

# Champlain Canal Navigation Dredging Needs



Photo courtesy Don Sutherland



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NYS Canal Corporation  
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# **What is the New York State Canal Corporation?**

**The New York State Canal Corporation, a subsidiary of the New York State Thruway Authority, is responsible for the maintenance, operation, and promotion of the historic 524-mile New York State Canal System.**

**The New York State Canal System is comprised of the Champlain, Erie, Oswego, and Cayuga-Seneca Canals.**

# Champlain Canal Background

- 63 Miles Long, from Waterford to Whitehall
- 11 Locks
- Originally Built in 1820s; Modern Canal Opened in 1913
- Follows the Hudson River from Waterford to Fort Edward
- Lock 7 Connects the Hudson River to the Man-Made Channel in Fort Edward
- Follows the Man-Made Channel from Fort Edward to Whitehall

# Navigation Dredging History

- 1970s – Last Major Dredging Operations in Hudson River
- Maintenance Dredging in Hudson River Halted Due to PCB Contamination
- Limited Dredging Conducted Below Lock 4 in 2002, 2006, and 2007.
  - This Location is at the Mouth of the Hoosic River and is Relatively Clean Material

# Navigation Dredging

- The Canal Corporation is Required Under its Regulations to Maintain a Minimum 12-Foot Deep Navigation Channel
- Channel Width Depends on Whether Canal is in the River or the Man-Made Channel

# Navigation Dredging

- When the Canal Corporation conducts maintenance dredging, an extra 2 feet of sediment is usually “undercut” to ensure that:
  - No “high spots” are accidentally left behind.
  - Longer time before maintenance dredging is needed again.

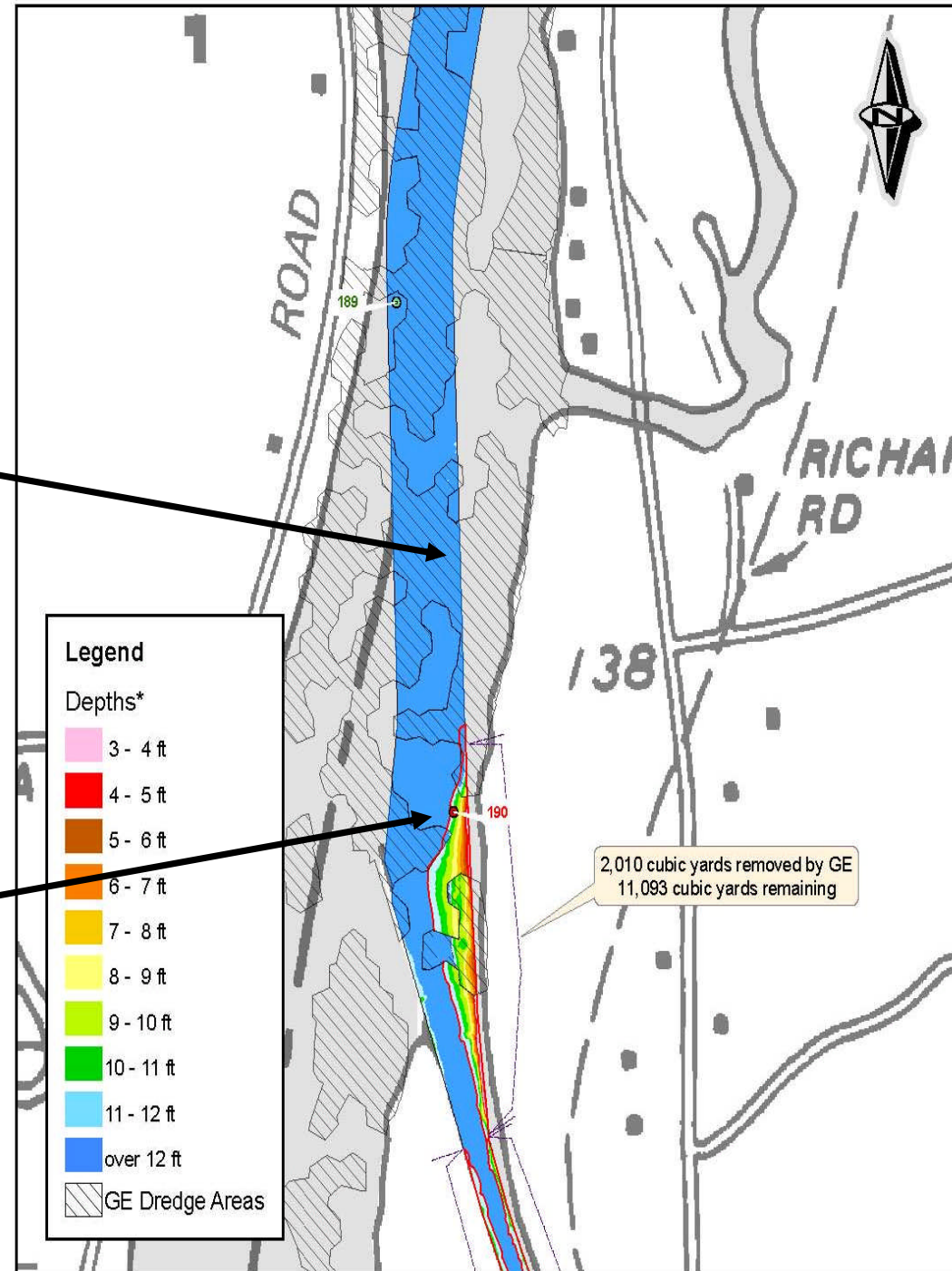
# Navigation Dredging Maps

- The maps you have were created by the NYS Canal Corporation
- Dredging volumes indicated on the maps include an extra 2-foot “undercut”.
- Bathymetry is from 2009 Canal Corporation Survey and excludes Phase 1 dredge areas.
  - Phase 1 dredge areas will be surveyed in 2010.

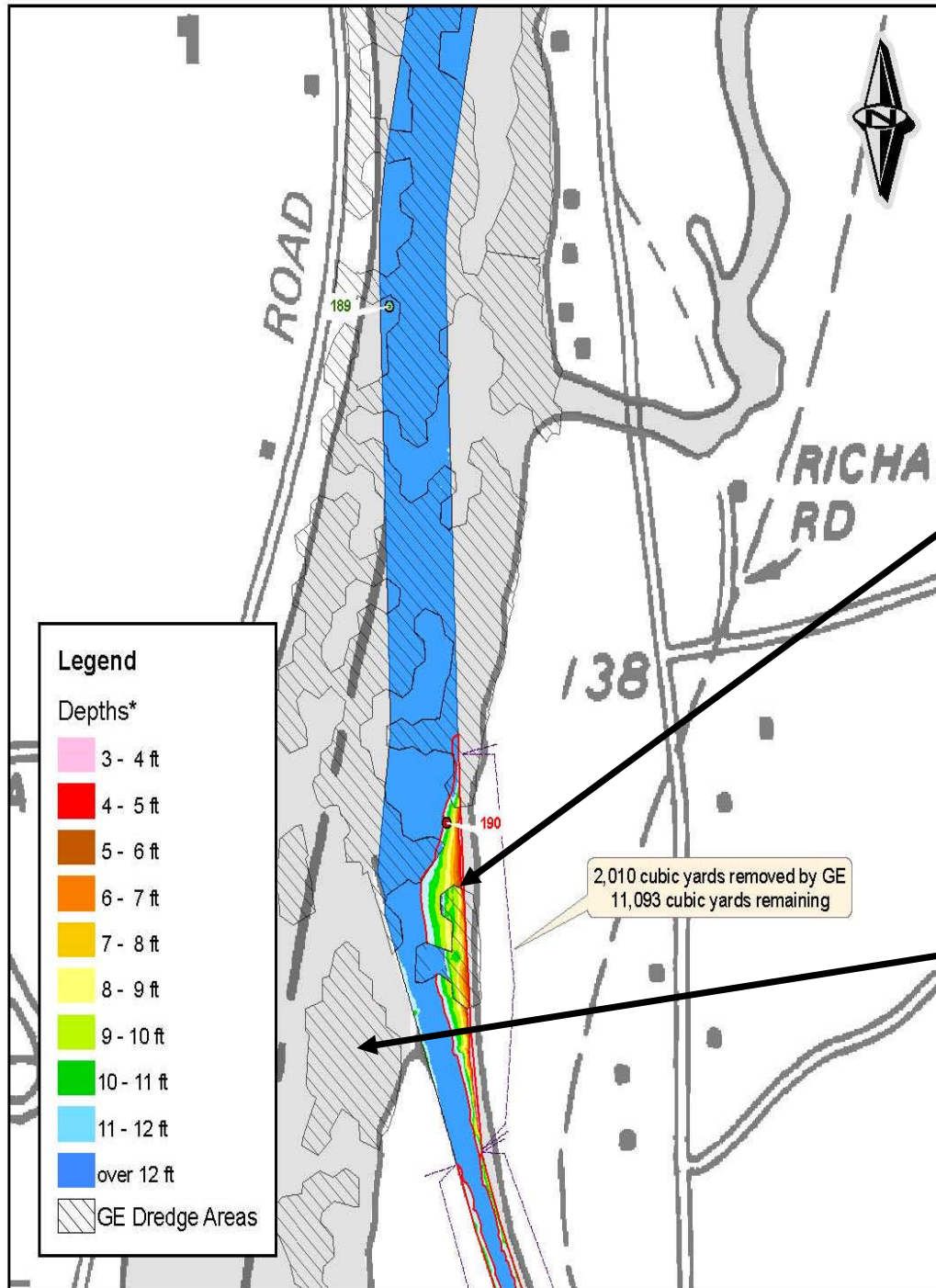


- Dark Blue Line Represents the Navigation Channel

- Red and Green Dots are Buoys

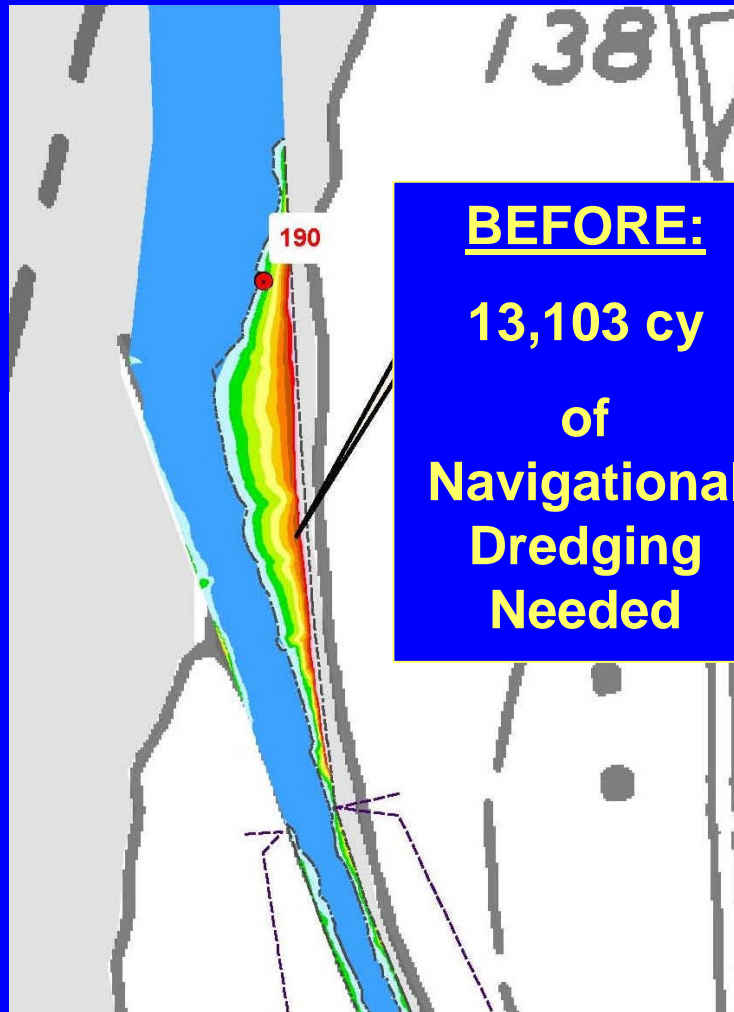




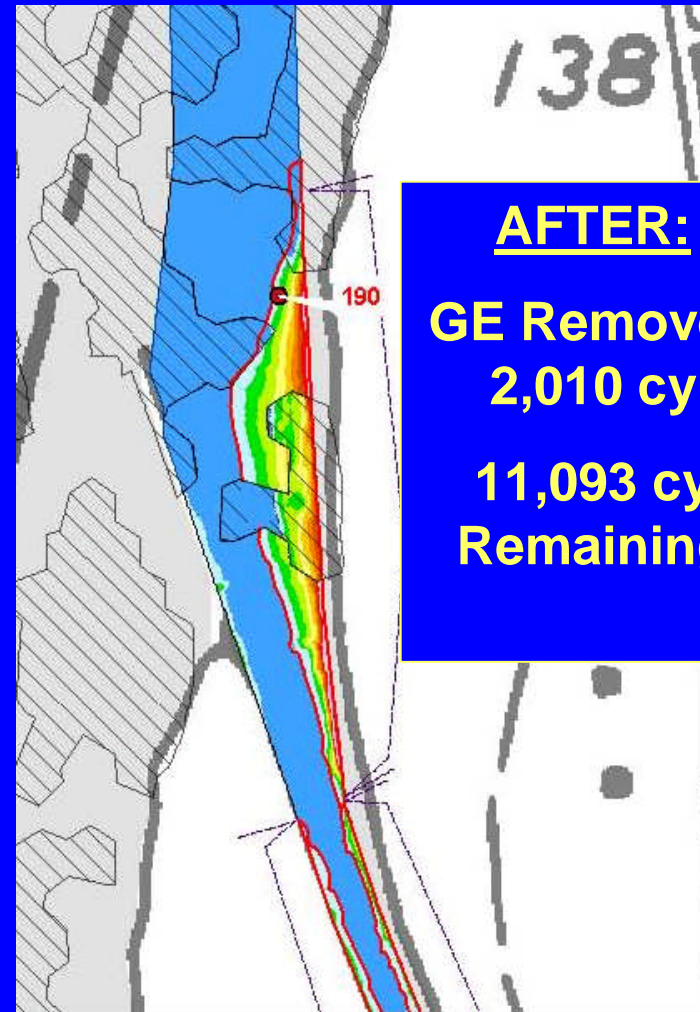


- Rainbow Colors Indicate Areas That Require Navigational Dredging (Any Areas With Less Than 12 Feet Depth)
- Black Hatches Indicate Areas That Will Be Dredged By GE

# Post-Dredging Example



**BEFORE:**  
13,103 cy  
of  
Navigational  
Dredging  
Needed



**AFTER:**  
GE Removes  
2,010 cy  
11,093 cy  
Remaining

# Analysis of the Maps

- The Canal Corporation estimates that the current dredging needs in the Hudson River are 721,200 cy.
- Phase 2 will remove about 92,500 cy of sediment from the navigation channel.
- Over 85% of navigation needs will NOT be addressed during remediation.

# Analysis of the Maps

- Thompson Island Pool will have about 42% of navigational needs addressed during remediation.
- Below Northumberland (Lock C5), less than 1% of navigational needs will be addressed during remediation.

# Questions?

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