

# Navigational Dredging in the Champlain Canal

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April 4, 2013



Photo: Canal Buoy Boats in Utica Harbor

## Recap of Previous Presentations

- NYSCC has not dredged Hudson River portions of the Champlain Canal since 1980 due to significant increased costs of dredging PCB-contaminated sediments (except Hoosic River)



The Hoosic River dredging site contains “clean” sediments with no PCB impacts. These sediments originate in the Hoosic River and accumulate below Lock C4 where the Hoosic River enters the Hudson River. Sediments in this area have been rigorously evaluated to demonstrate the lack of PCB contamination. These sediments are routinely disposed at an approved upland disposal site adjacent to the dredge area.

The mandated dimensions of the Champlain Canal are 200’ wide in river sections and 75 feet wide in earthen land line sections. All sections require a 12’ depth.

Photo: Hydraulic dredging at Hoosic River

## Recap of Previous Presentations

- In order to restore the navigation channel to its mandated dimensions, NYSCC estimates over 600,000 cubic yards of sediment must be dredged between Waterford and Fort Edward

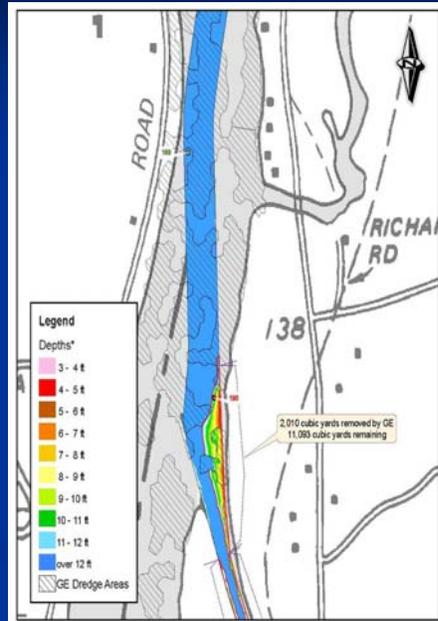


Image: Example of residual sediments in navigation channel predicted to remain after GE project is completed.

## Recap of Previous Presentations

- PCB contamination in sediments requires additional sampling, characterization, dredging, handling, and disposal requirements beyond NYSCC's normal maintenance dredging program
- All of these additional requirements come at an increased cost
  - Estimated to be hundreds of \$\$\$ per cubic yard instead of \$10-20 per cubic yard

## Recap of Previous Presentations

- Why so expensive?
  - NYSDEC requires that sediments with total PCBs >1 ppm cannot be disposed in a conventional dredge disposal site
  - Additional equipment and sampling requirements are also required



NYSDEC requirements are stated in the Division of Water's Technical & Operational Guidance Series (TOGS) 5.1.9 and are also written into the NYSCC's Water Quality Certification.

TOGS 5.1.9 requires additional handling and disposal requirements for PCBs > 0.1 ppm, however disposal in traditional upland sites may be approved. Sediments > 1.0 ppm PCBs require a disposal site to be lined and capped with impervious materials.

The NYSCC WQC requires: "Operational procedures for disposal of dredged material containing more than 1 milligram per kilogram (mg/kg) PCBs are site-specific and require NYSDEC approval."

Photo: Typical operations of a conventional upland disposal site. This type of operation cannot be conducted with PCBs >1 ppm.

## Navigational Dredging 101

- Dredging is regulated by three federal requirements:
  - Rivers and Harbors Act of 1899, Section 10: Requires a federal permit for any alteration of navigable waters
  - Clean Water Act, Section 404: Prohibits the discharge of fill or dredged material into the waters of the US without a federal permit
  - Clean Water Act, Section 401: Requires any federal permit for dredging to be accompanied by a state-issued Water Quality Certification

## Army Corps' Role

- The Army Corps of Engineers (ACOE) administers both the 1899 Rivers and Harbors Act permits and the Clean Water Act (CWA) Section 404 permits
- ACOE's primary focus is on the waterway itself and ensuring that waterways maintain their physical integrity and navigability:
  - Regulates the filling, obstruction, and physical alteration of waterbodies (piers, wharves, dredging, etc)

## NYSDEC Role

- NYSDEC administers the CWA Section 401 Water Quality Certification (WQC) requirement
- NYSDEC “certifies” that a CWA Section 404 project will protect water quality and meet CWA standards



## Where Are We Today?

- GE remediation is entering final years.
- After GE's project, over 600,000 cy of navigational dredging are estimated to be needed to restore the full dimensions of the Canal
  - Large areas of the river outside of GE's project do not have PCB data available
  - Sediments in these areas are assumed to contain PCBs above NYSDEC thresholds
- NYSCC is preparing plans for resuming navigational dredging in the Hudson River

## Section 401 Water Quality Certification

- NYSDEC has issued a State-wide WQC to NYSCC with strict conditions to protect water quality
- The WQC also requires that NYSCC must develop the following plans for the Hudson River:
  - Sampling and Characterization Plan
  - Dredge Operations Plan
  - Transportation and Disposal Plan

## Plans Required by the NYSDEC Water Quality Certification

- Sampling and Characterization Plan
  - *Purpose:* Determine PCB concentrations in any sediment to be dredged
- Dredge Operations Plan
  - *Purpose:* Eliminate or minimize water quality impacts from dredging operations
- Transportation and Disposal Plan
  - *Purpose:* Properly dispose of sediments at an approved facility based on contaminant concentrations

## Army Corps Permits

- NYSCC has applied to ACOE for Section 10 and Section 404 permits to resume dredging in the Hudson River
- On March 11, ACOE posted a public notice regarding these permits on their web site
- Public comment period ends April 10

## Next Steps

- Finalize all permits and agency approvals
- Prioritize dredging areas based on navigational importance
- Sample sediments in targeted dredging areas
- Identify ultimate disposal sites
- Address funding for the project

# Thank You

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Photo: NYSCC Hydraulic Dredge #5 at Cayuga Lake