

JERSEY WATERWORKS CONFERENCE 2023

DECEMBER 13, 2023 | THE COLLEGE OF NEW JERSEY, EWING

The Value Of Water | New Jersey
Edition

www.jerseywaterworks.org info@jerseywaterworks.org



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Green & Gray: Solutions to Manage Stormwater and CSOs



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1.5 AICP CM CREDITS

THE VALUE OF WATER | NEW JERSEY EDITION

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NEW JERSEY
AMERICAN WATER



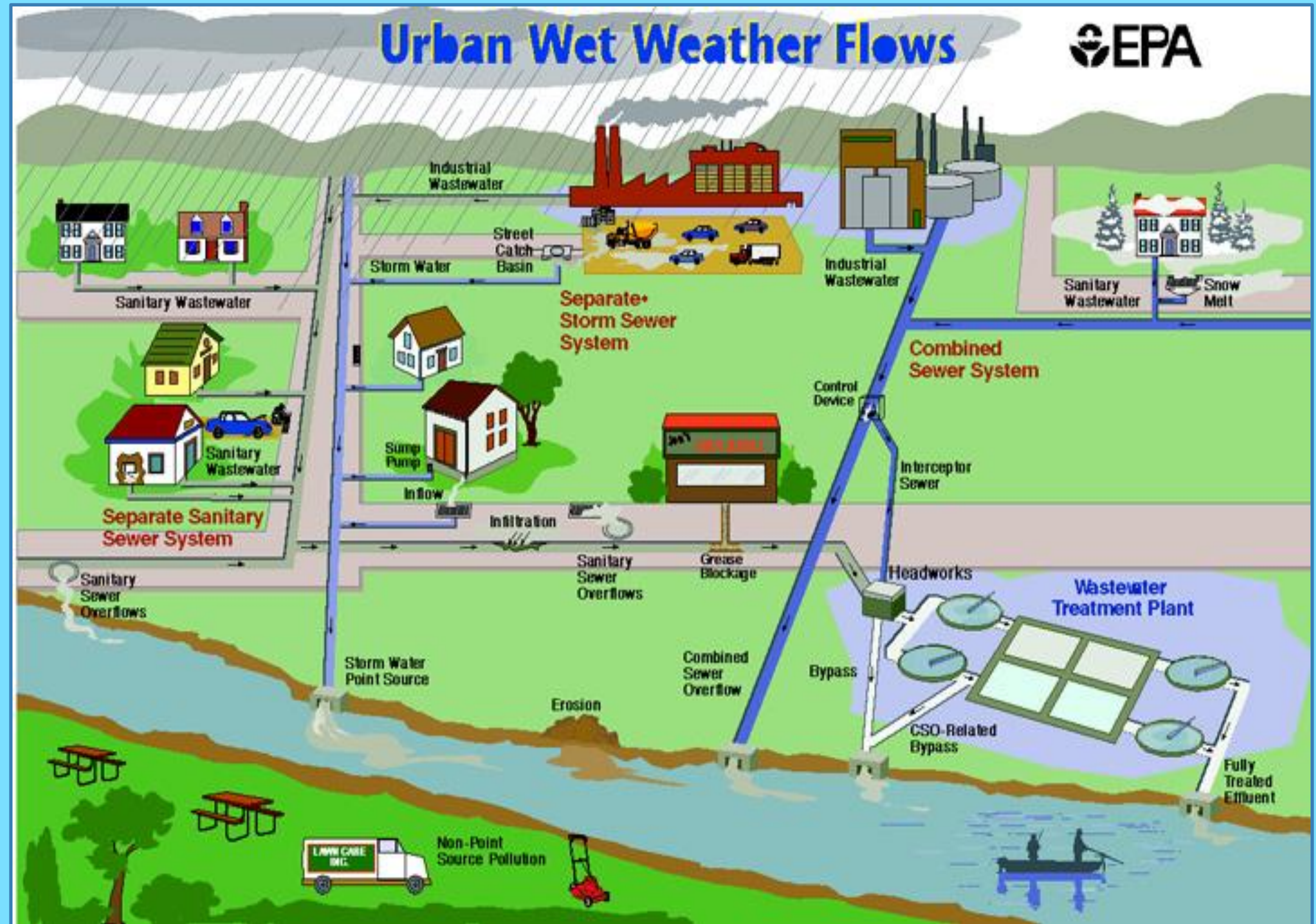


Green & Gray: Solutions to Manage Stormwater and CSOs

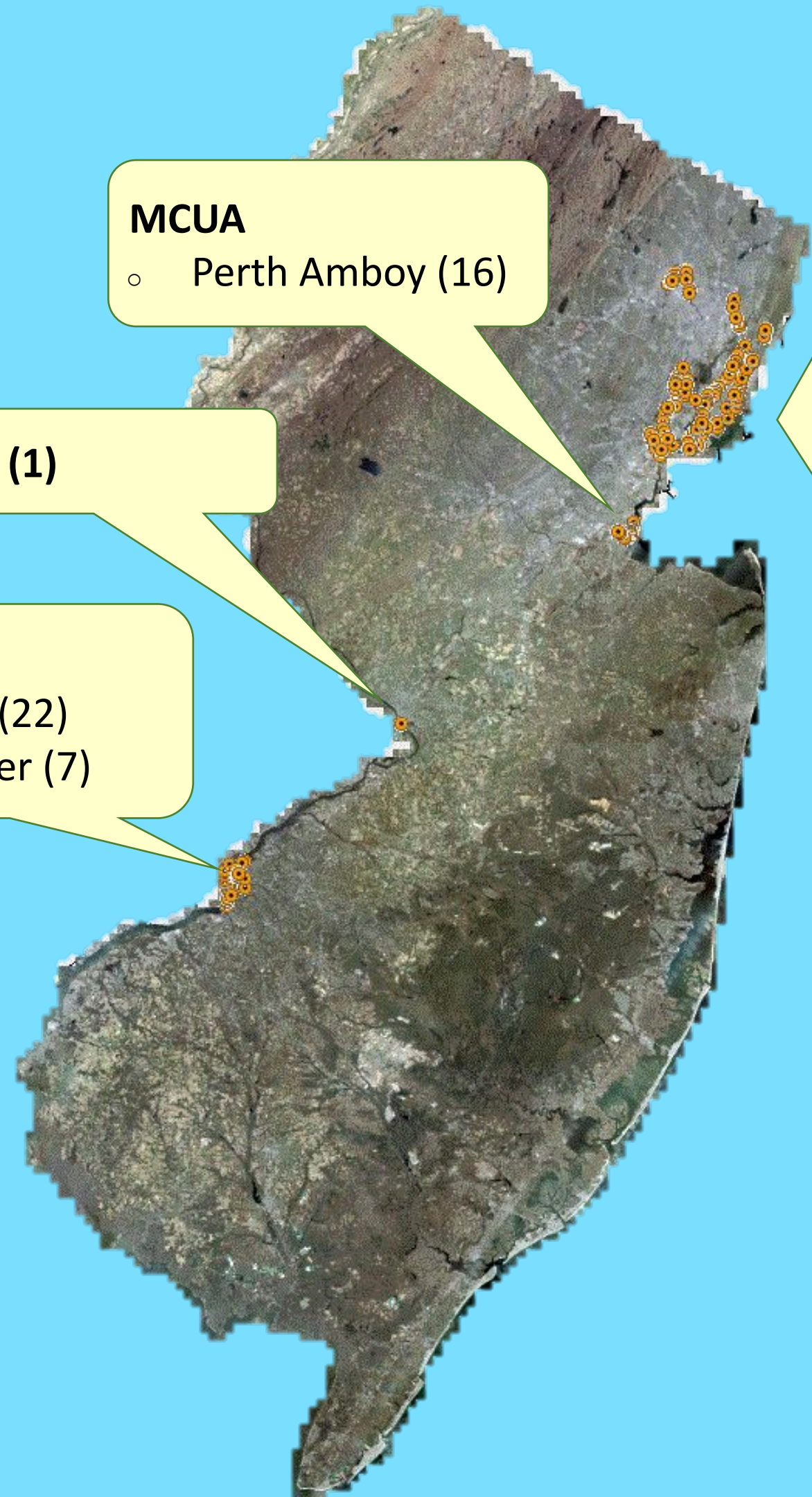
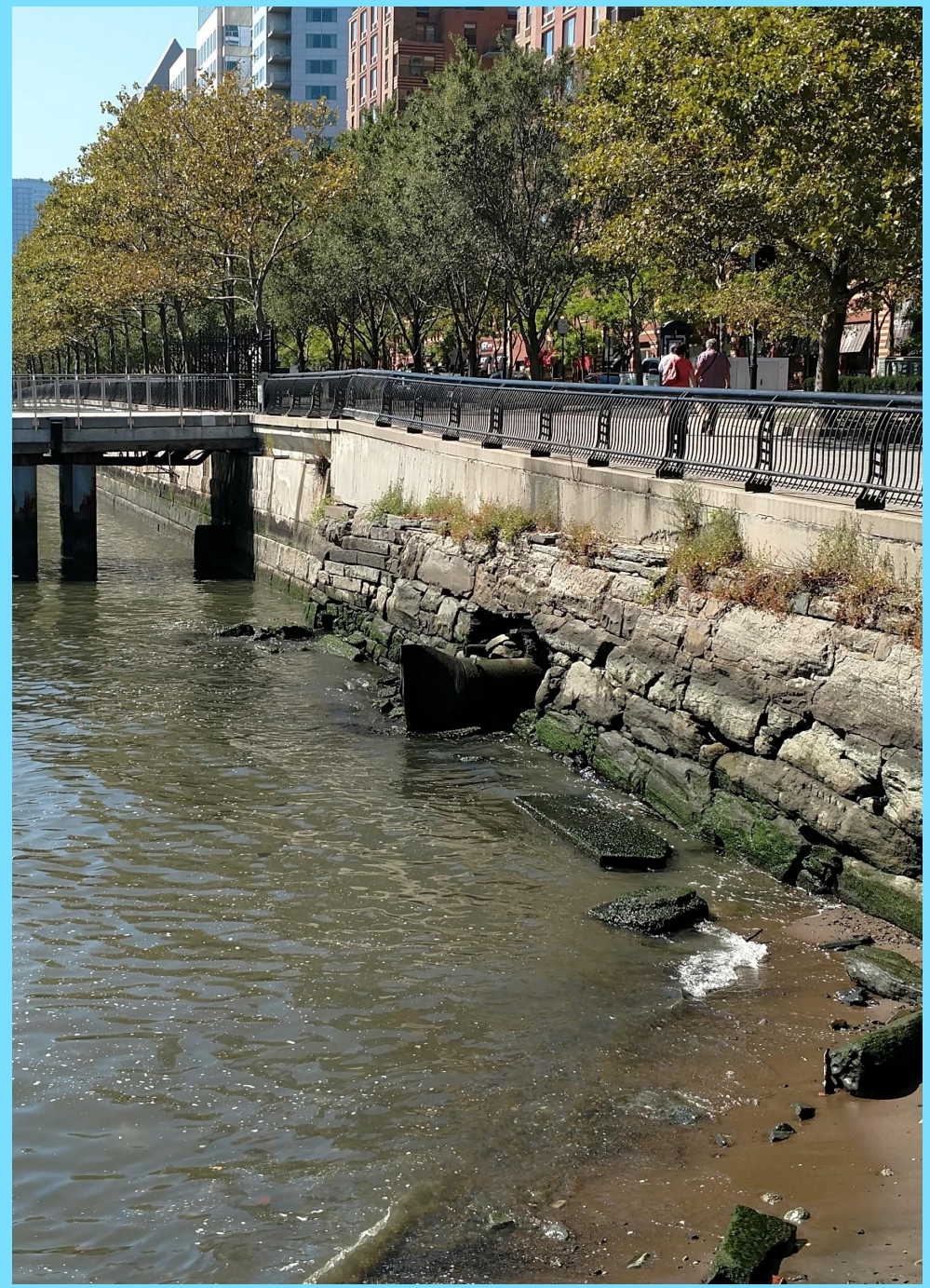
Water Conference
December 13, 2023



Sewer System Types



CSOs IN NEW JERSEY



MCUA

- Perth Amboy (16)

Trenton (1)

CCMUA (1)

- Camden (22)
- Gloucester (7)

BCUA

- Fort Lee (2)
- Hackensack (2)
- Ridgefield Park (6)

Joint Meeting

- Elizabeth (29)

North Bergen (1)

- Guttenberg (1)

North Hudson AS (8)

North Hudson RR (2)

- Hoboken
- West New York
- Weehawken
- Union City

PVSC

- East Newark (1)
- Harrison (6)
- Bayonne (28)
- Kearny (5)
- Paterson (23)
- Jersey City (21)
- Newark (18)
- N Bergen MUA (9)

**CSO Program Objective:
Reduce or Eliminate CSO discharges through
study, design and implementation of a plan**



2015 Permit Long Term Control Plan

Three Parts of the LTCP:

2018 – **System Characterization**

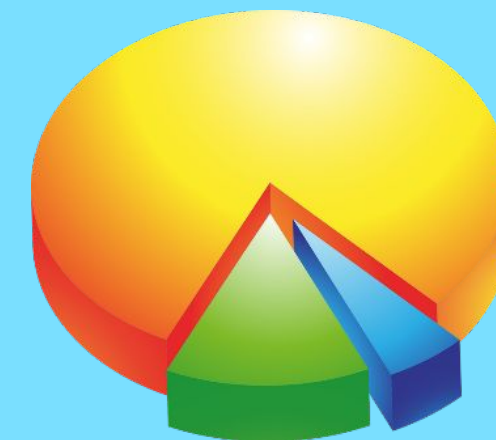
Study the System

2019 – **Alternatives Analysis**

Investigate the Options

2020 – **THE LTCP**

Implementation Plan



The Eight LTCPs

North Bergen MUA – Woodcliff STP

North Hudson – Adams Street

North Hudson – River Road

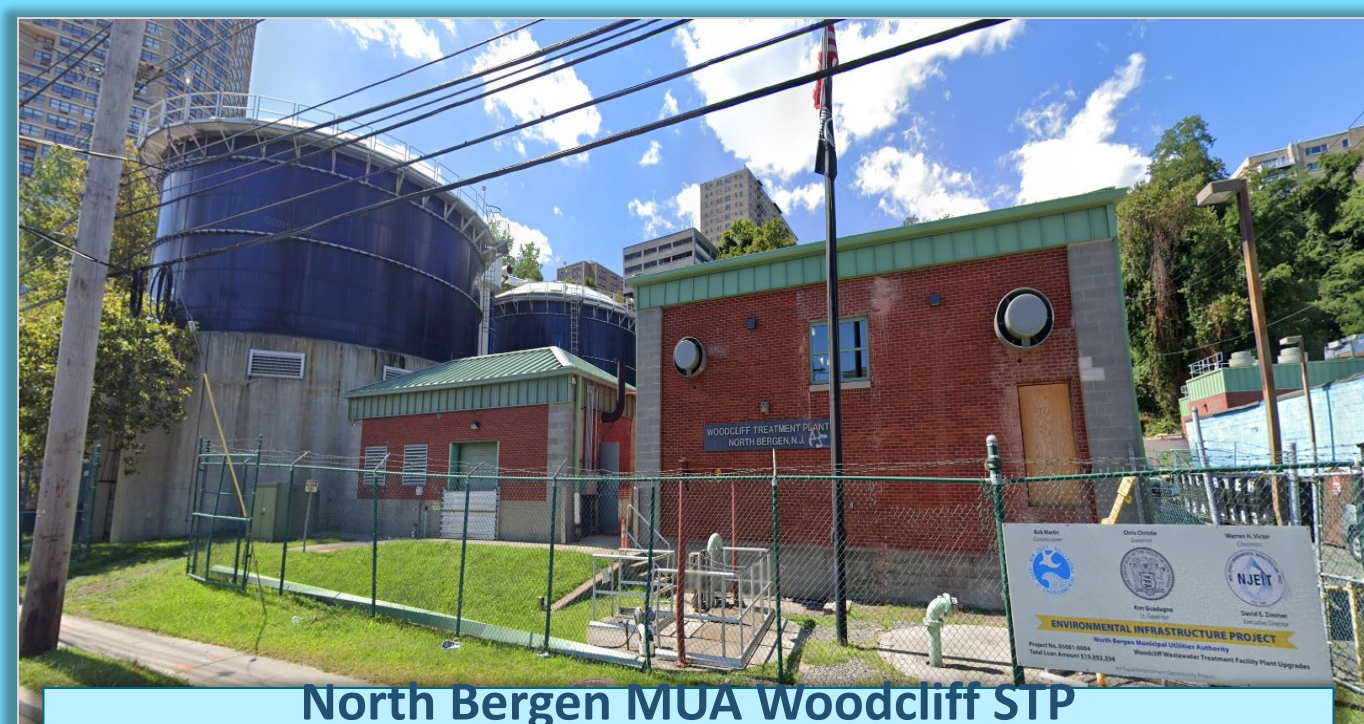
Elizabeth and Joint Meeting of Essex & Union Counties

Bergen County Utilities Authority, Ridgfield Park, Fort Lee, Hackensack

PVSC Regional Alternative and Municipal Alternative (8 municipalities)

Perth Amboy and Middlesex County Utilities Authority

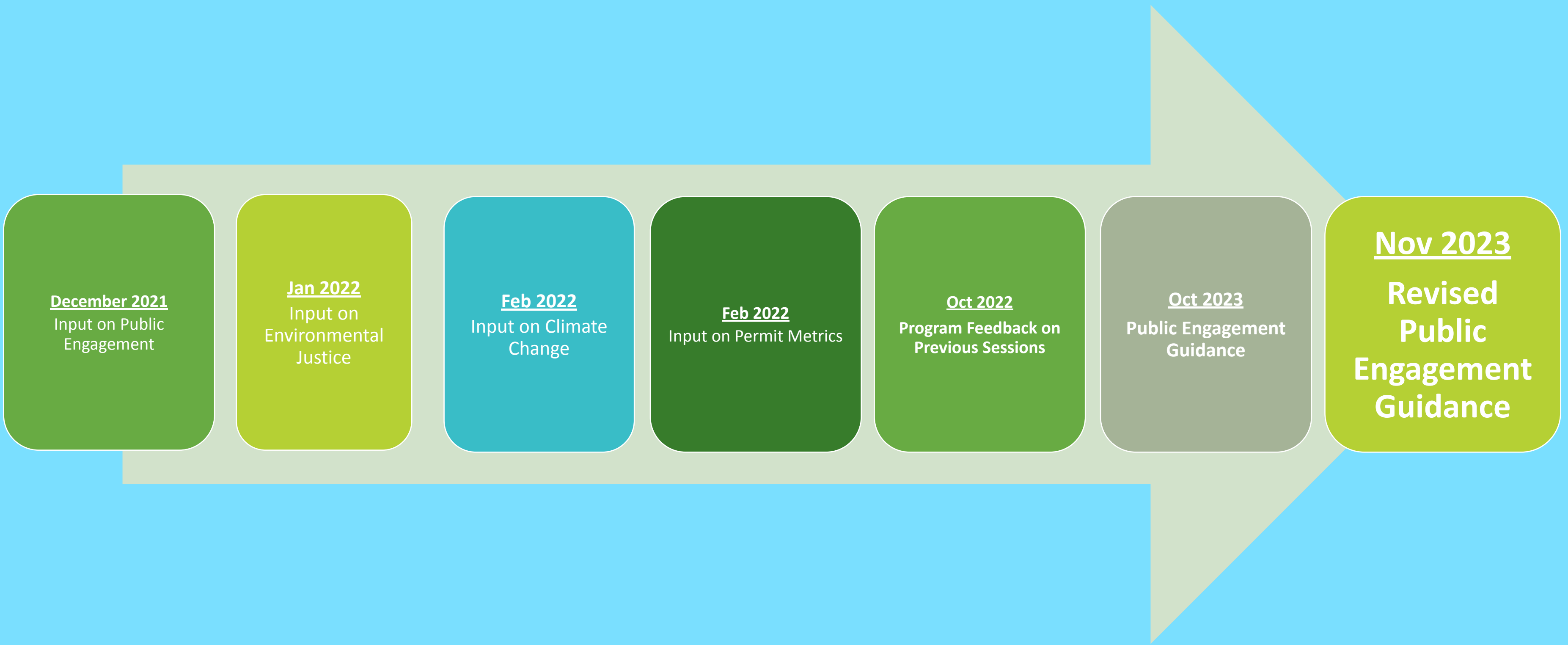
Camden County Municipal Utilities Authority, Camden, Gloucester



North Bergen MUA Woodcliff STP

Upgrades & expansion nearly complete
Wet weather flow will increase from 8 MGD to 10 MGD
Cost - \$23M

CSO Stakeholder Process



CSO Draft Permit Roll Out

December 2022

North Bergen Woodcliff
STP & Guttenberg

March 2023

North Hudson
Adams St and River
Road

May 2023

Joint Meeting of Essex &
Union Counties and City of
Elizabeth

May 2023

Final North Bergen
Woodcliff STP &
Guttenberg

Aug & Sept 2023

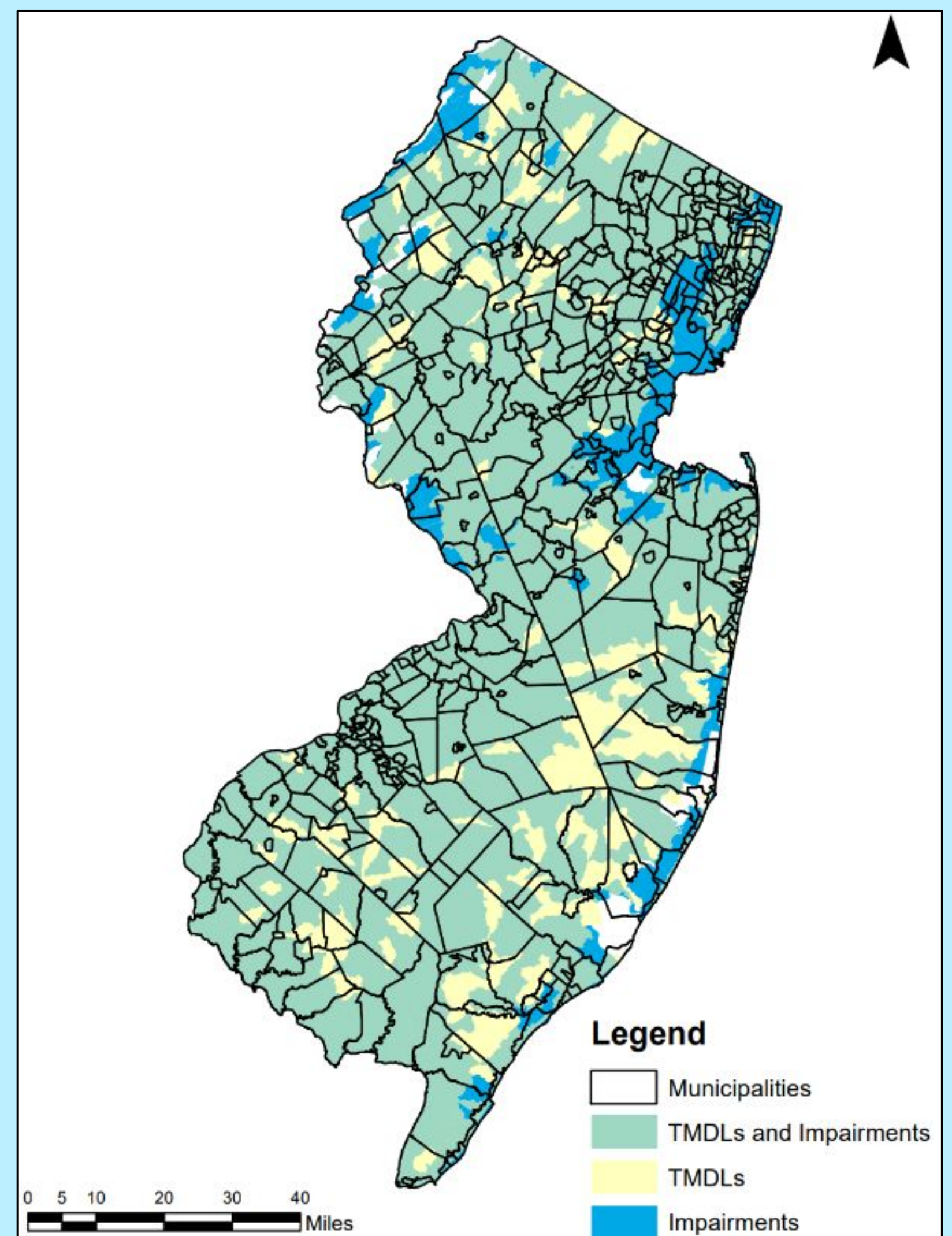
Bergen Co UA, Hackensack,
Ridgefield Park and Fort
Lee

Nov 2023

Camden Co MUA, Camden
and Gloucester

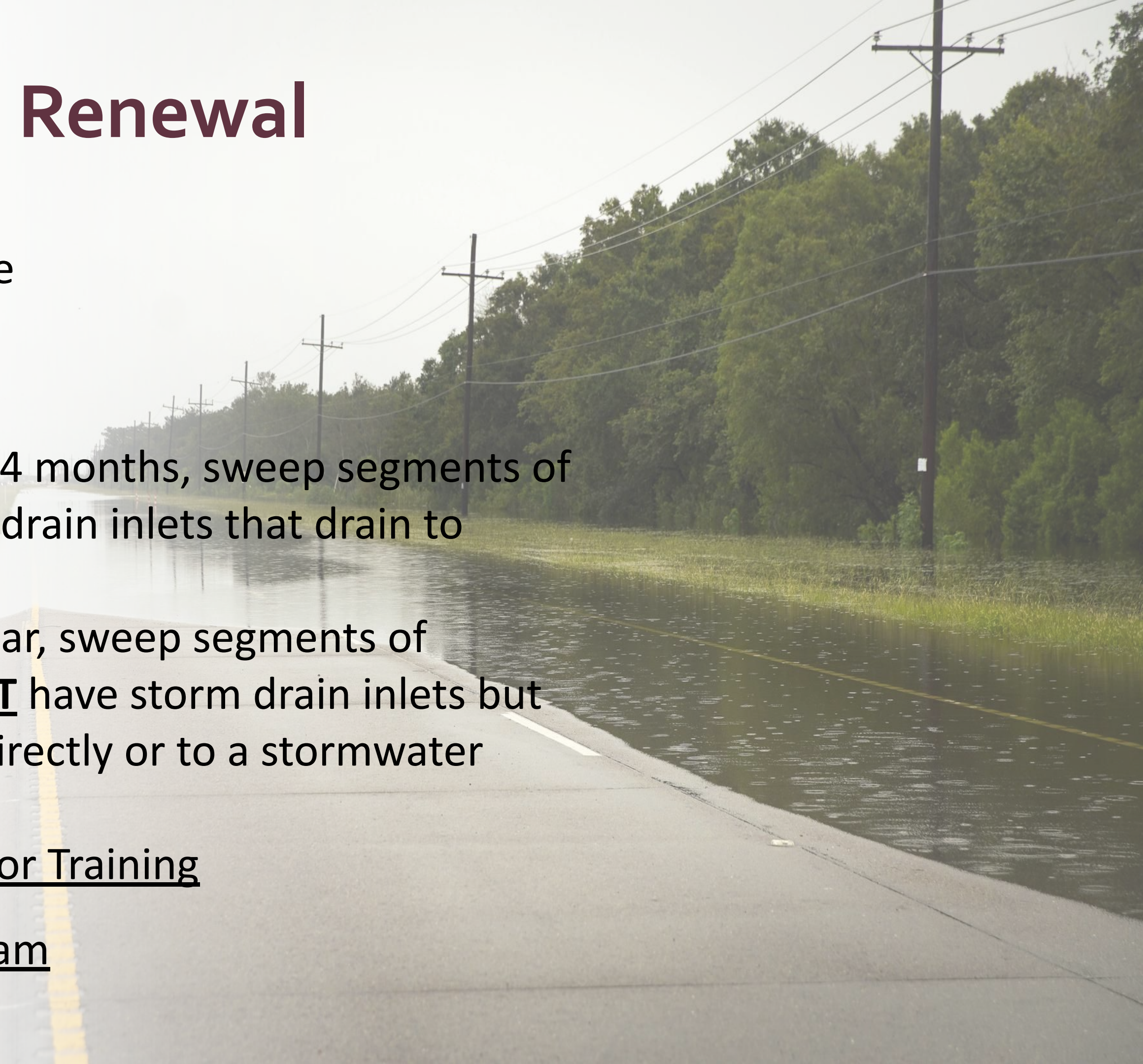
TMDLs & Water Quality Impairments

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



Highlights from the Renewal

- New Ordinances
 - Privately-owned Salt Storage
 - Tree Removal/Replacement
- Street Sweeping Requirements
 - Triannual Sweeping – Every 4 months, sweep segments of municipal roads with storm drain inlets that drain to surface water
 - Annual Sweeping – Every year, sweep segments of municipal roads that do **NOT** have storm drain inlets but **DO** drain to surface water directly or to a stormwater conveyance
- Stormwater Program Coordinator Training
- Roadside Erosion Control Program



MS₄ Mapping

- **Map all MS₄ infrastructure:**

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





Watershed Improvement Plan Overview

Phase 1

Watershed Inventory Report

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

Phase 2

Watershed Assessment Report

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

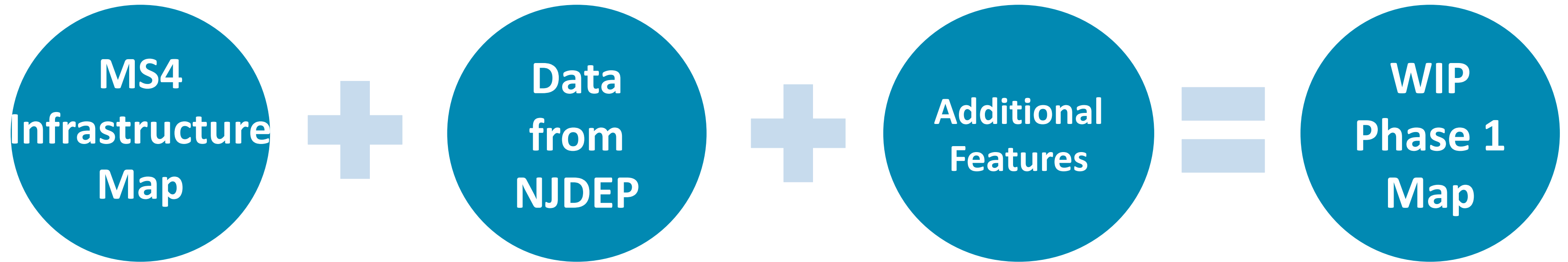
Phase 3

Watershed Improvement Plan Report

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

Watershed Inventory Report – Phase 1

Permit section IV.H.1.d.



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

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

Resources:

*H & H Database

SWU Utilities

Discuss
Concept

Conduct
Preliminary
Feasibility
Study

Engage
Management

Conduct
Comprehensive
Feasibility
Study

Engage
Stakeholders

Engage
Public

Implement
Stormwater
Utility

https://dep.nj.gov/njpdes-stormwater/swu_stormwaterutility/

SWU Utilities

Who Can Establish a Stormwater Utility?

- **The governing body of a single municipality**
- **The governing body of a single county**
- **Municipal utilities authority**
- **Utilities authority**
- **County improvement authority**
- **Sewerage authority**



Clean stormwater and flood reduction act signed into law in March 2019



Allows formation of stormwater utilities (SWU) to collect fees from property owners in the service area to be dedicated to supporting stormwater operations and improvements



The fees reflect an estimation of how much stormwater runoff the property generates, not based on property tax

CONTACT US



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Permitting & Water Quality
Management

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Bureau of Surface Water and
Pretreatment Permitting

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THE TOXIC POLITICS OF STORMWATER UTILITIES

JERSEYWATERWORKS CONFERENCE

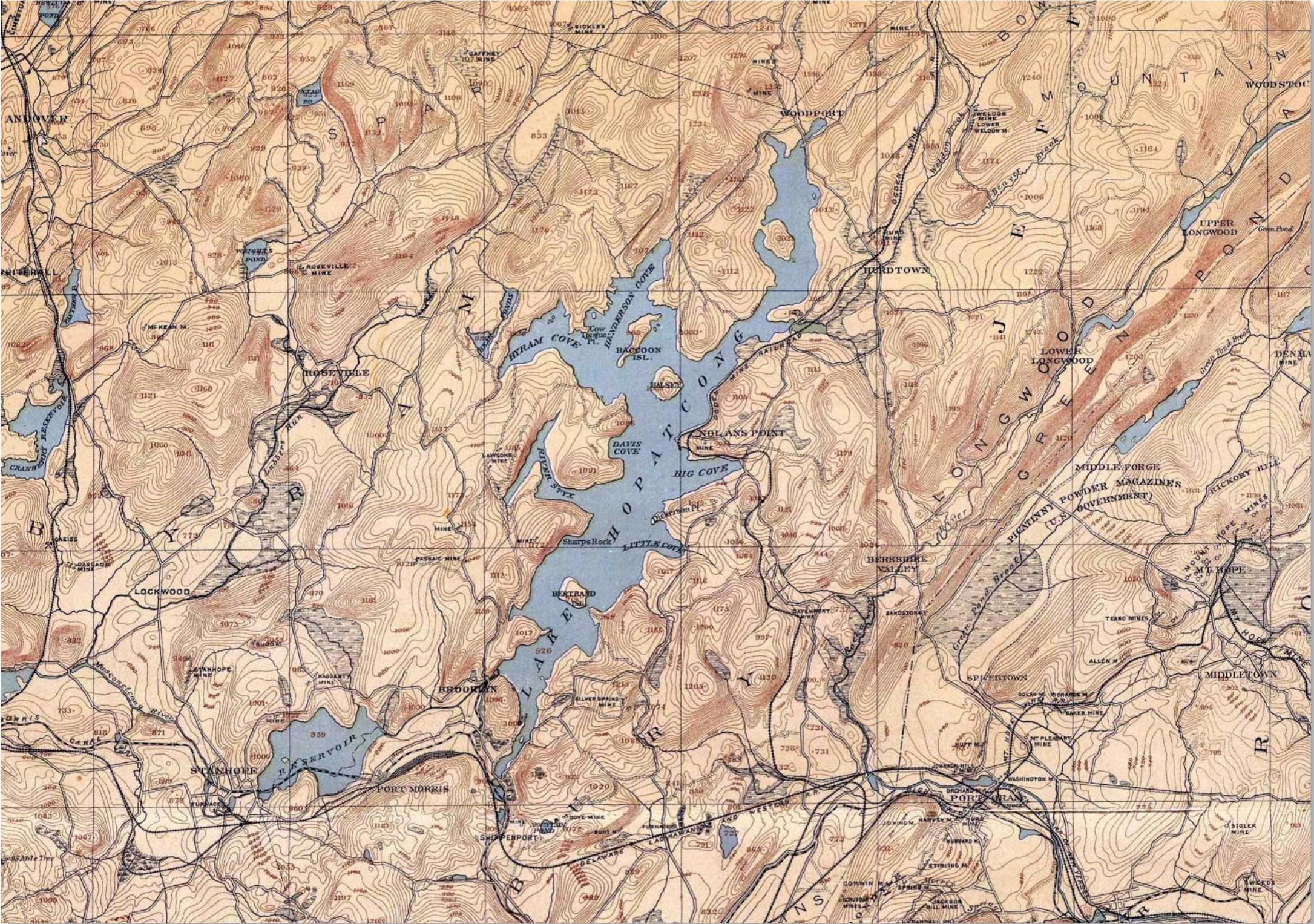
December 13, 2023

Elliott Ruga, Policy & Communications Director

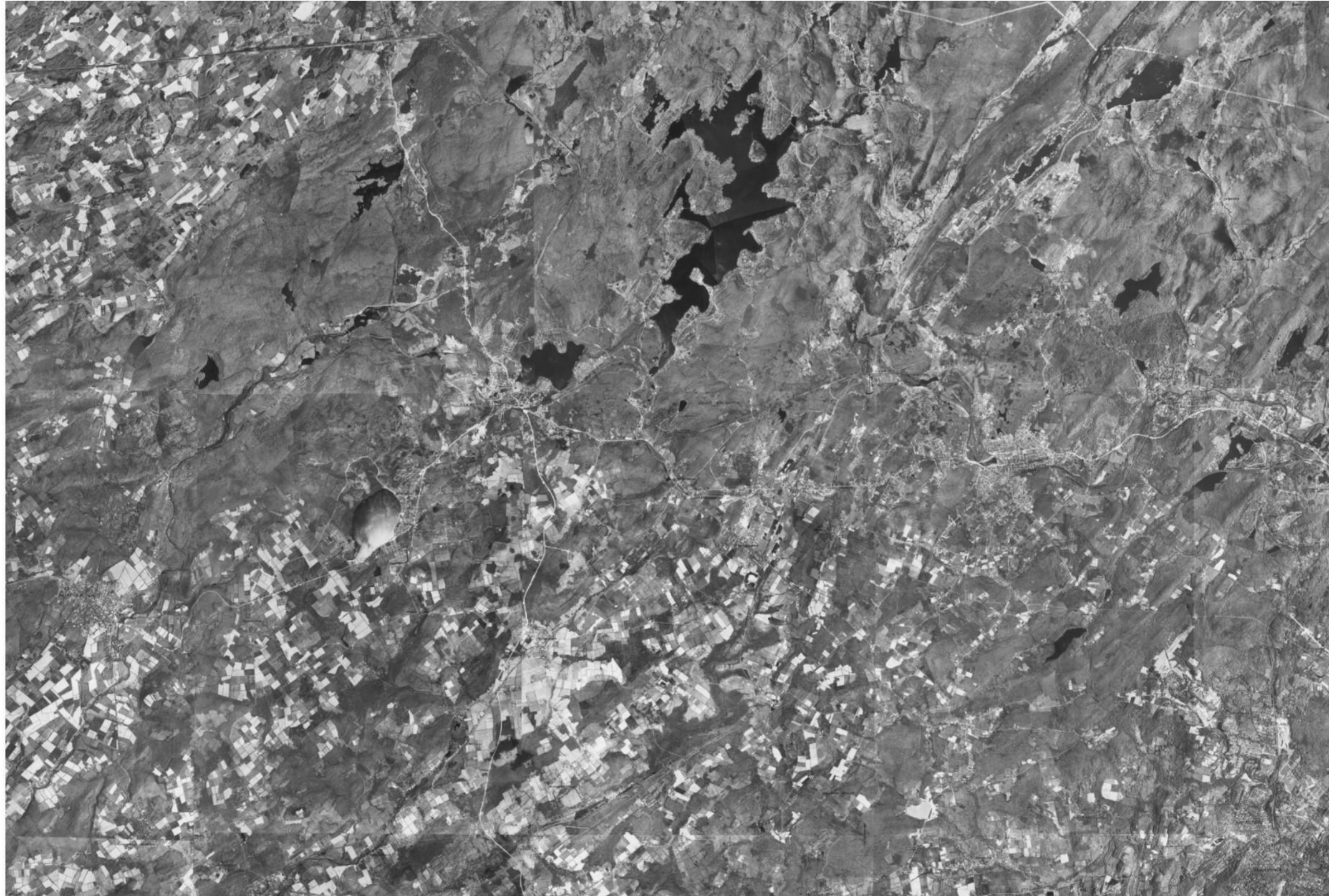
New Jersey Highlands Coalition

Your water, your future

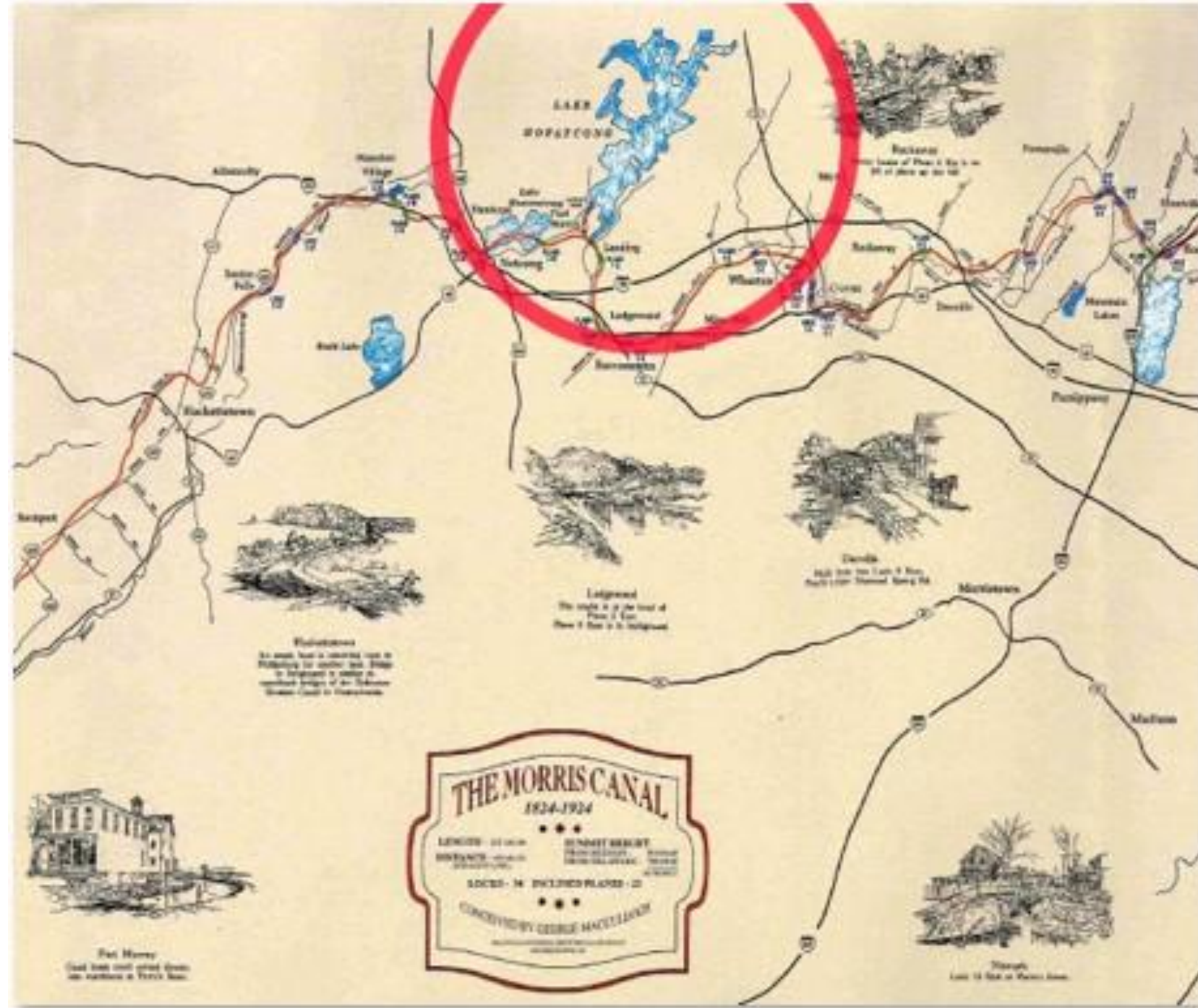
ONCE UPON A TIME...



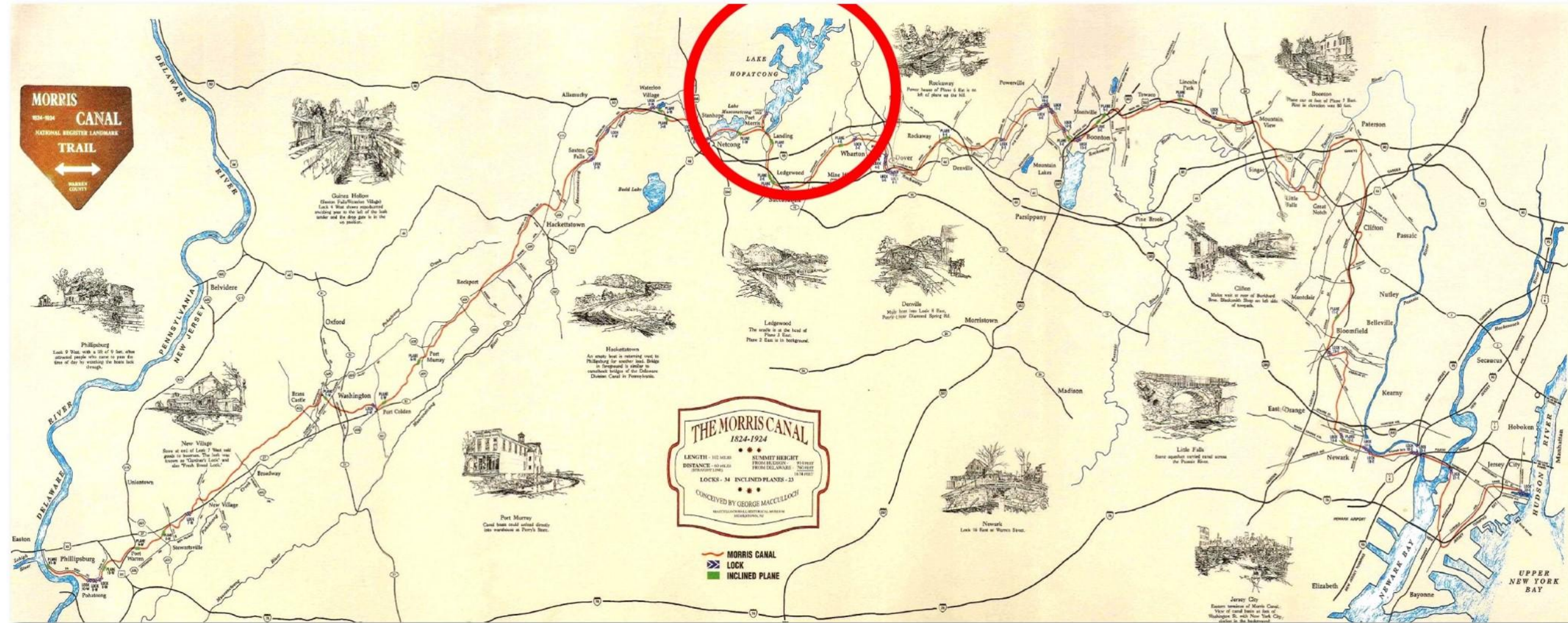
1930 AERIAL



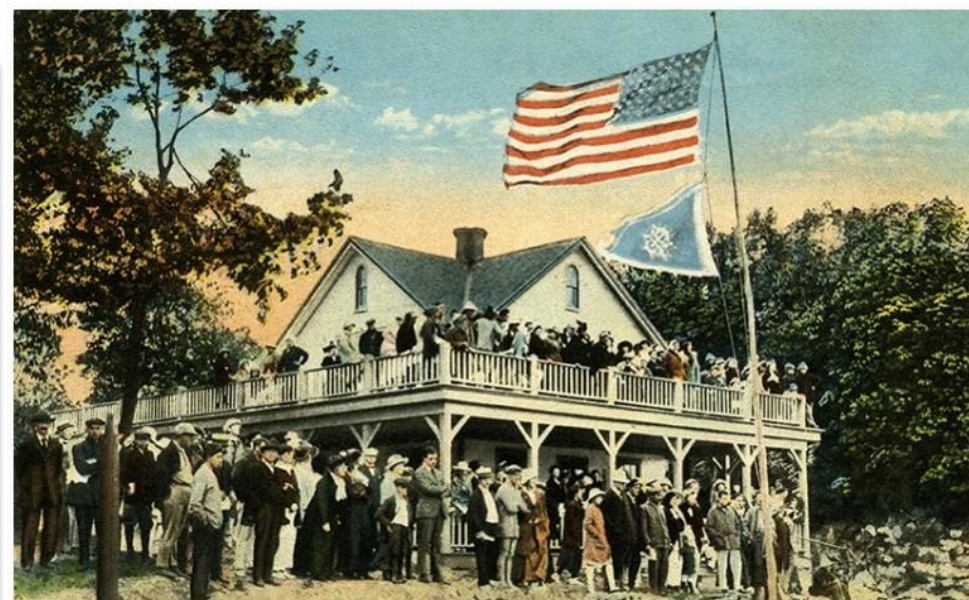
LAKE HOPATCONG: STATE LEVEL INTERESTS

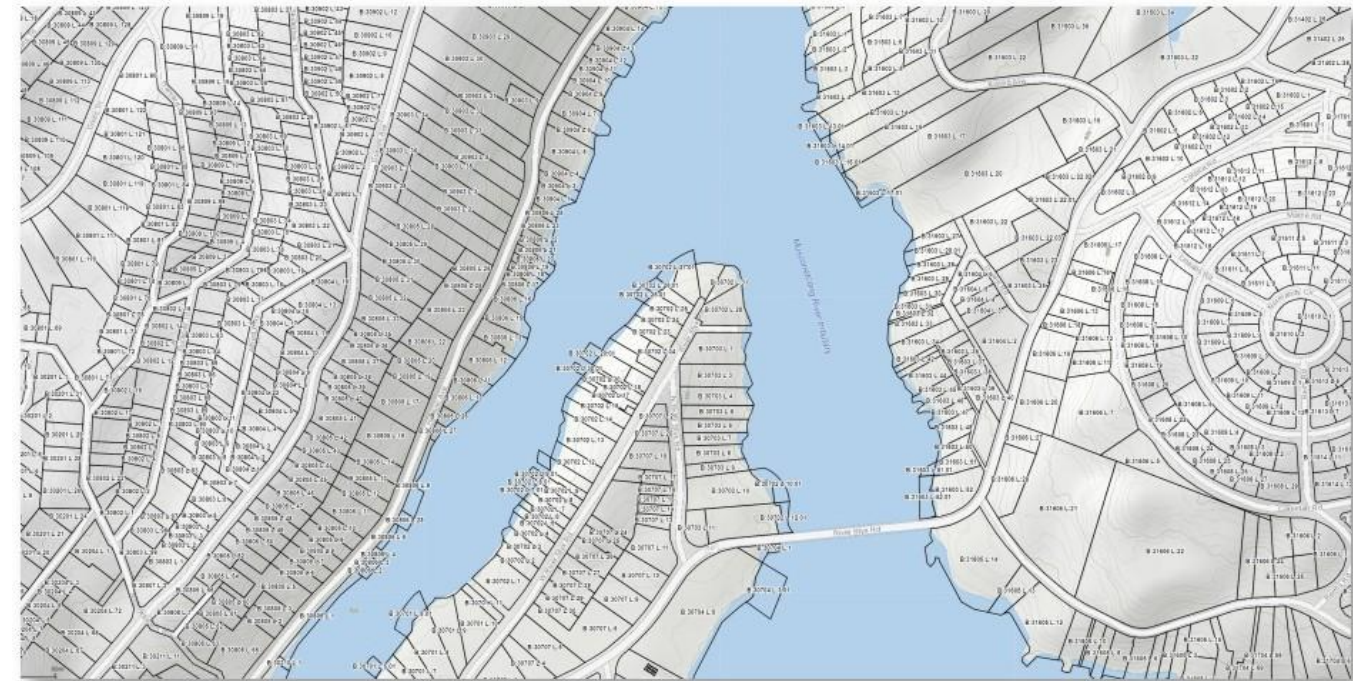
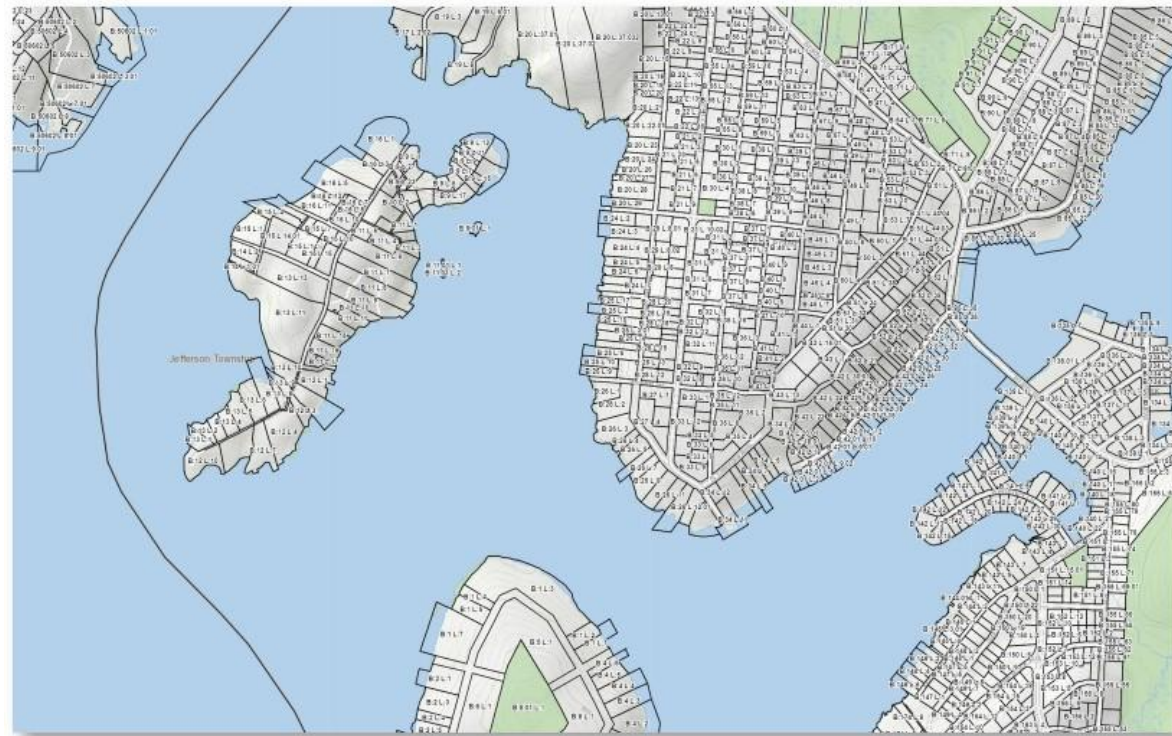
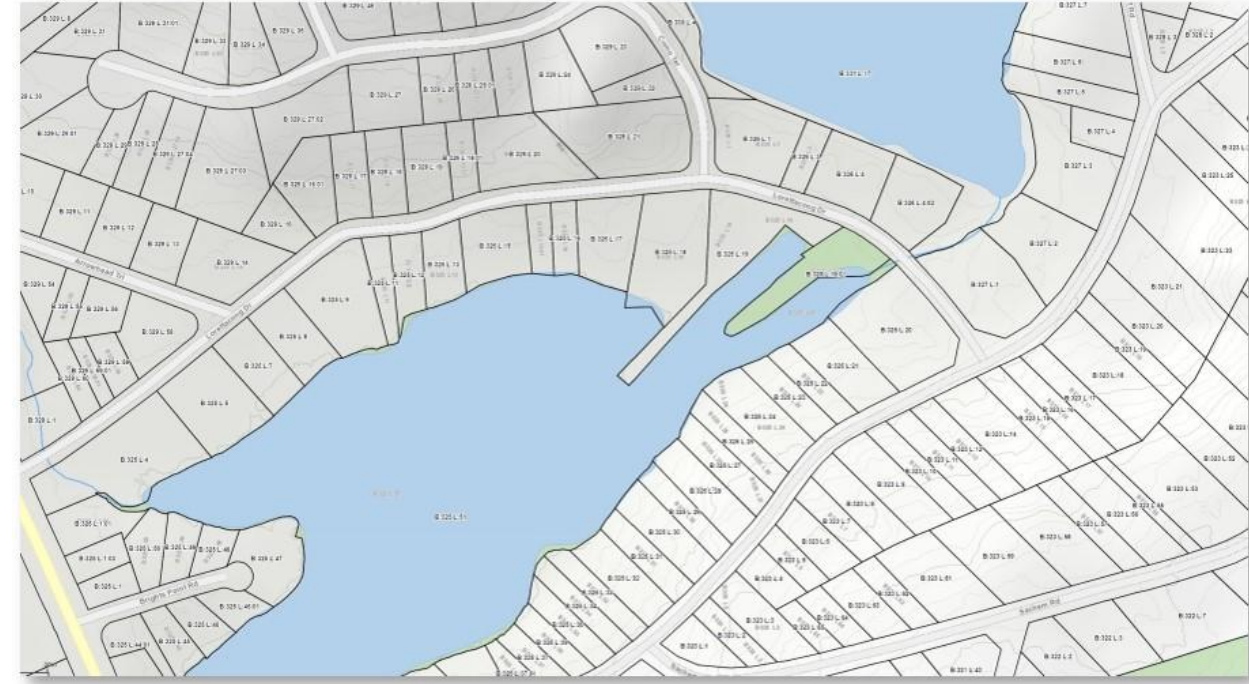
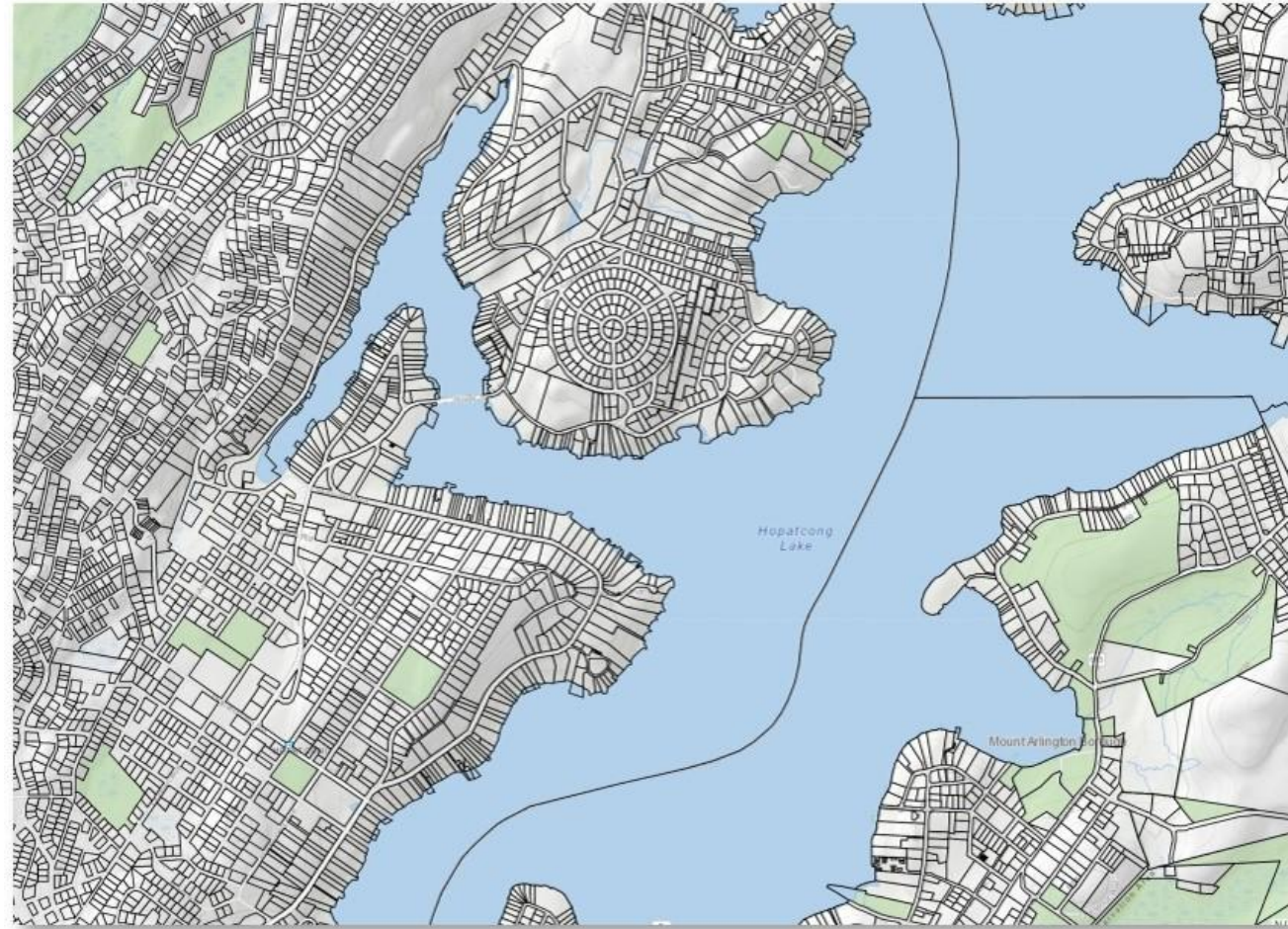


LAKE HOPATCONG: STATE LEVEL INTERESTS



THE GEM OF THE MOUNTAINS





SUMMER WEEKENDS!



By Leo H. Carney
July 22, 1984

ONE OF the major environmental and economic challenges of this decade is said to be the preservation of Lake Hopatcong, New Jersey's largest semi-enclosed body of fresh water, which has been succumbing to the ravages of overdevelopment.

State and Federal environmentalists, municipal and regional officials and consultants are already involved in studies and assessments costing \$1 million. According to the state's Department of Environmental Protection, saving the lake could cost well in excess of \$120 million over the next 10 years or more.

Preservation of the lake has been given a top priority, not only because it is a major resort and recreation area, but also because it is a source of potable water for local communities and an emergency source of water for other parts of northern New Jersey during times of low supply.

The problem with Lake Hopatcong is eutrophication, a natural aging process of aquatic ecosystems characterized by silting and the rising of deltas, low oxygen, turbidity, excessive amounts of algae and weed-choked shorelines. This process normally occurs over many decades or even centuries; it is how lakes and ponds evolve into swamps, marshes, bogs and, finally, meadows.

To compound the problem, the increasing numbers of people who have settled along the periphery of Lake Hopatcong have produced several sources of pollution, including leaking septic systems (there are no sewers), storm-water runoff from paved roads, parking lots, driveways and roofs, heavily fertilized lawns and feces from domestic animals.

In addition, the pollution includes run-off lead from automobiles and motorboat engines, bacteria and nutrients, mostly phosphorus and nitrogen. The last two act as fertilizers that cause a gross profusion of plant growth and a concomitant depletion of oxygen.

As in most lakes and ponds in northern New Jersey, eutrophication has been hastened by the effects of conversions of summer cottages into year-round homes, new housing developments and increased recreational demands over the years.

There are no precise statistics, but Lake Hopatcong State Park, at the southwestern side of the lake, had 152,000 paid admissions last year, a figure that represents the number of cars that entered, not people.

What is certain, according to a recent environmental assessment, is that the lake is highly eutrophic. Robert M. Runyon, chief of the environmental department's Bureau of Monitoring and Data Management, said that nearly half of Hopatcong was now 10 feet deep or less. Shallow waters enhance the eutrophication process.

depth for the entire lake averages only 17 1/2 feet.

Mr. Runyon said in an interview last week that the most-recent test samples taken from the middle of the lake contained 15.6 milligrams and that a few areas measured as high as 64 milligrams per cubic meter.

Ideally, Mr. Runyon said, the Lake Hopatcong region - it takes in Jefferson Township, Mount Arlington, Hopatcong, Lake Hopatcong and Landing - needs a \$120 million sewage- treatment system that would reduce the lake's nutrient load by up to 37 percent.

Next, he said, a septic management plan is required to control the amount of waste leaking into the lake, plus the replacement of old septic tanks with more-efficient ones.

The third ingredient for saving the lake, Mr. Runyon said, is a storm- management system that catches the huge volumes of runoff and filters the nutrients, lead and other heavy metals before they flow into the water.

So far, he said, the state has tried to control the weed growth by spraying Diquat, a chemical herbicide that cannot be used near potable water intakes or bathing areas because of its immediate toxicity.

Only 150 to 200 acres of the lake can be sprayed this way each year; however, Mr. Runyon said that a \$203,000 grant from the Federal Environmental Protection Agency, which will be matched by a \$217,000 state appropriation, would result in weed harvesting beginning next summer.

The herbicide merely kills the top of the weeds by blocking photosynthesis. Harvesting, on the other hand, will get to the root of the problem.

Fewer weeds mean a freeing of the lake's coves and back areas. In turn, this means greater circulation and, therefore, a healthier exchange of oxygen through the water columns and a higher rate of pollutant flushing.

Meanwhile, Lake Hopatcong has not died, as some reports have said. Trout still breed there naturally, although there is a state-sponsored stocking program to help nature along. Bass are plentiful and deer, porcupine and other mammals can still be found in the less-developed sections of the region.

Bart H. Wallin, superintendent of the 113-acre state park, said that regular tests for bacteria at bathing beaches along the 39-mile periphery of the lake had indicated no dangers.

According to Mr. Wallin, the southern end of the lake has not been as seriously affected by eutrophication. He said this was evident by the small numbers of what sportsmen call "trash fish" - catfish, suckers and sunfish, for example.

MARCH 18, 2019

SENATE, No. 1073

STATE OF NEW JERSEY

218th LEGISLATURE

Sponsored by:

Senator **BOB SMITH**

District 17 (Middlesex and Somerset)

Senator **CHRISTOPHER "KIP" BATEMAN**

District 16 (Hunterdon, Mercer, Middlesex and Somerset)

Senator **RICHARD J. CODEY**

District 27 (Essex and Morris)

Senator **LINDA R. GREENSTEIN**

District 14 (Mercer and Middlesex)

Assemblyman **JOHN F. MCKEON**

District 27 (Essex and Morris)

Assemblywoman **NANCY J. PINKIN**

District 18 (Middlesex)

Assemblywoman **CLEOPATRA G. TUCKER**

District 28 (Essex)

Co-Sponsored by:

Senators **Pou, Ruiz**, Assemblymen **Karabinchak, Mukherji**,

Assemblywoman **Reynolds-Jackson**, Assemblymen **Caputo and Calabrese**

SYNOPSIS

Authorizes municipalities, counties, and certain authorities to establish stormwater utilities.



**NEW JERSEY
HIGHLANDS
COALITION**

New Jersey Lawmakers Are Trying to Tax the Rain

This gives new life to the saying, "when it rains, it pours."

Thursday, February 21, 2019

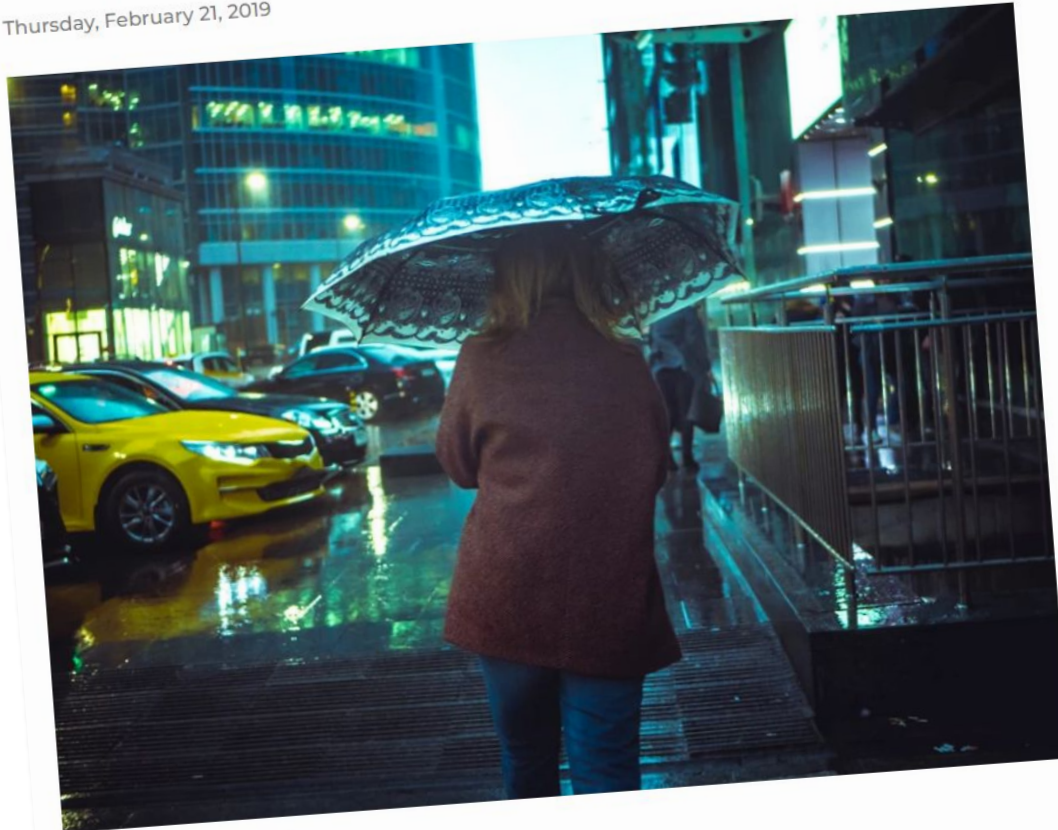
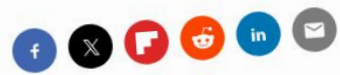


Image Credit: Pexels

 Brittany Hunter

- Politics
- State Government
- New Jersey
- Taxation
- Environmentalism
- Bureaucracy
- Tax Burden
- Local Government
- Environment



Sometimes life mimics fiction. And sometimes life is so much stranger than fiction you have to double check the headlines to ensure they aren't satire. The latest doubletake comes from New Jersey, where, under the guise of environmentalism, local legislators have passed a new tax on—wait for it—the rain.

Governments are known for a lack of creativity and an uncanny ability to think outside the box. However, when it comes to getting creative with tax laws, they are often the last to do so. In Chicago, for example, the city council has passed a law that would allow the city to tax the rain.

New Jersey Lawmakers Are Tripping Over the Rain Why 'rain tax': property

METRO

New Jersey wants to tax the rain

By **Mary Kay Linge**
Published Feb. 9, 2019, 4:56 p.m. ET



By now, many of you
legislation known as t
legislation has been an
Phil Murphy appears to

If Murphy signs the legisla
stormwater utilities. The int
management utilities to cont
Jersey's existing sewer system
utilities be funded by fees asse
residential, commercial and ind
of the legislation is not to assess
residential property owners. As we
large estates and contain a fair am
legislation.

Phil Murphy
AP

Saving money for a rainy day isn't just a good idea in New
Jersey — it's about to become the law.

Democratic Gov. Phil Murphy is poised to sign a "rain tax" bill
passed by the state legislature Jan. 31 — and Republicans
and lots of taxpayers are howling with rage.

think there's nothing left to tax, we come up
man Hal Wirths (R-Morris-
sure

JUNE 27, 2019





SOLUTIONS – EMPHASIS ON SOLVING SYMPTOMS



COMPARISON WITH LAKE MOHAWK



COMPARISON WITH LAKE MOHAWK





CAN WE BRIDGE THE DIVIDE OVER STORMWATER UTILITIES?

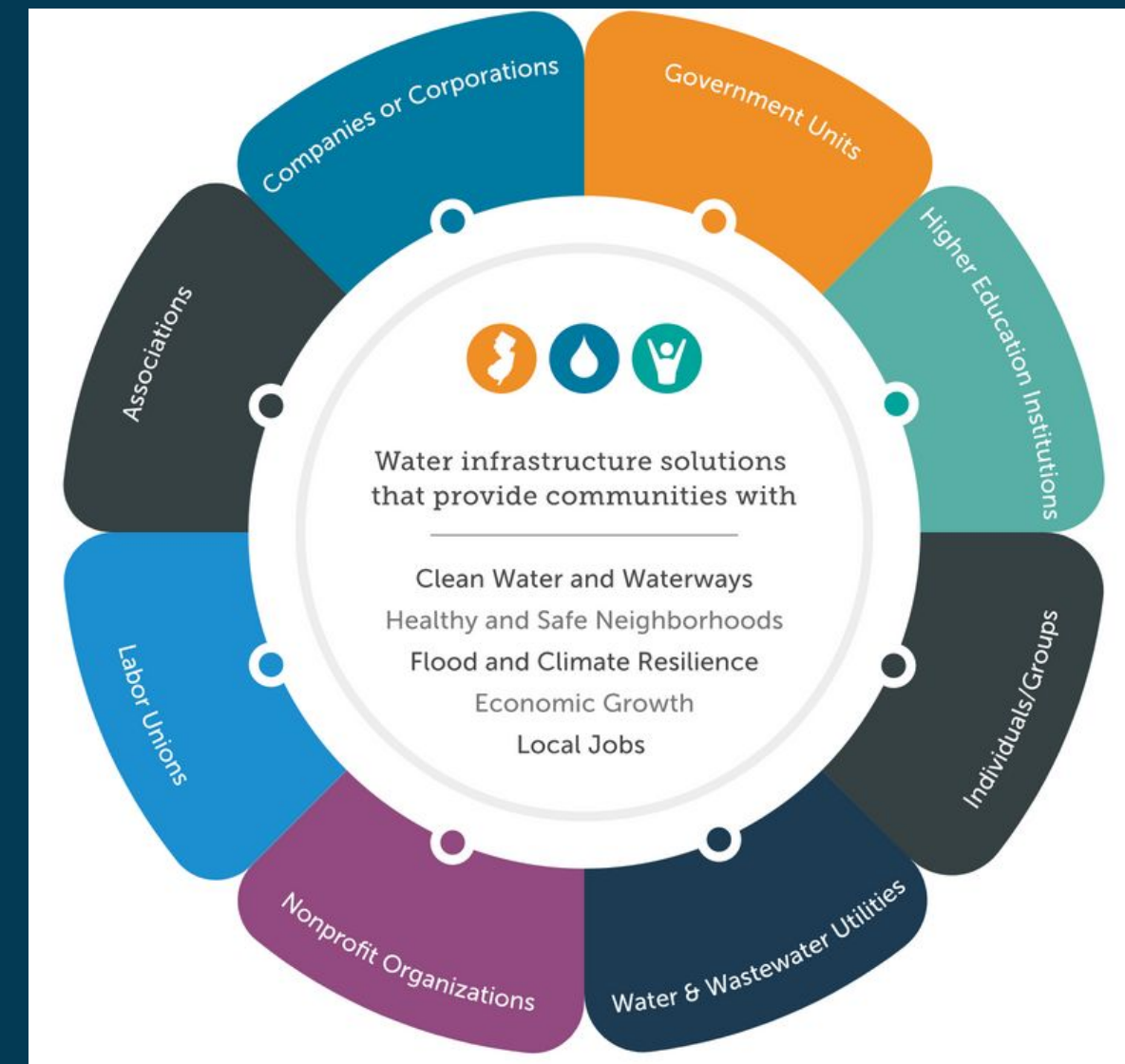
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Thank You!

Stay Involved!

Jersey Water Works



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Five Minutes Left



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Zero Time Left

