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## MEMORANDUM

TO: N. C. ENVIRONMENTAL REVIEW COMMISSION  
The Honorable Jimmy Dixon, Co-Chair  
The Honorable Chuck McGrady, Co-Chair  
The Honorable Trudy Wade, Co-Chair

FROM: Steven Rowland *SR*  
Chairman, Environmental Management Commission

SUBJECT: Annual Stormwater Management Program Report

DATE: September 8, 2016

Pursuant to G.S. 143-214.7(e), the Environmental Management Commission is required to report annually to the Environmental Review Commission on the implementation of the Stormwater Management Programs. The attached report satisfies this reporting requirement.

If you have any questions or need additional information, please contact Mr. Tracy E. Davis, PE, Director, Division of Energy, Mineral, and Land Resources by phone at (919) 707-9200 or via e-mail at [tracy.davis@ncdenr.gov](mailto:tracy.davis@ncdenr.gov).

cc: Tom Reeder, Assistant Secretary for the Environment  
Fred F. Steen, Office of the Governor  
Jennifer Hoffman, Fiscal Research Division  
Tracy Davis, Director, Division of Energy, Mineral, and Land Resources

# **2016 Stormwater Management Program Annual Report**

## **In Accordance with G.S. 143-214.7(e)**

### **Executive Summary**

G.S. 143-214.7(e) requires the Environmental Management Commission to annually report to the Environmental Review Commission on the implementation of the Stormwater Management Rules and Programs. The Department of Environmental Quality implements a number of stormwater management programs to protect surface waters from the impacts of runoff from developed and developing areas across the state. The Department has continued implementation of its stormwater permitting programs along with efforts to meet legislative requirements for stormwater program studies and updates. Work continues in the day to day administration of stormwater permitting programs for post-construction stormwater runoff from new development activities along with federally-mandated point source stormwater permitting for industrial activities and municipalities. These efforts include work to comply with new federal regulations that require electronic reporting and application under the industrial and municipal programs. The Department will have to devote a good deal of resources over the next few years to assure that the state and the regulated community are prepared for these requirements. The Department is working with partners from local government and professional organizations to establish sustainable procedures for audits and inspections in the municipal program area. We will continue to provide updates on the progress in this area.

A stakeholder process associated with S.L. 2013-82 has been completed to develop Minimum Design Criteria (MDC) for stormwater control measures and to move forward with rulemaking for fast-track permitting in the post-construction stormwater program. In addition to this MDC and fast-track process, the Department has put significant effort into the rule re-adoption process required by S.L. 2013-413. Since the Department was already in process with the development of rules for the MDC and fast track process, staff combined these efforts with the stormwater rule re-adoption process to allow for reorganization of the rules to provide for a more effective rule set. This set of rules has been taken to public notice, including three public hearings across the state, and are scheduled to become effective January 1, 2017. The Environmental Management Commission adopted the rules at their July 2016 Commission Meeting. The Department will work over the coming year to update technical guidance and provide opportunities for training to facilitate the implementation of the updated stormwater rules and permitting process.

The Department has completed two reports in response to requirements from Session Law 2015-286 that had components related to the stormwater programs. First, the Department prepared a report on built-upon area thresholds for low density development applicable to coastal counties and concluded that stormwater management in accordance with the rule set currently in the rulemaking process provides effective alternatives and flexibility to address development concerns and provide water quality protection. In the second report the Department responded to questions on the feasibility for exemption of linear utility projects from certain environmental laws. The most recent session of the General Assembly resulted in the passage of HB 1030. This Act included requirements for the review of certain Nutrient Management Strategies. These efforts will involve multiple program areas in DEQ including the Division of Water Resources (DWR) and DEMLR. Where these efforts involve stormwater management issues, DEMLR will provide input to the process.

### **Background**

The Environmental Management Commission (EMC), through the N.C. Department of Environmental Quality (DEQ), implements state and federal programs to control the water quality impacts of stormwater runoff from development activities and urban and developing areas. These programs include the federal National Pollutant Discharge Elimination System (NPDES) program for stormwater discharges that requires permits for point source discharges of stormwater from industrial activities and from certain municipal areas in urbanizing and developing areas. This program is a requirement of the federal Clean Water Act. In addition, the EMC and Department implement state stormwater permitting programs that are designed to control stormwater runoff from new development and redevelopment activities occurring near sensitive

areas (Water Supply Watersheds, High Quality and Outstanding Resource Waters, Nutrient Sensitive Waters, Coastal Waters, and post-construction activities adjacent to regulated municipal NPDES areas). These state stormwater programs may be implemented on the state level or on the local level by cities and counties. These programs are designed for the protection of surface waters and their uses and involve requirements overseen by the Division of Energy, Mineral, and Land Resources and the Division of Water Resources.

## **State Stormwater Programs**

The Department continues to implement various post-construction state stormwater programs across the state as noted above. More information on the state stormwater programs can be found at: <http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-rules/stormwater-program/post-construction>. Around 14,000 projects are covered under state post-construction permits in this program. In FY15-16, approximately 870 permit approvals were issued on the state level. In addition, nearly 400 local governments implement post-construction programs and are responsible for stormwater requirements for projects in their jurisdictional areas. The Division has oversight of these local programs through a number of regulatory requirements (some of these are noted in other sections of this report). Four local programs that are delegated to implement the state programs have submitted their local ordinances for review by the Division and Commission in accordance with Session Law 2015-286. The session law requires final review of the submittals by the end of 2016. The Division continues to provide technical assistance and outreach to Division staff, local programs and the regulated community on these programs. Some of these efforts are outlined in the "Technical Assistance and Outreach" section on page 7 of this report.

In addition to regular responsibilities under the state stormwater program, extensive effort continues to be focused on rulemaking procedures that will modify and update the stormwater program rules as discussed in last year's annual report. This work is in response to legislative requirements for the development of a fast-track permitting process in this program area and in response to requirements for rule re-adoption. A combination of these efforts has allowed for better overall clarification of stormwater requirements in the rule development process. The Division has utilized input from two stakeholder teams in this process through a series of over 20 stakeholder meetings (beginning in March 2014) and three public hearings on the proposed rule set. In addition, Division staff have participated in a number of meetings and workshops over the year to provide information to the regulated community on the development of the proposed rules and associated technical materials.

The post-construction stormwater programs often require the use of engineered stormwater controls and the Division continues to provide technical guidance on stormwater control measures through its Stormwater Best Management Practices (BMP) Manual available online at: <http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permit-guidance/stormwater-bmp-manual> .

Division staff has met extensively with a stakeholder group formed to assist with development of Minimum Design Criteria (MDC) for stormwater control measures. This effort has taken place to meet the requirements of S.L. 2013-82 which requires development of rules and procedures for a fast-track permitting program for post-construction stormwater permit review. The team's assistance has been invaluable in establishing MDC for a significant number of stormwater control measures. These MDC's will provide valuable design guidance and consistency for the regulated community and to our Division staff. The Division will continue to work to add information in our technical design guidance to provide ongoing assistance to the regulated community and other interested parties in the design and implementation of appropriate stormwater measures.

## **Federal Stormwater NPDES Programs**

### Municipal Separate Storm Sewer System NPDES Permits

Previous reports have outlined ongoing activities associated with implementation of the federal municipal (municipal separate storm sewer systems or MS4) NPDES stormwater program. Permits under this program currently regulate 117 local governmental entities across the state, along with the NC Department of Transportation and four Department of Defense military bases. The Division and EMC are required to continue to review other potential entities for designation into this program. On the federal level, the Environmental Protection Agency (EPA) regulations automatically designate local governments located in federally designated urbanized areas. In the upcoming year, nearly 80 of the MS4 programs in North Carolina will be up for permit renewal. Division staff have already started the review process with these entities and have provided preliminary information to the EPA on the possible updates/changes being proposed for these permits.

The Division provides outreach and information to these entities through various meeting opportunities. This outreach is provided, in part, through an ongoing audit program the Division implements to assess portions of the permitted communities each year. The audit process for MS4s is coordinated with audits for other existing programs such as the Water Supply Watershed Protection program. The Water Supply Watershed Protection Program requires local implementation of requirements for approximately 280 local government entities across the state to protect surface waters used for drinking water supplies. The Division works with nearly 400 local governments that are responsible for their local stormwater management programs across the state. Over the last few years, the Division has implemented new audit options to more effectively use limited staff resources to stay in contact with local programs. These procedures have allowed the Division to focus on key component areas of a local program each year and spend time with the local government staff to more effectively carry out our audit procedures. These efforts have been successful and well received by the local governments.

As noted in last year's report, Division staff have been involved with the development of approaches to establish more sustainable audit/inspection programs for the MS4 program area. These efforts have been in conjunction with a number of local government groups including representatives with the NC American Public Works Association (NCAPWA) and the Stormwater Association of North Carolina (SWANC). The MS4 Sustainable Management (MS6M) program will develop and build a network of stormwater support across multiple municipalities through peer reviews and sharing of information on best practices and program implementation. Once the information has been completed, local governments may choose (not required) to utilize the information and process under this program. Key components of the final program will include:

- A collection of sample documents that local governments can access online and utilize in their programs – check lists, SOPs, policies, ordinances, etc.
- A GAP analysis document that will lead local governments through a process to determine if their programs meet expectations and determine needed adjustments. This tool will be used by the local government to analyze their own program, and then in subsequent years by a partner local government and an independent party (including DEQ or EPA) to do similar evaluations.
- Based on GAP results local governments would develop Plan of Action to address any deficiency or improvements.
- Documents produced would be available to DEQ, EPA and other interested groups to monitor the efforts of the MS4 programs.

These efforts will establish an ongoing and sustainable process for ensuring compliance with the MS4 program. The Division has kept EPA up to date on the process and has received positive feedback on North Carolina's approach.

### Industrial Stormwater NPDES Permits

In the industrial stormwater NPDES permitting program, the Division has current permit oversight for around 4,200 industrial facilities across the state. The Division has reissued the mining general permit covering over 450 North Carolina facilities. Division staff worked with industry representatives and EPA Region 4

extensively on the redrafted permit. The Division has also been working to develop guidance for all regional staff on implementation of the revised permit to help all entities better understand the areas of coverage contained in the permit. The Division is renewing three additional general permits without modification. These will be short term renewals that allow the Division more time to review possible permit modifications. All stormwater general permits and associated technical guidance information can be found online at: <http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permits/stormwater-permits/npdes-industrial-sw#tab-3>.

The Environmental Protection Agency finalized rules at the end of 2015 that require electronic submittal of permit information associated with a number of federal areas of permitting, including NPDES permits. The requirements for electronic submittal will come on line at various times over the next five years. Division and Department staff are working across a number of program areas to evaluate what is needed to develop a state electronic reporting interface that will be capable of collecting the electronic information and uploading it to EPA. In the stormwater NPDES area, the first deadline will require the start of electronic submittal of discharge monitoring reports by permittees beginning in December 2016. Also in late 2016, the Department must provide plans to EPA outlining the state's procedures for implementing requirements for electronic submittal of applications and other permit reports by the permittees. The Division will need additional resources to establish a system that meets these requirements. In the long run, this will be a benefit to the program, but up front there will be a need for funds to establish the necessary electronic procedures. These efforts will divert limited staff resources toward ensuring that the procedures are developed in an effective manner. The rule changes will also require the regulated community to adjust to the electronic reporting process.

In response to issues related to the coal-fired power facilities, the Division continues to devote a significant amount of resources to review and respond to permitting and technical questions and issues. The Division is currently working with ongoing Department efforts to review permitting and compliance efforts needed to assure that proper stormwater NPDES permit coverage is in place for all regulated facilities and that these efforts are coordinated with similar efforts in other Department program areas. Division staff participate in regular Departmental interdivisional permitting and technical meetings on these facilities. Stormwater NPDES permit coverage was issued in 2015 to Allen, Marshall, Riverbend, Dan River, Rodgers and Sutton facilities. The Division issued two additional stormwater NPDES permits for the Asheville and Cape Fear Steam Electric Plants in May of 2016 and is currently reviewing applications and drafting permits for several other facilities, a few of which will likely be issued by the end of 2016.

## **Response to Legislative Changes**

The stormwater program continues to work with implementation of ongoing legislative changes that affect these program areas. The 2014 and 2015 reports outlined the Division's extensive efforts to address issues related to the stormwater rules definition of built-upon area in S.L. 2013-413. After extensive rule making efforts on this issue, the definition was again modified by 2015 session law. S.L. 2015-149 established a new definition of built-upon area and placed the definition in the stormwater statutes. The Division is currently implementing this definition and has referenced the statute definition in draft rules that are currently in the rulemaking process. Session Law 2013-82 directed the Department to develop Minimum Design Criteria (MDC) and a fast-track permitting process for permits issued in the state stormwater post-construction permitting program. This law required consultation with a technical working group in establishing the MDCs. The MDC stakeholder team was comprised of 25 members who represent environmental consultants, the construction industry, local governments, university faculty, environmental groups, soil scientists, landscape architects, DOT and DEQ. Division staff met monthly with the MDC workgroup beginning in March 2014 for three-to-five hour sessions to review the various management measures used for stormwater control across the state. Division staff and team members devoted significant time and effort to develop the MDC information and work on rule development required for the implementation of a fast-track stormwater permitting process over 18 regular meetings and numerous subcommittee team meetings held between March 2014 and August 2015. A separate report on this process was submitted on February 1, 2015. Complete information on the process can be found at:

<http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permit-guidance/stormwater-mdc-team>.

This website outlines the extensive efforts and final products of the team. The team helped not only with reviewing management measures and the process for fast-track, but also provided input in the development of draft rules for implementation of these measures as well as helping to fashion draft rule updates across the stormwater programs. The minimum design criteria developed as part of this process were publicly noticed for comment in early 2015 and the Division has been allowing the use of these components as alternative design measures while ongoing rulemaking efforts establish additional criteria.

In response to rule re-adoption requirements in S.L. 2013-413, the Division has been working extensively with the review of existing stormwater management rules. The review effort has been combined with the rulemaking process for the MDC and fast-track stormwater requirements discussed above. This allows for reorganization of the stormwater rules to help integrate the new MDC components and to make the rule requirements easier to find and follow for Division staff and the regulated community. Benefits of the new rule organization and rewrite include: decreasing repetition, clarifying requirements, incorporating current technology and design standards, and improving consistency across programs. The Division received approval from the EMC's Water Quality Committee to move forward with the proposed rules in November 2015. The full Commission approved the draft rules and regulatory impact analysis to go out for public comment at their January 2016 meeting. The rules were published in the North Carolina Register and publicly noticed in February 2016 and three public hearings were held across the state in March 2016. The public comment period ended April 18, 2016.

The public hearings were held in New Bern on March 7<sup>th</sup>, Mooresville on March 21<sup>st</sup> and Raleigh on March 23<sup>rd</sup>. Seventy-five people attended the three hearings with 28 providing comments at the hearings. In addition, 65 written comments were received during the comment period. Division staff worked with the hearing officer to develop responses to the comments and make appropriate adjustments to the rules. The final rules were reviewed and adopted by the EMC at the July 2016 Commission meeting with the rules scheduled to become effective January 1, 2017. The stormwater rule review and re-adoption process can be followed at: <https://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permits/stormwater-program/rules-readoption>.

In response to Session Law 2015-286, the Department developed and submitted a report to the legislature on built-upon area thresholds for low density development applicable to coastal counties. This report was submitted in April 2016 and outlined the Department's conclusions that stormwater management in accordance with the rule set currently in the rulemaking process provides effective alternatives and flexibility to address development concerns and provide water quality protection. This session law also required the Department to submit a study on the feasibility for exemption of linear utility projects from certain environmental laws. The Division provided information for inclusion in the Department's report and highlighted the need to continue to evaluate these projects under our program areas and permit them under our permitting programs.

The Appropriations Act of 2016 (HB 1030) included requirements for the review of certain Nutrient Management Strategy components. These efforts will involve multiple program areas in DEQ including Division of Water Resources (DWR) and DEMLR along with outside agency and stakeholder involvement. Where these efforts involve stormwater management issues, DEMLR will provide information and input to the process. Components of this act may impact the implementation timeframe of certain parts of existing nutrient strategies and will require that the Department review stormwater practices from the Chesapeake Bay efforts to allow these practices under North Carolina programs.

### **Rule Making Efforts – Federal**

The Division continues to monitor potential rule changes to federal stormwater regulations. As noted previously, EPA has finalized rules to require electronic application and report submittal under various federal



programs, including the NPDES stormwater programs. These changes will require extensive efforts at the state level to achieve compliance. EPA has proposed rule changes to the NPDES program that are aimed at updating and clarifying application and permit review procedures. The proposed changes would also modify notice requirements to allow for electronic notice. Our Division will continue to monitor these proposed changes and also ongoing federal review of other related program areas, including considerations for stormwater NPDES permitting for forestry roads and potential changes to notice procedures for certain MS4 permits.

### **Technical Assistance and Outreach**

The Division continues to provide technical assistance and outreach in all of its stormwater management program areas. Major areas of technical assistance and outreach include:

- The Division participates in a number of workshops, seminars and similar meetings to provide updates on ongoing activities and information on the technical aspects of our programs. Included are meetings with the Professional Engineers of North Carolina, the N.C. Association of Soil Surveyors, the N.C. Chapter of the American Public Works Association, Stormwater Association of North Carolina, as well as workshops in partnership with the N.C. Coastal Federation and other industry, local government and environmental groups.
- Ongoing maintenance of the Stormwater BMP Manual and technical assistance on materials. The MDC process discussed above will result in significant review and updates to this guidance document as the rulemaking process is completed. The Division is currently holding regular meetings with a stakeholder team to review the crediting numbers for all stormwater control measures. In conjunction with this effort, Division staff will also be updating the technical manual to be consistent with the most current engineering design parameters and with the established Minimum Design Criteria discussed in other parts of this report.
- Outreach and education through visits to schools, meetings with local governments, various councils of government, exhibits at festivals and fairs, workshops for the regulated community and through the use of our outreach and education Listserv. More information about the Division's stormwater awareness outreach and education efforts can be found at: <http://www.ncstormwater.org>. There has been some decline in outreach activities due to the loss of resources in this important program area.
- Partnership with N.C. State University to offer regular stormwater workshop opportunities, including BMP Reviewer Certification workshops for local governments. The workshop includes training on stormwater management, regulatory issues and review of BMP design, implementation, maintenance and inspection. We also anticipate partnering with N.C. State University in the coming year to conduct statewide workshops on the minimum design criteria that are currently being finalized.