

Upper Hudson River Project Updates





Remnant
Deposits –
OM&M



Upper Hudson
River Floodplain -
RI/FS and STRAS

Waterline Transfer
to Municipalities

Former Fort
Edward Dam

Hudson Falls
(GE Plant Site - DEC)

Fort Edward
(GE Plant Site - DEC)

Powerhouse and
Allen Mill -
Deconstruction

Upper Hudson – Dredging
Remedy OM&M and Special
Studies (40 mi)

Troy (Dam)

Albany

Catskill

Poughkeepsie
(salt front)

Tappan Zee

George
Washington

NJ

NY Harbor

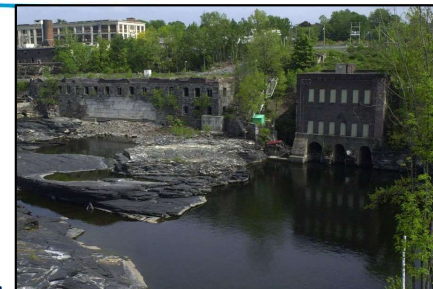
New York City Battery

Lower Hudson – Additional Investigations
and Sampling (160mi)



PCB Sites (DEC)

- BASF
- Hastings
- BIC



Hudson River Superfund Site EPA Activities

(Conceptual - not to scale)



The items shown in this figure represent a subset of activities and do not encompass all operations conducted at the site.

Hudson River
PCB SUPERFUND SITE

Upper Hudson River Update – Special Studies



Update on Five-Year Review and Addendum



- 3rd Five-Year Review – January 2025
- Overall PCBs in fish and water declining – some uneven recovery observed
- Called for special studies
- Protectiveness deferred – more data needed
 - 2024 fish data is the eight year of recovery data
- Protectiveness determination as early as 2025 – no later than 2027
- Next steps:
 - Special studies in progress (work is going well – low flows)
 - 2024 fish data analysis in progress – report out next CAG meeting

Special Studies – Overview

- Needed to further evaluate recovery and inform next steps
- Total of 10 special studies – water, sediment, soil and fish
 - Completed (3)
 - Data evaluation ongoing (3)
 - Field work underway (4)



Special Studies – Completed

- Water column passive sampling
 - Understand how PCBs change from area to area
 - Collected in 2023 – over a 7-week period
 - Follow-up water column sampling in 2025
- Dissolved and particulate organic carbon evaluation
 - Understand how PCBs move in the water column
- Mohawk River PCB contribution evaluation
 - Collected in 2022 (8 samples)
 - Potential future sampling (if needed)



Special Studies – Data Evaluation Ongoing

- Whole-body largemouth bass collection
 - Measure progress on reducing ecological risk
 - Smaller (3 to 8 inch) fish collected in spring 2025
- Impacts of lipids (fish fat content) on recovery
 - Includes review of literature, fish data, analytical methods, and trend evaluation methods
- Fish aging study
 - Understand role of age in how fish PCB concentrations change over time
 - Spines, otoliths (ear bone) and scales collected in 2025



Juvenile Largemouth Bass Sample

Special Studies – Data Collection Underway

➤ Pumpkinseed exposure evaluation

- How are pumpkinseed exposed from area to area
- 9 areas being evaluated – 22 water samples, 106 sediment samples

➤ Shoreline erosion study

- Understand PCB concentrations in areas potentially eroding into river
- 13 areas being evaluated – 153 samples



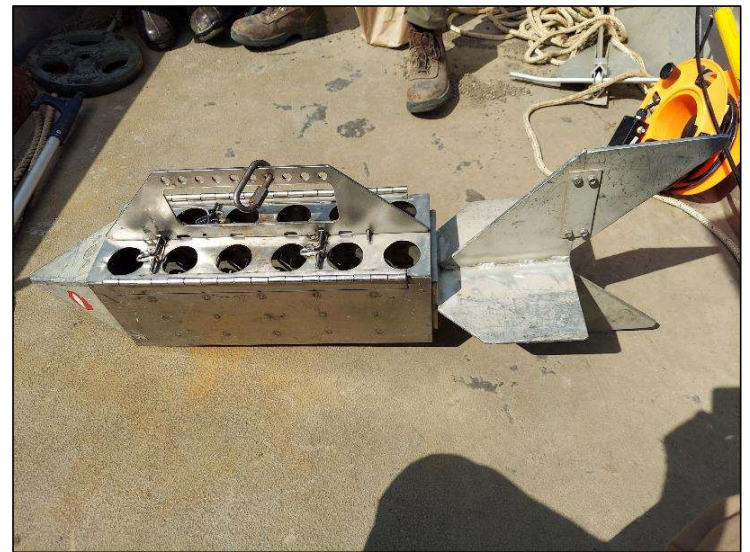
Special Studies – Data Collection Underway (continued)

➤ Water loading evaluation

- Understand the amount of PCBs moving through areas of river
- Follow-up to 2023 water column passive samplers - 12 transects with about 40 sample locations

➤ Rogers Island high flow

- Understand the amount of PCBs entering project area under high flows



Water sampling apparatus

Upper Hudson River Next Steps

- Continue special studies sampling and evaluation
- Continue water, fish and sediment sampling in 2026
- Cap isolation layer material sampling
 - Locations and sampling methods under consideration
- 2024 fish data in hand – continuing to analyze
 - Report out at next CAG meeting



Upper Hudson River Update – Habitat Monitoring



Modernizing Habitat Monitoring

Using remote sensing technologies
(improved/modernized approach)

- Hyperspectral Imaging
 - Imagery by airplane
 - Uses wavelengths of light to detect vegetation
 - Estimates vegetation location
- BioSonics
 - Data collected by boat
 - Uses sonar (soundwaves) to detect vegetation
 - Estimates vegetation location, percent cover and volume



BioSonics data collection in Upper Hudson River

Habitat Monitoring – 2025 Update

- Riverine Fringing Wetlands (RFW)
 - Measuring 480 areas
 - Evaluating overall reconstructed area
- Submerged Aquatic Vegetation (SAV)
 - Measuring 836 areas in SAV
 - Collecting river-wide data (hyperspectral and BioSonics)
 - Video monitoring

RFW quadrat in Upper Hudson



SAV quadrat in Upper Hudson



Habitat Response Actions – 2025 Update

- Removing invasive species
- Deploying SAV seed buoys
 - Seeds harvested from NYS Canal Corps Feeder Canal
- Planting 1,500 RFW plants



Purple loosestrife



Seed buoy

Upper Hudson River Update – Floodplain Investigation



Remedial Investigation/Feasibility Study (RI/FS)

- EPA overseeing comprehensive study of the floodplain
- Over 12,000 samples collected to date
- Data evaluation ongoing
- 2025 field work includes:
 - Soil sampling in use areas
 - New Short-Term Response Actions (STRAs)
 - Response action inspections/maintenance
 - Flood mud sampling



Old Champlain Canal - Overview

- Part of the floodplain investigation
- Municipalities have recreational plans for the Canal
- Coordination with EPA, Saratoga County, Village of Schuylerville, NYSDEC and NYSDOH ongoing
- Sampling conducted between 2012 and 2021
 - 68 samples; PCB results were generally low
 - Sampling designed to support municipalities' plans
 - Other contaminants analyzed to support sediment dredging
 - All data provided to municipalities



Short-Term Response Actions

- Areas people use with elevated PCBs addressed through Short-Term Response Actions (STRAs)
 - Floodplain continually monitored for changes in use
 - Soil covers or signage depending on use and location
- STRAs to date
 - Close coordination with property owners
 - 75 total areas; 2 new STRAs anticipated in October 2025
- Annual inspection of STRAs
 - 2025 inspections completed
 - Repairs based on inspection results



Soil cover at Saratoga Boat Launch

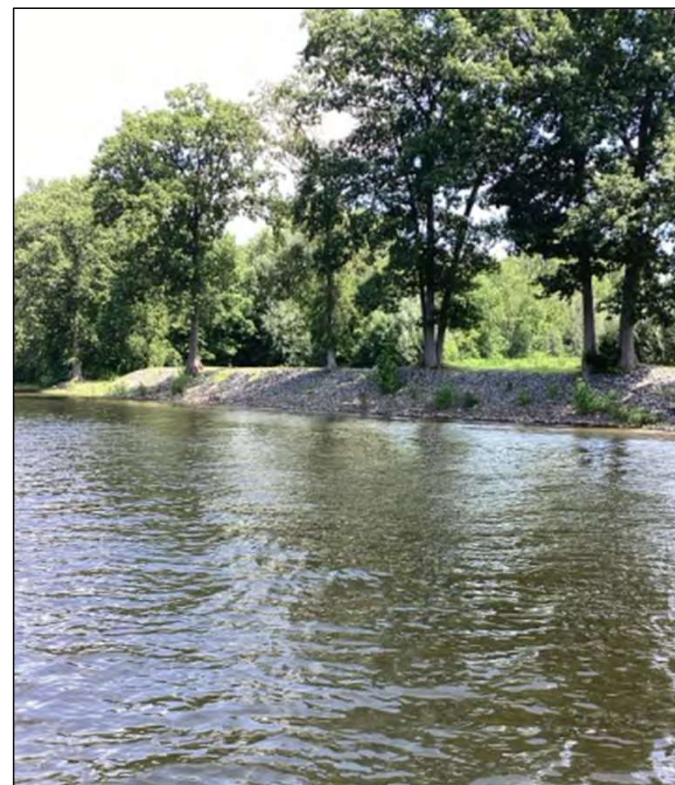
Ecological Risk Assessment

- Ecological Risk Assessment – Underway
 - EPA discussing future field work with GE
 - Completed work includes:
 - Earthworm sampling
 - Invertebrate sampling
 - Catbird survey
 - Wetland sampling



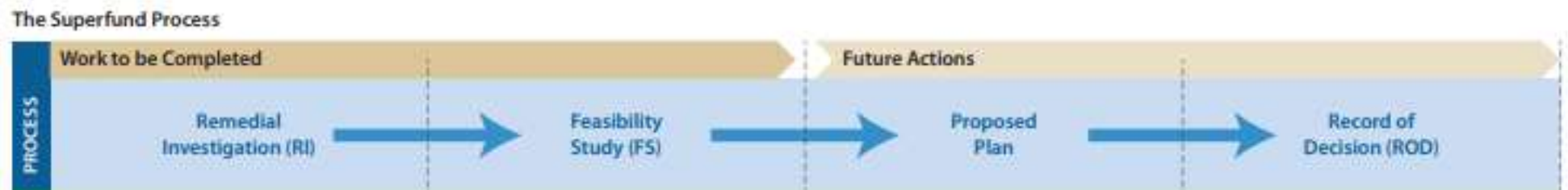
Human Health Risk Assessment

- Human Health Risk Assessment – Underway
 - Close coordination with EPA, NYSDEC, NYSDOH, NYS Canal Corporation and the National Park Service
- EPA approved the first step of the Human Health Risk Assessment in May 2025
 - Over 2,000 properties evaluated
 - EPA and NYS conducted parcel-by-parcel review
 - Incorporated results of 2025 field inspections
- GE preparing next risk assessment deliverable-
Pathway Analysis Report



Floodplain Next Steps

- Continue coordination with municipalities and State
- Continue soil, sediment, and flood mud sampling
- Install new STRAs and continue inspection and maintenance of existing STRAs
- Pathway Analysis Report under development
- Finalize the first step of the Ecological Risk Assessment



Upper Hudson River Update – Allen Mill and Powerhouse Deconstruction



Allen Mill & Powerhouse Deconstruction

- Buildings located adjacent to GE Hudson Falls Plant Site
 - Remedial systems in place (NYSDEC authority) - PCBs remain under the buildings – Tunnel drain system in-place
- EPA reached legal agreement with National Grid and GE in 2022 to oversee deconstruction of both buildings – due to potential for release
- Close coordination with NYSDEC/NYSDOH
- Unique project challenges
- Powerhouse deconstruction substantially completed in 2023 – some follow-up work ongoing
- Deconstruction of the Allen Mill is scheduled to begin in 2026 – design underway

