Manhasset Bay Water Quality Improvement Plan (WQIP)

Public Meeting

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7:00 PM

Presented by:

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The WQIP was prepared with funding provided by the New York State Department of State under Title 11 of the Environmental Protection Fund.

Manhasset Bay Protection Committee

- Inter-municipal organization
  - 15 local government members
- Formed in the late 1990s
- Focused on water quality and coastal issues

Manhasset Bay
Protection Committee

ManhassetBay.net

Members

The County of

Nassau

The Town of

North Hempstead

The Villages of

Baxter Estates

Flower Hill

Great Neck

Kensington

Kings Park

Munsey Park

Manorhaven

Plandome

Plandome Heights

Plandome Manor

Port Washington North

Sands Point

Thomaston

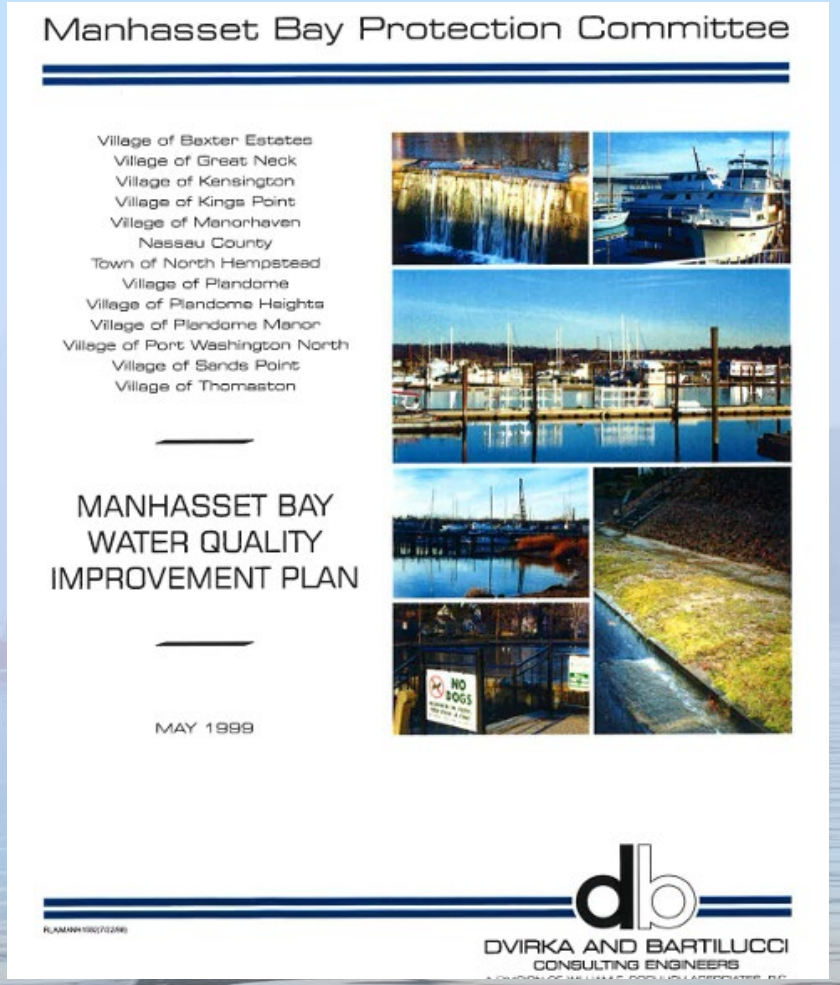
Manhasset Bay
Protection Committee

MBPC Goals

The Committee's goals are to protect, restore, and enhance Manhasset Bay to ensure a healthy and diverse marine ecosystem while balancing and maintaining recreational and commercial uses.

1999- Water Quality Improvement Plan

- Defined and characterized the watershed and sub watersheds
- Developed a “blueprint” for action for each sub watershed
- Prioritized recommendations
- Paved the way for grants to implement improvements



Why revise the 1999 WQIP?

Manhasset Bay
Protection Committee

- A lot has changed in 20 years:
  - New members
  - New regulations
  - Climate change
  - New technology and research
  - Old innovations are now commonplace (i.e., rain gardens)
- A lot hasn't changed

Todays Agenda

1. Purpose of the MB WQIP
2. WQIP Status
3. Manhasset Bay WQIP Vision & Goals
4. Draft WQIP Overview
5. Key Water Quality Issues
6. Climate Change & Resiliency
7. Next Steps
8. Public Feedback

Purpose of the Manhasset Bay WQIP

- A Water Quality Improvement Plan (WQIP) is a roadmap to reduce pollution and improve water quality
- The WQIP aims to update watershed conditions and progress made since 1999.
- Identify new projects and evaluate feasibility of incomplete past recommendations.
- Establish a 20-year vision for improving water quality, habitat health, and recreational use.
- Incorporate climate change and sea level rise into long-term planning.


Credit: Canva.com


Credit: MBPC

WQIP Status


Grant issued to update WQIP
Community Outreach/Participation Plan
Vision and Watershed Goals
Draft Characterization Report
Committee Review, Regulatory Assessment, + Address Data Gaps
Public Meeting & Gather Public Input
Draft Characterization Report Comments
Develop Management Recommendation, Budgets + Implementation Strategy
Public Meeting + Public Input
MBPC/DOS/Public Review + Input
Final WQIP

Initial WQIP Vision Statement

Advance the Goals outlined below so as to maintain and, where feasible, expand the availability of Manhasset Bay for swimming, fishing and other human uses, while also concurrently enriching the environmental and maritime quality of the Bay ecosystem

Manhasset Bay WQIP Goals

- Minimize non-point and point source pollution
- Optimize local laws and regulations
- Support local government operations
- Restore and enhance wetlands
- Promote remediation of contaminated sites
- Maintain open space lands in the Bay
- Reduce pollution from marinas, boatyards, and waterfront activities
- Minimize sedimentation of the Bay
- Continue and expand water quality monitoring
- Enhance coordination of efforts
- Account for climate change
- Maintain relevance of WQIP

Draft WQIP Overview

- WATERSHED OVERVIEW
- COMMUNITY OUTREACH PLAN
- OTHER PLANNING EFFORTS
- WATERSHED CHARACTERISTICS
- ECOLOGICAL RESOURCES
- ESTIMATED RUNOFF AND POLLUTANT LOADS ANALYSIS
- CLIMATE VULNERABILITY
- REGULATORY REVIEW AND ASSESSMENT
- WATERSHED MANAGEMENT RECOMMENDATIONS
- IMPLEMENTATION STRATEGY, MONITORING, AND TRACKING
- FUNDING AND MONITORING

Why Water Quality in the Bay Matters

- **Historically rich**—once NYC's "shellfish garden."
- **Supports fish** (striped bass, bluefish) and **birds** (least tern, waterfowl).
- **Critical for recreation**: boating, fishing, and shoreline enjoyment.
- Protects local property values and community identity.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Credit: Canva.com

Watershed Overview

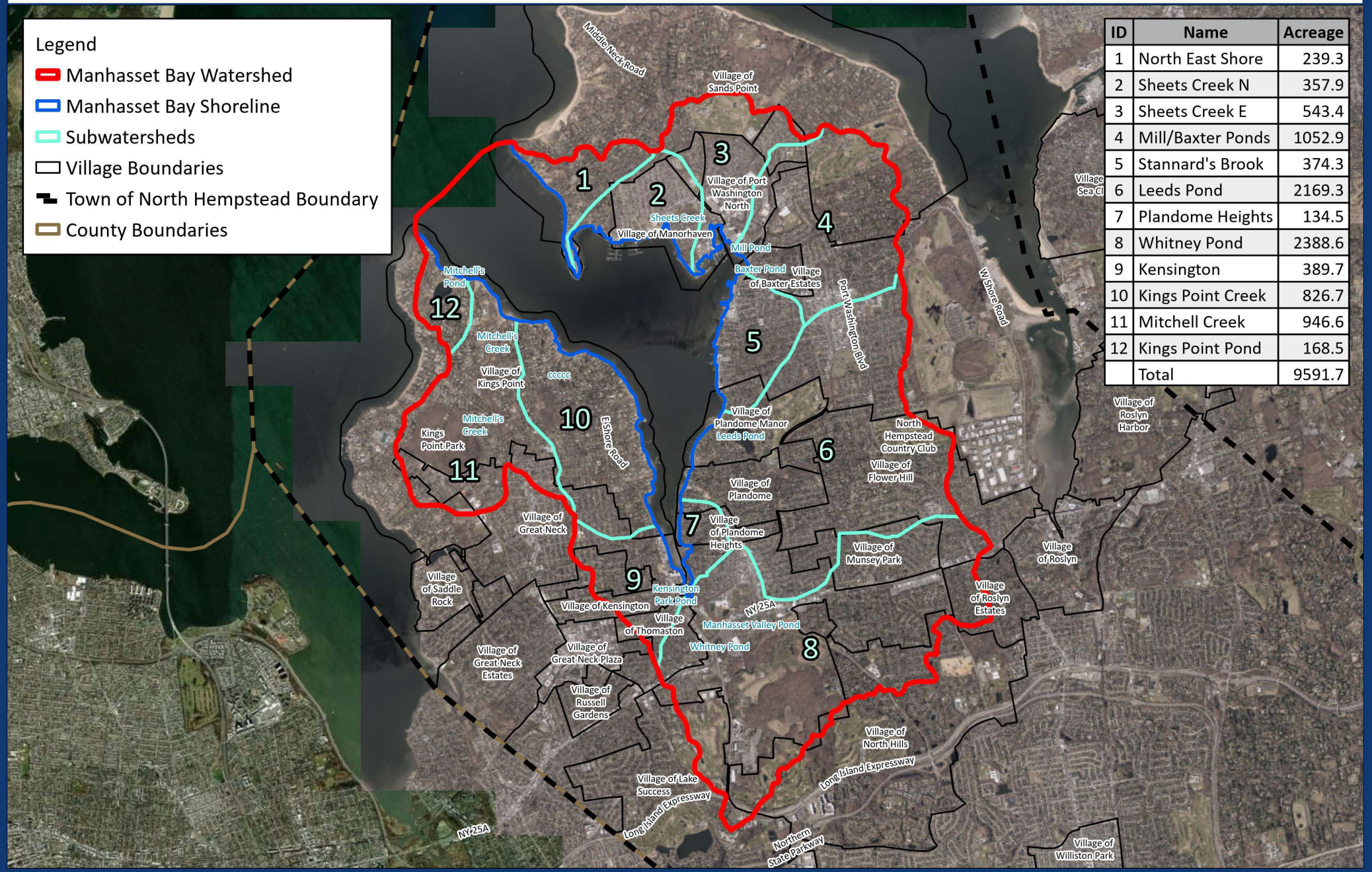

Credit: MBPC

Manhasset Bay Quick Facts:

- Semi-enclosed embayment in Western Long Island Sound
- Bounded by Great Neck Peninsula (west) and Port Washington Peninsula (east)
- Area: 2,725 acres
- Length: 4.5 miles
- Depth: 0 to 25+ feet (majority 8-12 feet)

- **Updated Watershed Boundary:**
  - High-resolution LIDAR mapping and GIS processing
  - More accurate depiction based on elevation
- **Freshwater Inputs**
  - Sources: Stream flow, direct rainfall, stormwater runoff, wastewater treatment outfalls, groundwater discharge

Manhasset Bay Sub Watersheds



ID	Name	Acreage
1	North East Shore	239.3
2	Sheets Creek N	357.9
3	Sheets Creek E	543.4
4	Mill/Baxter Ponds	1052.9
5	Stannard's Brook	374.3
6	Leeds Pond	2169.3
7	Plandome Heights	134.5
8	Whitney Pond	2388.6
9	Kensington	389.7
10	Kings Point Creek	826.7
11	Mitchell Creek	946.6
12	Kings Point Pond	168.5
	Total	9591.7

Key Water Quality Issues

A **Stormwater Runoff**: Transports bacteria, nitrogen, sediment, and trash from streets, lawns, and impervious surfaces.

B **Fertilizers, Herbicides & Pesticides**: Excess nutrients and chemicals from lawn care and landscaping.

C **Pet Waste & Waterfowl Droppings**: Contribute bacteria and pathogens to waterbodies.

D **Boating & Marina Operations**: Vessel waste, fuel, and chemical discharges, especially in boatyards and hot spots.

E **Illicit Discharges:** Unauthorized connections or dumping into stormwater systems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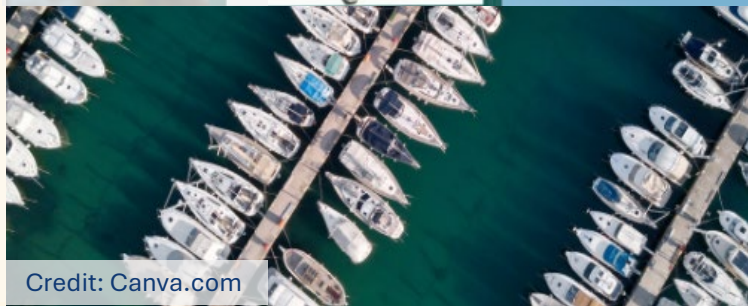
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Key Water Quality Issues


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F **Construction Activities**: Erosion and sediment runoff from disturbed sites.

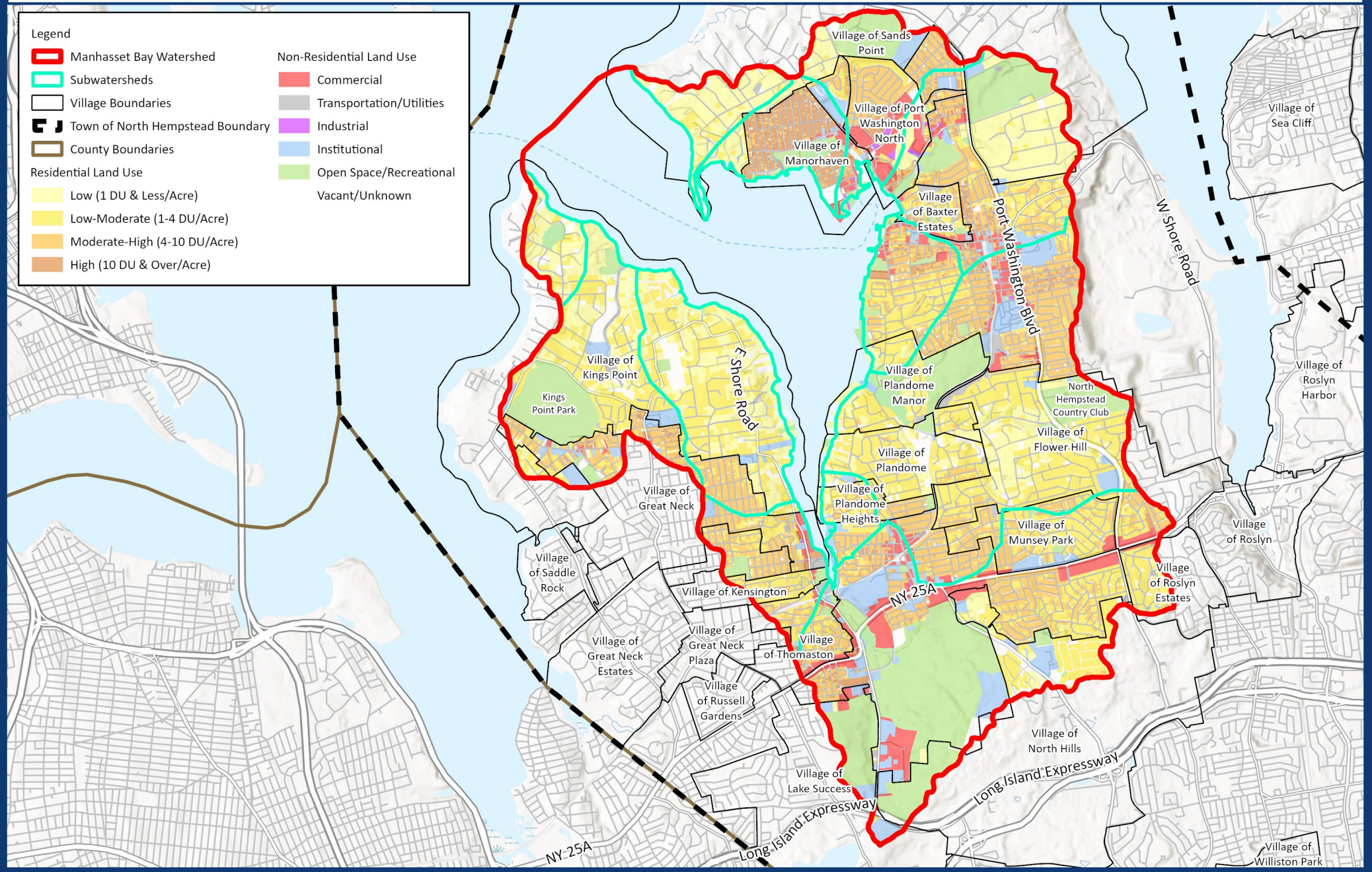
G **Outdated Septic Systems**: Major nitrogen source, accounting for ~50% of total nitrogen load.

H **Effluent Outfalls**: Discharges from sewage treatment plants.

I **Road Salts**: Winter application contributes to elevated salinity in runoff.

J **Floatable Debris**: Litter and trash accumulating in and transported by stormwater systems.

Manhasset Bay Land Use



What the data tells us: Land Use and Pollution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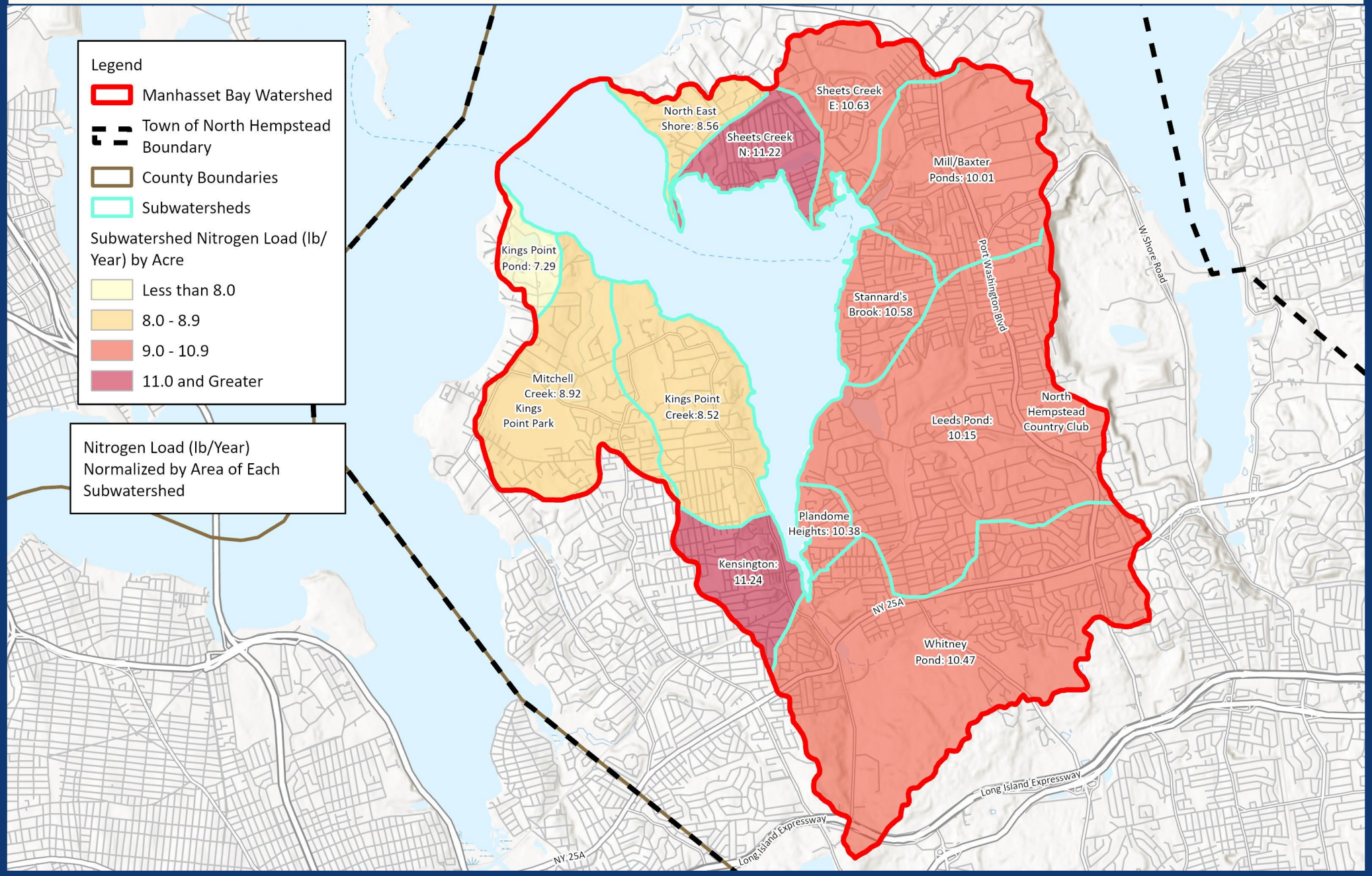
Credit: Canva.com

- **More Development = More Runoff**
  - Increases in high-density residential and commercial areas mean more impervious surfaces which leads to higher pollutant loads entering the Bay.
- **Changing Residential Patterns**
  - Since 1999, low-density housing has decreased while high-density housing increased by ~8%. This reflects growing pressure on infrastructure and water quality.
- **Golf Courses & Open Space**
  - While the golf courses provide green cover, fertilizer use may still contribute nutrients to runoff.
- **Roadways & Transportation**
  - Higher traffic corridors, especially in developed areas, contribute road salts, oils, and heavy metals to stormwater runoff.
- **Remaining Vacant Land**
  - Only ~4% of the watershed remains vacant. The few areas with development potential are concentrated in just four subwatersheds.

Manhasset Bay Stormwater Pollutant Loading



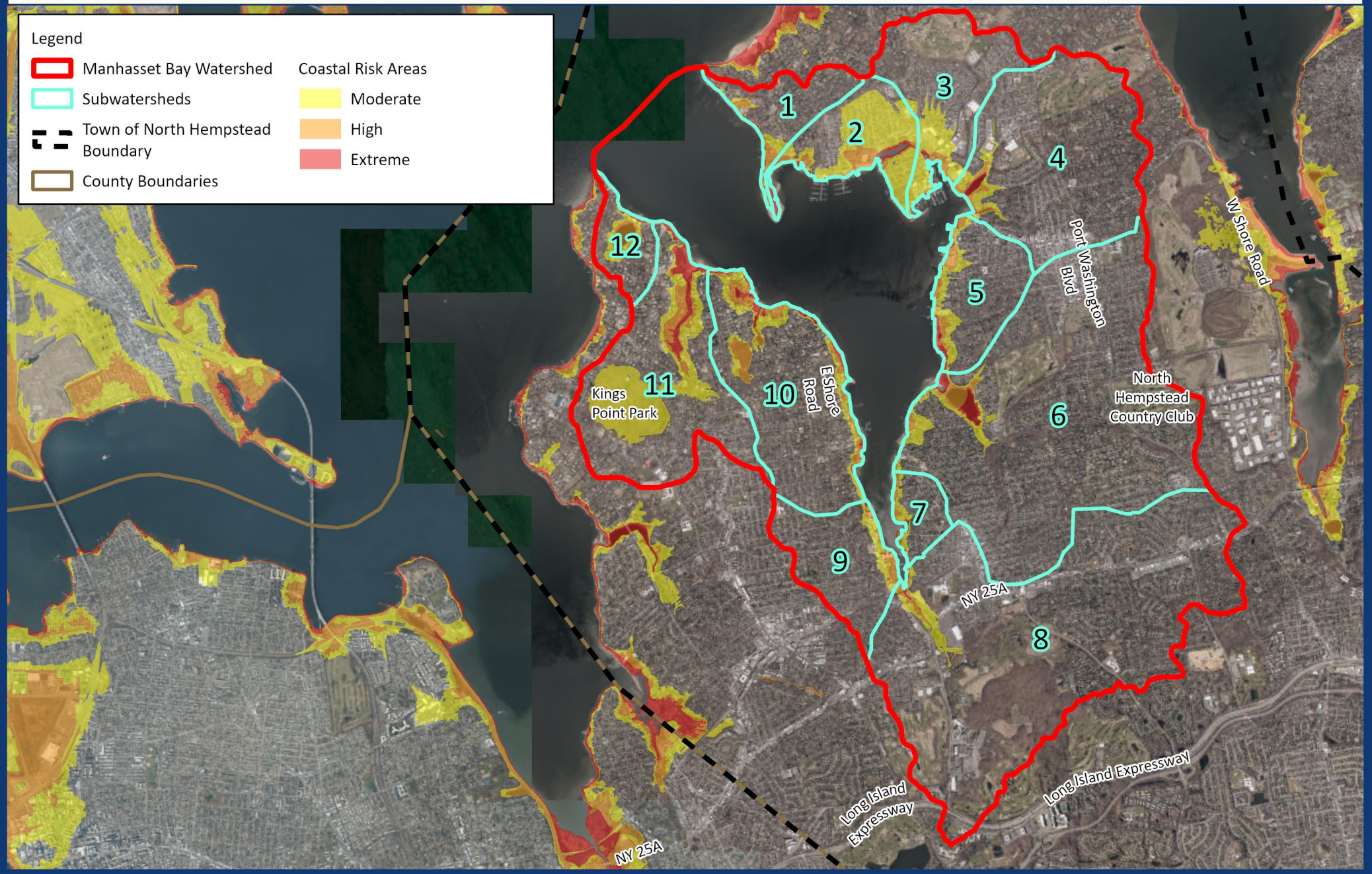
Climate Change and Resiliency

- **The watershed is vulnerable to climate change impacts, including:**
  - Sea-level rise
    - Sea level rise projections:
      - 1–8 inches by the 2020s
      - 11–21 inches by the 2050
  - Increased frequency and intensity of storms
  - Rising temperatures
  - Changes in precipitation patterns

Sea-Level Rise & Flooding Risks in the Watershed

- **Sea-Level Rise**:
  - Areas around Manhasset Bay will experience more frequent and severe flooding.
  - Vulnerable zones include existing commercial and residential areas.
- **Coastal Risk Areas**:
  - High-risk zones:
    - Sheets Creek N, Mill Pond, Leeds Pond, Kings Point Creek, Mitchell Creek.
  - Critical infrastructure in risk zones:
    - Wastewater treatment plants are at risk of overflows during storms or surges.

Manhasset Bay Coastal Risk Areas



Next Steps

1. Develop Management Recommendations

- Identify management strategies and restoration projects to achieve watershed goals.
- Prioritize recommendations based on water quality and habitat protection.

2. Budget & Implementation Strategy

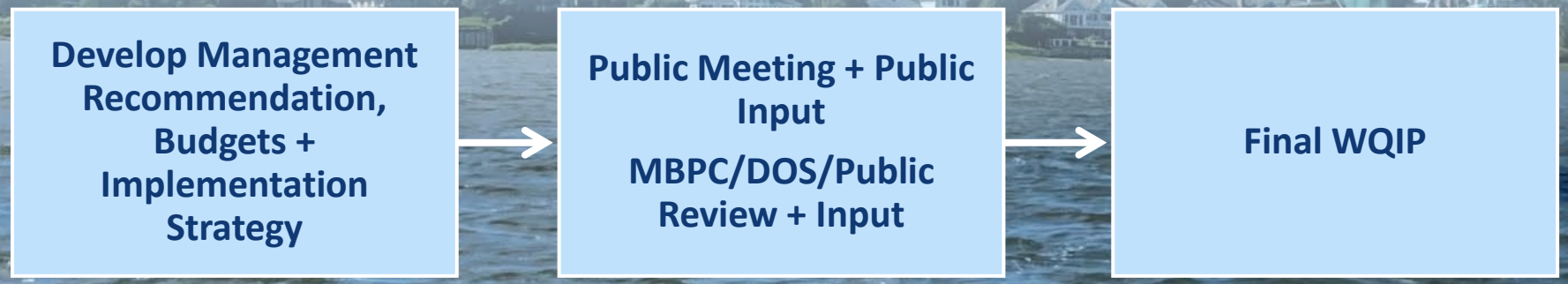
- Define cost estimates, funding sources, and implementation schedule.
- Outline roles, phases, and timeframes for each action.

3. Public Meeting & Input

- Host public meetings for feedback on management recommendations and prioritization.
- Incorporate public and Committee feedback into the WQIP.

4. Final WQIP Submission

- Submit final WQIP for Department approval, reflecting all revisions from reviews and public input.



Public Feedback

Help shape the future of water quality in the Manhasset Bay Watershed

Please take a few minutes to complete our survey.

Your feedback will inform future projects, community goals, and next steps.

Topics include:

- Water quality concerns
- Observations around Manhasset Bay
- Feedback on the Characterization Report
- Ideas and recommendations to improve water quality

SCAN HERE
To fill out the Survey

Please also feel free to send your edits/comments/thoughts to baycomments@gmail.com

For More Information:
Please visit the website below or scan the QR Code
https://manhassetbayprotectioncommittee.org/wqip.html

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