



STORMWATER

Stormwater: Permit Conditions and Watershed Improvement Plan

ANJEC's Environmental Congress , October 10th, 2025

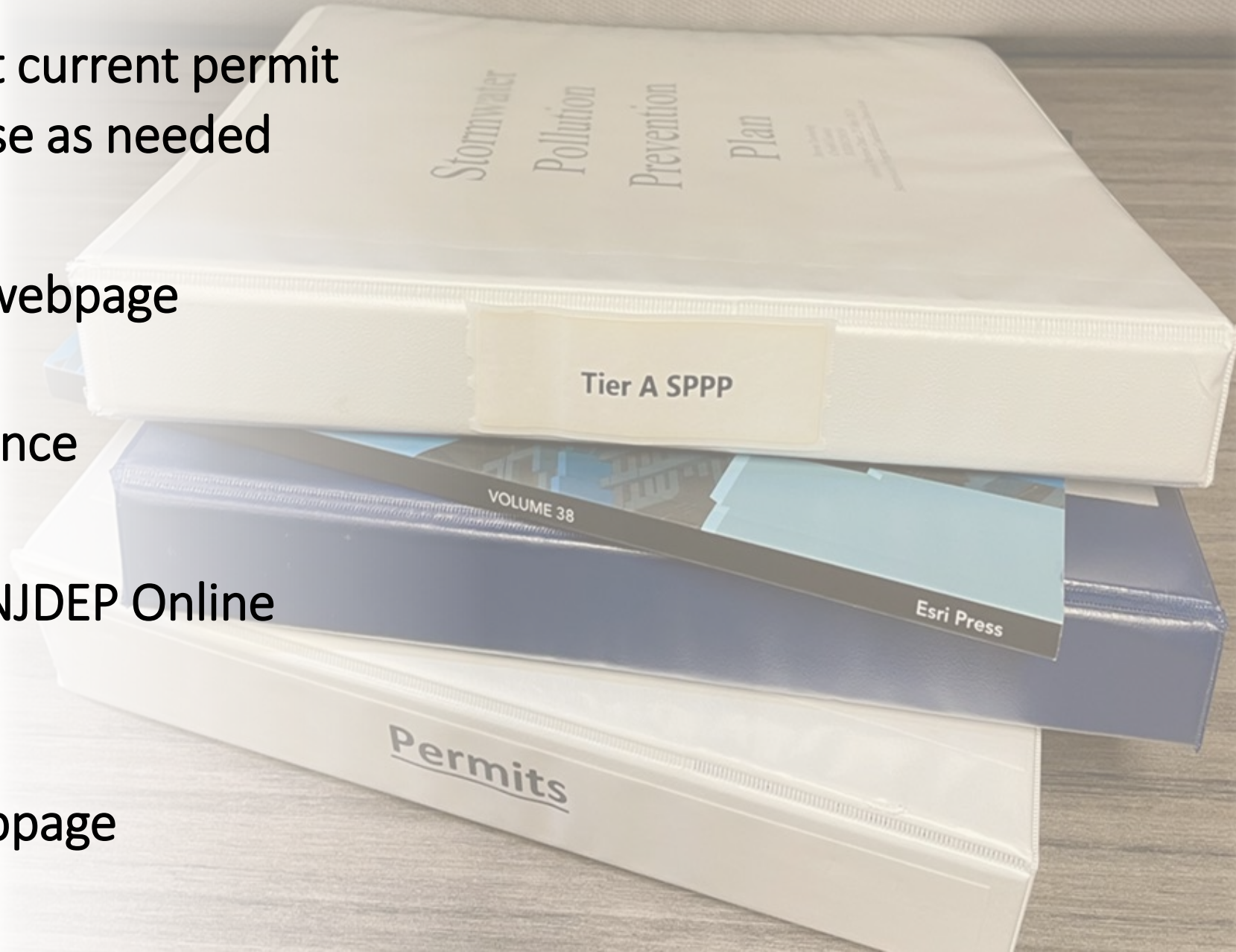


Permit Conditions



Stormwater Pollution Prevention Plan

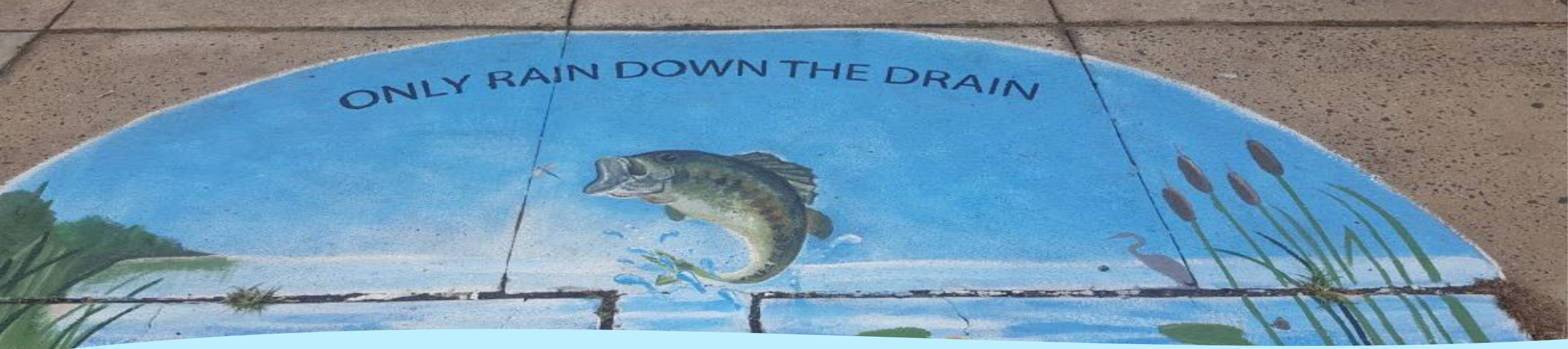
- Create or update to reflect current permit
 - Review annually, revise as needed
- Fillable template on MS4 webpage
- See sample SPPP for guidance
- Submit updated SPPP via NJDEP Online
- Post current SPPP on dedicated stormwater webpage





Dedicated Stormwater Webpage

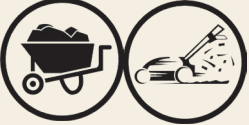
- ✓ Develop a dedicated stormwater webpage to include all required postings/links
- ✓ Free template: <https://dep.nj.gov/njpdes-stormwater/stormwater-webpage-template/>
- ✓ Information required to be posted:
 - ✓ Stormwater Pollution Prevention Plan
 - ✓ Municipal Stormwater Management Plan
 - ✓ Ordinances
 - ✓ MS4 Infrastructure Map
 - ✓ Watershed Improvement Plan meeting information and documents



Local Public Education & Outreach

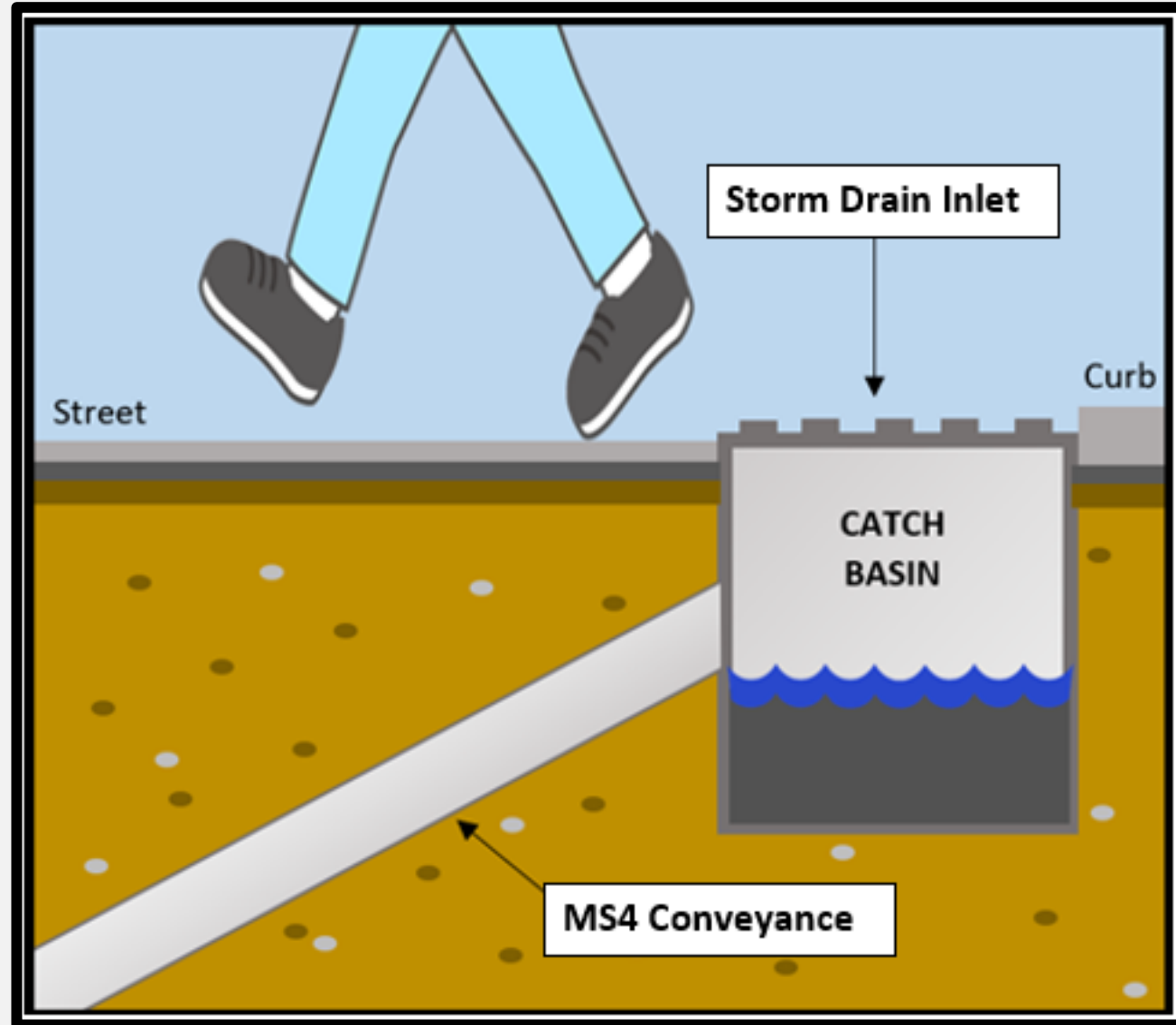
Tier A

- ✓ 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

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

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





MS₄ 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



**Sweep roads with
storm drain inlets**



**Sweep roads that
discharge to surface water**

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



Training Requirements

- Stormwater Program Coordinators
- Annual Tier A Employees
- Stormwater Management Design Reviewers



Tier A - Municipal Board & Governing Body Members

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
- ✓ Department by January 1, 2026

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



Watershed Improvement Plan

Purpose:

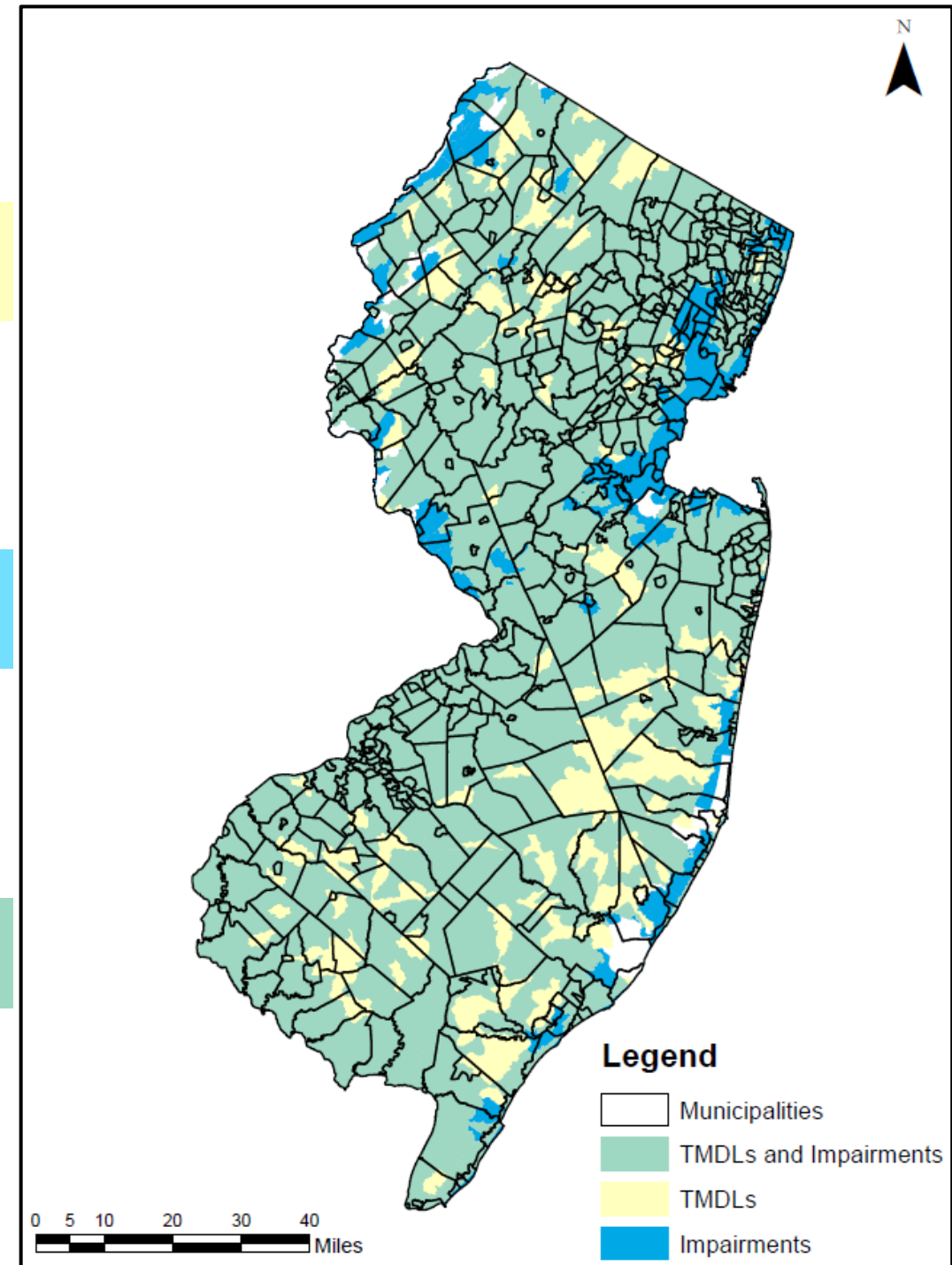
- ✓ Identify opportunities to improve water quality
- ✓ Reduce MS4 contribution of pollutants to waterbodies with impairments & TMDLs
- ✓ Address stormwater flooding to protect human health and safety, and the environment



Total Maximum Daily Load (TMDLs)

Water Quality Impairments

TMDLs and Impairments



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

- ✓ 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

2 km
2 mi

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

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

WIP Resources



[Home](#) / [Municipal Stormwater Regulation Program](#) / **Watershed Improvement Plan**

Watershed Improvement Plan

Templates

[Phase 1 – Watershed Inventory Report Template](#)

[Watershed Assessment Report – Phase 2 – *Coming Soon*](#)

[Watershed Improvement Plan – Phase 3 – *Coming Soon*](#)

New Jersey Watershed Evaluation Tool (NJ-WET)

[NJ-WET](#)

[NJ-WET FAQ](#)

Resources

[*WIP Project Matrix \(See * below\)](#)

[WIP Project Descriptions – *Coming Soon*](#)

[Pollutants of Concern](#)

[TMDL Lookup Tool](#)

[NJDEP Open Data](#)

[H&H Database](#)

[**MS4 Technical Assistance Program for Municipalities –
Rutgers Cooperative Extension \(See ** below\)](#)

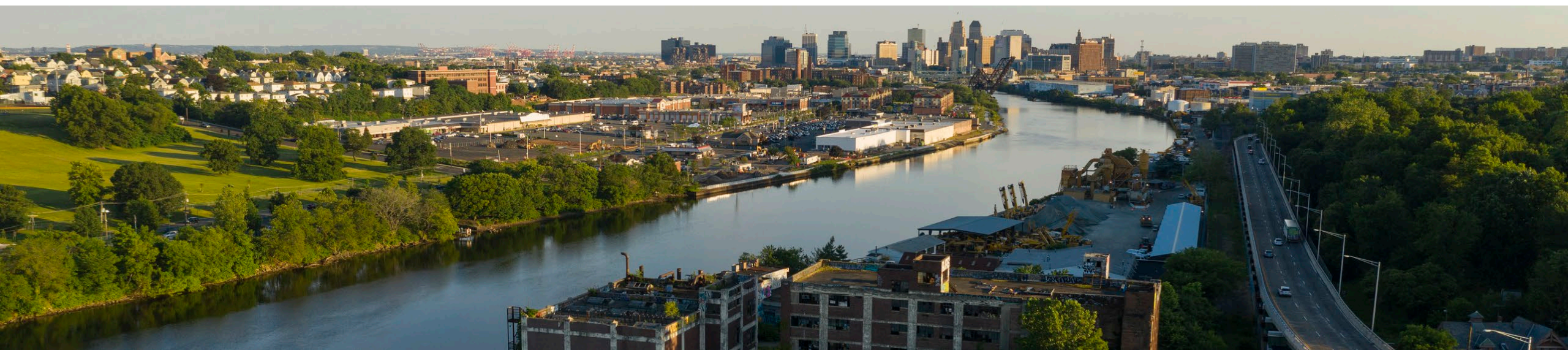
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Regional Collaboration

- 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

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



Watershed Improvement Plan Report – Phase 3

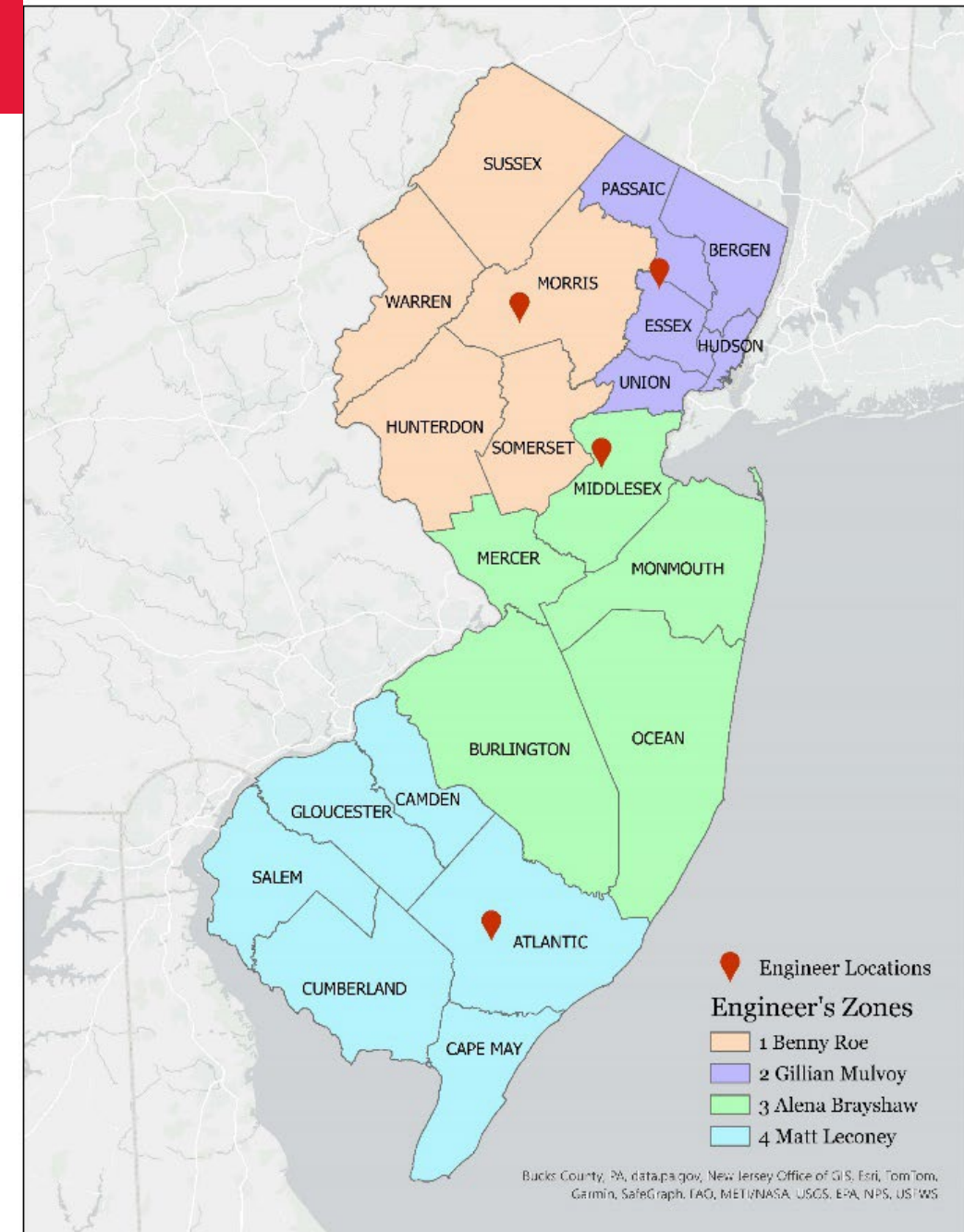
- Summarize proposed projects, comments received, costs, coordination with other programs, and schedule



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
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South	Matthew Leconey	matthew.leconey@rutgers.edu

MS4 Engineer's Zones



CONTACT US

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Stormwater Permitting



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



[County Case Manager List](#)



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