



Designating New MS4 Regulated Entities

March 2022





What is an MS4?

A Municipal Separate Storm Sewer System (MS4) is a conveyance or system of conveyances that is:

- **Owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.,**
- **Designed or used to collect or convey stormwater (e.g., storm drains, pipes, ditches),**
- **Not a combined sewer, and**
- **Not part of a sewage treatment plant, or publicly owned treatment works (POTW).**

MS4s are everywhere, but only regulated MS4s have to get a permit.



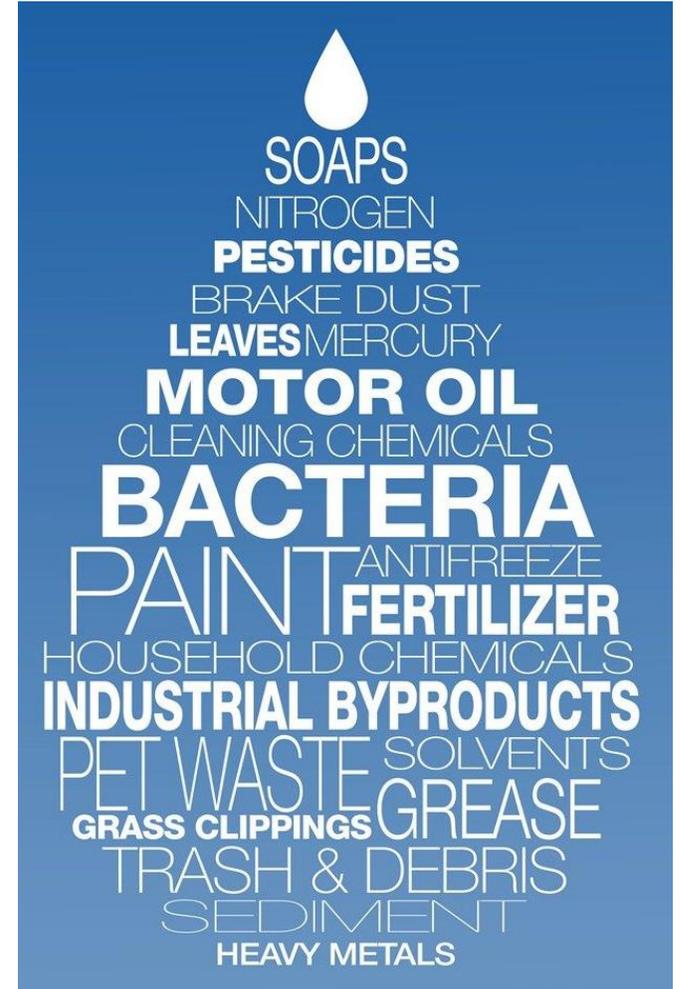
Why Are MS4s Regulated?

Polluted stormwater runoff is the #1 source of surface water pollution.

MS4 permits target urbanized areas where stormwater pollutants are the most concentrated.

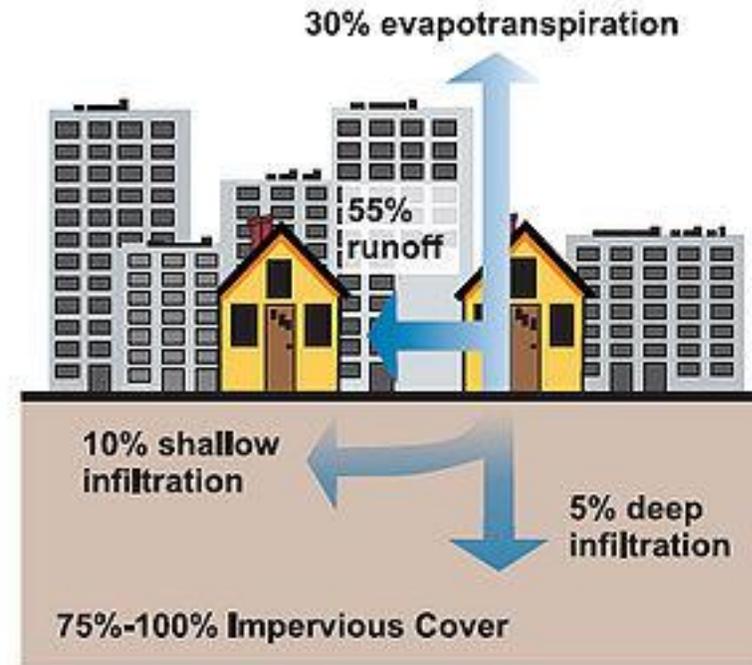
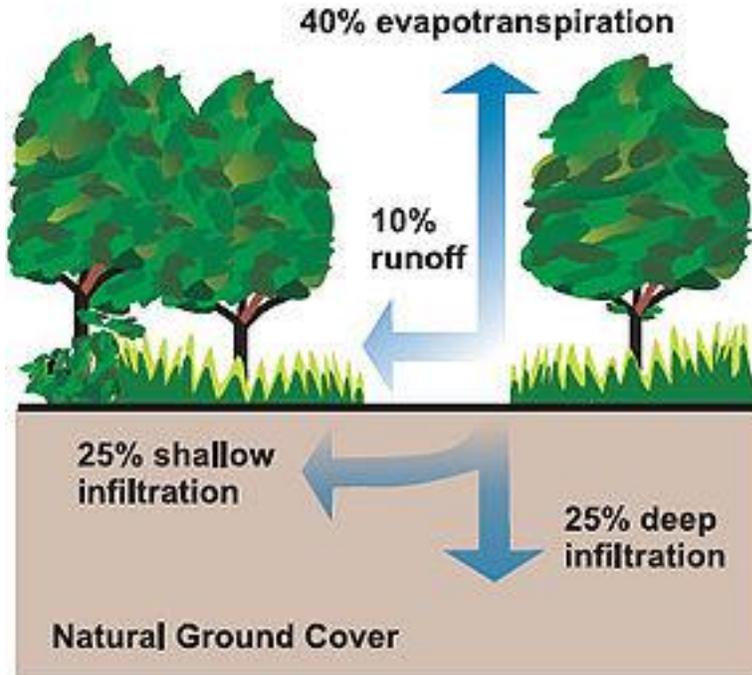
Regulated MS4s encompass:

- **Roughly 4% of the US land area**
- **Over 80% of the US population**



Why Are MS4s Regulated?

Natural
10% Runoff
Few Pollutants



Urbanized
55% Runoff
Many Pollutants

Runoff flushes pollutants on the ground into surface waters.
Urbanized areas have high concentrations of runoff and pollutants.

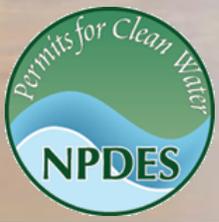


MS4 Permit Requirements 40 CFR 122

MS4 permits require implementation and documentation of a comprehensive stormwater management program that includes six Minimum Control Measures (MCMs):

- 1. Public Education and Outreach**
- 2. Public Participation & Involvement**
- 3. Illicit Discharge Detection & Elimination**
- 4. Construction Site Controls**
- 5. Post-Construction Site Controls**
- 6. Pollution Prevention & Good Housekeeping**

Other state stormwater programs “plug in” here (15A NCAC 02H .1017)



MS4 Program Expansion Every 10 Years



NPDES MS4 Permitting expands with each U.S. Census.

1990's: 6 Large Phase I MS4 permittees + NCDOT

2000's: 115 Phase II Small MS4 permittees added

2020: U.S. Census performed

2023ish: 2020 Census MS4 Designations





MS4 Regulated Entities

DEQ is the delegated MS4 Program implementation authority in NC

Two agencies can designate an MS4 as a regulated entity:

- **EPA [40 CFR 122]**
- **NC Department of Environmental Quality [15A NCAC 02H .0151]**



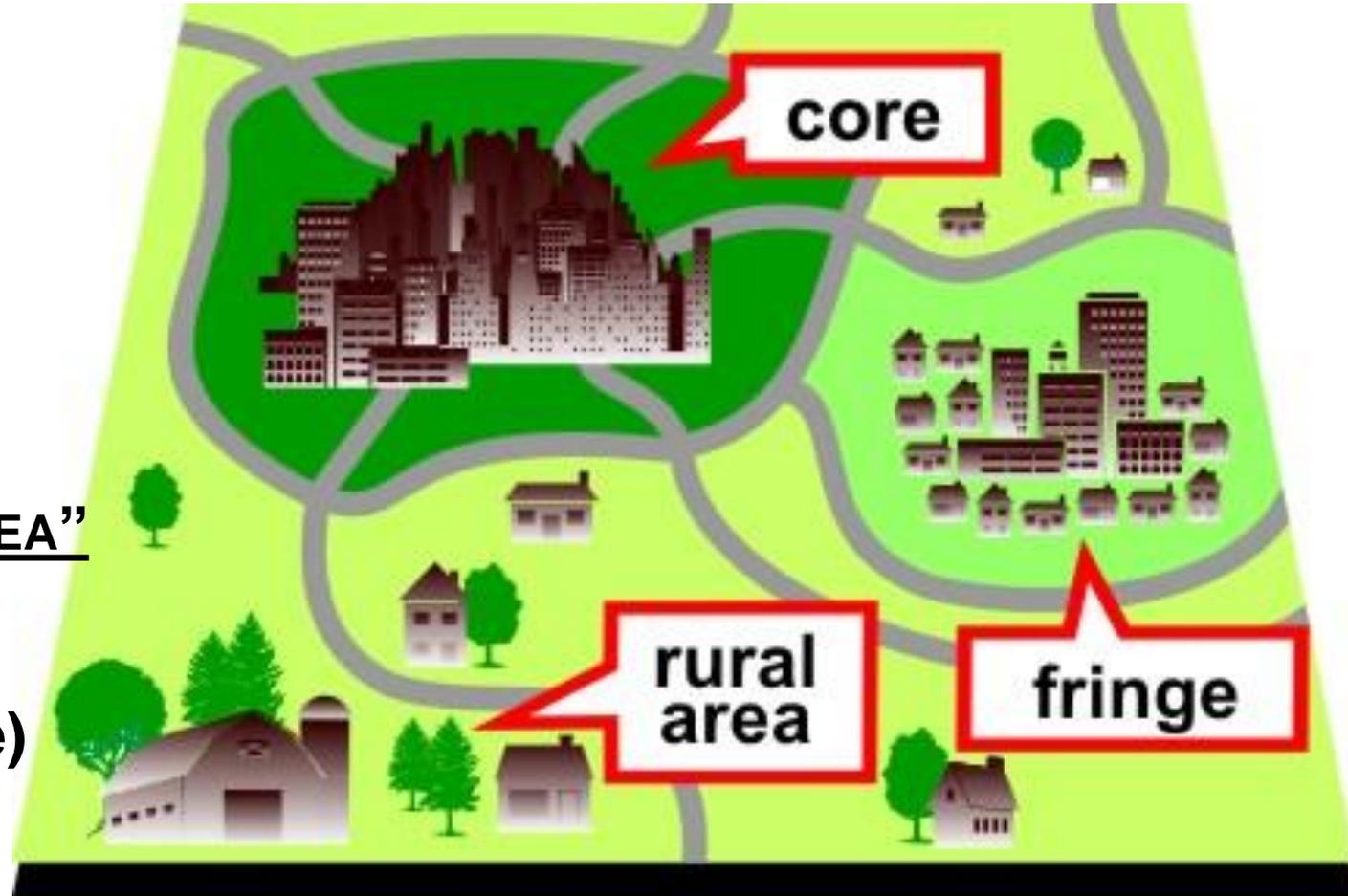


Federal Designation of Regulated Entities

A public entity that owns or operates an MS4 may be designated as a regulated entity pursuant to 40 CFR 122.32.

CENSUS DESIGNATED “URBANIZED AREA”

- Population $\geq 50,000$ (core)
- Cluster of 2,500 – 50,000 (fringe)





State Designation of Regulated Entities

15A NCAC 02H.0151

The state will identify a public entity as a candidate for designation as a regulated entity if the MS4 has:

1. Potential for adverse impact on water quality, or
2. Concentrated population, or
3. Petitioned to be regulated, or
4. Total Maximum Daily Load (TMDL) implementation plan specifically listing the MS4.





State Designation: Candidate MS4s



15A NCAC 02H.0151(a)(2)(B)(i)

1. Potential for “adverse impact” on water quality

"Adverse impact" means a detrimental effect upon water quality or best usages, including a violation of water quality standards, caused by or contributed to by a discharge or loading of a pollutant or pollutants.





State Designation: Candidate MS4s

15A NCAC 02H.0151(a)(2)(B)(ii)

2. Concentrated Population

- a) $\geq 10,000$ population and $> 1,000$ people/sq. mile density
- b) $\geq 4,000$ housing units and > 400 housing units/sq. mile



State Designation: Candidate MS4s

15A NCAC 02H.0151(b)

3. Petitioned to be regulated

Any person or permitted MS4 may submit a petition to request that an owner or operator of an MS4 or a person who discharges stormwater be required to obtain a NPDES permit for stormwater management.



State Designation: Candidate MS4s

15A NCAC 02H.0151(a)(3)

4. Total Maximum Daily Load (TMDL) implementation plan

An owner or operator of a small MS4 will be designated as a regulated entity if the MS4 is specifically listed by name as a source of pollutants for urban stormwater in a total maximum daily load (TMDL) implementation plan developed in accordance with subsections (d) and (e) of 33 U.S.C. 1313.



State Notification of Candidate Entities

15A NCAC 02H.0151(a)(2)(C)

The state will:

1. Notify each candidate public entity that it has been identified for potential designation as a regulated entity.
2. Publish the full list of candidate entities.
3. Provide a thirty (30) day public notice period for the public and candidate entities to submit comments / information.



State Designation of Regulated Entities



15A NCAC 02H.0151(a)(2)(D)

Following the candidate entities public notice period, the state will:

- 1. Apply specific state designation criteria.**
- 2. Evaluate public comments.**
- 3. Make a determination on designation for each candidate public entity.**
- 4. Provide written notice to each candidate entity of its designation determination.**





Specific State Designation Criteria

15A NCAC 02H.0151(a)(2)(D)

A candidate public entity is a regulated entity if it is determined that any of the following apply:

- 1. Actual population growth rate > 1.3 times previous 10-yr State rate.**
- 2. Projected population growth rate > 1.3 times projected 10-yr State rate.**
- 3. Population increased > 15% in the two years prior to publication of the candidate entities list.**
- 4. Stormwater discharges have adverse impacts on water quality.**
- 5. Discharges result in significant contribution of pollutants to receiving waters.**



Notice of Designation Determination

15A NCAC 02H.0151(a)(2)(E)

The state will provide written notice to each candidate entity of its designation determination as either a regulated entity, exempt from regulation* or waived from regulation*.

For MS4s designated as regulated entities, the notice will include:

- a) Basis for designation as a regulated entity, and**
- b) Deadline for MS4 permit application submittal (18 months from notice)**

**Exemptions and waivers are revocable if the conditions are no longer met.*





NPDES MS4 Program Exemptions

15A NCAC 02H.0151(c)

A municipality with a population of less than 1,000, including a municipality designated as an Urbanized Area under the most recent federal decennial census, is not required to obtain a NPDES permit for stormwater management unless the municipality is shown to be contributing to an impairment of State waters, as determined under the requirements of 33 U.S.C. 1313(d).





NPDES MS4 Program Waivers

15A NCAC 02H.0151(d) and 40 CFR 122.32(d) and (e)

The permitting authority may waive permit coverage if:

1. Urbanized Area <1,000 people

- **Not contributing pollutant loadings to a regulated MS4**
- **No Waste Load Allocation (WLA) under a TMDL**

2. Small MS4 <10,000 people

- **DEQ has evaluated all the MS4s receiving waters**
- **No WLA under a TMDL**
- **No potential for significant water quality impacts**





2020 Census Designation Schedule

- **2020 census designations will begin once DEQ receives the official federal census data and EPA designation list.**
- **DEQ currently expects that the list of public entity candidates for designation as a regulated MS4 entity may occur in 2023.**

Stay tuned to the MS4 web page for updates!

<https://deq.nc.gov/sw>





MS4 Tools & Resources

DEQ Stormwater Web Page:

www.deq.nc.gov/sw

MS4 Program Contact:

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