



MS4 Workshop

ANJEC's 50th Environmental Congress
October 13, 2023



Agenda

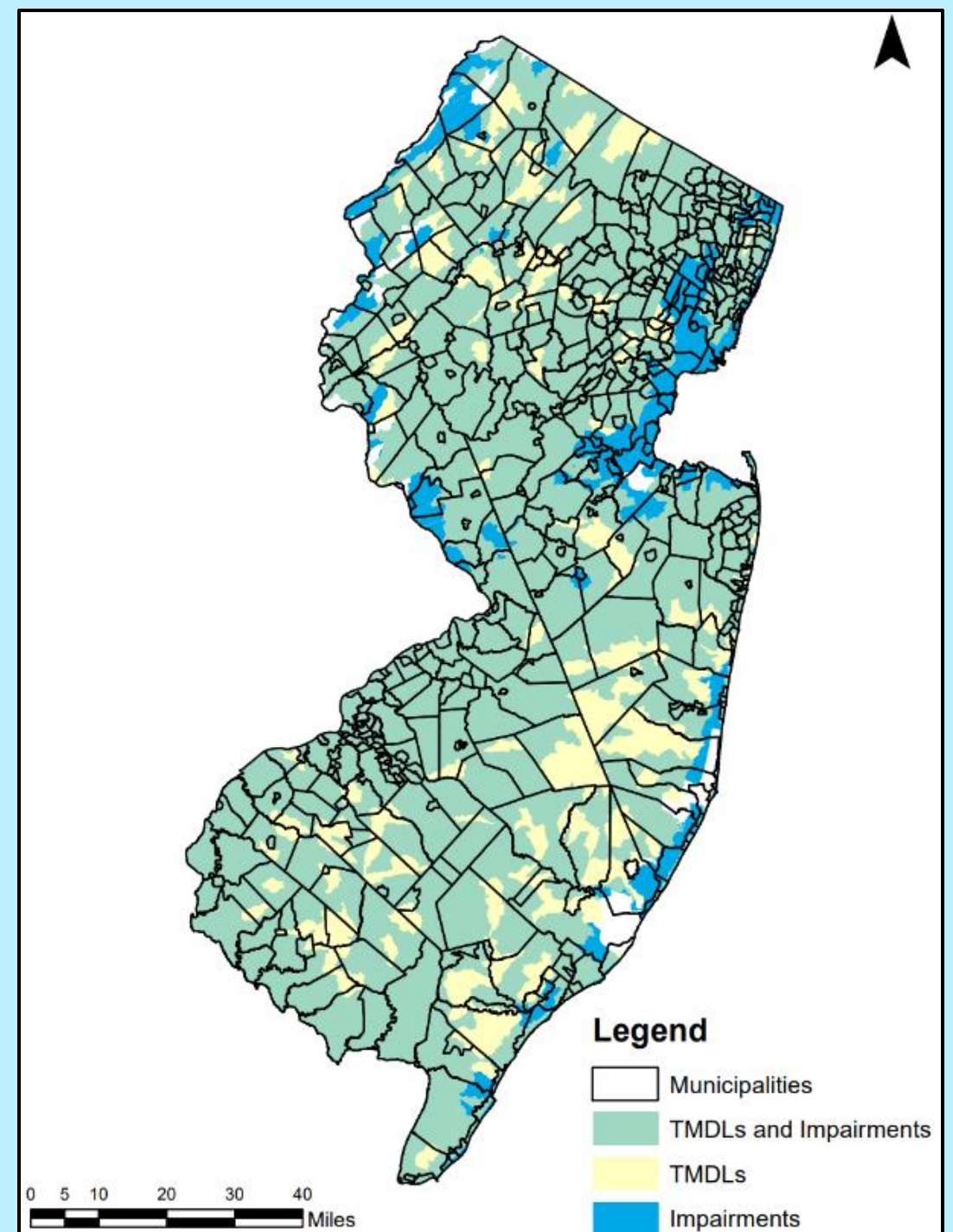
- Tier Reassignment
- Stormwater Program Coordinator Responsibilities and Resources
- Permit Conditions
- Stormwater Assistance Grant
- Q & A

Tier Reassignment Rationale

- EPA requires all states to periodically re-evaluate their MS4 permitting assignments and directed NJDEP to conduct an evaluation of all municipalities
- NJ had not conducted this reevaluation since the MS4 program was implemented in 2004
- Purpose was to address water quality concerns in impaired water bodies or those with Total Maximum Daily Loads
- All Tier Bs towns in NJ had receiving waters within or bordering their towns with water quality impairments and/or TMDLs

TMDLs & Water Quality Impairments

A portion of every town has at least 1 TMDL or 1 impairment



SPC Responsibilities

- Primary Point of Contact
- MS4 Permit Compliance
- Stormwater Pollution Prevention Plan
- Submissions
- Webpage Posts
- Public Notice & Outreach
- Training Coordination
- Annual Report
- Recordkeeping



Permit Conditions

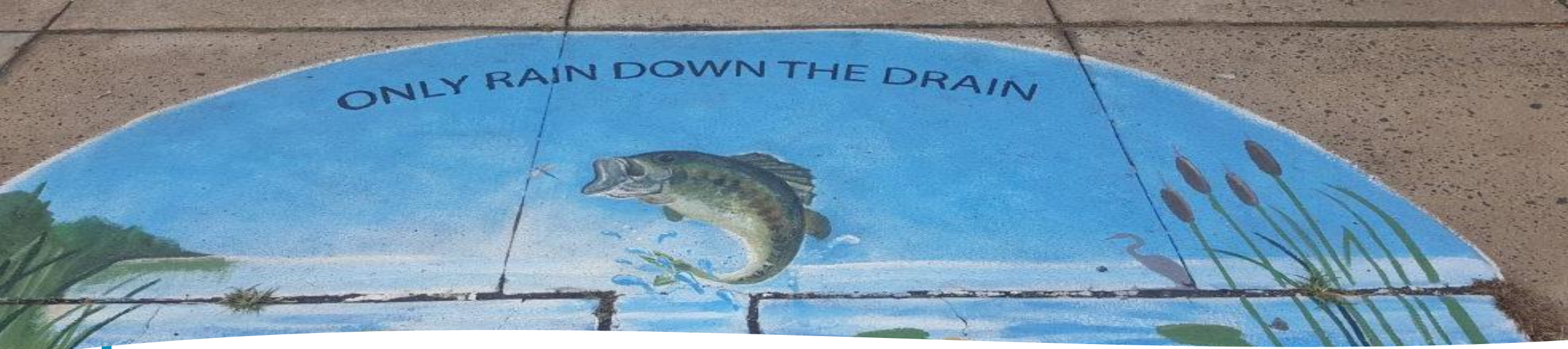




Public Involvement and Participation Including Public Notice

Permit section IV.B.1.

- ❖ Comply with State and local public notice requirements
 - ❖ Sunshine Law
 - ❖ Ordinance adoptions and changes
 - ❖ MSWMP readoption and amendments



Local Public Education & Outreach

Permit section IV.C.

- ❖ Choose from at least 3 categories below to earn at least 12 points each year:
 1. General Public: social media, newspaper, radio, TV, sign, billboard
 2. Targeted Audience: mail/email education materials, SW display, promotional item
 3. School/Youth: presentation, contest, SW workshop, AmeriCorps event, clean-up
 4. Watershed/Regional Collaboration: regional SW project, GI workshop, regional event
 5. Community: SWF assessment, rain barrel workshop, rain garden workshop

- ❖ One activity must educate businesses and the general public on the hazards of illicit connections and improper disposal of waste

Construction Site Stormwater Runoff

Permit section IV.D.

- Obtain a Construction Activity NJPDES Stormwater General Permit (5G3) or Individual Permit for construction site stormwater runoff activities
<https://nj.gov/dep/dwq/5g3.htm>
- 5G3 Master permit was just renewed, effective March 1, 2022



Post Construction Stormwater Management in New Development and Redevelopment

Permit section IV.E.

Comply with the SWM rules at N.J.A.C. 7:8 when reviewing & approving designs for major development projects

- Know how your town defines major development
- Designer and reviewer may not be the same person
- Review engineers attends Stormwater Management Design Review (SWMDR) every 5 years plus rule amendment training as needed
- Construct projects per approved development plans and in accordance with N.J.A.C. 7:8 and the BMP manual.

Post Construction Stormwater Management in New Development and Redevelopment

Permit section IV.E.

- **Municipal Stormwater Management Plan (MSWMP): Re-examine with Municipal Master Plan at least every 10 years**
 - Submit to the County Planning Board for approval upon each adoption or amendment, including re-examinations with or without changes
 - Submit approved MSWMP to NJDEP via NJDEP Online
- **Stormwater Control Ordinance (SCO):**
 - Submit to the County Planning Board for approval upon each adoption or amendment
 - Submit approved SCO to NJDEP via NJDEP Online
 - Follow Pinelands Commission model SCO in Pinelands-designated areas
- **Mitigation Plans: Optional to include in MSWMP and SCO to grant variances**
 - Submit approved variances to the County Planning Board and NJDEP within 30 days of each approval via NJDEP Online

Storm Drain Inlets

Permit section IV.F.2.a.iii–v.

Labeling & Structure



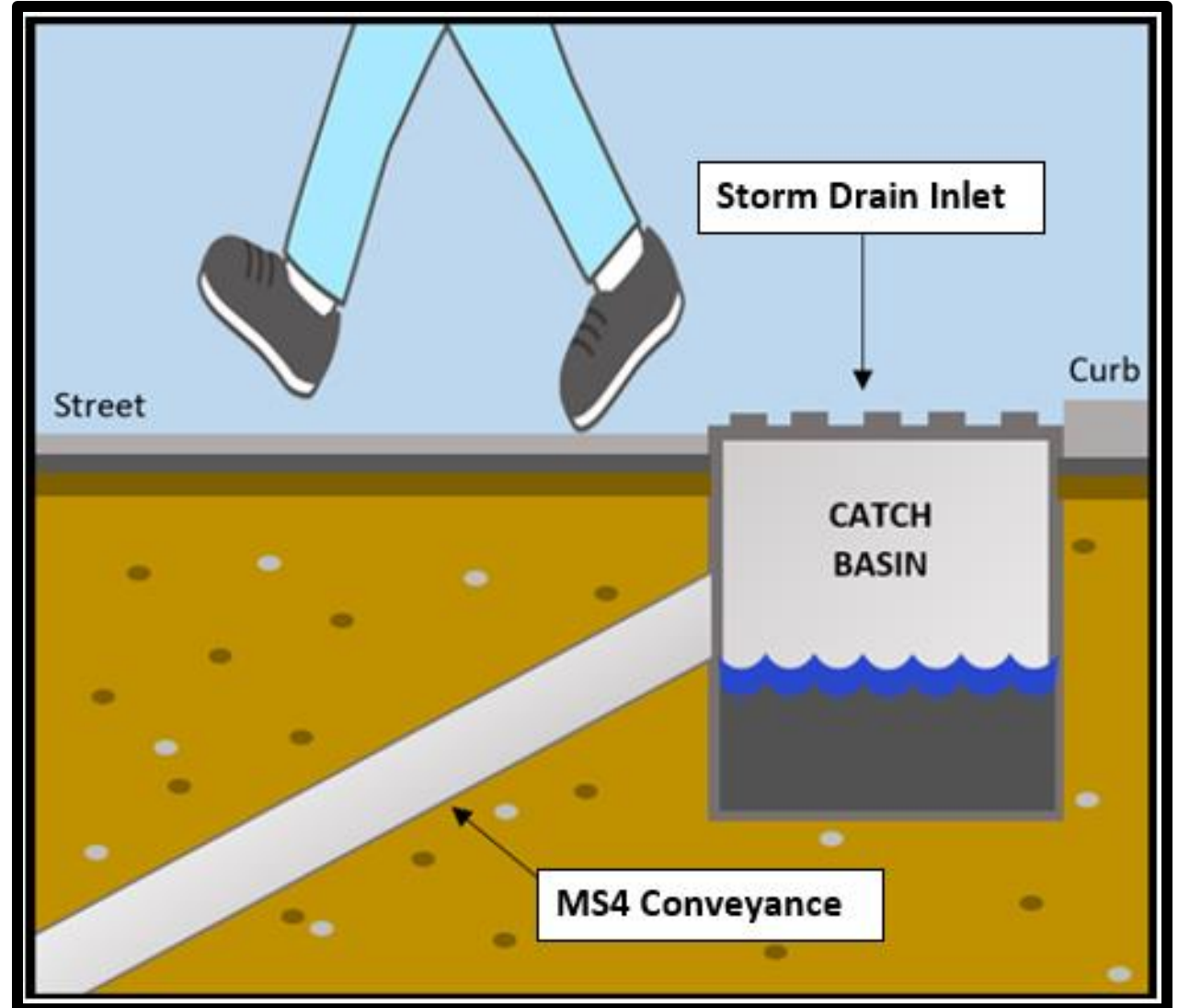
- Apply button labels or paint message onto inlets that do not have permanent wording cast into the structure
- Retrofit ALL inlets to keep solids and floatables out of the MS4
 - Both the grate and the curb opening must comply with the standards in Attachment B
 - All storm drain inlets do NOT need to be replaced, only modified or retrofitted. Retrofitting examples:
 - Replace both grate and curb opening to comply with Attachment B
 - If only grate complies with Attachment B, apply a bolt on plate to curb opening
 - If only curb opening complies with Attachment B, modify the grate to comply with Attachment B
- New inlets must have a catch basin or other BMP for solids collection (bridges and culverts are exempt)

Storm Drain Inlets & Catch Basins

Inspection, Cleaning, and Maintenance

Permit section IV.F.3.a.i–iv.

- Storm Drain Inlets
 - Inspect ALL every year
 - Define cleaning and maintenance conditions to ensure proper operation
- Catch Basins
 - Inspect 20% of the total every year on rotation
 - Define cleaning and maintenance conditions to ensure proper operation





MS₄ Conveyance Inspection & Cleaning

Permit section IV.F.3.a.v.

- Identify all stormwater conveyance features, e.g., ditches and pipes
- Define inspection frequency, and cleaning and maintenance conditions

Outfall Inspections

Permit section IV.G.2-3.

- Conduct dry weather inspections of all MS4 outfalls (open or piped) at least once every 5 years
 - 20% every year on rotation
 - Stream scouring
 - Illicit discharges
- Inspect new or newly identified outfalls within 30 days
- Outfall Inspection Form



Other Stormwater Infrastructure Inspections

Permit section IV.F.3.a.vi –x.

- For MS4 infrastructure not covered by another permit condition, e.g., SWM basins and MTDs
- Inspect, clean, and maintain
 - Follow approved maintenance plans
 - If no plan exists, create one to follow NJDEP guidance
 - If no plan or Department guidance exists, inspect at least 4x/year and after 1" rain

Private Stormwater Facilities

Permit section IV.F.4.

- Ensure adequate long-term cleaning, operation, and maintenance of stormwater facilities not owned or operated by the municipality
- Private owners must have inspections done at least annually and follow maintenance plans
 - Some towns use certification forms or license/fee programs
- Maintenance includes removal of materials that could impede proper function and cause flooding
 - Examples: trash, leaves, branches, excess growth



Additional & Optional Measures

Permit section IV.I.

- ❖ Additional Measures – The Department may assign additional steps the permittee must take to address TMDLs, regional stormwater management plans, or Water Quality Management Plans
- ❖ Optional Measures – Municipalities may adopt and enforce other measures beyond the scope of the MS4 permit



Recordkeeping

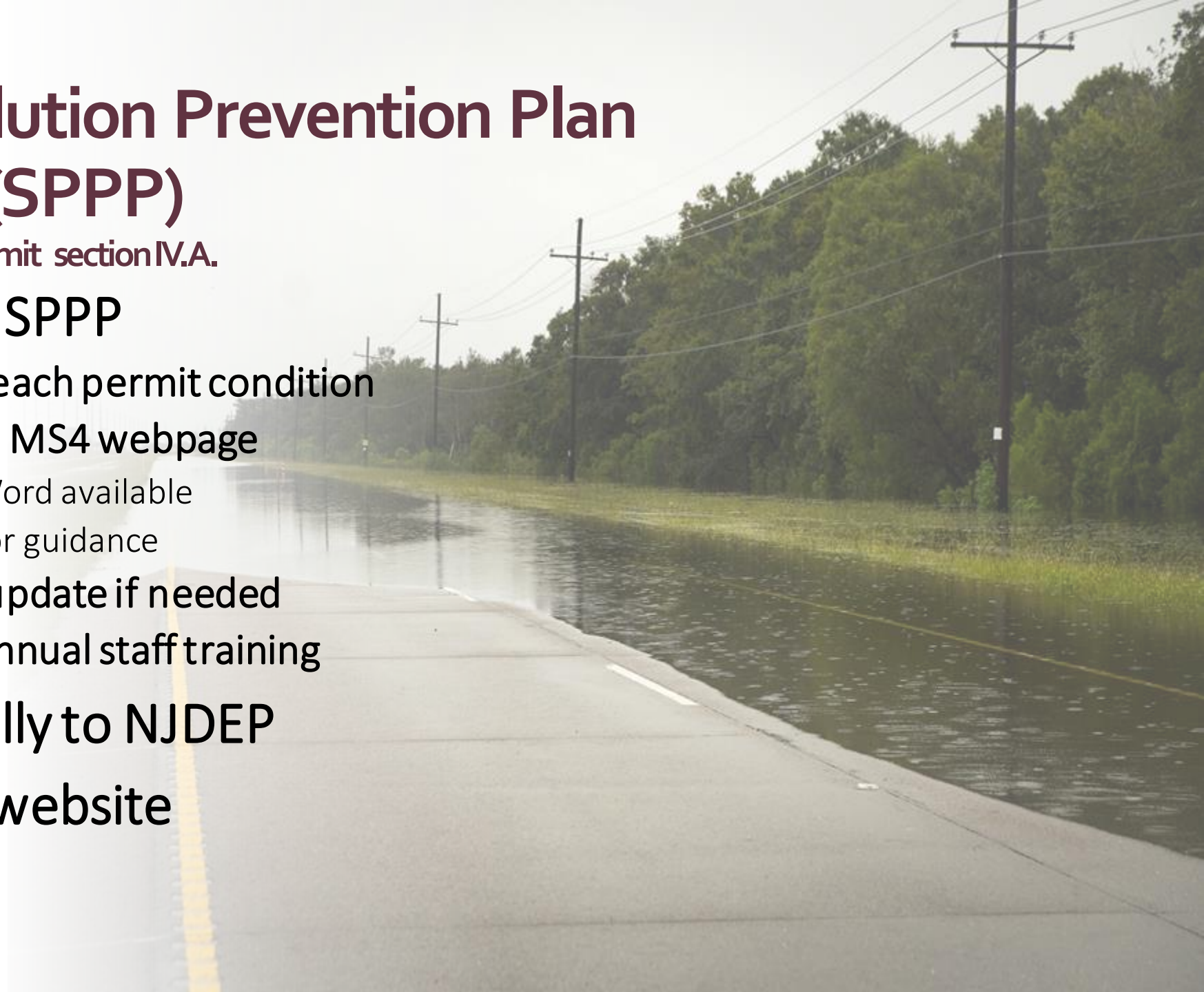
Permit section IV.J.

- ❖ Retain copies of all records related to the MS4 permit for at least 5 years
- ❖ Make available to the Department upon request

Stormwater Pollution Prevention Plan (SPPP)

Permit section IV.A.

- Create/update the SPPP
 - Describe O&M for each permit condition
 - Follow template on MS4 webpage
 - Fillable PDF and Word available
 - See model SPPP for guidance
 - Review each year, update if needed
 - Reference during annual staff training
- Submit electronically to NJDEP
- Post on municipal website





Municipal Stormwater Webpage

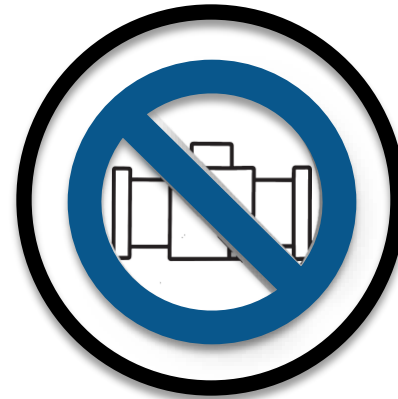
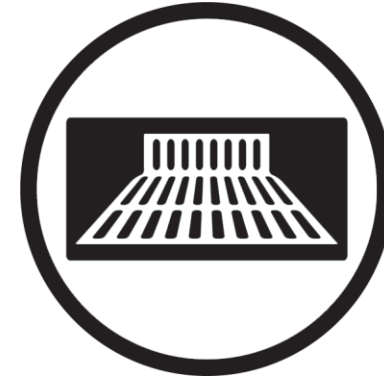
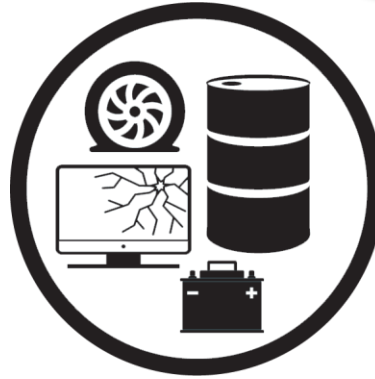
Permit section IV.B.2.

- Dedicated stormwater webpage to post all required materials
- HTML template is available from NJDEP
- Materials required to be posted:
 - Stormwater Pollution Prevention Plan
 - Municipal Stormwater Management Plan
 - Stormwater Control Ordinance
 - Community Wide Ordinances
 - MS4 Outfall Map
 - MS4 Infrastructure Map
 - Watershed Improvement Plan

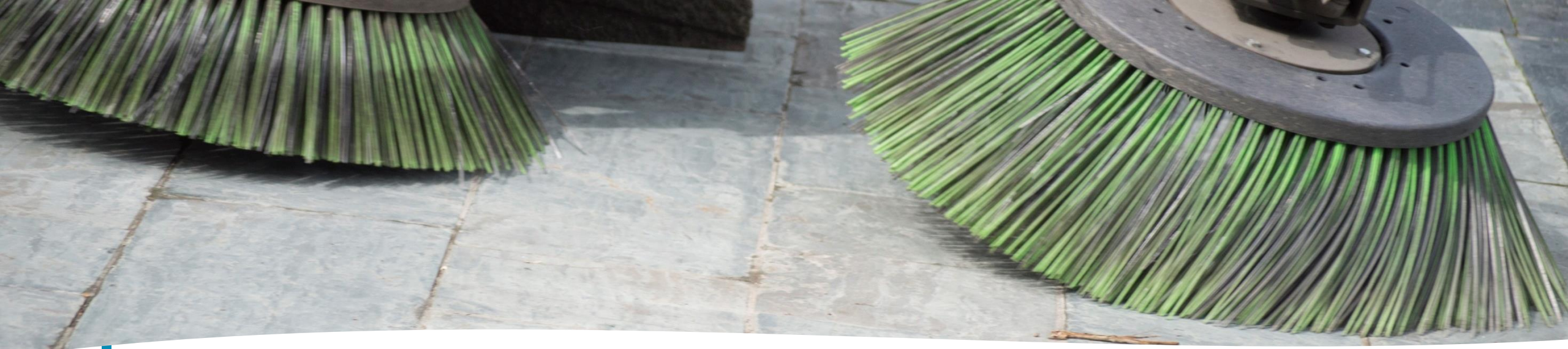
Ordinances

Permit section IV.F.1. and IV.G.3.c.

1. Pet Waste
2. Wildlife Feeding
3. Litter Control
4. Improper Disposal of Waste
5. Yard Waste
6. Private SDI Retrofitting
7. Illicit Connections
8. Privately-owned Salt Storage
9. Tree Removal/Replacement



Option to adopt all in one [Stormwater Ordinance Package](#)



Street Sweeping

Permit section IV.F.2.a.i–ii.

- **Triannual Sweeping** – Every 4 months, sweep segments of municipal roads with storm drain inlets that drain to surface water
- **Annual Sweeping** – Every year, sweep segments of municipal roads that do NOT have storm drain inlets but DO drain to surface water directly or to a stormwater conveyance
- County and State DOT are responsible for sweeping their roads

Sample Streets



Only sweep concrete
or asphalt roads

Roads with no
discharge to surface
water are not
required to be swept



Sweep 1x per year if no
inlets but still drains to
surface water

Sweep roads with
inlets 3x per year



Herbicide Application Management

Permit section IV.F.2.a.vi.

- ❖ Do not apply herbicide on or adjacent to storm drain inlets
- ❖ Do not apply herbicide on steep slopes to prevent erosion caused by de-vegetation
- ❖ Only spray within a 2' radius around structures where it's unsafe to mow
- ❖ Only apply along curb lines and unobstructed shoulders



Excess De-icing Material Management

Permit section IV.f.2.a.vii.

- Remove excess piles deposited on roads and parking areas during spreading operations
- Remove within 72 hours after the end of storm events, conditions permitting



Roadside Vegetative Waste Management

Permit section IV.F.2.a.viii.

- ❖ Proper management of tree branches, grass, leaves, wood chips and brush from municipal work
- ❖ Tree work along municipal roads and grass cutting on municipal property
- ❖ Do not blow grass clippings or leaves into the street, down the storm drain, or into ditches





Roadside Erosion Control Program

Permit section IV.F.2.a.ix.

- ❖ Inspect municipal roads for stability
 - ❖ Check for erosion of shoulders, embankments, ditches, and soils along roads which may result in sedimentation of receiving waters
 - ❖ Can be done while doing other inspections
- ❖ Repair problems within 90 days of discovery or notify MS4 Case Manager if more time is needed

Municipal Maintenance Yards & Other Ancillary Operations

Permit section IV.F.5.a.



Municipal Maintenance Yard — primary maintenance/storage yard

Ancillary Operation — fleet or maintenance shops with outdoor storage areas, impound yards, permanent and mobile fueling locations, salt/sand storage locations, snow disposal areas, etc.

Municipal Maintenance Yards & Other Ancillary Operations

Permit section IV.F.5.b–f.

- ❖ Site Inspections — Document monthly inspections; note conditions and necessary improvements
- ❖ Inventory List — List materials and machinery exposed to stormwater
- ❖ Container Labels — Keep labels legible, clean and visible
- ❖ Spill Kits — Use dry method only; keep near liquid transfer areas and protected from rainfall; dispose of used absorbent materials after spills
- ❖ Bulk Liquids — Use secondary containment around aboveground tanks (spill containment dikes)

Municipal Maintenance Yards & Other Ancillary Operations

Permit section IV.F.5.g–j.

- ❖ **Fueling and Other Bulk Liquid Transfers** – Use drip pans, block storm drains, post signage, and repair/replace broken equipment
- ❖ **Discharge from Secondary Containment** – Properly dispose of contaminated stormwater in collection area
- ❖ **Vehicle/Equipment Maintenance and Repair** – Work indoors when possible; otherwise use tents, drip pans, and block nearby storm drain inlets
- ❖ **Wash Wastewater Containment** – Check underground containment for leaks every 3 years; inspect visible portions before use; pump out before exceeding 95% full; stop use if repairs are needed; report spills to NJDEP Hotline; properly dispose of pump-out water; annual certification by NJ licensed engineer

Municipal Maintenance Yards & Other Ancillary Operations

Permit section IV.F.5.k-n.

- ❖ **Salt/Granular Deicing Materials** – Store in permanent structure & minimize exposure to rain, snow, and SW run-on; sweep after loading/unloading
- ❖ **Aggregate Material, Wood Chips, and Finished Leaf Compost** – Store 50' from water bodies, storm sewer inlets, ditches and other conveyance channels; use grading, berms, 3-sided bays, haybales, sandbags, etc.
- ❖ **Cold Patch Asphalt** – Store indoors or properly contained & covered on impervious surface
- ❖ **Street Sweepings & Storm Sewer Clean-outs** – Store <6 months in leak-proof container or properly contained & covered on impervious surface

Municipal Maintenance Yards & Other Ancillary Operations

Permit section IV.F.5.o–r.

❖ Construction and Demolition Waste, Wood Waste, and Yard

Trimming — Keep 50' from waterbodies and MS4; use grading, berms, etc. to minimize SW run-on and pollutant run-off; store up to 6 months (apply for Solid Waste permit if longer)

❖ Scrap Tires — Must be stored in a covered container or enclosure

❖ Inoperable Vehicles or Equipment — Check tents, covers, and drip pans during monthly site inspections

❖ Refuse Containers and Dumpsters — Must be covered



Wood Waste Recycling and Leaf Composting Permit (WRC)

- ❖ Storage of finished leaf compost and wood chips is still covered under the Tier A permit
- ❖ WRC regulates stormwater discharge from sites where the following activities occur:
 - ❖ Recycling activities in which tree branches, tree limbs, tree trunks, brush, and other wood waste that has not been chemically treated, glued, dyed, or painted are received, stored, processed, and transferred. Processing shall be limited to chipping, grinding, screening, and size reduction.
 - ❖ Composting activities in which grass clippings, leaves, and wood chips (not chemically treated, glued, dyed, or painted) are received, stored, processed, and transferred

<https://dep.nj.gov/njpdes-stormwater/industrial-stormwater-program/general-permits/wrc/>

Training Requirements

Permit section IV.F.6-10.

- ❖ Stormwater Program Coordinators
- ❖ Municipal Employees
- ❖ Stormwater Management Design Reviewers
- ❖ Municipal Board & Governing Body Members



Stormwater Program Coordinator Training

Permit section IV.F.6.

- ❖ SPCs must attend NJDEP training on their responsibilities to implement the SW program
- ❖ Notify NJDEP within 30 days of turnover with new SPC name, title, and contact information
- ❖ New SPCs may view the recorded sessions posted on the NJDEP MS4 website but must attend the next available live session
- ❖ Two sessions were held in August 2023, more sessions will be announced via email to SPCs

Municipal Employee Training

Permit section IV.F.7.

- ❖ Conduct annual training to include details unique to the municipality on the following topics:
 1. Stormwater Pollution Prevention Plan
 2. Construction Site SW Runoff
 3. Post-Construction SW Management in New/Redevelopment
 4. Community-wide Ordinances
 5. SW Facilities Maintenance
 6. Maintenance Yards/Ancillary Operations
 7. MS4 Mapping
 8. Outfall Stream Scouring
 9. Illicit Discharge Detection and Elimination
- ❖ Train employees/contractors on the topics above that relate to their stormwater-related job duties
- ❖ Provide in-person or virtual group sessions, field training, and/or instructional videos as appropriate
- ❖ Videos available at <https://dep.nj.gov/stormwater/stormwater-training/>

Stormwater Management Design Reviewer Training

Permit section IV.F.8–9.

❖ Stormwater Management Design Review Course

- ❖ Stormwater management design reviewers must attend NJDEP training every 5 years for post-construction SWM program requirements
- ❖ Check <https://dep.nj.gov/stormwater/stormwater-management-design-review-course/> to make sure your review engineers are up to date with training
 - ❖ If not, email stormwatermanagement@dep.nj.gov for registration information about the next available course

❖ SWM Rule Amendment Sessions

- ❖ The Department will notify SPCs and engineers when there is reviewer training for SWM rule amendments



Municipal Board and Governing Body Member Training

Permit section IV.F.10.

- ❖ Training is required for members of planning boards, zoning boards, and governing bodies responsible for review and approval of applications for new/redevelopment projects
- ❖ Within 6 months of commencing duties, new members must view the following video:
 - ❖ Asking the Right Questions video at https://nj.gov/dep/stormwater/asking_the_right_questions.html
- ❖ Each term thereafter, members must view one of the following SWM videos available at <https://dep.nj.gov/stormwater/stormwater-training/#reviewers-training>
 - ❖ SWM Rules Applicability
 - ❖ SWM Rules Planning
 - ❖ SWM Rules Design & Performance
 - ❖ SWM Rules Safety
 - ❖ SWM through the General MS4 Permit



MS4 Mapping

Permit section IV.G.1.

- **Map all MS4 infrastructure:**
 - Outfalls (receiving surface water name, type of outfall)
 - Ground water discharge points (type)
 - Interconnections (type into/from, entity)
 - Storm drain inlets (type, catch basin present, label present, retrofitted)
 - Manholes
 - Conveyance (type, direction of flow)
 - Pump stations
 - Stormwater facilities (type)
 - Property boundary of maintenance yard(s) and ancillary operations (type)



MS4 Mapping

Permit section IV.G.1.

- Find technical guidance, free NJDEP mapping tool (with updated feature classes), and free-to-use ArcGIS Online licenses at https://dep.nj.gov/njpdes-stormwater-municipal-stormwater-regulation-program/msrp_map_aid/
- NJDEP staff can train individuals or groups to use the mapping tool
 - virtual or in-person
- If NJDEP mapping tool is used, data submittal is automatic
 - Otherwise, submit data via NJDEP Online (acceptable formats = georeferenced shapefile, geodatabase, AutoCAD, or MS Excel file)
- Post link to infrastructure map on the municipality's dedicated stormwater webpage





Watershed Improvement Plan

Permit section IV.H.

Purpose:

- ❖ Identify opportunities to improve water quality
- ❖ Reduce MS4 contribution of pollutants to waterbodies with impairments & TMDLs
- ❖ Address stormwater flooding to protect human health and safety, and the environment



Watershed Improvement Plan Overview

Phase 1

Watershed Inventory Report

- Due January 1, 2026
- Inventory of ALL stormwater facilities and other relevant information

Phase 2

Watershed Assessment Report

- Due January 1, 2027
- Evaluate stormwater inventory and assess improvement projects

Phase 3

Watershed Improvement Plan Report

- Due December 1, 2027
- Select and begin implementation of improvement projects

Watershed Inventory Report – Phase 1

Permit section IV.H.1.d.



- ❖ Water quality classifications
- ❖ TMDL areas
- ❖ Impairment areas
- ❖ Overburdened communities
- ❖ Impervious areas
- ❖ NJPDES Permitted Sites

- ❖ Private stormwater facilities*
- ❖ Outfall drainage area
- ❖ Interconnection drainage area

Resources:

*H & H Database

Watershed Assessment Report – Phase 2

Permit section IV.H.1.e.

- ❖ Solicit input from residents, businesses, neighboring towns, and other potential dischargers
- ❖ Identify potential projects, estimate reduction of pollutants, summarize feedback from public sessions, establish funding needs, and tentative implementation schedule
- ❖ Post on designated website & announce public comment period



Watershed Improvement Plan Report – Phase 3

Permit section IV.H.1.g.

- ❖ Summarize the following:
 - ❖ Proposed projects
 - ❖ Comments received
 - ❖ Costs
 - ❖ Coordination with other programs
 - ❖ Implementation schedule



Stormwater Assistance Grants



<https://nj.gov/dep/wlm/grants/swgrant.html>



Original Tier As

- ❖ **\$25,000** available in 2 disbursements
- ❖ **Initial \$15,000** awarded upon receipt of a completed application
- ❖ **Final \$10,000** awarded upon receipt of Stormwater Infrastructure Map

New Tier As

- ❖ **\$75,000** available in 2 disbursements
- ❖ **Initial \$25,000** awarded upon receipt of a completed application
- ❖ **Final \$50,000** awarded upon receipt of a Stormwater Pollution Prevention Plan

CONTACT US

Bureau of NJPDES Stormwater
Permitting & Water Quality
Management



[County Case Manager List](#)



stormwatermanager@dep.nj.gov



<https://dep.nj.gov/njpdes-stormwater/>

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