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HUTCHINSON RIVER WATERSHED PLAN PHASE I - WESTCHESTER COUNTY

Second Public Meeting

February 21, 2023

Katie Friedman, New York Ecological Restoration Program Manager

Nicole Davis, Watershed Coordinator

Sam Marquand, Clean Water Advocate

Suzette Lopane, Westchester County Landscape Architect



Meeting Agenda

1. Welcome & Introductions
2. What is a Watershed Plan?
3. Review Watershed Baseline Assessment
4. Discuss Watershed Goals
5. Next Steps



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Save the Sound leads environmental action in the Long Island Sound region. We fight climate change, save endangered lands, protect the Sound and its rivers, and work with nature to restore ecosystems.

Hutchinson River Watershed Plan

Phase I – Westchester County



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What is a Watershed?

All lands that drain to a given river or other water body, and eventually to the sea.

Benefits to working in watersheds:

- Multi-stakeholder engagement
- Encourage awareness of local water bodies and land use
- Identify problem areas in relation to one another
- Work collaboratively to identify and implement high-impact interventions
- Working at a “natural scale” that forges new relationships across boundaries



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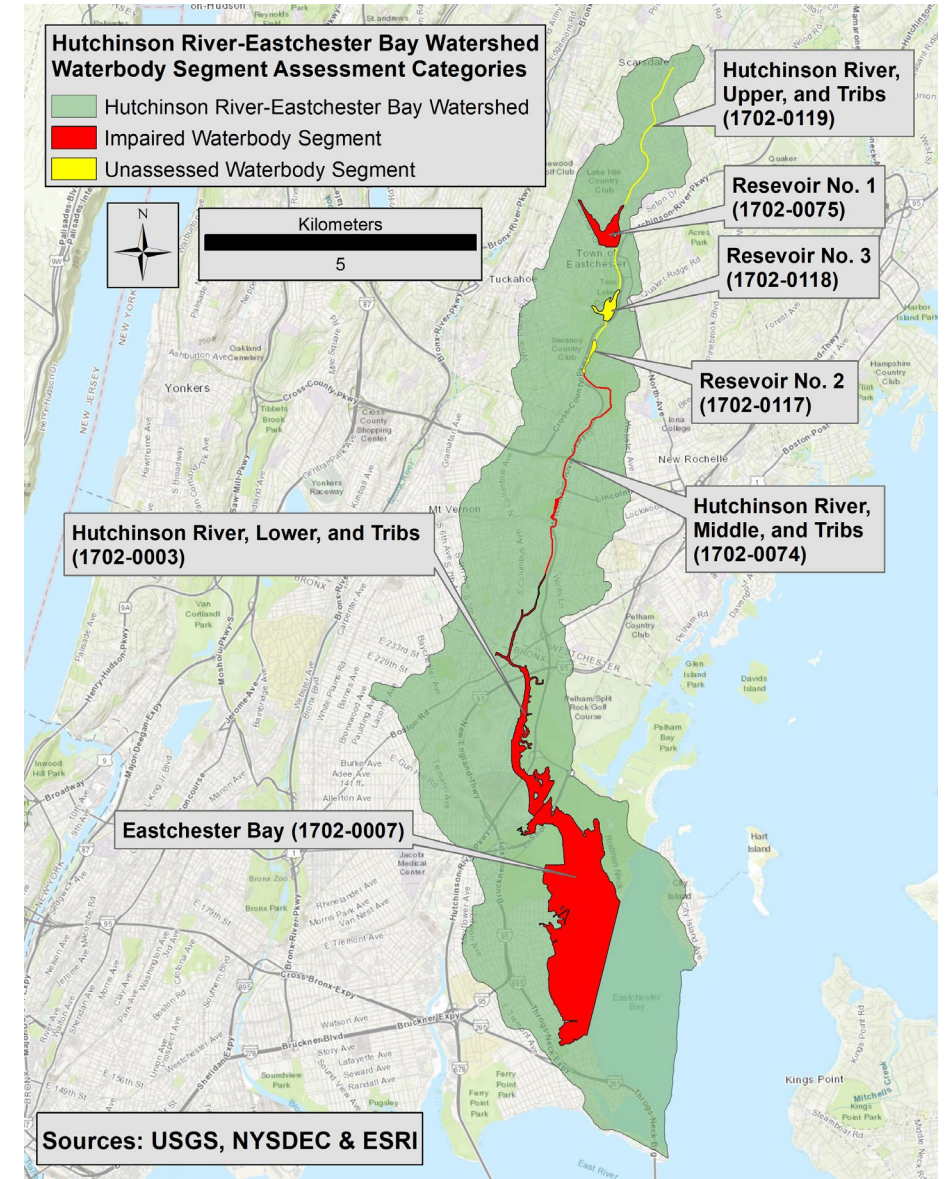
NFWF





Hutchinson River Watershed

- Watershed spans 12, 394 acres across both Westchester County and the Bronx
- Hutchinson River flows south into Eastchester Bay of the Long Island Sound
- Municipalities within the watershed include:
 - Scarsdale
 - Eastchester
 - New Rochelle
 - Pelham
 - Mt. Vernon
 - The Bronx
- Hutchinson River is on the NYSDEC 303(d) List of Impaired Waters due to fecal coliform, oxygen demand, oil and grease, garbage and refuse
 - Suspected sources are urban stormwater runoff and combined sewer overflows





Watershed Plan Objectives

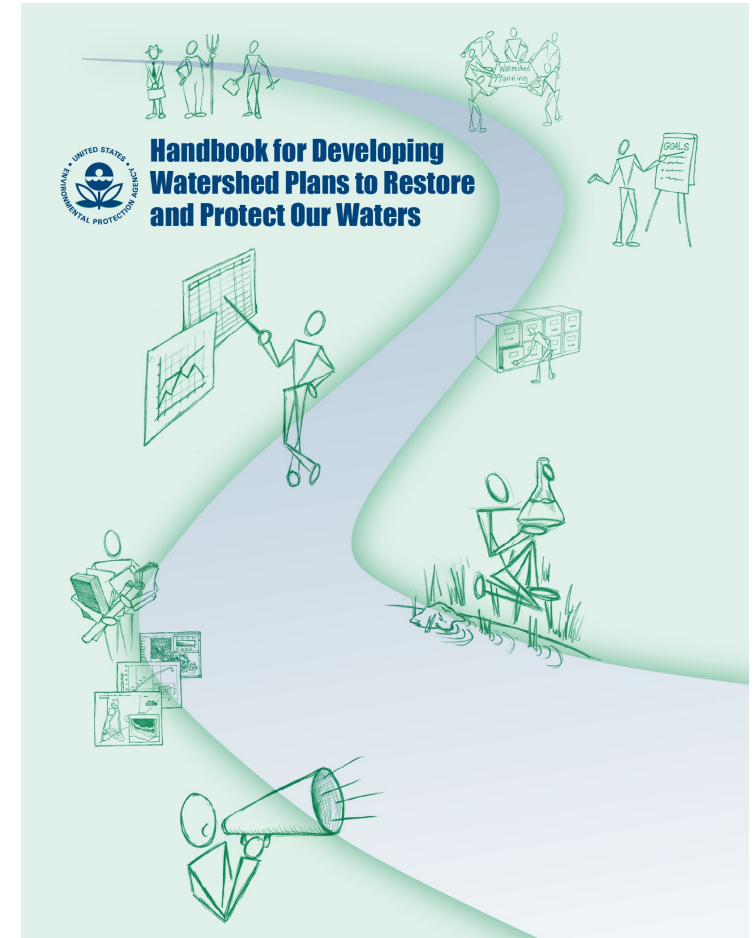
- ❖ Identify existing water quality issues.
- ❖ Consolidate previous and ongoing efforts under one plan.
- ❖ Engage watershed municipalities and the public.
- ❖ Develop a set of unified goals for watershed protection and restoration.
- ❖ Prioritize water bodies and projects to improve and protect water quality.
- ❖ Ultimately de-list impaired waters – improve water quality.





EPA Nine Element Process

1. Impairment
2. Load Reduction
3. Management Measures
4. Technical & Financial Assistance
5. Public Information & Education
6. Schedule
7. Milestones
8. Performance Criteria
9. Monitoring





Project Schedule

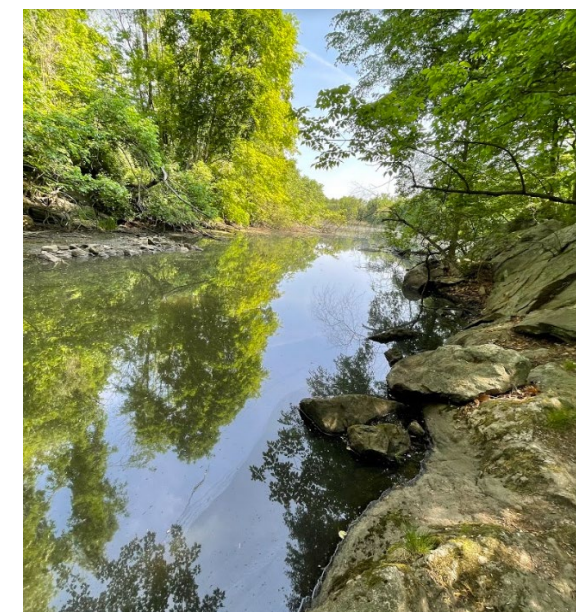
Phase 1: Westchester County

- ❖ Task 1 Watershed Baseline Assessment We are here! → February 2023
 - Steering Committee Meeting – January 2023
- ❖ Task 2 Watershed Improvement Opportunities March 2023
 - Steering Committee Meeting – March 2023
- ❖ Task 3 Watershed Management Plan Development June 2023
 - Steering Committee Meeting – May 2023
- ❖ Task 4 Final Plan Elements For Phase 1 July 2023

Phase 2: The Bronx

- ❖ Schedule - TBD
- ❖ Expected Completion For Phase 2 July 2024
- ❖ Final Plan and Celebration September 2024

HUTCHINSON RIVER WATERSHED BASELINE ASSESSMENT



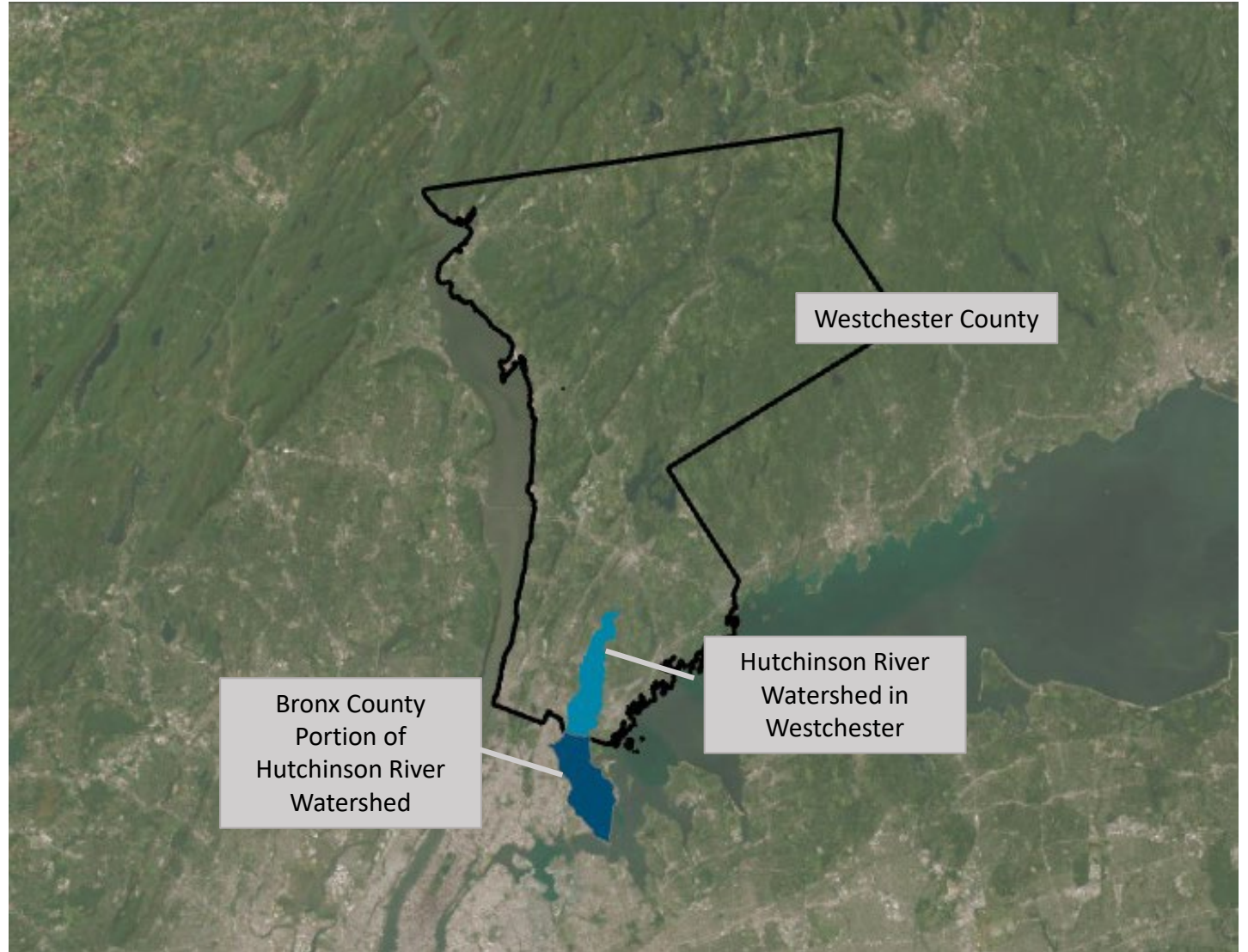
Save the Sound
Westchester County Department of Planning

Biohabitats, Inc.

February 21, 2023

TABLE OF CONTENTS

- Baseline Assessment Physical Conditions
- Current Water Quality Conditions
- Comparative Subwatershed Analysis
- Watershed Goals
- Next Steps



BASELINE ASSESSMENT SUMMARY: WHY?

To develop an understanding of the Westchester County portion of the Hutchinson River watershed

To identify likely causes of water impairments from stormwater runoff

Tasks conducted to develop baseline assessment:

- Desktop Analysis
- Windshield Summary
- Pollutant Load Modeling
- Comparative Subwatershed Analysis



Hutchinson River in New Rochelle. Source: Save the Sound.

HUTCHINSON RIVER, THEN AND NOW

- Region was originally inhabited by the *Siwanoy* and *Weckqueaesgecks* people
- River is named after Anne Hutchinson
- The area was developed by Europeans in the late 17th century
- Industrialized in the mid-19th century
- Car culture expanded development



Source: Library of Congress, Prints and Photographs Division, LC-119876.

Overview

PHYSICAL CONDITIONS

- **Area:** 8.2 square miles
- **Stream Length:** 9.5 miles
- **Jurisdictions:** 8
- **Water Quality:** Middle Branch within Westchester County: Class “B”
- **Dams:** 4
- **Major Transportation Routes:** 3
- **Critical Environmental Areas:** 3
- **National Historic Sites:** 1

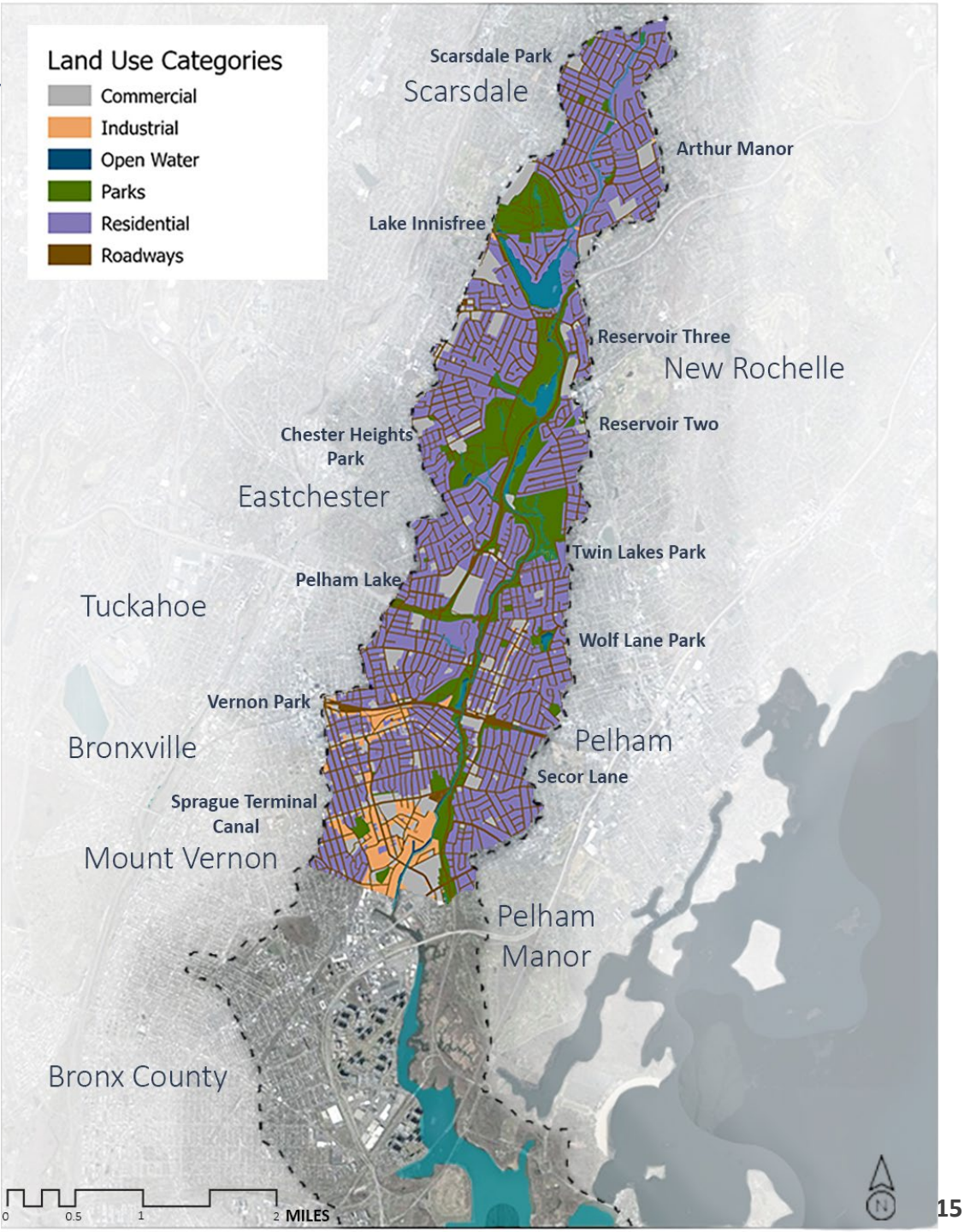


Land Use

PHYSICAL CONDITIONS

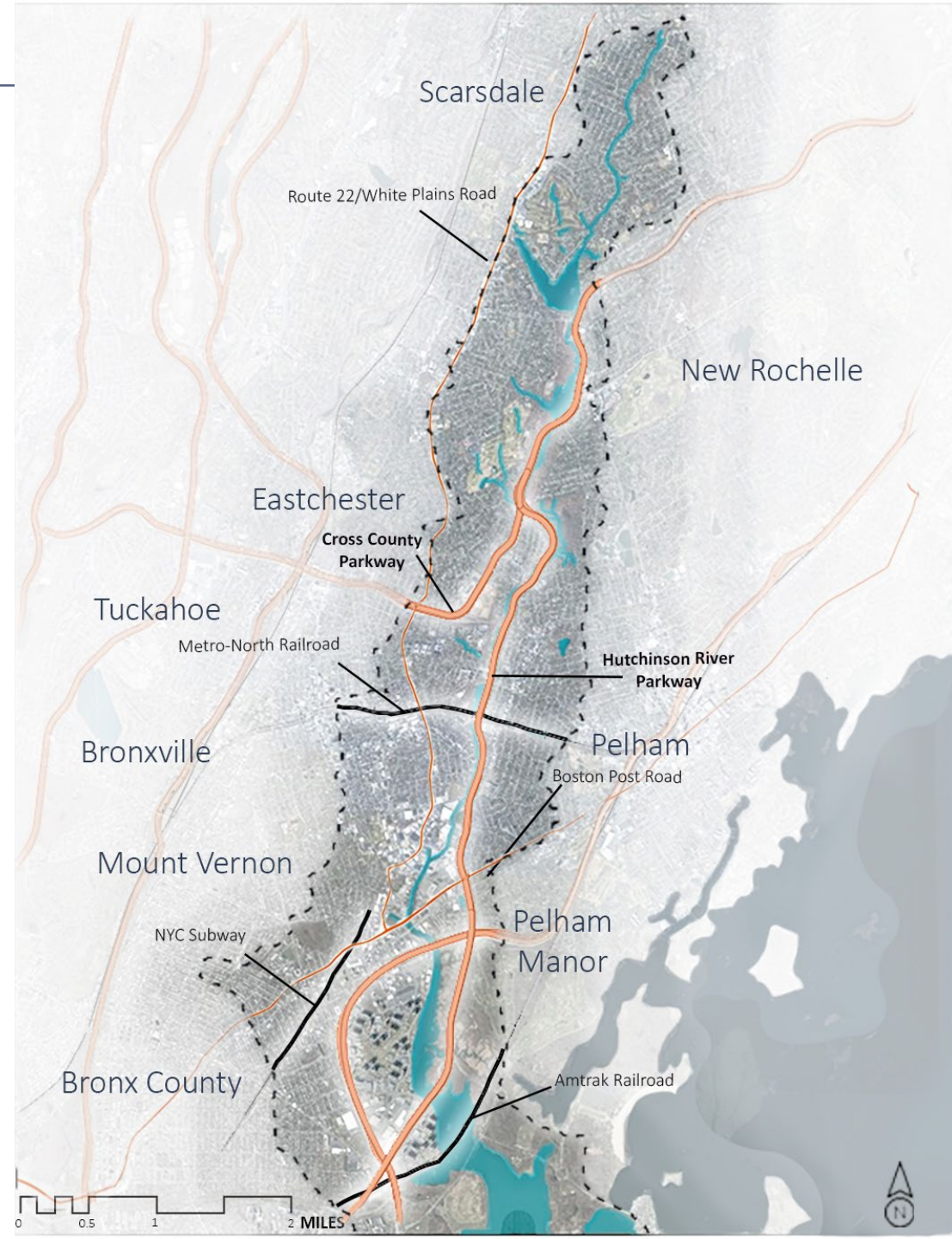
— Land use and land cover impact the velocity and volume of stormwater runoff

Land Use Type	Percent of Watershed	Percent Impervious
Commercial	9%	58%
Industrial	3.5%	85%
Open Water	2.5%	0%
Parks	14%	5%
Residential	50%	31%
Roadways	21%	100%



Transportation PHYSICAL CONDITIONS

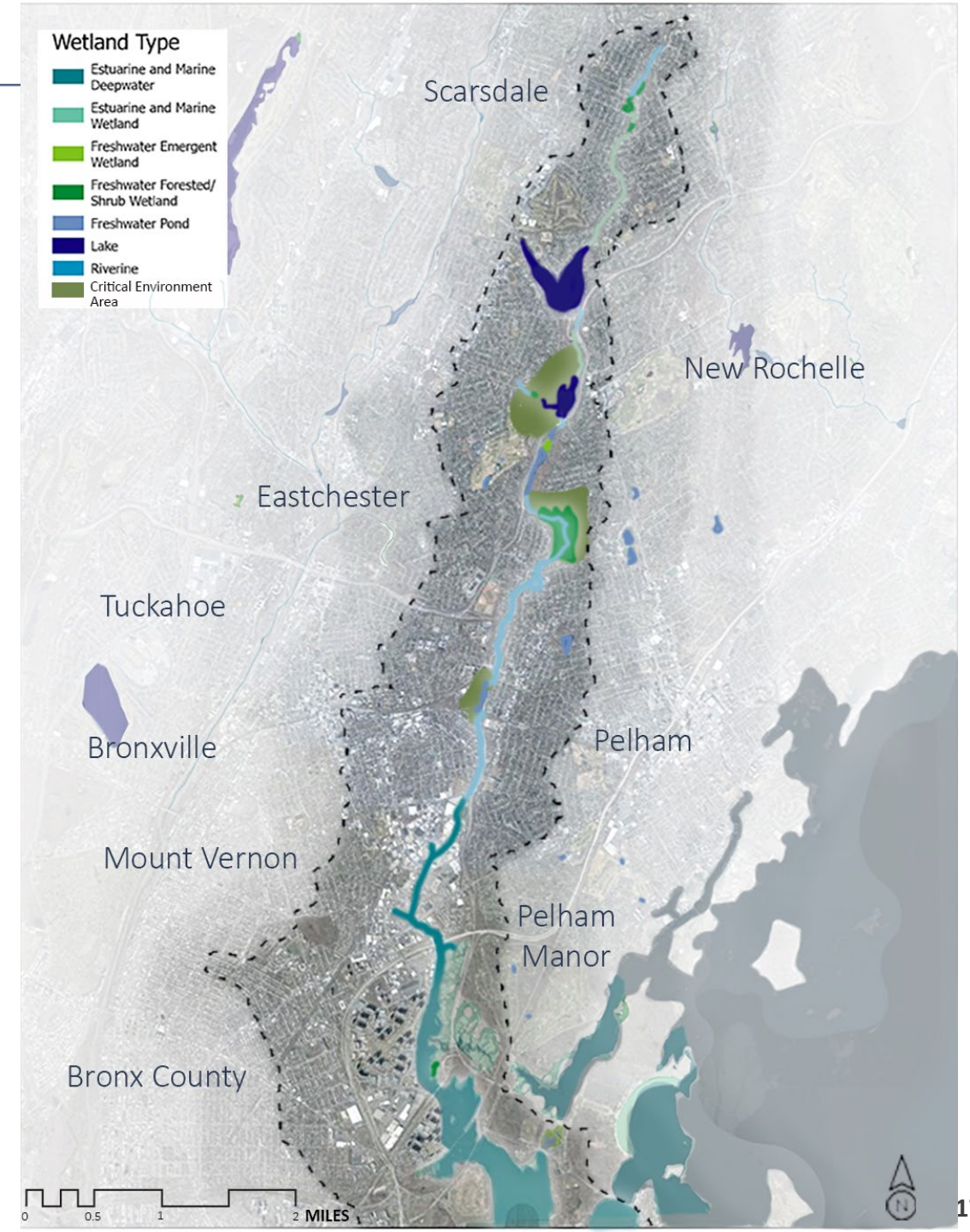
- Hutchinson River Parkway
- New York State Route 22/Columbus Ave/White Plains Road
- Cross-County Parkway
- Boston Post Road (Route 1)
- Metro North Railroad



Ecology

PHYSICAL CONDITIONS

- Critical Environmental Areas: Twin Lakes County Park, Nature Study Woods, and Willson's Woods Park
- Endangered species within the watershed: Piping Plover and Monarch Butterfly
- Total Wetlands: 185 acres
- Habitats along the Hutchinson River are fragmented and non-contiguous
- Dams impact aquatic connectivity



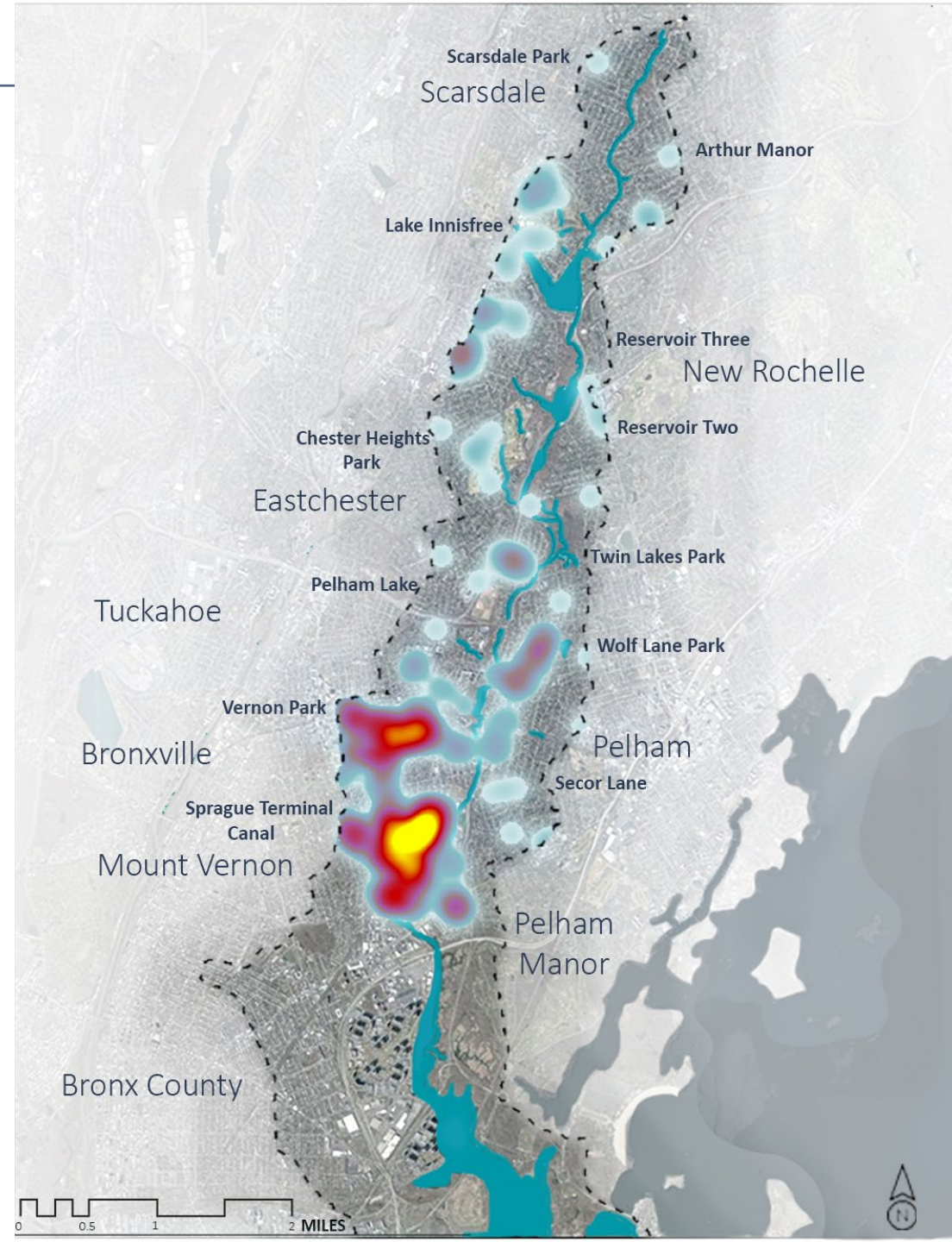
Flooding PHYSICAL CONDITIONS

- Riverine and coastal flooding
- FEMA Flood Maps
- Review of flood prone areas from Hazard Mitigation Plans, news articles, reports



Oil & Grease Hot Spots PHYSICAL CONDITIONS

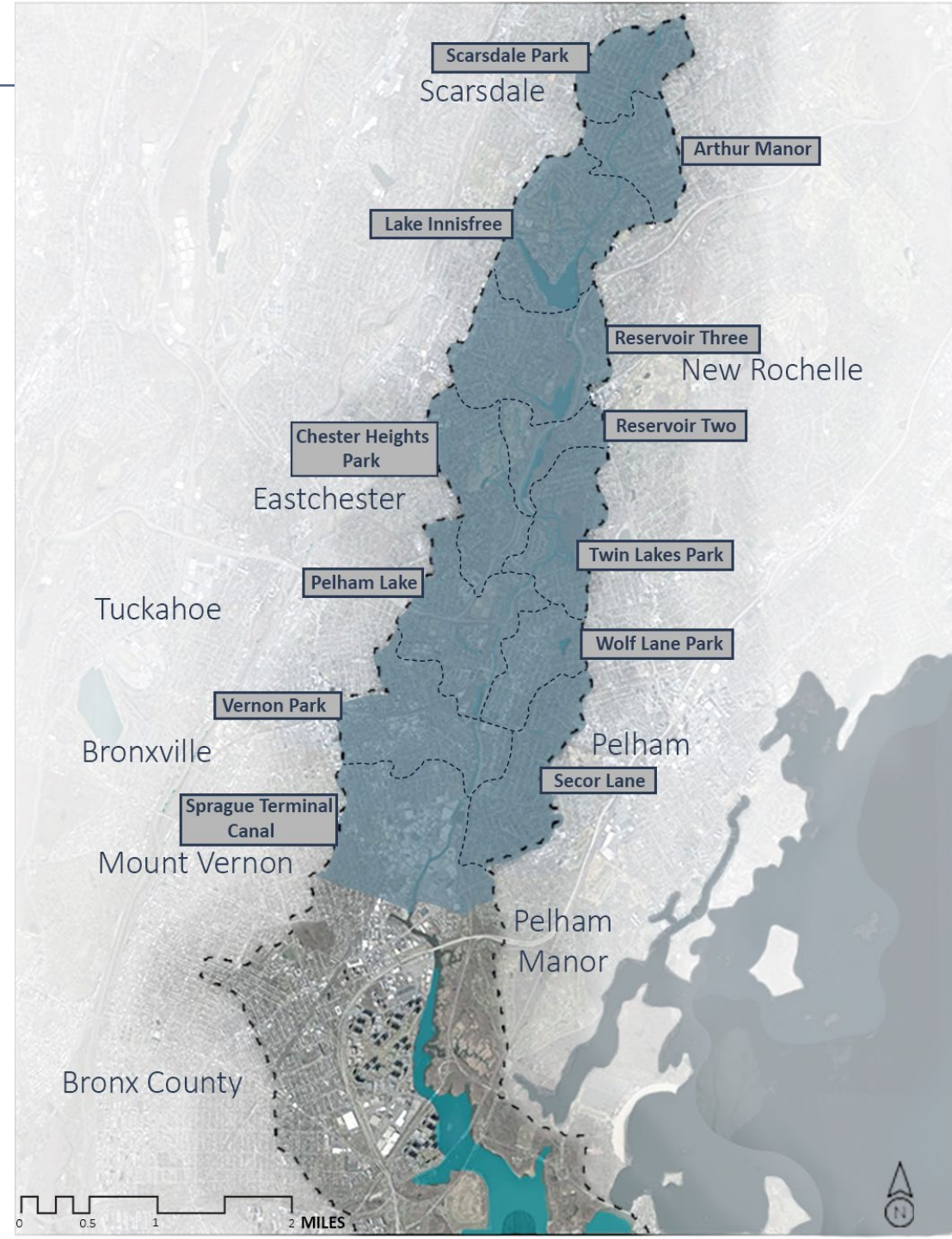
- Land use and building categories in these areas are likely to contribute to oil and grease pollution



Subwatersheds

PHYSICAL CONDITIONS

- Subwatersheds delineated to understand the impact of land use
- Delineations were based on topography and urban stormwater infrastructure
- 12 subwatersheds in Westchester County portion of Hutchinson River Watershed



CURRENT WATER QUALITY CONDITIONS

Westchester County portion of the Hutchinson River is categorized as a Class "B" stream: "best for swimming and contact recreation, but not for drinking"

In 2002, the river was placed on the New York State 303(d) List of Impaired Waters

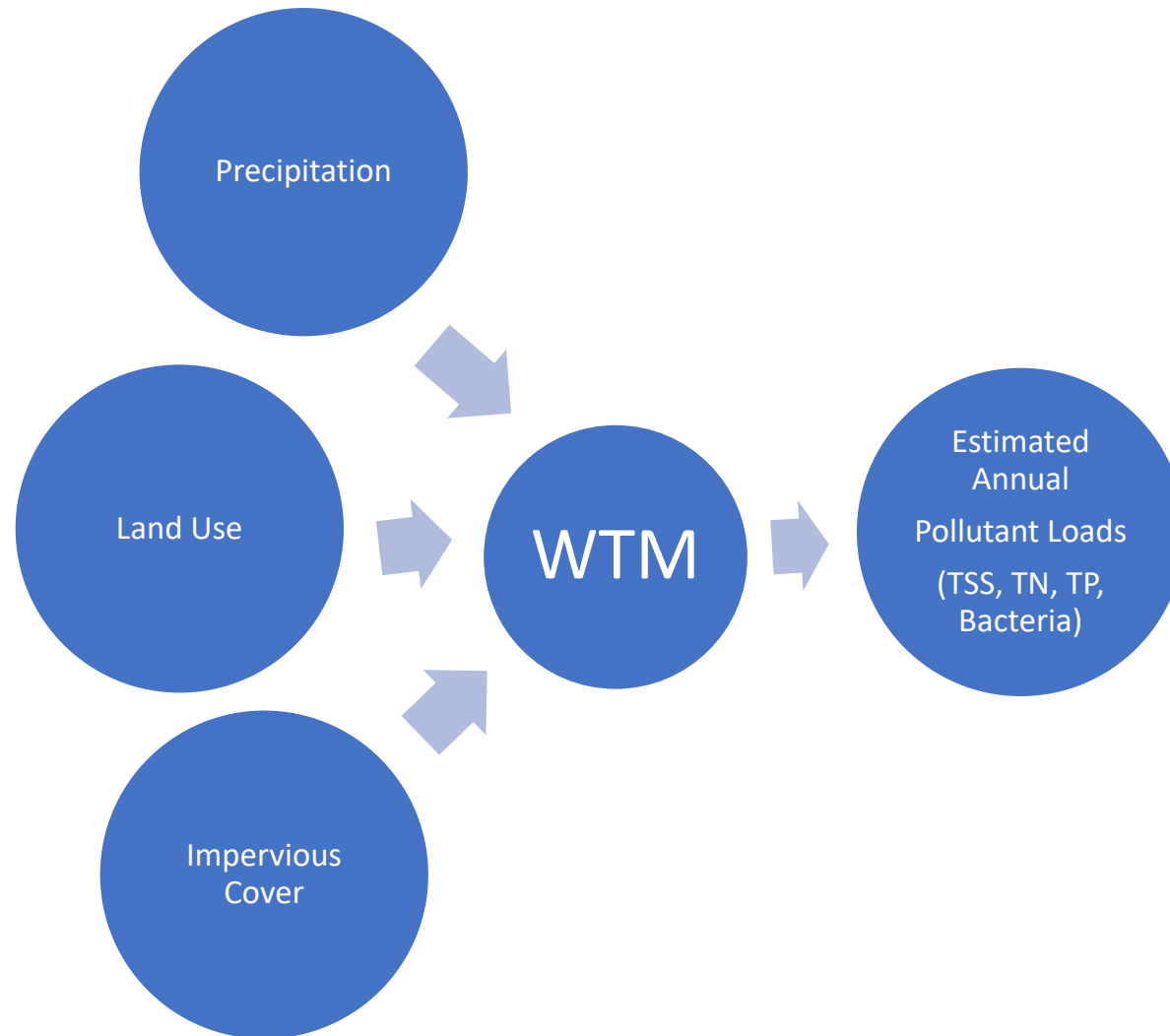
Pollutants causing impairment are identified as

- Oil & grease
- Low dissolved oxygen
- Fecal coliform



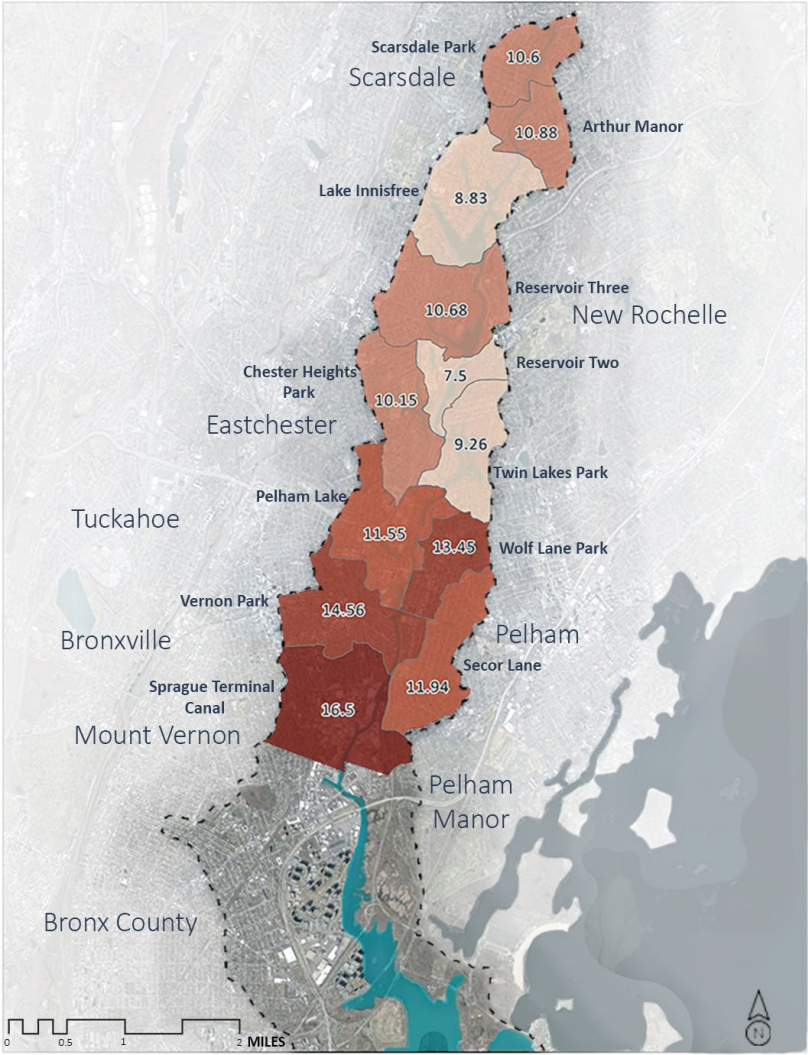
Hutchinson River in Mount Vernon. Source: Save the Sound.

WATERSHED TREATMENT MODEL

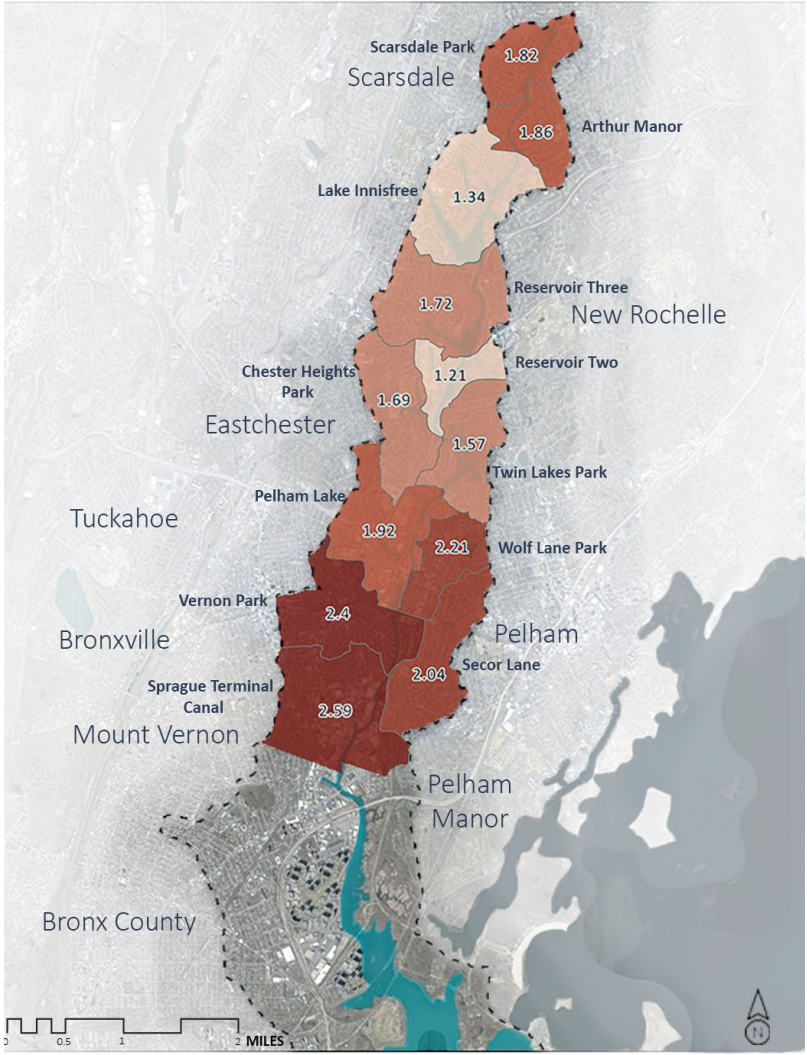


WATERSHED TREATMENT MODEL RESULTS

Nitrogen (lb/acre/year)

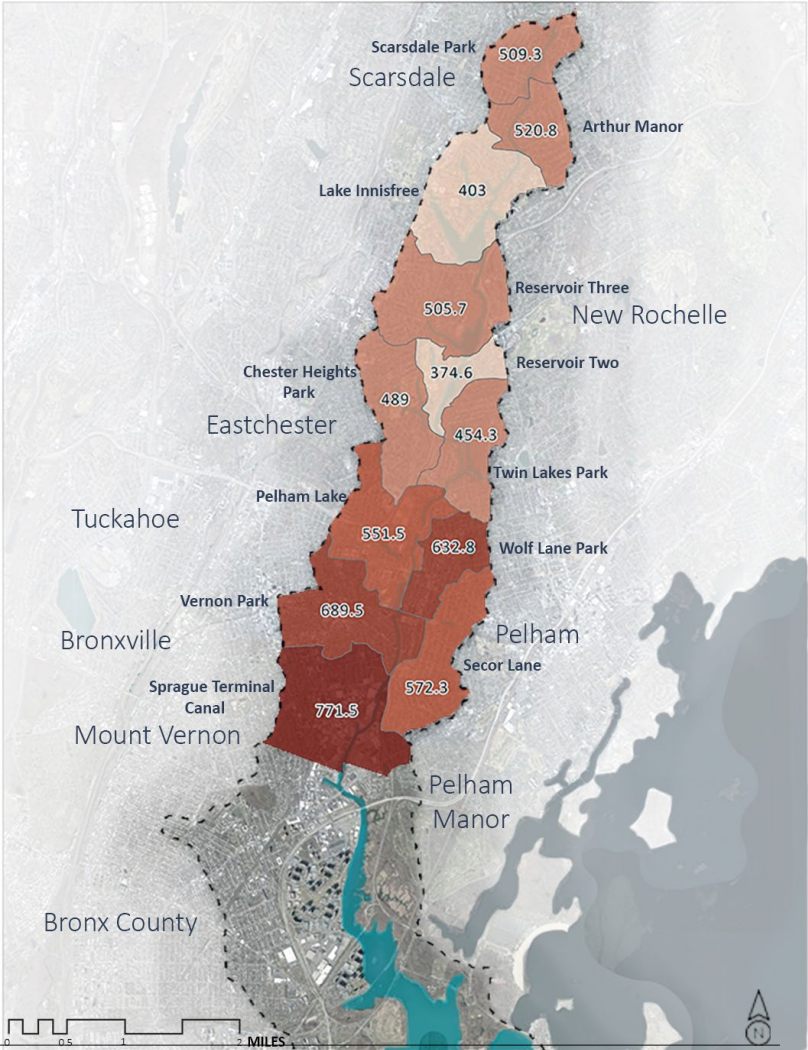


Phosphorus (lb/acre/year)

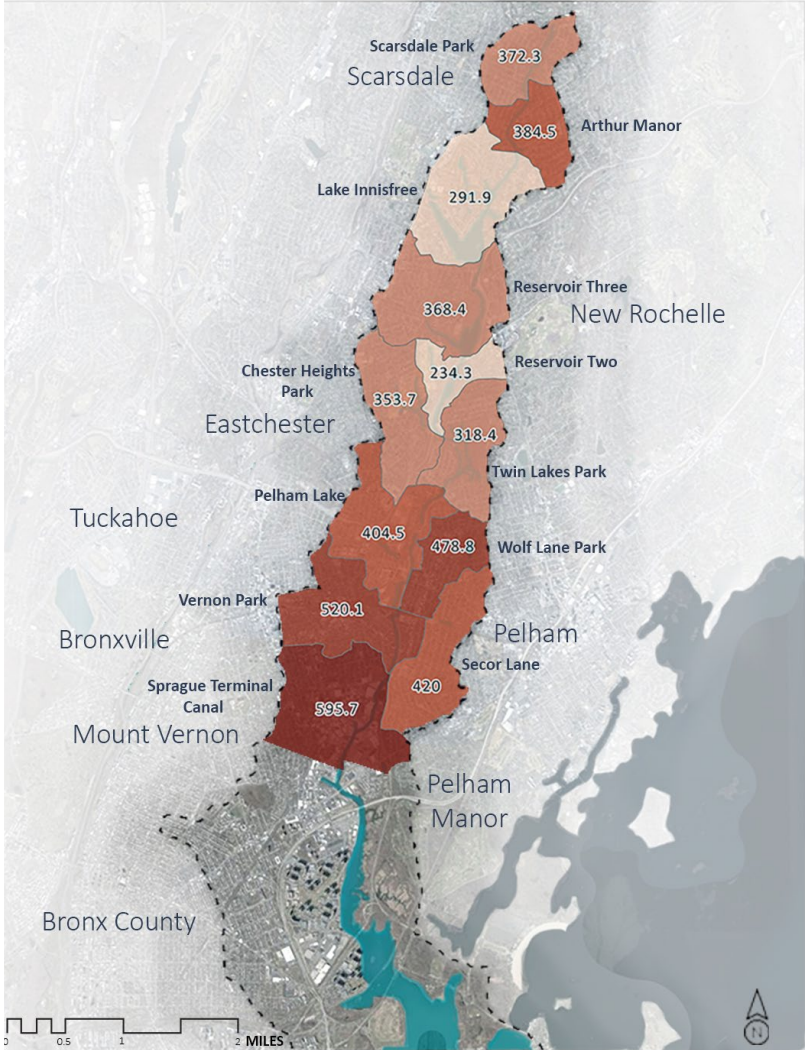


WATERSHED TREATMENT MODEL RESULTS

Total Suspended Solids (lb/acre/year)

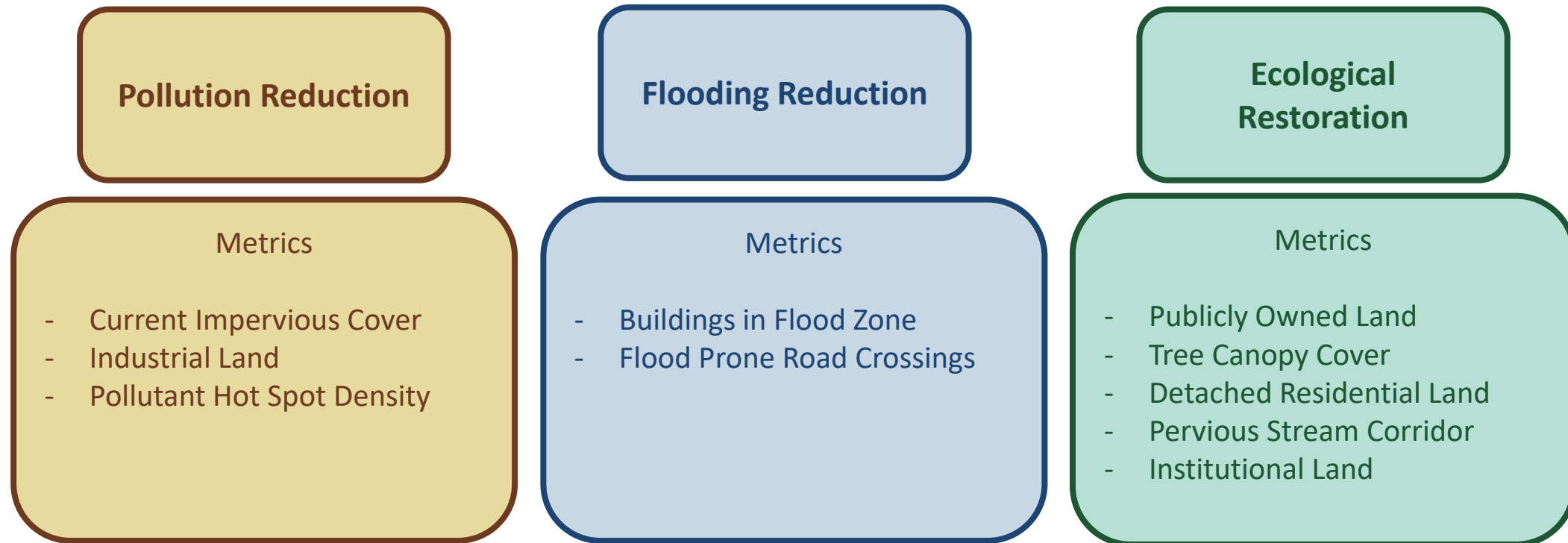


Fecal Coliform (billions of colonies /year)



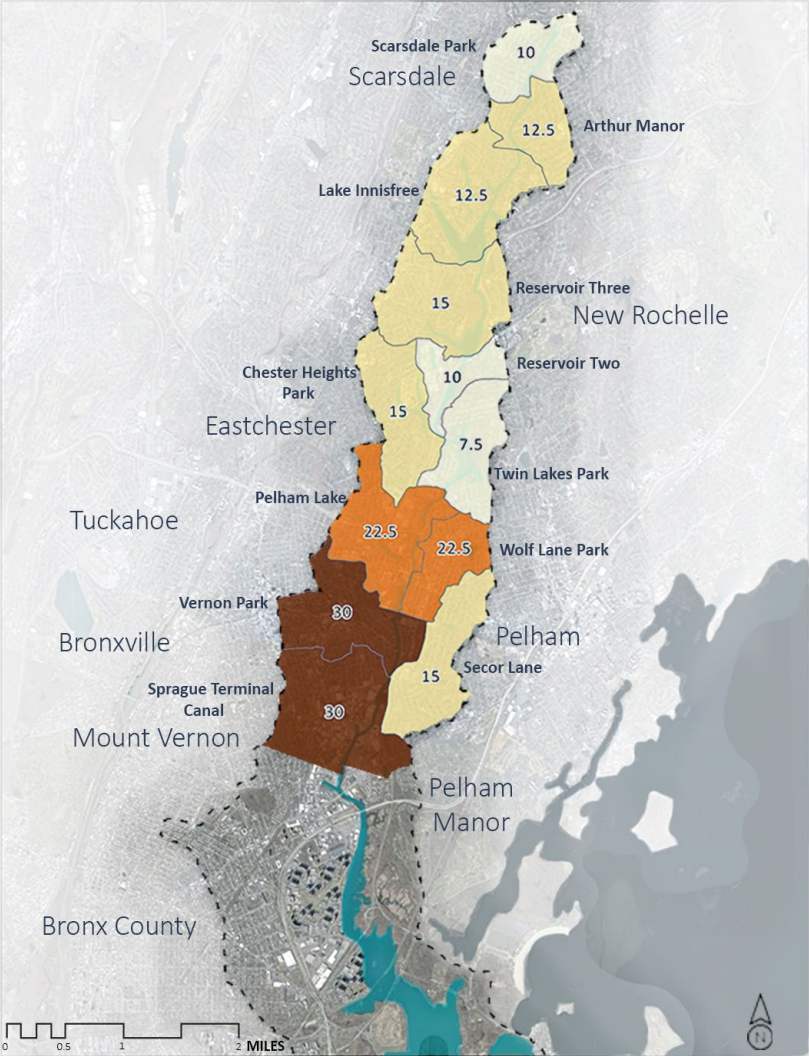
COMPARATIVE SUBWATERSHED ANALYSIS (CSA)

- The CSA screens subwatersheds to identify the need and suitability for watershed improvement projects
- Metrics were grouped into three categories

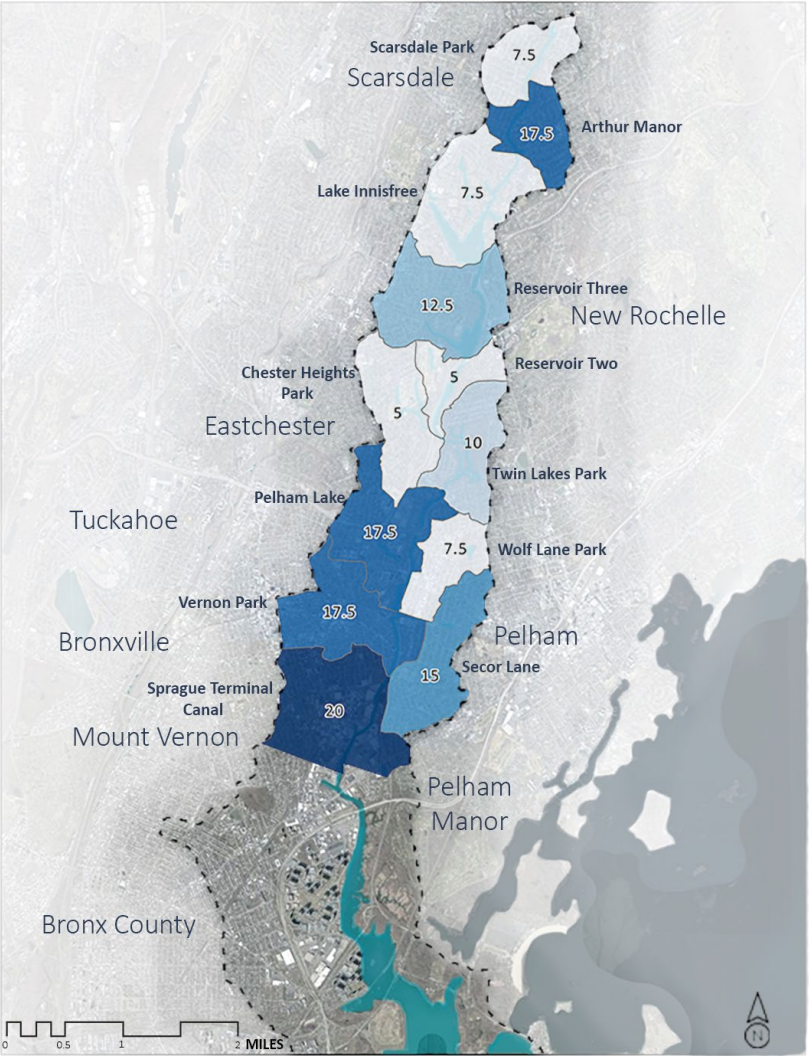


COMPARATIVE SUBWATERSHED ANALYSIS RESULTS

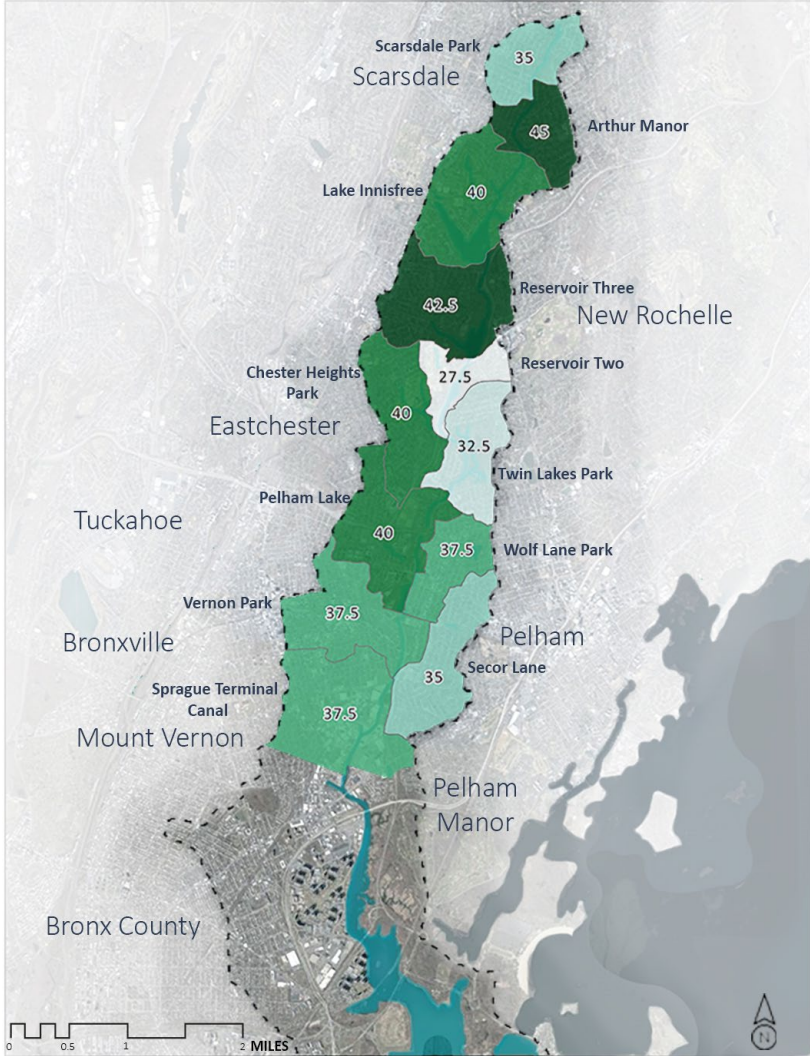
Pollution Reduction



Flooding Reduction



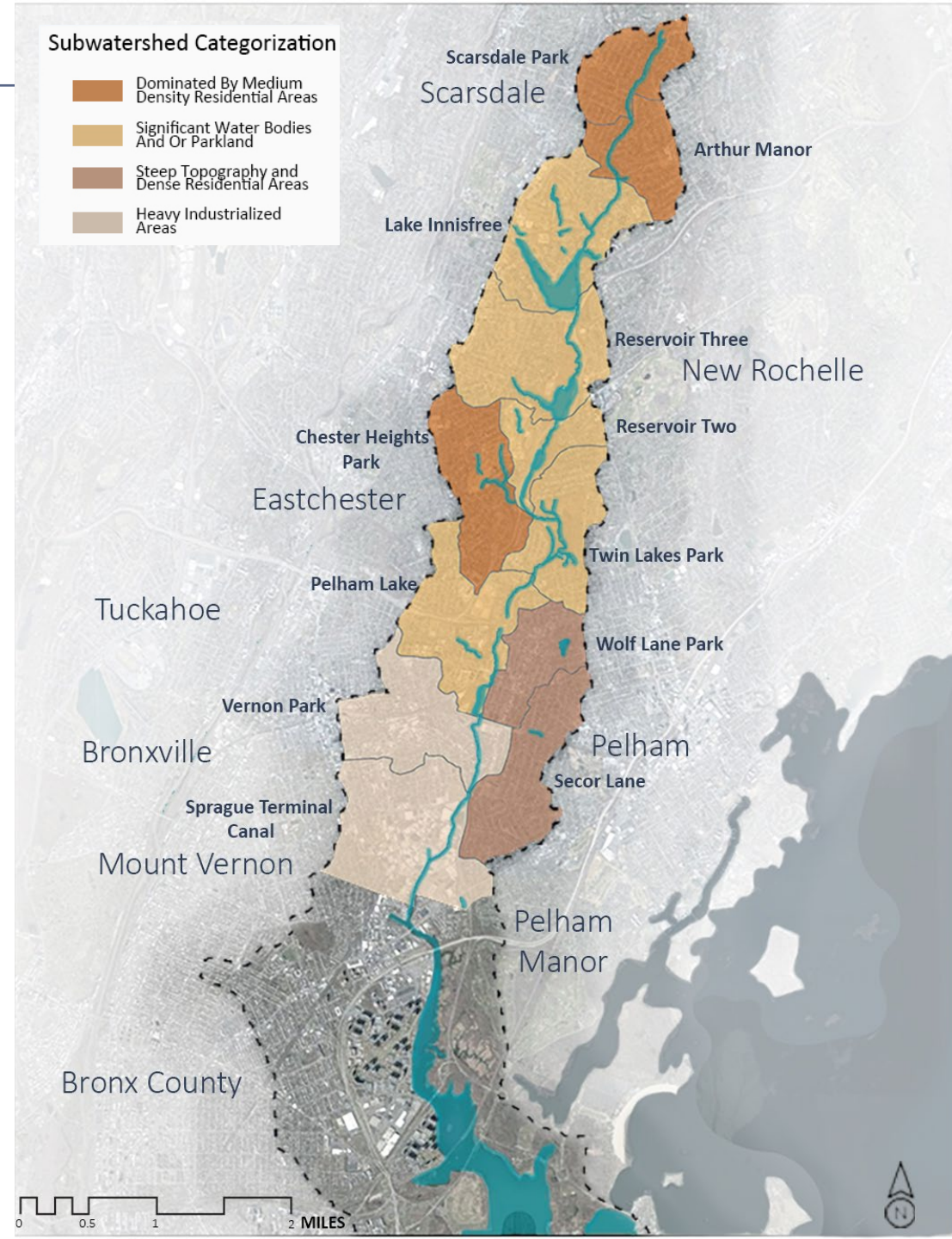
Ecological Restoration



SUBWATERSHED CATEGORIZATION

Subwatersheds were grouped into four categories based on similar conditions:

- Dominated by Medium Density Residential Areas
- Significant Water Bodies and or Parkland
- Steep Topography and Dense Residential Areas
- Heavy Industrialized Areas



STEERING COMMITTEE COMMENTS on the Watershed Baseline Assessment

Steering Committee:

- 43 members representing municipalities, advisory boards, NGOs, State and Federal partners, and individual residents within the watershed
- First meeting held in January 2023
- Meeting bi-monthly to review project deliverables

Comments on Watershed Baseline Assessment:

- Clarification of technical concepts
- Additional maps and data (eg. impervious cover, NYS wetlands)
- Expand on ecological characterization, habitat, and impacts of dams
- Include socioeconomic information and environmental justice concerns and impacts



Reservoir No. 2 Dam. Source: Save the Sound.

WATERSHED GOALS

- Water Quality
- Habitat
- River Access
- Educational Opportunities



Jamboard responses from first public meeting (September 2022).

NEXT STEPS

Developed Watershed Baseline Assessment

Identify and Evaluate Watershed Improvement Opportunities

- Field Assessments
- Inventory of Opportunities
- Prioritization

Craft Watershed Management Plan



Benthic macroinvertebrate sampling in Mt. Vernon. Source: Save the Sound.

QUESTIONS?

Public Input Map

Hutchinson River Watershed Plan webpage:

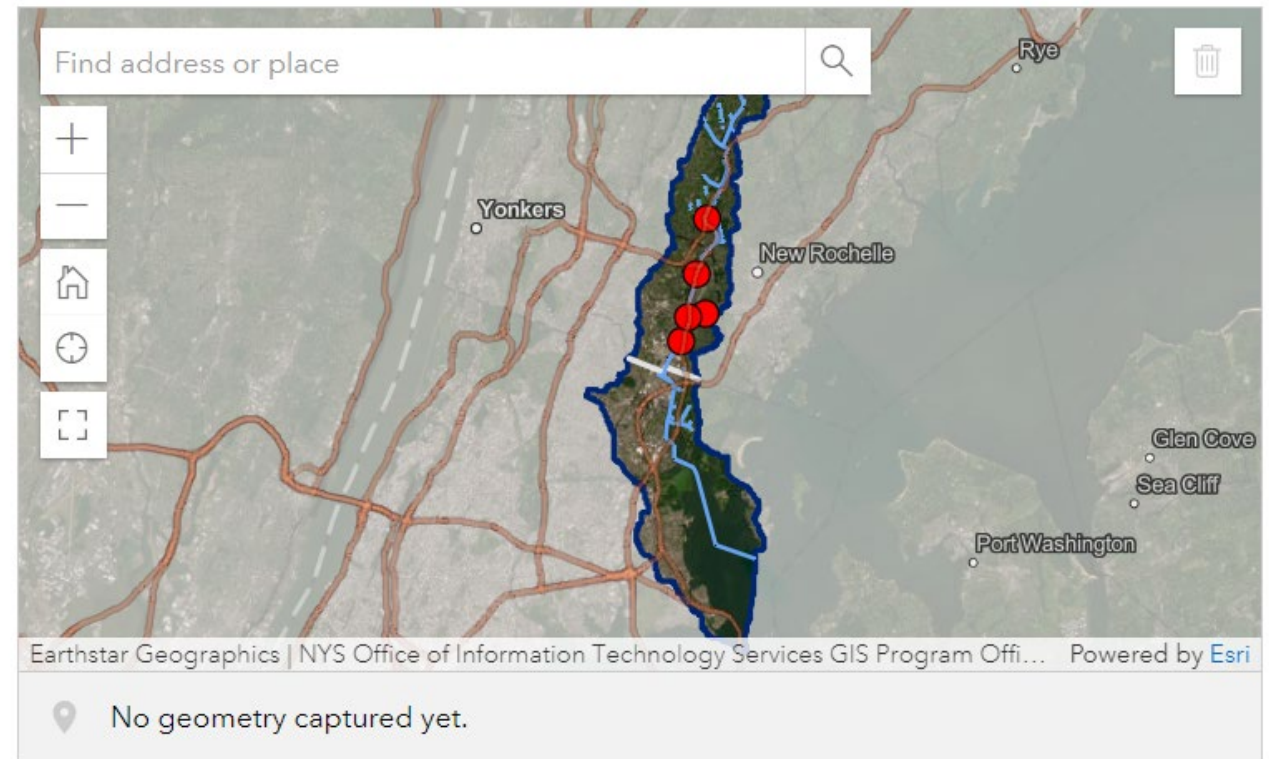
<https://www.savethesound.org/hutchplan/>

Link to public input map:

<https://experience.arcgis.com/experience/973f461d95464ac68ae9f734d8d5db47>

Step 1: Place point of interest*

To enlarge the map, press the "Large map" button (5th button down on the left). Use the "+" and "-" buttons to zoom in and out of the map. You can also use the search bar ("Find address or place") to quickly search for a specific location. Once finished adding a point of interest, select "X" in the top right corner of the map to continue the survey.



Public Input Map

Hutchinson River Watershed Plan webpage:

<https://www.savethesound.org/hutchplan/>

Link to public input map:

<https://experience.arcgis.com/experience/973f461d95464ac68ae9f734d8d5db47>

Step 2: Fill out your name and email (Optional) ▼

First Name

(Optional)

Last Name

(Optional)

Email

(Optional for addition to project mailing list)

Public Input Map

Step 3: Tell us where you Live, Work and Play

Do you Live, Work and/or Play in the watershed?*

(Select all that apply)

☐ Live

☐ Work

☐ Play

What town do you live in?*

-Please select-

What town do you work in?*

-Please select-

What town do you play in?*

Select all that apply.

Public Input Map

Step 4: Tell us about the point of interest

Type of Input*

Area of Value: Places/experiences that are beneficial or desirable or contain positive attributes

Area of Concern: Places/experiences that represent challenges or issues

-Please select-

Description

Attach a file


(Optional)

1 Drop file here or select file (pdf, doc, docx, xls, xlsx, pptx, ppt, txt. Maximum number of files allowed: 3)

Attach an image

(Optional)

1 Drop image here or select image (maximum number of files allowed: 10)



Submit



Next Steps

- ❖ Steering Committee meeting in March
 - Put name in chat or email reducerunoff@SavetheSound.org
- ❖ Third Public Meeting in April
 - Share improvement opportunities and seek feedback
- ❖ Streamwalks this Spring!

Email reducerunoff@savethesound.org to review the full draft Watershed Baseline Assessment

Project website: www.SavetheSound.org/Hutchplan

- Includes link to input map





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Thank you!

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