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Secondary Data Collection: Hutchinson River Watershed Plan

February 14, 2023

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Action for our region's environment.

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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Westchester gov.com

NATIONAL FISH AND WILDLIFE FOUNDATION NFWF

Biohabitats

Hutchinson River Watershed Plan

- Save the Sound and Westchester County Department of Planning, working closely with local stakeholders, are developing a watershed plan for the 5,430-acre portion of the Hutchinson River watershed in Westchester

- Funded by the Long Island Sound Study Futures Fund through NFWF

- The watershed plan will:

  - Identify sources of nonpoint source pollution

  - Recommend implementable practices to improve water quality and watershed resilience

  - Provide a roadmap to remove the Hutchinson River from the New York State 303(d) List of Impaired Waters

Hutchinson River Watershed Plan

- Following the US EPA 9-Element (9e) Planning Process, plan development will include:
  - Watershed baseline assessment
    - Gather and review existing watershed information & data
    - “Streamwalks”
  - Stakeholder engagement and formation of a Watershed Steering Committee
  - Pollution load modeling
  - Identifying and prioritizing watershed-level and site-specific recommendations
  - Incorporating findings into a watershed management plan for the Hutchinson River

Hutchinson River Watershed Plan

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Hutchinson River Watershed Plan

- Examples of secondary data (QAPP Section 1 – Project Management)

Secondary/Existing Data	UNIT	SOURCE
Watershed and Subwatershed Boundaries	N/A	USGS/County/State
Land Use/Land Cover	Type/%/Acres	County/Municipal/State GIS
Topography	Feet (elevation)	County/Municipal/State GIS
Impervious Cover	%/Acres	County/Municipal/State GIS
Secondary/Existing Reports	**UNIT**	**SOURCE**
Previous Watershed Assessments	N/A	County/Municipal/State
Government Codes and Ordinances (related to land use, water and conservation)		County/Municipal/State
Open Space Plans		County/Municipal
Municipal Master Plans		Municipal
Hazard Mitigation Plans		County/Municipal/State
Coastal Resiliency Plans		County/Municipal/State
Transportation Corridor Plans		County/Municipal/State
Special District / Development Plans		County/Municipal
Water Company Studies and Reports		Utility Company

Hutchinson River Watershed Plan

- Data Quality Objectives (DQOs) – (QAPP Section 1 – Project Management)

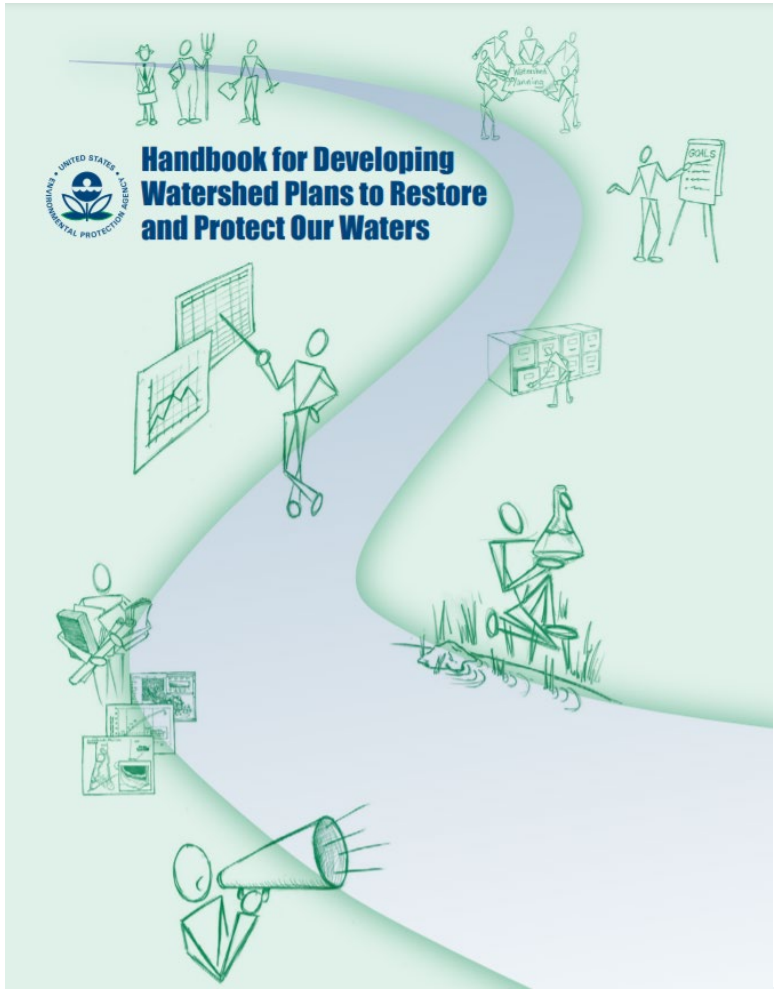
➢ "The overall DQOs for this project are **completeness**, **representativeness**, and **comparability**."

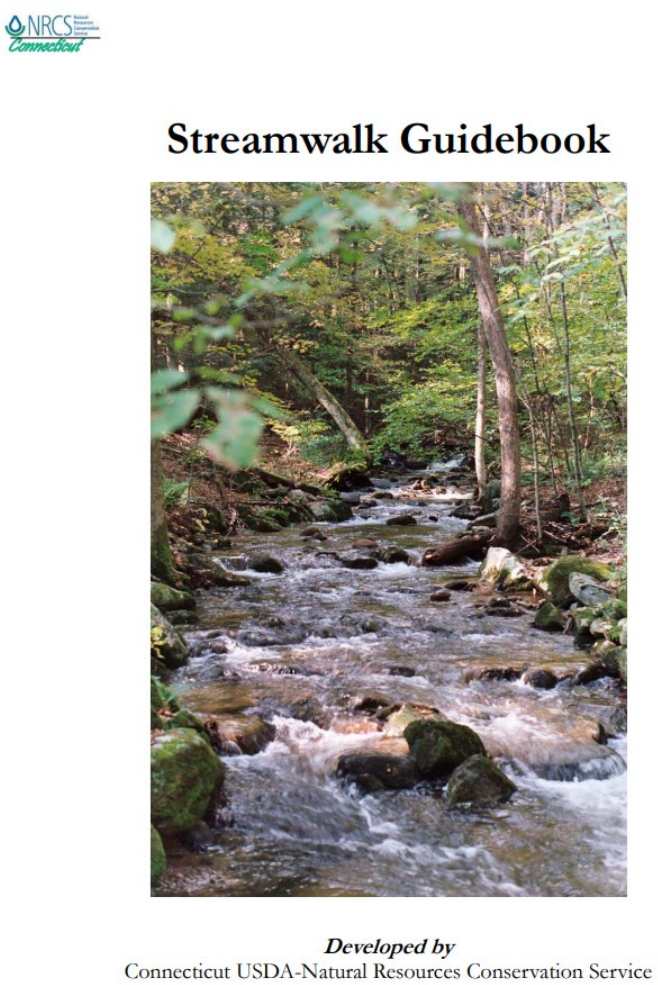
➢ "Following the US EPA's 9e process and NYSDEC approval criteria will ensure the methodology used in plan development **are consistent with watershed plans developed for other watersheds in the region** (US EPA 2008; NYSDEC 2019)."

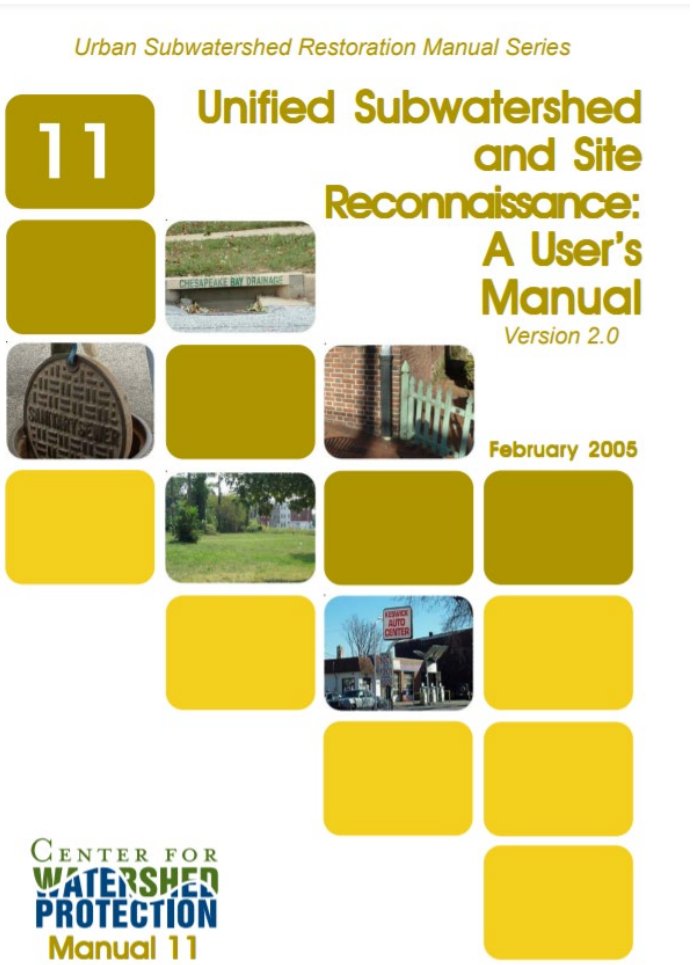
➢ "The 9e process was developed at the federal level to ensure efficiency and consistency in watershed planning nationwide."

Quality Assurance Project Plan

- Consistently reference existing approved protocols and/or guidance documents that your team will be following







Hutchinson River Watershed Plan

- Data Quality Objectives (DQOs) – (QAPP Section 1 – Project Management)

“Secondary data will be evaluated and considered for inclusion in the project if the following are true:

- The information pertains **directly to the geography** of the Hutchinson River Watershed, or a portion of a political jurisdiction within the watershed;
- The information, goals or objectives contribute to or **inform one of the 9 elements** (appendix E)
- It is the **most recent version of the data** (not superseded or revised), was created in the past 10 years and is still applicable, provides applicable historic context or informs one of the 9 elements (appendix E)
- **Geospatial Data** is consistent with the New York State GIS Standards Work Group
- The methodology for creation, collection and reporting **meets DQOs** included in this section, and criteria identified in the **data inventory** (Appendix D; i.e. has a valid QAPP, Standard Operating Procedures, peer reviewed, etc.)”

Hutchinson River Watershed Plan

- Data Inventory (QAPP Section 2 – Data Acquisition)

Appendix Da: Secondary Data Review Criteria

Parameter
Does this data/report pertain to the Hutchinson River Watershed, or a portion of a political jurisdiction within the watershed?
What is the source of the information?
What is the date?
Is this the most current version of the data/report?
Does this data/report contribute to or inform one of the 9 elements or our understanding of flooding and resiliency?
What were the goals of the monitoring activity/report?
How was the data/information collected?

If qualitative:
➢ How was this information obtained?
➢ Is the information consistent with other information/observations?
➢ Can we contact the source?
If quantitative:
➢ Was it collected using proper QA/QAPP?
➢ Is the information comparable to other data sources?
➢ Can the data be replicated?

Hutchinson River Watershed Plan

- Example of data inventory (QAPP Section 2 – Data Acquisition)

Baseline Conditions Assessment Data Sources									
Index	Type	Name	Description	Author	Source (agency)	Unit	Quality	Representativeness of data (number of samples)	Year Created
1	Tabular	Northeast RCC Climod 2	Precipitation Data	NOAA Regional Climate Center	Cornell University	Inches	Accredited weather data	Daily data	2022
2	Tabular	Bacteria Monitoring Data	Fecal bacteria data	Save the Sound	Save the Sound	MPN/100 mL	Samples taken yearly since 2019	Weekly samples	2022
3	Existing report	2021 Westchester County Hazard Mitigation Plan	Hazard Mitigation Plan	Westchester County	Westchester County Office of Emergency Management	N/A	Government report	N/A	2021
4	Existing report	Pelham Lake Rehabilitation - Sediment Loading Analysis	Watershed Assessment	Jacobs Civil Consultants Inc.	Westchester County Department of Public Works and Transportation	N/A	Most recent/<10 yrs	N/A	2020
5	Existing report	2022 Westchester County MS4 Report	MS4 Report	Westchester County	Westchester County	N/A	Government report	N/A	2022
6	Existing report	2021 New Rochelle MS4 Report	MS4 Report	City of New Rochelle	City of New Rochelle	N/A	Government report	N/A	2021
7	Existing report	2021 Eastchester MS4 Report	MS4 Report	Town of Eastchester	Town of Eastchester	N/A	Government report	N/A	2021
8	Existing report	2021 Pelham Manor MS4 Report	MS4 Report	Village of Pelham Manor	Village of Pelham Manor	N/A	Government report	N/A	2021
9	Existing report	2021 Scarsdale MS4 Report	MS4 Report	Village of Scarsdale	Village of Scarsdale	N/A	Government report	N/A	2021
10	Existing report	USACE Eastchester Creek Maintenance Fact Sheet	Website/Fact Sheet	USACE, New York Division	United States Army Corps of Engineers	N/A	Government report	N/A	2022

Hutchinson River Watershed Plan

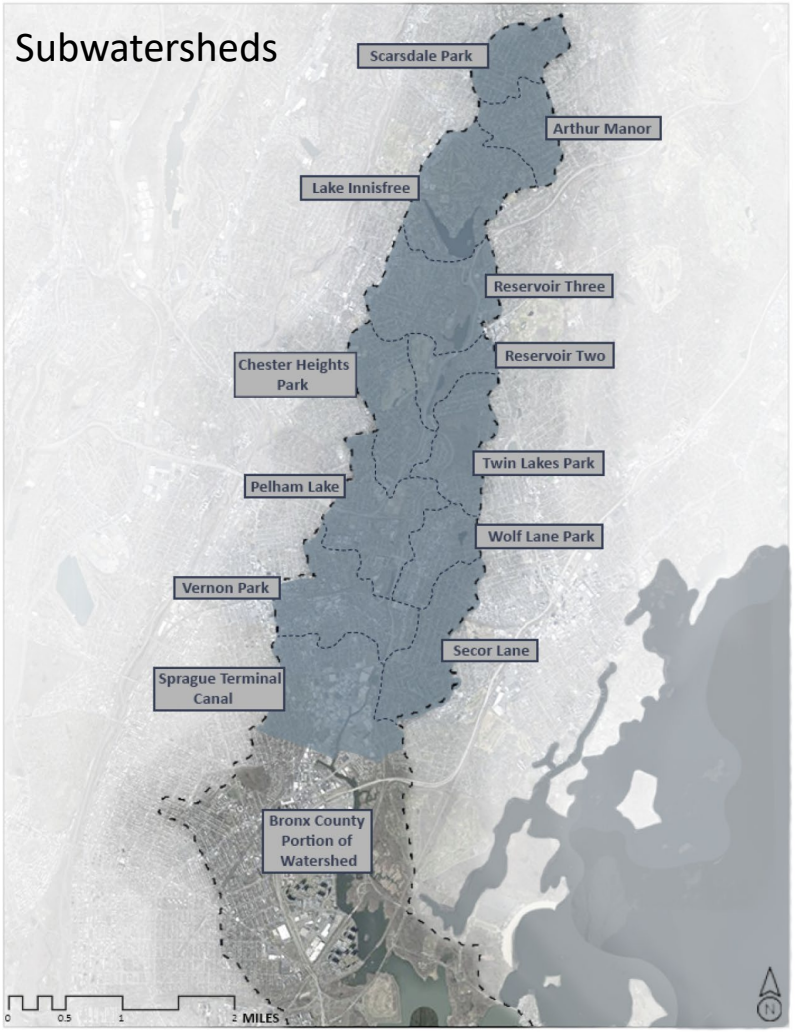
- Example of data inventory (QAPP Section 2 – Data Acquisition) for Watershed Treatment Model inputs

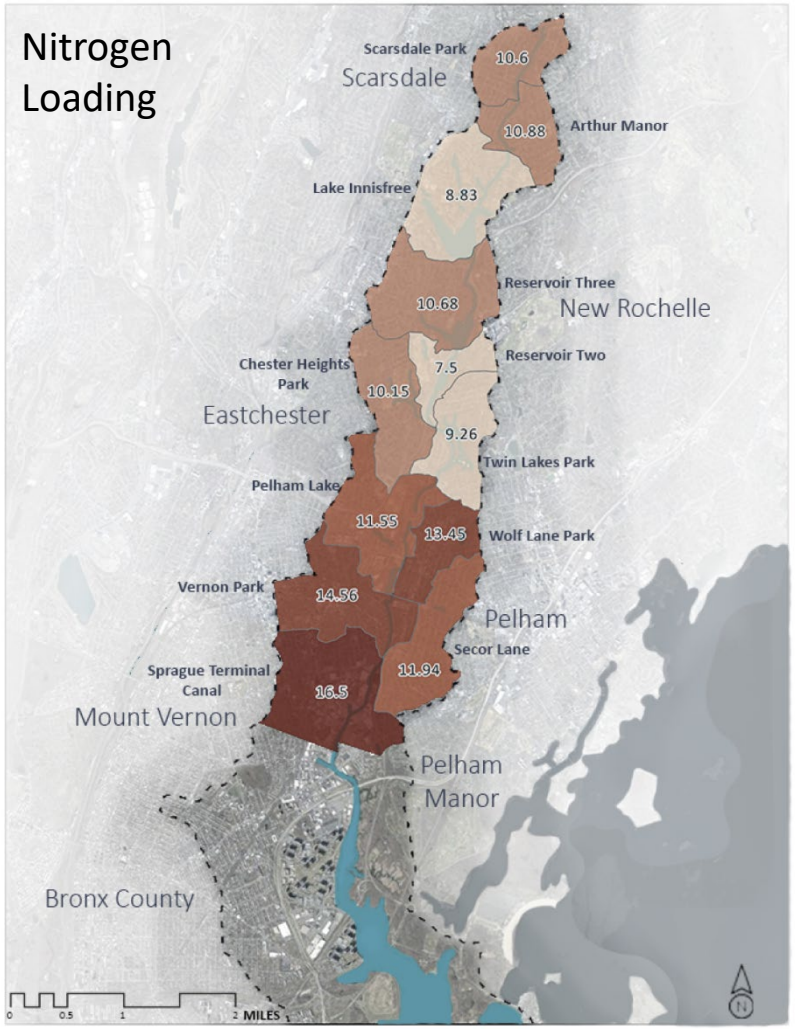
	Parameter	Source(s)
Primary Sources	Watershed Boundary	USGS
	Land Cover and Land Use	County
	Percent Impervious Cover	County
	Event Mean Concentration Data for TN and TP	NYSDEC
	Rainfall	NOAA
	Stream Length	USGS
	Hydrologic Soil Groups	NRCS
	Runoff Coefficients	TBD
Secondary Sources (as available)	Number of Buildings	Municipal/County/US Census
	Individuals Per Single Family Dwelling	Municipal/County/US Census
	Individuals Per Multi Family Dwelling	Municipal/County/US Census
	Individuals Per Commercial and Public Building	Municipal/County/US Census
	Water Use-Single and Multi-Family Dwellings	
	Water Use-Single Commercial and Public	
	Wastewater Characteristics-TN (mg/l)	
	Wastewater Characteristics-TP (mg/l)	
	Failure rates	
	% of Septic Systems < 100 ft to Waterway	
	Soils	NRCS
	Delivery Ratios	
	% Conventional and Advanced Systems	Municipal/County/State
	Conventional TN Efficiency	
	Conventional TP Efficiency	
	Advanced TN Efficiency	
	Advanced TP Efficiency	
	Urban Channel Erosion	
	SSO, CSO, and Illicit Connection Information	Municipal/County/State/WP

CENTER FOR WATERSHED PROTECTION

Hutchinson River Watershed Plan

- Watershed Baseline Assessment





Hutchinson River Watershed Plan

- Take-aways:

➢ Reference established protocols your project will be following

➢ List all possible secondary data and potential sources

➢ Establish DQOs up front with full project team if possible

➢ Develop data inventory and criteria checklist

➢ Share QAPP and data inventory template upfront with consultant / project team (in RFP ideally)

Hutchinson River Watershed Plan

Register Here!

What: Virtual meeting to kick off the Hutchinson River Watershed Plan

When: Tuesday, February 21 from 6:00 - 7:30 pm

Who: Anyone interested in the Hutchinson River is welcome to attend!

During this meeting, we will share preliminary findings from a Watershed Baseline Assessment, seek feedback from the community, and discuss next steps towards identifying opportunities for improvement throughout the river and its watershed.

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Thank you!

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