



**STORMWATER**

# Stormwater Program Coordinator Training

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December 4, 2024





# Agenda

- SPC Responsibilities & Resources
- Permit Conditions
- Mapping & NJDEP Online Tips
- Funding Resources
- Q & A

# Presentation Symbols



**Tier A**



**Public Complex**



**Highway Agency**

# SPC Responsibilities

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





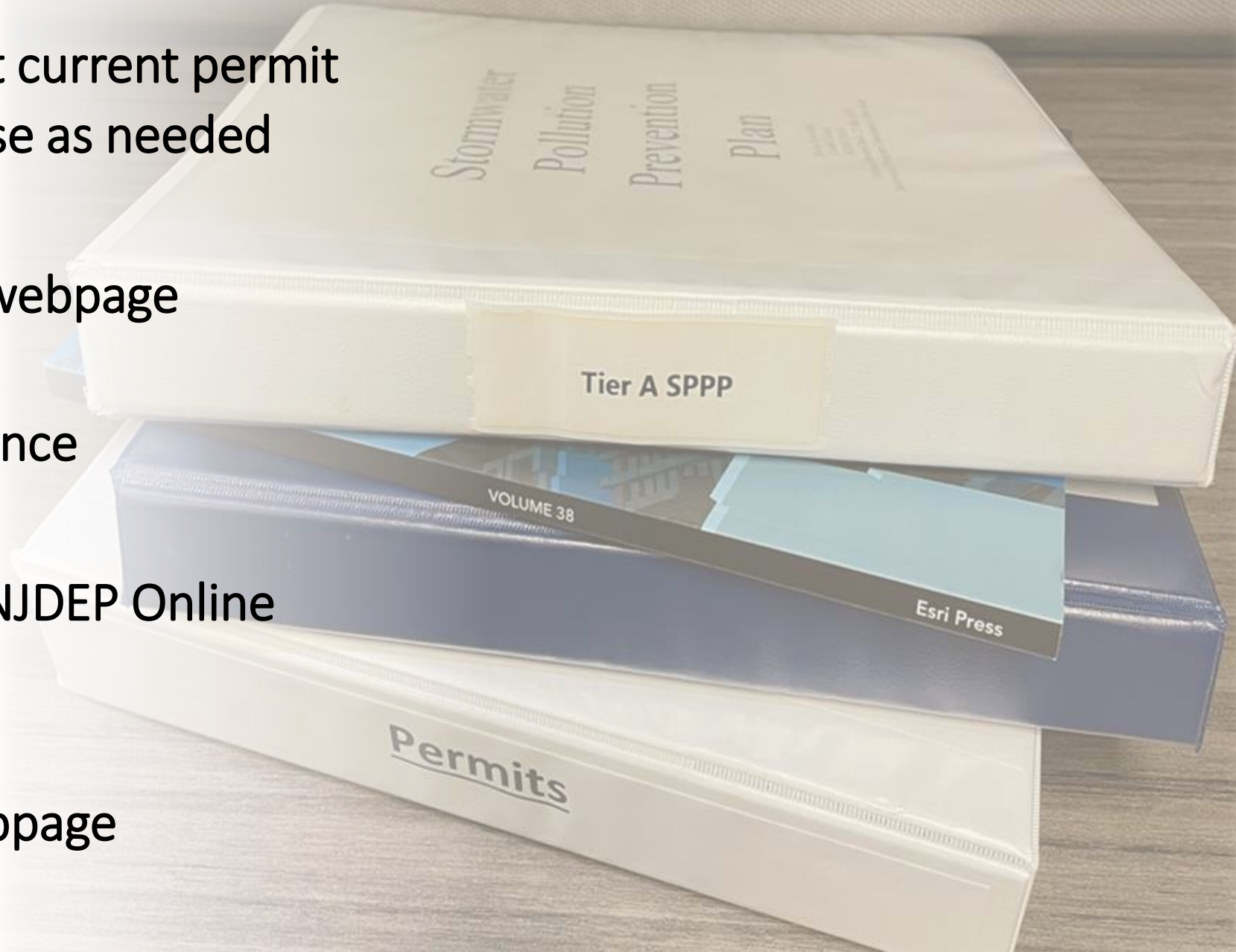
# Permit Conditions



# Stormwater Pollution Prevention Plan



- Create or update to reflect current permit
  - Review annually, revise as needed
- Fillable template on MS4 webpage
- See sample SPPP for guidance
- Submit updated SPPP via NJDEP Online
- Post current SPPP on dedicated stormwater webpage





# Fillable Templates & Sample SPPPs

Visit our MS4 Webpage to  
access our SPPP fillable  
templates and samples:



Tier A SPPP



Public Complex SPPP

## Stormwater Pollution Prevention Plan

*Storm Township  
Creek County  
NJG0123456*

*Annual Review Date: 27 Mar 2023  
Stormwater Program Coordinator: Dean Scout*



# Public Involvement and Participation Including Public Notice

- ✓ Comply with State and local public notice requirements
- ✓ Sunshine Law





# Dedicated Stormwater Webpage

- ✓ Develop a dedicated stormwater webpage to include all required postings/links
- ✓ Free template: <https://dep.nj.gov/njpdes-stormwater/stormwater-webpage-template/>



# Dedicated Stormwater Webpage

## Tier A:



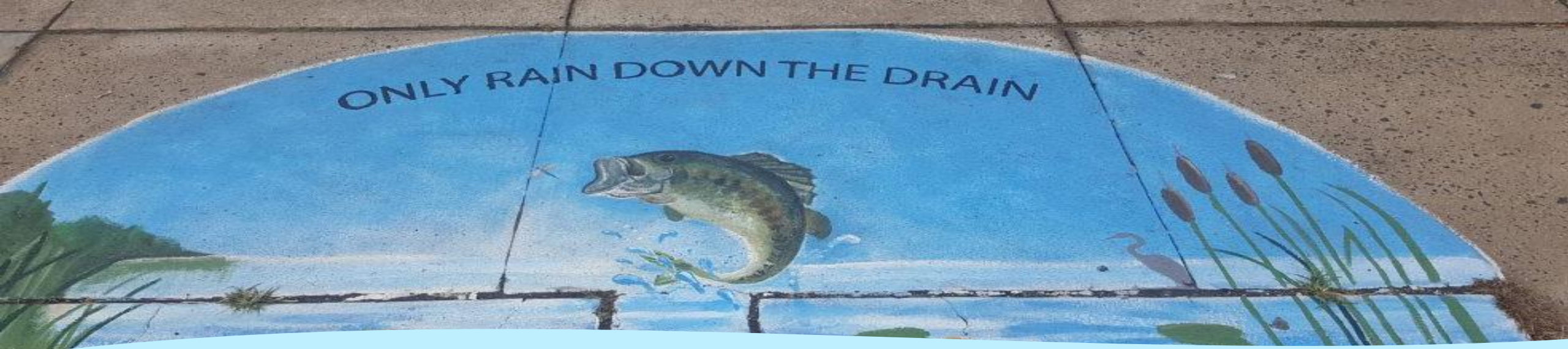
- ✓ **Stormwater Pollution Prevention Plan**
- ✓ **Municipal Stormwater Management Plan**
- ✓ **Ordinances**
- ✓ **MS4 Infrastructure Map**
- ✓ **Watershed Improvement Plan meeting information and documents**

## Public Complex:



- ✓ **Stormwater Pollution Prevention Plan**
- ✓ **Regulatory Mechanisms**
- ✓ **MS4 Infrastructure Map**
- ✓ **Watershed Improvement Plan meeting information and documents**





# Local Public Education & Outreach

## Tier A



- ✓ Choose from at least 3 categories 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 public on the hazards of illicit connections and improper disposal of waste





## Local Public Education & Outreach

## Public Complex



- ✓ Colleges, universities, and military bases (with dependents living on base)
- ✓ Choose at least 1 activity from each category 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. Community Events: GI workshop, rain barrel workshop, rain garden workshop
- ✓ One activity must educate businesses and the public on the hazards of illicit connections and improper disposal of waste





# Construction Site Stormwater Runoff

Obtain a Construction Activity NJPDES Stormwater General Permit (5G3) or Individual Permit for construction site stormwater runoff activities:

<https://dep.nj.gov/njpdes-stormwater/industrial-stormwater-program/general-permits/5g3/>





# Post Construction Stormwater Management in New Development and Redevelopment

- ✓ Comply with N.J.A.C. 7:8 when reviewing & approving major development project designs
- ✓ Designer and reviewer cannot be the same person
- ✓ Review engineers attend Stormwater Management Design Review (SWMDR) training every 5 years & rule amendment training as needed
- ✓ Construct projects per N.J.A.C. 7:8 and approved development plans





# Post Construction Stormwater Management in New Development and Redevelopment



- 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 via NJDEP Online
- Stormwater Control Ordinance (SCO):
  - Know how your town defines major development
  - Submit to the County Planning Board for approval upon each adoption or amendment
  - Submit approved SCO via NJDEP Online
  - Follow Pinelands Commission model SCO in Pinelands-designated areas

# Post Construction Stormwater Management in New Development and Redevelopment

- Optional Mitigation Plans to allow variances shall:
  - Satisfy N.J.A.C. 7:8-4.2(c)11 and 4.6
  - Identify measures necessary to offset the deficit created by granting the variance
  - Submit approved variances to NJDEP within 30 days via NJDEP Online



Tier A - Include in MSWMP and SCO, and submit to County Planning Board



Public Complex - Mitigation projects may be in different drainage areas within the same HUC14

**IT'S THE  
LAW!**

**CLEAN UP  
AFTER YOUR  
DOG**














**VIOLATORS WILL BE  
PUNISHED TO FULL  
EXTENT OF THE LAW**

## Ordinances & Regulatory Mechanisms

- ✓ Keep pollutants out of stormwater – prevent HABs, beach closings, etc.
- ✓ Standards to keep the community clean
- ✓ Enforcement – you have a way to go after violators



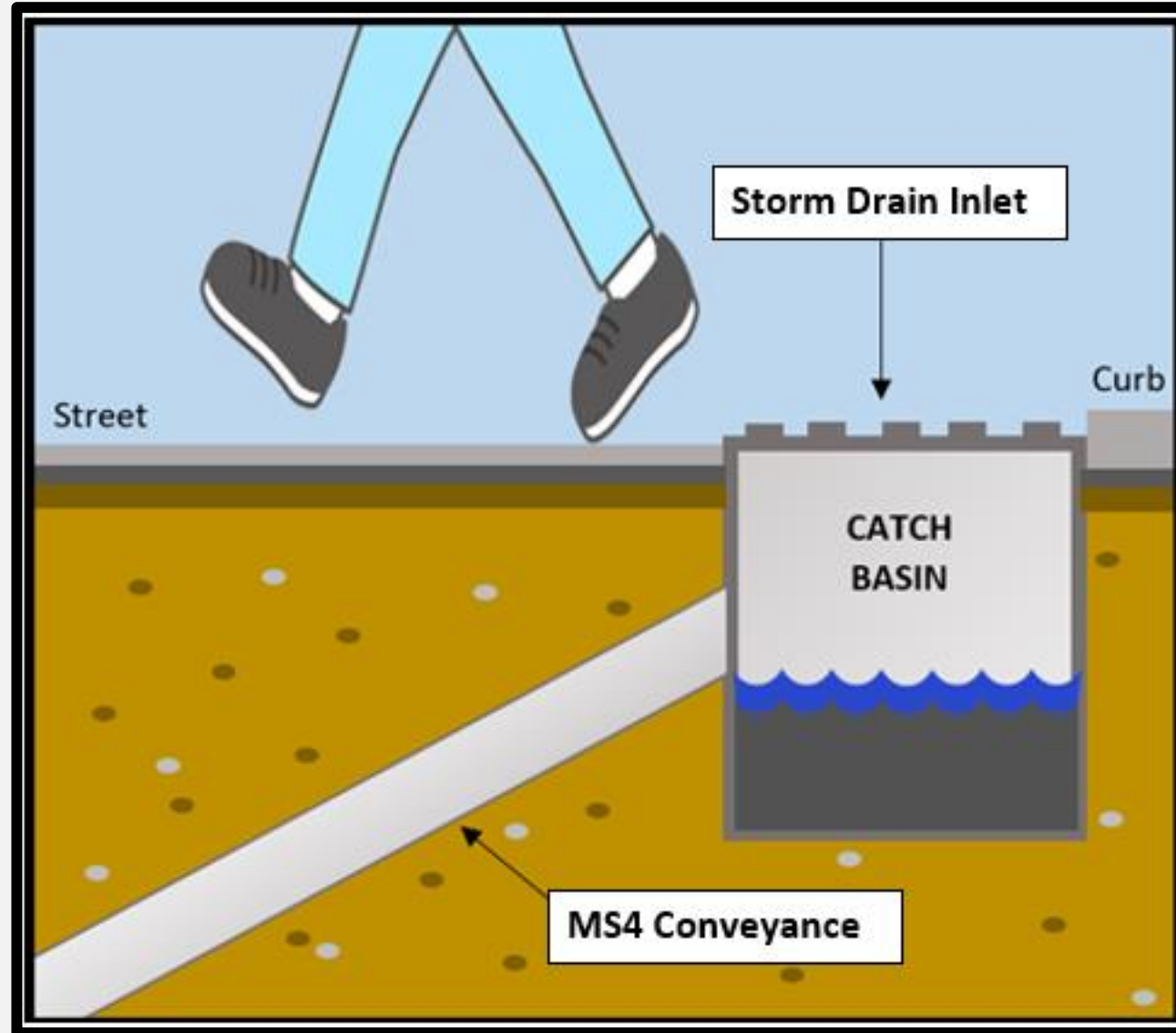
Ordinances & Regulatory Mechanisms	Tier A 	Public Complex 
 <div>Pet Waste</div>	✓	✓
 <div>Wildlife Feeding</div>	✓	✓
 <div>Litter Control</div>	✓	✓
 <div>Improper Disposal of Waste</div>	✓	✓
 <div>Yard Waste</div>	✓	✓
 <div>Private SDI Retrofitting</div>	✓	
 <div>Illicit Connections</div>	✓	
 <div>Privately-Owned Salt Storage</div>	✓	
 <div>Tree Removal/Replacement</div>	✓	

# Q & A



# Storm Drain Inlets & Catch Basins

Inspection, Cleaning, and Maintenance





# Storm Drain Inlets & Catch Basins

## Inspection, Cleaning, and Maintenance





# Storm Drain Inlets

## 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 pollution out of the MS4
  - 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

### Tier A:



#### ■ 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

### Public Complex:



#### ■ Storm Drain Inlets

- Inspect ALL every year
- Define cleaning and maintenance conditions to ensure proper operation

#### ■ Catch Basins

- Inspect ALL every year
- Define cleaning and maintenance conditions to ensure proper operation

# Outfall Inspections

## Tier A



- **Conduct dry weather inspections of all open & piped MS4 outfalls**
  - 20% every year on rotation
  - Stream scouring
  - Illicit discharges
- **Inspect new and newly identified outfalls within 30 days**
- **Optional to attach Outfall Inspection Form to Annual Report**

## Public Complex



- **Conduct dry weather inspections of all open & piped MS4 outfalls**
  - Inspect ALL each year
  - Stream scouring
  - Illicit discharges
- **Inspect new and newly identified outfalls within 30 days**
- **Must attach Outfall Inspection Forms to Annual Report**



# Stream Scouring

- ✓ Investigate complaints and reports of scouring within 30 days and remediate within 12 months
- ✓ Stream Scouring Investigation Recordkeeping Form



Public Complex must attach DEP form(s) to Annual Report





# Illicit Discharge Detection and Elimination

- ✓ Investigate dry weather flows within 30 days
- ✓ Remediate within 12 months OR request an extension from the Department by month 11
- ✓ Attach Illicit Connection Inspection Report Form to Annual Report



# Outfall Observations

- Ongoing interest in condition of MS4s from Watershed groups and citizens
- Very few illicit discharges and stream scouring cases have been reported to NJDEP
- Public is now able to report outfall damage, stream scouring, and illicit discharges to NJDEP

## Outfall Observation Form

*This form is to be filled out only if an illicit discharge or stream scouring is observed.  
Take pictures during observation and send to [stormwatermanager@dep.nj.gov](mailto:stormwatermanager@dep.nj.gov)*

### SECTION 1: Basic Information

Date of Observation: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ Time: \_\_\_\_

Completed by: \_\_\_\_\_

GPS Coordinates (in Decimal Degrees): Latitude = \_\_\_\_\_ Longitude = \_\_\_\_\_

Municipality: \_\_\_\_\_ County: \_\_\_\_\_

Receiving Waterbody: \_\_\_\_\_

Outfall type: ☐ Pipe ☐ Swale ☐ Other: \_\_\_\_\_

Diameter of outfall: ☐ 0-6" ☐ 6-12" ☐ 12-18" ☐ Greater than 18"

### SECTION 2: Stream Scouring

Is there stream scouring present at or around the outfall? ☐ YES\* ☐ NO

\*If YES, describe the scouring, including where the scouring is occurring relative to the outfall:

\_\_\_\_\_

Is the outfall damaged? ☐ YES ☐ NO

Bank stability around outfall: ☐ Good ☐ Fair ☐ Needs Stabilization

### SECTION 3: Illicit Discharge

Has it rained or snowed in the last 72 hours? ☐ YES ☐ NO

Is there a flow from the outfall? ☐ YES\* ☐ NO

\*If YES, complete the table below:

Odor	<input type="checkbox"/> None	<input type="checkbox"/> Rancid/Sour
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Sulfur/Rotten Eggs
	<input type="checkbox"/> Petroleum/Gas	<input type="checkbox"/> Other: _____
Color	<input type="checkbox"/> None	<input type="checkbox"/> Yellow
	<input type="checkbox"/> Brown	<input type="checkbox"/> Red
	<input type="checkbox"/> Grey	<input type="checkbox"/> Other: _____
Turbidity	<input type="checkbox"/> Clear	<input type="checkbox"/> Opaque
	<input type="checkbox"/> Cloudy	
Floatable Matter (Not including litter)	<input type="checkbox"/> None	<input type="checkbox"/> Unnatural Oil/Petroleum Sheen
	<input type="checkbox"/> Sewage/Sanitary Products	<input type="checkbox"/> Other: _____
	<input type="checkbox"/> Unnatural Suds/Foam	





# MS<sub>4</sub> Conveyance Systems

- ✓ Inventory of stormwater conveyance features, e.g., ditches and pipes
- ✓ Define inspection frequency, and cleaning and maintenance conditions
- ✓ Guidance available at <https://dep.nj.gov/stormwater>







# Other Stormwater Infrastructure Inspections

- ✓ 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 following NJDEP online guidance
  - If no plan or Department guidance exists, inspect at least 4x/year and after 1" rain





# Private Stormwater Facilities



- ✓ Ensure adequate long-term cleaning, operation, and maintenance of stormwater facilities not owned or operated by the municipality
  - Commercial property owners, developers, and HOAs may be assigned O&M responsibilities
  - Individual homeowners CANNOT be assigned O&M responsibilities for SWF on their properties if they were designed for stormwater management on multiple properties
- ✓ Inspections must be 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: sediment, trash, leaves, branches, excess growth







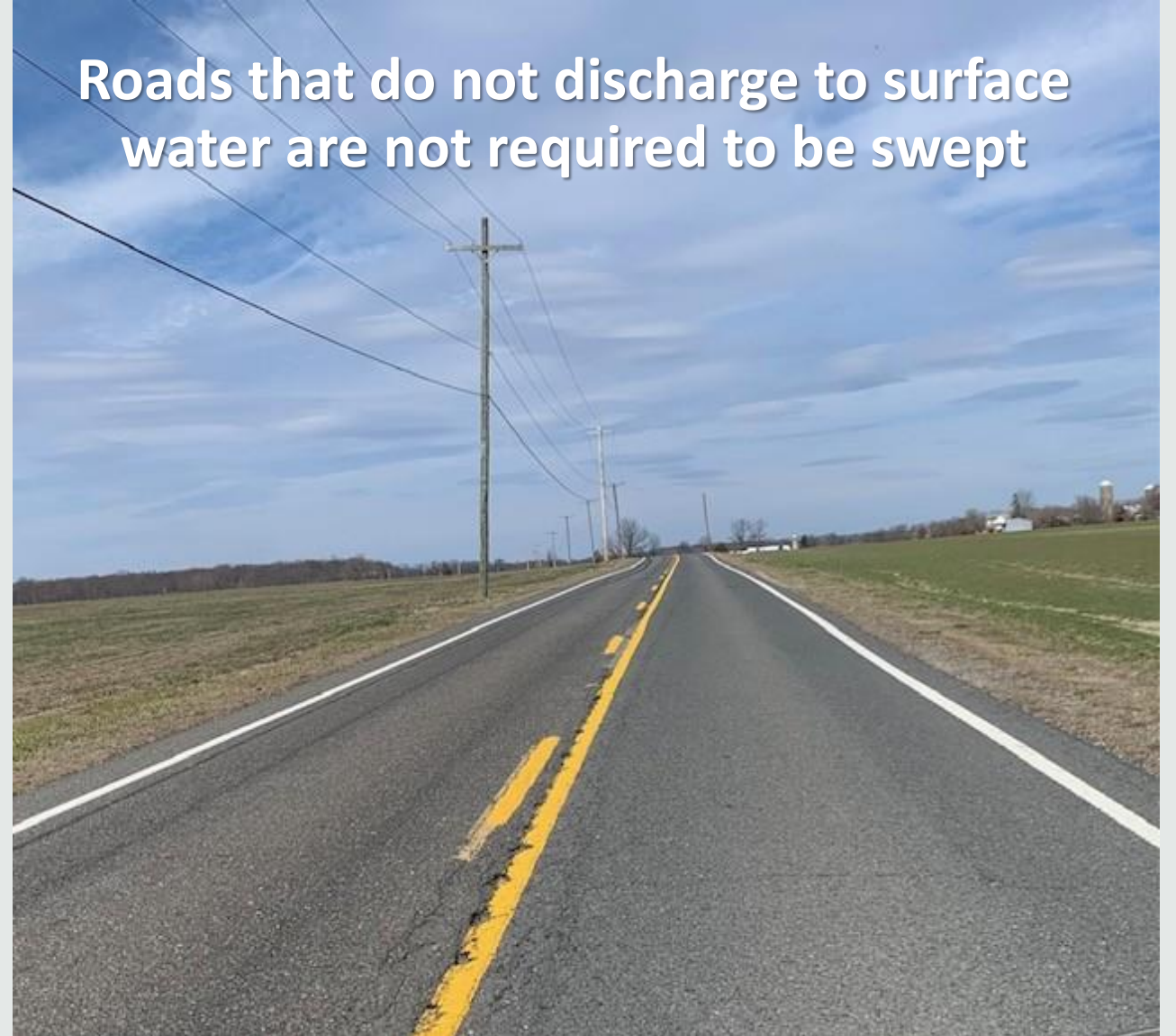
## Street Sweeping

- ✓ Reduces the amount of dirt, debris, and litter that enters the stormwater system
- ✓ Reduces flooding due to clogged storm drains
- ✓ Reduces catch basin cleaning





**DO NOT sweep tar &  
chip, dirt, or gravel roads**



**Roads that do not discharge to surface  
water are not required to be swept**





Sweep roads with  
storm drain inlets



ditch

Sweep roads that  
discharge to surface water



# Street Sweeping

## Tier A



- ✓ 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 drain to surface water directly or to a stormwater conveyance

# Street Sweeping – Public Complex



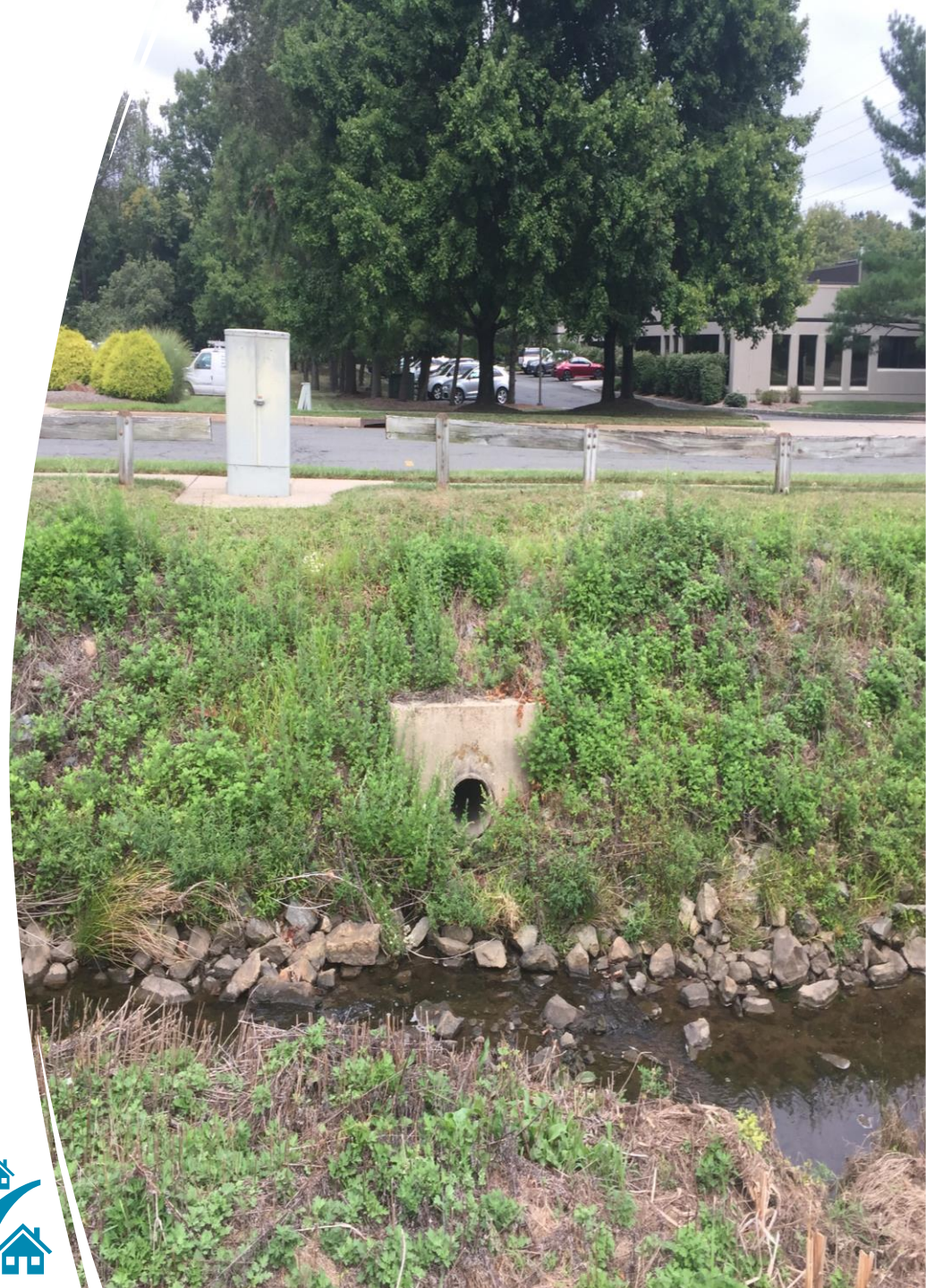
- ✓ Monthly – Sweep paved areas with storm drain inlets that drain to surface water
  - Include parking lots, driveways, and streets on your property that do not belong to the municipality, county, or state





# Herbicide Application Management

- ✓ Prevent herbicides from entering waterways
  - Spray far from storm drain inlets
- ✓ Prevent erosion from de-vegetation
  - Do not spray on steep slopes
- ✓ Only apply along where unsafe or impossible to mow
  - Along curb lines
  - Within a 2' radius around structures





# Excess De-Icing Material Management

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





# Roadside Vegetative Waste Management

- ✓ Proper management of materials generated by your staff or contractors (as opposed to residents)
- ✓ Keep materials far away from storm drains and swales
  - Tree trimmings
  - Grass clippings
  - Leaves







# Roadside Erosion Control

- ✓ Inspect roadways for stability and sedimentation
  - Check shoulders, embankments, swales
  - Include roads with and without curbs
  - Can be done while doing other inspections
  
- ✓ Repair problems within 90 days of discovery or contact MS4 Case Manager if more time is needed





# Illicit Connections Public Complex



- ✓ Ensure there are no illicit discharges going into your MS4 system
- ✓ Inspect outfalls and eliminate any observed illicit discharges





# **Tree Replacement Management Public Complex**



## **Exemptions**

- **Hazard trees**
- **Tree farms, nurseries, fruit orchards, and garden centers**
- **Trees that are part of a DEP or EPA-approved environmental cleanup or habitat enhancement plan**
- **Trees involving approved game management practices**

**Healthy trees removed from the property must be replaced within 1 year**

- **Remove 1 street tree 2.5"- 6" DBH, replace with 1 tree at least 1.5" DBH**
- **Remove 1 tree 6"-12.99" DBH, replace with 1 tree at least 1.5" DBH**
- **Remove 1 tree 13"-22.99" DBH, replace with 2 trees at least 1.5" DBH**
- **Remove 1 tree 23"-32.99" DBH, replace with 3 trees at least 1.5" DBH**
- **Remove 1 tree 33" + DBH, replace with 4 trees at least 1.5" DBH**



# Q & A



# Maintenance Yards & Ancillary Operations



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.





# Maintenance Yards & Ancillary Operations

- **Site Inspections** – Log 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** – Dry method only; keep near liquid transfer areas, protected from rainfall; properly dispose of used absorbent materials
- **Bulk Liquids** – Use secondary containment around aboveground tanks (spill containment dikes are preferable to double-walled tanks)





# Maintenance Yards & Ancillary Operations

- **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; follow BMPs if work must be done outdoors
- **Wash Wastewater Containment** – Check underground tanks and pipes for leaks every 3 years; inspect visible portions before use; empty tank before 95% full; stop use if repairs are needed; report spills to NJDEP Hotline; properly dispose of pump-out water; certify annually by NJ licensed engineer





# Maintenance Yards & Ancillary Operations

- **Salt/Granular De-icing 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, inlets, ditches and conveyance channels; use grading, berms, etc.
- **Cold Patch Asphalt** – Store indoors or contained & covered on impervious surface
- **Street Sweepings & Storm Sewer Clean-outs** – Store up to 6 months in leak-proof container or properly contained & covered on impervious surface



# Maintenance Yards & Ancillary Operations

- **Construction and Demolition Waste, Wood Waste, and Yard Trimmings** — Keep 50' from MS4; use grading, berms, etc. to minimize SW run-on and pollutant run-off; store up to 6 months
- **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 & Dumpsters** — Must be covered (N/A for bulky items that do not contain putrescible waste, e.g., furniture)







# 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

- Stormwater Program Coordinators
- Tier A/Public Complex Employees
- Stormwater Management Design Reviewers



Tier A - Municipal Board & Governing Body Members





YOU ARE  
HERE

# Stormwater Program Coordinator Training

- ✓ SPCs must attend NJDEP training on their responsibilities to implement the SW program
- ✓ Notify the Department 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



# Annual Employee Training

- ✓ Train employees/contractors on the topics that relate to their stormwater-related job duties
- ✓ Provide in-person or virtual group sessions, field training, and/or instructional videos as appropriate

## Tier A:



- ✓ Stormwater Pollution Prevention Plan
- ✓ Construction Site Stormwater Runoff
- ✓ Post-Construction Stormwater Management in New/Redevelopment
- ✓ Community-wide Ordinances
- ✓ Community-wide Measures
- ✓ SW Facilities Maintenance
- ✓ Maintenance Yards/Ancillary Operations
- ✓ MS4 Mapping
- ✓ Outfall Stream Scouring
- ✓ Illicit Discharge Detection and Elimination
- ✓ Watershed Improvement Plan

## Public Complex:



- ✓ Stormwater Pollution Prevention Plan
- ✓ Construction Site Stormwater Runoff
- ✓ Post-Construction Stormwater Management in New/Redevelopment
- ✓ Regulatory Mechanisms
- ✓ Good Housekeeping
- ✓ SW Facilities Maintenance
- ✓ Maintenance Yards/Ancillary Operations
- ✓ MS4 Mapping
- ✓ Watershed Improvement Plan



# Stormwater Management Design Reviewer Training

- 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](mailto:stormwatermanagement@dep.nj.gov) for registration information about the next available course
- Stormwater Management 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



- Members of planning boards, zoning boards, and governing bodies who review/approve major development project applications
- Within 6 months, new members view the following:
  - Asking the Right Questions video at [https://nj.gov/dep/stormwater/asking\\_the\\_right\\_questions.html](https://nj.gov/dep/stormwater/asking_the_right_questions.html)
- Each term thereafter, view one of the following 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 Infrastructure Map

## Tier A:



- ✓ MS4 outfalls
- ✓ MS4 ground water discharge points
- ✓ MS4 interconnections
- ✓ Storm drain inlets
- ✓ MS4 manholes
- ✓ MS4 conveyance
- ✓ MS4 pump stations
- ✓ Stormwater facilities
- ✓ Property boundary of maintenance yard(s) and ancillary operations


## Public Complex:



- ✓ MS4 outfalls
- ✓ MS4 ground water discharge points
- ✓ MS4 interconnections
- ✓ Storm drain inlets
- ✓ MS4 manholes
- ✓ MS4 conveyance
- ✓ MS4 pump stations
- ✓ Stormwater facilities
- ✓ Property boundaries of the Public Complex
- ✓ Property boundary of maintenance yard(s) and ancillary operations

- ✓ Submit as a shapefile, geodatabase, or AutoCAD file via NJDEP Online
- ✓ Post on the permittee's dedicated stormwater webpage
- ✓ MS4 Outfalls, MS4 Interconnections, and Storm Drain Inlets important for the Watershed Improvement Plan

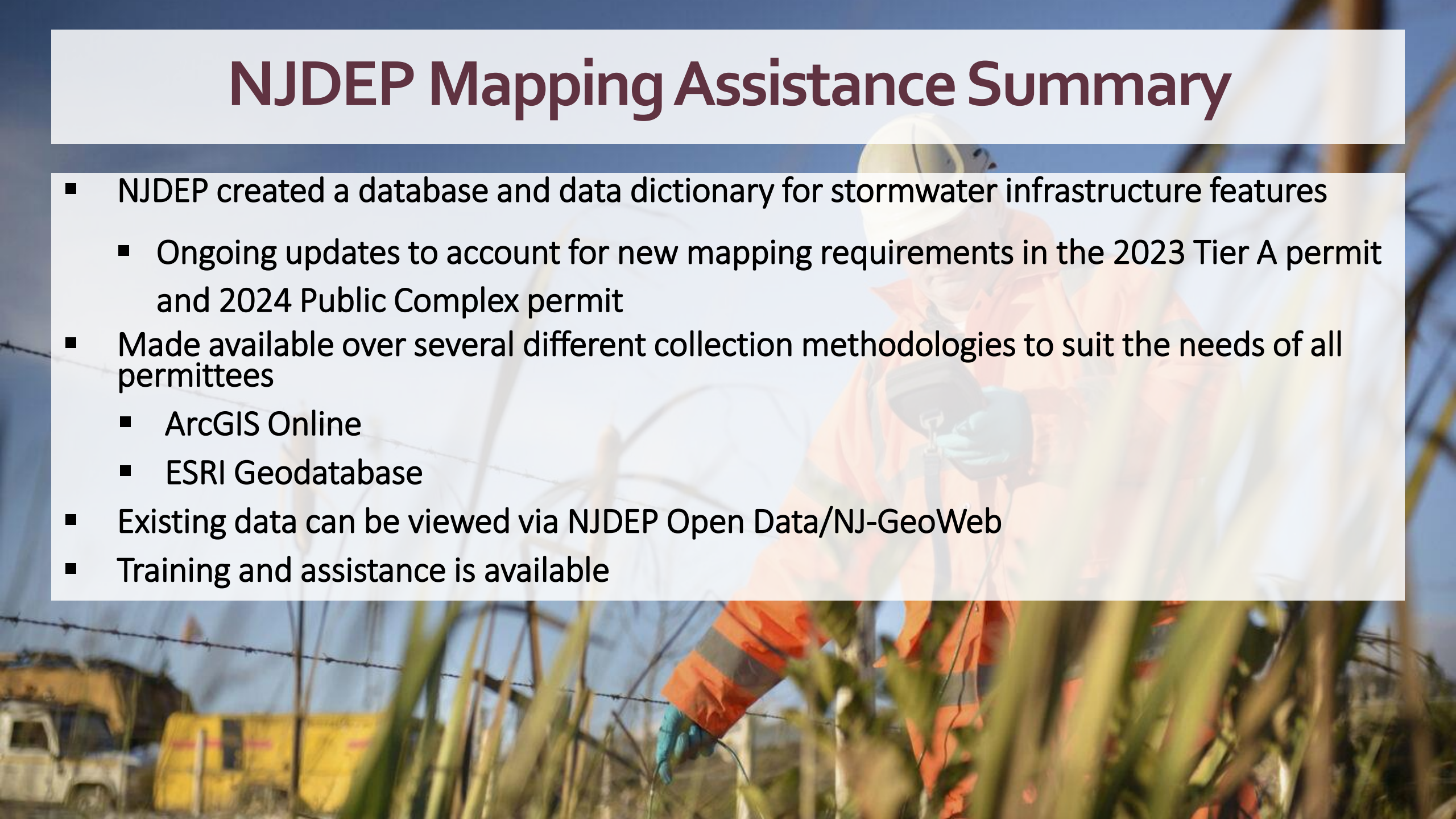
# Required Attributes

<u>Outfalls</u>  ✓ Type ✓ Receiving surface water name	<u>Groundwater Discharge Points</u>  ✓ Type	<u>Interconnections</u>  ✓ Type ✓ Into/from entity	<u>Storm Drain Inlets</u>  ✓ Type ✓ Catch basin present ✓ Label present ✓ Retrofitted	<u>Manholes</u>  ✓ NONE
<u>Conveyance</u>  ✓ Type ✓ Direction of flow	<u>Pump Stations</u>  ✓ NONE	<u>Stormwater Facilities</u>  ✓ Type	<u>Property Boundaries of Maintenance Yards and Other Ancillary Operations</u> ✓ Type of property	<u>Property Boundaries of Public Complex</u>  ✓ NONE  



# NJDEP Mapping Assistance Summary

- NJDEP created a database and data dictionary for stormwater infrastructure features
  - Ongoing updates to account for new mapping requirements in the 2023 Tier A permit and 2024 Public Complex permit
- Made available over several different collection methodologies to suit the needs of all permittees
  - ArcGIS Online
  - ESRI Geodatabase
- Existing data can be viewed via NJDEP Open Data/NJ-GeoWeb
- Training and assistance is available



# Q & A







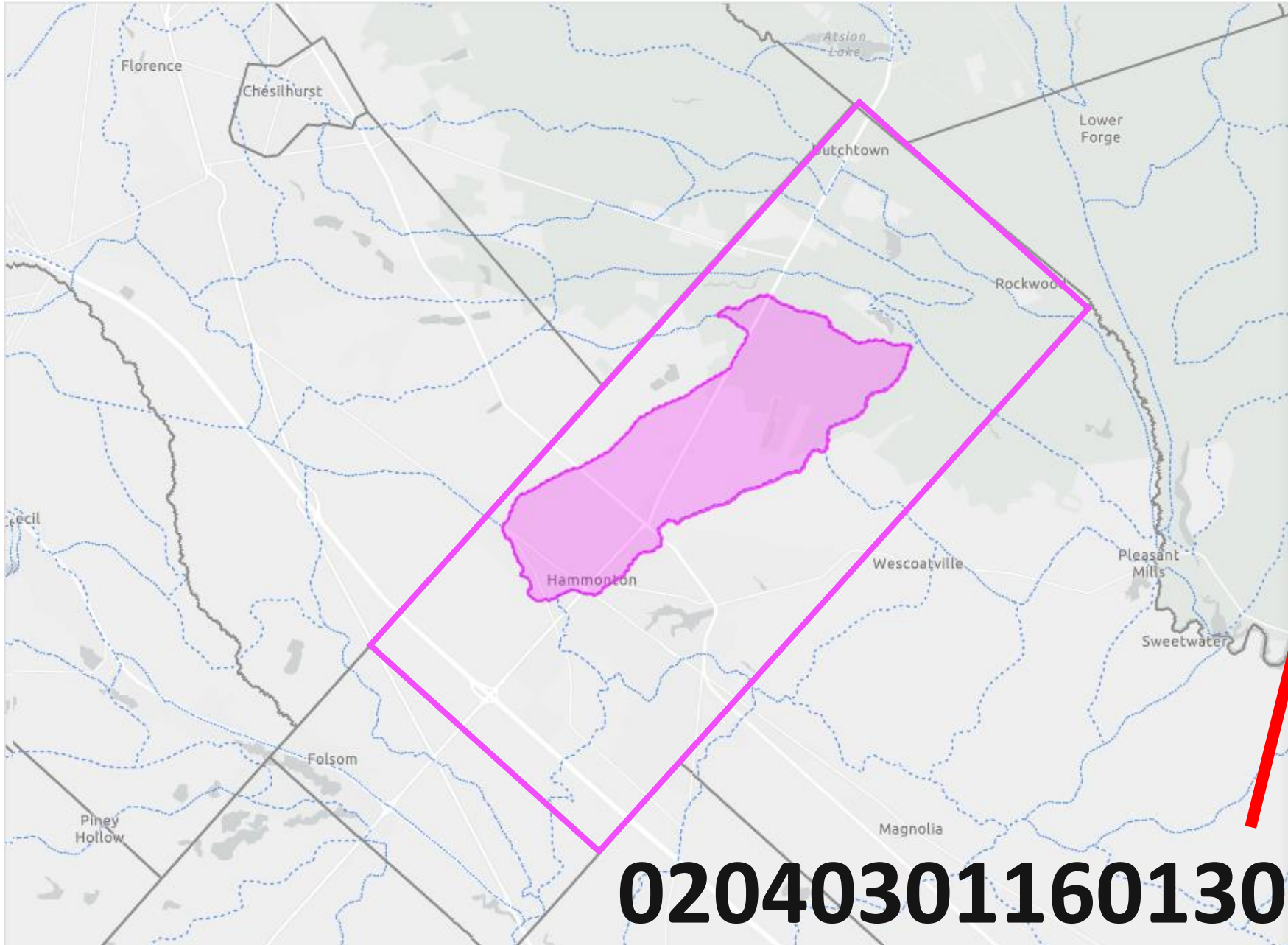
# Watershed Improvement Plan



## 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

# Hydrologic Unit Code (HUC 14)



HUC14: Great Swamp Branch (below Rt 206)		✕	
Zoom to		Pan	
Hydrologic Unit Code (HUC14)	02040301160130		
Subwatershed Name	Great Swamp Branch (below Rt 206)		
Watershed Management Area Number	14		
Watershed Management Area Name	Mullica		
Water Region Number	3		
Water Region Name	Atlantic Coast		
Watershed Name	Mullica River (above Basto River)		
HUC12	020403010604		
ACRES	5,561.03		

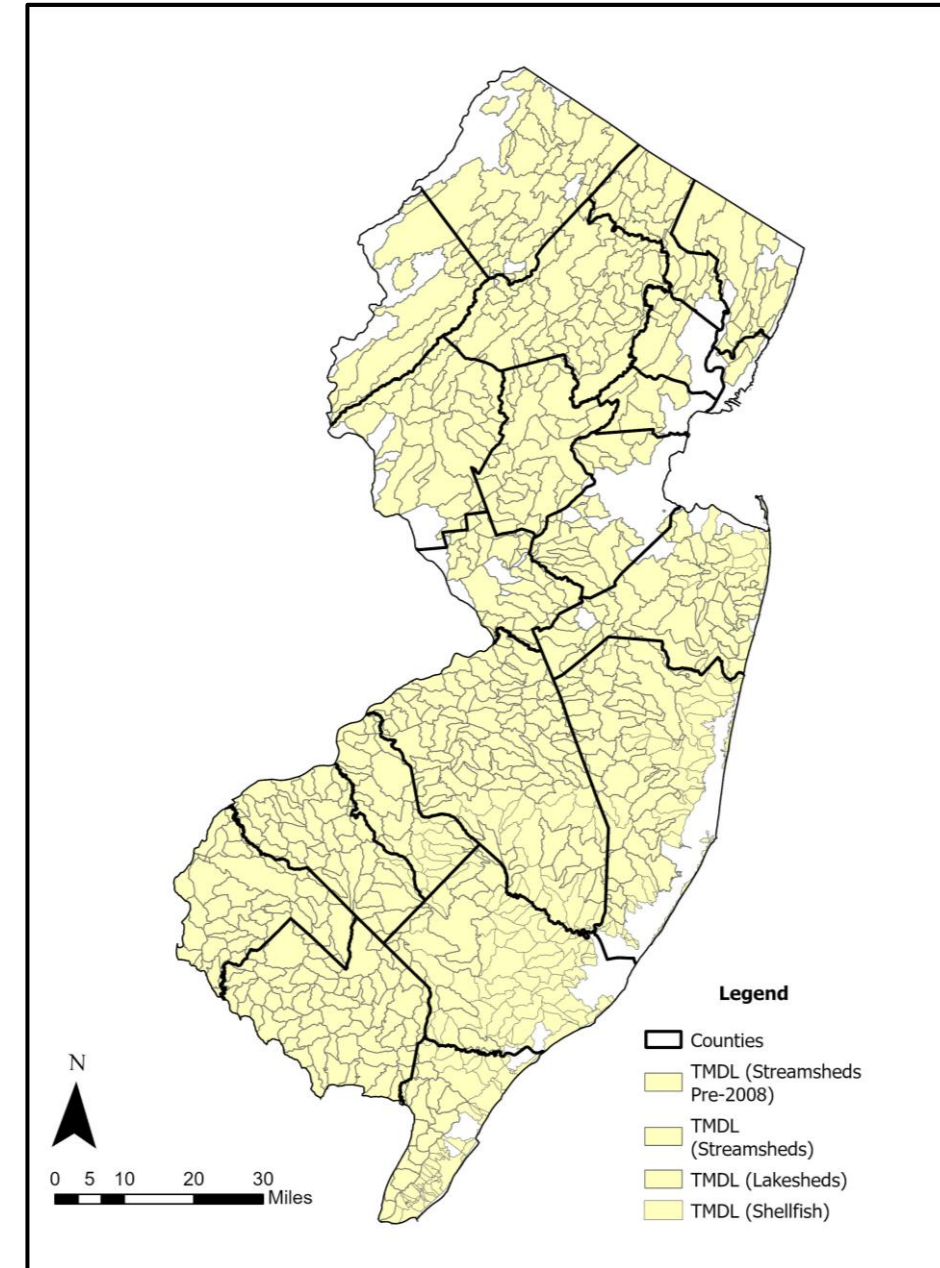
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# Surface Water Quality in New Jersey

## Total Maximum Daily Load (TMDLs)

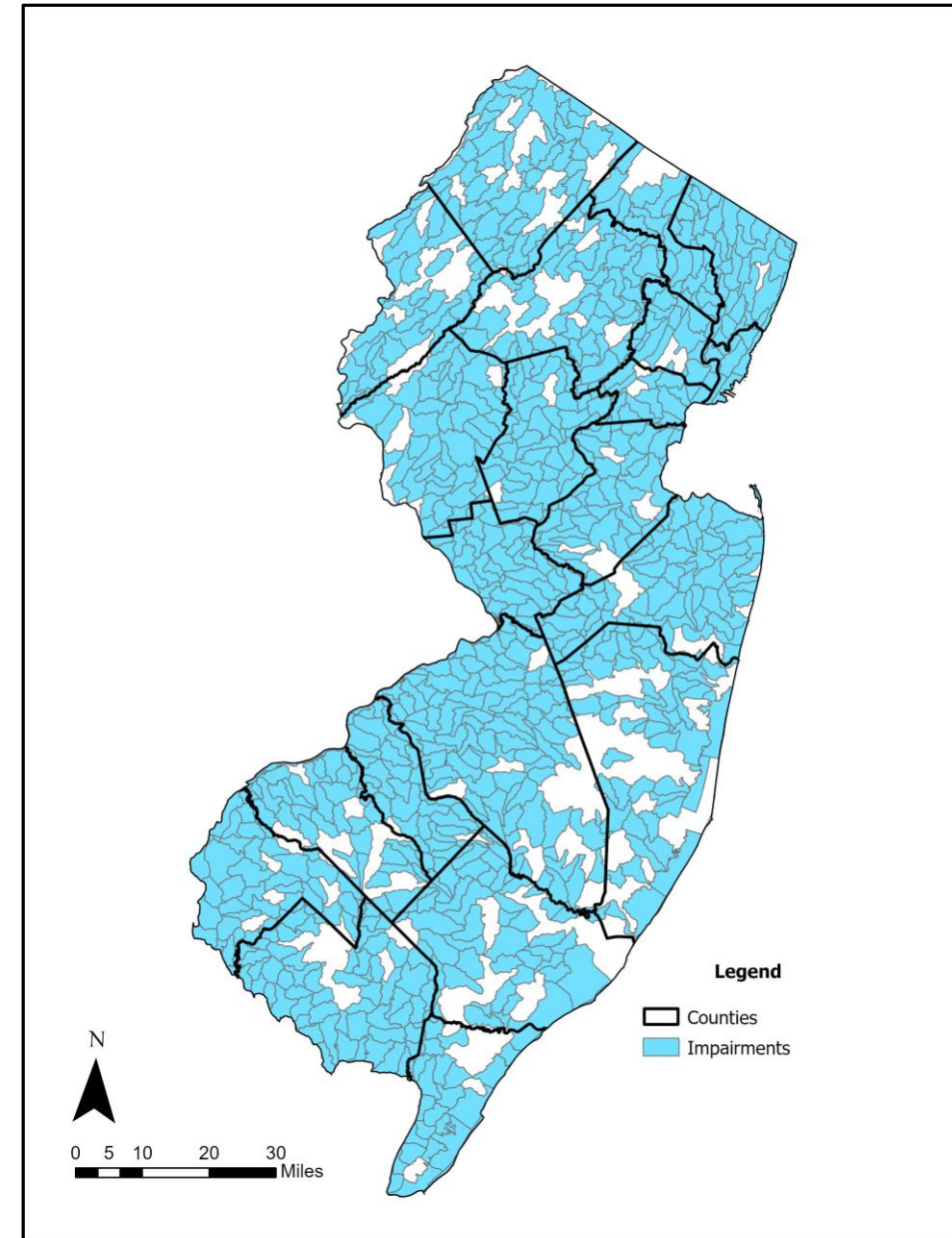
- ✓ Fecal Coliform
- ✓ Nickel
- ✓ Polychlorinated Biphenyls (PCBs)
- ✓ Temperature
- ✓ Total Coliform
- ✓ Total Phosphorus
- ✓ Total Suspended Solids (TSS)
- ✓ Volatile Organic Compounds (VOCs)



# Surface Water Quality in New Jersey

## Water Quality Impairments

- ✓ Benzo(a) pyrene (PAHs)
- ✓ Cadmium
- ✓ Chromium
- ✓ Copper
- ✓ Dissolved Oxygen (DO)
- ✓ Enterococcus
- ✓ E. Coli
- ✓ Lead
- ✓ PCBs in Fish Tissue
- ✓ pH
- ✓ Total Phosphorus
- ✓ Temperature
- ✓ Total Dissolved Solids (TDS)
- ✓ Total Suspended Solids (TSS)
- ✓ Turbidity

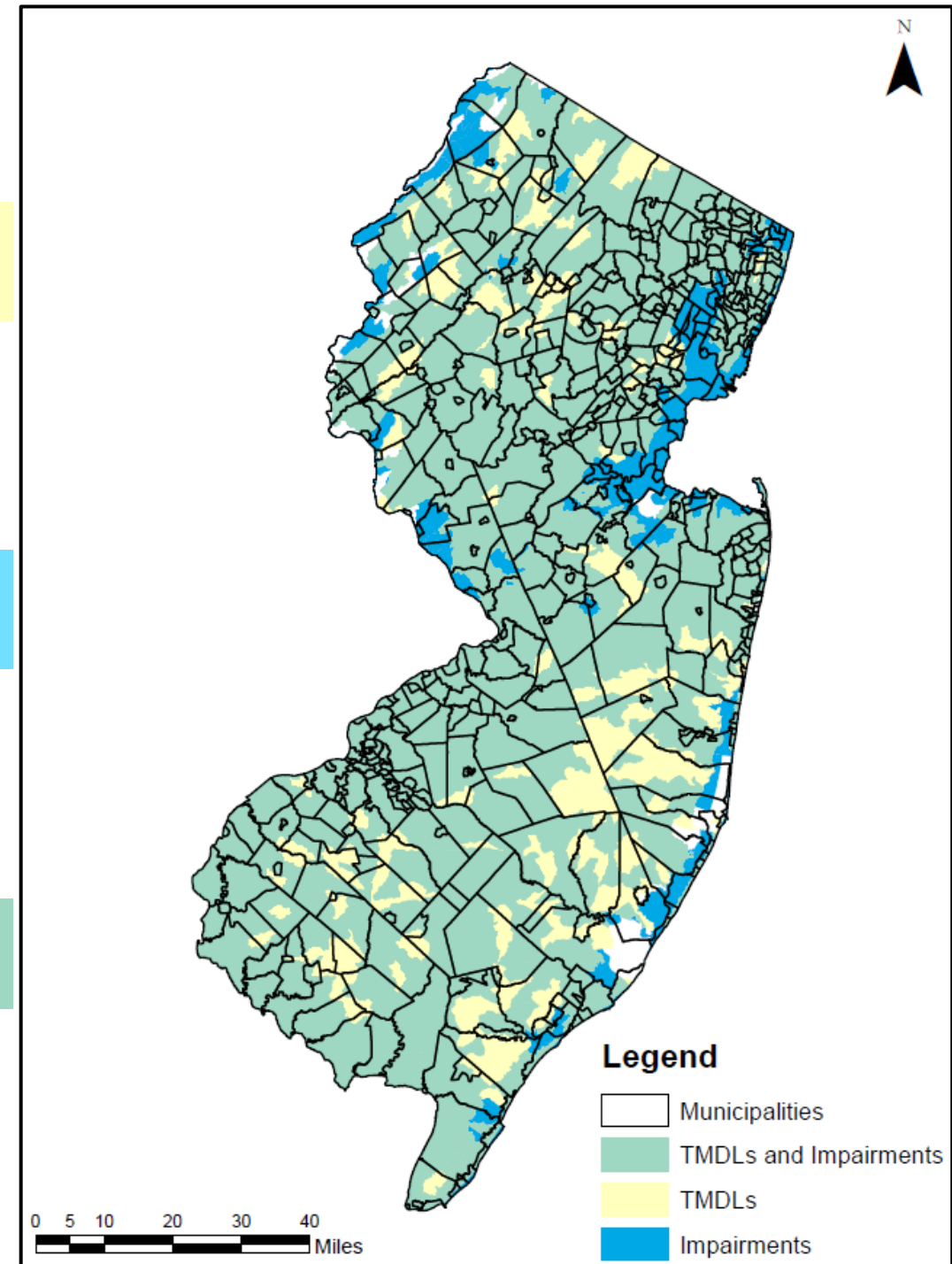


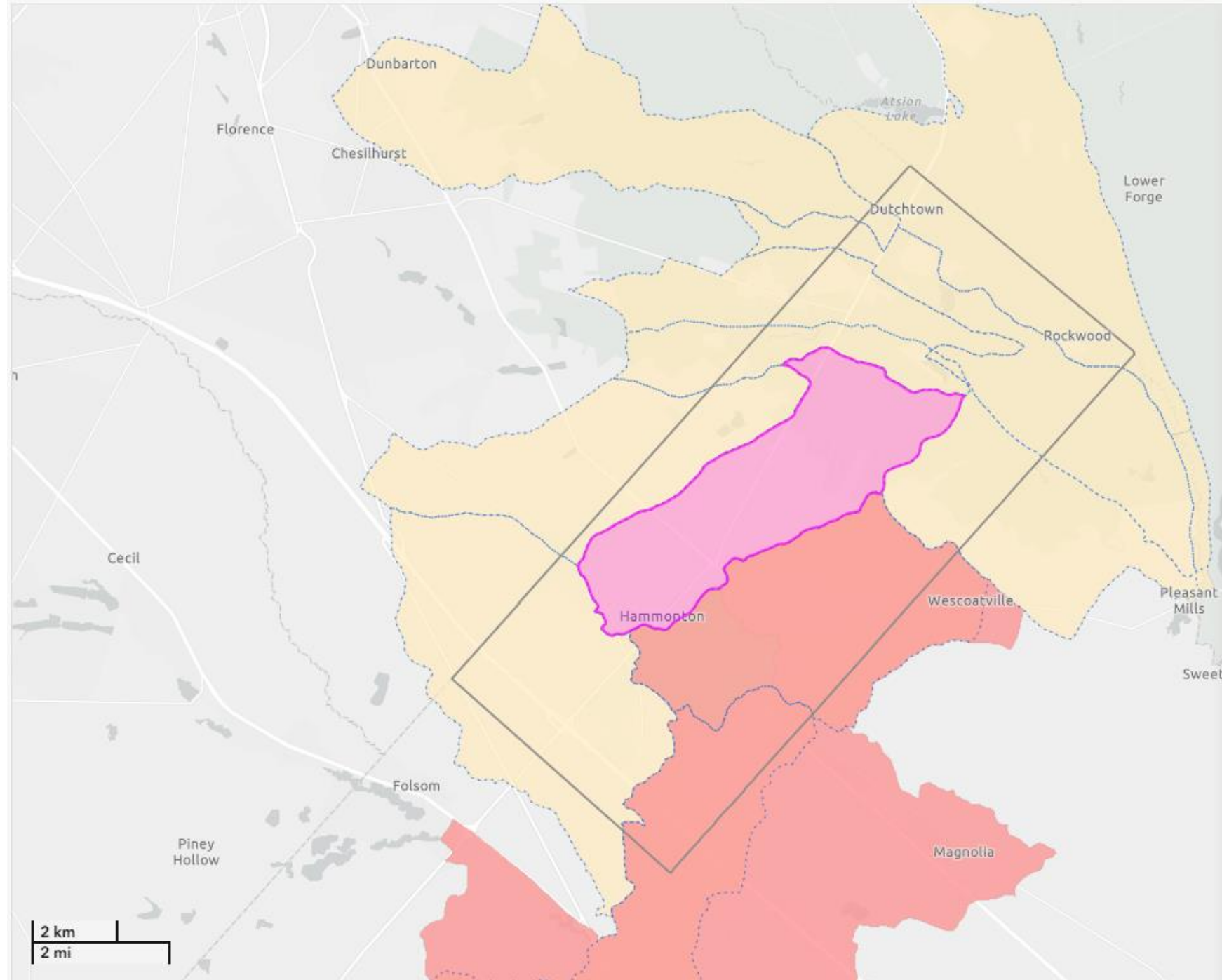


# Total Maximum Daily Load (TMDLs)

## Water Quality Impairments

### TMDLs and Impairments





## Water Quality Impairment(s) Related to Stormwater for Great Swamp Branch (below Rt 206)



Zoom to Pan

## Water Quality Impairment(s) Related to Stormwater

Great Swamp Branch (below Rt 206)

NITRATE



Great Swamp Branch (below Rt 206)

PH





# Pollutant Parameters Related to Stormwater

- ✓ Fecal Coliform, Total Coliform, Enterococcus, & E. coli – wildlife/pet waste, sewer leaks
- ✓ Nickel, Cadmium, Chromium, & Benzo(a) pyrene (PAHs) – vehicle exhaust, asphalt
- ✓ Total Phosphorus, Dissolved Oxygen (DO), Nitrate, & pH – fertilizers, leaf litter and other vegetative waste
- ✓ Polychlorinated biphenyls (PCBs) – vehicles, building materials
- ✓ Temperature, Total Dissolved Solids (TDS), Total Suspended Solids (TSS), & Turbidity – runoff from impervious surfaces, roadside erosion, road salt, leaf litter and other vegetative waste
- ✓ Volatile Organic Compounds (VOCs) – gasoline, paint, solvents
- ✓ Lead & Copper – old deteriorating pipes



# 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



- ✓ Outfall drainage area
- ✓ Interconnection drainage area
- 🏠 Private stormwater management measures\*

\*H & H Database: [hydro.Rutgers.edu](http://hydro.Rutgers.edu)

- ✓ Receiving waterbodies
- ✓ Water quality classifications
- ✓ TMDL & Impairment areas
- ✓ Impervious areas
- 🏠 Overburdened communities
- ✓ *NJPDES permitted sites*

# NJ-WET (New Jersey Watershed Evaluation Tool)



## New Jersey Watershed Evaluation Tool (NJ-WET)



TMDLs & Impairments

MS4 Infrastructure

OBC & Impervious Surfaces

hammonton

**Hammonton**

ATLANTIC

### Hammonton

Zoom to Pan

Hammonton Town  
ATLANTIC COUNTY  
Area (Square Miles): 41.31  
2020 Population: 14,711

#### Intersecting HUC14s:

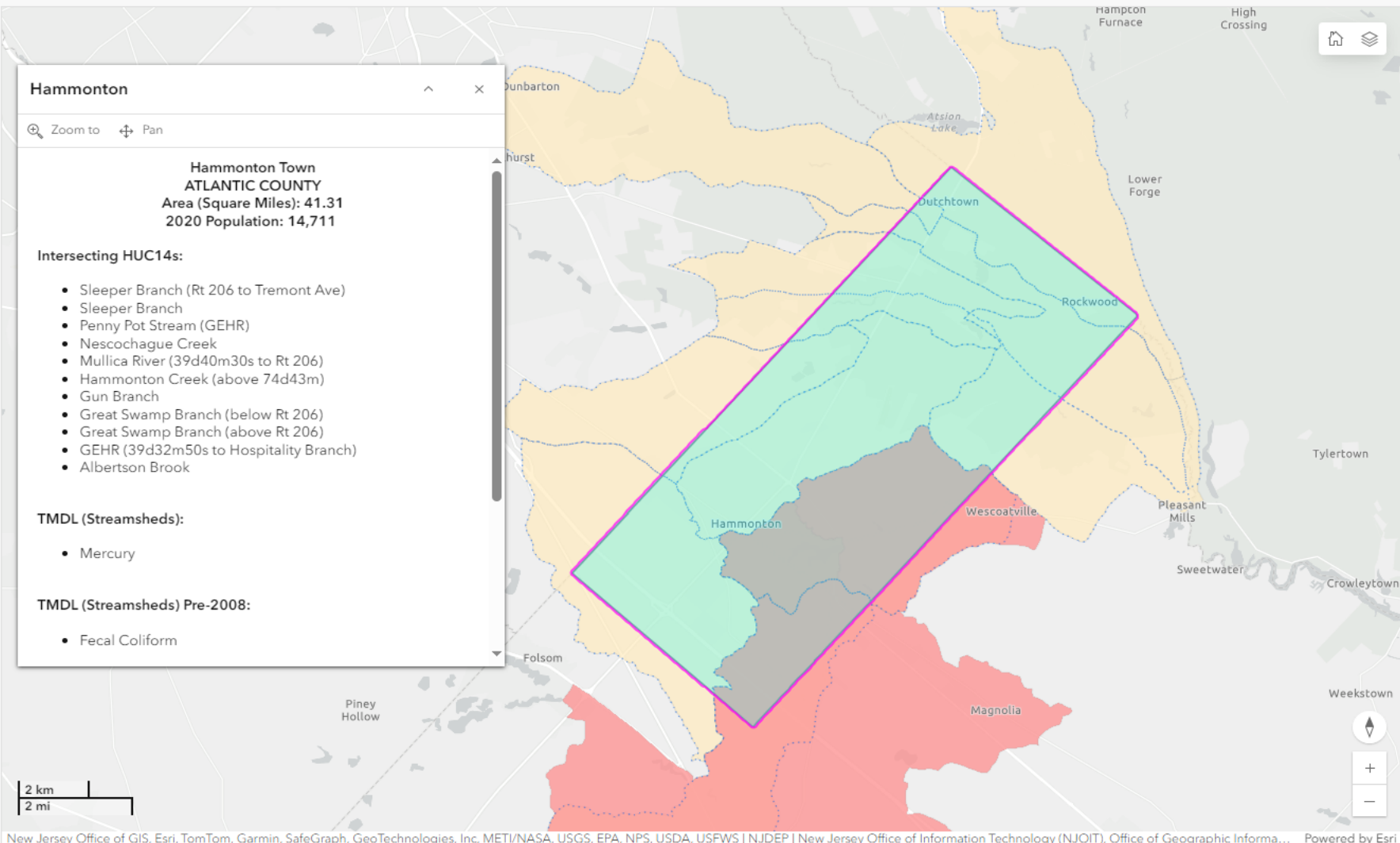
- Sleeper Branch (Rt 206 to Tremont Ave)
- Sleeper Branch
- Penny Pot Stream (GEHR)
- Nescochague Creek
- Mullica River (39d40m30s to Rt 206)
- Hammonton Creek (above 74d43m)
- Gun Branch
- Great Swamp Branch (below Rt 206)
- Great Swamp Branch (above Rt 206)
- GEHR (39d32m50s to Hospitality Branch)
- Albertson Brook

#### TMDL (Streamsheds):

- Mercury

#### TMDL (Streamsheds) Pre-2008:

- Fecal Coliform



### Municipality



### Watersheds (DEPHUC14)



### TMDLs

#### TMDL (Streamsheds)

- Polychlorinated Biphenyls (PCBs)
- Total Phosphorus
- Volatile Organic Compounds (VOCs)
- Total Suspended Solids

#### TMDL (Streamsheds) Pre-2008

- Fecal Coliform
- Total Phosphorus

#### TMDL (Lakesheds)

- Fecal Coliform
- Total Phosphorus

#### TMDL (Shellfish)

- Total coliform

New Jersey Office of GIS, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS | NJDEP | New Jersey Office of Information Technology (NJGIT), Office of Geographic Information Systems (OGIS) | Powered by Esri

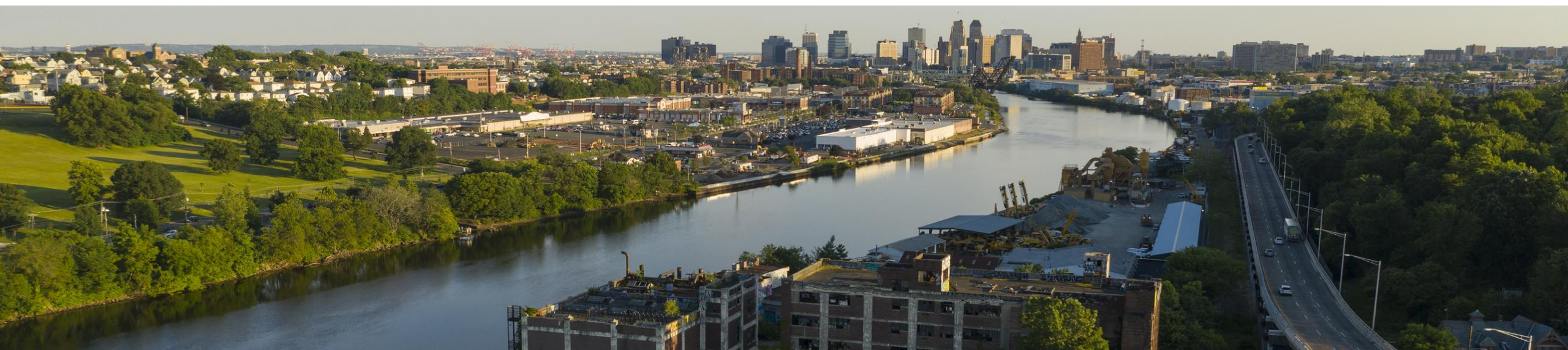


# Regional Collaboration

- The Department fully supports municipalities and other MS4 permittees collaborating regionally to prepare their WIPs
- Some potential partnership ideas:
  - 2 or more MS4s that discharge to the same or adjacent waterbodies or HUC 14s that share a TMDL or impairment
  - Managed by a watershed group or similar organization
  - Managed by an existing regional authority

# Watershed Assessment Report – Phase 2

- Stakeholder by soliciting 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

- Summarize proposed projects, comments received, costs, coordination with other programs, and schedule





# Additional & Optional Measures

- 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

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



# Annual Report & Certification

- Access Annual Report via the NJDEP Online Portal
- Due by May 1<sup>st</sup> each year



Tier A - Attach the Supplemental Questionnaire

[https://dep.nj.gov/wp-content/uploads/njpdessstormwater/tier\\_a\\_ms4\\_annual\\_supplemental\\_questionnaire\\_2022.pdf](https://dep.nj.gov/wp-content/uploads/njpdessstormwater/tier_a_ms4_annual_supplemental_questionnaire_2022.pdf)



Tier A - Attach Illicit Connection Inspection Reports (if applicable)

<https://www.state.nj.us/dep/dwq/pdf/illicit-connection-combined-with-closeout-editable.pdf>



Public Complex – Attach Outfall Inspection Forms, Stream Scouring Forms, and Illicit Connection Forms

<https://dep.nj.gov/njpdessstormwater/municipal-stormwater-regulation-program/public-complex-stormwater-permit/#templates-and-forms>






# NJDEP Online Tips

- Access Annual Report and attach all required forms
  - Create your own NJDEP Online account – you cannot finish a report that another user started
  - Contact your Case Manager if you are unable to complete the Annual Report – report may be “In Progress” under another user’s account
  - Write down your username and password, etc. – accounts are managed by NJOIT
- Access Facility Submittal Service (FSS) to submit all required permit documents (maps, SPPPs, WIP documents, etc.)



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Department of Environmental Protection



## NJDEP Online Business Portal

# NJDEP Online Guides and FAQs





[https://www.nj.gov/dep/dwq/pdf/MS4\\_Annual\\_Report\\_FAQs.pdf](https://www.nj.gov/dep/dwq/pdf/MS4_Annual_Report_FAQs.pdf)


[https://www.nj.gov/dep/dwq/pdf/MS4\\_Annual\\_Report\\_Guide.pdf](https://www.nj.gov/dep/dwq/pdf/MS4_Annual_Report_Guide.pdf)


<https://dep.nj.gov/wp-content/uploads/njpdcs-stormwater/guide-for-stormwater-document-submittal-service-2023.pdf>



# \$\$ Funding Resources \$\$


- \$ Rutgers Cooperative Extension- Water Resources Program 
- \$ New Jersey Infrastructure Bank (I-Bank)
- \$ Stormwater Utilities 
- \$ Tier A Stormwater Assistance Grant 
- \$ Original Tier A towns- \$25,000
- \$ New Tier A towns- \$75,000
- \$ Special Emergency Appropriations (NJS 40A:4-55.1) 

 Department of Environmental Protection



Bureau of NJPDES Stormwater Permitting and Water Quality Management

[Home](#) [Municipal Stormwater Regulation Program](#) [Stormwater Utility Guidance](#) [Industrial Stormwater Program](#) [Water Quality Management Planning](#)




[Home](#) / [Municipal Stormwater Regulation Program](#)

## Municipal Stormwater Regulation Program


The Municipal Stormwater Regulation Program was developed in response to the U. S. Environmental Protection Agency's (USEPA) Phase II rules published in December 1998. The Department issued the final NJPDES stormwater rules on February 2, 2004 and four NJPDES general permits authorizing stormwater discharges from Tier A and Tier B municipalities as well as Public Complexes, and Highway Agencies that discharge stormwater from municipal separate storm sewers systems (MS4s) and have subsequently been renewed on a routine basis.

The Tier A permit authorizes stormwater discharges from most municipalities in New Jersey. Public Complexes include certain large public colleges, prisons, hospital complexes, and military bases. Highway Agencies include county, state, interstate, or federal government agencies that operate highways and other thoroughfares.


If you have questions regarding the MS4 General Permits, you may email your [case manager](#) or MS4 program at [stormwatermanager@dep.nj.gov](mailto:stormwatermanager@dep.nj.gov), or call the Bureau's general line at 609-633-7921.




Tier A MS4 Stormwater Permit



Public Complex MS4 Stormwater Permit




Highway Agency MS4 Stormwater Permit




Municipal Stormwater Mapping and Inventory Assistance

The Department's mapping and inventory assistance tools are now available. See [mapping assistance](#).




Total Maximum Daily Load (TMDL) Look-Up Tool

The tool was developed to allow New Jersey's municipal stormwater program coordinators to quickly identify Total Maximum Daily Load (TMDL) information in relation to Municipal Separate Storm Sewer Systems.




Case Manager List

List of MS4 case manager list by county.




Outreach Material

A variety of tools (posters, handouts, commercials etc) for helping permittees with their Public Education and Outreach requirements.




[njstormwater.org](http://njstormwater.org)

This website list different training related to stormwater as well as the Best Practice Manual for technical stormwater assistant.




Clean Water NJ


Clean Water NJ is a dedicated webpage for the public to learn about the basics of stormwater and what each person can do to help keep NJ waters clean.



Snow Removal Policy



Deicing Storage Structure Policy



Stormwater Program Coordinator Information Update Sheet

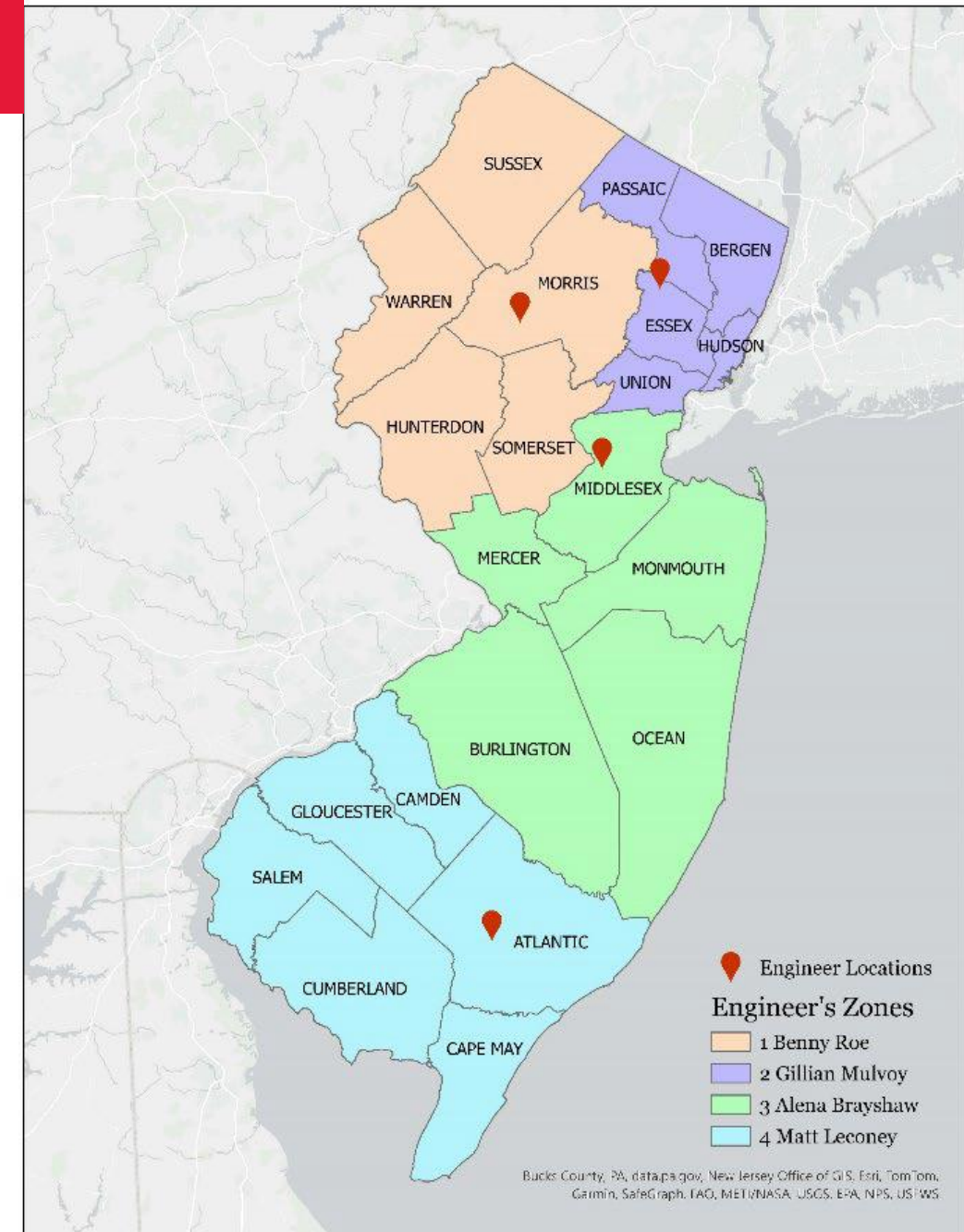
<https://dep.nj.gov/njpdes-stormwater/municipal-stormwater-regulation-program/>



1. Build or enhance stormwater asset inventory or mapping
2. Stormwater system vulnerability, condition/functional assessment
3. Water quality and flood stressor identification
4. Watershed implementation planning and project identification and design
5. Zoning and impervious surface build out analysis
6. Ordinance evaluation and amendment

Region	Name	Email
Northwest	Benny Roe	<a href="mailto:benny.roe@rutgers.edu">benny.roe@rutgers.edu</a>
Northeast	Gillian Mulvoy	<a href="mailto:gillian.mulvoy@rutgers.edu">gillian.mulvoy@rutgers.edu</a>
Central	Alena Brayshaw	<a href="mailto:alena.brayshaw@rutgers.edu">alena.brayshaw@rutgers.edu</a>
South	Matthew Leconey	<a href="mailto:matthew.leconey@rutgers.edu">matthew.leconey@rutgers.edu</a>

## MS4 Engineer's Zones



# CONTACT US

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Bureau of NJPDES  
Stormwater Permitting  
& Water Quality  
Management



[stormwatermanager@dep.nj.gov](mailto:stormwatermanager@dep.nj.gov)



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



[County Case Manager List](#)