



MS4 Technical Assistance

December 4, 2024




Agenda

- ✓ **MS4 Infrastructure Mapping Requirements**
- ✓ **ArcGIS Online Mapping Tool**
- ✓ **Watershed Inventory Report Requirements**
- ✓ **Resources**
- ✓ **Q & A**

MS4 Infrastructure Mapping Requirements



Overview of Required Attributes

<u>MS4 Outfalls</u> <ul style="list-style-type: none"> ✓ Type ✓ Receiving surface water name 	<u>MS4 Ground Water Discharge Points</u> <ul style="list-style-type: none"> ✓ Type 	<u>MS4 Interconnections</u> <ul style="list-style-type: none"> ✓ Type ✓ Into/from entity 	<u>Storm Drain Inlets</u> <ul style="list-style-type: none"> ✓ Type ✓ Catch basin present ✓ Label present ✓ Retrofitted 	<u>MS4 Manholes</u> <ul style="list-style-type: none"> ✓ None
<u>MS4 Conveyance</u> <ul style="list-style-type: none"> ✓ Type ✓ Direction of flow 	<u>MS4 Pump Stations</u> <ul style="list-style-type: none"> ✓ None 	<u>Stormwater Facilities</u> <ul style="list-style-type: none"> ✓ Type 	<u>Property Boundaries of Maintenance Yards and Ancillary Operations</u> <ul style="list-style-type: none"> ✓ Type 	<u>Property Boundaries of Public Complex</u> <ul style="list-style-type: none"> ✓ None 

Acceptable Data Formats for Submission

Shapefile(s)



Geodatabase(s)



AutoCAD File(s)



MS4 Outfalls

“Outfall” means any point source which discharges directly to waters of the United States



Required Attributes:

- ✓ Type
- ✓ Receiving surface water name

**Submit as a point layer*



Local ID	Type	Receiving Surface Water Body
01	Pipe	Delaware River
02	Open Channel	Storm Creek
03	Other – Described in comments	Lake Hopatcong

MS4 Ground Water Discharge Points

“Ground water discharge point” means the lowest invert elevation of any stormwater facility where stormwater discharges into the surficial ground water aquifer.

Required Attributes:

✓ Type

**Submit as a point layer*



Local ID	Type
01	Constructed Infiltration BMP
02	Overland Flow Area
03	Other – Described in comments

Basins with Multiple Inlet Structures



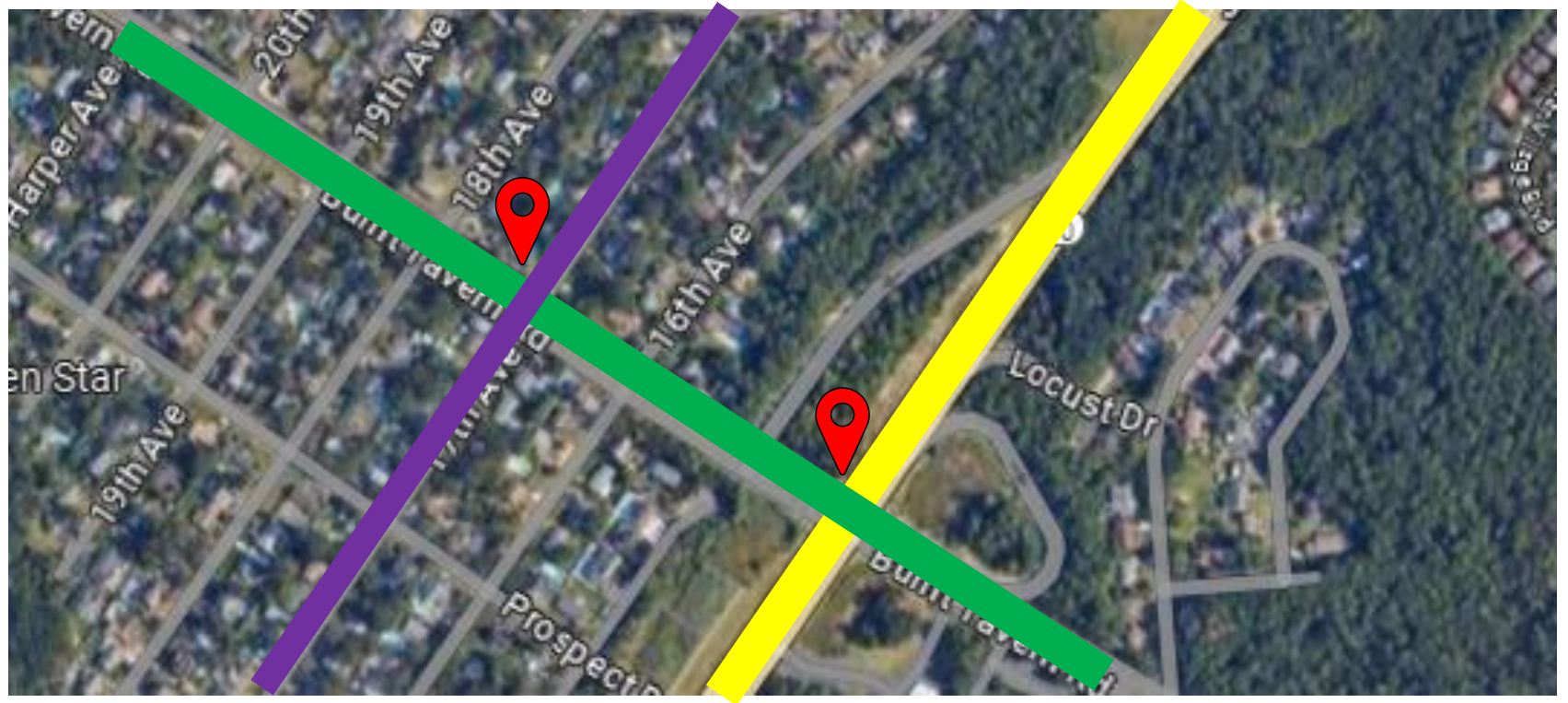
MS4 Interconnections

“MS4 interconnection” means any point at which an MS4 flows into or from another MS4.

Required Attributes:

- ✓ Type
- ✓ Upstream Entity
- ✓ Downstream Entity

**Submit as a point layer*



Local ID	Type	Upstream Entity	Downstream Entity
01	Pipe	Mercer County	Hamilton Township
02	Open Channel	Hamilton Township	NJDOT
03	Other – Described in comments	TCNJ	Mercer County

Storm Drain Inlets

"Storm drain inlet" means the point of entry into the MS4.

Required Attributes:

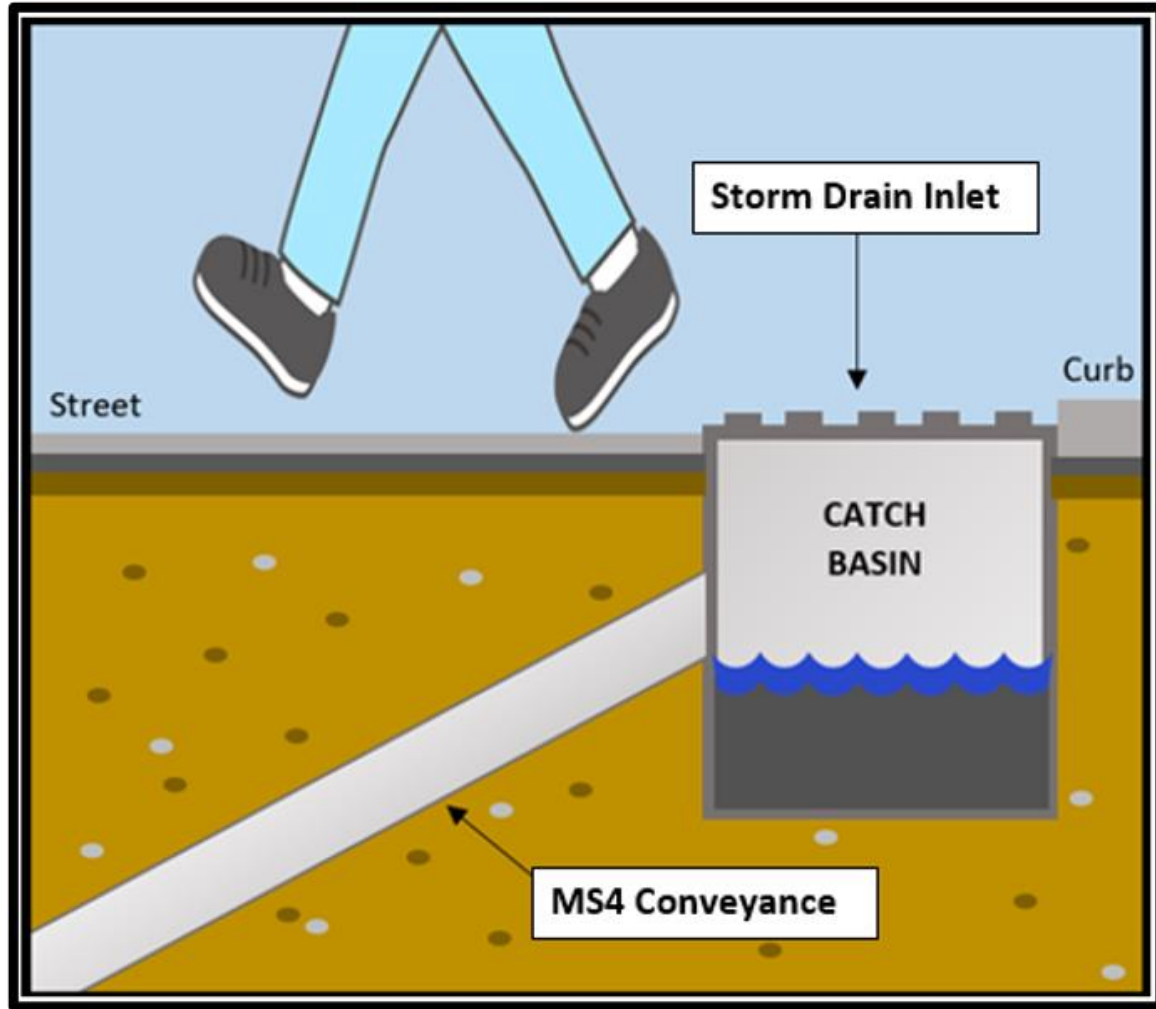
- ✓ Type
- ✓ Catch Basin Present?
- ✓ Label Present?
- ✓ Retrofitted?

**Submit as a point layer*



Local ID	Type	Catch Basin Present?	Label Present?	Retrofitted?
01	Type A - Single Grate Inlet	Yes	Yes	Yes
02	Type B or C - Combination Inlet	Yes	Yes	No
03	Type D - Barrier Curb Combination Inlet	Yes	No	Yes
04	Type E - Dual Grate Inlet	No	Yes	Yes
05	Curb Cut	Yes	Yes	No
06	Trench Drain	No	No	No
07	Other	No	No	No

"Catch Basin" means a cistern, vault, chamber, or well that is typically built along a street and below an inlet grate as part of the storm sewer system that is designed to capture and retain sediment, debris, and pollutants so those particles do not pass on to the stormwater sewer system.



Catch Basin Present?





Label Present?



Retrofitted?

“Retrofit” means to make the curb opening of a storm drain inlet smaller to control the passage of solid and floatable materials through it.



MS4 Manholes

“MS4 manhole” means a round structure that provides access to an underground MS4 system.

Required Attributes:

✓ None

**Submit as a point layer*



Optional attribute table

Local ID	Road Name	Diameter	Material
01	Main Street	18 in	Corrugated Metal
02	Ocean Avenue	24 in	Concrete
03	Storm Drive	20 in	Steel

MS4 Conveyance

"MS4 conveyance" means a drainage system which can include municipal streets, curbs, gutters, ditches, manmade channels, or storm drains that convey stormwater.

Required Attributes:

- ✓ Type
- ✓ Direction of flow

**Submit as a line layer*



Local ID	Type	Direction of Flow
01	Pipe	N
02	Open Channel	SE
03	Other – Described in comments	NW

MS4 Pump Stations

“MS4 Pump station” means an intermediate collection tank for stormwater with a submersible pump at the bottom.



Required Attributes:

✓ None

**Submit as a point layer*

Optional attribute table

Local ID	Number of Pumps	Flow Capacity	Road Name
01	2	10,000 gallons	Main Street
02	1	5,000 gallons	Ocean Avenue

Stormwater Facilities

"Stormwater facility" means stormwater infrastructure including, but not limited to, infiltration basins, detention basins, green infrastructure (GI), filter strips, riparian buffers, infiltration trenches, sand filters, constructed wetlands, wet basins, bioretention systems, low flow bypasses, and Manufactured Treatment Devices (MTDs).

Required Attributes:

✓ Type

**Submit as a point layer*



Local ID	Type
01	Bioretention System
02	Blue Roof
03	Rain Garden
04	Constructed Wetland
05	Dry Well
06	Extended Detention Basin
07	Green Roof
08	Infiltration Basin
09	MTD
010	Pervious Pavement
011	Sand Filter
012	Wet Pond



What if it's both?

Stormwater Facility & Ground Water Discharge Point

Property Boundaries of Maintenance Yard & Ancillary Operations

Maintenance or storage yard(s) owned/operated by the permittee.

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

Required Attributes:

✓ Type

**Submit as a polygon layer*



Local ID	Type
01	DPW Yard
02	Salt storage yard
03	Fueling pumps



Property Boundaries of Public Complex Facility

Required Attributes:

✓ None

**Submit as a polygon layer*

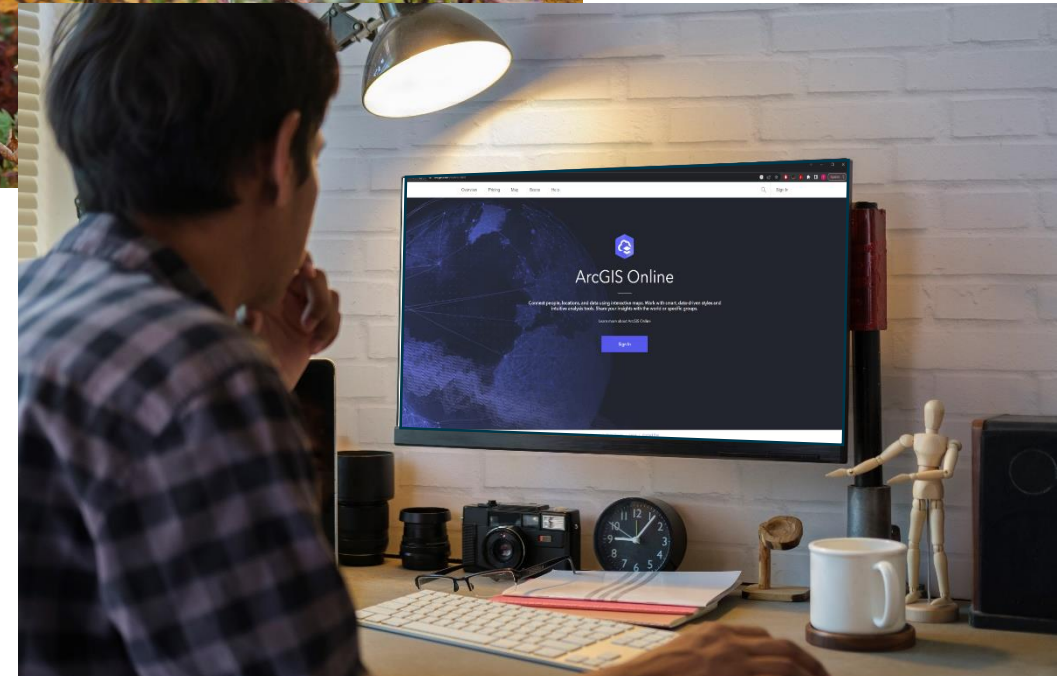


ArcGIS Online Mapping Tool



Mapping & Inventory Options

- ✓ ArcGIS Online
 - ✓ Desktop
 - ✓ GPS Device
 - ✓ Phone or Tablet
- ✓ ESRI Geodatabase
 - ✓ ArcMap
 - ✓ ArcPro



ArcGIS Online – Shared Editing Map

The screenshot shows the ArcGIS Online interface for a group named 'NJDEP Municipal Stormwater Mapping Content'. The browser address bar shows the URL: <https://njdep.maps.arcgis.com/home/group.html?id=5632ba4cc92946f588bb7c21c3a28be1#overview>. The top navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, and Organization. Below this, a blue header bar displays the group name. To the right of the header, there are tabs for Overview, Content, and Members. The main content area features a purple square with the letter 'N' and text stating: 'Applications, maps, data, etc. shared with this group generates the NJDEP Municipal Stormwater Mapping content catalog. owned by [WQ_Timothy.Ebersberger_njdep](#)'. Below this, there is a button labeled 'Any organization'.

Description

Use this group to organize the items that you want to share as part of your initiative. Shared items become available in your initiative's search results and only people who have access to these items will be able to find them. Members of the Core Team get access to shared items and can update them at any time. Certain cards, like the Gallery card, will automatically populate with shared items so that you don't have to search for them when choosing what you want to display on your site.

Contact support with any questions related to this group or content management for your site.

DO NOT DELETE THIS GROUP.

Recently added content

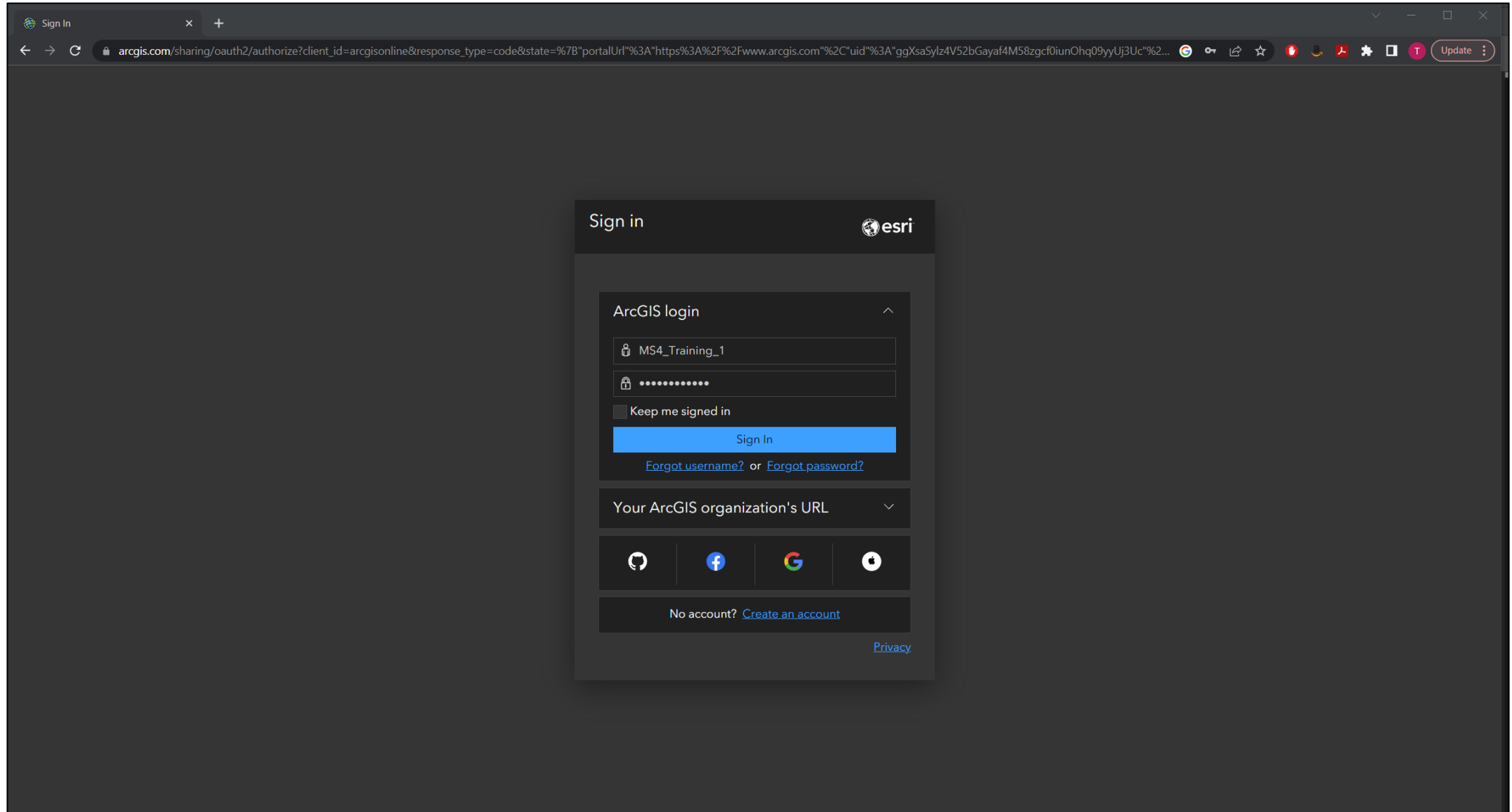


The screenshot shows the ArcGIS Online map viewer for a map titled 'MS4 Infrastructure Editing Map'. The browser address bar shows the URL: <https://njdep.maps.arcgis.com/home/webmap/viewer.html?webmap=e09a8cf7824642458ba7d05bbbd42660>. The top navigation bar includes links for Home, Details, and Basemap. Below this, there are tabs for About, Content, and Legend. The main content area displays a map of the Philadelphia area, showing various cities and landmarks. The map is overlaid with a network of lines representing infrastructure. The map viewer includes a search bar, a scale bar, and a legend. The bottom of the screen shows the Esri logo and the text 'POWERED BY esri'.

ArcGIS Online Data Collection



ArcGIS Online Data Collection



The image shows a web browser window with the ArcGIS Online login page. The browser's address bar displays a URL for an OAuth2 authorization page. The login form is centered on a dark background and includes fields for username and password, a 'Keep me signed in' checkbox, and a 'Sign In' button. Below the login fields, there are links for 'Forgot username?' and 'Forgot password?'. A section for 'Your ArcGIS organization's URL' is also present, followed by social media icons for GitHub, Facebook, Google, and Twitter. At the bottom, there is a link to 'Create an account' for new users and a 'Privacy' link.

Sign In

esri

ArcGIS login

MS4_Training_1





.....

☐ Keep me signed in

Sign In

[Forgot username?](#) or [Forgot password?](#)

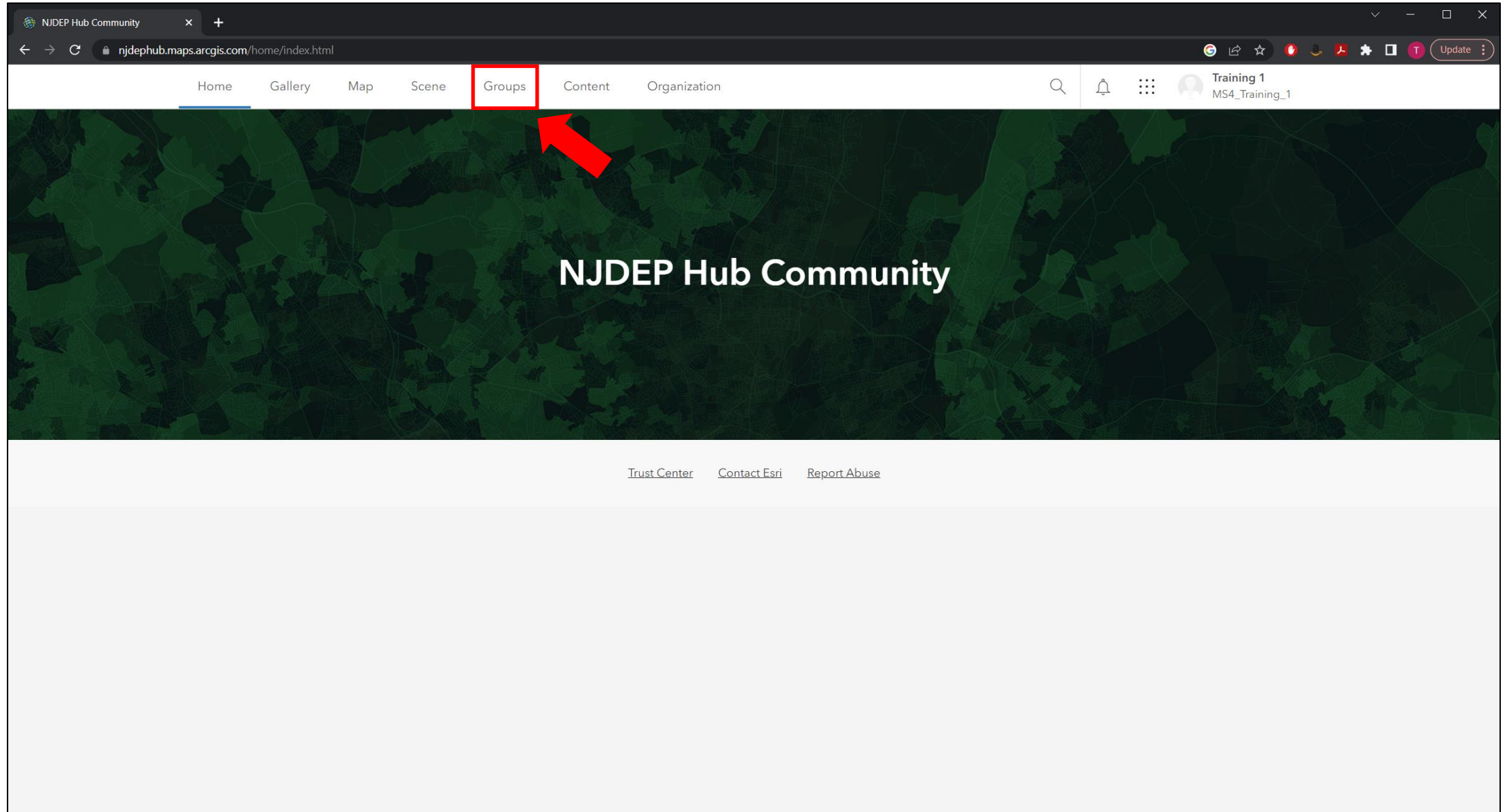
Your ArcGIS organization's URL

No account? [Create an account](#)

[Privacy](#)

ArcGIS Online Data Collection



ArcGIS Online Data Collection

The screenshot shows the ArcGIS Online Groups page. The browser address bar displays `https://njdep.maps.arcgis.com/home/groups.html?sortField=title&sortOrder=asc#my`. The top navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, and Organization. The user is logged in as Kristen Hinds (wq_k.jezycki_njdep). The main header has tabs for Groups, My groups, Featured groups, and My organization's groups. A search bar labeled "Search my groups" is present. On the left, there are filters for "Only show groups with new membership requests" (toggle off), "Owner" (wq_k.jezycki_njdep, Another organization member, Someone outside the organization), "Current members are from" (My organization only, Another organization), and "Group membership setting" (My organization only, Partnered organizations, Any organization). The main content area shows a list of groups. The first group is "MS4 Application - EDIT" by Dave Krady, last updated Sep 21, 2023, with a "Shared Update" button. The second group is "NJDEP Municipal Stormwater Mapping Content" by Timothy Ebersberger, last updated Apr 16, 2024, with a "View details" link. This second group is highlighted with a red box, and a red arrow points to the "View details" link.

Groups - My groups

Home Gallery Map Scene Groups Content Organization

Groups My groups Featured groups My organization's groups

Search my groups

1-2 of 2

Filters

Only show groups with new membership requests

Owner

wq_k.jezycki_njdep

Another organization member

Someone outside the organization

Current members are from

My organization only

Another organization

Group membership setting

My organization only

Partnered organizations

Any organization

MS4 Application - EDIT

Last updated: Sep 21, 2023

Viewable by: Group members

Shared Update

Dave Krady

View details

NJDEP Municipal Stormwater Mapping Content

Applications, maps, data, etc. shared with this group generates the NJDEP Municipal Stormwater Mapping content catalog.

Last updated: Apr 16, 2024

Viewable by: Group members

Any organization

Timothy Ebersberger

View details

Home
 Gallery
 Map
 Scene
 Groups
 Content
 Organization

Kristen Hinde
 wq_k.jezyski_njdep

NJDEP Municipal Stormwater Mapping Content

Overview
 Content
 Members

Applications, maps, data, etc. shared with this group generates the NJDEP Municipal Stormwater Mapping content catalog.
 owned by WQ_Timothy.Ebersberger_njdep

Any organization

Add items to group

Create Web App

Description

Use this group to organize the items that you want to share as part of your initiative. Shared items become available in your initiative's search results and only people who have access to these items will be able to find them. Members of the Core Team get access to shared items and can update them at any time. Certain cards, like the Gallery card, will automatically populate with shared items so that you don't have to search for them when choosing what you want to display on your site.

Contact support with any questions related to this group or content management for your site.

DO NOT DELETE THIS GROUP.

Recently added content

Details

Created: November 26, 2019
 Viewable by: **Only group members**
 Contributors: **Members**
 Members list: **Visible to all group members**
 66 12

Owner

WQ_Timothy.Ebersberger_njdep

Membership

ArcGIS Online Data Collection

The screenshot displays the ArcGIS Online interface for the 'NJDEP Municipal Stormwater Mapping Content' group. The browser address bar shows the URL: <https://njdep.maps.arcgis.com/home/group.html?id=5632ba4cc92946f588bb7c21c3a28be1&view=list#content>. The user is logged in as Kristen Hinds (wq_k.jezycski_njdep).

The interface includes a navigation bar with tabs: Home, Gallery, Map, Scene, Groups, Content, and Organization. The 'Content' tab is active, showing a list of items. The group name 'NJDEP Municipal Stormwater Mapping Content' is displayed at the top, along with tabs for Overview, Content, and Members.

On the left, there is a 'Filters' section with expandable categories: Group categories, Item type, Location, Date modified, Tags, Sharing, and Status. A red arrow points from the 'Location' filter to the 'MS4 Infrastructure Editing Map' item.

The main content area displays a list of items, with '1 - 12 of 12' items shown. The 'MS4 Infrastructure Editing Map' is highlighted with a red box. It is a Web Map created by BG_Ann_Marie.Falkowski_njdep, updated on Jun 6, 2024, with a view count of 3,740. The description states: 'Web map for editing MS4 infrastructure'.

Other items visible include 'Soil Conservation Districts Basins in New Jersey' (Feature Layer) and 'Soil Conservation Districts Basins of New Jersey' (Feature Layer).

ArcGIS Online Data Collection

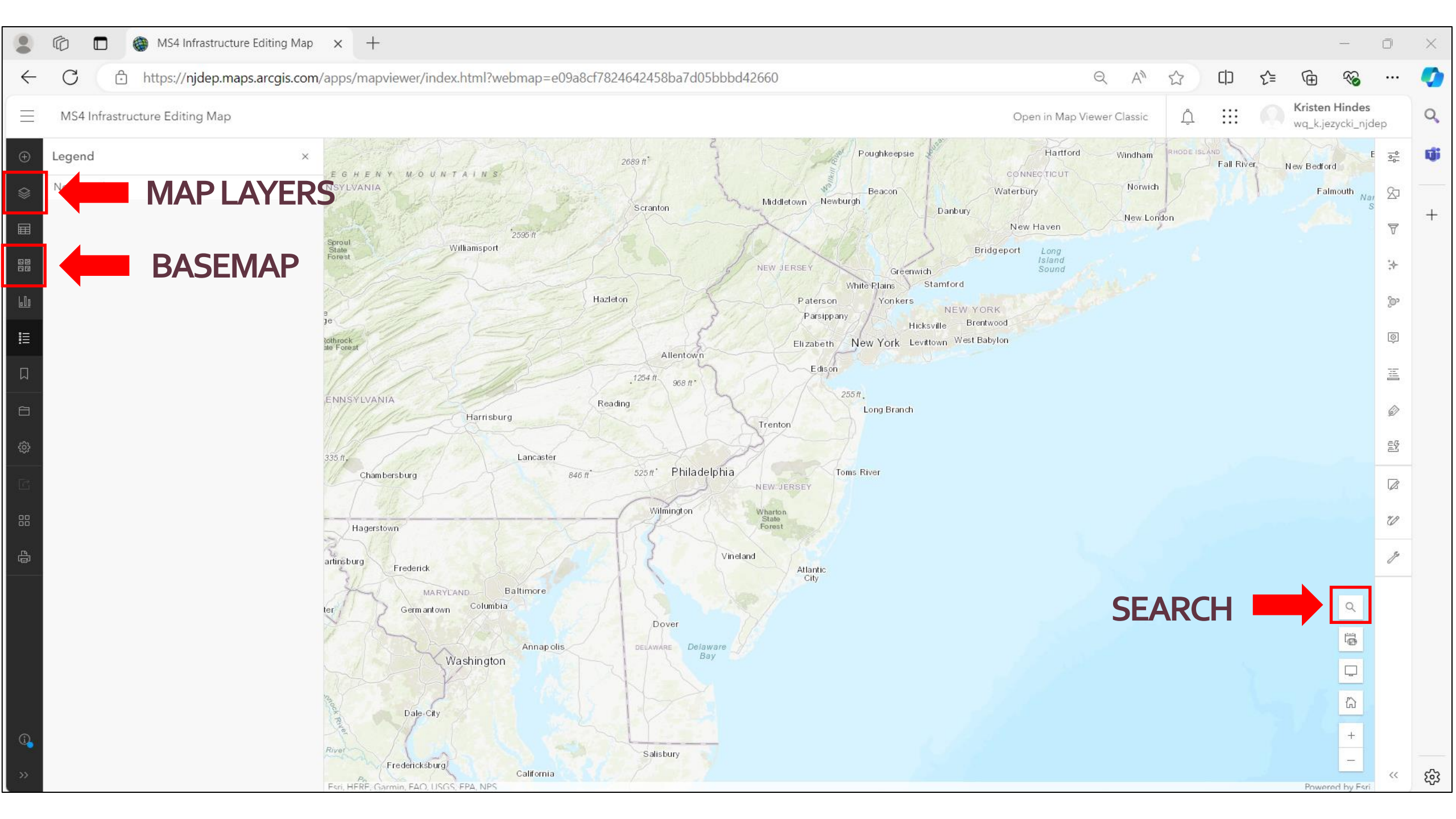
The screenshot displays the ArcGIS Online web interface for a specific map item. The browser address bar shows the URL: `https://njdep.maps.arcgis.com/home/item.html?id=e09a8cf7824642458ba7d05bbbd42660`. The page title is "MS4 Infrastructure Editing Map". The user profile at the top right indicates the user is Kristen Hinds (wq_k.jezycki_njdep).

The main content area features a map thumbnail on the left and a description on the right. The description states: "The Bureau of Nonpoint Pollution Control within the Division of Water Quality issues NJPDES general permits authorizing discharges from Tier A and Tier B municipalities, as well as public complexes, and highway agencies that discharge stormwater from Municipal Separate Storm Sewer Systems (MS4s). As a required in Part IV.C.1&2 of the MS4 permit issued in 2017, permittees are required to develop, update, and maintain an inventory and map of, at a minimum, stormwater facilities identified in Part IV.C.1.b and located within the municipality. Tier A Municipalities are required to develop, update, and maintain an outfall pipe map showing the location of the end of all MS4 outfall pipes which discharge to a surface water body. This web map was created to assist with the collection of MS4 outfall pipes, as well as stormwater management basins, subsurface infiltration/detention systems, manufactured treatment devices (MTDs), green infrastructure, inlets, and culverts."

Below the description, the "Layers" section lists three feature layers: "Basin", "Culvert", and "Green Infrastructure".

On the right side of the page, the "Details" section shows the item's size (41,229 KB) and ID (e09a8cf7824642458ba7d05bbbd42660). The "Share" section shows a share icon and a plus sign. The "Owner" section shows the user profile for BG_Ann_Marie.Falkowski_njdep. The "Tags" section lists several tags: "NJDEP, DWQ, BNPC, MS4, Municipal Separate Storm Sewer System, stormwater, basins, culverts, green infrastructure, inlets, manufactured".

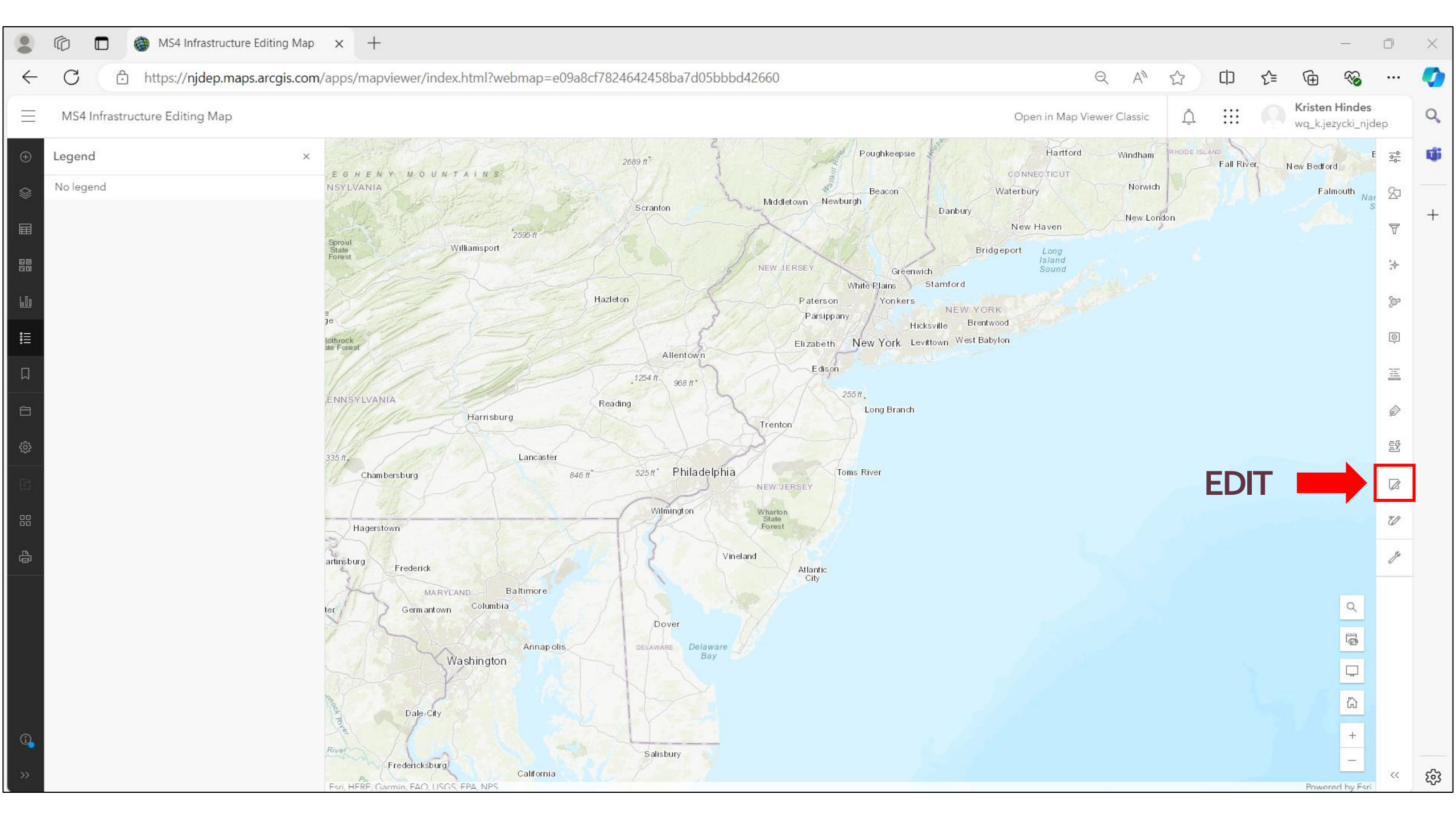
A red arrow points to the "Open in Map Viewer" button, which is highlighted with a red box. Other buttons visible include "Open in ArcGIS Desktop", "Open in Web Editor", and "Create Web App".



MAP LAYERS

BASEMAP

SEARCH



MS4 Infrastructure Editing Map

Open in Map Viewer Classic

Kristen Hinds
wq_k.jezyski_njdep

Legend

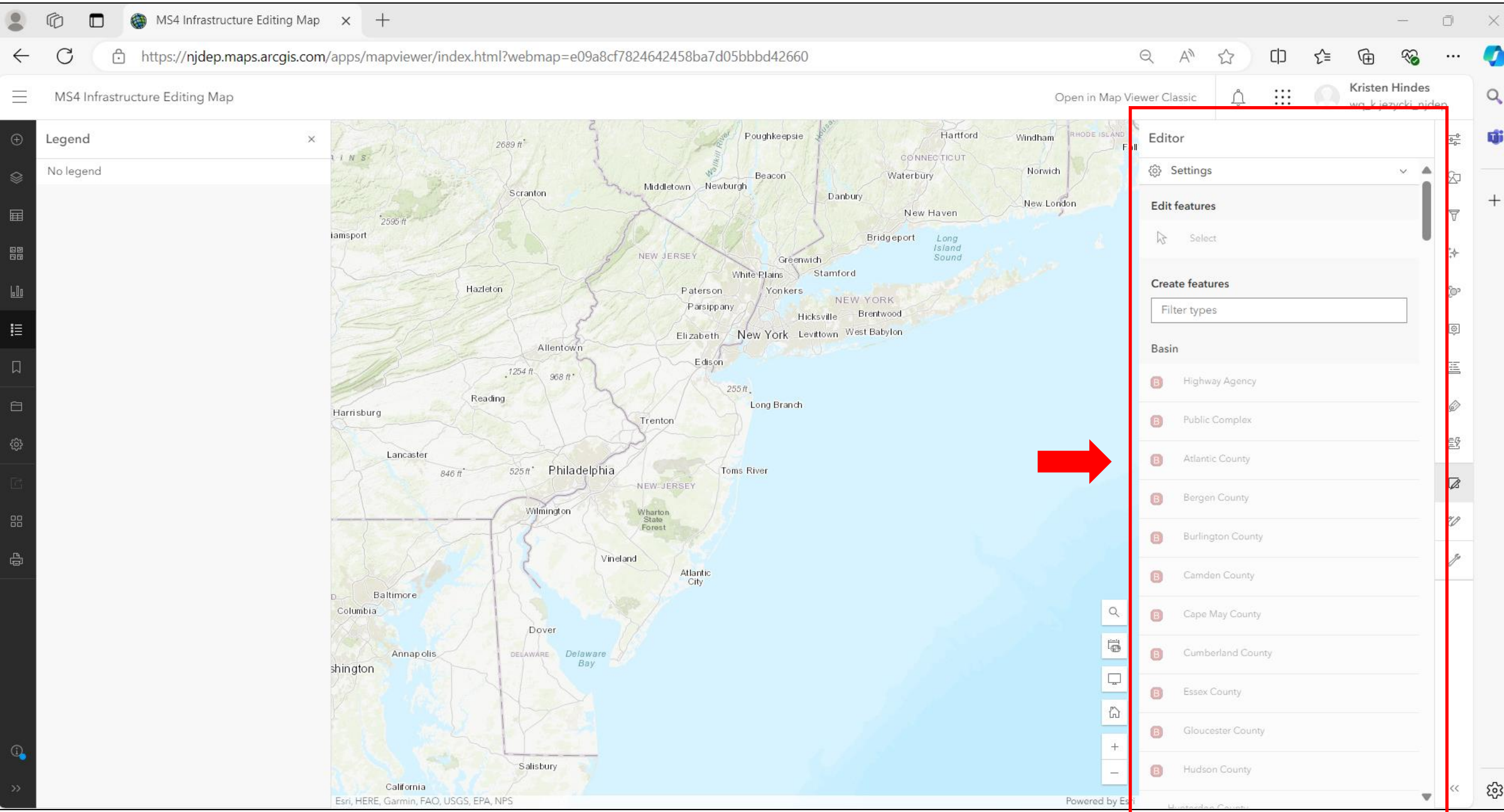
No legend

EDIT

+

-

Powered by Esri



Editor

Settings

Edit features

Select

Create features

Filter types

Basin

B

 Highway Agency

B

 Public Complex

B

 Atlantic County

B

 Bergen County

B

 Burlington County

B

 Camden County

B

 Cape May County

B

 Cumberland County

B

 Essex County

B

 Gloucester County

B

 Hudson County

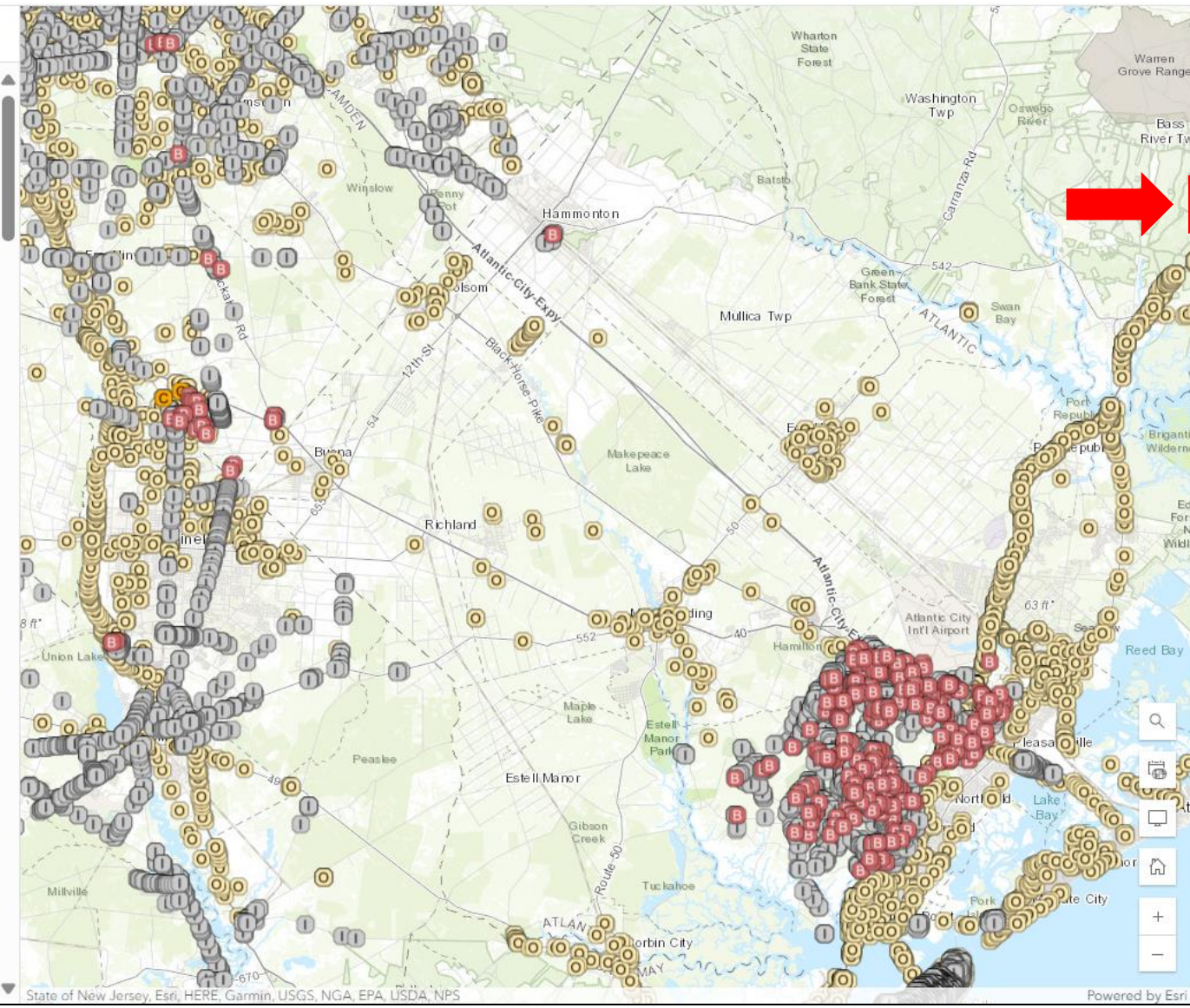
Legend

Basin

- Highway Agency
- Public Complex
- Atlantic County
- Bergen County
- Burlington County
- Camden County
- Cape May County
- Cumberland County
- Essex County
- Gloucester County
- Hudson County
- Hunterdon County
- Mercer County
- Middlesex County
- Monmouth County
- Morris County
- Ocean County
- Passaic County
- Salem County
- Somerset County
- Sussex County
- Union County
- Warren County

Culvert

- Highway Agency
- Public Complex
- Atlantic County


























Editor

Filter types

- Public Complex
- Atlantic County**
- Bergen County
- Burlington County
- Camden County
- Cape May County
- Cumberland County
- Essex County
- Gloucester County
- Hudson County
- Hunterdon County
- Mercer County
- Middlesex County
- Monmouth County
- Morris County
- Ocean County

⊕ Legend

Basin

-  Highway Agency
-  Public Complex
-  Atlantic County
-  Bergen County
-  Burlington County
-  Camden County
-  Cape May County
-  Cumberland County
-  Essex County
-  Gloucester County
-  Hudson County
-  Hunterdon County
-  Mercer County
-  Middlesex County
-  Monmouth County
-  Morris County
-  Ocean County
-  Passaic County
-  Salem County
-  Somerset County
-  Sussex County
-  Union County
-  Warren County

Culvert

- ☐ Highway Agency
- ☐ Public Complex
- ☐ Atlantic County

<

Create features

Settings

Inlet ID

County

Municipality

Road Name

Owner Type

Discharge Code

Organization*

Atlantic County

NJPDES

Facility Name

Stormwater Management Inlet Type

Create

MS4 Infrastructure Editing Map

https://njdep.maps.arcgis.com/apps/mapviewer/index.html?webmap=e09a8cf7824642458ba7d05bbbd42660

MS4 Infrastructure Editing Map

Open in Map Viewer Classic

Kristen Hindes
wq_k.jezycki_njdep

Legend

Basin

Highway Agency

Public Complex

Atlantic County

Bergen County

Burlington County

Camden County

Cape May County

Cumberland County

Essex County

Gloucester County

Hudson County

Hunterdon County

Mercer County

Middlesex County

Monmouth County

Morris County

Ocean County

Passaic County

Salem County

Somerset County

Sussex County

Union County

Warren County

Culvert

Highway Agency

Public Complex

Atlantic County

Map

State of New Jersey, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

Create features

Road Name

Main Street

Owner Type

Municipality

Discharge Code

R9 - Tier A

Organization*

Atlantic County

NJPDES

Facility Name

Hammonton Town

Stormwater Management Inlet Type

Combination Inlet

Curb Opening Retrofitted

Yes

Bicycle Safe Grate

Yes

Inlet Labeled

Yes

Inlet BMP Present

Create

Legend

Basin

- B Highway Agency
- B Public Complex
- B Atlantic County
- B Bergen County
- B Burlington County
- B Camden County
- B Cape May County
- B Cumberland County
- B Essex County
- B Gloucester County
- B Hudson County
- B Hunterdon County
- B Mercer County
- B Middlesex County
- B Monmouth County
- B Morris County
- B Ocean County
- B Passaic County
- B Salem County
- B Somerset County
- B Sussex County
- B Union County
- B Warren County

Culvert

- C Highway Agency
- C Public Complex
- C Atlantic County

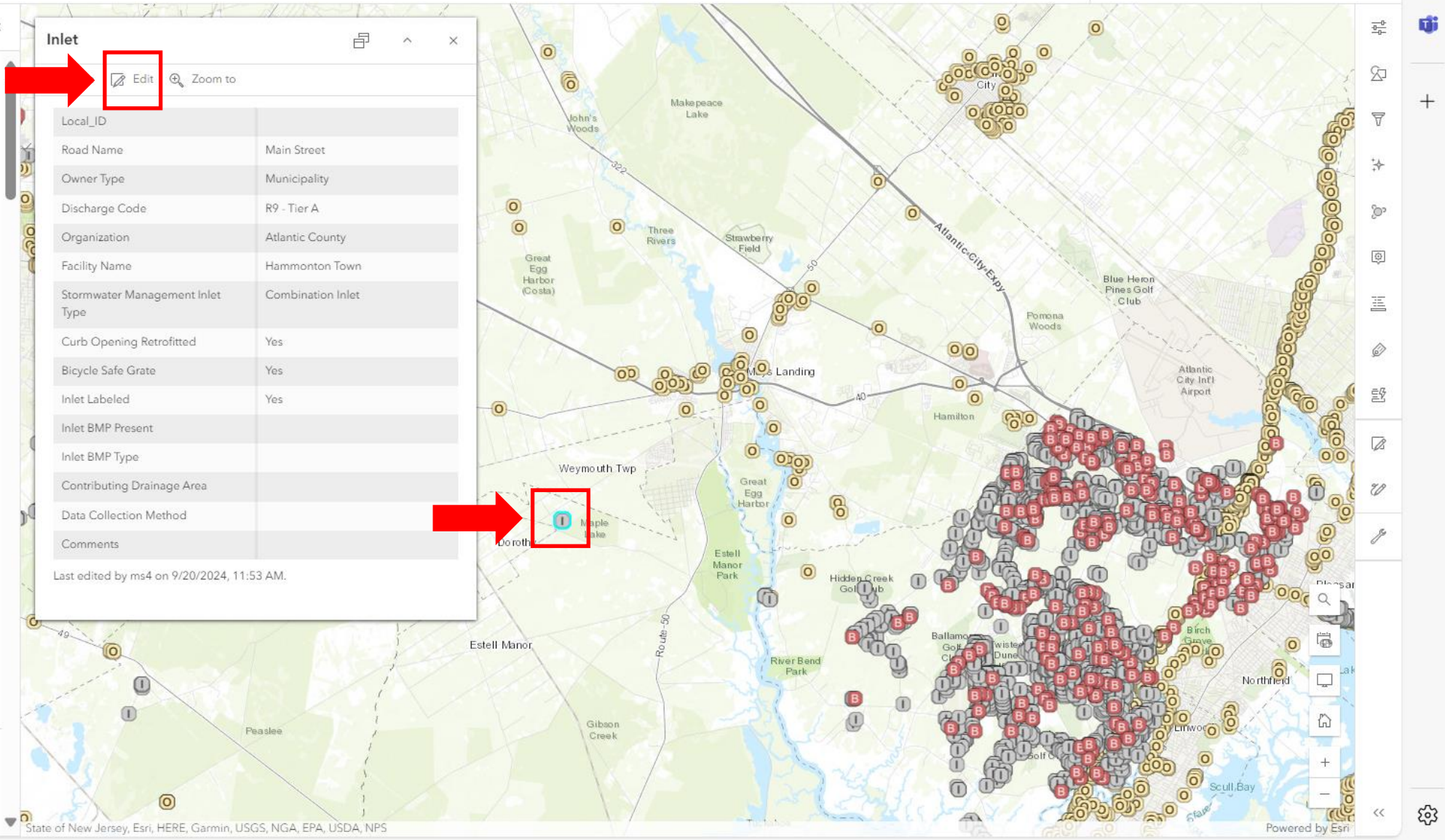
Inlet

Edit

Zoom to

Local_ID	
Road Name	Main Street
Owner Type	Municipality
Discharge Code	R9 - Tier A
Organization	Atlantic County
Facility Name	Hammonton Town
Stormwater Management Inlet Type	Combination Inlet
Curb Opening Retrofitted	Yes
Bicycle Safe Grate	Yes
Inlet Labeled	Yes
Inlet BMP Present	
Inlet BMP Type	
Contributing Drainage Area	
Data Collection Method	
Comments	

Last edited by ms4 on 9/20/2024, 11:53 AM.



MS4 Infrastructure Editing Map

https://njdep.maps.arcgis.com/apps/mapviewer/index.html?webmap=e09a8cf7824642458ba7d05bbbd42660

MS4 Infrastructure Editing Map

Open in Map Viewer Classic

Kristen Hinds
wq_k.jezycki_njdep

Legend

Basin

B Highway Agency

B Public Complex

B Atlantic County

B Bergen County

B Burlington County

B Camden County

B Cape May County

B Cumberland County

B Essex County

B Gloucester County

B Hudson County

B Hunterdon County

B Mercer County

B Middlesex County

B Monmouth County

B Morris County

B Ocean County

B Passaic County

B Salem County

B Somerset County

B Sussex County

B Union County

B Warren County

Culvert

C Highway Agency

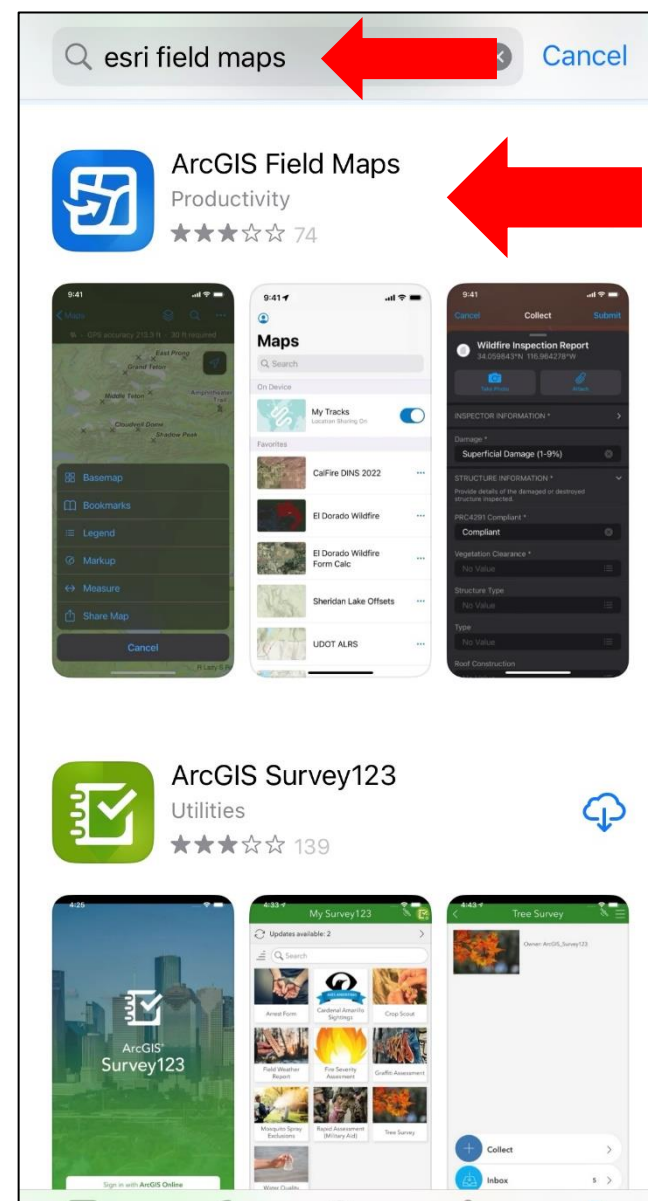
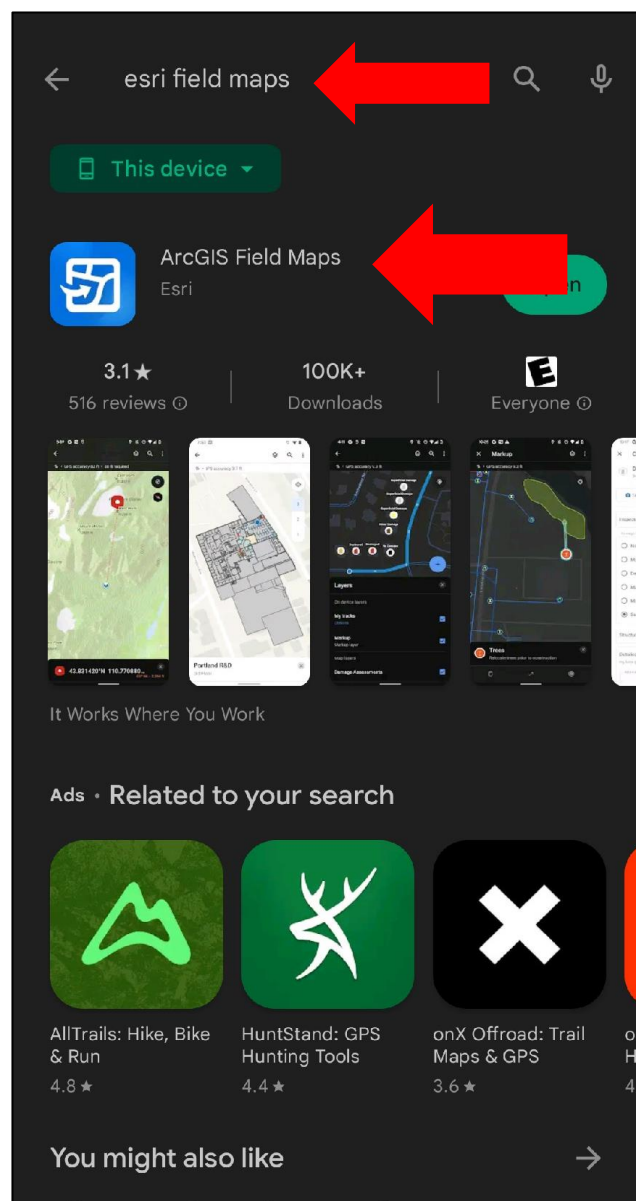
C Public Complex

C Atlantic County

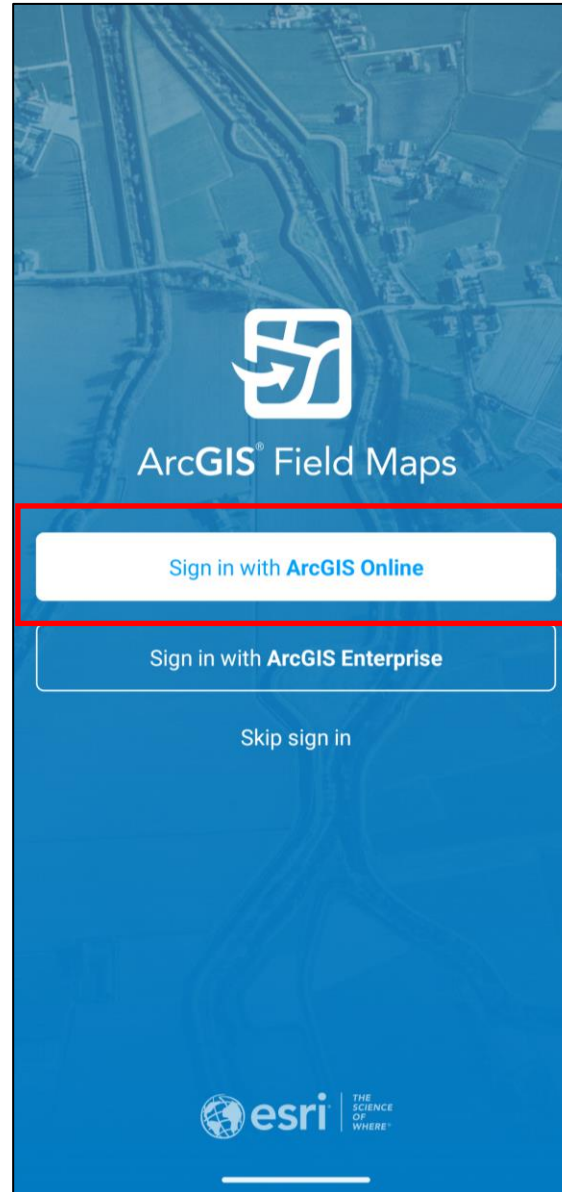
State of New Jersey, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

Powered by Esri

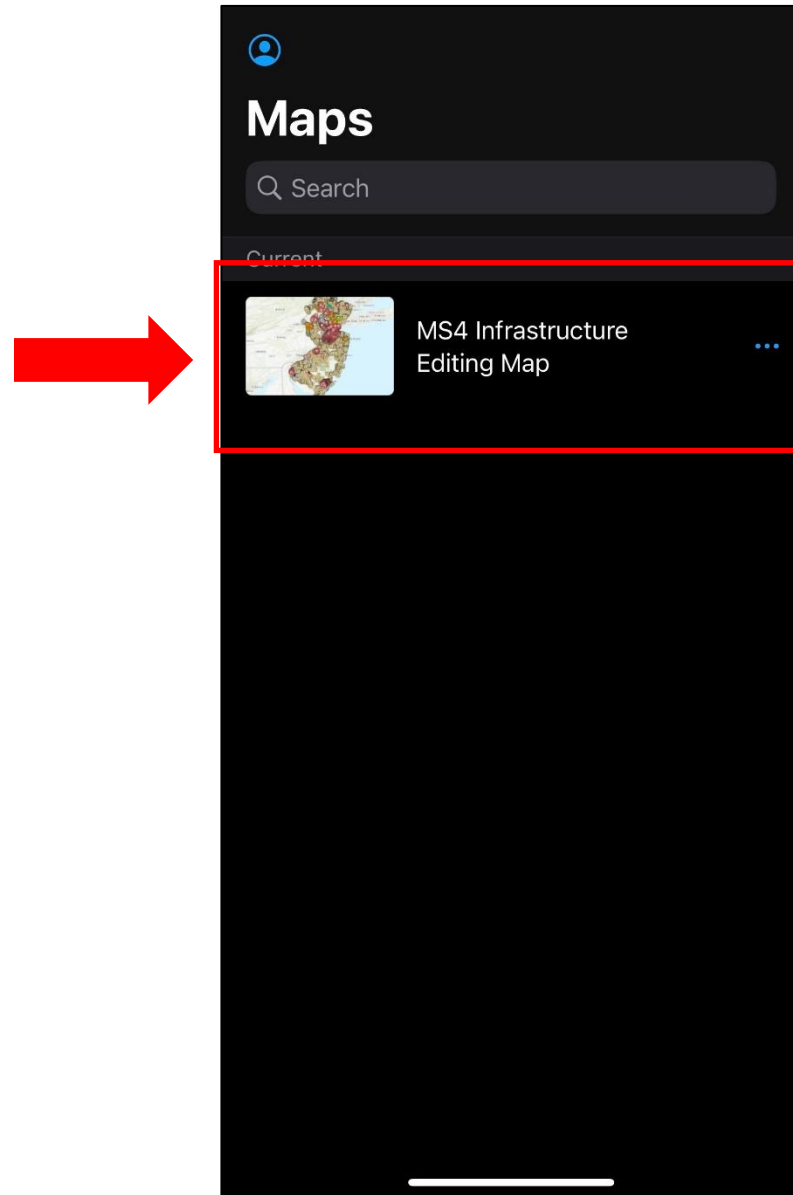
ArcGIS Field Maps App

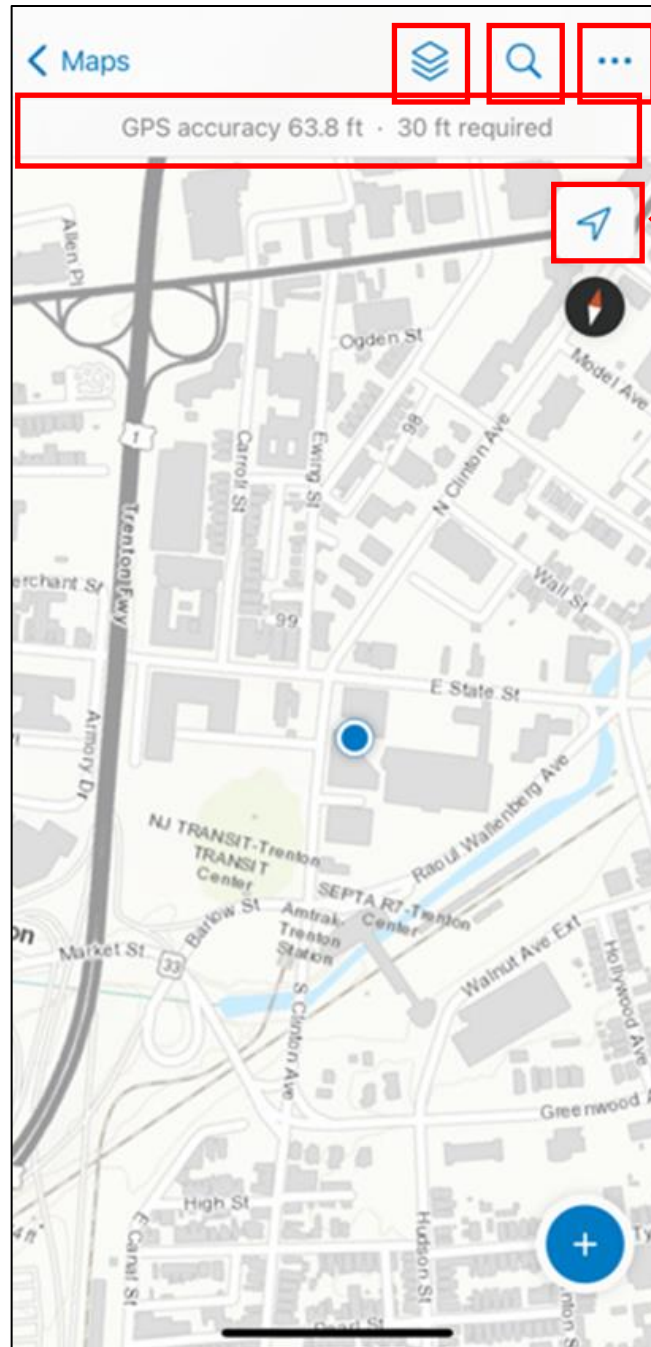


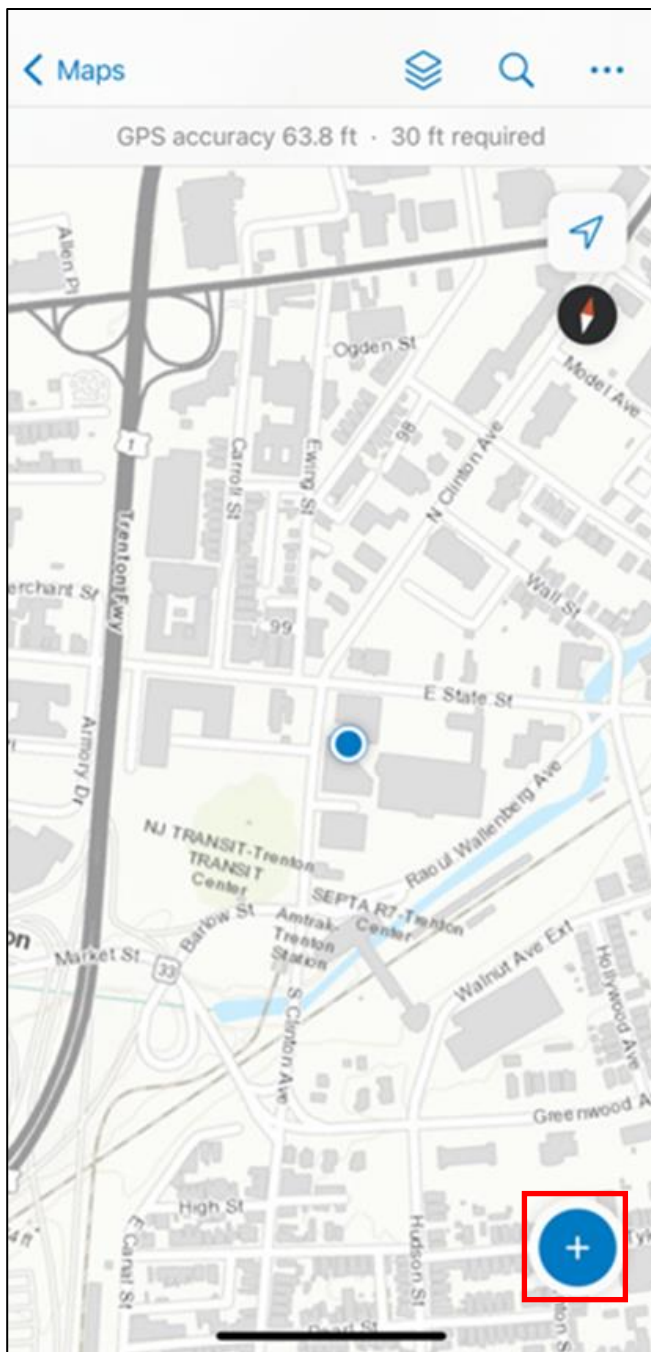
Field Maps Data Collection

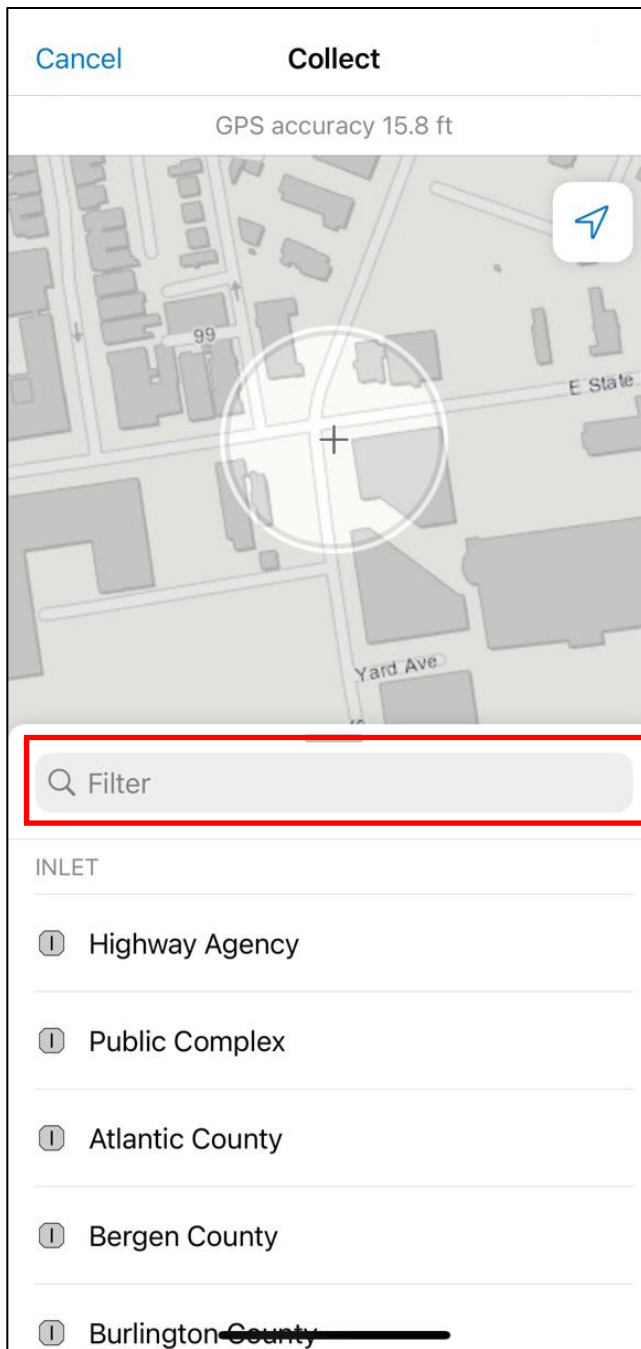


Field Maps Data Collection







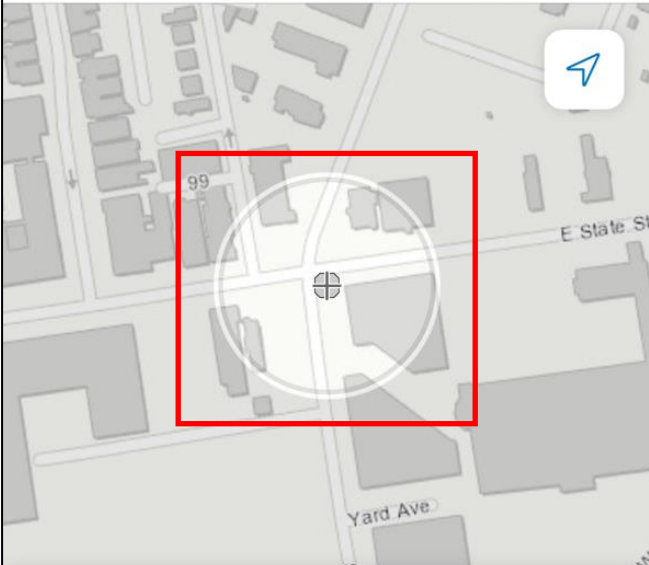




Cancel

Collect

Submit


GPS accuracy 15.8 ft




 **Inlet** 


40.221031°N 74.755330°W

Update Point


 Take Photo

 Attach

Local_ID



Road Name

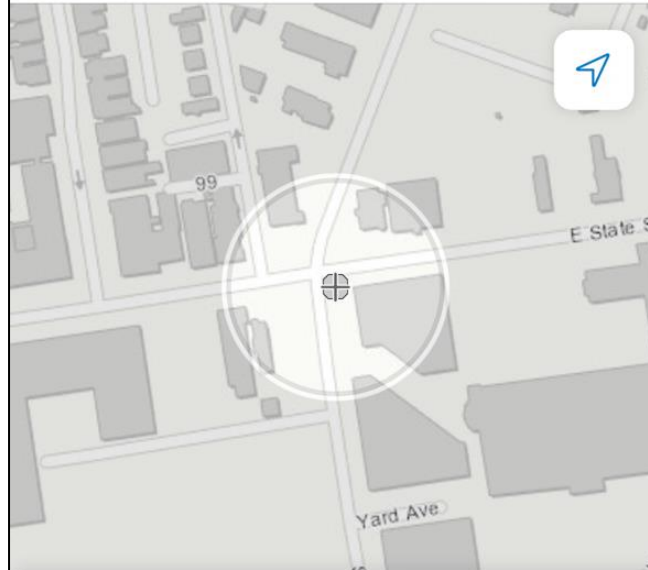


Cancel

Collect

Submit

GPS accuracy 15.8 ft



Inlet



40.221031°N 74.755330°W

Update Point



Take Photo



Attach


Local_ID





Road Name




[Cancel](#)[Collect](#)[Submit](#)

**Inlet**
40.221031°N 74.755330°W



Take Photo


Attach

Local_ID




Road Name




Owner Type

No Value




Discharge Code

No Value




Organization *

Mercer County




Facility Name

No Value



Stormwater Management Inlet Type

No Value





[Cancel](#)[Collect](#)[Submit](#)

I

Inlet
40.221063°N 74.755418°W

Owner Type

Municipality

Discharge Code

R9 - Tier A

Organization *

Mercer County

Facility Name

Trenton City

Stormwater Management Inlet Type

Combination Inlet

Curb Opening Retrofitted

Yes

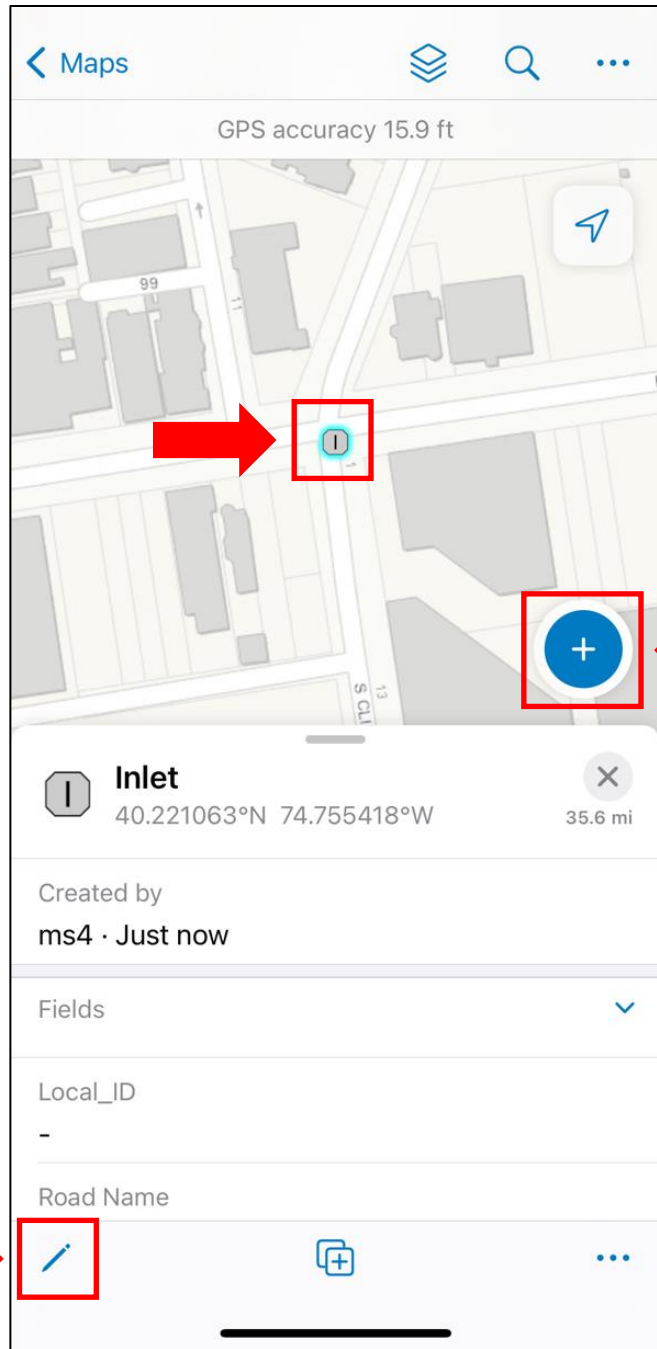
Bicycle Safe Grate

Yes

Inlet Labeled

Yes





ESRI Geodatabase

Untitled - ArcMap

File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help

1:1,500,000

Editor

Snapping

Table Of Contents

Layers

- ☐ Util_stormwater_outfall se
- ☐ Counties selection
- ☒ Util_stormwater_outfall
- ☒ Counties
- ☐ Municipalities
- ☐ Land Use 2012
 - AGRICULTURE
 - BARREN LAND
 - FOREST
 - URBAN
 - WATER
 - WETLANDS

Table

Util_stormwater_outfall

	OBJECTID *	SHAPE *	OutfallType	Outfall_ID	OwnerType	Owner	OutfallDescription	OutfallCondition	PipeMaterial	PipeShape	PipeHeight	PipeWidth	HeadwallC
	1	Point	Outfall	<Null>	Municipal	Brick Township	<Null>	Unknown	<Null>	<Null>	<Null>	<Null>	<Null>
	2	Point	Combined Sewer Outfall	<Null>	Municipal	Trenton City	<Null>	Unknown	<Null>	<Null>	<Null>	<Null>	<Null>
	3	Point	Outfall	<Null>	<Null>	<Null>	<Null>	Unknown	<Null>	<Null>	<Null>	<Null>	<Null>
	4	Point	Outfall	<Null>	<Null>	<Null>	<Null>	Unknown	<Null>	<Null>	<Null>	<Null>	<Null>
	5	Point	Outfall	<Null>	<Null>	<Null>	<Null>	Unknown	<Null>	<Null>	<Null>	<Null>	<Null>
	6	Point	Outfall	<Null>	<Null>	<Null>	<Null>	Unknown	<Null>	<Null>	<Null>	<Null>	<Null>
	7	Point	Outfall	<Null>	<Null>	<Null>	<Null>	Unknown	<Null>	<Null>	<Null>	<Null>	<Null>
	8	Point	Outfall	<Null>	<Null>	<Null>	<Null>	Unknown	<Null>	<Null>	<Null>	<Null>	<Null>
	9	Point	Outfall	<Null>	<Null>	<Null>	<Null>	Unknown	<Null>	<Null>	<Null>	<Null>	<Null>
	10	Point	Outfall	<Null>	<Null>	<Null>	<Null>	Unknown	<Null>	<Null>	<Null>	<Null>	<Null>
	11	Point	Outfall	<Null>	<Null>	<Null>	<Null>	Unknown	<Null>	<Null>	<Null>	<Null>	<Null>
	12	Point	Outfall	<Null>	<Null>	<Null>	<Null>	Unknown	<Null>	<Null>	<Null>	<Null>	<Null>
	13	Point	Outfall	<Null>	<Null>	<Null>	<Null>	Unknown	<Null>	<Null>	<Null>	<Null>	<Null>
	14	Point	Outfall	<Null>	<Null>	<Null>	<Null>	Unknown	<Null>	<Null>	<Null>	<Null>	<Null>
	15	Point	Outfall	<Null>	<Null>	<Null>	<Null>	Unknown	<Null>	<Null>	<Null>	<Null>	<Null>

1 (0 out of 13567 Selected)

Util_stormwater_outfall

Construction Tools

Select a template.

315618.115 789355.145 Feet

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
- ✓ Existing data can be accessed via NJDEP Open Data
- ✓ Training and assistance is available

Q & A



Watershed Inventory Report Requirements



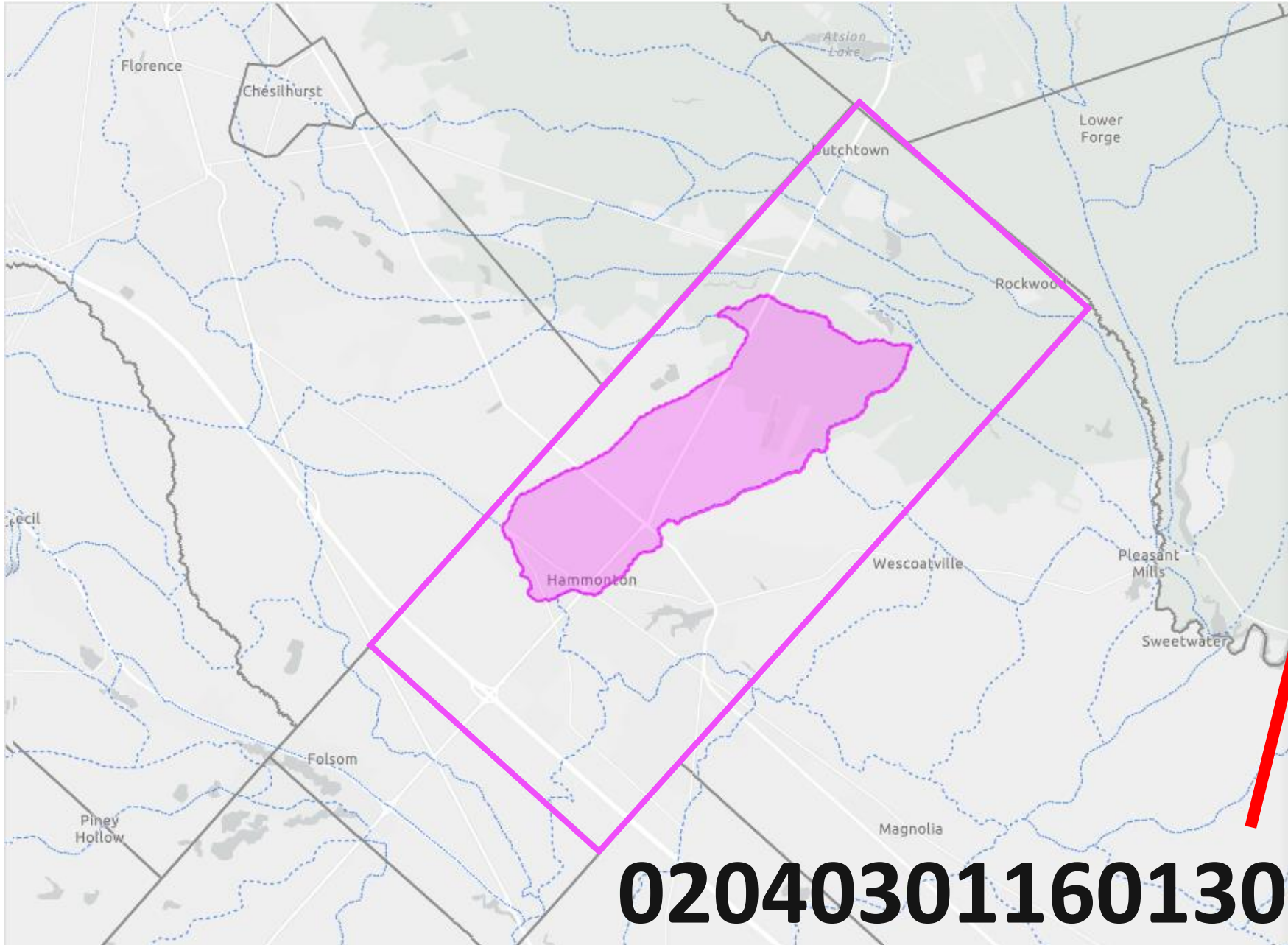


Watershed Improvement Plan

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)



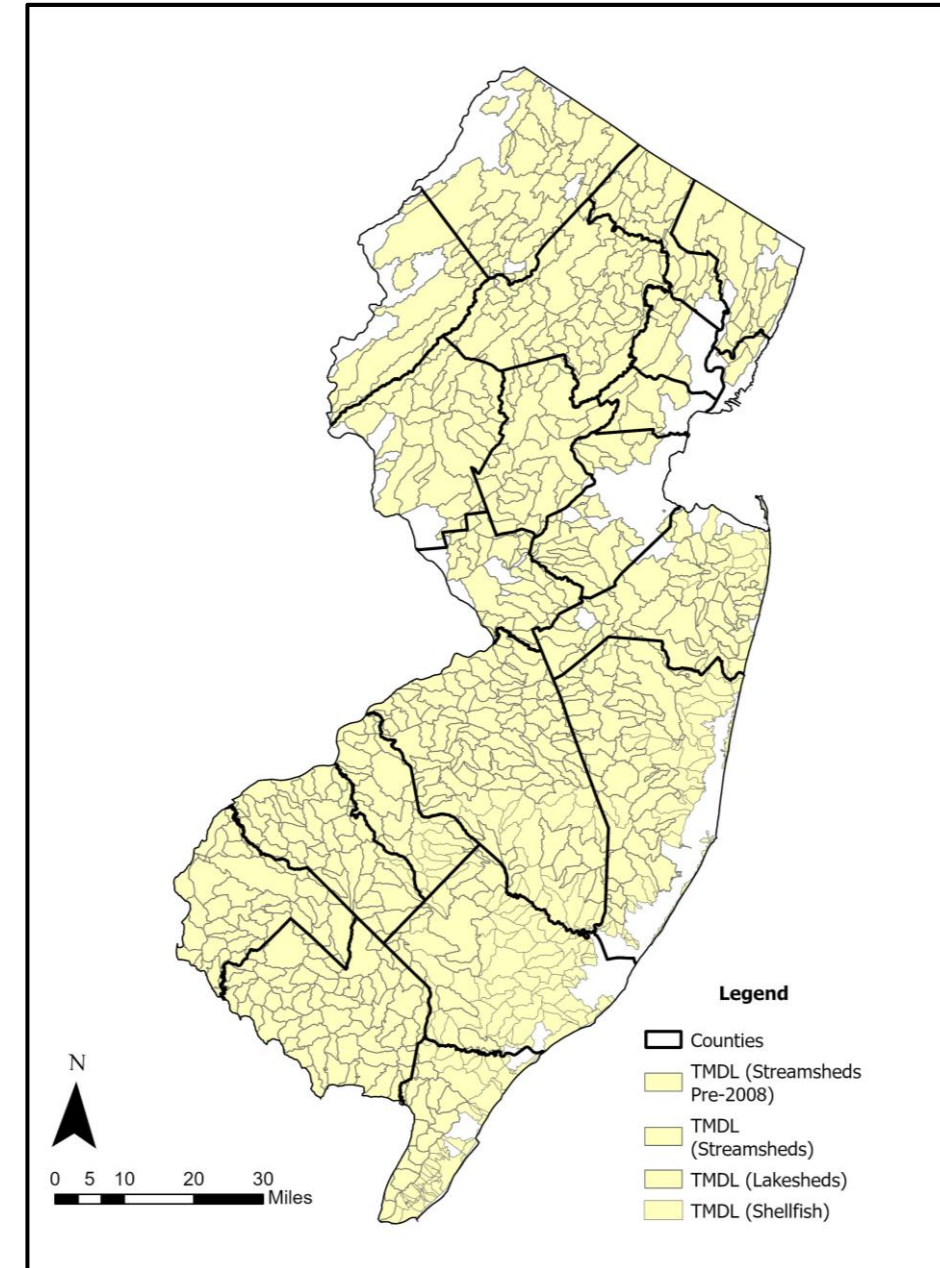
HUC14: Great Swamp Branch (below Rt 206)		✕	
Zoom to		Pan	
Hydrologic Unit Code (HUC14)	02040301160130		
Subwatershed Name	Great Swamp Branch (below Rt 206)		
Watershed Management Area Number	14		
Watershed Management Area Name	Mullica		
Water Region Number	3		
Water Region Name	Atlantic Coast		
Watershed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

02040301160130

Surface Water Quality in New Jersey

Total Maximum Daily Load (TMDLs)

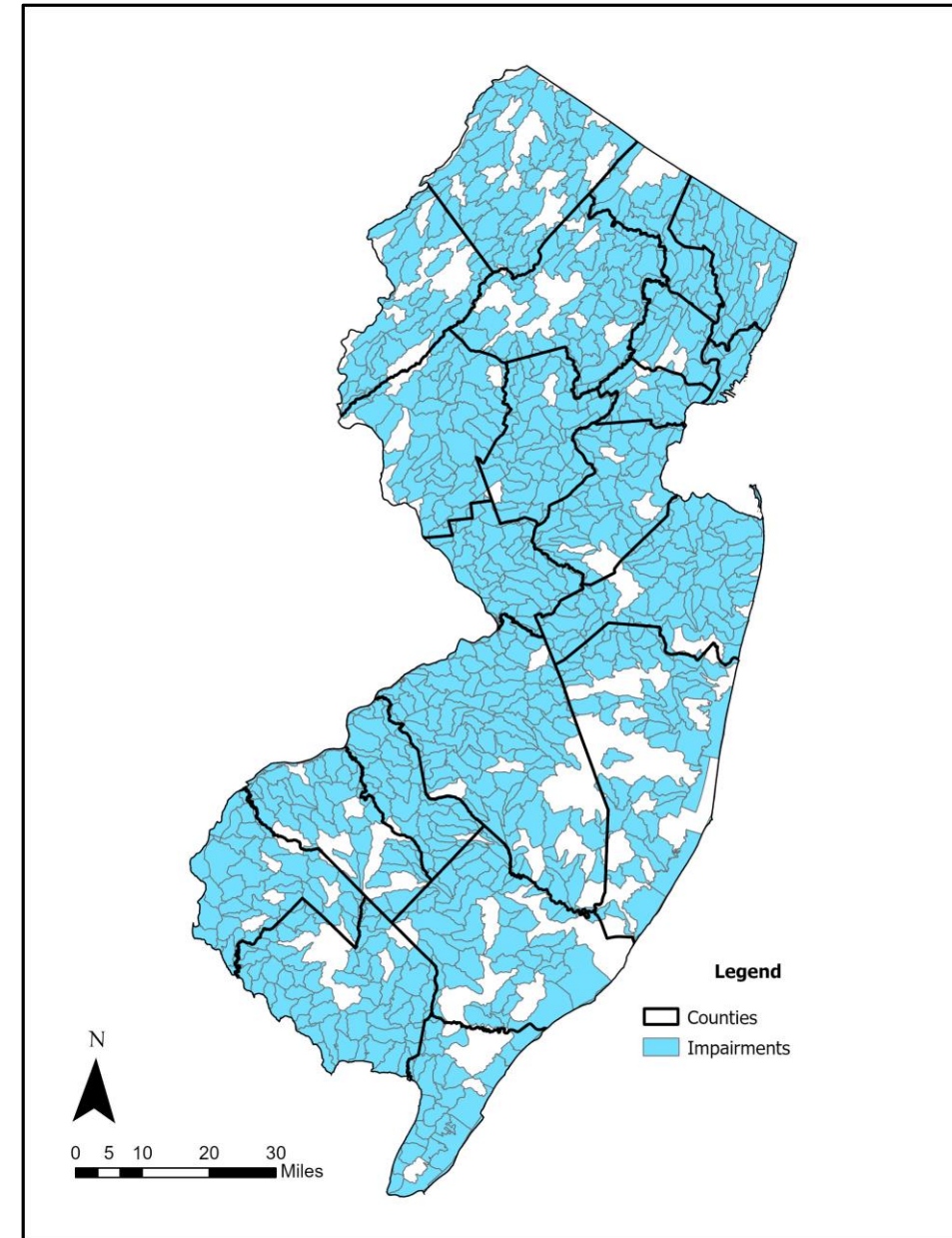
- ✓ Fecal Coliform
- ✓ Nickel
- ✓ Polychlorinated Biphenyls (PCBs)
- ✓ Temperature
- ✓ Total Coliform
- ✓ Total Phosphorus
- ✓ Total Suspended Solids (TSS)
- ✓ Volatile Organic Compounds (VOCs)



Surface Water Quality in New Jersey

Water Quality Impairments

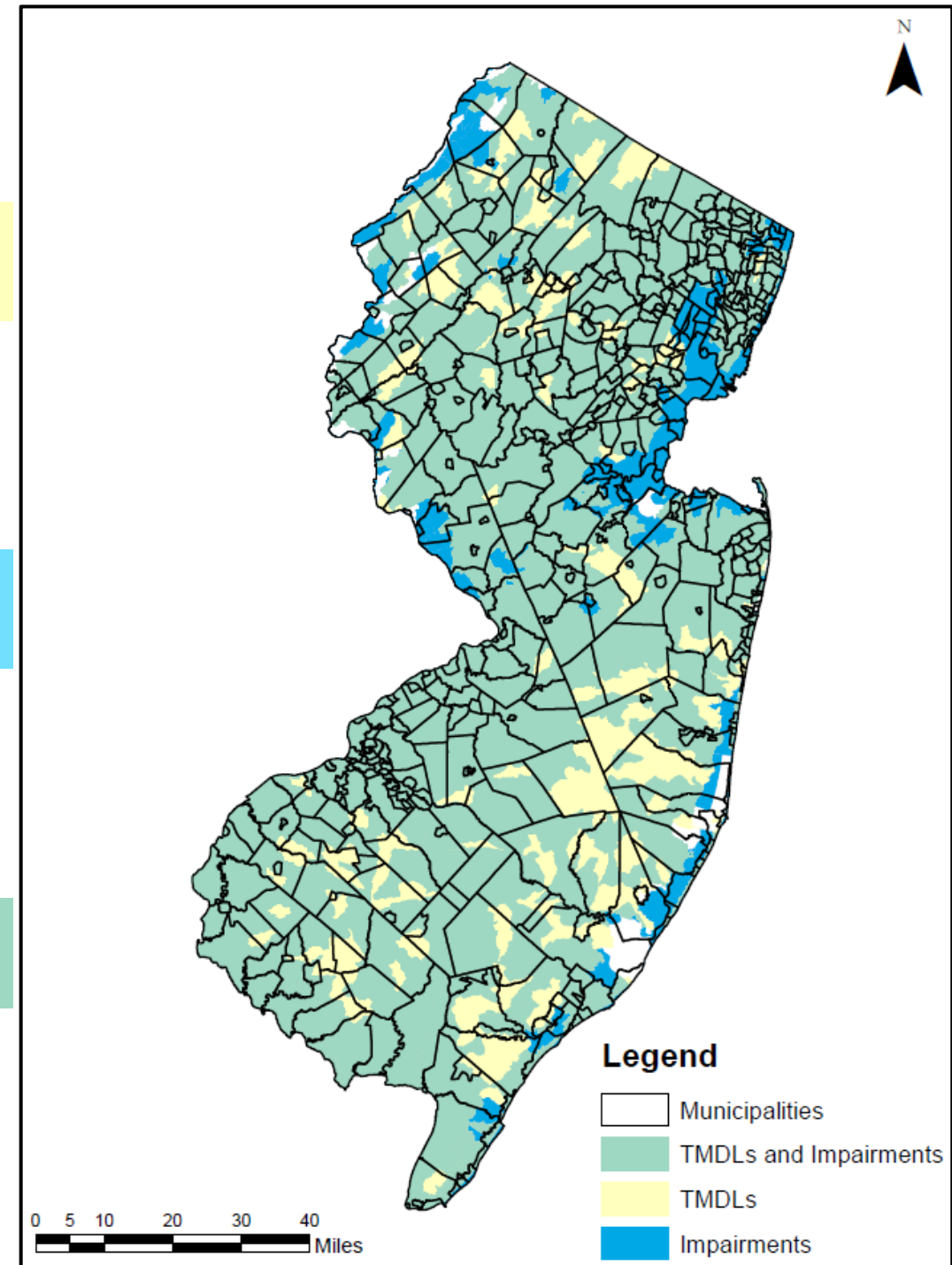
- ✓ Benzo(a) pyrene (PAHs)
- ✓ Cadmium
- ✓ Chromium
- ✓ Copper
- ✓ Dissolved Oxygen (DO)
- ✓ Enterococcus
- ✓ E. Coli
- ✓ Lead
- ✓ PCBs in Fish Tissue
- ✓ pH
- ✓ Total Phosphorus
- ✓ Temperature
- ✓ Total Dissolved Solids (TDS)
- ✓ Total Suspended Solids (TSS)
- ✓ Turbidity

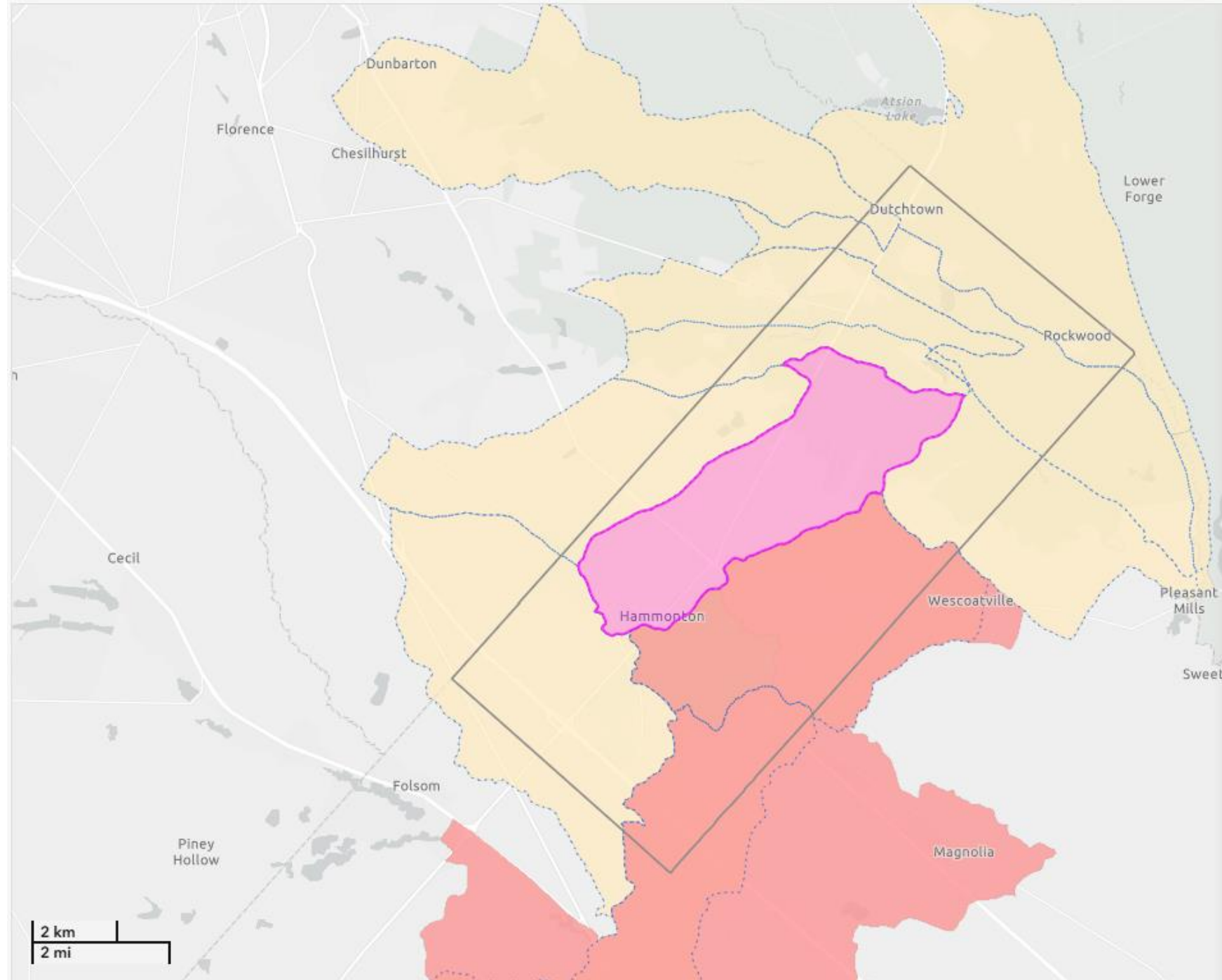


Total Maximum Daily Load (TMDLs)

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 stormwater infrastructure and analyze subwatershed information

Phase 2

Watershed Assessment Report

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

Phase 3

Watershed Improvement Plan Report

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

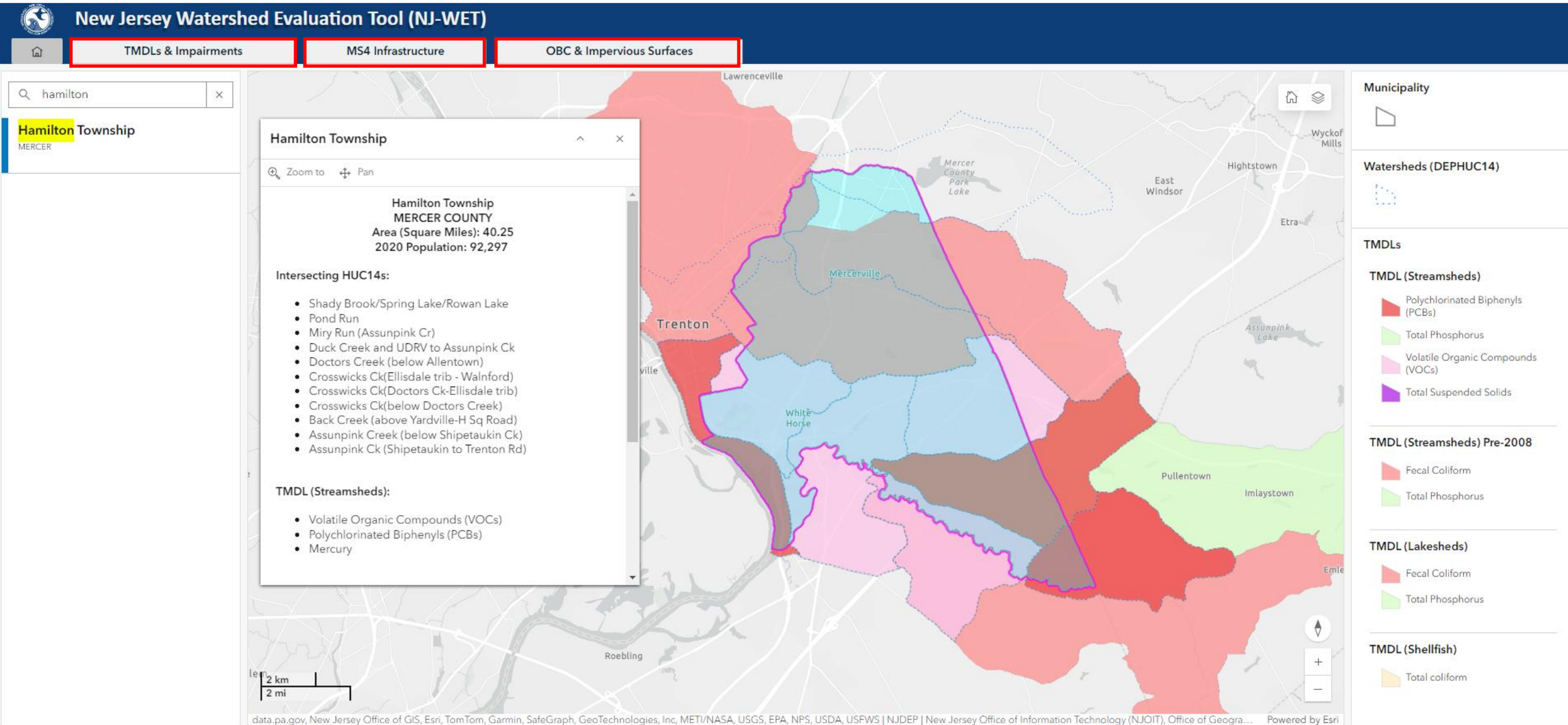
Regional Collaboration

- ✓ Two or more MS4s that discharge to the same or adjacent HUC 14s that share a TMDL or impairment
- ✓ Permittee and a watershed group or similar organization
- ✓ Permittee and an existing regional authority

Overview of Watershed Inventory Report

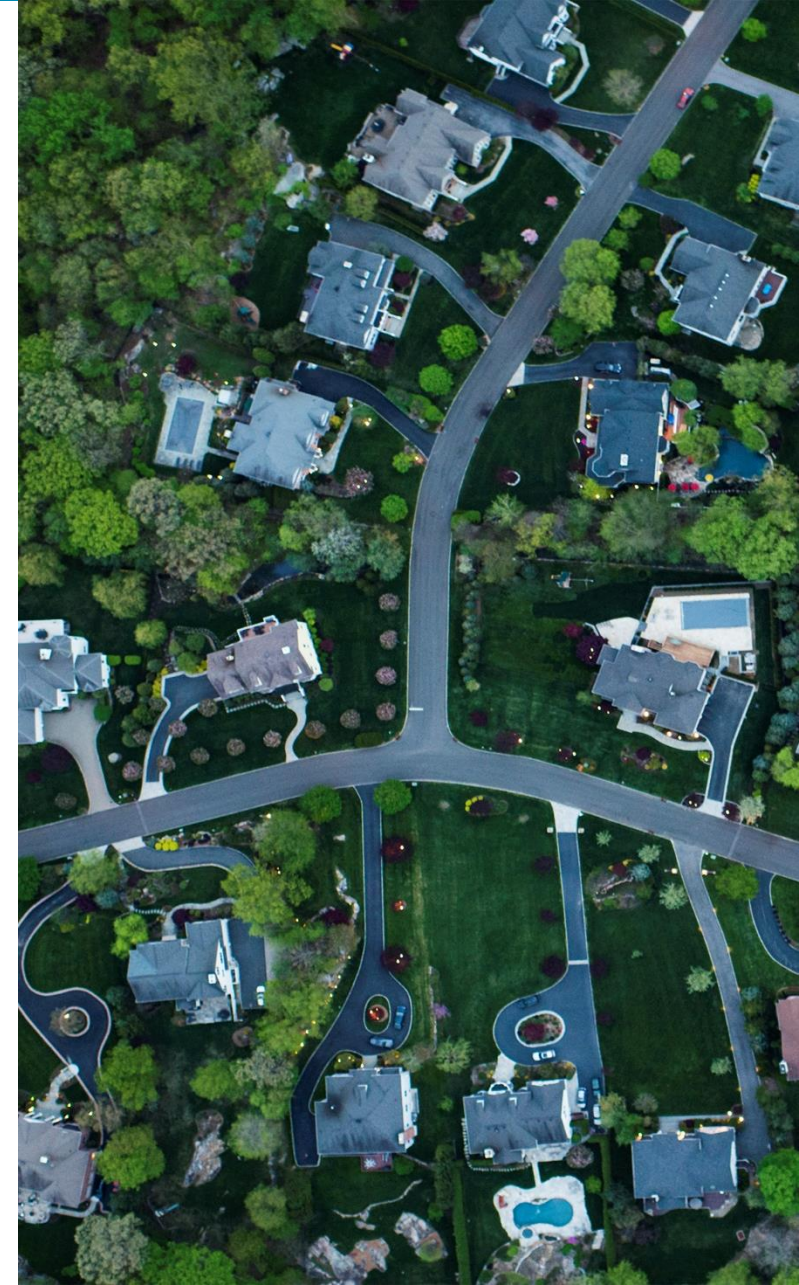


NJ-WET (New Jersey Watershed Evaluation Tool)



Introduction

- ✓ Location: address, municipality, county
- ✓ Population:
 - ✓ Tier A - Population from 2020 Census
 - ✓ Public Complex – summarize number of individuals present at facility for 6 hours or more a day
- ✓ Demographics
- ✓ Land use types
- ✓ Identify HUC 14s of all subwatersheds that lie within or bordering the permittee
- ✓ Identify area(s) prone to flooding
- ✓ Permittee's goal while creating WIP



**Hamilton Township**

MERCER

Hamilton Township

Zoom to Pan

Hamilton Township
MERCER COUNTY
Area (Square Miles): 40.25
2020 Population: 92,297

Intersecting HUC14s:

- Shady Brook/Spring Lake/Rowan Lake
- Pond Run
- Miry Run (Assunpink Cr)
- Duck Creek and UDRV to Assunpink Ck
- Doctors Creek (below Allentown)
- Crosswicks Ck(Ellisdale trib - Walnford)
- Crosswicks Ck(Doctors Ck-Ellisdale trib)
- Crosswicks Ck(below Doctors Creek)
- Back Creek (above Yardville-H Sq Road)
- Assunpink Creek (below Shipetaukin Ck)
- Assunpink Ck (Shipetaukin to Trenton Rd)

TMDL (Streamsheds):

- Volatile Organic Compounds (VOCs)
- Polychlorinated Biphenyls (PCBs)
- Mercury

2 km
2 mi

data.pa.gov, 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 (NJOIT), Office of Geogra... 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

Public Participation

- ✓ List of stakeholders
- ✓ List of meetings held
- ✓ Summary of feedback from informational sessions
- ✓ Future scheduled meetings



Stormwater Outfall(s)



- ✓ Stormwater outfalls owned/operated by the permittee
- ✓ Receiving waterbodies
- ✓ Water quality classifications of receiving water body segments



Surface Water Quality Classifications:
Pond Run UNT

Zoom to

CATEGORY	FW2-NT
NAME	Pond Run UNT

- R9 - Tier A
- R10 - Tier B
- R11 - Public Complex
- R12 - Highway Agency

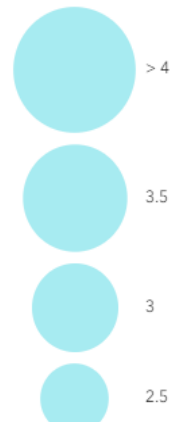
MS4 Manufactured Treatment Devices (MTDs)

- R9 - Tier A
- R10 - Tier B
- R11 - Public Complex
- R12 - Highway Agency

MS4 Outfalls

- R9 - Tier A
- R10 - Tier B
- R11 - Public Complex
- R12 - Highway Agency

Number of features



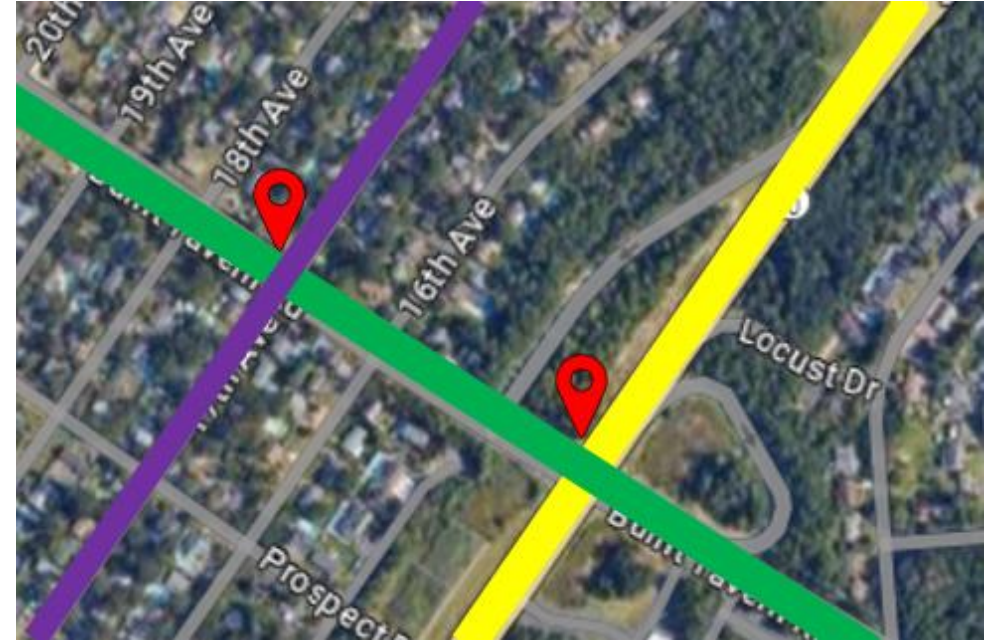
Receiving Surface Water Bodies & Water Quality Classifications

Local Outfall ID	Receiving Surface Water Body	Water Quality Classification
01	Mantua Creek	FW2-NT/SE2
02	Still Run	FW2-NT
03	Toms River	PL-TM

Electronic data required for submission: None required for this section

Stormwater Interconnection(s)

- ✓ Interconnections from the permittee to another entity
- ✓ Interconnections into the permittee from another entity
*Tier A only
- ✓ Submit as a point layer



The following is an example attribute table detailing, at a minimum, what data is required to be submitted for this feature class

Local ID	Upstream Entity	Downstream Entity
01	TCNJ	Mercer County
02	Hamilton Township	Private
03	Mercer County	Hamilton Township
04	Hamilton Township	Trenton City

Electronic data required for submission: interconnections points, showing upstream and downstream entity

Drainage Area(s) for Outfalls & Interconnections

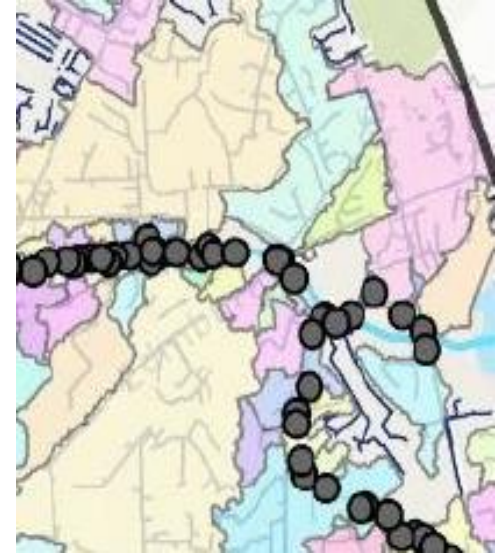
- ✓ Drainage area(s) for MS4 outfalls

**Submit as a polygon layer*

- ✓ Drainage area(s) for stormwater interconnections from the permittee to another entity

**Submit as a polygon layer*

- ✓ MS4 storm drain inlets



Drainage Area ID	Drainage Area (sq miles/sqft/acres)	Interconnection or Outfall	Primary Contributing Drainage Area Type
01	0.2565	Outfall	Commercial
02	5.2556	Interconnection to County	Industrial
03	95.5356	Outfall	Park or Open Space
04	0.5655	Interconnection to neighboring municipality	Residential
05	84.5256	Outfall	Mixed Use

Electronic data required for submission: drainage areas of MS4 outfalls & interconnections from the permittee into another entity

TMDLs & Water Quality Impairments

- ✓ Identify each HUC 14 that lies within or bordering the permittee
- ✓ Identify TMDL(s) for each HUC 14
- ✓ Identify water quality impairment(s) for each HUC 14
- ✓ Summarize the environmental impacts of each parameter identified for each TMDL and impairment

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


Electronic data required for submission: None required for this section

TMDL & Impairment Parameters

HUC 14	Subwatershed Name	TMDL(s)	Impairment(s)
000000000000014	Storm Creek (KHK Tributary – NJ River)	<u>Streamsheds</u> PCBs Total Phosphorus Total Suspended Solids (TSS) VOCs	Benzo(a) pyrene (PAHs) Cadmium Chromium Copper
000000000000015	Rain River	<u>Streamsheds Pre-2008</u> Fecal Coliform Nickel (Streamsheds Pre-2008) Temperature Total Phosphorus	Dissolved Oxygen (DO) Enterococcus E. Coli Lead Nitrate
000000000000016	N Trib to Rain River	<u>Lakesheds</u> Fecal Coliform Total Phosphorus	PCBs in Fish Tissue pH Total Phosphorus
000000000000017	West Creek	<u>Shellfish</u> Total Coliform	Temperature Total Dissolved Solids (TDS) Total Suspended Solids (TSS) Turbidity

Identifying Subwatersheds using NJ-WET


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




TMDLs & Impairments

MS4 Infrastructure

OBC & Impervious Surfaces




hamilton




Hamilton Township

MERCER



Zoom to



Pan

Hamilton Township

MERCER COUNTY

Area (Square Miles): 40.25

2020 Population: 92,297


Intersecting HUC14s:

- Shady Brook/Spring Lake/Rowan Lake
- Pond Run
- Miry Run (Assunpink Cr)
- Duck Creek and UDRV to Assunpink Ck
- Doctors Creek (below Allentown)
- Crosswicks Ck(Ellisdale trib - Walnford)
- Crosswicks Ck(Doctors Ck-Ellisdale trib)
- Crosswicks Ck(below Doctors Creek)
- Back Creek (above Yardville-H Sq Road)
- Assunpink Creek (below Shipetaukin Ck)
- Assunpink Ck (Shipetaukin to Trenton Rd)


TMDL (Streamsheds):

- Volatile Organic Compounds (VOCs)
- Polychlorinated Biphenyls (PCBs)
- Mercury

TMDL (Streamsheds) Pre-2008:







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

data.pa.gov, 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 Geogra... Powered by Esri

How to find Subwatershed Information

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

TMDLs & Impairments MS4 Infrastructure OBC & Impervious Surfaces

Search: hamilton

Hamilton Township
MERCER

HUC14: Pond Run

Zoom to Pan

Hydrologic Unit Code (HUC14)	02040105240040
Subwatershed Name	Pond Run
Watershed Management Area Number	11
Watershed Management Area Name	Central Delaware
Water Region Number	4
Water Region Name	Northwest
Watershed Name	Assunpink Creek (below Shipetaukin Ck)
HUC12	020401050803
ACRES	6,404.95

Map showing various watersheds and municipalities including Trenton, Mercer County Park Lake, East Windsor, Hightstown, Etra, Pullentown, Imlaystown, Neshaminy Heights, Levittown, Silver Lake, Roebbling, Croydon, Bristol, and Columbus. A red arrow points to the Pond Run subwatershed area.

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

2 km
2 mi

data.pa.gov, 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 Geogra... Powered by Esri

HUC 14	Subwatershed Name	TMDL(s)	Impairment(s)
02040105240040	Pond Run		

How to find TMDL Parameters

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

Home | **TMDLs & Impairments** | MS4 Infrastructure | OBC & Impervious Surfaces

Search: hamilton X

Hamilton Township
MERCER

TMDL (Streamsheds) Pre-2008: Total Maximum Daily Loads for Fecal Coliform to Address 28 Streams in the Northwest Water Region

Zoom to Pan

TMDL Document Link	View
Water Region	Northwest
Watershed Management Area	11
TMDL DATE	2003
Parameter	Fecal Coliform
Site Name	Assumpink Creek, Shabakunk Creek, Little Shabakunk Creek, Pond Run
Status	Approved
TMDL_Title	Total Maximum Daily Loads for Fecal Coliform to Address 28 Streams in the Northwest Water Region

3 of 4

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

Map showing various locations including Trenton, Mercer County Park Lake, East Windsor, Hightstown, Etra, Pullentown, Imlaystown, Neshaminy Heights, Levittown, Van Sciver Lake, Roebbing, and Bensalem. A red arrow points to a specific area on the map.

Scale: 2 km / 2 mi

Bucks County, PA, data.pa.gov, 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 (NJOIT... Powered by Esri

How to find Impairment Parameters

The screenshot displays the New Jersey Watershed Evaluation Tool (NJ-WET) interface. The top navigation bar includes tabs for "TMDLs & Impairments", "MS4 Infrastructure", and "OBC & Impervious Surfaces". A search bar at the top left shows "Hamilton Township". The main map area displays a watershed boundary in light blue. A pop-up window titled "Water Quality Impairment(s) Related to Stormwater for Pond Run" is open, listing three impairment parameters: "Pond Run PH", "Pond Run PHOSPHORUS, TOTAL", and "Pond Run TOTAL SUSPENDED SOLIDS (TSS)". A red box highlights this list, and a large red arrow points from the list towards the map. The right sidebar contains several legend sections: "Waterbody 2015 (NHD)" with categories like Lake/Pond, Reservoir, Stream/River, Spillway, Inundation Area, Canal/Ditch, Estuary, and Sea/Ocean; "TMDL (Lakesheds)" with Fecal Coliform and Total Phosphorus; "TMDL (Shellfish)" with Total coliform; "Municipality" with a boundary symbol; "Watersheds (DEPHUC14)" with a boundary symbol; and "Surface Water Quality Classifications" with DRBC Zone-1C and DRBC Zone-1D. The bottom of the screen shows a scale bar (0 to 1000 ft) and a footer with attribution to the New Jersey Office of GIS and various data sources.

New Jersey Watershed Evaluation Tool (NJ-WET)

TMDLs & Impairments MS4 Infrastructure OBC & Impervious Surfaces

Hamilton Township

Water Quality Impairment(s) Related to Stormwater for Pond Run

- Zoom to
- Pond Run PH
- Pond Run PHOSPHORUS, TOTAL
- Pond Run TOTAL SUSPENDED SOLIDS (TSS)

Waterbody 2015 (NHD)

- Lake/Pond
- Reservoir
- Stream/River
- Spillway
- Inundation Area
- Canal/Ditch
- Estuary
- Sea/Ocean

TMDL (Lakesheds)

- Fecal Coliform
- Total Phosphorus

TMDL (Shellfish)

- Total coliform

Municipality

Watersheds (DEPHUC14)

Surface Water Quality Classifications

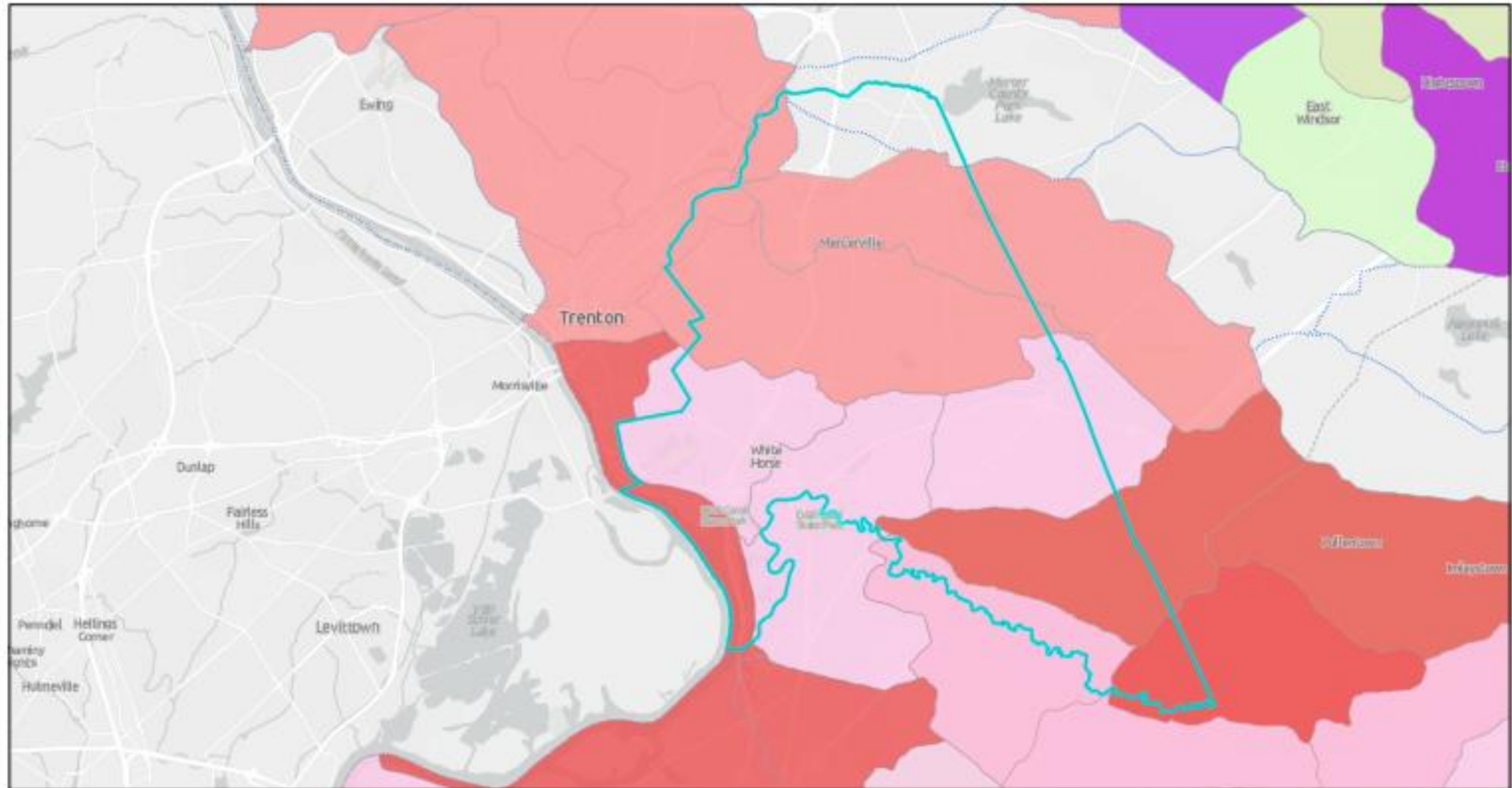
- DRBC Zone-1C
- DRBC Zone-1D

000 ft

New Jersey Office of GIS, Esri, TomTom, Garmin, Safe Software, GeoTechnologies, Inc., METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS | New Jersey | Powered by Esri

HUC 14	Subwatershed Name	TMDL(s)	Impairment(s)
02040105240040	Pond Run	Fecal Coliform	pH Total Phosphorus TSS

HUC 14s in Hamilton Township, Mercer County



9/30/2024, 11:12:23 AM

TMDL (Streamsheds)

Polychlorinated Biphenyls (PCBs)

Total Phosphorus

Volatile Organic Compounds (VOCs)

Total Suspended Solids

TMDL (Streamsheds) Pre-2008

Fecal Coliform

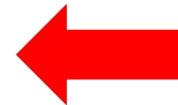
Total Phosphorus

TMDL (Lakesheds)

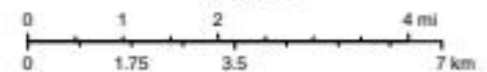
Total Phosphorus

Municipality

Watersheds (DEPHUC14)



1:115,200



data.gov, New Jersey Office of GIS, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc., METUNASA, USGS, EPA, NPS, USDA, USFWS

Creating PDF Maps using NJ-WET

The screenshot displays the New Jersey Watershed Evaluation Tool (NJ-WET) interface. The top navigation bar includes tabs for "TMDLs & Impairments", "MS4 Infrastructure", and "OBC & Impervious Surfaces". A search bar on the left shows "Hamilton Township". A map of Hamilton Township is displayed with various overlays. A pop-up window titled "HUC14: Central Delaware" provides details for the selected Hydrologic Unit Code (HUC14).

HUC14: Central Delaware

Hydrologic Unit Code (HUC14)	02040105240040
Subwatershed Name	Pond Run
Watershed Management Area Number	11
Watershed Management Area Name	Central Delaware
Water Region Number	4
Water Region Name	Northwest

A "Print" dialog is open, showing the "Results (2)" tab. The results list includes:

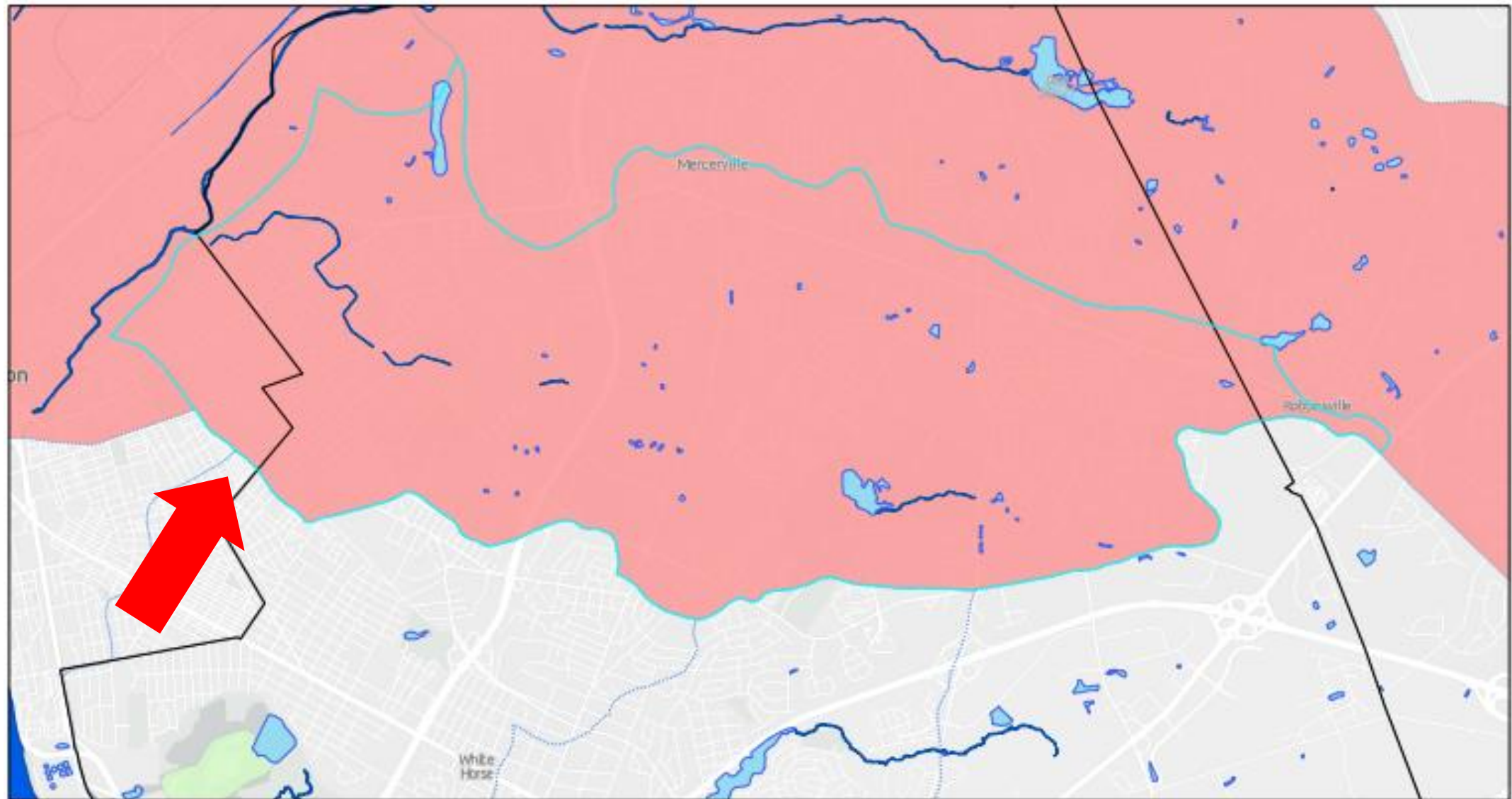
- HUC 14s in Hamilton Township, Mercer County
- Pond Run - 02040105240040

The right sidebar contains several legend sections:

- Waterbody 2015 (NHD)**: Lake/Pond, Reservoir, Stream/River, Spillway, Inundation Area, Canal/Ditch, Estuary, Sea/Ocean.
- 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.

The bottom of the screen shows a scale bar (0,000 ft) and a footer with attribution to the New Jersey Office of GIS, Esri, and other partners.

Pond Run - 02040105240040



9/30/2024, 11:23:54 AM

Waterbody 2015 (NHD)

Lake/Pond

Reservoir

Stream/River

Canal/Ditch

TMDL (Streamsheds) Pre-2008

Fecal Coliform

Total Phosphorus

TMDL (Lakesheds)

Total Phosphorus

Municipality

Watersheds (DEPHUC14)

1:41,472

0 0.4 0.8 1.6 mi
0 0.5 1 2 km



New Jersey Office of GIS, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/NASA, USGS, EPA, NPS, USDA, USFWS

Pollutants of Concern

Dissolved Oxygen

Dissolved oxygen (DO) refers to the concentration of oxygen gas incorporated into the water. Oxygen enters the water by direct absorption from the atmosphere and is enhanced by turbulence. Running water, such as that of a swift moving stream, normally contains more dissolved oxygen than the still water of a pond or lake. Water also absorbs oxygen released by aquatic plants during photosynthesis. Sufficient DO is essential to growth and reproduction of aerobic aquatic life (e.g., see Murphy 2006, Giller and Malmqvist 1998, Allan 1995; <https://www.epa.gov/caddis-vol2/dissolved-oxygen>). Low levels of oxygen (hypoxia) or no oxygen levels (anoxia) can occur when excess organic materials are decomposed by microorganisms. During this decomposition process, the DO in the water is consumed. In some water bodies, DO levels fluctuate periodically, seasonally, and even as part of the natural daily ecology of the aquatic resource. As DO levels drop, some sensitive animals may move away, decline in health, or even die. DO is considered an important measure of water quality as it is a direct indicator of an aquatic resource's ability to support aquatic life. While each organism has its own DO tolerance range, generally, DO levels below 3 milligrams per liter (mg/L) are of concern and waters with levels below 1 mg/L are considered hypoxic and are usually devoid of life.

Stormwater runoff containing nutrients such as nitrate, phosphorus, and organic TSS matter and animal and pet waste cause the levels of dissolved oxygen to decrease in the receiving waters. An increase in these materials transported via stormwater runoff will have a greater impact on receiving waters.

MS4 permit conditions that regulate this parameter:

- Pet Waste Ordinance
- Wildlife Feeding Ordinance
- Litter Control Ordinance
- Improper Disposal of Waste Ordinance
- Yard Waste Ordinance
- Street Sweeping Program
- Herbicide Application Management
- Roadside Vegetative Waste Management
- Roadside Erosion Control
- Inspection and Maintenance of Stormwater Facilities
- Stream Scouring Program
- Illicit Discharge Detection and Elimination Program

Overburdened Communities – *Tier A only*

- ✓ Summarize how data was viewed and analyzed
- ✓ Summarize importance of water quality and quantity issues in overburdened communities

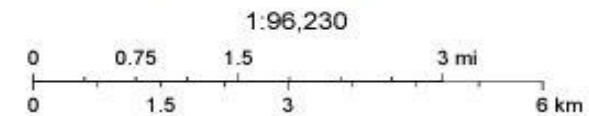
Electronic data required for submission: None required for this section

9/12/2024, 2:21:30 PM

— Municipality
--- Watersheds (DEPHUC14)

Overburdened Communities under the New Jersey Environmental Justice Law 2022

■ Adjacent
■ Overburdened Community



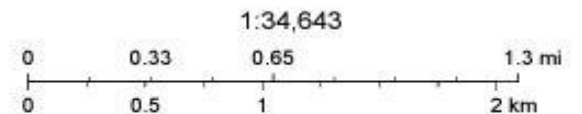
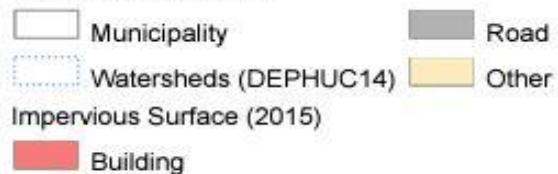
Monmouth County NJ GIS, New Jersey Office of GIS,
Esri, TomTom, Garmin, SafeGraph, GeoTechnologies,
Inc, MET/NASA, USGS, EPA, NPS, USDA, USFWS

Impervious Area

- ✓ Summarize how data was viewed and analyzed
- ✓ Identify the percent impervious cover in each subwatershed within the permittee's jurisdiction
- ✓ Summarize the impervious cover effects on ecosystems and stream health

Electronic data required for submission: None required for this section

9/12/2024, 2:25:32 PM



New Jersey Office of GIS, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, NJDEP

Non-municipally Owned/Operated SWFs – *Tier A only*

- ✓ Summarize how data was collected
- ✓ Identify type of infrastructure
- ✓ Identify quantity for each type of infrastructure
- ✓ Identify owner of each infrastructure



Local ID	Type	Owner
01	Inlet	Wawa
02	Infiltration basin	Pond Creek HOA
03	Outfall	Pond Creek HOA

Electronic data required for submission: non-municipally owned/operated stormwater facilities

Watershed Inventory Report Resources



NJ-WET (New Jersey Watershed Evaluation Tool)



New Jersey Watershed Evaluation Tool (NJ-WET)



TMDLs & Impairments

MS4 Infrastructure

OBC & Impervious Surfaces

hammorton

Hammorton

ATLANTIC

Hammorton

Zoom to Pan

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

Intersecting HUC14s:

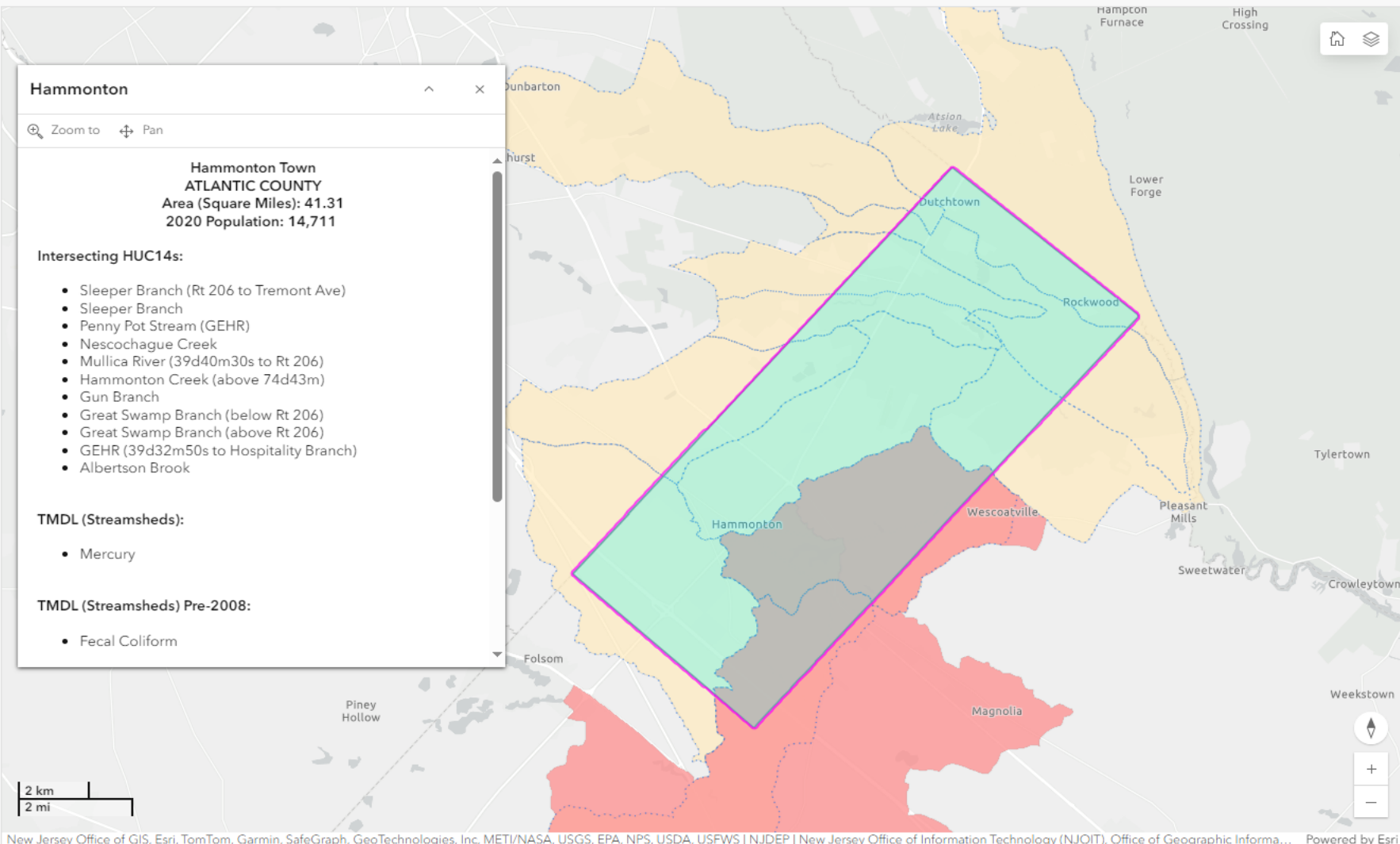
- Sleeper Branch (Rt 206 to Tremont Ave)
- Sleeper Branch
- Penny Pot Stream (GEHR)
- Nescochague Creek
- Mullica River (39d40m30s to Rt 206)
- Hammorton Creek (above 74d43m)
- Gun Branch
- Great Swamp Branch (below Rt 206)
- Great Swamp Branch (above Rt 206)
- GEHR (39d32m50s to Hospitality Branch)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

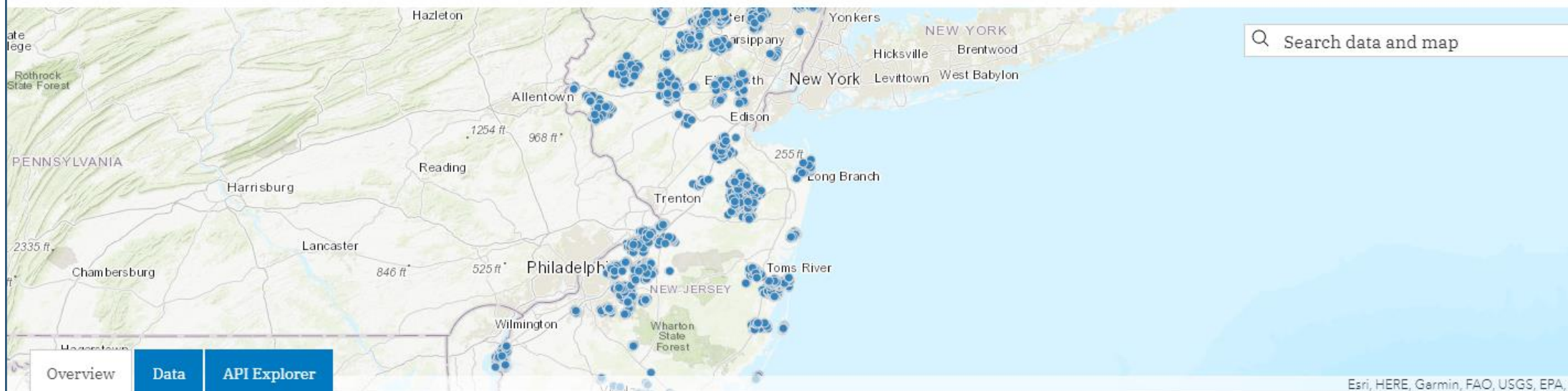
NJDEP Open Data



NJDEP Bureau of GIS

Outfalls in New Jersey, NJDEP MS4 Inventory and Mapping

Last updated 16 hours ago | 6,867 Records



4/6/2021 Feature Layer Custom License

Download ▾

APIs ▾

The Bureau of Nonpoint Pollution Control within the Division of Water Quality issues NJPDES general permits authorizing discharges from Tier A and Tier B municipalities, as well as public complexes, and highway agencies that discharge stormwater from Municipal Separate Storm Sewer Systems (MS4s). As a required in Part IV.C.1&2

More ▾

Attributes

About

NJDEP GIS Utilities Open Data

Shared By: NJDEPBGIS

Data Source: njwebmap.state.nj.us

[View Metadata](#)

[Create Webmap](#)

[Create a Story Map](#)

TMDL Lookup Tool

County: Municipality:

Please click Reset for a new search.

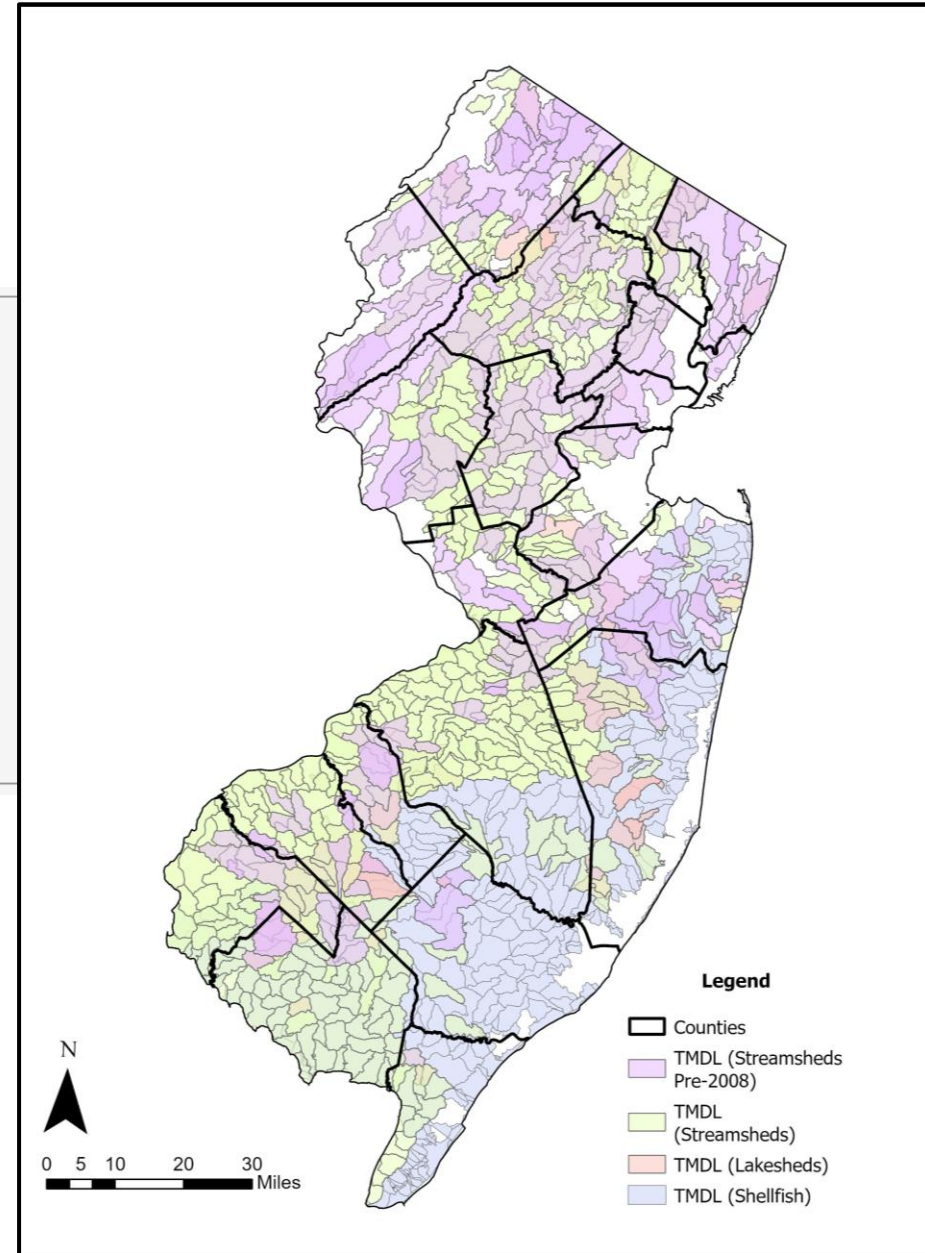
A Guide to Abbreviations used in the TMDL Look-Up Tool

Hg = Mercury

TP = Total Phosphorus

DO = Dissolved Oxygen

TSS = Total Suspended Solids



H&H Database

New Jersey Hydrologic Modeling Database

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Use the filter below to quickly zoom to projects at the county level

County Filter

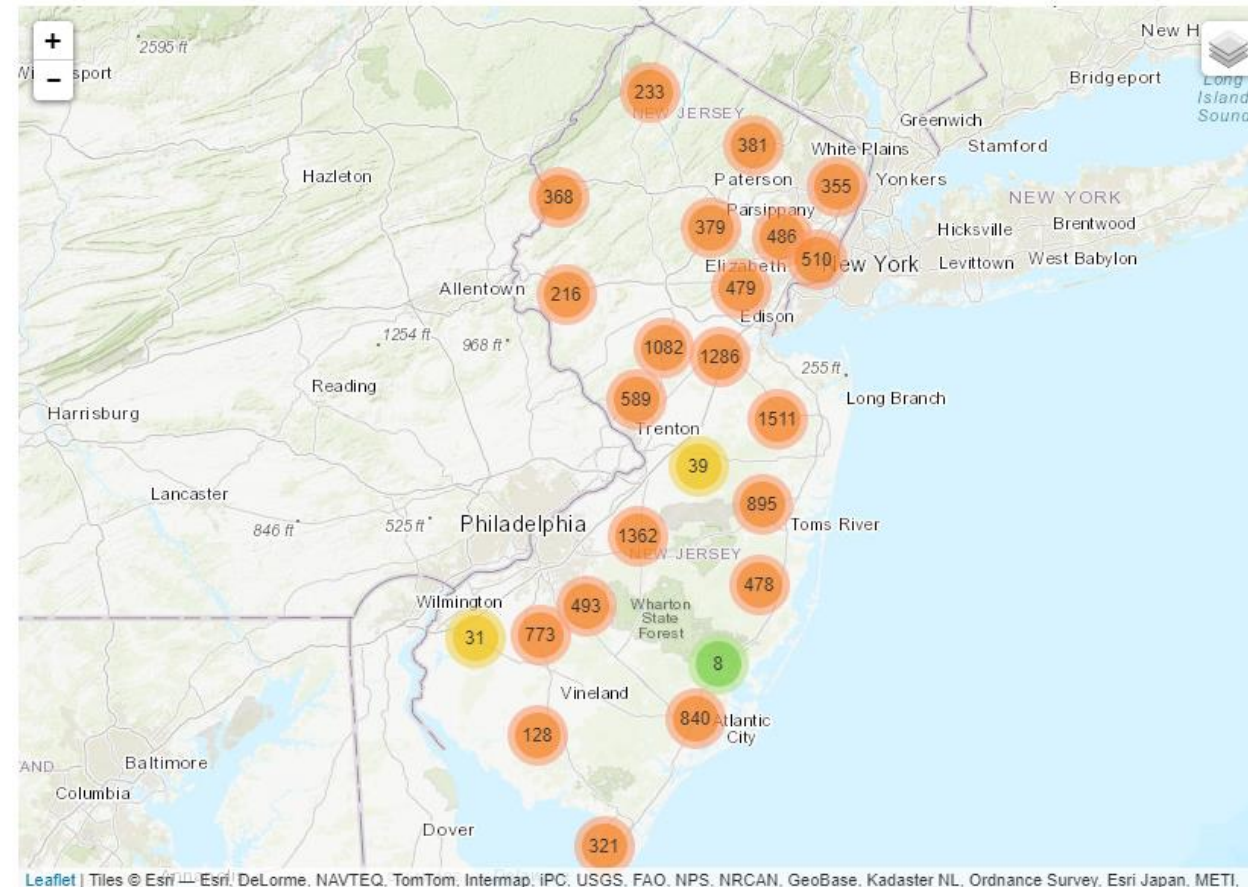
Reset Map

Select All

Search for a desired location in the search box, or click on a numbered dot to zoom in. The number reflects the number of projects within the local area.

Type an address, city, or zipcode to zoom to a project location.

Search Options



MS4 Unit WIP Guidance Webpage



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

Watershed Improvement Plan



Templates

[*DRAFT* 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](#)



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 \(See ** below\)](#)

CONTACT US

Bureau of NJPDES
Stormwater Permitting
& Water Quality
Management



stormwatermanager@dep.nj.gov



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



[County Case Manager List](#)