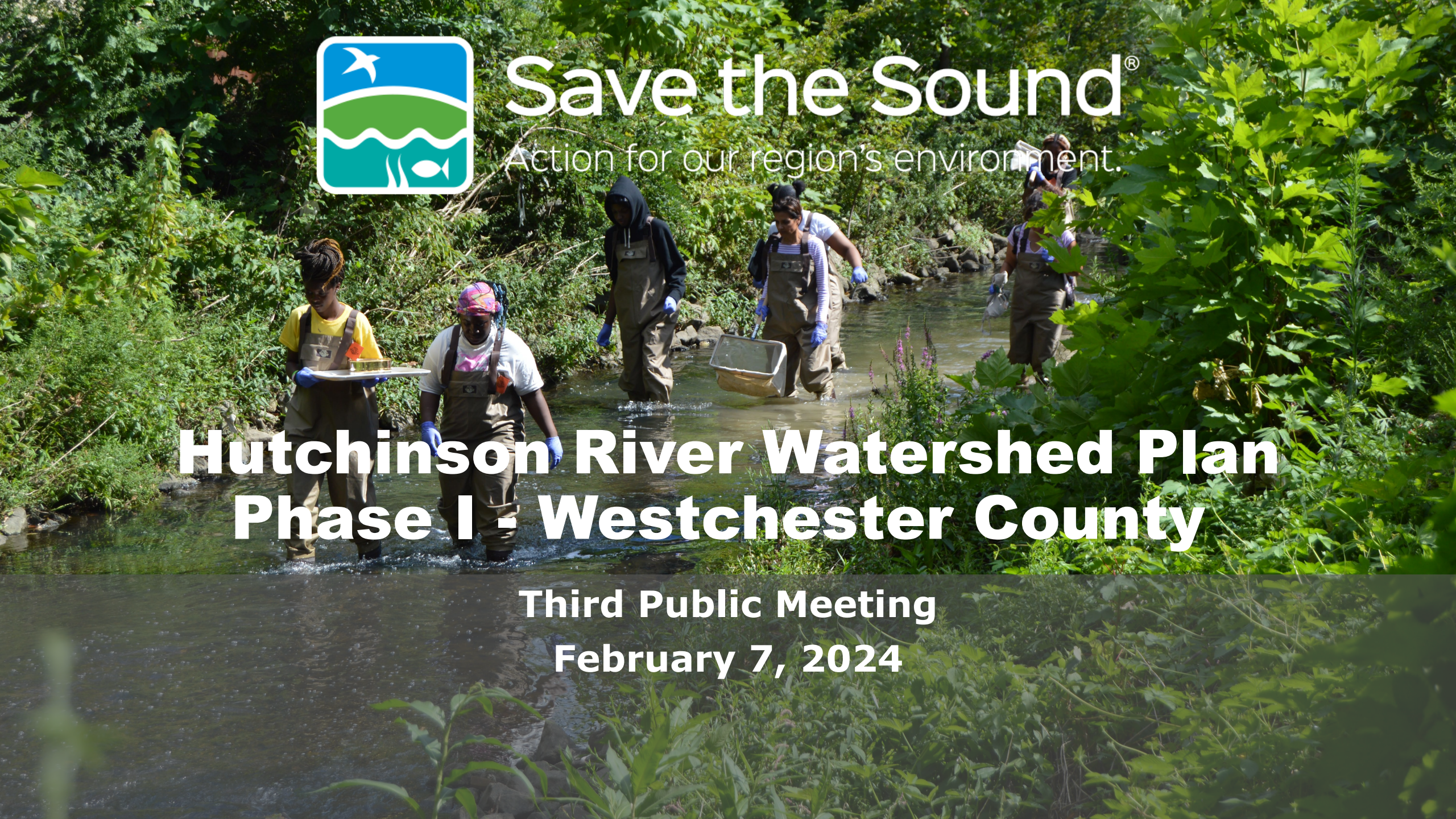

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Action for our region's environment.

Hutchinson River Watershed Plan Phase I - Westchester County

Third Public Meeting

February 7, 2024

Meeting Agenda

1. Welcome & Introductions
2. What is a Watershed Plan?
3. Existing Conditions
4. Watershed Goals
5. Recommendations
6. Implementation and Monitoring
7. 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

Save the Sound®
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Westchester County

NFWF

Biohabitats

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

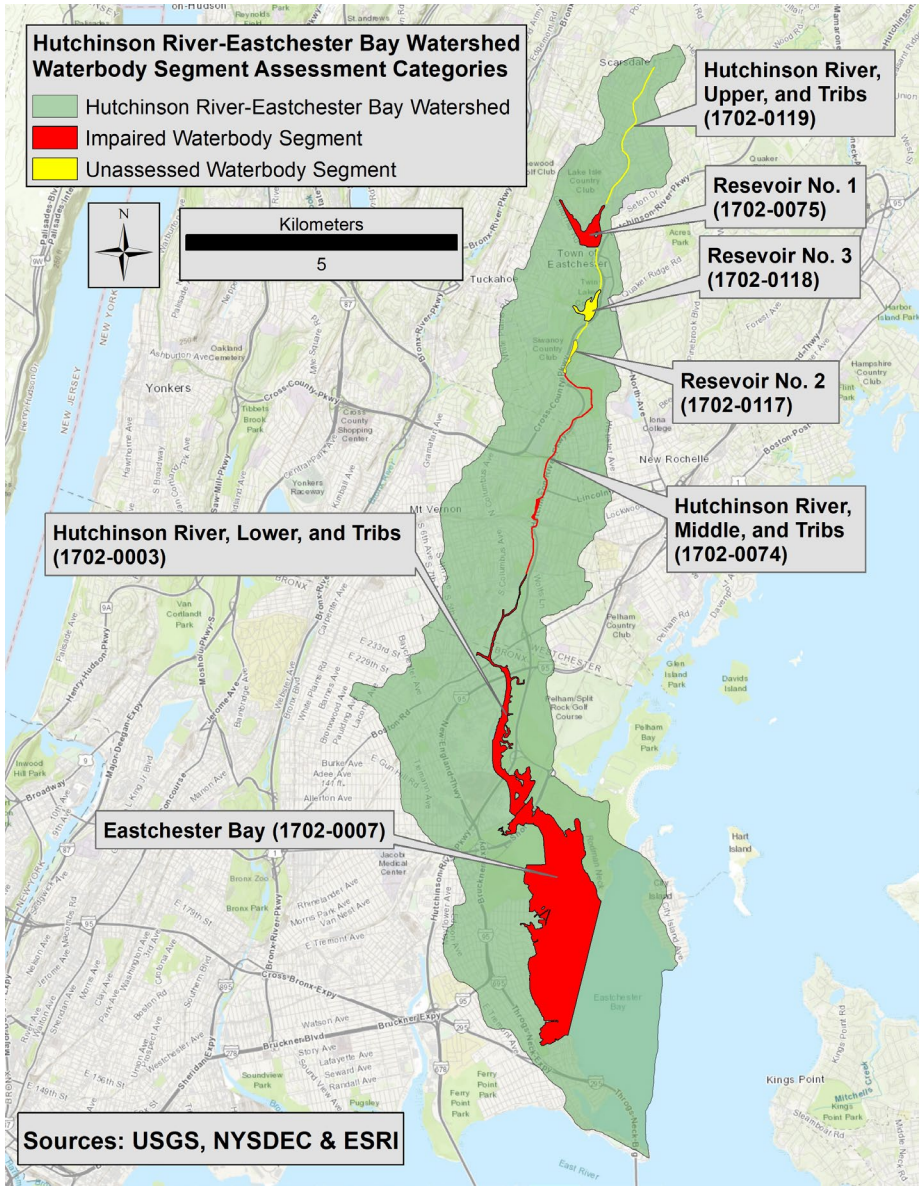
Hutchinson River Watershed

- Watershed spans 12, 394 acres across both Westchester County and the Bronx

- Hutchinson River flows south into Eastchester Bay of the Long Island Sound

- 6 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



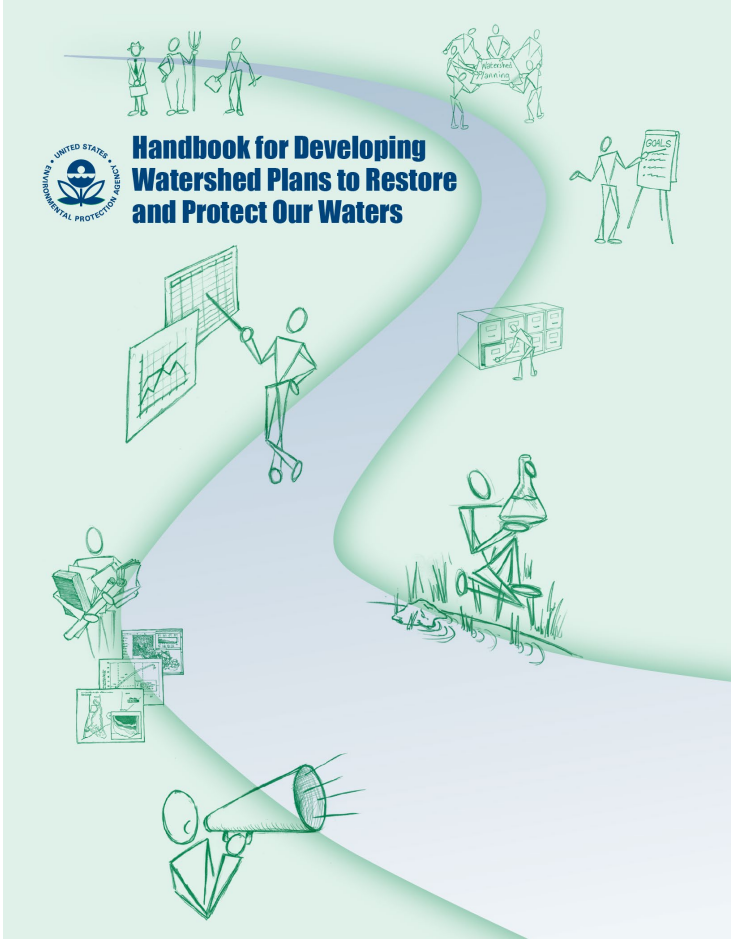
Watershed Plan Objectives

- 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
- Ultimately de-list impaired waters – <u>improve water quality</u>

Source Westchester County

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



Stakeholder Engagement

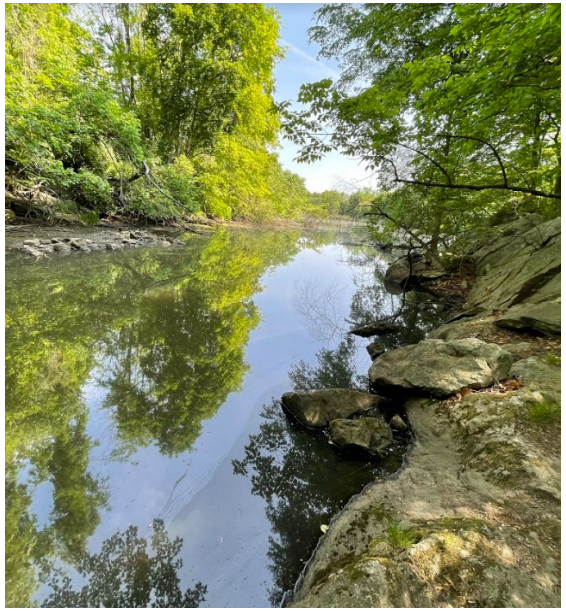
- Three public meetings
- Streamwalks
- Steering Committee

Stakeholder Engagement

- **Steering Committee:** 43 members representing municipalities, advisory boards, NGOs, State and Federal partners, and individual residents within the watershed

Bronx Council for Environmental Quality
City of New Rochelle
City of New Rochelle ENRAC
City Island Oyster Reef
Town of Eastchester
Hudson Valley Stream Conservancy
Hutchinson River Restoration Project
Lake Innisfree
City of Mount Vernon
New York Sea Grant / Long Island Sound Study
NYC Department of Environmental Protection
NYS Department of Environmental Conservation
Queens College
NYC Soil & Water Conservation District
The Nature Conservancy
USGS
Village of Pelham
Village of Pelham Climate Smart Community Task Force
Westchester County Dept. of Parks, Recreation and Conservation
Westchester County Soil and Water Conservation District
Westchester Land Trust
Individual Residents

Existing Conditions



Baseline Assessment

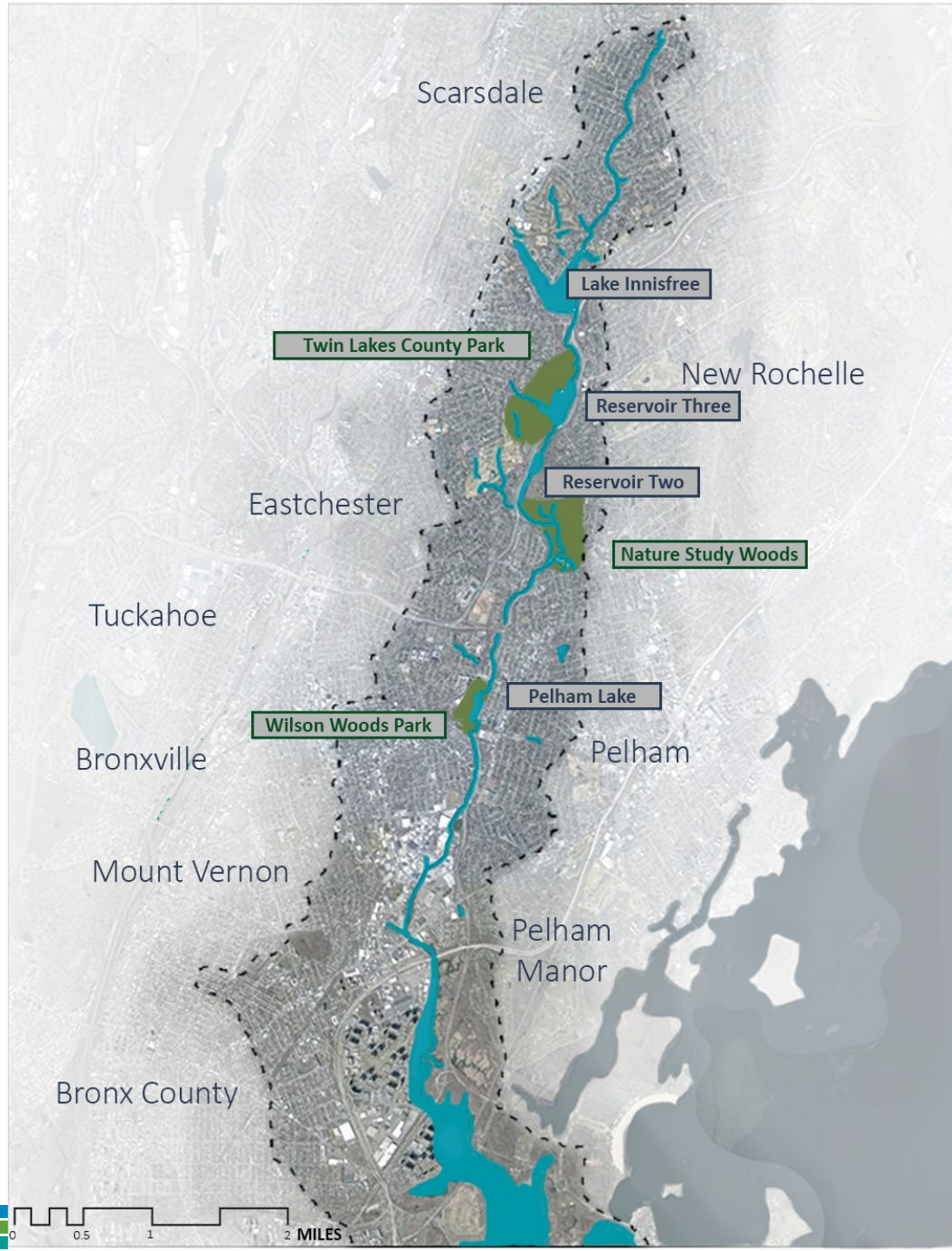
Tasks conducted to develop baseline assessment:

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

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

Overview

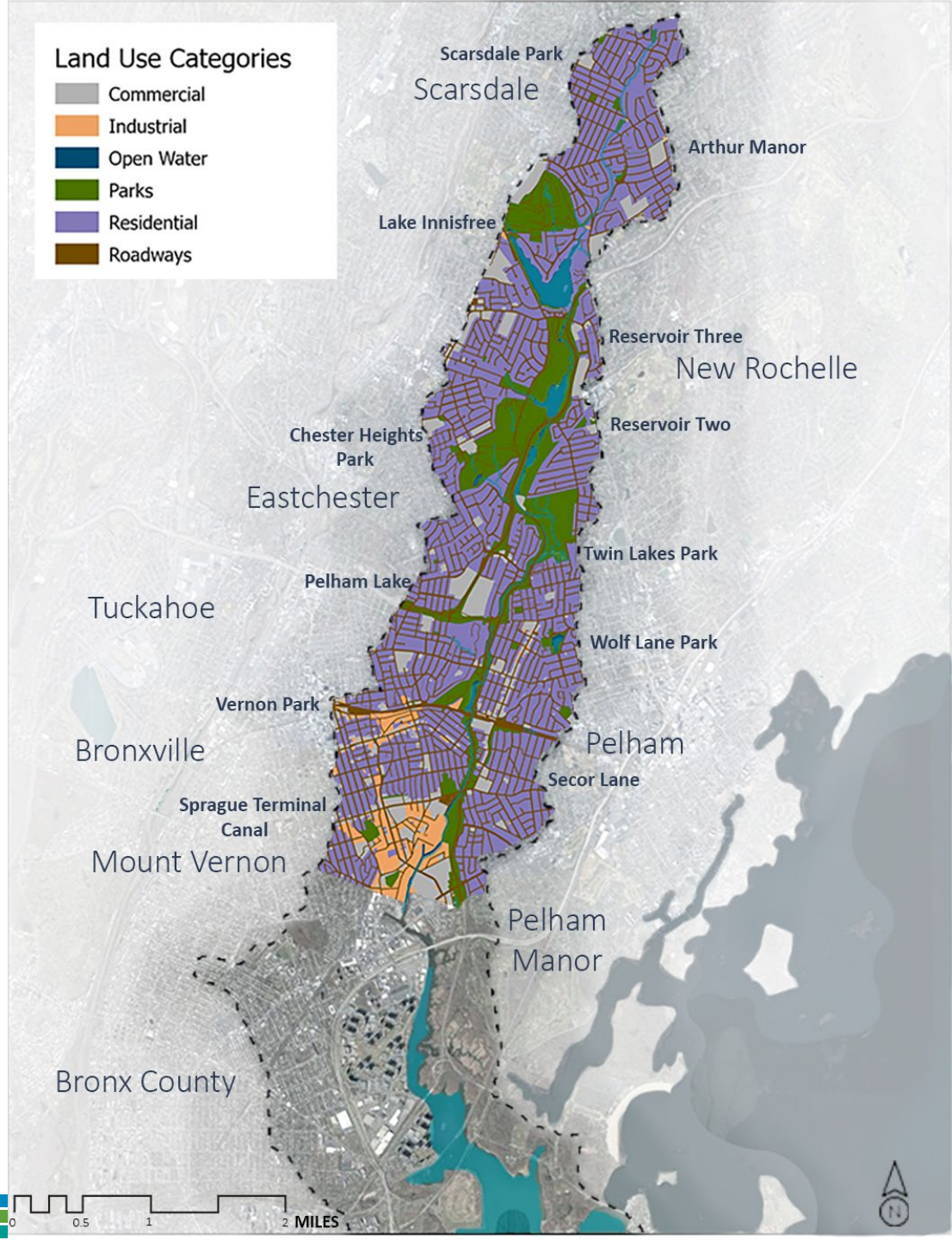
- **Area:** 8.2 square miles
- **Stream Length:** 9.5 miles
- **Jurisdictions:** 8
- **Water Quality:** Class “B”
- **Dams:** 4
- **Major Transportation Routes:** 3
- **Critical Environmental Areas:** 3
- **National Historic Sites:** 1



Land Use

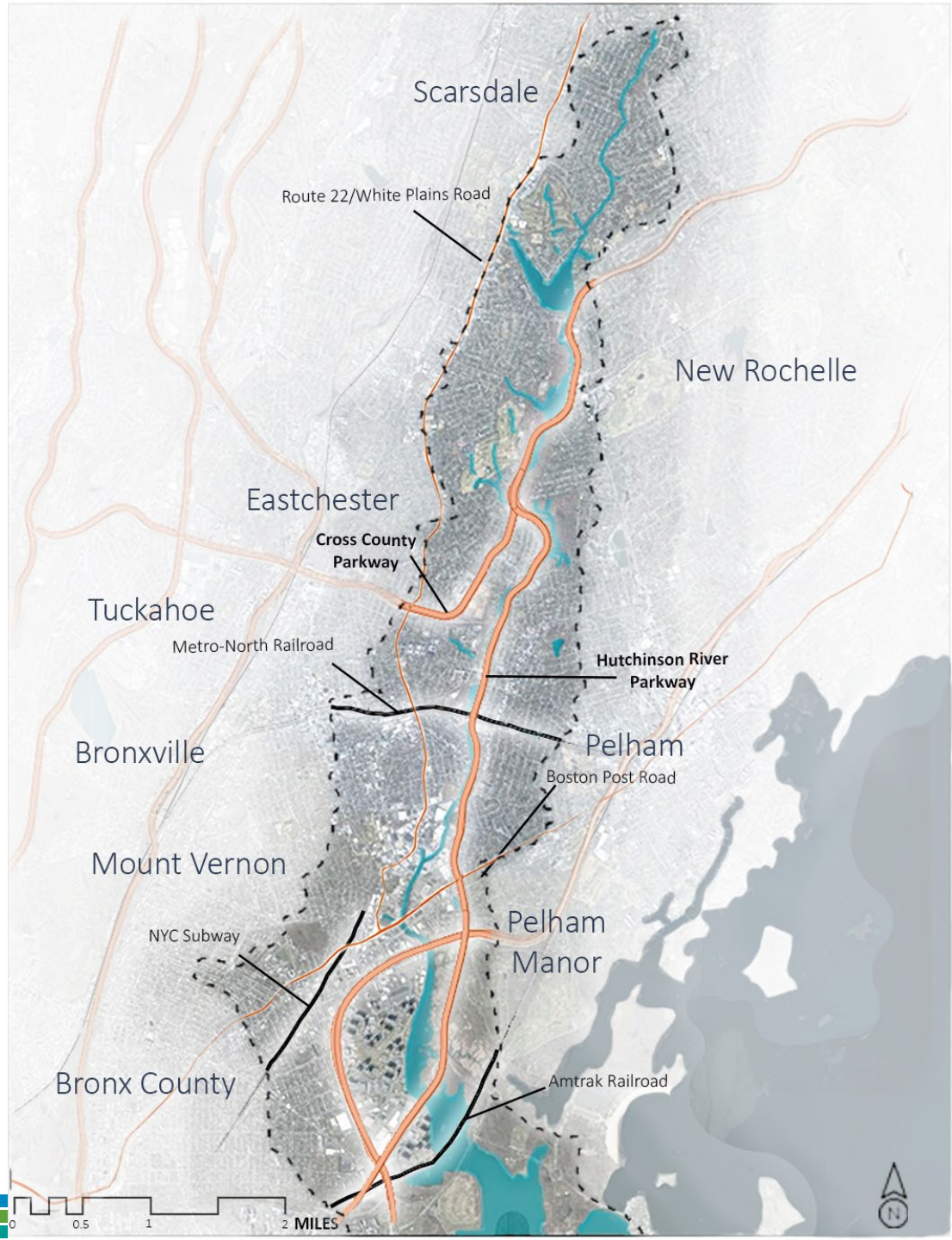
Land use impacts the velocity and volume of stormwater runoff

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%



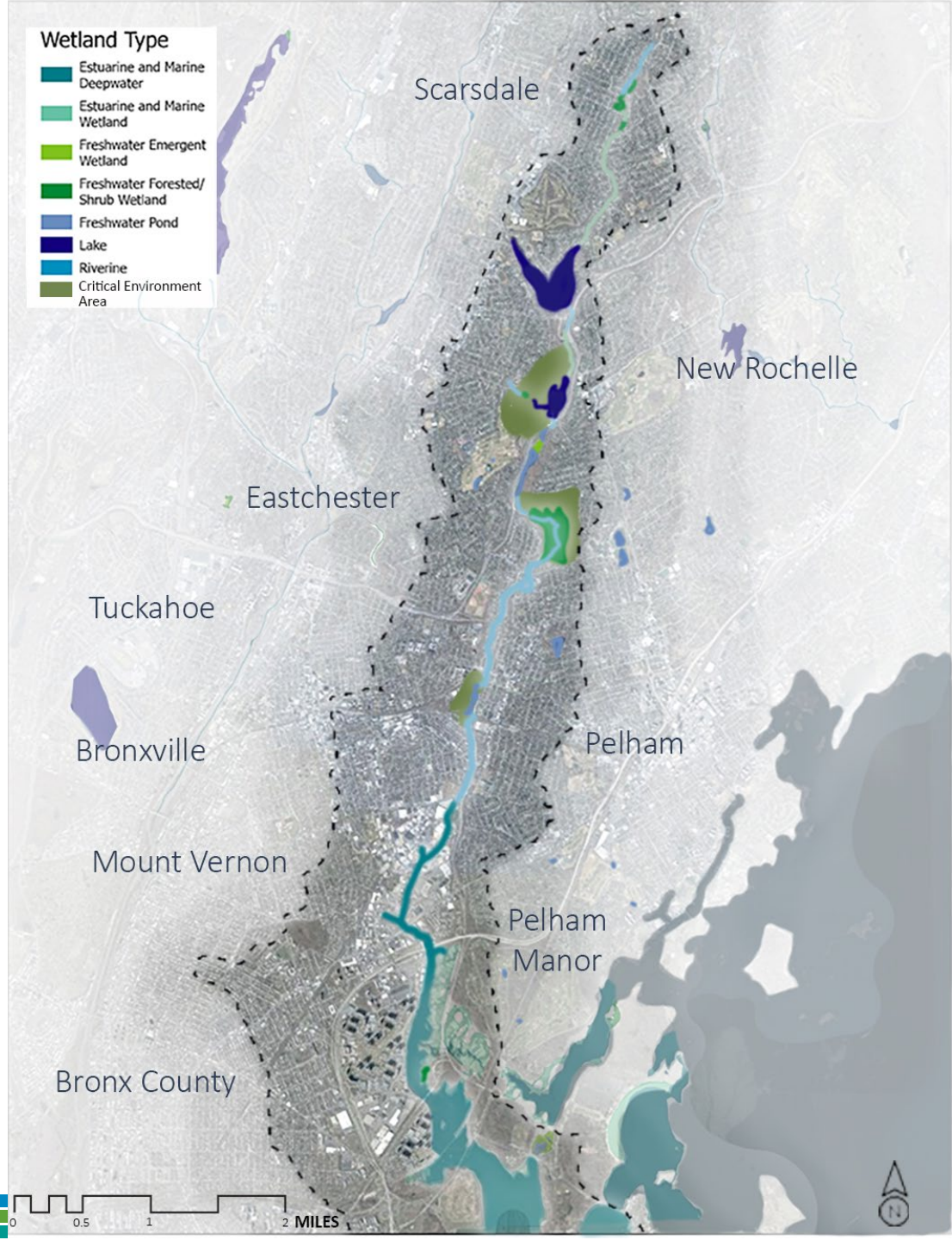
Transportation

- 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

- Total Wetlands: 185 acres
- 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
- Habitats along the Hutchinson River are fragmented and non-contiguous
- Dams impact aquatic connectivity



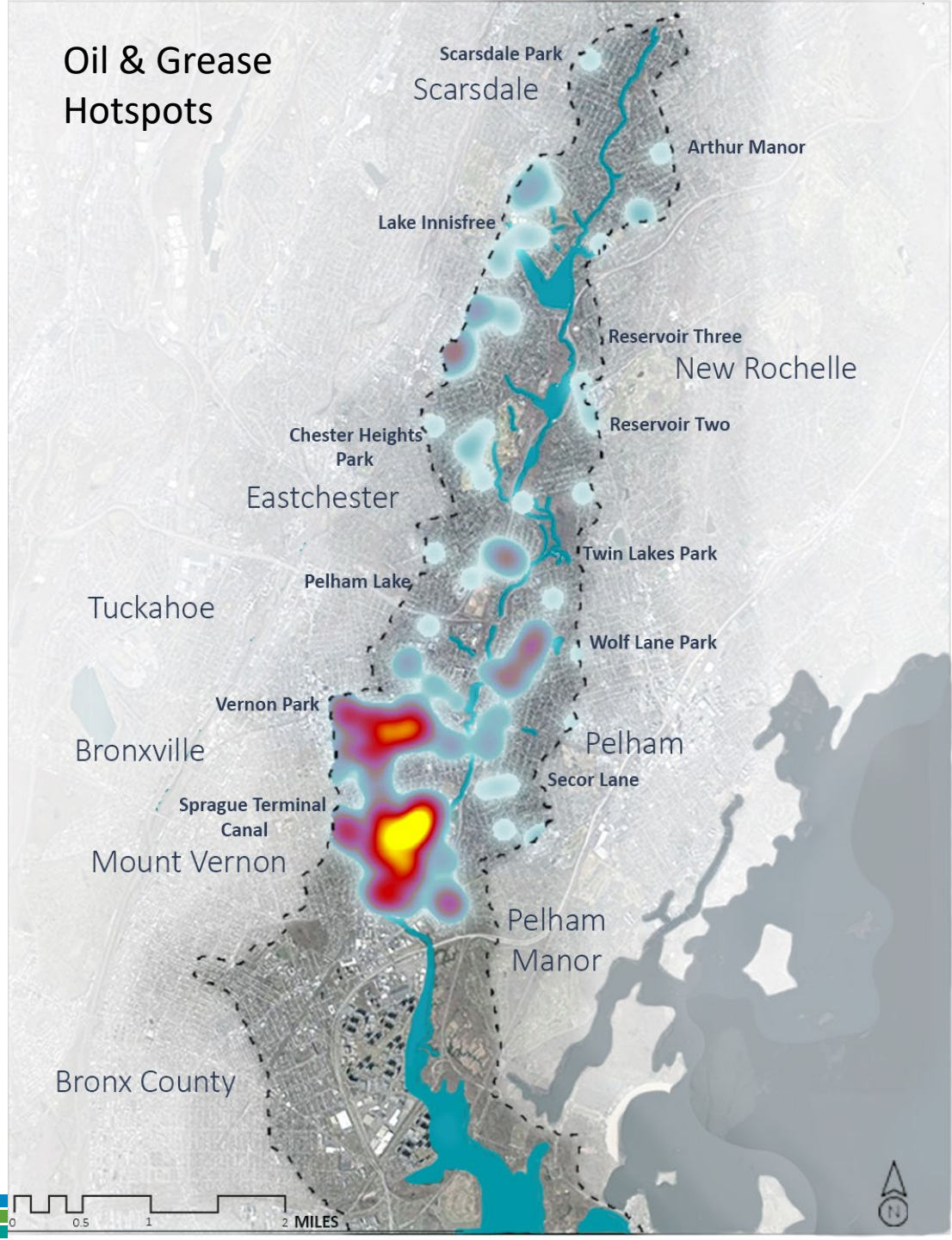
Flooding

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

Water Quality

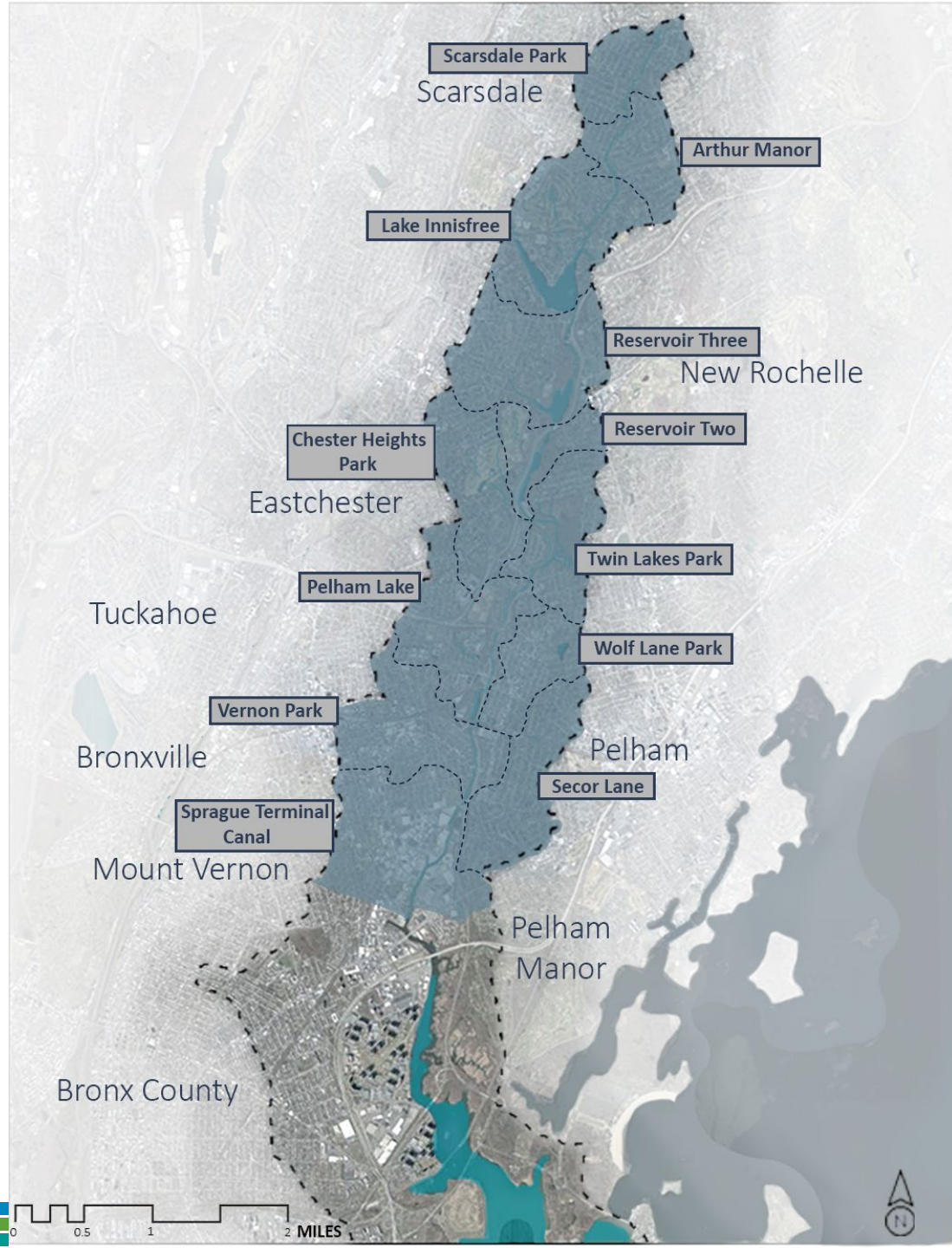
New York State 303(d) List of Impaired Waters pollutants:

- Oil & grease
- Low dissolved oxygen
- Fecal coliform

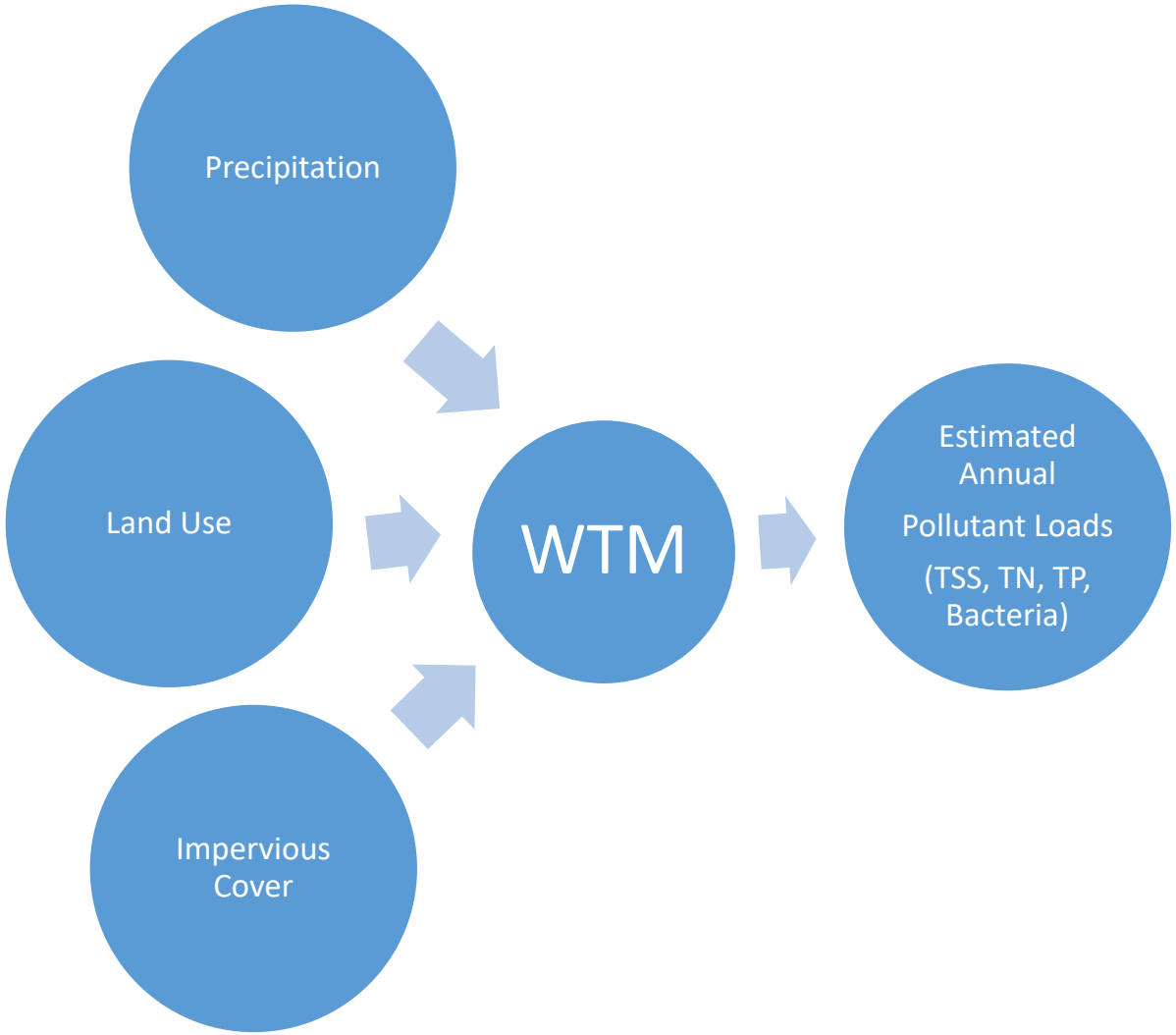


Subwatersheds

- 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

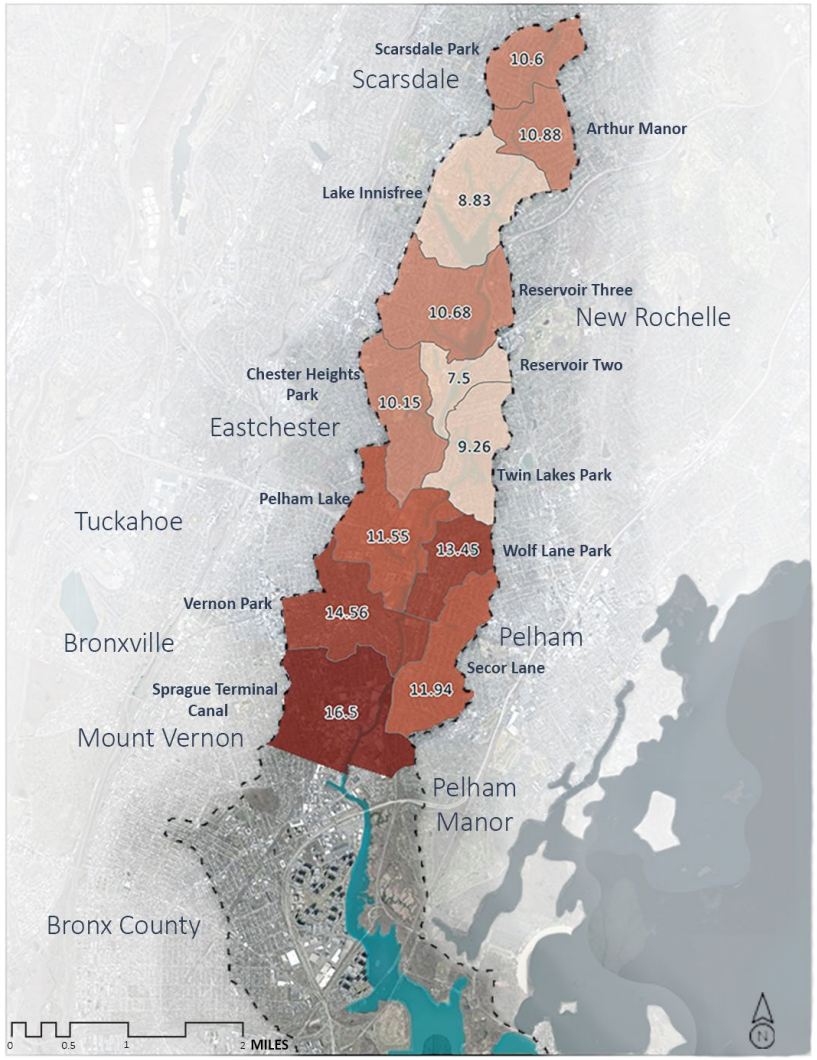


Watershed Treatment Model

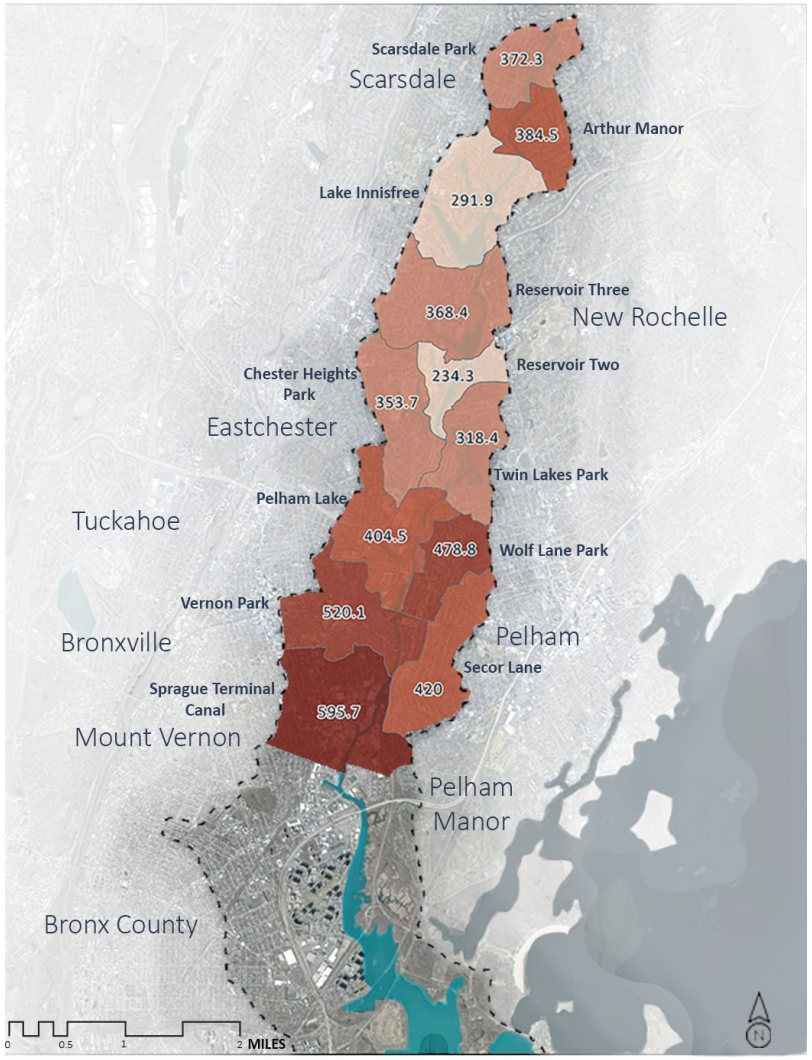


Watershed Treatment Model

Nitrogen (lb/acre/year)



Fecal Coliform (billions of colonies /year)



Watershed Goals

1. Water Quality
2. Habitat & Ecology
3. River Access
4. Educational Opportunities

Jamboard responses from first public meeting (September 2022).

Recommendations

- Watershed-Wide
- Site-Specific

Watershed-Wide Recommendations

Programmatic/Operational

- Establish a Lead Entity
- Improve Stream and River Accessibility
- Trash Monitoring
- Barrier Removal and Aquatic Organism Passage
- Community Involvement
- Establish More Robust Water Quality Monitoring
- Golf Course, Lawn, Pet Waste Outreach

Watershed-Wide Recommendations

Water Quality Improvement Projects

- Retrofit Public Land
- Increase Tree Canopy Coverage
- Increased Street Sweeping
- Dumpster Replacement and Outreach
- Oil/Grit Separator Retrofits on Industrial Sites
- Greening Vacant Lots

Mentimeter

What types of resources would be beneficial to your community?

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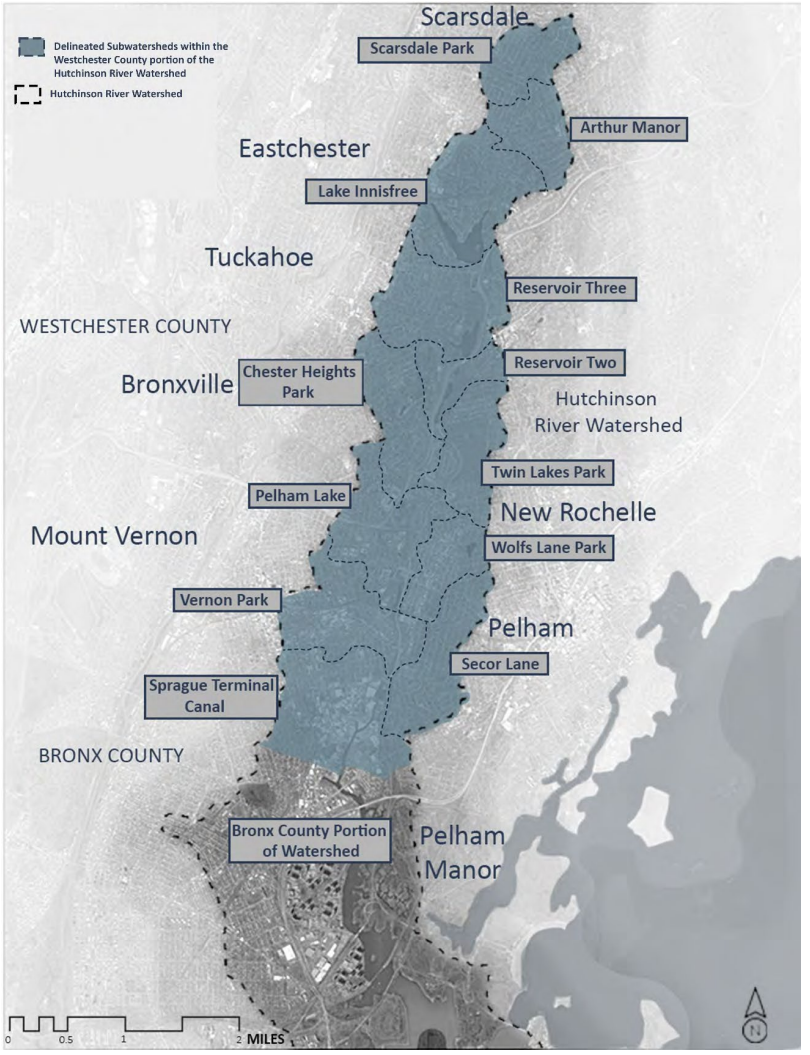
Code: 7515 5600

Site-Specific Recommendations

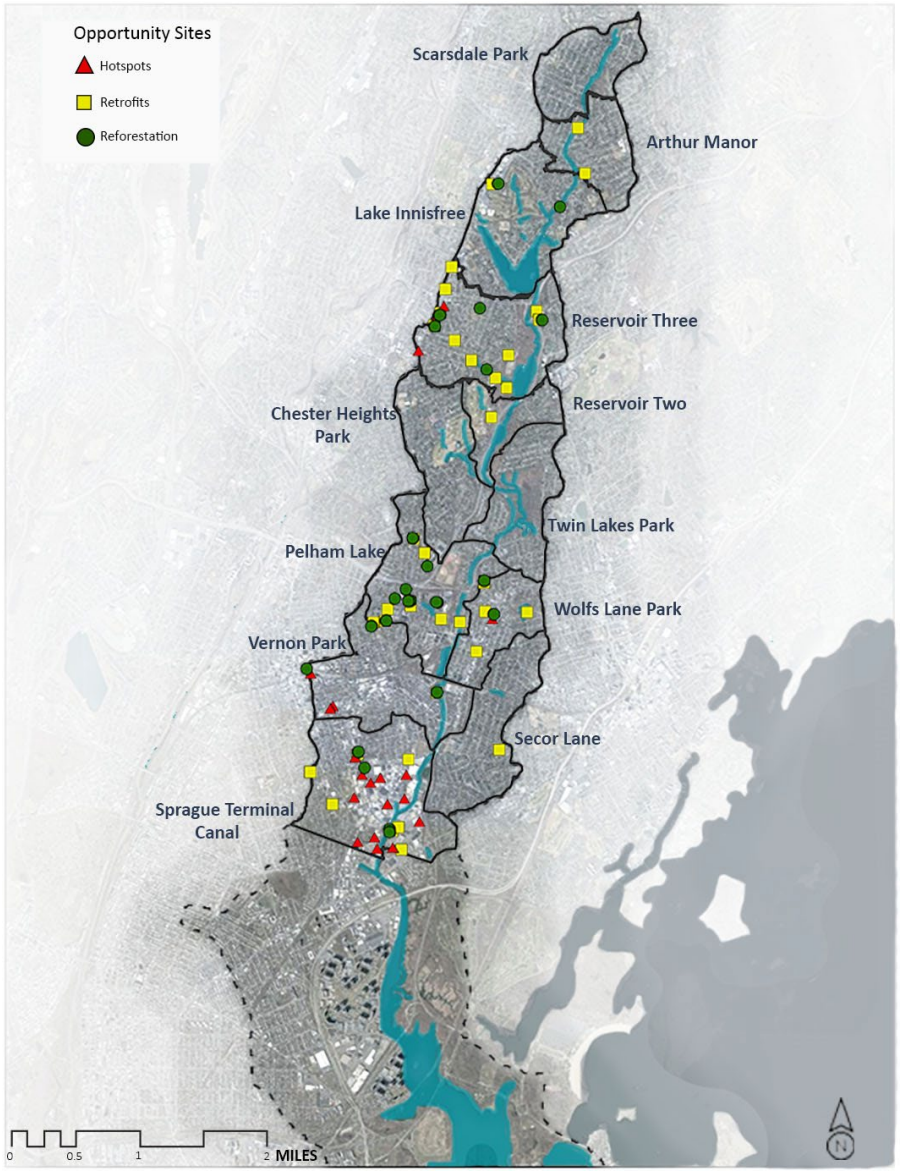
Field Assessment

- Primarily in 4 of 12 subwatersheds
  - Reservoir Three
  - Pelham Lake
  - Sprague Terminal
  - Vernon Park
- Conducted on or from publicly accessible spaces



Field Assessment

- Identified opportunities that:
  - improve water quality and/or
  - enhance habitat
- Types of assessments:
  - Hotspot
  - Stormwater Retrofits
  - Reforestation



Hotspot Assessment

- Targeted locations that may be contributing large amounts of stormwater pollution

- Types of businesses assessed included:
  - Auto body shops
  - Shopping centers
  - Scrap metal
  - Stockpiling areas
  - Asphalt production

- Common Recommendations:
  - Street sweeping
  - Dumpster replacement
  - Education and outreach
  - Bulk material management
  - Pavement replacement/repair
  - Oil/Grease Separator

Stormwater Retrofit Assessment

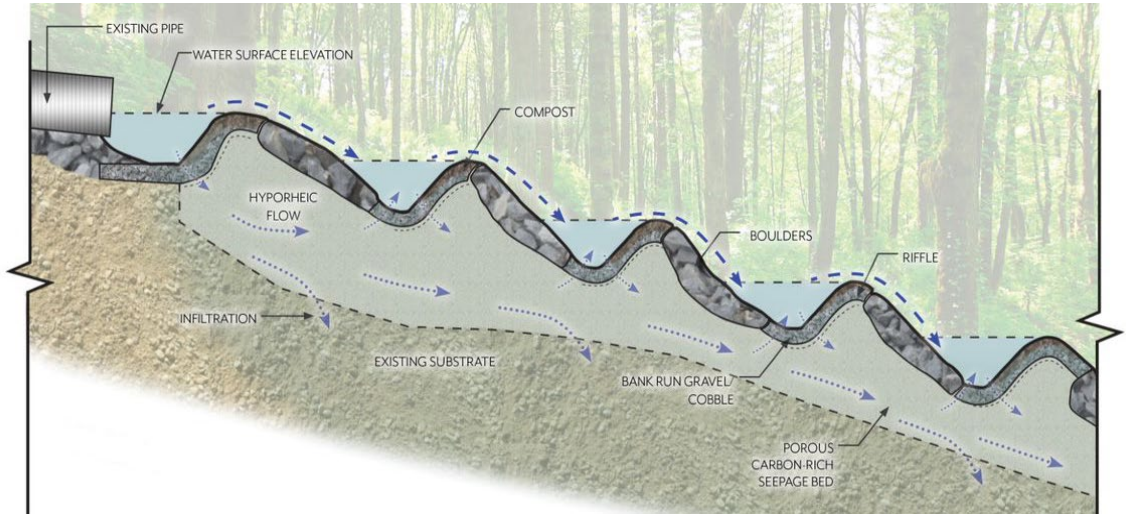
- Targeted large areas of untreated impervious cover

- Primarily assessed:
  - Large parking lots
  - Schools
  - Playgrounds
  - Institutional land

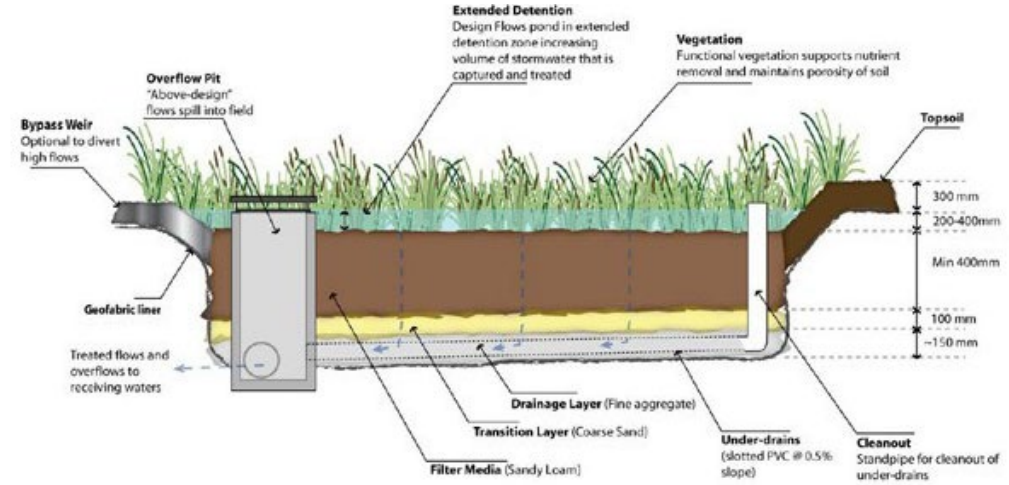
- Types of stormwater retrofits:
  - Bioretention
  - Regenerative Stormwater Conveyance
  - Stormwater wetlands

Stormwater Retrofit Assessment

Regenerative Stormwater Conveyance



Bioretention



Reforestation Assessment

- Targeted areas with potential to increase tree canopy
- Focused on impervious areas and forest/grasses in poor condition
- Included non-native and invasive management recommendations
- Recommendations included:
  - reforestation
  - conservation landscaping
  - street tree planting

Prioritization

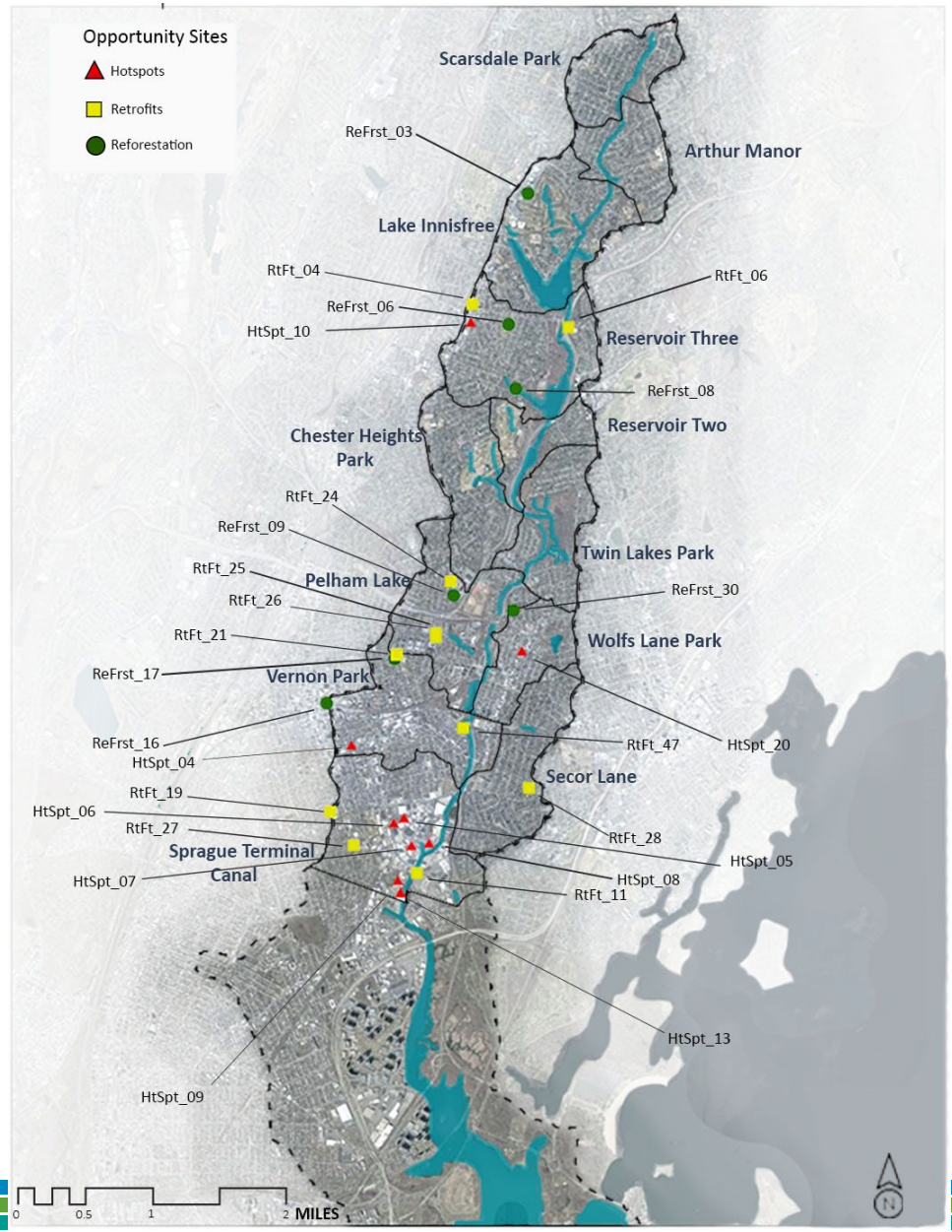
- Utilized overarching framework for all 3 field assessments
- Scoring metrics organized into 3 categories:
  - Environmental Impact (e.g., ability to improve water quality)
  - Ability to Address (e.g., site constraints)
  - Ancillary Benefits (e.g., visibility)
- Metrics vary by type of field assessment

Prioritization Example

- Stormwater retrofit assessment scoring to illustrate

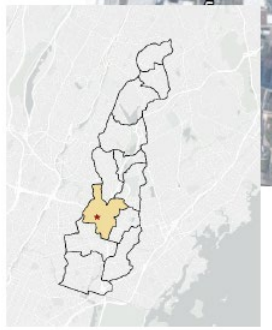
ID	Site Name	Environmental Score	Ability to Address Score	Ancillary Benefits Score	Total Score (Total Possible Score: 67)	Prioritization
ReFrst_28	Beechwood Ave Grassy Curb	25	19	17	61	High
ReFrst_03	Vernon Hills Shopping Center	25	13	15	53	High
ReFrst_06	Anne Hutchinson Elementary School	22	14	15	51	High
ReFrst_17	Holmes Elementary School	22	17	10	49	High

Prioritization Results



Stormwater Retrofit Summary Sheet

HUTCHINSON RIVER WATERSHED MANAGEMENT PLAN
Stormwater Management Opportunity: Sheridan Ave Park
ID: RtFt_25
Subwatershed: Pelham Lake

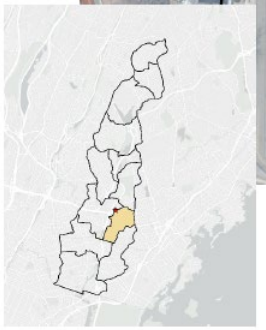


Latitude, Longitude	40.9201, -73.8186
BMP Intervention Type	Bioretention
Ownership	Public
Existing Land Use	Mixed Pavement and Open Space
Existing Drainage System	Overland
Observed Flooding	Nuisance Flooding
Subwatershed Water Treatment	Partial Treatment Likely (approx. 3.01% of delineated area)
Additional Opportunities on this Site	Yes
Project Visibility	High: large park and playground
Challenges for Implementation	Constrained by: Utilities, Property Boundary
Approximate Cost	Low

Environmental Score	Ability to Address Score	Ancillary Benefits Score	Total Score
15	17	12	44

Reforestation Summary Sheet

HUTCHINSON RIVER WATERSHED MANAGEMENT PLAN
Reforestation Opportunity: Chester Park
ID: ReFst_30
Subwatershed: Wolfs Lane Park



Latitude, Longitude	40.9226, -73.8071
Reforestation Type	Conservation Landscaping
Ownership	Public
Existing Land Use	Open Space
Existing Vegetation	Grass Lawn and Shade Trees
Low-Lying Areas	None
Approximate Size of Reforestation Effort	Medium: 0.33 Acres
Invasive Presence and Species Type	Low
Additional Opportunities on this Site	Yes
Project Visibility	High: in a residential park
Challenges for Implementation	Medium: Potential utilities
Approximate Cost	Medium

Environmental Score	Ability to Address Score	Ancillary Benefits Score	Total Score
14	15	17	46

Mentimeter

What types of projects resonate with you most?

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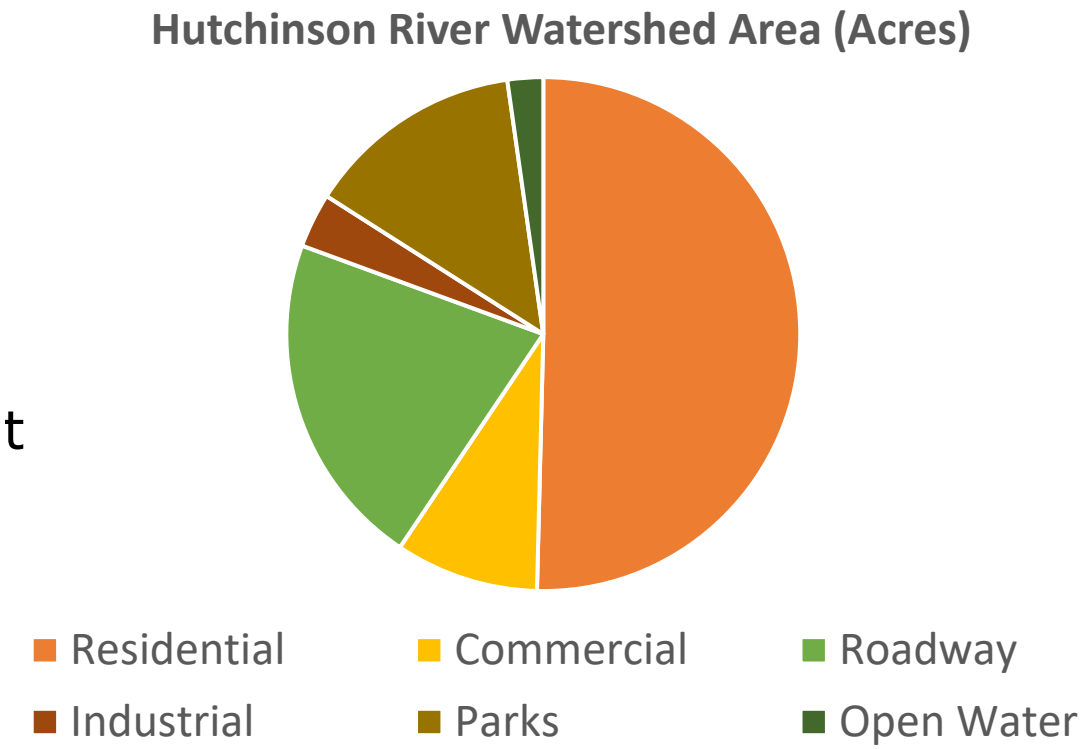
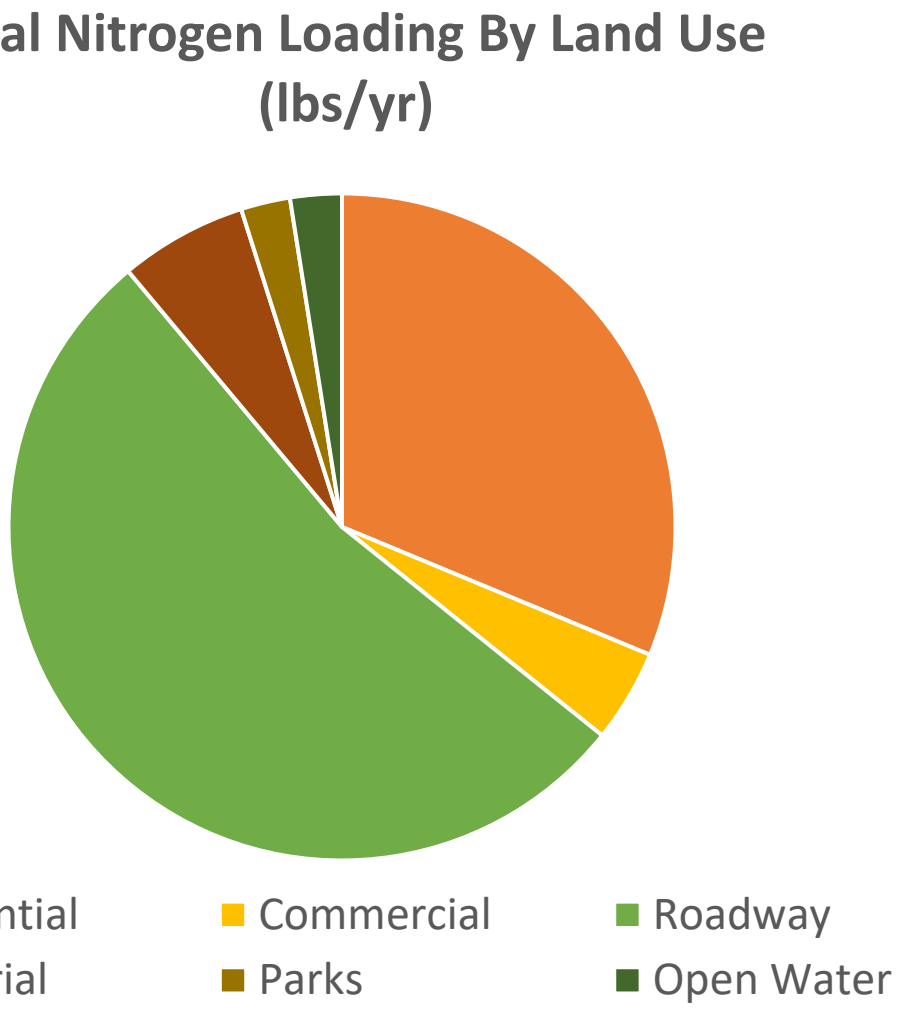
Code: 7515 5600

Pollutant Loads

- Watershed Treatment Model
- TSS, TP, TN, Bacteria
- 2 scenarios:
  - Existing: Land use loads
  - Load Reductions: reductions as a result of implementing recommendations

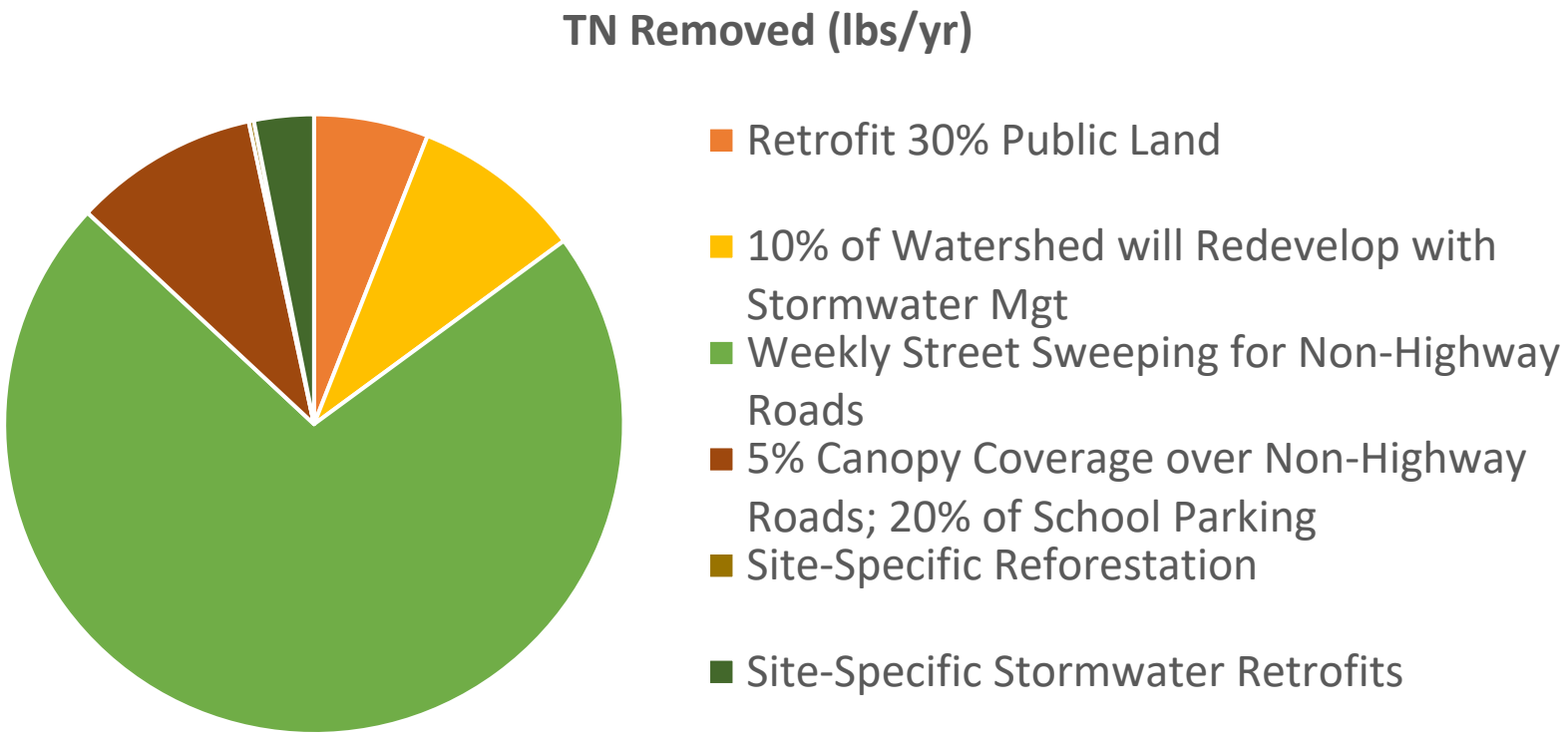


Existing Pollutant Loads



Pollutant Load Reductions

- Includes select watershed-wide and site-specific recommendations



Comparison to Load Reduction Targets

Load Reduction Target	Existing Load	Reductions Needed to Meet Target	Estimated Load Reductions from Recommendations	Remaining Load Reduction Needed
30% TN	57,646	17,294	7,471	9,823
10% Bacteria	980,396,610	98,039,661	51,901,997	46,137,664

Questions?

Implementation: Watershed-Wide

Watershed-wide Recommendation	Watershed Goals Addressed	Suggested Lead Organization(s)	Timeframe[1]	Estimated Cost[2]	Potential Funding Sources
Improve Stream and River Accessibility	River Access & Educational Opportunities	Municipalities/ County/Community Organizations	Medium	$$-$$$	NYSDOS Local Waterfront Revitalization Program (LWRP), Long Island Sound Futures Fund (LISFF)
Trash Monitoring	Water Quality & Habitat and Ecology	Community Organizations	Short	$	NYSDEC Environmental Justice Community Impact Grant (NYSDEC EJ), US EPA / NEIWPCC
Barrier Removal	Habitat and Ecology & Water Quality	Municipalities/ County/Community Organizations	Short	$$$	NYSDEC Water Quality Improvement Project (WQIP), NYSDEC Tributary Restoration and Resiliency Grant

1: Short: Implemented within the first five years; Medium: five to seven years; Long: seven to ten years
2: **$:** $0-$10,000 **$$:** $11,000-$50,000 **$$$:** Greater than $50,000

Implementation: Site-Specific

Site-Specific ID	Type of Site	Municipality	Watershed Goals Addressed	Suggested Lead Organization(s)	Timeframe[1]	Estimated Cost[2]	Potential Funding Sources
HtSpt_05	Scrap Metal Service	City of Mount Vernon	Water Quality	Private property owner/NGO or Municipality	Medium	$	NYS Environmental Facilities Corporation (EFC) Green Innovation Grant Program (GIGP), NYSDEC Water Quality Improvement Project (WQIP), US EPA Pollution Prevention (P2)
RtFt_04	Eastchester Public Library	Town of Eastchester	Water Quality; Educational Opportunities	Municipality / NGO	Medium	$ - $$	NYSDEC Water Quality Improvement Project (WQIP), NYS Environmental Facilities Corporation (EFC) Green Innovation Grant Program (GIGP), Long Island Sound Futures Fund (LISFF), NYSDEC Climate Smart Communities (CSC)
ReFrst_30	Chester Park	Village of Pelham	Habitat & Ecology; Educational Opportunities	Municipality	Long	$$	NYSDEC WQIP, NYS EFC, NYS GIGP, LISFF), NYSDEC CSC, NYSDEC Environmental Justice Community Impact Grant (EJ)

1: Short: Implemented within the first five years; Medium: five to seven years; Long: seven to ten years
2: **$:** $0-$10,000 **$$:** $11,000-$50,000 **$$$:** Greater than $50,000

Mentimeter

Are there any projects you're interested in spearheading or being involved in?

For those who have already reviewed the plan, are there any additional projects to recommend?

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Code: 7515 5600

Monitoring

- No current Total Maximum Daily Load for Hutchinson River

- Save the Sound and partners perform ongoing water quality monitoring:

  - Fecal indicator bacteria sampling between Wilson Woods Park and Glover Field

  - Unified Water Study in lower Hutchinson River and Eastchester Bay
    - Dissolved oxygen, water clarity, temperature, salinity, chlorophyll-a, quantitative macrophytes, nutrients

Next Steps

- **Public comment period through February 16th**
  - Plan available on project website with comment table template: www.SavetheSound.org/Hutchplan
  - Email comments to reducerunoff@SavetheSound.org
  - Hard copy also available for review at Westchester County Office – contact Nicole Laible (nvle@westchestercountyny.gov)

- Phase I (Westchester County) completion by March 2024

- Phase II (The Bronx) planning 2024-2025

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Action for our region's environment.

Westchester County Soil & Water Conservation District

Westchester County

Biohabitats

National Fish and Wildlife Foundation NFWF

Thank you!

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Nicole Laible: nvle@westchestercountyny.gov