



NPDES MS4 Phase II 101

An Introduction to MS4 Permits

April 11, 2019



The Evolution of Water Quality Regulations

Back in the day...

Circa 1969



The Evolution of Water Quality Regulations

- 1970 EPA Established
- 1972 Clean Water Act – NPDES



The Low Hanging Fruit:

- 1973 NPDES Wastewater Permits
- 1974 Safe Drinking Water Act



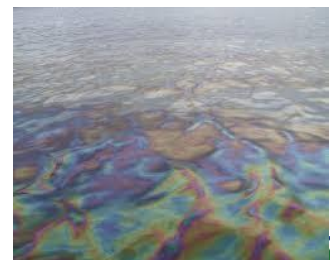
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The Evolution of Water Quality Regulations

Stormwater runoff is now the #1 source of surface water pollution in the U.S.

- 1990 Phase I Stormwater (> 100,000 pop.)
- 1999 Phase II Stormwater (small MS4s)



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NPDES MS4



National Pollutant Discharge Elimination System (NPDES)

Municipal Separate Storm Sewer System (MS4)

A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) owned or operated by the United States, a State, city, town, county, district, association, or other public body...that discharges to waters of the United States or waters of the State that is designed or used for collecting or conveying stormwater...

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Regulated Small MS4s

Federal Designation

- Urbanized Areas > 50,000 pop.
- Contiguous census block groups
 - Core pop. \geq 1,000 / sq. mi.
 - Surrounding core \geq 500 / sq. mi.

State Designation

- Potential for adverse impact to water quality, or
- Either pop. > 10,000 or > 4,000 housing units, and
- Either density \geq 1,000 ppsm or > 400 hupsm

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NPDES MS4 Phase II Permit Requirements

Develop a comprehensive Stormwater Management Plan (SWMP)
to address six Minimum Control Measures (MCMs):

1. Public Education & Outreach
2. Public Participation & Involvement
3. Illicit Discharge Detection & Elimination (IDDE)
4. Construction Site Runoff Controls
5. Post-Construction Runoff Controls (PC)
6. Pollution Prevention/Good Housekeeping (PP/GH)

- plus Program Administration
- and sometimes TMDLs

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DEQ MS4 Stormwater Program

EPA has delegated the federal NPDES MS4 Program to DEQ.

DEQ is required to:

- Develop & Issue NPDES MS4 Permits
- Review & Approve MS4 Stormwater Management Plans (SWMPs)
- Perform & Document Permit Compliance Audits
- Audit 20% of Permittees Per Year
- Approve Permitted Program Changes
- Review Annual Reports



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NPDES MS4 Phase II Public Education and Outreach and Public Involvement and Participation

April 11, 2019



NPDES MS4 Phase II Permit Requirements

Develop a comprehensive Stormwater Management Plan (**SWMP**)
to address **six** Minimum Control Measures (**MCMs**):

1. **Public Education & Outreach**
2. **Public Participation & Involvement**
3. Illicit Discharge Detection & Elimination (IDDE)
4. Construction Site Runoff Controls
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6. Pollution Prevention/Good Housekeeping (PP/GH)

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...and sometimes TMDLs (stay tuned)

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Stormwater Management Plan (SWMP) – MS4 Permit

Other SWMP Requirements

- Approved SWMP is enforceable part of permit
- Identify specific position(s), responsibilities for implementation of each measure and TMDL requirements (if applicable)
- Detail Stormwater Management Program for five year term of permit (BMPs, BMP goals, implementation schedule, funding, responsible positions, etc)
- Document how SWMP requirements being



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Each Minimum Measure should ...

- Describe program,
- Identify each best management practice (BMP) used,
- Identify measurable goals for each BMP,
- Include an implementation schedule (Set when each goal will be completed),
- Specify how goals will be met (reporting metrics)
- Have a funded responsible person or position for implementation.

- What will be done?
- When will it be done?
- How will it be done?
- Who will do it?

Think about answers to these questions for each minimum measure



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Public Education and Outreach-Minimum Requirements

Evaluate

- target pollutants (and other stormwater impacts),
 - likely pollutant sources and
 - target audiences
 - (must include schools, homeowners, and businesses)
 - Associated with pollutants or negative stormwater impacts
- and why they were selected



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How to Identify target pollutants, other wq concerns...

Into what waters does MS4 discharge?

Use MS4 stormwater map with accurately geolocated.

Is receiving water impaired (not meeting water quality standards)?

Check 2014 Integrated Report

<https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=dc44280272e4ac49d9a86b999939fec>

Has TMDL (more later) or watershed plan been done?

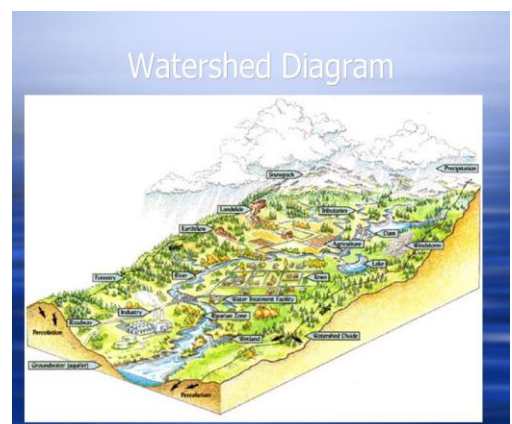
Check Use Restoration Watershed map

<https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=09324bbbee06a4546ad175f238f8a4ea6>

Check 319 map

<https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=c2461274b3ff4009a8c405c4bddeb3aa>

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Public Education and Outreach-Minimum Requirements

Provide educational information to identified target audiences

Include information to municipal employees, businesses and the public on the hazards associated with illicit discharges, illegal dumping, and improper disposal of waste

Provide and maintain a website designed to convey the program's message

Provide a stormwater hotline/helpline for public education and outreach

Document the extent of exposure of each media, event or activity, including those elements implemented locally or through a cooperative agreement



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Public Involvement and Participation-Minimum Requirements

Provide mechanisms for public input on stormwater issues and the stormwater program

Provide volunteer opportunities to ongoing citizen participation

Implement, document, track program that complies with State and local public notice requirements



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What is the difference between Public Education and Outreach and Public Involvement and Participation

Public Education and Outreach is MS4 providing information to public

Public Involvement and Participation is public assisting MS4. Adopting stream, doing cleanups, monitoring, notifying MS4 of spills, etc.



From the right point of view, every storm and every drop in it is a rainbow.

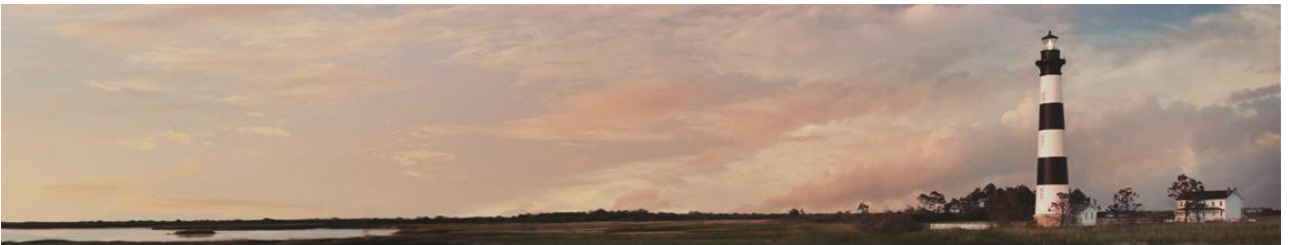
-Henry David Thoreau

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MCM 3: Illicit Discharge Detection and Elimination

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What is an Illicit Discharge?

An illicit discharge is any discharge, dumping or spill into an MS4 that is not composed entirely of stormwater, except for allowable non-stormwater discharges and discharges resulting from firefighting activities.



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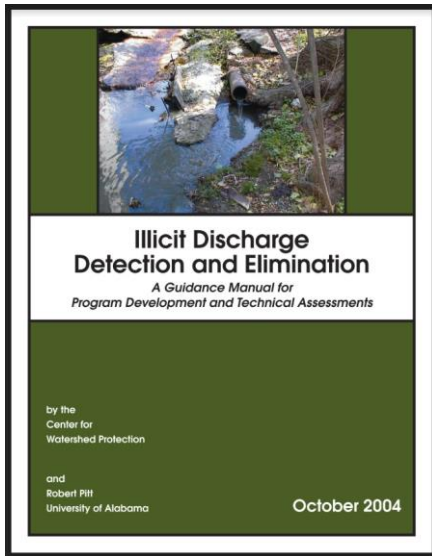
Allowable Non-Stormwater Discharges

Non-Stormwater Discharge	Water Quality Impacts
Water line and fire hydrant flushing	Incidental
Landscape irrigation	Incidental
Diverted stream flows	Incidental
Rising groundwater	Incidental
Uncontaminated groundwater infiltration	Incidental
Uncontaminated pumped groundwater	Incidental
Uncontaminated potable water sources	Incidental
Foundation drains	Incidental
Air conditioning condensate	Incidental
Irrigation waters	Incidental
Springs	Incidental
Water from crawl space pumps	Incidental
Footing drains	Incidental
Lawn watering	Incidental
Residential and charity car washing	Possible
Flows from riparian habitats and wetlands	Incidental
Dechlorinated swimming pool discharges	Incidental
Street wash water	Possible
Flows from firefighting activities	Incidental



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Overview of IDDE Program Components



Required Program Components:

1. MS4 Map
2. Ordinance/ Regulatory Mechanism
3. IDDE Plan
4. IDDE Tracking
5. Staff Training
6. IDDE Reporting



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IDDE MS4 Map

MS4 Mapping Requirements:

- Stormwater Conveyances
- Flow Direction
- Major Outfalls
- Waters of the U.S.



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IDDE Program: MS4 Map

Outfall: The point where a MS4 discharges to waters of the U.S.

Major Outfalls:

Zoning	Conveyance Type	Size
Non-Industrial	Circular Pipe	36-inch Diameter
Non-Industrial	Not a Circular Pipe	Drainage Area > 50 ac
Industrial	Circular Pipe	12-inch Diameter
Industrial	Not a Circular Pipe	Drainage Area \geq 2 ac



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IDDE Ordinance / Regulatory Mechanism

Ordinance/ Regulatory Mechanism Requirement:

An IDDE ordinance or other regulatory mechanism that provides legal authority to prohibit, detect, and eliminate illicit connections and discharges, illegal dumping, and spills into the MS4. The mechanism shall include enforcement procedures and actions.



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IDDE Plan

IDDE Plan Requirement:

Maintain and implement a written IDDE plan to detect and address illicit discharges, illegal dumping and any non-stormwater discharges identified as significant contributors of pollutants to the MS4.



The plan shall provide standard procedures and documentation to:

- Locate priority areas likely to have illicit discharges,
- Conduct routine dry weather outfall inspections,
- Identify illicit discharges and trace sources,
- Eliminate the source(s) of an illicit discharge, and
- Evaluate and assess the IDDE Program.



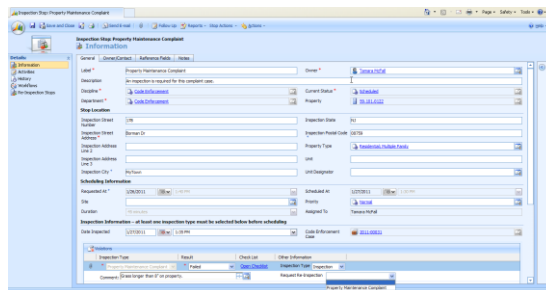
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IDDE Tracking

IDDE Tracking Requirement:

A mechanism for tracking and documenting the date(s) an illicit discharge, illicit connection or illegal dumping was observed; the results of the investigation; any follow-up of the investigation; the date the investigation was closed; the issuance of enforcement actions; and the ability to identify chronic violators.



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Municipal Staff Training

Staff Training Requirement:

Train municipal staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge, illicit connection, illegal dumping or spills.

Each staff training event shall include:

- How to identify and report
- Specific documentation (agenda/materials, date, staff, etc.)



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IDDE Reporting Mechanism

IDDE Reporting Requirements:

Provide a mechanism for the public and staff to report illicit discharges, illegal dumping and spills, and:

- Publicize it to facilitate effective reporting.
- Manage it to provide rapid response by appropriately trained personnel.



**REPORT
ILLICIT
DISCHARGES**

Report ANY dumping into storm drains, streams or other water bodies.

Visit www.LGRDW.org/report for community specific phone numbers.



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Annette Lucas, PE

Minimum Measure 4: Construction Program

April 2019

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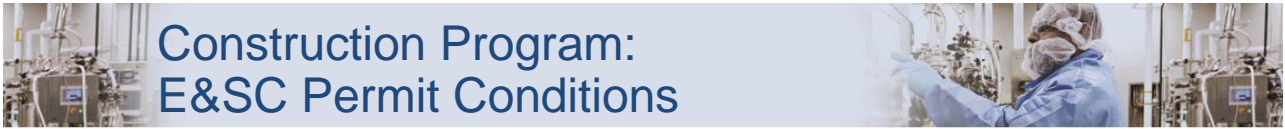
Construction Program: SWMP Requirements

Construction program required for projects that disturb \geq one acre and smaller projects that are part of a common plan of development that disturbs \geq one acre.



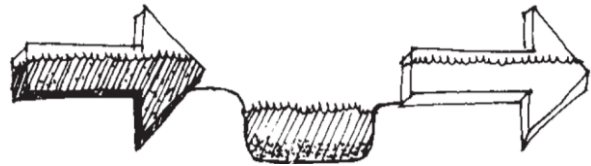
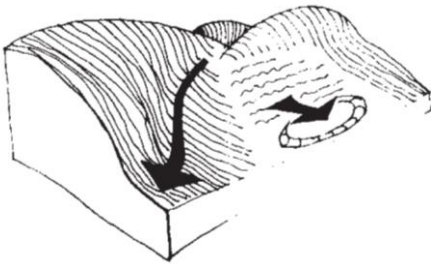
Reliance upon a North Carolina Sediment Pollution Control Act of 1973 (SPCA) program as defined in 15A NCAC Chapter 04 may be used to meet most of the permit requirements.





Construction Program: E&SC Permit Conditions

- Ordinance or other regulatory mechanism to require E&SC measures.
- Procedures for site plan review.
- Procedures for site inspection and enforcement.



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Options for Meeting E&SC Permit Conditions

1. Implement your own locally delegated E&SC Program.
2. Have your jurisdiction covered under your county's locally delegated E&SC program.
3. Have your jurisdiction covered under DEMLR's Sediment Program.

The updated permit does not change how E&SC Plan approvals, inspections & enforcements occur in your jurisdiction.



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Construction Program Materials Handling Permit Condition

Require construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impact to water quality.



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Permit Requirements

Provide & promote a means for the public to notify the appropriate authorities of observed E&SC problems.

Who are the “appropriate authorities?” . . . THAT DEPENDS.

- For building materials, concrete truck washout, chemicals, litter, and sanitary waste, your community’s staff.
- For E&SC Plan, the entity with E&SC Plan authority (your community, the county, or the state).



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Contact Information

If you have questions or concerns related to erosion and sediment control or off-site sedimentation in NC, contact:

- The appropriate [Local Government Program](#).
- The DEMLR staff at the appropriate [Regional Office](#).
- The E&SC [Central Office Staff](#), or
- The DEMLR toll-free hotline, [1-866-STOPMUD](tel:1-866-STOPMUD)

You can also refer to our [Erosion and Sediment FAQs](#) page for answers to common questions.

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Highlights of the New NCG01 Permit The New Application Process

- e-NOI:** Electronic Notice of Intent, and on-line NCG01 application form that takes about 20 minutes to complete.
- COC:** Certificate of Coverage, an approval issued specifically to YOUR project that indicates that you are covered under the NCG01.
- e-NOT:** Electronic Notice of Termination.
- It's Simple:** After your E&SC Plan is approved, complete the e-NOI. In three business days or less, DEMLR will email you a COC. The timeframe for DEMLR express projects will be 24 business hours or less. *You cannot legally begin ground disturbance until you have your COC.*



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Highlights of the New Permit Table of Contents

- PART I NCG01 Permit Coverage
- PART II Stormwater Pollution Prevention Plan
- PART III Self-Inspection, Record-Keeping and Reporting
- PART IV Standard Conditions
- PART V Definitions

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Construction Stormwater: Notice of Intent (NOI)

National Pollutant Discharge Elimination System (NPDES) application for coverage under North Carolina's General Permit NCG010000: STORMWATER DISCHARGES associated with construction activities (or NCG250000)

A. Project Information
B. Permittee Information
C. Site Contact Information
D. E&SC Plan

E. Certification

Part A. ↕

Project Location and Waterbody Information

1. **Project Name***
2. **County***
3. **Highway or Street Address***
Street name only is acceptable if no address number assigned yet
4. **City or Township***
5. **State***
6. **Zip Code***
7. **Latitude***
Enter the latitude in decimal degrees
8. **Longitude***
Enter the longitude in decimal degrees (MUST be negative)

If you do not know the latitude and longitude coordinates for this project, you can search the location on this map of North Carolina. Look for the coordinates in the **bottom left corner**.

9. **Date to Begin***
Estimated Construction Project Start Date
10. **Date to End***
Estimated Construction Project End Date



Construction Stormwater: Notice of Intent (NOI)

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- A. Project Information
- B. Permittee Information
- C. Site Contact Information
- D. E&S Plan
- E. Certification

Part D.

Erosion & Sediment Control (E&S) Plan Approval Information

1. Date E&S Plan Approved*

2. E&S Plan Project Number/ID*
Assigned by agency or local program

3. E&S Plan Approved by* State DEQ Office
 Local Program

4. State DEQ Office*

4. Local Program*

Documentation of E&S Plan approval is required for a complete application. In addition, the **signed and notarized Financial Responsibility/Ownership Form (FRO)** must be provided.

5. E&S Plan Approval letter/documentation* Upload
Must be PDF format

6. Signed/Notarized FRO Form* Upload
Must be PDF format

Previous

Next



Construction Stormwater: Notice of Intent (NOI)

National Pollutant Discharge Elimination System (NPDES) application for coverage under North Carolina's General Permit NCG010000: STORMWATER DISCHARGES associated with construction activities (or NCG250000)

- A. Project Information
- B. Permittee Information
- C. Site Contact Information
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North Carolina General Statute 143-215.6B (i) provides that:

Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this Article or a rule implementing this Article; or who knowingly makes a false statement of a material fact in a rulemaking proceeding or contested case under this Article; or who falsifies, tampers with, or knowingly renders inaccurate any recording or monitoring device or method required to be operated or maintained under this Article or rules of the Commission implementing this Article shall be guilty of a Class 2 misdemeanor which may include a fine not to exceed ten thousand dollars (\$10,000).

Under penalty of law, I certify that:

- * I am the person responsible for the construction activities of this project, for satisfying the requirements of this permit, and for any civil or criminal penalties incurred due to violations of this permit.
- * The information submitted in this NOI is, to the best of my knowledge and belief, true, accurate, and complete based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information.
- * I will abide by all conditions of the NCG010000 General Permit and the approved Erosion and Sediment Control Plan.
- * If the Erosion and Sediment Control Plan approved by the delegated program is not compliant with Part II (Stormwater Pollution Prevention Plan) of the NCG010000 General Permit, I will nonetheless ensure that all conditions of Part II of the permit are met on the project at all times.

Specify if you are: The Responsible Person named on this Notice of Intent
 An agent authorized by the Responsible Person

Signature* Sign

Type Name*

Tools to Help the Permittee NCG01 Compliance Plan Sheets

Two sample plan sheets:

- Ground stabilization and materials handling,
- Self-inspection, record-keeping and reporting.

Note you have to comply with the items on these plan sheets even if a local E&SC program does not require it.

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GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Soil Stabilization and Materials Handling sections of the NCG01 Construction General Permit. (Sections L and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. However, all details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

Temporary and Permanent Groundcover*

SITE AREA DESCRIPTION	STABILIZATION	TERMINATION EXCEPTIONS
Perimeter ditches, embankments, slopes	7 days	None
High Quality Water (HQW) Zones	7 days	None
Slopes steeper than 3:1	7 days	If depths are 12" or less in length and not less than 24" x 12" are allowed.
Slopes 3:1 or flatter	14 days	7 days for slopes greater than 5:1 in length.
All other areas with slopes flatter than 4:1	14 days	None, except for perimeter and HQW zones.

*For Fall: Lake watersheds, in disturbed areas where grading activities are incomplete, provide temporary groundcover no later than seven (7) days for slopes steeper than 3:1; ten (10) days for slopes equal to or flatter than 3:1; fourteen (14) days for areas with no slope.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none"> Temporary grass seed covered with straw or other mulches and tackifiers Hydroseeding Raked erosion control products with or without temporary grass seed Appropriately applied straw or other mulch Plastic sheeting 	<ul style="list-style-type: none"> Permanent grass seed covered with straw or other mulches and tackifiers Geotextile fabrics such as permanent soil reinforcement Hydroseeding Shrubs and other permanent plantings covered with mulch Uniform and evenly distributed ground cover sufficient to resist erosion Structural methods such as concrete, asphalt or retaining walls

POLYACRYLAMIDES (PAMs) AND FLOCCULANTS

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWB List of Approved PAMs/Flocculants.
- Apply flocculants at or before the inlets to Erosion and Sedimentation Control Measures.
- Apply flocculants at the concentrations specified in the NC DWB List of Approved PAMs/Flocculants and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging offsite.
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number of waste containers on site to manage the quantity of waste produced.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- Cover waste containers at the end of each workday and before storm events. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow.
- Dispose waste off-site at an approved disposal facility.

PAINT AND OTHER LIQUID WASTE

- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled, sealed and placed appropriately for the needs of site.
- Empty waste containers as needed to prevent overflow.

PORTABLE TOILETS

- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 feet offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- Monitor portable toilets for leaking and properly dispose of any leaked material. Remove leaking portable toilets by a licensed sanitary waste hauler and replace with a properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable slope access point when feasible.
- Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

CONCRETE WASHOUTS

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle wetted, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within 100 perimeter silt fence.
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb sections. Stormwater accumulated within the washout may not be pumped or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters, including wetlands, unless it can be shown that no other alternatives are reasonably available. At a minimum, install protector of storm drain (netting) closest to the washout which could receive spills or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be provided by the approving authority.
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove loadings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- At the completion of the concrete work, remove remaining loadings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- Store herbicides, pesticides and rodenticides in their original containers with the labels which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- Do not stockpile these materials on-site.

HAZARDOUS AND TOXIC WASTE

- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.



PART II SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A. SELF-INSPECTION

Subinspections are required during normal business hours in accordance with the table below. When adverse weather or other conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day in which it is safe to perform the inspection. In addition, when a storm event of greater than 1.0 inch occurs outside of normal business hours, the subinspections shall be performed upon the commencement of the next business day. Any other when inspections were delayed shall be noted in the inspection record.

Insight	Frequency (during normal business hours)	Inspection records must include (40 CFR 122.41)
(1) Rain gauges maintained by permittee	Daily	1. Daily rainfall amounts. 2. If the daily rain gauge observations are made during weekend or public holidays, and no maintenance-free electronic rain gauge is available, record the cumulative rain measurements for those calendar days. Use the next observation if a site inspection is needed. Days on which no rainfall occurred shall be indicated as "none." The precision for the automatic rain measuring device reported to the Division.
(2) EAC Measures	All treat water per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Identification of the measures required. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Indication of whether the measures were operating properly. 5. Description of maintenance needs for the measures. 6. Corrective actions taken, and 7. Date of action taken.
(3) Stormwater discharge outlets (SDOs)	All treat water per 7 calendar days and within 24 hours	1. Identification of the discharge outlet to be inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Evidence of reduction of construction pollution such as oil, dirt, silt, staining or suspended solids on discharge. 5. Indication of visible sediment banking for the site. 6. Action taken to correct (prevent, minimize, and) any of the above items.
(4) Protection of site	All treat water per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Evidence of erosion control measures such as silt fences, a record of monitoring shall be maintained. 2. Action taken to clear any debris that has built up on the site. 3. Date of action taken, and 4. Date of inspection.
(5) Stormwater treatment or other best management practices (BMPs)	All treat water per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. When storm or weather event increased visible sedimentation at a station has either increased turbidity from the construction activity, then a record of the following shall be made: a. Station name to correct (prevent, minimize, and) sediment concentrations, and b. Records of the required repairs to the appropriate Division Regional Office per Part IV, Section C, Item C2(b) of this permit. 2. The plan of grading (installation of perimeter EAC measures, covering and grubbing, installation of storm drainage facilities, completion of all soil disturbance activity, construction or reconstruction, permanent ground covered). 3. Documentation that the required general sediment measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection meets the required 7 calendar day inspection requirement.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B. RECORDKEEPING

1. EAC Plan Documentation

The approved EAC plan as well as any approved deviation shall be kept on the site. The approved EAC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the EAC plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(1) Each EAC Measure has been installed and does not significantly deviate from the location, dimensions and measure extension shown on the approved EAC Plan.	Initial and date stamp of the approved EAC Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(2) A phase of grading has been completed.	Initial and date stamp of the approved EAC Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(3) Ground cover is located and installed in accordance with the approved EAC Plan.	Initial and date stamp of the approved EAC Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(4) The maintenance and repair requirements for all EAC Measures have been performed.	Complete, date and sign an inspection report.
(5) Corrective actions have been taken to EAC Measures.	Initial and date stamp of the approved EAC Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation

In addition to the EAC Plan documents above, the following items shall be kept on the site and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- This general permit as well as the certificate of coverage, after it is received.
- Recently of inspections made during the previous 90 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. One of electronically-storable records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.
- All data used to complete the Notice of Intent and other inspection records shall be maintained for a period of three years after project completion and made available upon request. (40 CFR 122.41)

PART IV SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C. REPORTING

1. Occurrences that must be reported

permittees shall report the following occurrences:

- Visible sediment discharges to a stream or wetland.
 - (a) 0.5 cubic ft.
 - (b) They are 25 gallons or more.
 - (c) They are less than 25 gallons but cannot be cleaned up within 24 hours.
 - (d) They occur from an surface waters (regardless of volume), or
 - (e) They are within 100 feet of surface waters (regardless of volume).
- Release of hazardous substances in excess of reportable quantity under Section 311 of the Clean Water Act (40 CFR 113.3 and 40 CFR 117.3) or Section 132 of CERCLA (40 CFR 302.4) or C.A. 146-13.05.
- Anticipated bypasses and unanticipated bypasses.
- Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeliness and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and to accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 642-7056, (800) 854-3668 or (919) 733-3005.

Occurrence	Reporting Timeliness (After Discovery) and Other Requirements
(1) Visible sediment discharges to a stream or wetland.	<ul style="list-style-type: none"> Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that contains a description of the occurrence and action taken to address the cause of the discharge. Division staff may waive the requirement for a written report on a case-by-case basis. If the stream is named on the NC 001010, as required for sediment-related events, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to ensure compliance with the federal or state sediment water quality standards.
(2) 0.5 cubic ft. release of hazardous substances to a stream or wetland.	<ul style="list-style-type: none"> Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release. A report of best practice steps before the close of the business day, if possible. The report shall include an evaluation of the anticipated quality and effect of the spill or release. Within 7 calendar days, a report that contains a description of the occurrence, and the cause, and if the occurrence has not been corrected, the anticipated time non-compliance is expected to continue, and steps taken or planned to reduce, eliminate, and prevent recurrence of the occurrence. (40 CFR 122.41(b)(7)) Division staff may waive the requirement for a written report on a case-by-case basis.



Tools to Help the Permittee Fact Sheet on the New NCG01

Explains the new process and answers common Qs.

Available at deq.nc.gov/NCG01.

Information on the overall SW program at deq.nc.gov/SW.



Common Q&As

Existing E&SC Plan Approvals

- Q: If an E&SC Plan is approved before April 1, which permit applies?
- A: Projects with existing E&SC Plans will automatically follow the new NCG01 permit, but will not need to fill out an e-NOI or pay an annual permit fee. However, the permittees should print the new permit and the two standard detail sheets, adhere to them, and have them on site.

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Common Q&As

Project Completion

- Q: What happens to the COC when the construction activity is complete?
- A: When a project is complete, the permittees will contact DEMLR or the local delegated program to close out the E&SC Plan. After DEMLR or the local E&SC program inform the permittee of the project close out via inspection report, the permittee will visit deq.nc.gov/NCG01 to submit an e-NOT.

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Common Q&As

Compliance Requirements

- Q: Will there be a grace period for adherence to the new process?
 A: DEMLR does not have the authority to grant a grace period from a federally mandated permit. Permittees will be informed of the new process via web site, E&SC Plan approval letters and list servs.
- Q: What will happen if an e-NOI is not submitted?
 A: If a construction site that disturbs > 1 acre fails to submit an e-NOI after approval of its E&SC Plan, this is a violation of federal permitting requirements.

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And lastly . . .

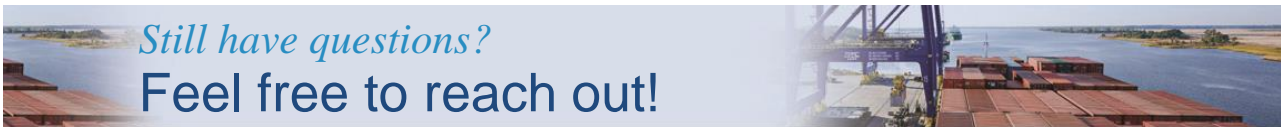
The Annual Permit Fee

1. Initially, we will not charge an annual permitting fee for the NCG01 COC. However, on or after June 1, 2019, we will begin collecting a \$100 annual fee per NCGS 143-215.3D.
2. This fee will allow us to improve the application process so that when you apply to DEMLR for the E&SC Plan approval, we can incorporate the NOI in the same form. (The process will likely remain separate for projects under a local E&SC program.)

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Still have questions?
Feel free to reach out!

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Annette Lucas, PE

Minimum Measure 5: Post-Construction Program

April 2019

Department of Environmental Quality



#5: Post-Construction Program: SWMP Requirements

Develop, implement, enforce, and document a Post-C program.



Projects that disturb \geq one acre and smaller projects that are part of a common plan of development that disturbs \geq one acre.



Qualifying Alternative Post-C Programs

NC Statute and Rules state that the following programs comply with the Post-C Requirements of the permit:

- Water Supply Watershed
- Coastal Counties
- Neuse NSW
- Tar-Pamlico NSW
- Randleman Lake
- Universal Stormwater Management Program



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Post-C Program Options

1. Qualifying alternative program (QAP) covers the whole jurisdiction.
2. The jurisdiction has a mix of areas covered by the MS4 program and other compliant post-construction program (or programs).
3. The MS4 Post-Construction Program covers the whole jurisdiction.

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Option 1: QAP everywhere

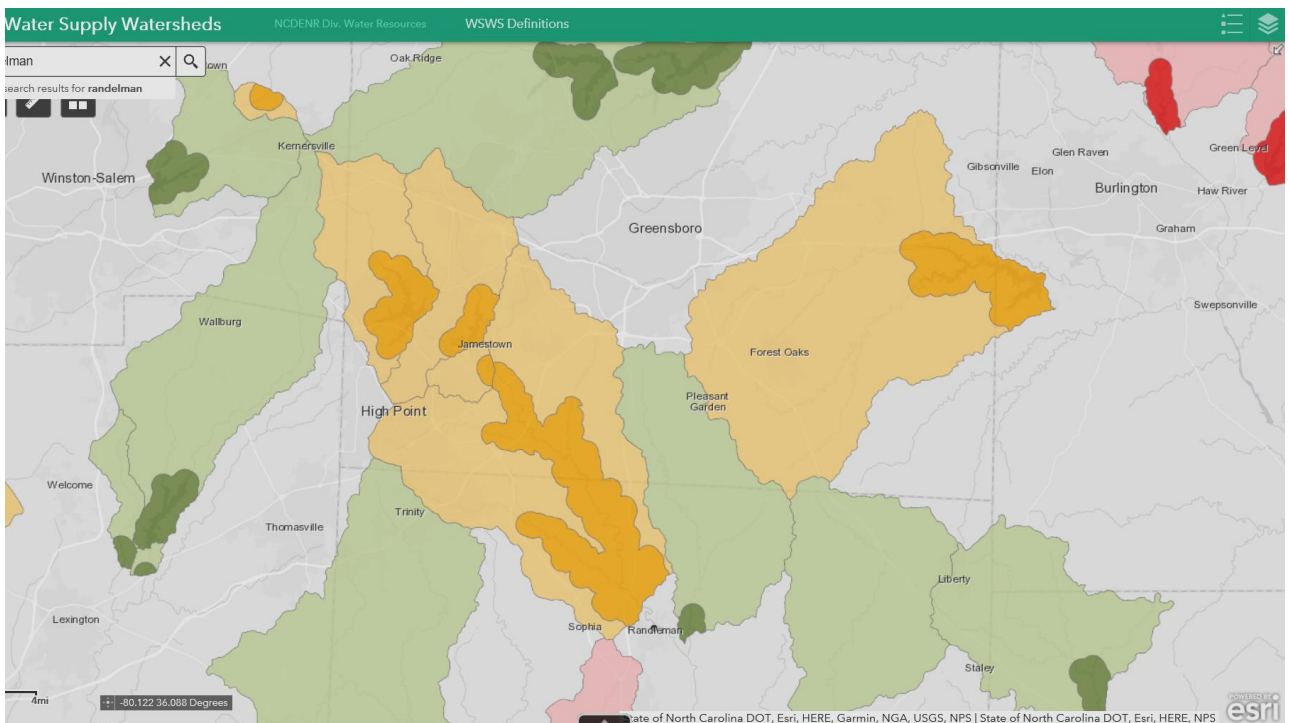
Water Supply Watershed, Coastal Counties, Neuse & Tar-Pamlico NSW, Randleman Lake, Universal Stormwater Management Program

The above program(s) meet NPDES MS4 Post-C Program requirements in the geographic areas where they are implemented.

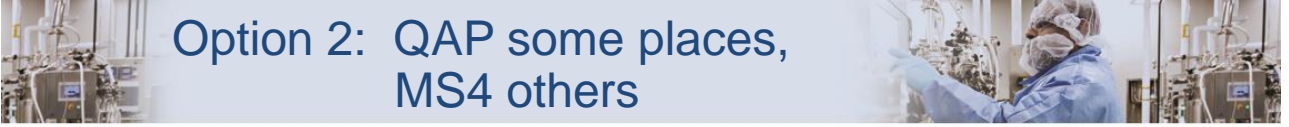
Maintain a map indicating where the different programs apply.



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Option 2: QAP some places, MS4 others



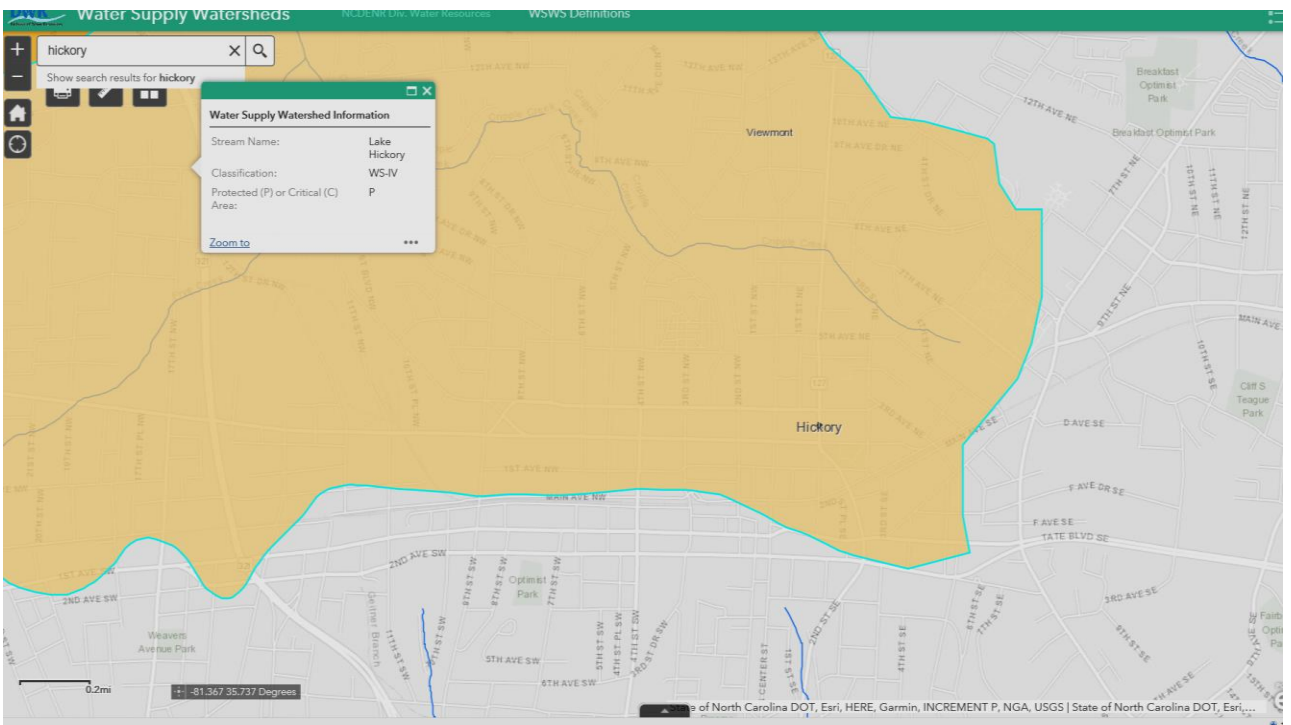
Water Supply Watershed, Coastal Counties, Neuse & Tar-Pamlico NSW, Randleman Lake, Universal Stormwater Management Program

The above program(s) meet NPDES MS4 Post-C Program requirements in the geographic areas where they are implemented.

Elsewhere, adhere to the Post-C permit requirements for legal authority, plan review/approval, inspection/enforcement, documentation and fecal coliform.

Maintain a map indicating where the different programs apply.

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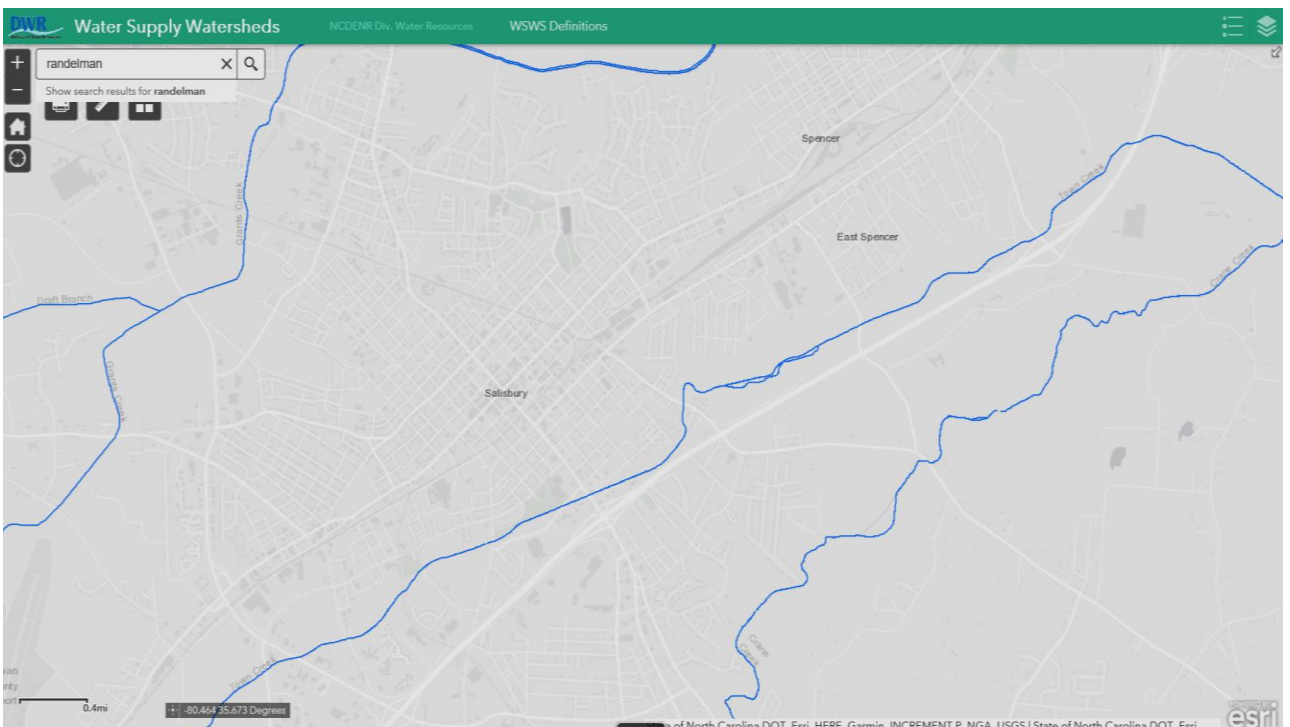


Option 3: MS4 everywhere

Comply with the Post-C permit requirements for legal authority, plan review/approval, inspection/enforcement, documentation and fecal coliform.



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Legal Authority – *MS4 Post-C*

- a) Review development designs to determine whether adequate SCMs will be installed, implemented, and maintained.
- b) Request stormwater plans, inspection reports, monitoring results, etc. to evaluate compliance with the Post-C Program.
- c) Enter private property to inspect facilities, practices, or operations to determine compliance with the Post-C Program.

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Plan Review & Approval – *MS4 Post-C*

- a) Federal, State, and local government projects shall comply with Post-C requirements unless the entity has its own NPDES MS4 permit or QAP.
- b) Conduct site plan reviews for compliance with 15A NCAC 02H .1017.
- c) Ensure that each project has:
 - an O&M Agreement and an O&M Plan.
 - recorded deed restrictions and protective covenants that require the project to be maintained consistent with approved plans.
 - permanent recorded easements for SCMs and maintenance accesses.

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Inspection & Enforcement – *MS4 Post-C*

- Ensure that the project has been constructed in accordance with the approved plan(s).
- Inspect prior to issuing a Certificate of Occupancy (or temporary CO). Alternatively, the owner may provide a surety bond.
- Annual inspection of each permitted SCM to ensure compliance with the approved Operation and Maintenance Agreement.
- Inspection of low density projects at least once during the permit term.
- Inspections must be conducted by a qualified professional.

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Documentation – *MS4 Post-C*

- a) Maintain an inventory of post-construction SCMs and low density projects.
- b) Document, track and maintain records of inspections and enforcement actions. Tracking shall include the ability to identify chronic violators.
- c) Make available to developers all relevant ordinances, post-construction requirements, design standards, checklists, and/or other materials.

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Fecal Coliform Program – MS4 Post-C

- a) A pet waste management component, which may be achieved by revising an existing litter ordinance.
- b) An on-site domestic wastewater treatment system component (if applicable), which may be coordinated with local county health department, to ensure proper operation and maintenance of such systems.



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Still have questions?
 Feel free to reach out!

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MCM 6: Pollution Prevention & Good Housekeeping

March 26, 2019



What is Pollution Prevention / Good Housekeeping (PP/GH)?

A comprehensive suite of O&M programs to prevent and minimize pollutants in stormwater runoff from municipal facilities and operations. The seven required programs are:



1. Municipal Facilities Operation and Maintenance Program
2. Spill Response Program
3. MS4 Operation and Maintenance Program
4. Municipal SCM Operation and Maintenance Program
5. Pesticide, Herbicide and Fertilizer Management Program
6. Vehicle and Equipment Maintenance Program
7. Pavement Management Program

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PP/GH: Municipal Facilities O&M Program

Requirements for facilities that are owned / operated by the permittee and have the potential for generating polluted stormwater runoff:

- Maintain a current inventory of facilities
- Perform facility inspections
- Perform routine maintenance
- Establish specific frequencies, schedules, & documentation
- Provide staff training
 - General stormwater awareness
 - Pollution prevention & good housekeeping practices

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PP/GH: Spill Response Program

Requirements for facilities and operations that store and/or use materials that have the potential to contaminate stormwater runoff if spilled:

- Maintain written spill response procedures
- Provide spill response training for staff



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PP/GH: MS4 O&M Program

Requirements to minimize pollutants in the stormwater collection system:

- Provide staff training on stormwater awareness and pollution prevention
- Perform MS4 inspections
- Maintain the collection system including catch basins and conveyances
- Establish specific frequencies, schedules, and documentation



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PP/GH: Municipal SCM O&M Program

Requirements for municipally owned, operated, and/or maintained SCMs installed for compliance with the post-construction program:

- **Maintain a current inventory of municipal SCMs**
- **Perform SCM inspections**
- **Perform SCM maintenance**
- **Establish specific frequencies, schedules, & documentation**



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PP/GH: Pesticide, Herbicide & Fertilizer Management Program

Requirements for municipal staff who apply pesticides, herbicides and fertilizers to minimize water quality impacts from landscape chemicals:

- **Provide routine staff training**
 - **Pollution prevention**
 - **Chemical use, storage & handling**
- **Ensure compliance with permit & applicator certifications**



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PP/GH: Vehicle & Equipment Maintenance Program

Requirements to prevent and minimize contamination of stormwater runoff from areas used for municipal vehicle and equipment maintenance and/or cleaning:

- Comply with required NPDES industrial permits
- Provide routine pollution prevention training for staff
- Perform routine inspections
- Establish specific frequencies, schedules & documentation



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PP/GH: Pavement Management Program

Requirements to reduce pollutants in stormwater runoff from municipally owned streets, roads, and parking lots:

- Control litter, leaves & debris
- Control particulate and fluid pollutants from vehicles
- Establish specific frequencies, schedules & documentation



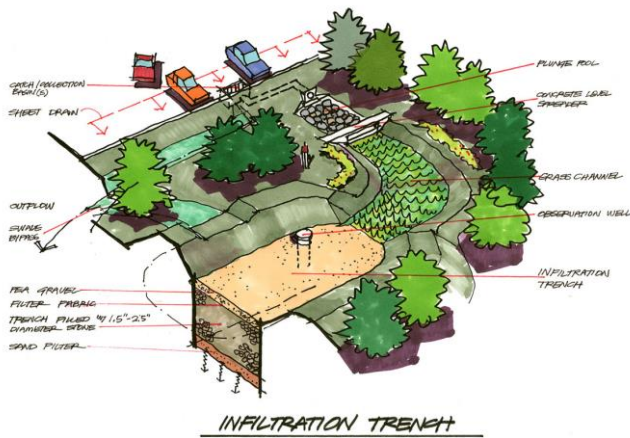
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MS4 Program Coordinator

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NPDES MS4 Phase II Total Maximum Daily Load (TMDL) and Watershed Planning

April 11, 2019



Different Scenarios ...

One	Two	Three	Four
Water not meeting water quality standards	Water not meeting water quality standards	Water not meeting water quality standards	Water meeting water quality standards
TMDL developed	TMDL developed	No TMDL developed	NA
TMDL/WLA reqs in MS4 permit	No TMDL/WLA reqs in MS4 permit	No TMDL/WLA reqs in MS4 permit	NA



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NPDES MS4 Phase II Permit Requirements

Develop a comprehensive Stormwater Management Plan (**SWMP**)
to address **six** Minimum Control Measures (**MCMs**):

1. Public Education & Outreach
2. Public Participation & Involvement
3. Illicit Discharge Detection & Elimination (IDDE)
4. Construction Site Runoff Controls
5. Post-Construction Runoff Controls (PC)
6. Pollution Prevention/Good Housekeeping (PP/GH)

6

...and sometimes
TMDLs

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Questions and Answers about Total Maximum Daily Load???

What is a TMDL?

Total Maximum Daily Load or ...

Calculation of maximum amount of **pollutant** that water can receive
and still meet **water quality standards**.

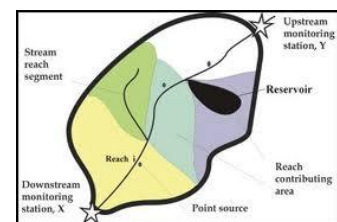
What is a pollutant?

Substance in the environment in **certain quantities** that has undesired
effects, or adversely affects the usefulness of a resource

Example

Money Creek can handle up to 1 lb/day of Nickel and still meet
water quality standards (10 g/L to meet aquatic life).

More information on some of these items ... stay tuned ☺.



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Why do we have to deal with TMDLs?



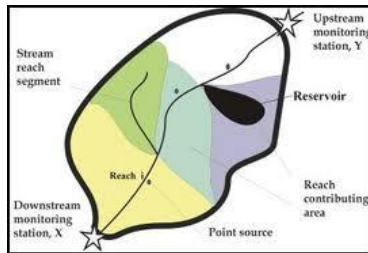
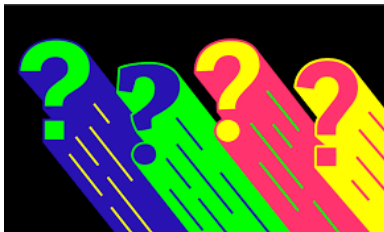
TMDL Program is a **Federal** program authorized under the **Clean Water Act** to address **waters that are not meeting water quality standards**. EPA requires TMDLs (**or alternative**) to be done for waters not meeting water quality standards.

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When does TMDL apply to MS4???

Permitted MS4 discharges in water(s)/watershed(s) with approved TMDL(s)



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Is MS4 in watershed with approved TMDL?

See TMDL map to determine if MS4 falls within watersheds covered by TMDL
<https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=bc125c8b5ccf4110b538db1188731690>



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Why does my **stream/watershed** have a TMDL?

MS4 discharge(s) into **water(s)** is/are **not meeting water quality standards** for one or more parameters (pollutants)

And

TMDL has been developed (States have 8-13 years to develop TMDL after it is determined water not meeting standards)



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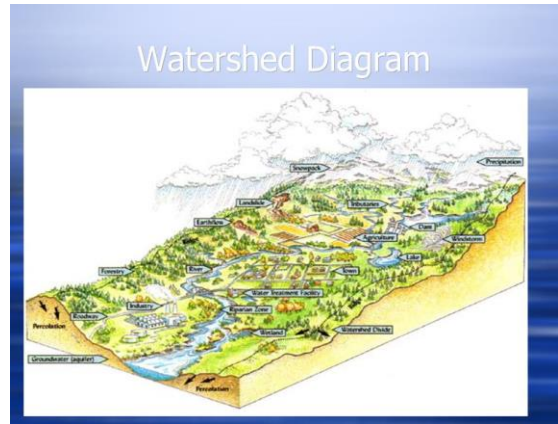
92

Is/Are receiving water(s) meeting standards???

Is receiving water meeting water quality standards?
 Check 2014 Integrated Report
<https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=dcb44280272e4ac49d9a86b999939fec>

2018 Draft Integrated Report map
<https://ncdenr.maps.arcgis.com/apps/MapSeries/index.html?appid=14df5075d8e3437b8476c89c3db3f0a5>

(overlay MS4 stormwater map with this map, if possible)



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What do you mean “water not meeting standards?”

Water Uses, Classifications and Standards .. NC is required to ...
 Assess water(s), land uses, etc. to determine use(s) (i.e., water supply),
 Develop classification(s) associated with use(s) (i.e, WSII)
Develop standards to protect uses associated with classifications (i.e, nitrate nitrogen 10mg/l).



Use	Classification	Standard
Drinking Water	Water Supply II (WSII)	Nitrate Nitrogen 10 mg/l



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How do we know if water – not meeting standards?

Monitoring Water Quality



Water Monitoring and Assessment

Physical/Chemical Monitoring – Monthly – Regional Offices

Biological Monitoring – every five years – central office

Special Studies – frequency varies

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Questions and Answers about Total Maximum Daily Load???

What is a TMDL?

Total Maximum Daily Load or ...

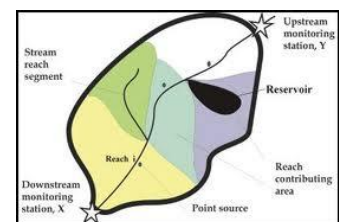
Calculation of maximum amount of **pollutant** that water can receive and still meet **water quality standards**.

What is a pollutant?

Substance in the environment in **certain quantities** that has undesired effects, or adversely affects the usefulness of a resource

Example

Money Creek can handle up to 1 lb/day of Nickel and still meet water quality standards (10 g/L to meet aquatic life).



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Different Scenarios ...

One	Two	Three	Four
Water not meeting water quality standards	Water not meeting water quality standards	Water not meeting water quality standards	Water meeting water quality standards
TMDL developed	TMDL developed	No TMDL developed	NA
TMDL/WLA reqs in MS4 permit	No TMDL/WLA reqs in MS4 permit	No TMDL/WLA reqs in MS4 permit	NA



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Scenarios One and Two: MS4 Permit - TMDL Requirements

If permit has stormwater Waste Load Allocation (WLA) requirements from TMDL, **comply with requirements,**

OR ...

If permit has **no** stormwater WLA requirements from TMDL, **for six MCMs, evaluate strategies and revise BMPs to enhance water quality recovery strategies in watershed.**



Within 12, 24, 36 months of TMDL approval ...

- different documentation requirements



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*Scenarios One and Two:
How do I learn more about TMDL for receiving water(s)
into which my MS4 discharges?*

See map with MS4s that fall within
watersheds covered by TMDL

<https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=bc125c8b5ccf4110b538db1188731690>



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*Scenario One or Two:
TMDL info*

Water Name	Assessment Unit	Water Quality Classification (uses)	Parameter not meeting standards	Length (miles)
Haw River	16-(1)d	C – aquatic life and secondary recreation	turbidity	13

Pollutant (tons/day)	Existing Load	TMDL	Percent (%) Reduction	WLA	LA
TSS	183	71	61	22	49

Pollutant (tons/day)	Existing Load	Wastewater	Stormwater
TSS	22	13	9



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Scenarios One and Two: MS4 Permit - TMDL Requirements

If permit has stormwater Waste Load Allocation (WLA) requirements from TMDL, **comply with requirements,**

OR ...

If permit has **no** stormwater WLA requirements from TMDL, **for six MCMs, evaluate strategies and revise BMPs to enhance water quality recovery strategies in watershed.**



Within 12, 24, 36 months of TMDL approval ...

- different documentation requirements



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How to meet permit and/or address water quality problems in your MS4 and/or watershed?



Use MS4 **Permit** and Stormwater Management **Plan** – Six Minimum Measures (Revise, Improve, etc)

– Scenarios One and Two

Develop Watershed Plan?

- Scenarios One, Two, Three or Four

- Nine Element
- Six Element (4b) – waive TMDL?
- Source Water Protection Plan
- ????

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Before developing a watershed plan, check ...

Has watershed plan already been done?

Check Use Restoration Watershed map

<https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=09324bbee06a4546ad175f238f8a4ea6>

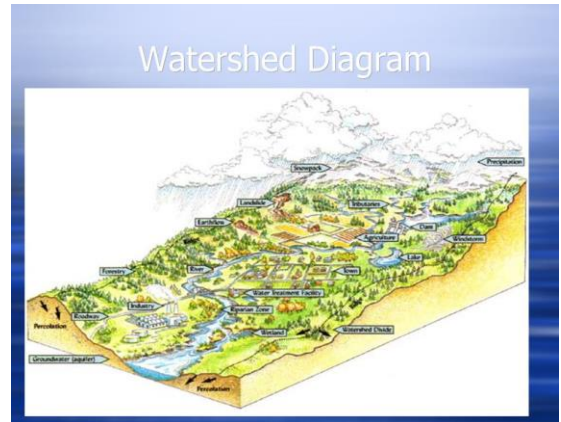
Check 319 map

<https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=c2461274b3ff4009a8c405c4bddeb3aa>

If plan has been done,

- Learn about plan and see how MS4 can be a part of implementing this plan, offer ways to improve plan???

If plan has not been done, see next slide ...



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When to develop Watershed Plan???



Develop watershed plan if ...

- A strong local entity within watershed that has interest and ability/resources to develop and help implement the plan (i.e., nonprofit, cooperative extension, etc.)
- Watershed boundaries are similar to MS4 boundaries



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Why develop Watershed Plan???



Organized path forward

Structure around which to gather support and resources

MS4 already meeting several requirements of watershed plan by implementing program

Obtain grant funding

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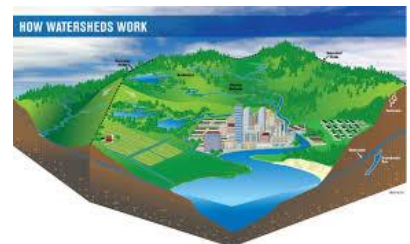


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EPA 319 Nine Element Watershed Plan Requirements

When developing EPA 319 watershed plan, it must meet following requirements:

1. Identification of Causes and Sources of Impairment (target pollutants, other concerns and their sources)
2. Proposed management measures to address pollutants
3. Expected load reductions from proposed management measures
4. Technical and Financial Assistance Needs
5. Information, Education and Public Participation
6. Schedule for Implementing Management Measures
7. Interim Milestones for Implementation
8. Criteria for Determining Load Reductions and Water Quality Improvement
9. Water Quality Monitoring/Load Reduction



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EPA 319 Nine Element Watershed Plan Requirements (continued)



- Plans must be developed for water/watershed(s) **not** meeting water quality standards and must meet nine elements
- Plans must be submitted/approved to be eligible for monies
- Monies only used for plan **implementation**
- Monies **CANNOT** be used to implement **MS4 permit** requirements, but can be used to develop/implement management measures **NOT** in permit, but still helping improve water quality.

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Why develop watershed plan ... different scenarios ...

One	Two	Three	Four
Water not meeting water quality standards	Water not meeting water quality standards	Water not meeting water quality standards	Water meeting water quality standards
TMDL developed	TMDL developed	No TMDL developed (a)	NA
TMDL permit reqs	No TMDL permit reqs	No TMDL permit reqs	NA
Eligible for 319 funds if develop watershed plan (WSP)	Eligible for 319 funds if develop watershed plan (WSP)	Eligible for 319 funds if develop watershed plan (WSP)	Not eligible for 319 funds
Use 319 monies for management measures NOT in permit	Use 319 monies for management measures NOT in permit (more flexibility)	319 monies used for management measures NOT in permit (most flexibility)	

(a) WSP could allow for TMDL delay or exemption

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Different Scenarios (continued) – Scenario Three

Scenario Three: Water not meeting standards and no TMDL developed

- If watershed plan meets certain requirements, TMDL development may be delayed or waived
- Watershed plan demonstrates how water quality improvement and **restoration will be achieved**
- Little Alamance Creek (4b Six Element Plan)
- [https://files.nc.gov/ncdeq/Water%20Quality/Planning/TMDL/Alternatives/Little%20Alamance/Little Alamance 4b Report Final Dec2014.pdf](https://files.nc.gov/ncdeq/Water%20Quality/Planning/TMDL/Alternatives/Little%20Alamance/Little%20Alamance%204b%20Report%20Final%20Dec2014.pdf)

Options



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Why develop watershed plan ... different scenarios ...

One	Two	Three	Four
Water not meeting water quality standards	Water not meeting water quality standards	Water not meeting water quality standards	Water meeting water quality standards
TMDL developed	TMDL developed	No TMDL developed (a)	NA
TMDL permit reqs	No TMDL permit reqs	No TMDL permit reqs	NA
Eligible for Water Resources Development Grant or see other funding?	Eligible for Water Resources Development Grant or see other funding?	Eligible for Water Resources Development Grant or see other funding?	Eligible for Water Resources Development Grant or see other funding?

(a) WSP could allow for TMDL delay or exemption

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Interesting Points to Consider (continued)



Other funding sources (such as Water Resources Development Grant) to help improve water quality in your MS4 jurisdiction, watershed ... please see

<https://deq.nc.gov/about/divisions/water-resources/planning/basin-planning/use-restoration-watershed-programs/funding>

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Resources summary ...

Funding resources <https://deq.nc.gov/about/divisions/water-resources/planning/basin-planning/use-restoration-watershed-programs/funding>

TMDL resources <https://deq.nc.gov/about/divisions/water-resources/planning/modeling-assessment/tmdls>

Watershed plan resources <https://deq.nc.gov/about/divisions/water-resources/planning/basin-planning/use-restoration-watershed-programs>

Water Quality Data Assessment resources

2014 Integrated Report -
<https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=dc b44280272e4ac49d9a86b999939fec>

2018 Draft Integrated Report map
<https://ncdenr.maps.arcgis.com/apps/MapSeries/index.html?appid=14d f5075d8e3437b8476c89c3db3f0a5>



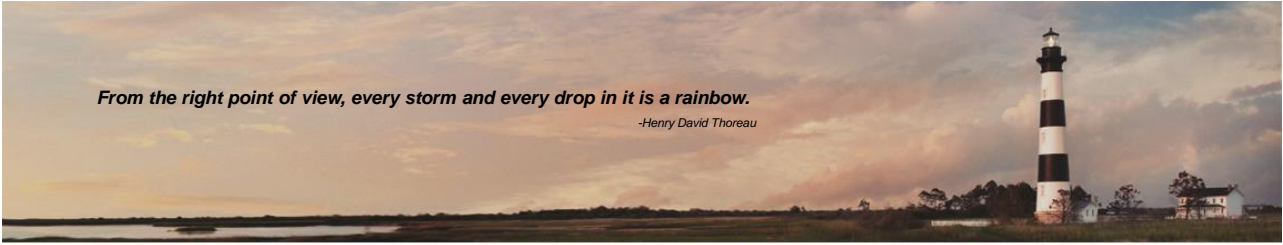
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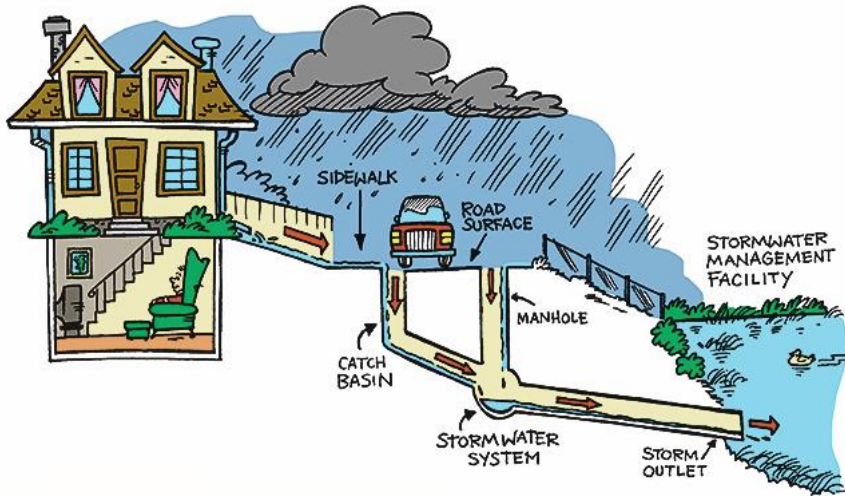
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From the right point of view, every storm and every drop in it is a rainbow.

-Henry David Thoreau



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Water Supply Watershed
Protection Program
Coordinator
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NPDES MS4 Permit Compliance & Enforcement



Presentation Overview

MS4 Permit Compliance Audits

- **Audit Schedule**
- **How to Prepare**
- **What to Expect**
- **What Happens Next**

Enforcement Mechanisms

- **NOD and NOV**
- **Templates**
- **Duty to Comply**

What is an MS4 Permit Compliance Audit?

An MS4 Audit is a structured review of the Stormwater Management Program to evaluate whether the MS4 is meeting the requirements specified in the NPDES MS4 Permit & Stormwater Management Plan (SWMP)



AKA do you have your ducks in a row?

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How Do I Know If My MS4 is Being Audited?

1. **The DEMLR MS4 5-year Audit Schedule**
 - Lists the year the MS4 is scheduled to be audited
 - 5-year schedule audits are part of each permit renewal process
2. **EPA or DEMLR may also audit any MS4 at any time.**
3. **EPA/DEMLR will notify the MS4 of specific audit date(s) at least 30 calendar days prior.**

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What Happens Before an MS4 Audit?

Preliminary Documentation Request

- Current SWMP
- Latest Annual Report
- Organizational chart & associated program responsibilities
- MS4 permitted area map with receiving waters
- Formal agreements with other entities that implement MS4 program components

Scope of Audit Decided

- May request additional information prior to audit

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What Does DEMLR Audit?

Specific MS4 Program components are audited for compliance with the Permit & SWMP:

- Program administration is always evaluated
- Some or all of the required six MCMs will be evaluated
 - ✓ Public Education & Outreach
 - ✓ Public Involvement & Participation
 - ✓ Illicit Discharge Detection & Elimination
 - ✓ Construction Site Runoff Controls (delegated ESC programs only)
 - ✓ Post-Construction Site Runoff Controls
 - ✓ Pollution Prevention & Good Housekeeping for Municipal Operations
- TMDLs may be evaluated (if applicable)



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How Long Does an MS4 Audit Take?

It Depends....

- Availability of information
- Size and complexity of the MS4 program
- Number of MCMs evaluated
- Geographic distance between sites visited
- Distance the auditor must travel to the MS4



Auditor will give you a general idea before the audit

- Won't be less than one day
- Won't be more than three days

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MS4 Responsibilities

- Submit Documentation by Deadlines
- Provide an Appropriate Meeting Room
- Invite Appropriate Participants
 - Operations & Field Staff
 - Department Managers
 - Elected Officials
 - Potential specific people (i.e. City Manager, Municipal PIO, collection or pretreatment staff, sediment/erosion inspectors, review engineers, emergency response, parks and recreation, streets maintenance, etc.)
- Provide Choices and Directions for Site Visits



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What Happens on the Day(s) of an MS4 Audit?

1) Opening Conference

2) Office Interview

- Program implementation questions & documentation review

3) Site Visits

- MS4 industrial facility inspections
- Construction site inspections (delegated ESC programs only)
- Evaluates how MS4 program is run, not if sites are in compliance

4) DEMLR Confers on Preliminary Findings

5) Closing Conference

- Preliminary summary of identified issues
- Request for additional documentation



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How Do You Ace an MS4 Audit?

1. Stage the meeting – staff, documents, GIS, etc. on hand
2. Know your program (Permit, SWMP, Annual Reports, implementation)
3. Demonstrate the permitted program is implemented:
 - Enforceable local ordinances
 - Legal agreements with any external parties
 - MS4 mapping – storm sewer system & outfalls
 - Inspections, documentation, tracking, SOPs
 - Documented education, outreach & staff training programs
 - Dry weather screening



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What Happens After an MS4 Audit?

If the MS4 aced the audit:

- Receive a Notice of Compliance and an Audit Report within 60 days,
- Set to work preparing an updated SWMP and permit renewal application.



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What Happens After an MS4 Audit?



If the MS4 DID NOT ace the audit:

- Receive an Audit Report within 60 days, and
- Be issued a Notice of Deficiency (NOD) or a Notice of Violation (NOV).

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What if you detour from the SWMP?



Notice of
Deficiency (NOD)

Notice of
Violation (NOV)

Notice of
Recommendation for
Enforcement Action

Civil Penalty
Assessment

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What Does the NOD say?

The NOD requires the permittee to do 4 things:

- Submit a written response to the Notice (30 days)
- Conduct a self-audit of the MCMs DEMLR didn't audit (120 days)
- Develop a SWMP addressing all the deficiencies (120 days)
- Submit an NPDES MS4 permit application within 30 days of DEMLR approving the SWMP

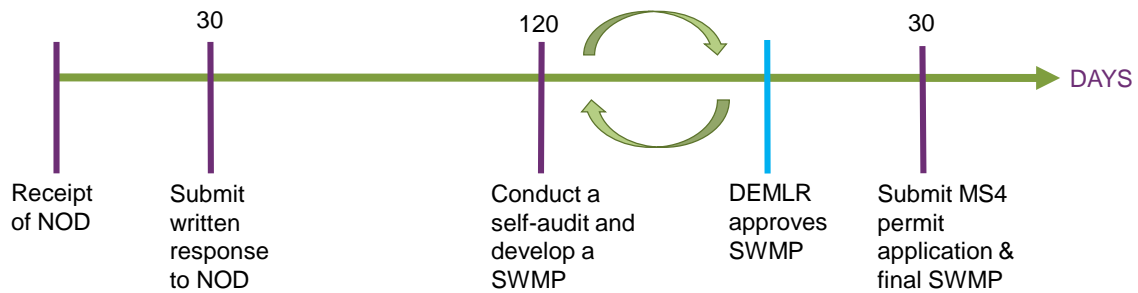
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What Does the NOD say?

Submittal Timeline for NOD Requirements:



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What Does the NOV say?

The NOV requires the permittee to do 5 things:

- Submit a written response to the Notice (30 days)
- Adopt a council resolution demonstrating support for a compliant stormwater program (60 days)
- Conduct a self-audit of the MCMs DEMLR didn't audit (120 days)
- Develop a SWMP addressing all the deficiencies (120 days)
- Submit an NPDES MS4 permit application within 30 days of DEMLR approving the SWMP

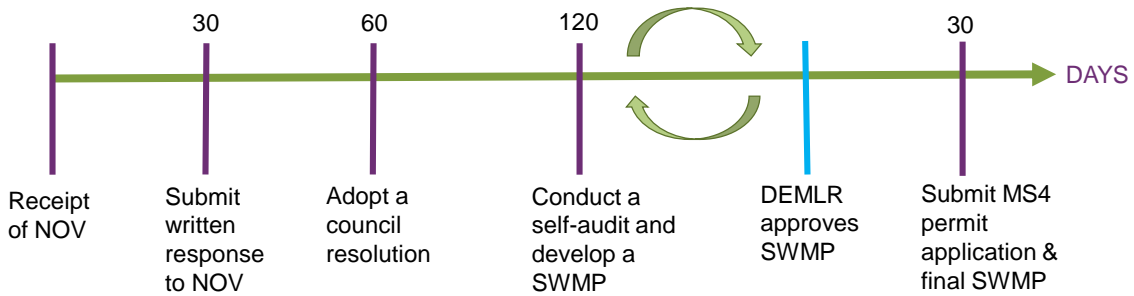
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What Does the NOV say?

Submittal Timeline for NOV Requirements:



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Example Council Resolution of Commitment to Implement a Compliant NPDES MS4 Program

Resolution No. ###
Date Adopted: ##

RESOLUTION AFFIRMING THE MS4NAME COUNCIL'S SUPPORT REGARDING IMPLEMENTATION OF A COMPLIANT NPDES MS4 STORMWATER PROGRAM

A RESOLUTION to develop and implement a compliant stormwater management program that meets the requirements of the MS4NAME National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit number NCS### to discharge stormwater, inclusive of the required Stormwater Management Plan to be prepared by the MS4NAME and approved by the North Carolina Department of Environmental Quality.

WHEREAS, Section 402(p) of the federal Clean Water Act requires NPDES permits for stormwater discharges from municipal separate storm sewer systems; and

WHEREAS, in North Carolina, NPDES Permits are issued by the North Carolina Department of Environmental Quality; and

WHEREAS, the North Carolina Department of Environmental Quality issued the MS4NAME its third NPDES MS4 Permit for discharge of stormwater on DATE; and

WHEREAS, the MS4NAME was issued Notice of Violation number NOV-### on DATE for noncompliance with the issued NPDES MS4 Permit; and

WHEREAS, the MS4NAME acknowledges the specific Notice of Violation requirement to obtain an individual NPDES MS4 Permit which does not include co-permittees; and

WHEREAS, the MS4NAME acknowledges the specific Notice of Violation requirement to adopt a Council Resolution to implement a compliant and enforceable stormwater management program as defined by both the NPDES MS4 Permit number NCS### and the required approved Stormwater Management Plan, and said resolution is to be submitted to the North Carolina Department of Environmental Quality no later than 60daysFromNOVdate; and

WHEREAS, the MS4NAME acknowledges the specific Notice of Violation requirement to develop and implement a Stormwater Management Plan in accordance with Section 402(p)(3)(B)(ii) of the Clean Water Act, 40 CFR 122.34(b) and NPDES MS4 Permit requirements and to submit its Stormwater Management Plan to the North Carolina Department of Environmental Quality for approval no later than 180daysFromNOVdate; and

WHEREAS, the MS4NAME acknowledges the requirement to provide adequate funding and staffing to implement a Stormwater Management Program that complies with its NPDES MS4 Permit and approved Stormwater Management Plan; and

WHEREAS, the MS4NAME acknowledges that North Carolina Department of Environmental Quality enforcement action and penalties could result from non-compliance with the specific requirements in Notice of Violation number NOV-### and

Example Council Resolution of Commitment to Implement a Compliant NPDES MS4 Program

WHEREAS, MS4NAME acknowledges that any North Carolina Department of Environmental Quality enforcement action and penalties may not prohibit the U.S. Environmental Protection Agency from taking its own enforcement action for non-compliance with the issued NPDES MS4 Permit.

NOW, THEREFORE, BE IT RESOLVED that the Council of the MS4NAME hereby affirms its support for development and implementation of a compliant NPDES MS4 Stormwater Program.

NAME Mayor NAME Town Manager
NAME Stormwater Program Administrator NAME Town Clerk

ADOPTED BY the City Council of the MS4NAME, North Carolina the ____ day of ____, 2019 and signed in authentication thereof the ____ day of ____, 2019.

Self-Audit Template

1. Type in **deq.nc.gov/sw** in your browser
2. Click on **NPDES MS4 Permitting** in the menu to the right
3. Click on **Audits** in the sub menu

The screenshot shows the website for the North Carolina Department of Environmental Quality. The URL in the browser is <https://deq.nc.gov/about/divisions/energy-mineral-and-land-resources/stormwater/stormwater-program/npdes-ms4-permitting>. The page has a green header with navigation links: Home, Permits & Rules, Outreach & Education, Energy & Climate, Conservation, News, and About. Below the header, there is a breadcrumb trail: Home > About > Divisions > Energy, Mineral and Land Resources > Stormwater > Stormwater Program > NPDES MS4 Permitting > +. The main content area is titled 'Audits' and features a sub-menu on the right with the following items: NPDES MS4 Permitting, Annual Self-Assessment, Audits (highlighted), Forms, Tools & Resources, and Permittees & Permit Requirements. The main text explains that the best way to prepare for an audit is to read the permit and associated documentation, and provides a link to the 'MS4 Permit Compliance Audit Report Template'. It also lists the items that should be included in a Stormwater Management Plan (SWMP):

- The current Stormwater Management Plan (SWMP).
- The most recent annual reports.
- MS4 Program organizational chart and associated program responsibilities.
- Current MS4 map including outfalls and receiving waters.
- Any formal MS4 implementation agreements with other entities.

The SWMP is described as a document that provides details on how to implement the MS4 Program requirements in their jurisdiction. A vertical banner on the right side of the page reads 'Donate to Hurricane Recovery'.

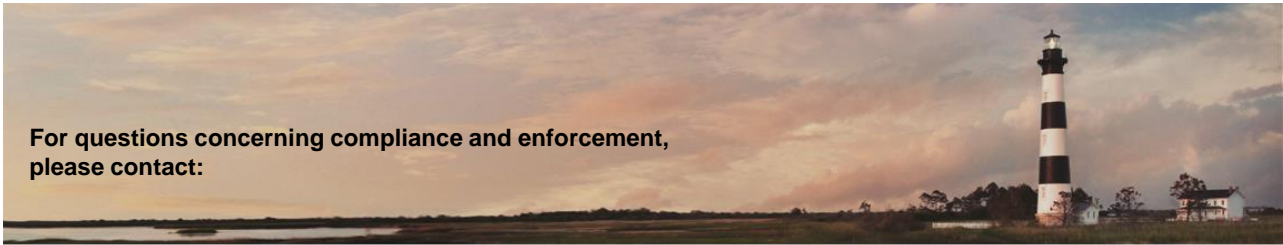
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Duty to Comply

Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action.

- ✦ All NPDES MS4 permits are subject to federal and/or state compliance and enforcement actions.
- ✦ Compliance with the requirements of a state-issued NOD or NOV, and/or issuance of civil penalties from DEMLR, does not preclude the EPA from carrying out its own enforcement case against the permittee.
- ✦ Under state law, a daily civil penalty of not more than \$25,000 per violation may be assessed against any person who fails to act in accordance with the requirements of a permit.
- ✦ Under federal law, a daily civil penalty of not more than \$37,500 per violation may be assessed against any person who violates a permit condition.

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For questions concerning compliance and enforcement,
please contact:

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