



MS4 and Your Community: Finding and then reaching the People



March 6, 2024

Let's Review the **NEW** MS4 Permit

Municipal Separate Storm Sewer System Permit

- MS4 is a conveyance or system of conveyances
 - (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains)
 - defined in more detail at N.J.A.C. 7:14A-1.2.
- Watershed Improvement Plan required to be developed over the course of 5 years and 3 phases of work
- Public comment is required for some requirements and **highly beneficial for many**

Key Unchanged Requirements

- IV.B.1. Public Involvement, Participation, & Notice
 - Comply with applicable State and local public notice requirements
- IV.C.1. Local Public Education and Outreach
 - Implement a Public Education and Outreach Program
- V.F.1.a. Community Wide Ordinances (pre- existing)
 - Adopt and enforce ordinances for proper management of Pet Waste, Wildlife Feeding, Litter Control, Improper Disposal of Waste, Yard Waste, Private Storm Drain Inlet Retrofitting, and Illicit Connection

Category 1: General Public Outreach


| Category 1: General Public Outreach | | |
|-------------------------------------|---|--------|
| Activity | Description | Points |
| Social Media | Post relevant stormwater materials on a municipal social media site, such as a Facebook, Instagram, or Twitter page. This information may include links to other stormwater related resources, including the municipality's stormwater webpage and the NJDEP stormwater website (www.njstormwater.org). *One point awarded for each media outlet used. A maximum of 3 points is allowed. | 3* |
| Newspaper Ad | Use one of the stormwater education materials available on the NJDEP website in a newspaper or newsletter that is distributed to the public. *One point awarded for each media outlet used. A maximum of 2 points is allowed. | 1* |
| Radio/Television | Broadcast a stormwater public service announcement on a local radio or television station. *One point awarded for each media outlet used. A maximum of 2 points is allowed. | 2* |
| Green Infrastructure Signage | Post signs at municipally owned green infrastructure sites that describe the function and importance of the infrastructure, contact phone number, municipal identification number, and/or website for more information. *New signs receive 0.5 points and upgraded receive 0.25 points per sign. A maximum of 5 points is allowed. | 5* |
| Billboard/Sign | Post and maintain (for a minimum of 1 year) a billboard or sign which contains stormwater information in a field (outfield) location. *New signs receive 0.5 points and upgraded receive 0.25 points per sign. A maximum of 5 points is allowed. | 2 |
| Mural | Produce and maintain (for a minimum of 1 year) a mural of a stormwater pollution prevention or best management practice in a local downtown/central business district. *New murals receive 0.5 points and upgraded receive 0.25 points per mural. A maximum of 5 points is allowed. | 2 |
| Stormwater Facility Signage | Post signs at municipal stormwater structural stormwater related facilities that describe the function and importance of the facility, contact phone number, municipal identification number, and/or website for more information. *New signs receive 0.5 points and upgraded receive 0.25 points per sign. A maximum of 5 points is allowed. | 5* |



Category 2: Targeted Audience Outreach

| Activity | |
|---|---|
| Stormwater Display | Present a s Earth Da |
| Promotional Item | Distrib refrigerat bag disp initially ha |
| Private Stormwater Facilities Education | Provide in or opera importance see inform |
| Mailing or e-Mailing Campaign | Distrib municipal recyclin |
| Ordinance Education | Distribut resident a environm Improper Private Storage o |

**IF YOU WASH
YOUR CAR IN THE DRIVEWAY,
YOU MIGHT AS WELL WASH IT
IN THE LAKE.**



Rain washes pollutants into storm drains which flows directly into our streams, lakes, rivers and the ocean. So what can you do?

CLEAN WATER
It's Up to You New Jersey
www.cleanwaterNJ.org

WHAT'S THE PROBLEM WITH WASHING YOUR CAR?

Washing your car on a paved surface can allow the soapy wash water and other pollutants, like oil and grease, to run off into a storm drain. Most soap contains phosphates and other chemicals that, in large amounts, can contaminate your drinking water, as well as kill fish, wildlife and plants. The soap, together with the dirt and oil washed from your car, flows into nearby storm drains, which flows directly into lakes, rivers and the ocean. The phosphates from the soap can cause excess algae to grow, which can be harmful to the water quality.

YOU CAN HELP!

- Take your car to a car washing facility, rather than washing it yourself. Commercial car washes treat and recycle the water.
- If you can't get to a car washing facility, wash your car on an unpaved surface and use biodegradable soap.
- Organize a Car Wash Fundraiser for a local organization. Visit www.cleanwaterNJ.org to learn how.

WHY SHOULD YOU CARE ABOUT CLEAN WATER?

Stormwater pollution is one of the greatest threats to New Jersey's clean water supply. Clean water provides access to safe drinking water, places for recreation, commercial opportunities, healthy wildlife habitats, and adds beauty to our landscape. Rain washes pollution from streets, parking lots, and lawns into storm drains, then directly to our streams, rivers, lakes and oceans.

Did you know more than 60 percent of water pollution comes from things like motor oil, fertilizers, pet waste, and detergents? By sharing the responsibility and making small, easy changes in our daily lives, we can keep common pollutants out of stormwater.



Category 3 Schools/Youth Education and Activities



| Category 3: Schools/Youth Education and Activities | | | Points |
|--|---|--|--------|
| Provide water-related education for preschool, elementary school, or local partner organizations | | | 5* |
| nonpoint source pollution prevention project. For ideas, see information at www.nj.gov/dep/seeds . | | | |
| *Presentations receive 1 point per presentation, with a maximum of 5 points allowed. | | | |
| Water Education Workshops | Provide water-related professional development workshops for local teachers from a registered NJ Department of Education Professional Development Provider | | 2 |
| Storm Drain Labeling | Organize a project to label and/or maintain storm drain labels (that are not already precast with a message) with a scout troop, local school district, or faith-based group, or other community youth group for a minimum of 40 labels. This project could also include stenciling over precast labels to improve legibility. | | 3 |
| Educational Contest for Schools | Organize an educational contest with a local school district or a local community organization serving youth to design a poster, magnet, rain stick, rain barrel or other craft/art object. Contest themes shall have an appropriate stormwater message. Winning entries are to be displayed at publicly accessible locations within the municipality such as at the town hall, library, post office, or school. The winning design should be shown on the municipality's website or social media site, if practical. | | 3 |
| AmeriCorps Event | Coordinate an event (e.g., volunteer stream monitoring, educational presentations, or stormwater awareness project) through AmeriCorps NJ Watershed Ambassador Program | | 4 |
| Clean-up | Sponsor or organize a litter clean up for a scout troop, local school district, faith-based group or other community youth group along a local waterway, public park, stormwater facility, or in an area with storm drains that discharge to a local lake or waterway. | | 3 |

Clean Communities Funds can be used here!



Collaboration

| Category 4: Watershed/Regional Collaboration | | |
|--|--|--------|
| Activity | Description | Points |
| Regional Stormwater Collaboration | Participate in a regional stormwater, community collaborative or other watershed-based group on a regular basis to discuss impaired waterbodies, TMDLs, regional stormwater related issues, or watershed restoration plans that address those waterbodies. Evaluate, develop, and implement remedies that resolve stormwater-related issues within the affected waterbody or watershed. | 3 |
| Green Infrastructure Workshop | Organize or participate in a rain barrel, rain garden or other green infrastructure workshop on a regional or watershed basis. This could be a partnership exercise with a local watershed organization, utility, university, school, youth/faith-based group, and/or other organization. | 3 |
| Community Activity | Organize or participate in the organization of a regional or watershed-based event to carry out stormwater activities such as stormwater facility maintenance or litter clean-up. The municipality may identify and enter into a partnership agreement with a local group such as a watershed organization, utility, university, school, youth/faith-based group, and/or other organization to carry out these activities. | 3 |



Shout out to Franklin Township for GREAT use of Adopt-A-Drain Program and Digital Resources

Adopt-A-Drain Program

Help protect local waterways

ADOPT
A STORM
DRAIN



Protect local
waterways

<https://nj.adopt-a-drain.org/>

Sign up!

The Franklin Township Environmental Commission is excited to bring the Adopt-A-Drain Program to our community! Adopting a storm drain is quick, easy, protects our waterways from pollution, and helps prevent flooding. Adopters only need to clean the top of the storm drain with a broom or rake before and after a major storm, and on a flexible schedule for routine maintenance. Reporting takes less than 5 minutes and provides Franklin with important data about how much trash and debris has been saved.

Category 5: Community Involvement Activities



| Category 5: Community Involvement Activities | | |
|---|--|--------|
| Activity | Description | Points |
| Volunteer Stormwater Assessment or Stream Monitoring | Establish a volunteer stormwater facility assessment (inspection, inventory and/or mapping) or stream monitoring program for a waterbody within the municipality to gauge the health of the waterway through chemical, biological or visual monitoring protocols. Contact NJDEP's AmeriCorps NJ Watershed Ambassador Program or review USEPA National Directory of Volunteer Monitoring Programs. | 3 |
| Rain Barrel Workshop | Organize or participate in a rain barrel workshop. This could be a partnership exercise with a local watershed organization, university, school, youth/faith-based group, and/or another nonprofit. | 3 |
| Rain Garden Workshop | Organize or participate in a rain garden training or installation workshop. This could be a partnership exercise with a local watershed organization, university, school, youth/faith-based group, and/or another nonprofit. | 3 |
| Community Event | Organize or participate in the organization of a community event to carry out stormwater activities such as stormwater measure maintenance or a stream buffer restoration. The municipality may identify and enter into a partnership agreement with a local group such as a watershed organization, university, utility, school, youth/faith-based group, and/or other nonprofit to carry out these activities. | 3 |
| Community Involvement | Organize a project with a local organization to create and post signs at either green and/or gray stormwater infrastructure sites or facilities that describe the function and importance of the facility, contact phone number, municipal identification number, and/or website for more information. | 5* |

*Signs receive 0.5 points per sign. A maximum of 5 points is allowed.

Key NEW Requirements

- IV.F.1.b. Community Wide Ordinances (new)
 - Adopt and enforce ordinances for proper management of Salt Storage Ordinance and Tree Ordinance
- IV.H.1.d. Watershed Improvement Plan - Phase 1
 - Prepare the **Watershed Inventory Report** and submit it to the Department; conduct semi-annual public information sessions
- IV.H.1.e-f. Watershed Improvement Plan - Phase 2
 - Prepare the **Watershed Assessment Report** and submit it to the Department; conduct public information sessions
- IV.H.1.g. Watershed Improvement Plan - Phase 3
 - Prepare the **Watershed Improvement Plan Report** and submit it to the Department; conduct public information sessions; implement plan and review it every 2 years

Modified Requirements

- a. The **permittee shall develop and maintain a dedicated stormwater webpage on its municipal website** This webpage shall at a minimum, make elements of the permittee's MS4 stormwater program available to the public by providing links to the latest version of each of the following: (See MS4 Permit)
- b. The permittee shall develop a dedicated stormwater webpage on its municipal website that **contains links to the minimum elements in a. above on or before EDPA + 3 months for existing permittees, and EDPA + 12 months for new permittees**, unless a later date is specified above

What Got You Here....



Won't Get You There...

Tip #1 Go to where the people are!

- Get out in the community, don't expect them to come to you
- Tag onto other community events
- Utilize existing groups in your town
 - Religious Organizations
 - Neighborhood or Home-Owner Associations
 - Outdoor Recreation Groups

Ariel gets it!



I wanna be where the people are.

Connect MS4 back to the Curriculum

Elementary School

- K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
- 2-ESS2-1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.
- 3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.
- 4-ESS2-1. Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.
- 5-ESS2-1. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.

Middle School

- MS-ESS3-3. Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.
- MS-ESS3-4. Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.



High School

- HS-ESS3-4. Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.
- HS-LS4-6. Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.
- HS-ESS2-2. Analyze geoscience data to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth systems.

Tip #2 When people don't know, they guess (wrongly)

"The Stony Brook is beautiful and healthy with a nice green lawn right up to the banks. There is no reason to put in trees and shrubs"

"If you want to prevent flooding, you need to install bigger pipes"

"There's a deer in my yard - you need to come get it"

Resident: We bought this house and the yard was very wet so we cut down all the trees.

GI Professional: How is that working out for you?

"30 years and I use from the time."

"Our town is not part of the problem. We don't have flooding."

"I don't want a rain in my yard- it will breed quitos and ticks"

"I'm a watershed, I'm not even close to Hopewell!"

"it can't be a wetland."

"I remember my childhood - swimming out on the street after a big rainstorm, ah the good times."

GI Professional: "You are going to flood your neighbor."

Homeowner: "Just as long as I get the water away from my house."

Tip #2 When people don't know, they guess (wrongly)

- “Guessing Machine” is a popular appliance today
- Correct misconceptions without reiterating it
 - Repeating myths makes them seem more credible
- Make your topic “sticky”
 - Keep info vivid and easy to understand or picture
 - Concrete language
 - Repetition
 - Connect back to personal experience

Repetition is especially key with older adults who are likely to forget the debunking explanation for a myth BUT remember they heard something about the myth and assume its true
Weaver et al 2007

Tip #3 LISTEN

- Listening is *not* your quiet time before your turn to speak
- Be prepared to hear
 - “Passionate” feelings about flooding
 - Comments that fall outside the scope of your work
- Listening should take several forms to fit your community
 - Formal Listening Session
 - Physical and Digital Surveys
 - Geospatial tools to map issues



River-friendly Program
addresses multiple
community involvement
activities



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Goals of the River- Friendly Program:

Inspire individual actions and habit changes

- Education, outreach, and awareness
- Encourage and incentivize change through recognition and promotion
- Recognize leaders in our communities who are setting great examples

River-Friendly Programs: Reduce pollution

- Conserve water
- Restore and improve habitat
- Educate others

Get Involved!



And would you look at that, water monitoring gets you 3 points according to Category 5 Community Involvement!

StreamWatch Program

- Chemical Data Collection
- Biological Data Collection
- Bacterial Data Collection



Watershed Introduces StreamWatch Schools Teacher Training Program and New Program Coordinator

Scan Here to Learn more!



Chemical Action Team



2-3 hours monthly year-round
Driving required
Measure water chemistry at 2-3 assigned sites with a handheld meter and deliver water samples to the Watershed lab for additional analysis.

Biological Action



4-6 hours monthly
Volunteer
Conduct and coordinate assigned fellow...

NJ Salt Watch Project



4-6 15-min site visits between Dec-April
Pick your own monitoring locations!
Pick your own freshwater stream or lake to monitor and visit 4-6 times during the winter to measure chloride using a Hach test strip.

Bacterial Action



1-2 hours monthly
required
Conduct harmful water samples for bac...

River Friendly Resident



Take the survey online at njriverfriendly.org
Protect and conserve water, create wildlife habitats in your backyard, and become an advocate for clean water. Complete the survey to get started!

And More...



- Check regional water
- Add Res
- Bec

Volunteer With Us



sign up!
thewatershed.org

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The Watershed
Institute is
working to
bring regional
communities
together

| Category 4: Watershed/Regional Collaboration | | |
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Assunpink Watershed Roundtable



Resources From the Watershed Institute

- Webinars and Workshops
- Stormwater and Green Infrastructure

Watershed Wednesdays Series

Understanding the Stormwater Basin Near You

Time: September 21, 6 – 7:15 p.m. EST

Free | Virtual/Zoom

Do you live near a stormwater basin? These systems, which are built to capture stormwater runoff, are found near homes, schools, businesses, and other places across New Jersey. When stormwater basins are neglected, they may cause flooding, degraded water quality, and more. Join experts from The Watershed Institute and Princeton Hydro to learn more about the purpose, management, and function of stormwater basins. Community members can do to bring awareness to stormwater basins and create a better habitat.

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The last date for registration has passed.

Plant Power: Preventing and Fixing Stormwater Problems with Plants

Date: April 27th, 2022

Time: 7 – 8:15 p.m.

Free event!

Join staff from The Watershed Institute as they use local Lawrenceville examples to discuss issues associated with stormwater runoff and flooding. Then learn how, when used correctly,

This year, we are launching our Watershed Wednesdays series of webinars on a wide variety of topics. We will explore the environmental laws that arose after the passage of the Clean Water Act, which celebrates its 50th anniversary this year. We will also learn about Urban Farms started in some communities to counteract the dearth of healthy food options available in some cities. Other webinars will delve into water contaminants, soil health, ecological landscaping, composting, and more.

Watershed Wednesdays Series

Ecological Landscaping Business Owners Panel

Time: November 16, 6 – 7:15 p.m. EST

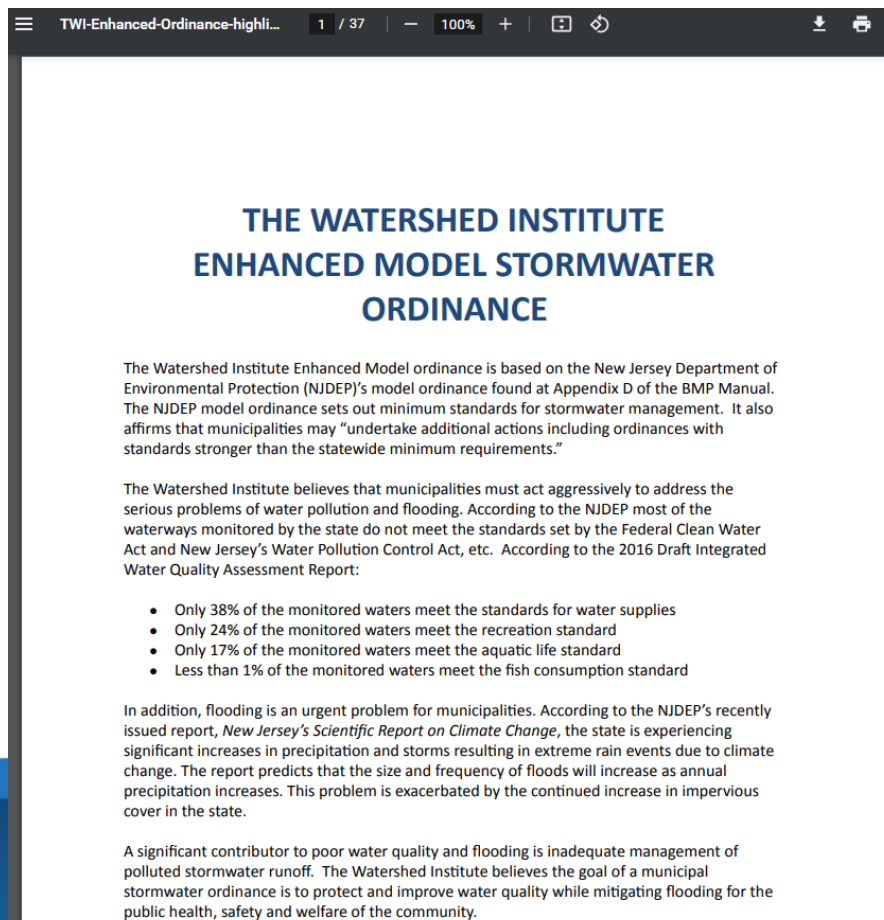
Free | Virtual/Zoom

Conventional landscaping practices require the addition of harmful fertilizers that pollute our lands and frequently mow lawns, which results in erosion and sedimentation. As more intense and frequent storms become the norm, flooding and damage to property and people. So, what can you do to manage your yard in a way that protects our water resources? Join four local business owners to discuss the benefits of ecological landscaping instead of conventional practices. All four individuals all completed our Watershed Institute Green Infrastructure (WIGI) training and certification exam. They will share with you how their approach results in cleaner water, reduced flooding. Additionally, the panel will talk about lessons learned and tips for managing your yard and stormwater management.



Resources From The Watershed Institute

- Model Enhanced Stormwater Ordinance



- ▶ Model Enhanced Tree protection Ordinance (in development)
- ▶ Model Enhanced Stream Corridor Ordinance (in development)

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Thank you!

Come visit us at
31 Titus Mill Road, Pennington NJ

Learn more at thewatershed.org

Stay in touch: 609-737 3735 Ext 49 | kmckoy@thewatershed.org



theH2Oshed



theh2oshed



TheWatershedInstitute

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Weaver, K., Garcia, S. M., Schwarz, N., & Miller, D. T. (2007). Inferring the popularity of an opinion from its familiarity: A repetitive voice can sound like a chorus. *Journal of Personality and Social Psychology*, 92(5), 821–833. <https://doi.org/10.1037/0022-3514.92.5.821>