



# Leveraging Resources for Implementing NPDES Municipal Stormwater Permit Requirements

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## Overview

Provide specific examples and resources to help you meet MS4 permit requirements & enhance programs

Will cover:

- ✔ Municipal task accounting & accountability
- ✔ Borrowing & customizing materials
- ✔ Stormwater partnerships & associations
- ✔ Grants, low interest loans, cost share programs
- ✔ Free & inexpensive training
- ✔ Technology



## MS4 Permit Requirements

- Each permit iteration – more requirements
- EPA directive – clear, specific, measurable
- MA permit example: Defines the following four audiences for the required educational program:
  1. Residents
  2. Businesses, institutions, and commercial facilities
  3. Developers (construction), and
  4. Industrial facilities.

Requirement: Distribute 2 educational messages over the permit term to each of these audiences, spaced at least a year apart.



## Permit Compliance Workload

- Adequately implementing all permit requirements is a daunting task for any program
- Especially:
  - Limited staff – sometimes just one person with responsibilities for all things engineering / construction / utilities
  - Limited money available - many competing budget priorities (even more difficult if no stormwater utility fee)





## Recent Job Posting

### MS4 Stormwater Engineer

#### Job Information

**Category:** Engineer

**Job Status:** Full-Time

**Job Title:** MS4 Stormwater Engineer

**Job Location:** [REDACTED] (population 50,000)

**Job Description:** The City of [REDACTED] is seeking a MS4 Stormwater Engineer (4-20 years' experience desired) to perform professional and technical civil engineering work in the design, permitting, construction and maintenance of public works facilities. Come join our growing team of valued professionals. This will be a full time position. Develops MS4 Annual Reports and Stormwater Management Plans. Facilitates Green Infrastructure and Low Impact Design Principles. Works with GIS Department and Stormwater Inventories to perform analysis and satisfy permitting requirements. Prepares and Interprets NPDES and MS4 Permits. Interpretation of water quality testing data. Monitors, records, and implements municipal best management practices related to MS4 permitting. Supervises and inspects minor construction and maintenance work on roadways, storm drains, sidewalks, or other public works projects. Prepares designs for simple public works projects. Inspects construction materials to see that they conform to specifications. Respond to citizen's questions and complaints concerning stormwater and erosion requests. May be required to assist public works functions in a variety of technical and leadership capacities. Required to assist municipalities with plan review of private and public projects.



## Task Accounting & Accountability

- MS4 program implementation at the municipality level is a mixed bag made up of operations in different departments
- The bigger the municipality, the more divided the operations
- Difficult to know everything going on that relates to the MS4 permit

Leverage your staff resources:

1. Educate cross-departmentally (esp. management) that the permit is the entire municipality's responsibility.
2. Interview staff in different departments about specific tasks they perform.
3. For permit-related tasks, get them to collect & provide data you need.
4. Account for everything being done in annual & TMDL reports.
5. Capitalize on other staff's work to take on complimentary tasks
  - Ex. - Drainage maintenance staff – train to do outfall inspections
  - Ex. - HR new employee orientation – provide IDDE education



## Examples from Charlotte, NC

Tasks undertaken by other depts accounted for in our reports:

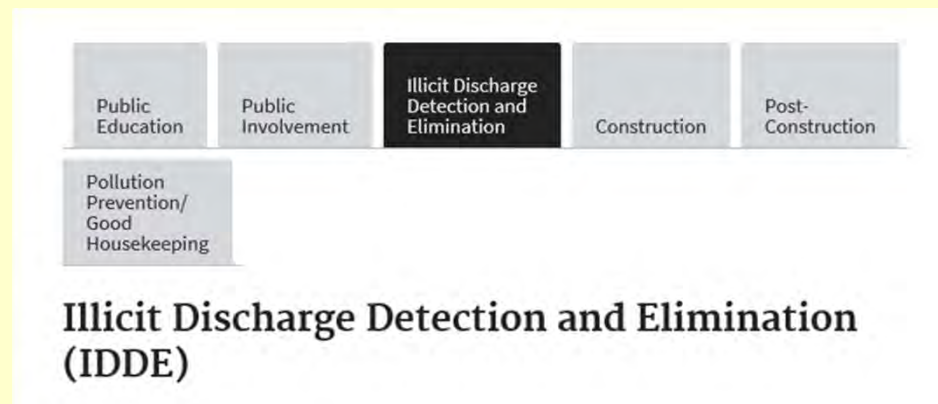
- Adopt a Street – litter pickup
- Solid Waste – garbage, recycling, yard waste, street sweeping, litter & illegal dump pickup in ROW, dead animal removal from ROW
- Pet waste stations in parks & other public areas
- Wastewater utility – SSO reduction efforts, sewer system maintenance & cleaning, commercial inspections & education about FOG, sewer utility ordinance inspections & enforcement
- Household haz waste recycling – county function but accepts waste from city residents
- Septic system failure & enforcement – Health dept function
- Tree planting – citywide effort managed by Landscape Mgmt
- Erosion control inspection & enforcement – Land Development Div.



## Borrow and customize materials

- Don't make things harder than they have to be
- Lots of resources available online. Example:  
<https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu>
- Contact other MS4 communities – most people happy to share their resources (join listservs)

**Examples:** Standard operating procedures; Public education resources; Inspection forms (facilities, outfalls, SCMs, erosion control, etc.); Ordinance enforcement response templates; Municipal & commercial pollution prevention BMP sheets; SWPPPs & SPCCs; Employee training presentations, videos, documents; Activity tracking forms; etc.

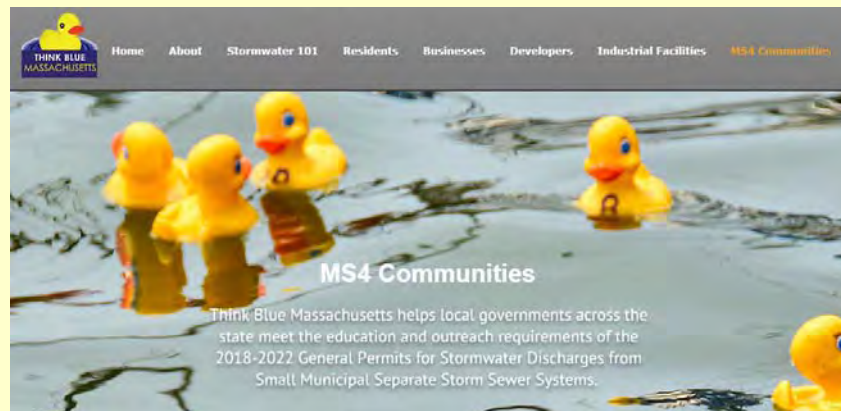






# Stormwater Partnerships & Associations

- Ever-growing list of stormwater partnerships & associations comprised of multiple municipalities (some are statewide)
- Pool resources to accomplish permit requirements, most frequently public education & outreach
- *“The Neponset Stormwater Partnership aims to reduce the cost and increase the effectiveness of municipal stormwater management programs through regional cooperation and resource sharing.”*
- Some of these groups are doing amazing work, so highly recommended to look into them.
- Example: Think Blue Massachusetts – statewide coalition of 10 regional stormwater groups representing 130 communities  
<https://www.thinkbluemassachusetts.org/ms4-communities>







## Grants, low interest loans & cost share

- Can be good sources to supplement your program efforts
- Fund all kinds of things including SCM projects, demo projects, watershed assessment & planning, education/training, etc.
- Many favor partnerships, underserved communities, 303(d)-listed surface waters, environmental justice, public educational value
- Can be time-consuming to apply for and implement
- There are so many! Look online; use searchable databases



## Grants, low interest loans & cost share

- EPA/Federal govt.
  1. Clean Water State Revolving Fund – federal & state funds pooled and distributed by all 50 states. Offer low-interest loans to public, private, or non-profit entities. Many different types of projects are eligible, including stormwater.
  2. EPA Section 319 grants – In 2017, \$168M provided through states & tribes to address nonpoint source pollution
- Other federal depts besides EPA – including Interior, Commerce, Agriculture, Health & Human Services
- Grants.gov – free, searchable federal grant database



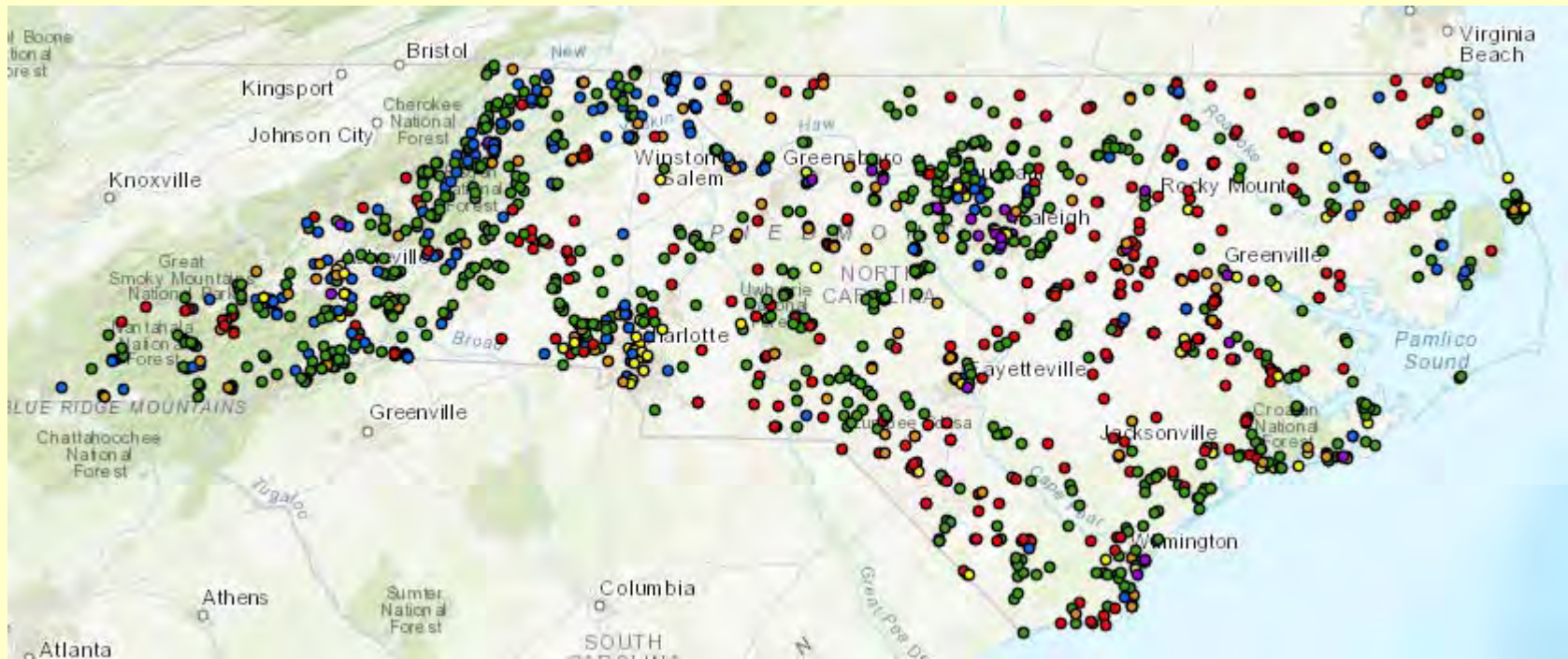
## Grants, low interest loans & cost share

- State govt. (NC examples)
  - NC Clean Water Management Trust Fund – grants to restore degraded streams and develop/improve stormwater treatment technology (among other purposes); 2018 alone funded \$21M toward projects
  - Water Resources Development Grant Program (cost share; \$1-3M annually)
- Non-governmental orgs (examples at various levels)
  - National: National Fish & Wildlife Foundation Five Star & Urban Waters Restoration Grants (>800 grants to date)
  - Many other examples at national, regional, state, & local levels





# Grants, low interest loans & cost share





## Free & inexpensive training

- Free webinars on StormwaterONE
- EPA free webcasts: <https://www.epa.gov/npdes/npdes-stormwater-webcasts> (construction, IDDE, post construction, municipal housekeeping, public education & involvement, etc.)
- Forester University (many, many topics mostly for \$79)
- IECA – extensive catalog of courses & certifications
- YouTube – lots of videos on various stormwater subjects
- State agencies in partnership with universities (e.g., NC DEQ partners with NC State to deliver lots of training)
- Many more available for free or reduced rates if your program is a member - Center for Watershed Protection, SESWA, APWA, etc.



## Technology can be your friend

- MS4 Permit Management software
  - A number of “off-the-shelf”, yet customizable programs
  - Develop SWMP; track permit activities (public outreach, training, all inspections, citizen reports, maintenance, IDDE, etc.); produce queries & reports; analyze data; track metrics
  - GIS integration allows mapping of info
  - Upload photos, videos & documents
  - Build forms to fit your needs
  - Set up schedules and alerts for inspections & maintenance
  - Mobile, cloud-based apps allow for field entries & easy access
  - **Simplify records management, save time, great during audits**
- Some technology is pricey and time-consuming to set up and maintain
- Use programs that can make things more efficient over the long term





## Questions

Thank you!

Any questions or comments?