

Surface Water Quality Standards (N.J.A.C. 7:9B)

Stakeholder Meeting

January 17, 2019



Division of Water Monitoring and Standards

Bureau of Environmental Analysis, Restoration and Standards

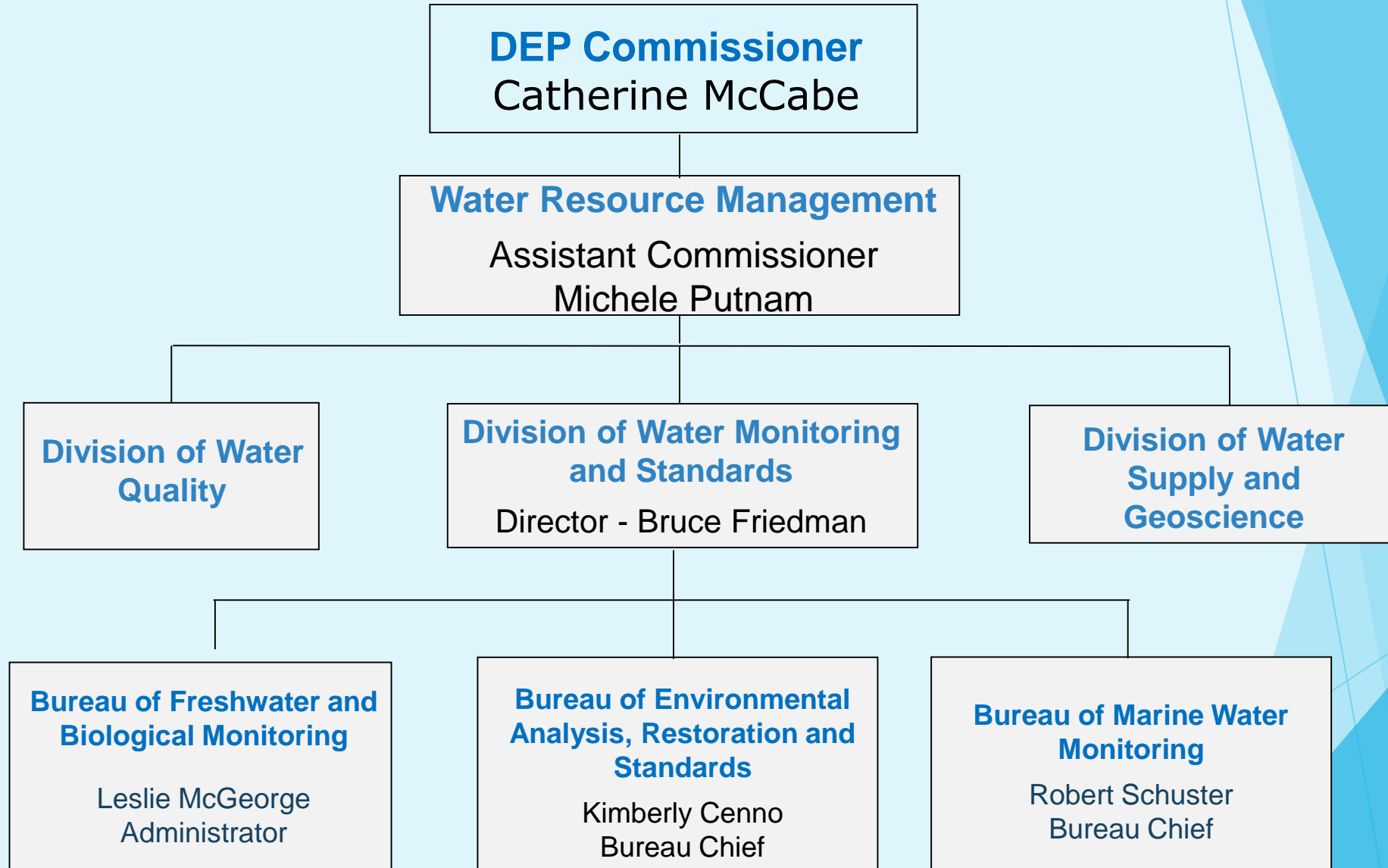
Introduction and Agenda

1. Category One Designation - What does it mean?
 - Existing Category One Designations
2. Proposed Category One Upgrades
 - Criteria for Designation
3. Potential Impacts
 - Overview of Candidate List
4. Benefits and Next Steps



Photo credit: DEP

WHO WE ARE



Purpose of Meeting

- ▶ The DEP is considering revisions to the Surface Water Quality Standards, N.J.A.C. 7:9B, to designate additional waterbodies as Category One and reclassify certain waterbodies based on fish surveys.
- ▶ The DEP is providing an opportunity to present information, discuss and solicit input on potential designation of certain surface waters as Category One.
- ▶ Discuss criteria and process used by the DEP.
- ▶ Discuss the significance and potential impacts of designating a waterbody as Category One.

Category One Designation



Photo credit: DEP

Surface Water Quality Standards (SWQS)

N.J.A.C. 7:9B

- ▶ Establish the designated uses and antidegradation categories for the State's surface waters. Designated uses include:
 - ❑ Drinking water supply;
 - ❑ Fish consumption;
 - ❑ Shellfish resources;
 - ❑ Propagation, maintenance and migration of fish and wildlife;
 - ❑ Recreation in and on the water; and
 - ❑ Agricultural and industrial water supplies.
- ▶ Classify surface waters based on those uses (i.e., stream classifications), and specify the water quality criteria and other policies and provisions necessary to attain those designated uses.

Surface Water Classifications

Fresh Water (FW)

- ▶ FW1
- ▶ FW2-TP (Trout Production)
- ▶ FW2-TM (Trout Maintenance)
- ▶ FW2-NT (Non-trout)

Pineland Waters (PL)



Photo credit: DEP

Saline Waters

Salinity ≥ 3.5 parts per thousand at mean high tide

- ▶ **Saline Coastal (SC)** -
The Atlantic Ocean bordering NJ's coast
- ▶ **Saline Estuary (SE)**
 - ❑ Estuaries and Rivers under the influence of tidal forces
 - ❑ Situated between FW and SC
 - ❑ SE1
 - ❑ SE2
 - ❑ SE3

Antidegradation Policy and Designations

- ▶ Code of Federal Regulations (Chapter 40, Section 131.12) require States to adopt antidegradation policies.
- ▶ N.J.'s antidegradation policies at N.J.A.C. 7:9B-1.5(d)
 - ❑ Ensure the protection and maintenance of all existing and designated uses; and
 - ❑ Restore water quality to support designated and existing uses.



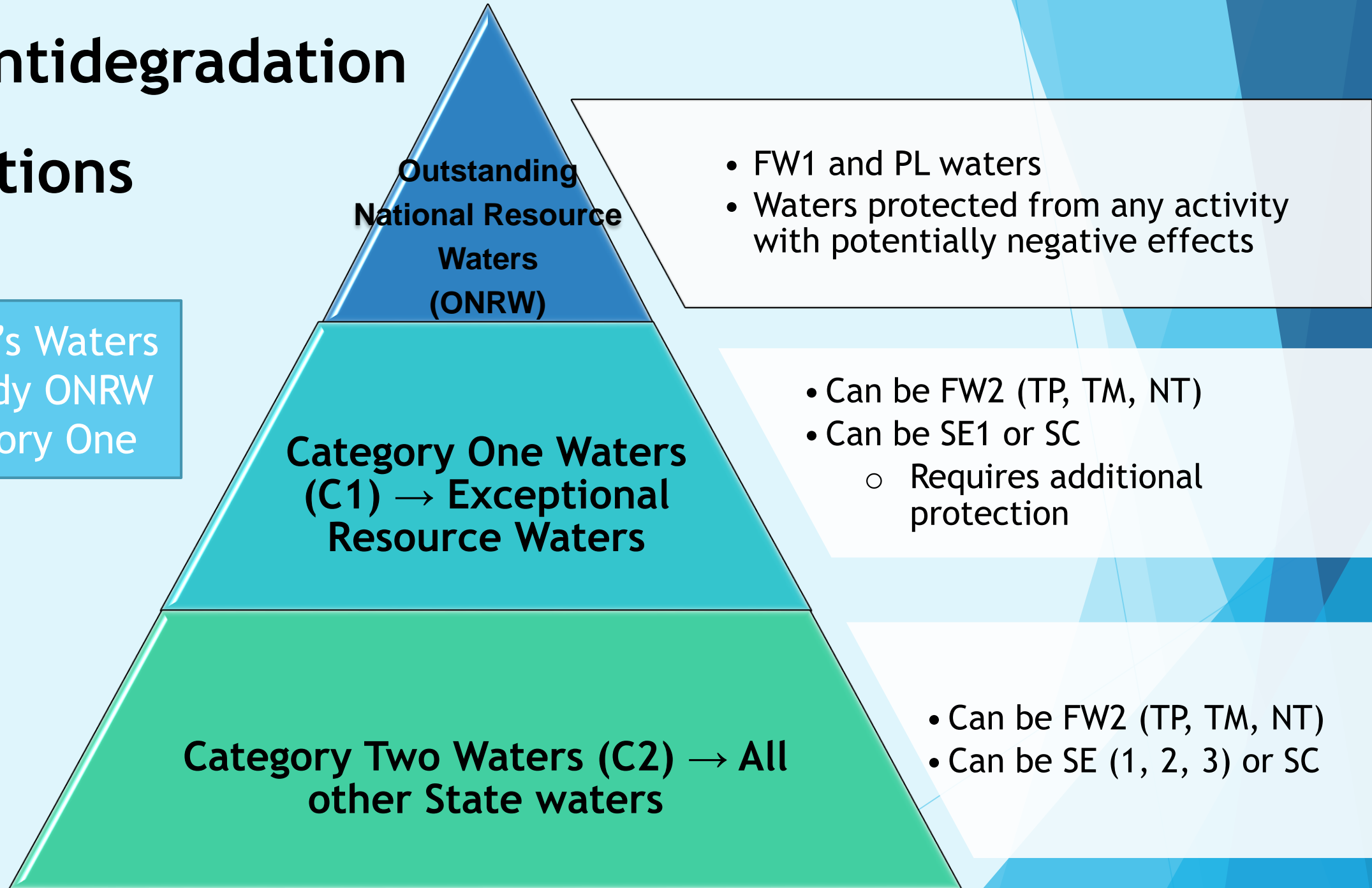
**All surface waters
are provided
an antidegradation
designation.**



SWQS Antidegradation

Designations

44% of NJ's Waters
are already ONRW
or Category One



What does Category One Mean?

- ▶ **Protected from any measurable change in water quality.**

- ☐ Contrast to Outstanding National Resource Waters, which are maintained in their natural state.

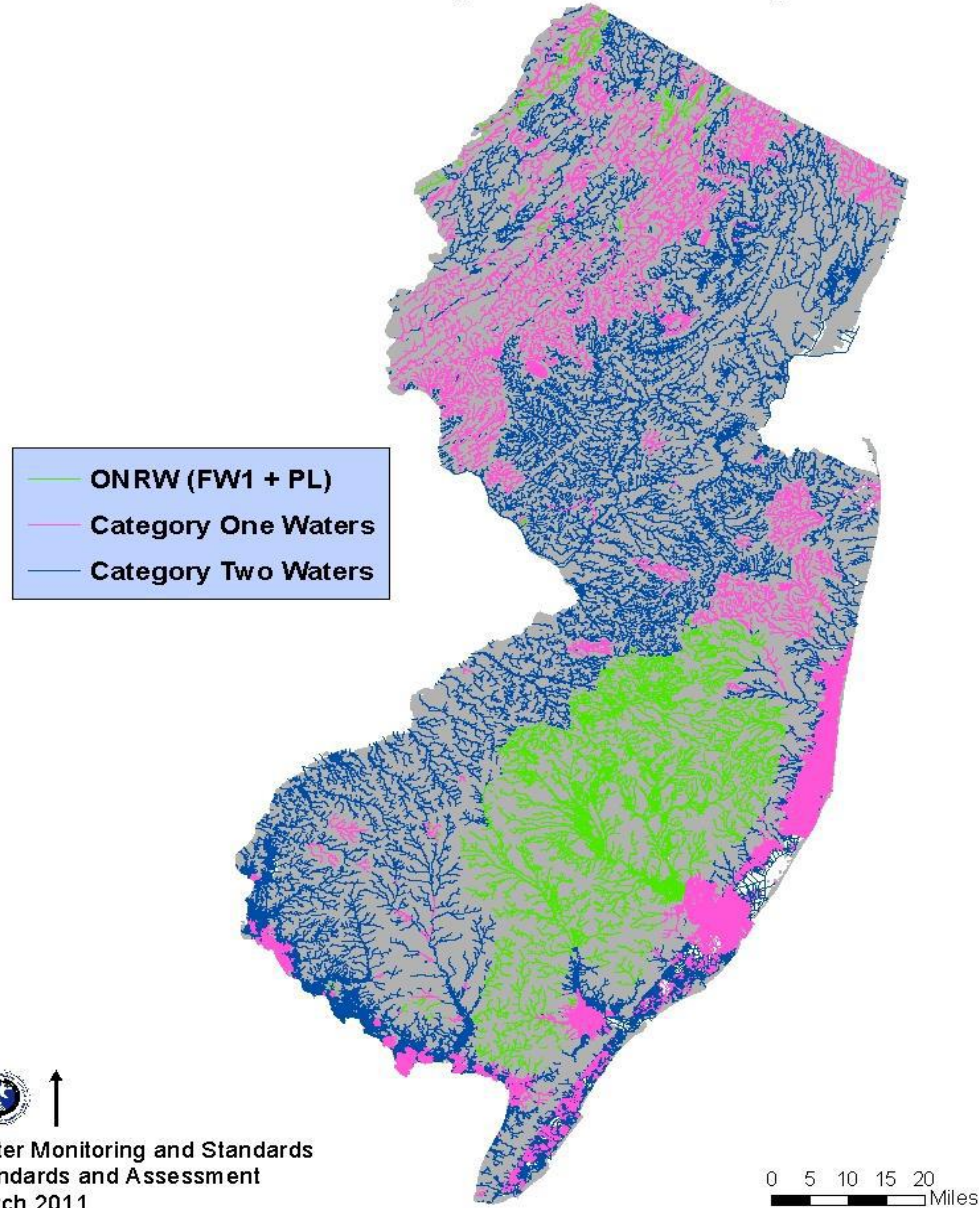
- ▶ **How are Category One waters protected?**

The DEP's Water Quality and Land Use Programs provide protective measures to Category One waterbodies.

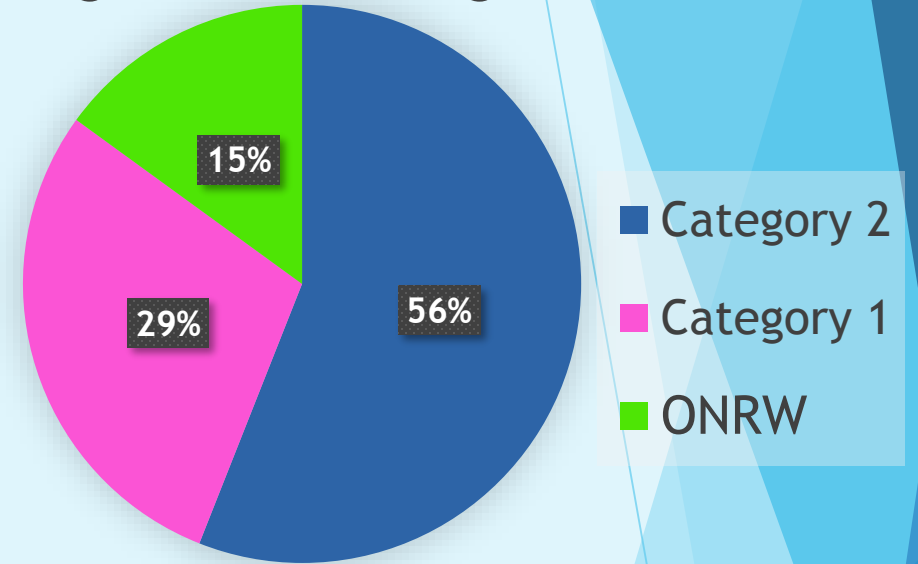
- ☐ Dischargers must maintain the existing water quality pursuant to antidegradation policies at N.J.A.C. 7:9B-1.5(d) including “no measurable change” criteria.
- ☐ 300-foot riparian zones surrounding the Category One waters are established through Flood Hazard Area Control Act Rules, N.J.A.C. 7:13.

Current Category One Waters of New Jersey

Surface Water Antidegradation Designations



NJ Surface Water Antidegradation Designations



Categories	River miles	Percent (%)
ONRW	3,527	15
C1	6,813	29
C2	13,181	56
Total	23,521	100

Questions

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Potential Category One Upgrades



Photo credit: DEP

Category One Waters

What criteria is considered for Category One designation?

- ▶ Exceptional Recreational Significance
- ▶ Exceptional Water Supply Significance
 - ❑ Water supply system serving a population > 100,000
- ▶ Exceptional Ecological Significance
 - ❑ Endangered and Threatened (E&T) species listed
 - ❑ Exceptional Aquatic Community
- ▶ Exceptional Fisheries Resource(s)
 - ❑ Trout Production
 - ❑ Shellfish Harvesting



Photo credit: DEP

Exceptional Ecological Significance

Aquatic-Dependent E&T

Waterbodies where state endangered and threatened species have been identified

- ▶ Requires suitable habitat
- ▶ Independent of other water quality information
- ▶ Applies to these species listed below:

1. Bog turtle
2. Dwarf wedgemussel
3. Brook floater
4. Green floater
5. Triangle floater
6. Eastern lampmussel
7. Eastern pondmussel



C1: EES - Aquatic Community Evaluation Process

Primary Factor

AMNET

Requirements:

Good or Excellent
Sample Results

Data Sources:

2014 Integrated Report
(IR) & 2016 IR draft
Raritan Headwaters
Association (RHA) Data

Secondary Factors (2 of 4)

1) Habitat

Requirement:

Optimal Rating

Data Sources:

2014 IR & 2016 IR draft
RHA data

2) Chemistry

Requirements:

Attaining DO, Temp, TSS, & TP
criteria

Data Source:

2014 IR & 2016 IR draft

3) Fish Index of Biotic Integrity (FBI)

Requirement:

Excellent Rating

Data Source:

2017 BFBM Data & Fresh Water
Fisheries Data

4) Impervious Cover (I.C.)

Requirements:

< 2% → HUC 14 area < 5 sq. mi.

<10% → HUC 14 area ≥ 5 sq. mi.

Data Source:

NJDEP BGIS 2012 Land Use layer

GIS Validation

Visually validated
qualifying HUC 14 to
identified eligible
stream segments

- Station locations
- Lakes
- Tributaries
- Roads
- Dischargers
- Affected Municipalities
- Sewer Service Area

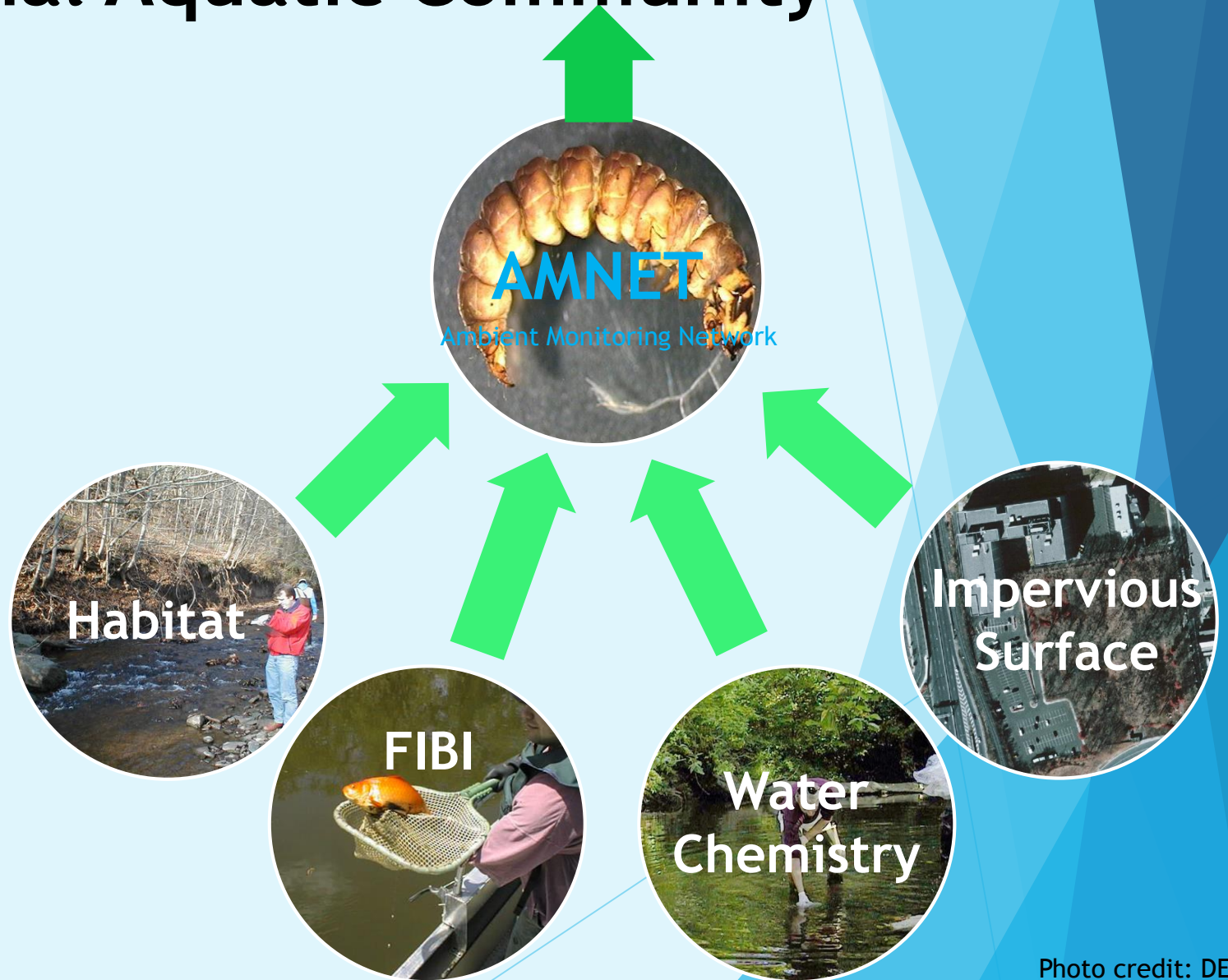
Exceptional Ecological Significance - Exceptional Aquatic Community

Primary consideration is a waterbody with a healthy (nonimpaired) benthic macroinvertebrate community.

- Determined through the Department's Rapid Bioassessment Protocol.

In addition, at least two of these factors must be met in the waterbody.

- Directly correlated with the presence of a healthy non-impaired aquatic community.



Exceptional Fisheries Resources

A waterbody provides an exceptional fisheries resource in one of two ways:

1. Supports trout production and classified as FW2-TP; or
2. Approved for unrestricted shellfish harvesting.



Photo credit: DEP

Potential Category One Upgrade Summary

A Total of 749 River Miles Proposed

C1 EES → Threatened & Endangered

- 18 Stream Segments = ~137 River Miles
- Recommended and confirmed by Bureau of Endangered and Non-game Species

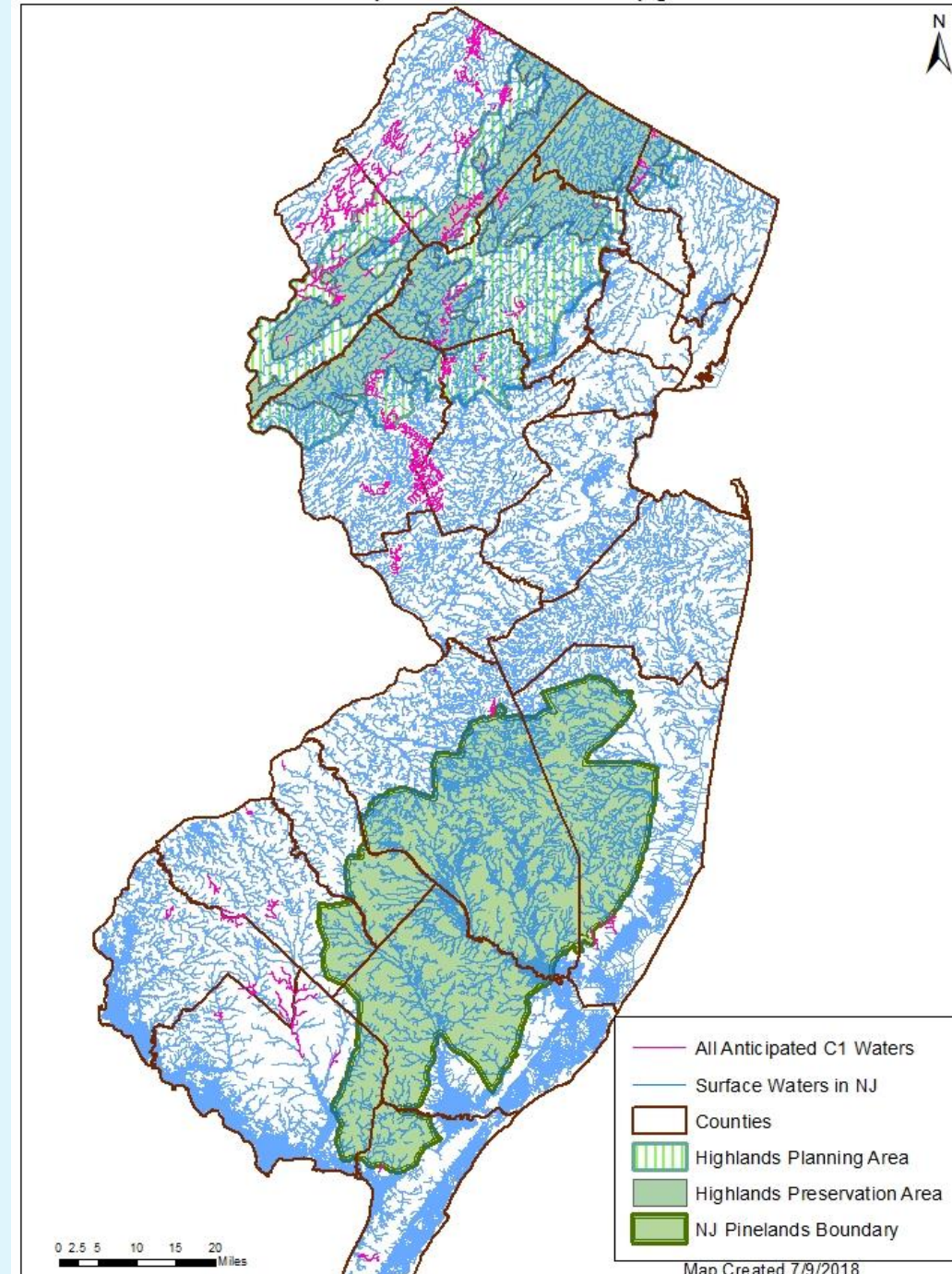
C1 EES → Aquatic Community

- 44 Stream Segments = ~600 River Miles

C1 EFR → Trout Production

- 11 Stream Segments = ~53 River Miles
- Recommended and confirmed by Bureau of Freshwater Fisheries

Categories	River miles	Percentage
ONRW	3,527	15
C1	7,568	32
C2	12,426	53
Total	23,521	100



Questions

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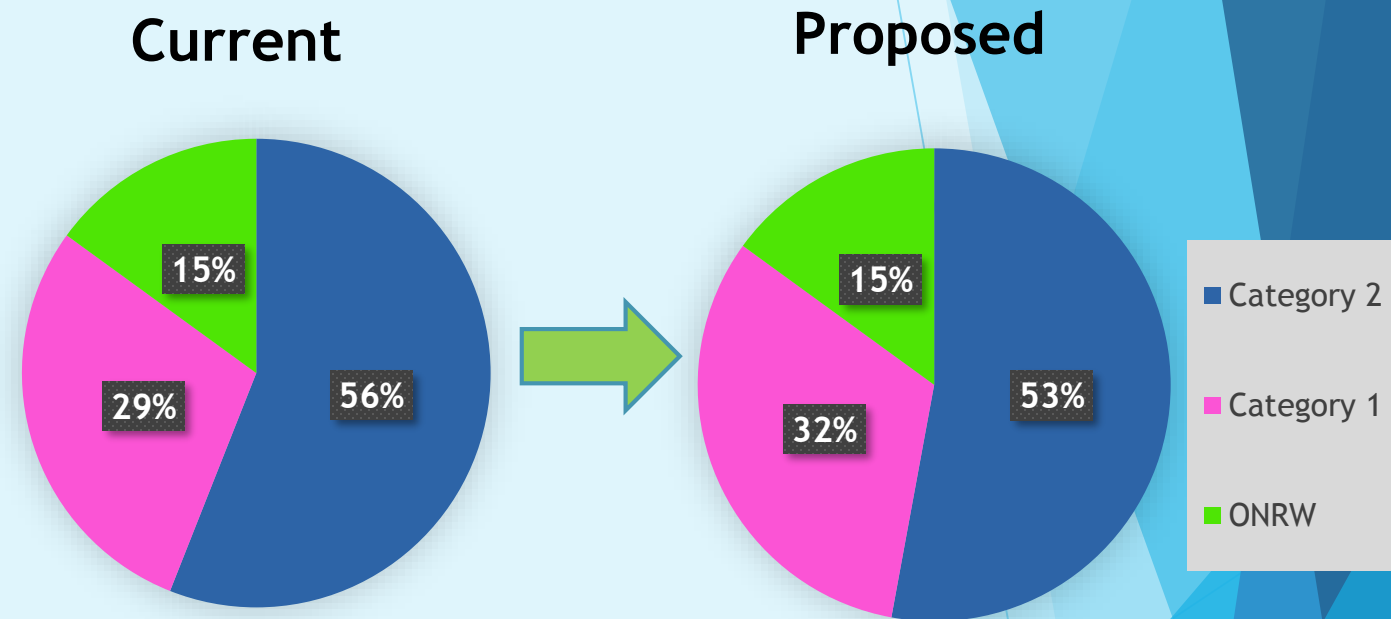
Potential Impacts



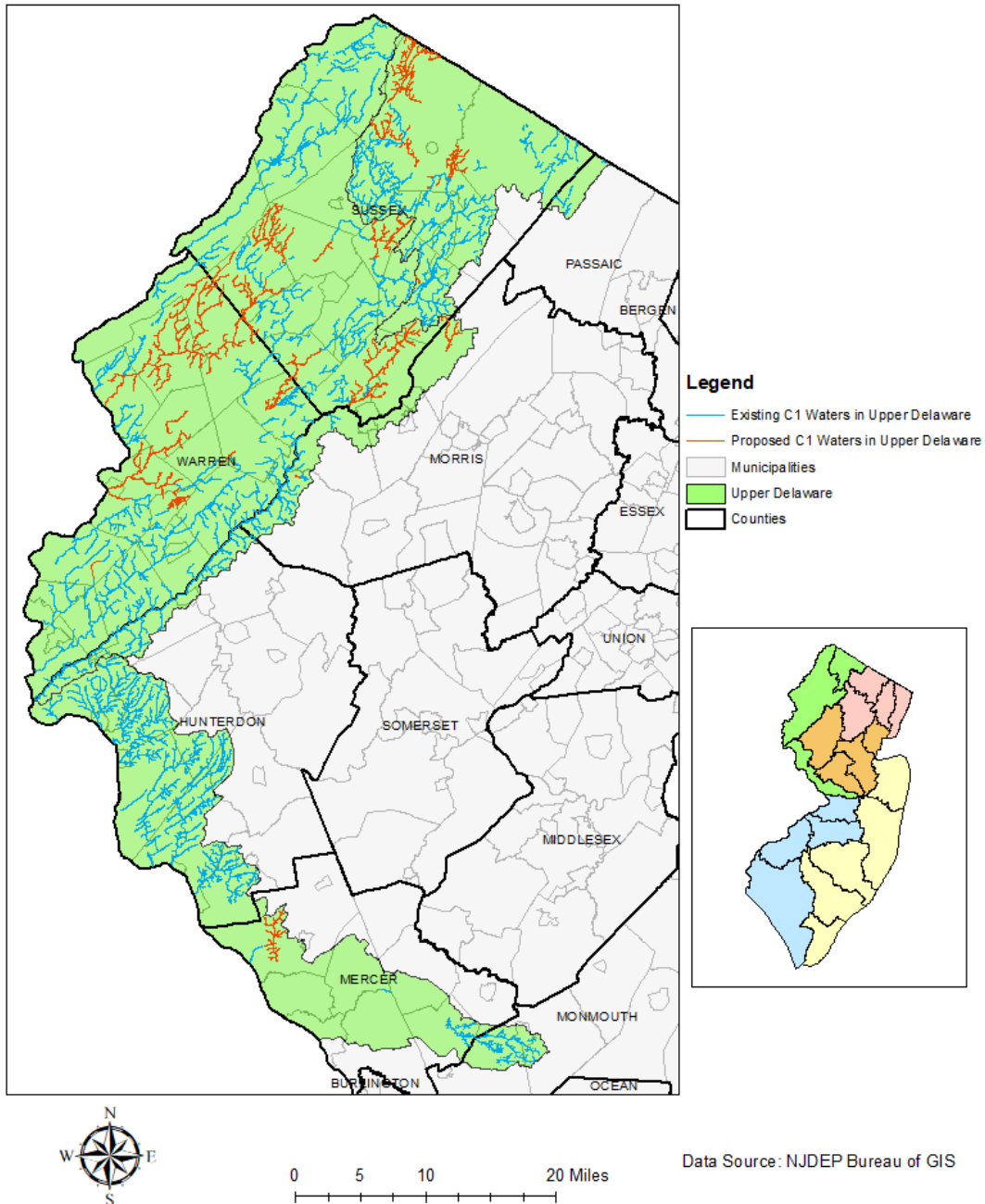
Photo credit: DEP

Effects of Upgrading to Category One

- ▶ New or expanded dischargers must maintain the existing water quality.
 - ❑ New or expanded facilities discharging to Category One waters may incur increased costs due to additional treatment needed to meet more stringent effluent limitations.
- ▶ 300-foot riparian zones will surround the Category One waters
 - ❑ Established through Flood Hazard Area Control Act Rules.
 - ❑ Limits new development within the riparian zone.



Proposed C1s in Upper Delaware Water Region

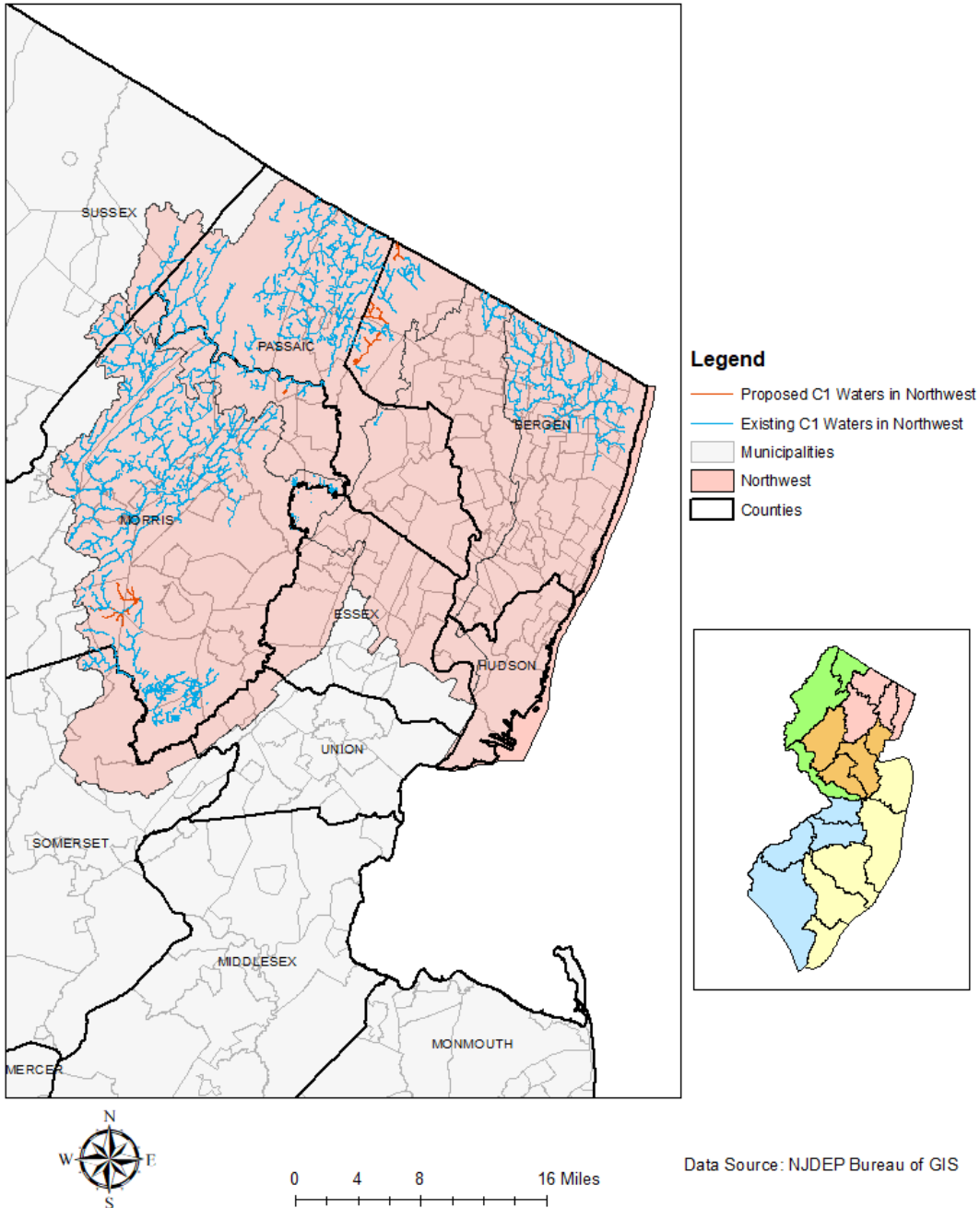


Municipalities With Proposed Category One Waters

Upper Delaware Water Region

- Allamuchy
- Blairstown
- Byram
- Frankford
- Frelinghuysen
- Green
- Hampton
- Harmony
- Hardwick
- Hopatcong
- Hope
- Hopewell
- Independence
- Jefferson
- Knowlton
- Lafayette
- Sparta
- Stillwater
- Vernon
- Wantage
- Washington
- White

Proposed C1s in Northeast Water Region

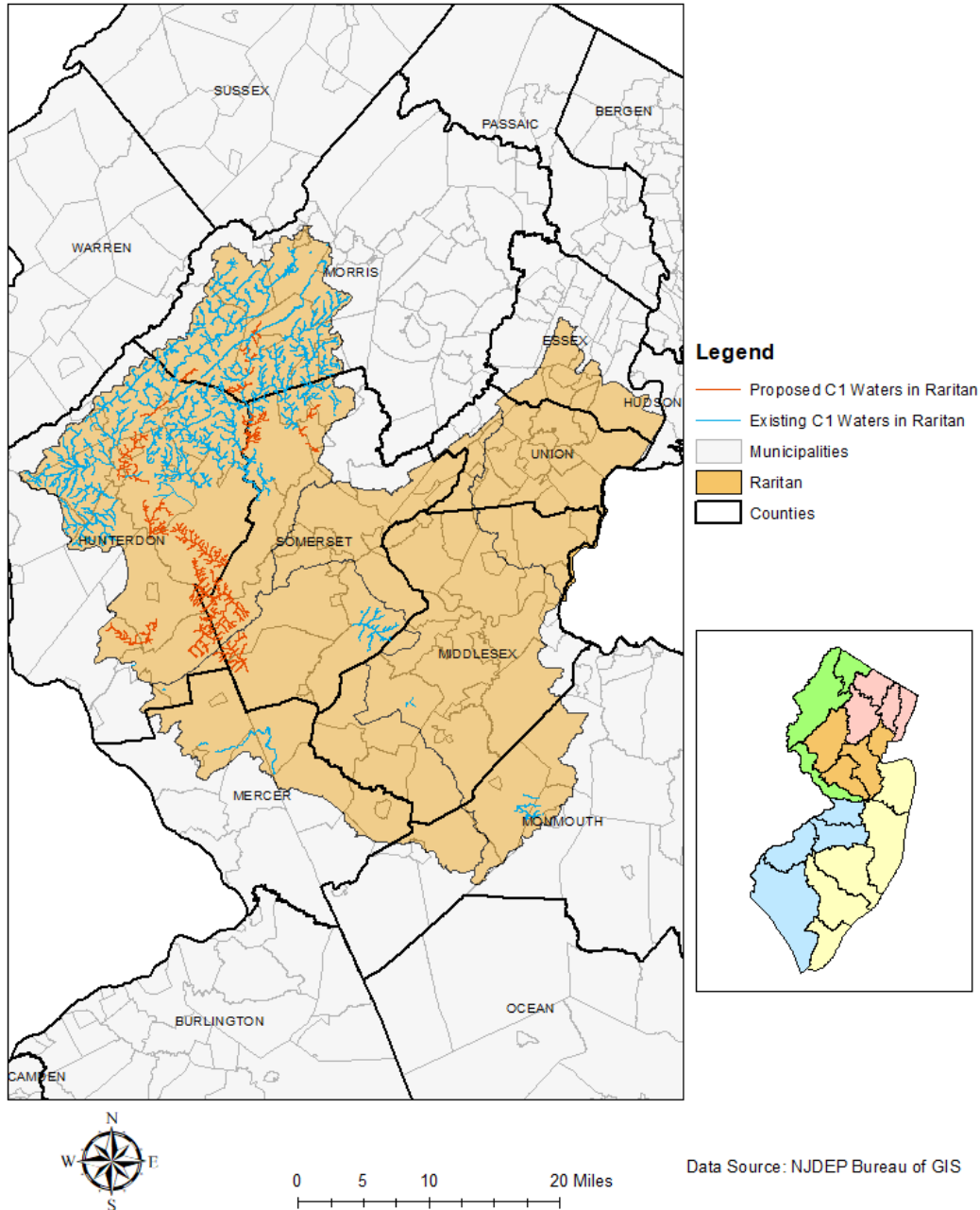


Municipalities With Proposed Category One Waters

Northeast Water Region

- Butler Boro
- Harding
- Mahwah
- Mendham
- Morris
- Oakland Boro

Proposed C1s in Raritan Water Region

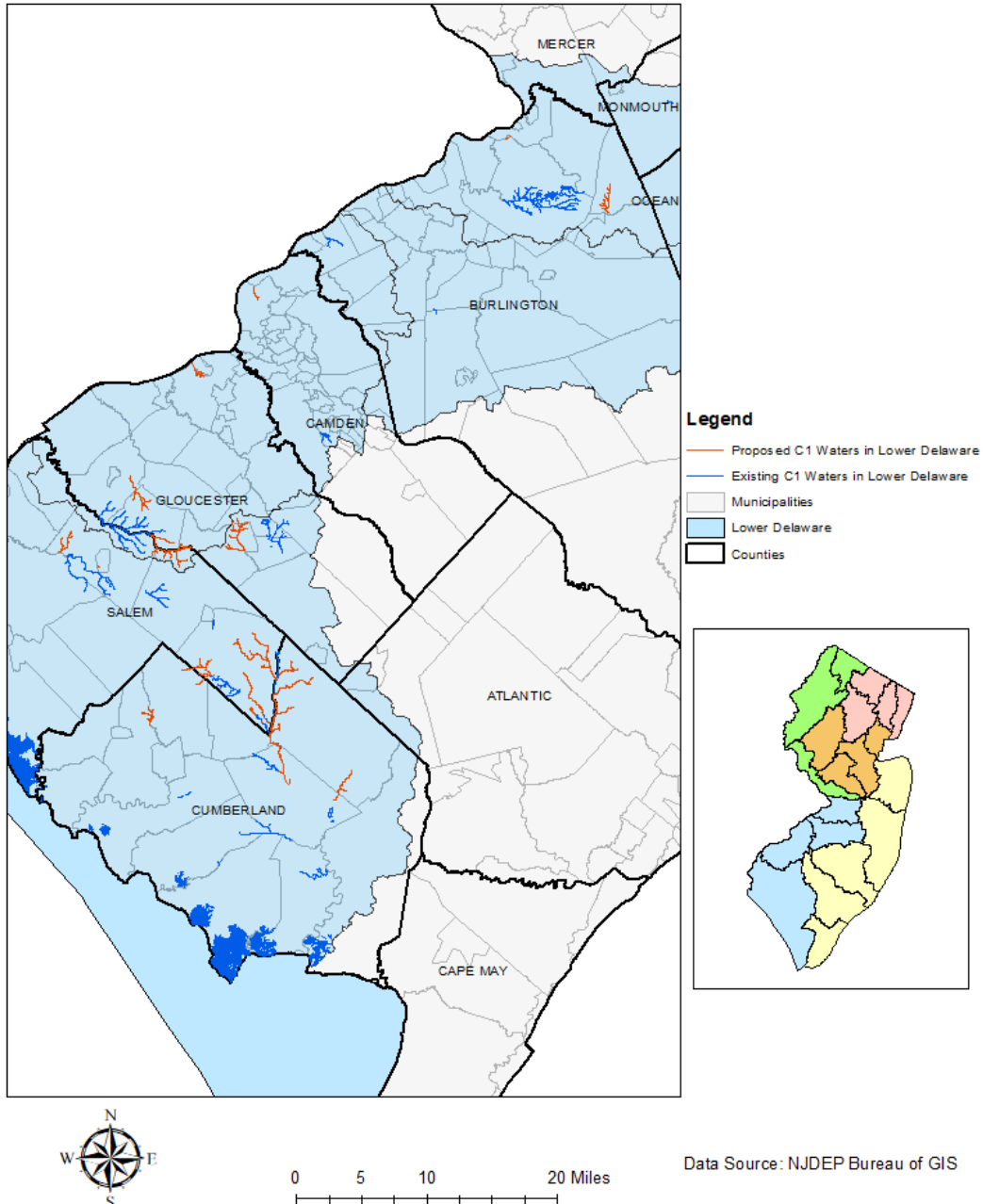


Municipalities With Proposed Category Waters

Raritan Water Region

- Bedminster
- Bernards
- Branchburg
- Clinton
- Clinton Town
- Bernardsville Borough
- Chester
- Chester Boro
- Delaware
- East Amwell
- Far Hills Boro
- Montgomery
- Raritan
- High Bridge Borough
- Hillsborough
- Lebanon
- Readington
- Tewksbury
- Washington

Proposed C1s in Lower Delaware Water Region

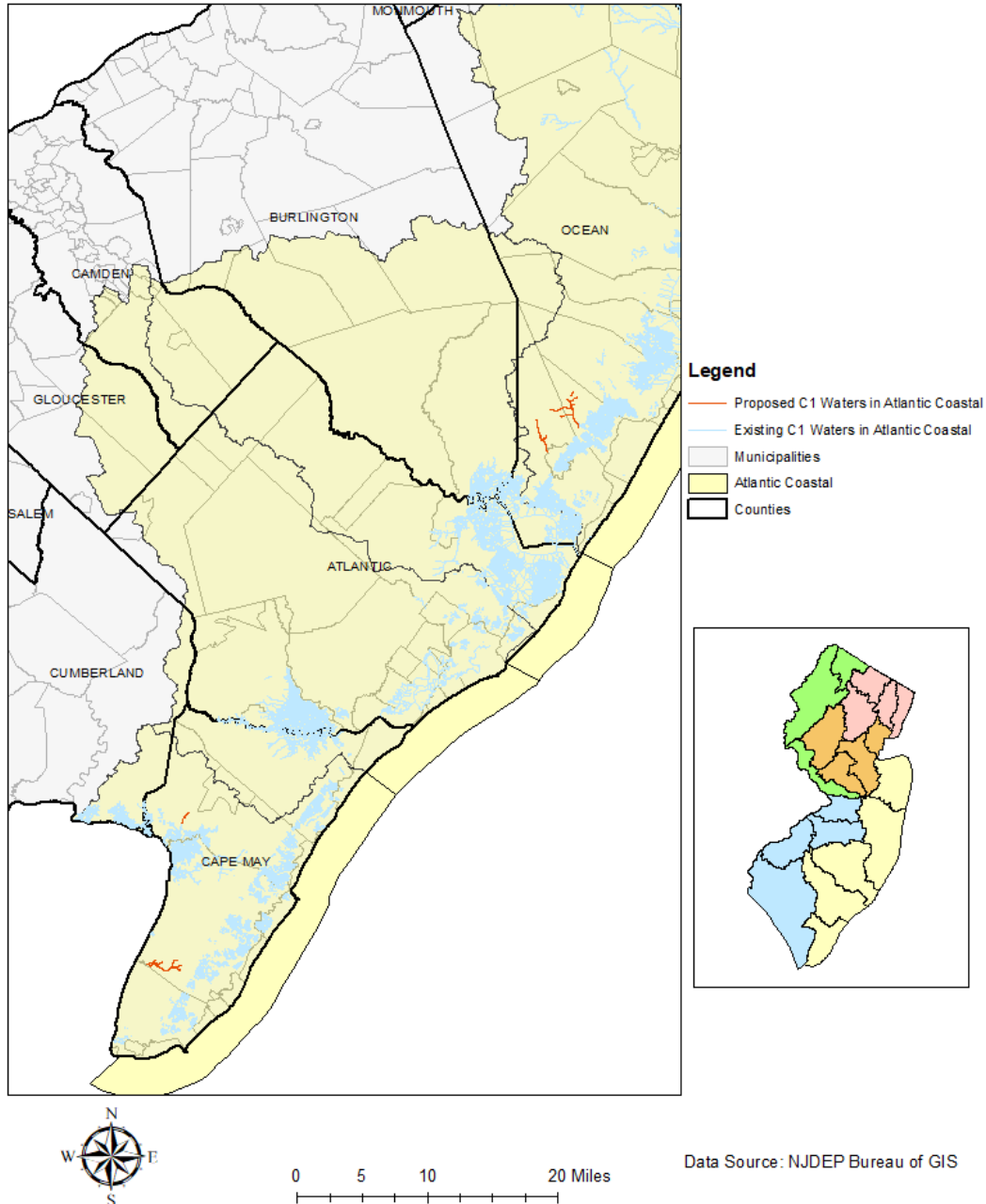


Municipalities With Proposed Category One Waters

Lower Delaware Water Region

- Camden
- Elk
- Glassboro Boro
- Hopewell
- Mansfield
- Millville City
- North Hanover
- Pilesgrove
- Pittsgrove
- South Harrison
- West Deptford
- Woolwich
- Woodstown Boro
- Upper Deerfield
- Upper Pittsgrove
- Vineland City

Proposed C1s in Atlantic Coastal Water Region

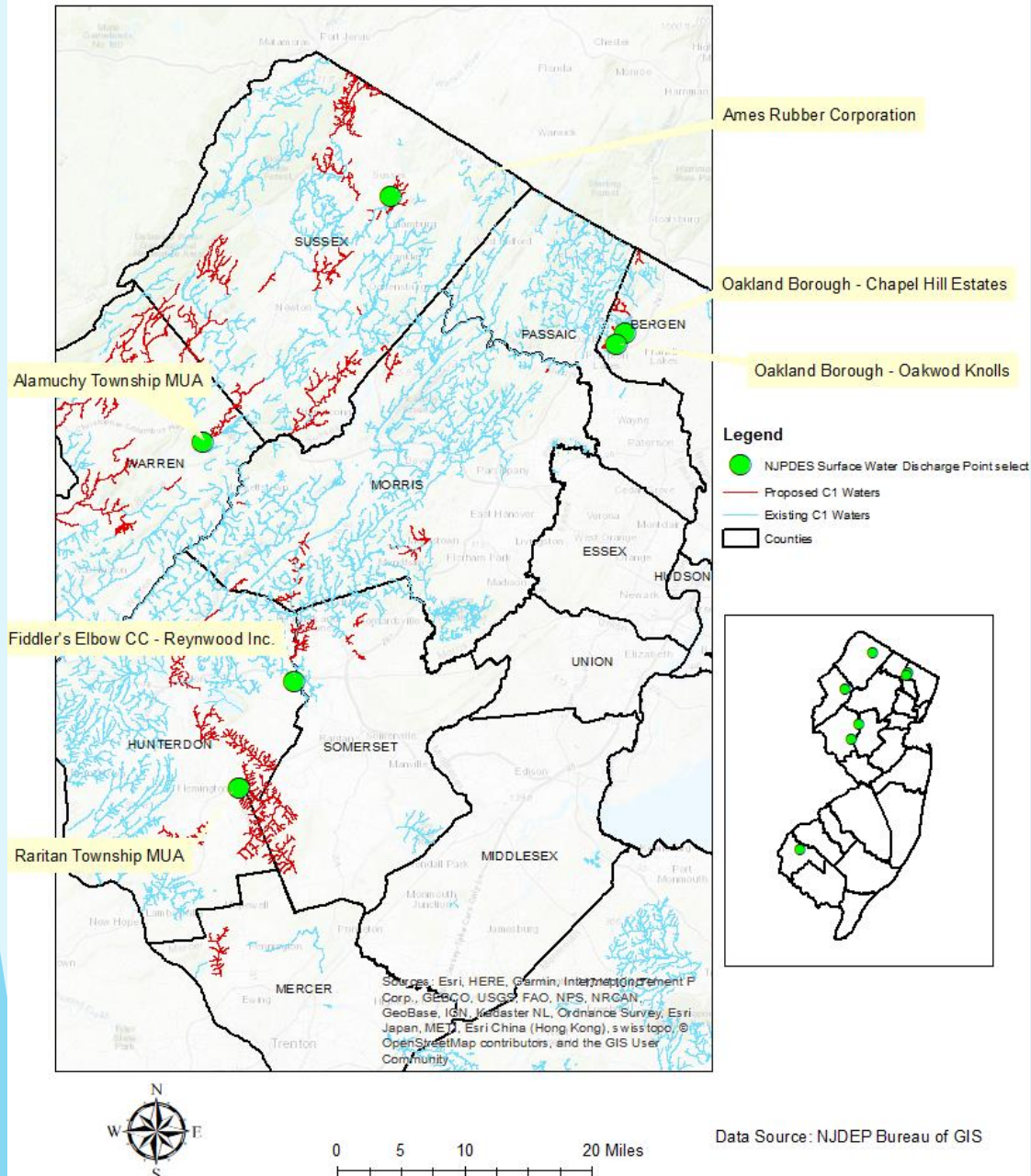


Municipalities With Proposed Category One Waters

Atlantic Coastal Water Region

- Eagleswood
- Dennis
- Little Egg Harbor
- Middle

Impacted Treatment Plants in Northern New Jersey

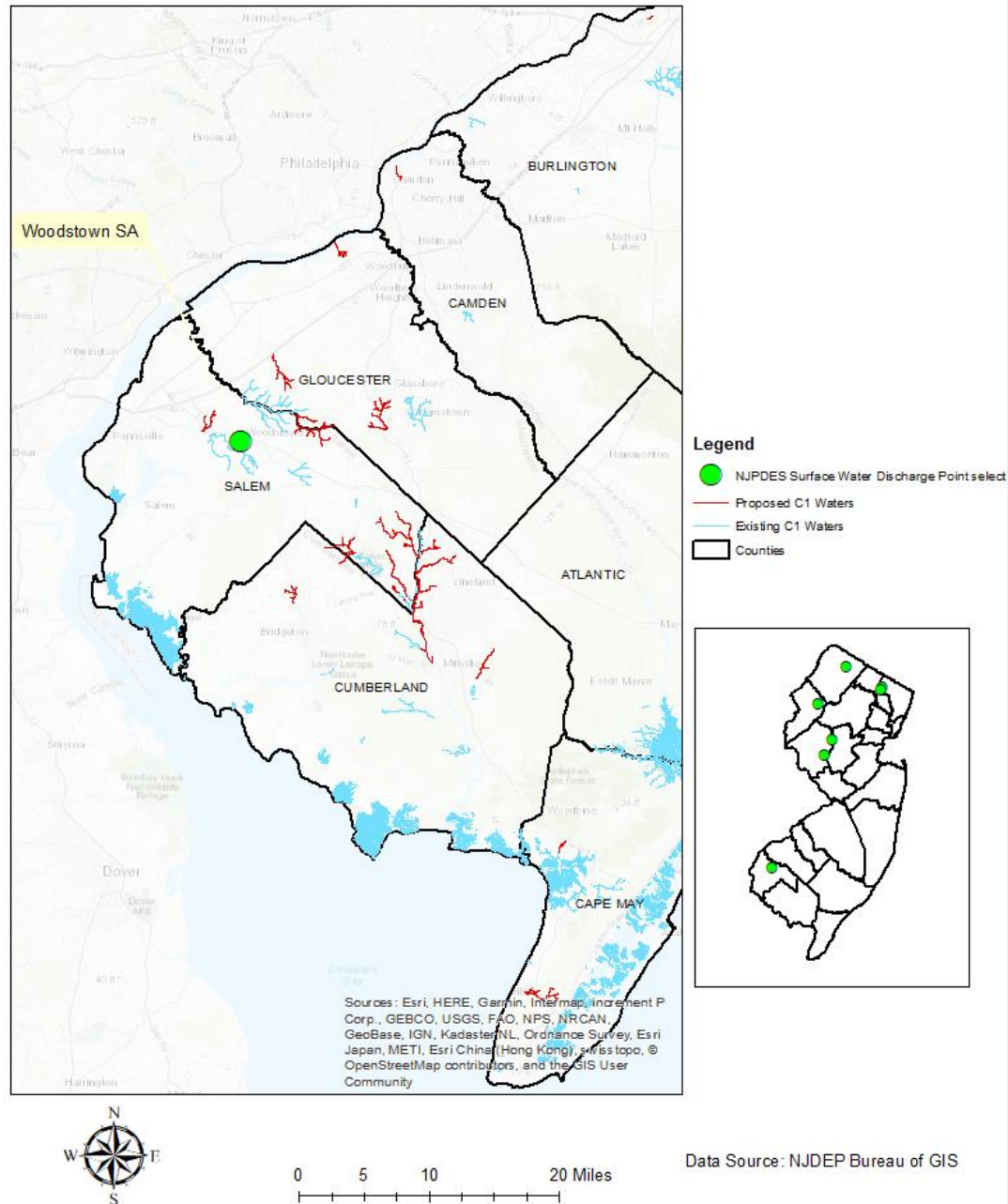


Potentially Impacted Treatment Plants

Northern New Jersey

- Allamuchy Township MUA
- Ames Rubber Corporation
- Fiddler's Elbow CC - Reynwood Inc.
- Oakland Boro - Chapel Hill Estates
- Oakland Boro - Oakwood Knolls
- Raritan Township MUA

Impacted Treatment Plants in Southern New Jersey



Potentially Impacted Treatment Plants

Southern New Jersey

- Woodstown SA

Benefits of Category One Designations

- ▶ Category One aligns with the DEP's priority to Protect New Jersey's waters.
"Safe, clean water is vital to New Jersey's health, quality of life and economy. The DEP protects this precious resource by preventing pollution, cleaning up contamination, ensuring ample supply and investing in strong infrastructure."
- ▶ Protects existing drinking water sources, human health and reduces cost of treatment.
- ▶ Ensures adequate drinking water for future generations.
- ▶ A more efficient approach to addressing impairments is to prevent them from occurring.
- ▶ With existing high-quality waters protected we can focus our limited funding to restoring waterbodies already impaired.
- ▶ Protects future populations of aquatic communities and wildlife.
- ▶ Protects high-quality waters for recreational activities in and on the water.
- ▶ Improved quality of life for New Jersey residents and visitors.

Questions



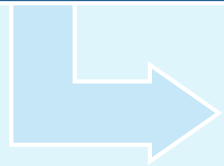
Next Steps



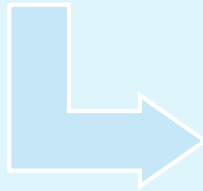
Photo credit: DEP

Next Steps - Timeline

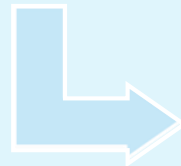
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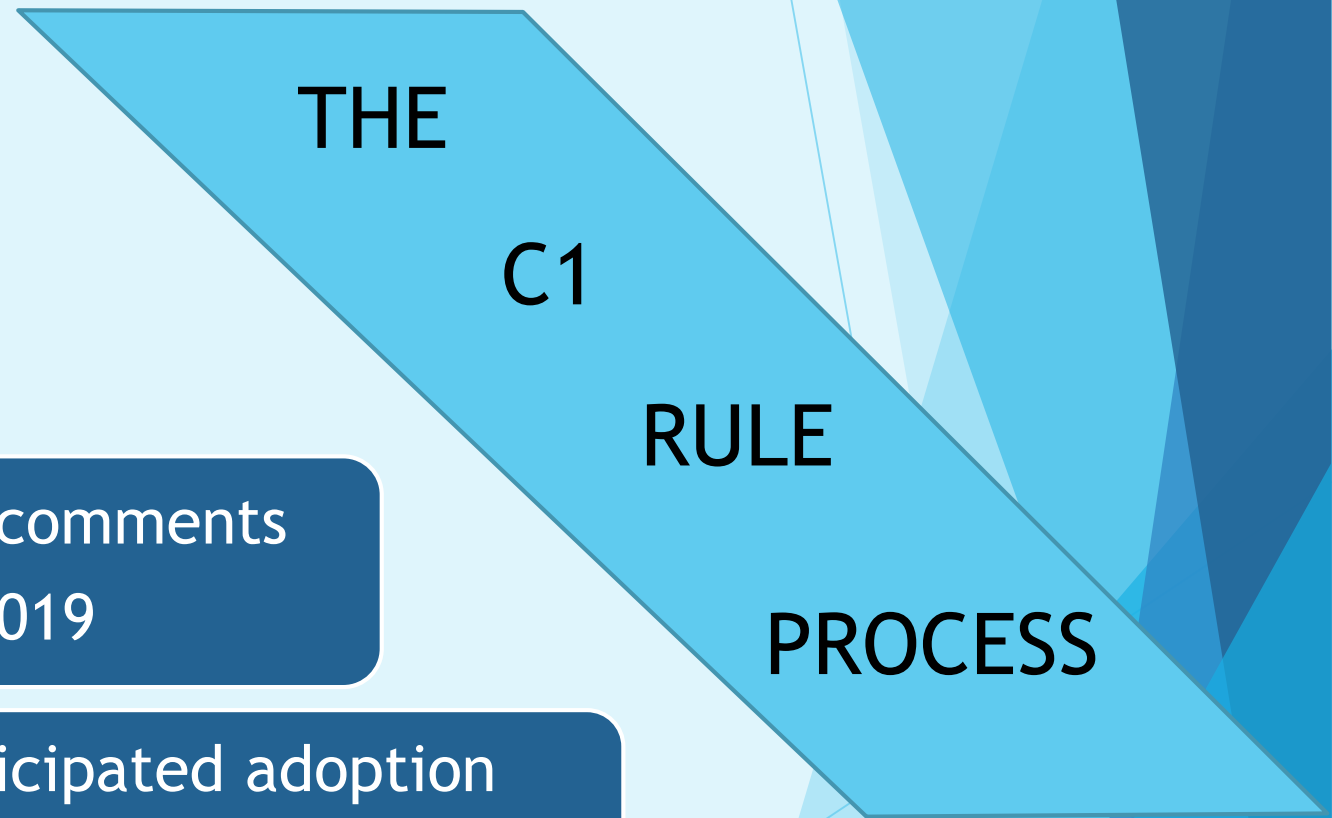
NJ Register Publication
Spring 2019



End of 60-day comments
Summer 2019



Anticipated adoption
Fall 2019



Questions



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