, continue the review, place the program on probation, or give a 30-day notice that the Commission will assume administration and enforcement of the program.

Despite a turnover in staff during this time, eleven formal local program reviews were conducted during FY 2018-19. In addition, the regional offices provided 7,394 hours of technical assistance to the local programs during that same period.

Training and Education

DEMLR held one workshop this past year for design professionals, contractors and developers, with a total attendance of 160 participants, to assist them in preparing complete erosion and sedimentation control plans and to update them on recent administrative and legislative changes to the program over the past year. In addition, representatives from 45 delegated programs participated in DEMLR's Annual Local Program Workshop for local government erosion and sedimentation control personnel, with a total attendance of 102 participants, to ensure accurate and consistent implementation of the program across the state in accordance with the state's program.

Executive Summary – Annual Stormwater Program Report

The Stormwater Program serves a large and diverse number of permittees in a highly efficient manner. In addition to keeping up with our permitting workload described under “Program Overview” below, our top three accomplishments are as follows:

#1: *We have scanned over 3,000 permit files and made them available on the [Stormwater Program web site](#).*

Prior to the past fiscal year, pieces of stormwater permit files were located in three different places: the central office, the regional office and central files. We have organized this information into a single file for each permittee and, by the end of 2019, anticipate that nearly every permittee’s complete file will be available in the [Stormwater Program Laserfiche Repository](#).

#2: *We are catching up on our backlog of NPDES Industrial permits.*

There are two types of NPDES Industrial permits: Individual and General. We have caught up on our backlog of NPDES General permits. In addition, on April 1, 2019, we initiated a new NPDES Construction General Permit and electronic permitting process that has a very short turnaround time for our permittees.

We still have a backlog of expired NPDES Industrial Individual permits (however, our permittees are legally allowed to continue discharging under an expired permit as long as their permit fees are paid). Out of 167 total permits, 54 are expired. However, last year at this time, 91 were expired. We anticipate having no backlog in this program by the end of 2020.

#3: *We have restructured the MS4 program so that it has more clear expectations for the permittees.*

The MS4 local governments and EPA have both requested that the Stormwater Program provide more clarity about program requirements. We have worked diligently this year to provide training, guidance and oversight for the 109 local governments that hold an MS4 permit.

Program Overview

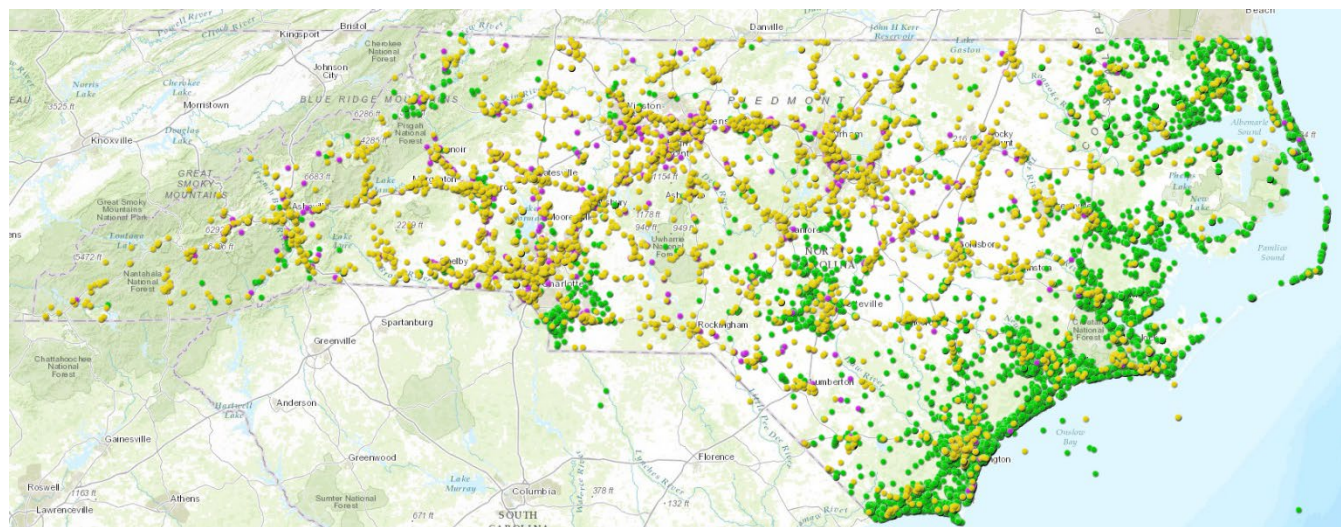
The following is a summary of the NC Stormwater Program’s responsibilities:

- **[NPDES Industrial Stormwater Program](#):** Covers approximately 4,130 facilities (3,151 under general permits, 167 under individual permits, and 880 facilities under no exposure certifications). Industrial activities are required to manage and monitor their facilities for potential sources of stormwater pollution.
- **[NPDES Construction Program](#):** Covers construction activities that disturb one or more acre under a general permit (NCG01000). Permittee must have an Erosion and Sedimentation Control Plan, adhere to materials handling protocols, inspect their sites and keep records. We partner with the DEMLR Sediment Program to implement the requirements of this program.

- [NPDES MS4 Program](#): Covers 109 entities within urbanizing areas, such as municipalities, counties and universities. Other MS4 permittees include military bases and NCDOT. MS4 entities implement measures within their jurisdictions to prevent and control stormwater pollution from developed areas.
- [Post-Construction Program](#): Requires new developments to have permanent stormwater management measures after the project is built.
- The [Stormwater Design Manual](#) is a technical guidance document about implementing the rules pertaining to post-construction stormwater. The companion to the manual is the [Stormwater Control Measure Credit Document](#), which includes the state's estimation of each SCM's effectiveness in protecting hydrology and removing pollutants.
- [Water Supply Watershed Protection Program](#): Local governments with some or all of their jurisdictions within one or more water supply watersheds are required to implement measures within the water supply watersheds to prevent and control stormwater pollution. There are currently 229 watersheds classified as Water Supply Watersheds and 286 local government programs.
- Compliance assistance for all of the above programs.

The map below shows the locations of stormwater permittees. Green dots indicate permittees with post-construction permits, yellow dots indicate NPDES Industrial stormwater permittees, and purple dots indicate No Exposure Certifications.

Current Active Stormwater Permits in NC



Accomplishment #1: Digital Permit Documentation

In every one of the stormwater programs, we now keep digital files of all actions from March 2018 forward that can be accessed by the public. These digital files include permit applications, the permits, and correspondence. This information can easily be made available upon request. In addition, we are developing the capability for permittees to submit water quality monitoring information on line rather than in paper copy per current protocol. We also have developed the capability for permittees to electronically submit additional information for a stormwater permit application that is currently under review.

In addition, We have scanned over 3,000 permit files and made them available on the [Stormwater Program web site](#). Prior to the past fiscal year, pieces of stormwater permit files were located in three different places: the central office, the regional office and central files. We have organized this information into a single file for each permittee and, by the end of 2019, anticipate that nearly every permittee's complete file will be available in the [Stormwater Program Laserfiche Repository](#).

Accomplishment #2: Diminished Permit Backlog

General permits

Draft general permits for renewal are posted on our web site, and the opportunity for public comment is advertised in newspapers and the NC Register. Staff also work with EPA during a required review process. During this past year, five General Permits (NCG16, NCG17, NCG18, and NCG20) were posted for public notice during May 15 – June 15, 2019. These permits were scheduled to issue effective August 1, 2019.

The NCG01 General Permit (for Construction Activities that are subject to the State Sediment Pollution Control Act, or SPCA)) and NCG25 General Permit (Construction Activities *not subject* to the SPCA) were posted for two public notice periods during April 16 – July 16, 2018 and September 4 – October 5, 2018. The NCG01 General Permit was issued on April 1, 2019. The NCG25 General Permit is pending.

NPDES General Industrial Permits Issued this past year

General Permit	Expiration Date	Number of Permittees (as of June 30, 2019)
NCG16 Asphalt Paving	May 31, 2024	149
NCG17 Textile Mills	May 31, 2024	107
NCG18 Furniture Manufacture	May 31, 2024	61
NCG20 Scrap Metal	May 31, 2024	89
NCG01 Construction subject to NCSPA	March 31, 2023	> 500
NCG25 Construction not subject to NCSPA	Issuance Pending	N/A

Individual Permits

Stormwater Program staff have been working hard this year to catch up on the backlog of expired individual permits that needed renewal. EPA Region 4 assisted our program by performing seven industrial site inspections with regional staff participation. By June 30, 2019, The Stormwater Program had sent 20 renewal individual permits to public notice. Over half of those were set to finalize just after the end of the period covered by this report.

Stormwater Program staff also processed several pending minor modifications to permits for Duke Energy Progress coal-fired power facilities. Modification requests for these plants continue to require staff resources throughout the five-year permit cycles because these permits are more specific about monitoring requirements for each stormwater outfall than most other industrial permits in our program, and changes at these plant sites can be frequent. See the table below for a summary of those facilities and modification issuance dates.

NPDES Coal-Fired Power Plant Permit Modifications

Plant Name	Permit Modification Issuance Date
Allen Steam Station	March 7, 2019 – Minor modification to add outfall
Belews Creek Steam Station	June 20, 2019 – Minor modification to add outfalls
Marshall Steam Station	June 20, 2019 – Minor modification to remove outfalls
Riverbend Steam Station	March 15, 2019 – Minor modification determined unnecessary to cease monitoring from removed outfall
Mayo Power Station	March 21, 2019 – Minor modification to add outfall

Construction General Permits

Introducing a brand new electronic Notice of Intent (eNOI) application process for the Construction Stormwater General Permit has been a big focus this year.

The NCG01 General Permit also introduced a separate application requirement for the first time in North Carolina. Stormwater Program staff developed an on-line application (eNOI) with the Laserfiche® Electronic Document Management System and has been issuing permit coverage electronically since April 2, 2019. **As of June 30, 2019, the Stormwater Program had issued 530 Certificates of Coverage (COCs) for construction projects across the State.** In addition, the system captures basic permit data so that it can be sent to EPA as required by the Electronic Reporting Rule. Prior to this process, North Carolina had no way to capture or flow this information to EPA's database like DEQ does for all other NPDES permits. The eNOI has been a very successful effort and enormous milestone for the Program.

Accomplishment #3: Enhanced MS4 Program

DEMLR staff restructured the Municipal Separate Storm Sewer System (MS4) Permitting Program to address numerous issues identified by EPA, DEMLR and permittees. The updated program included creating a balanced and sustainable workload for staff, improved technical assistance and program support for permittees, and a clear and consistent permitting process for MS4s.

Numerous tools and training were developed to assist staff and permittees in implementing a compliant program. Tools included a suite of standard MS4 templates, an improved web site, and routine outreach to permittees. Training included five MS4 workshops statewide to educate permittees on the new MS4 tools and processes, a workshop to train DEMLR staff to perform consistent MS4 audits, and presentations at numerous trade organizations and events. DEMLR staff also attended EPA inspector training.

Once training on the restructured MS4 program was completed, DEMLR staff began performing compliance inspections in accordance with EPA program delegation requirements. A total of twelve MS4 permit compliance audits were performed, which resulted in eleven Notices of Violation and one Notice of Deficiency being issued.

Electronic Reporting Staff

The Stormwater Program administers over 32,000 NPDES industrial Stormwater permits that require regular monitoring of stormwater outfalls and reporting of the monitoring results. At present, these industrial facilities report all of this data via paper and post. Electronic reporting would be vastly more efficient for both the permittees and DEMLR. Not only would it be more efficient, but it is also required by the federal Electronic Reporting Rule. This Rule requires that monitoring data for NPDES permits be reported electronically to EPA beginning in 2016. However, EPA has agreed to work with DEMLR to allow us to submit such information via spreadsheets until an automated reporting system can be programmed and implemented.

Some of the tasks required to get the new electronic reporting system up and running include:

1. *Modifying the existing permit database to accommodate stormwater monitoring data (35% complete),*
2. *Expanding NC's eDMR system to accept data from Stormwater Program permit-holders (pending), and*
3. *Training industrial permittees on how to use the system (pending).*

The Stormwater Program has designed an on-line collector application that allows permittees to submit outfall locations by simply filling out a form and locating an outfall on a map. This effort involves over 2,000 permittees as DEMLR increases capability for the Stormwater Program to use NC's electronic discharge monitoring report protocol to meet federal requirements.

NPDES Industrial Stormwater Staff

Facilities with Individual NPDES Industrial Permits are typically the largest and most complex industrial facilities in the state (less complex facilities typically hold general industrial permits). Due to staffing shortages in the Stormwater Program, currently 35 percent of our state's 167 NPDES Industrial Individual Permittees are expired. Staff are also needed in the regional offices to assist our program in meeting federal expectations for inspecting industrial facilities.

EPA requires that NPDES Industrial permits be renewed every five years to allow DEMLR the opportunity to inspect and take inventory of their facilities to address potential sources. At present, the expired permits continue to be in effect due to clause in the permit that allows the permittee to continue to operate under an expired permit provided that has permit renewal application submitted.

It is important to the protection of water quality that these Individual Industrial permittees have their facilities inspected and their permits updated accordingly to protect our state's surface waters. NPDES Stormwater staff are continuing to work through permitting backlogs and inspections demands.