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The Upper Hudson Watershed Analysis (UHWA)

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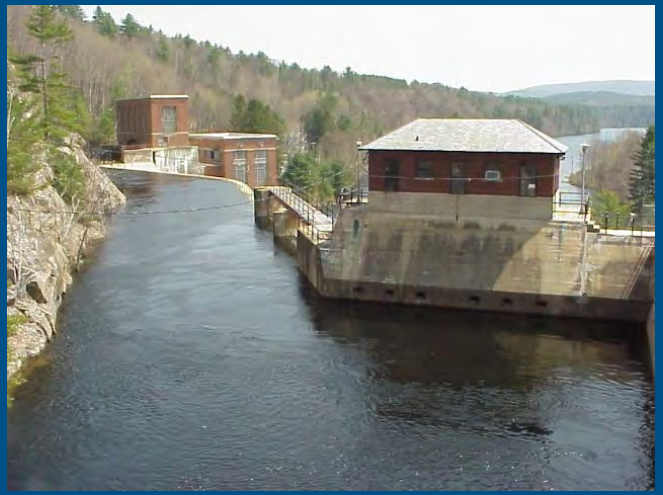
Upper Hudson Background

The Upper Hudson watershed spans from Mt. Marcy in the Adirondacks to the Albany-Rensselaer County Line. Within it, the Conklingville and Indian Lake Dams control 40% of water within the 8,300 square mile basin. The Conklingville Dam, completed in 1930, created the 42-square-mile Great Sacandaga Lake, the state's largest reservoir, with a shoreline of 125 miles and a capacity of 37.73 billion cubic feet. The Regulating District manages water releases to prevent flooding and ensure adequate river flow during droughts, while also overseeing State-owned land around the lake, including submerged areas and a buffer zone, through an access permit system for eligible property owners.




Warrensburg
Glens Falls
Fort Edward
Utica
Mechanicville
Troy
Albany
Hudson
Catskill
Kingston
Poughkeepsie
Newburgh
Cold Spring
Peekskill
Croton-on-Hudson
Ossining
Irvington
Yonkers
Jersey City
NEW YORK CITY
Long Island Sound
Long Island
ATLANTIC OCEAN
Hudson R.
Mohawk River Watershed
Upper Hudson River Watershed
Hudson River Estuary Watershed


CANADA
Lake Ontario
Lake Erie
NEW YORK
Hudson
VERMONT
NEW HAMPSH
MASSACHUSETTS
CONNECTICUT
PENNSYLVANIA
NEW JERSEY
ATLANTIC OCEAN
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1. Mission Statement
2. Problems & Causes
3. Solutions / End Goals
4. Final Remarks

1. **Mission Statement**
2. Problems & Causes
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Mission Statement

The mission of the Upper Hudson Watershed Analysis (UHWA) is to assess and enhance the health of the Upper Hudson River watershed by reducing urban runoff, improving fish and aquatic organism passage, and minimizing accidental sewage discharges. By 2035, UHWA aims to achieve a measurable reduction in runoff pollutants through the implementation of green infrastructure, establish a sustained water quality monitoring program with regular sampling and treatment, and increase public awareness through targeted educational initiatives.

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2. **Problems & Causes**
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Problems & Causes

UHWA looks to analyze the health of the water and the organisms residing in it. It hopes to reduce man-made issues surrounding the main bodies of water to improve water quality and aquatic life. Urban runoff, sewage discharge, and water body connections have decreased aquatic passage and survivability in the watershed.

Problem #1
Reduce Urban Runoff

Causes of Urban Runoff

- Construction disturbs soil, increasing sediment flow.
- Impervious surfaces (roads, rooftops) prevent water absorption, increasing runoff.
- Runoff carries pollutants like oil and debris into the river.

Impact on Water Quality:

- Pollutants accumulate, degrading water quality.
- Heavy metals and combined sewer overflows contribute to contamination.

Historical Pollution:

- 1947–1977: General Electric discharged 1.3 million lbs of PCBs.
- 2019–2023: ~89 million gallons of landfill leachate dumped annually.

Problem #2
Improve Fish and Aquatic Organism Passage

Causes of Migration Barriers:

- Improperly placed or sized culverts block movement between water bodies.
- Human habitat modifications disrupt natural hydrological connections.

Impact on Aquatic Life:

- Segregates fish populations, limiting genetic diversity.
- Restricts access to essential spawning and feeding areas.

Efforts to Address the Issue:

- UHWA Coalition plans:
  - Walking surveys to identify barriers.
  - GIS mapping to analyze affected areas.
  - Documentation to support remediation efforts.

Problem #3
Sewage Discharges

Causes:

- Overflow events
- Aging infrastructure
- Blockages and failures
- Pump station failures

Pollution:

- Degrades water quality
- Endangers human health & aquatic life
- Disrupts natural water balance

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Goal #1

Reducing water pollutants

- Pollutants wash into watersheds
- Green vegetative buffers
- Allows for pollutants to settle and water to infiltrate the soil

Goal #2

Sustain water quality

- Monitor water quality
- Monthly water sampling
- Implement new pollution control measures by 2035

Goal #3

Educate the public

- Inform residents about the state of their watershed
- Offer educational programs
- Expand wastewater treatment capacity by 2035

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Final Remarks

UHWA is dedicated to restoring the Upper Hudson River by reducing urban runoff, improving aquatic passage, and preventing sewage discharges. Through green infrastructure, water monitoring, and public education, we aim for cleaner waters and healthier ecosystems by 2035. Achieving this vision requires collective action, through working together, we can protect and sustain this vital watershed for future generations.

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Thank You!
Questions?