

Archeological Update
Community Advisory Group Meeting
December 9, 2010



Overview

1. Background
2. Major Cultural Resources Activities
3. Investigation of Fort Edward
4. Other Unanticipated Find
5. Terrestrial Investigations
6. Underwater Investigations
7. Sensitivity Studies
8. Summary

1. Background

Section 106 of National Historic Preservation Act (NHPA) requires federal agencies (e.g., EPA) to take into account the effect of federal undertakings on NRHP-eligible or –listed properties; and to provide SHPO, public and Tribes with opportunities to comment.

Background: Section 106 Compliance Process

- Phase IA Documentary Research and SHPO Site File Search
- Phase IB Archaeological Field Survey (Resource Identification)
- Phase II Site Evaluations (NRHP Eligibility Evaluation)
- Avoidance vs. Non-Avoidance
- Phase III Data Recovery
- Consultation with SHPO, public, and the Tribes
- Monitoring During Construction (optional)
- Memoranda of Agreement



Background: Cultural Resource Management Expertise

- EPA
- National Park Service (NPS)
- New York State Department of Environmental Conservation (NYSDEC)
- State Historic Preservation Office (SHPO)
- New York State Museum (NYSM)
- Ecology and Environment, Inc. (E & E)
- Dolan Research, Inc.
- Lake Champlain Maritime Museum (LCMM)
- URS Corporation (URS)
- Hartgen Archaeological Associates, Inc.

Background: Agency Consultation

- **New York State Historic Preservation Office**
- **New York State Department of Environmental Conservation**
- **National Park Service**
- **New York State Museum**

Background: Stakeholder Consultation

- Town Supervisors of communities affected by the project
- Saratoga PLAN (Preserving Land and Nature)
- Hudson River CARE (Citizens Along the River Edge)
- Historians, City of Mechanicville, Towns of Saratoga and Schaghticoke
- Mayor of the Village of Fort Edward
- CEASE (Citizens Environmentalists Against Sludge Encapsulation)
- Tompson-Clarks Mills Resident Committee for a Heritage Corridor Park
- Schenectady Museum
- Roger's Island Visitor Center
- Washington, Rensselaer, and Saratoga Counties Historical Societies
- Native American Groups

2. Major Cultural Resources Activities: 2003-2008

- Archaeological Background Sensitivity Investigation for 27 candidate locations for sediment transfer facility
- Archaeological Phase I field work at 3 candidate locations
- Detailed Phase I, II, and III investigations of work support marina
- Remote sensing survey of Hudson River bottom sediments
- Underwater archaeological survey along shorelines of Rogers Island
- Identification and excavation of significant archaeological sites in conjunction with the Troy to Waterford water line

Major Cultural Resources Activities: Underwater Investigations

Suiting for a dive



14-foot dive boat



Major Cultural Resources Activities: Underwater Investigations

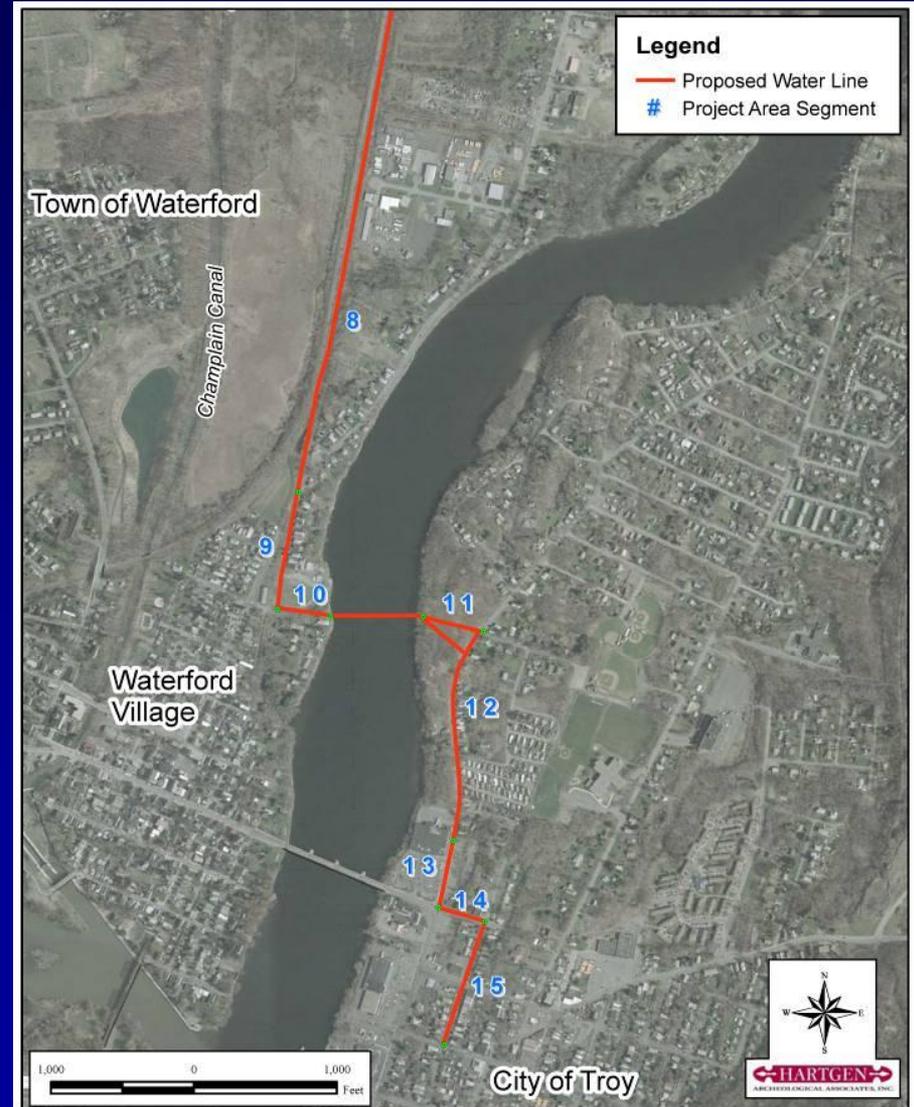
Divers on belay



Underwater cameras with illuminators for data recording



Major Cultural Resources Activities: Waterline Archaeological Investigations

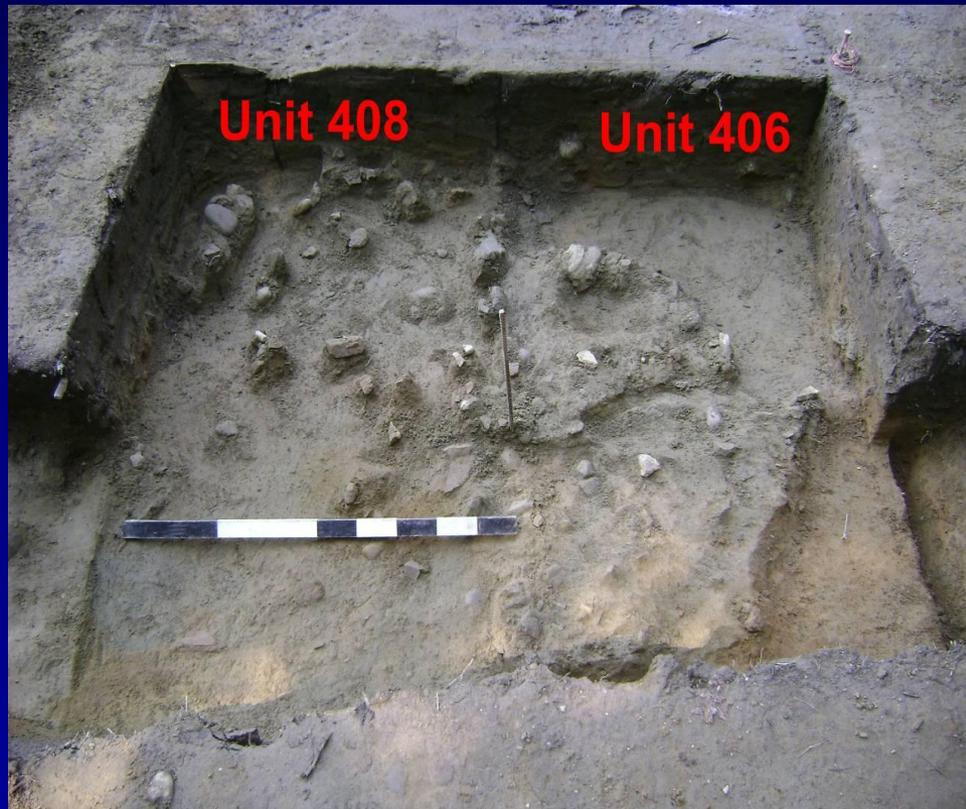


Major Cultural Resources Activities: Water Line Archaeological Investigations



Water Works Site

Major Cultural Resources Activities: Water Line Archaeological Investigations



*Precontact hearth at
Water Works Site*

Major Cultural Resources Activities: 2009 and beyond

Completed/Ongoing

- Investigation of Fort Edward (2009-2010)
- Curation of important artifacts
- Terrestrial investigation of Phase 2 shoreline (2009-2010)

Planned

- Underwater investigations of Phase 2 dredge prisms
- Sensitivity studies
- EPA oversight of Phase 2 Dredge activities

3. Investigation of Fort Edward

Dredging near Roger's Island (2009)



Investigation of Fort Edward

Section of shoreline at timber recovery area (2009)



Investigation of Fort Edward

Timbers removed during dredging



Investigation of Fort Edward

Excavation above timbers



Investigation of Fort Edward

Wide area opened to investigate timbers 7 feet below top of grade



Investigation of Fort Edward

Underwater archaeology



Investigation of Fort Edward

Mid-18th century timbers below the SW bastion of the fort



Investigation of Fort Edward

Constant pumping



Investigation of Fort Edward

Artifact sampling units on both sides of the timber



Investigation of Fort Edward

Final stage of excavation



Investigation of Fort Edward

Clean gravel fill delivered by barge and clam dredge



Investigation of Fort Edward

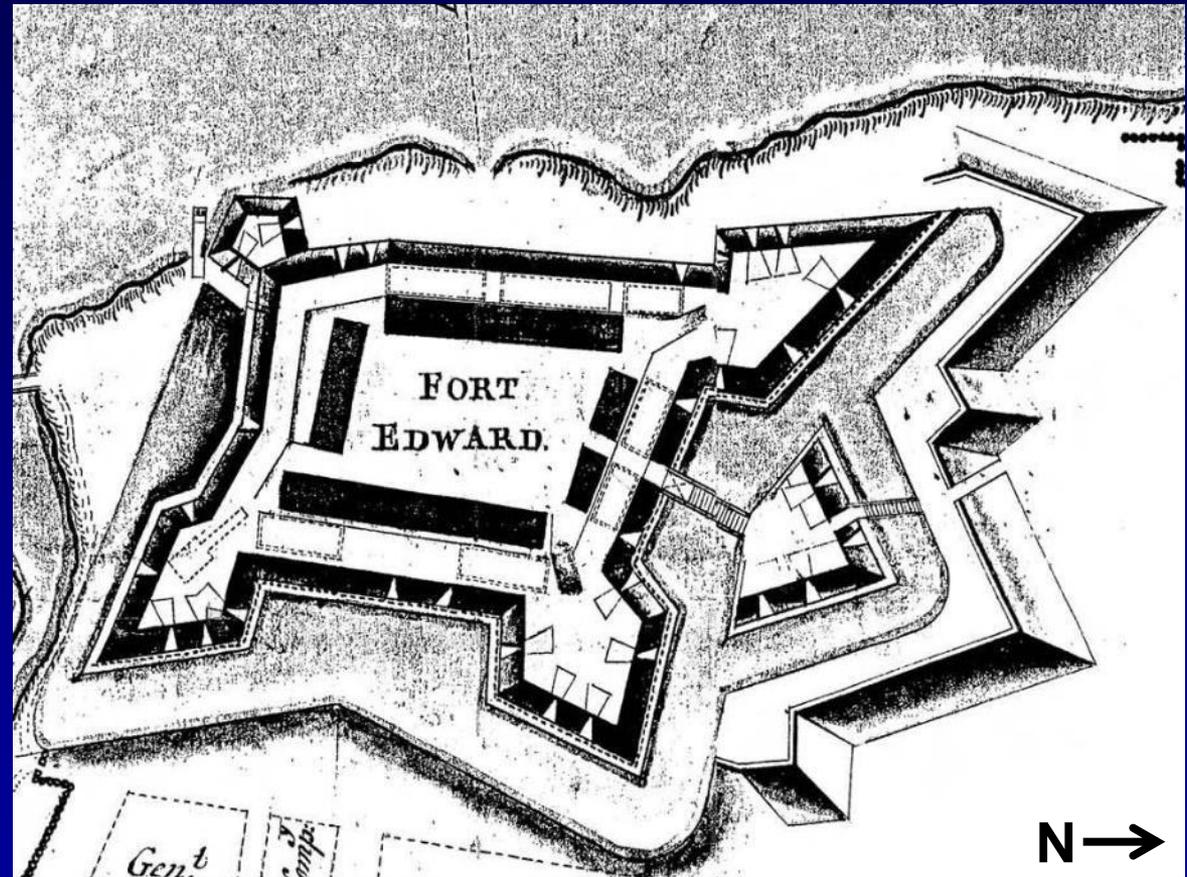
Backfilling the excavation



Investigation of Fort Edward

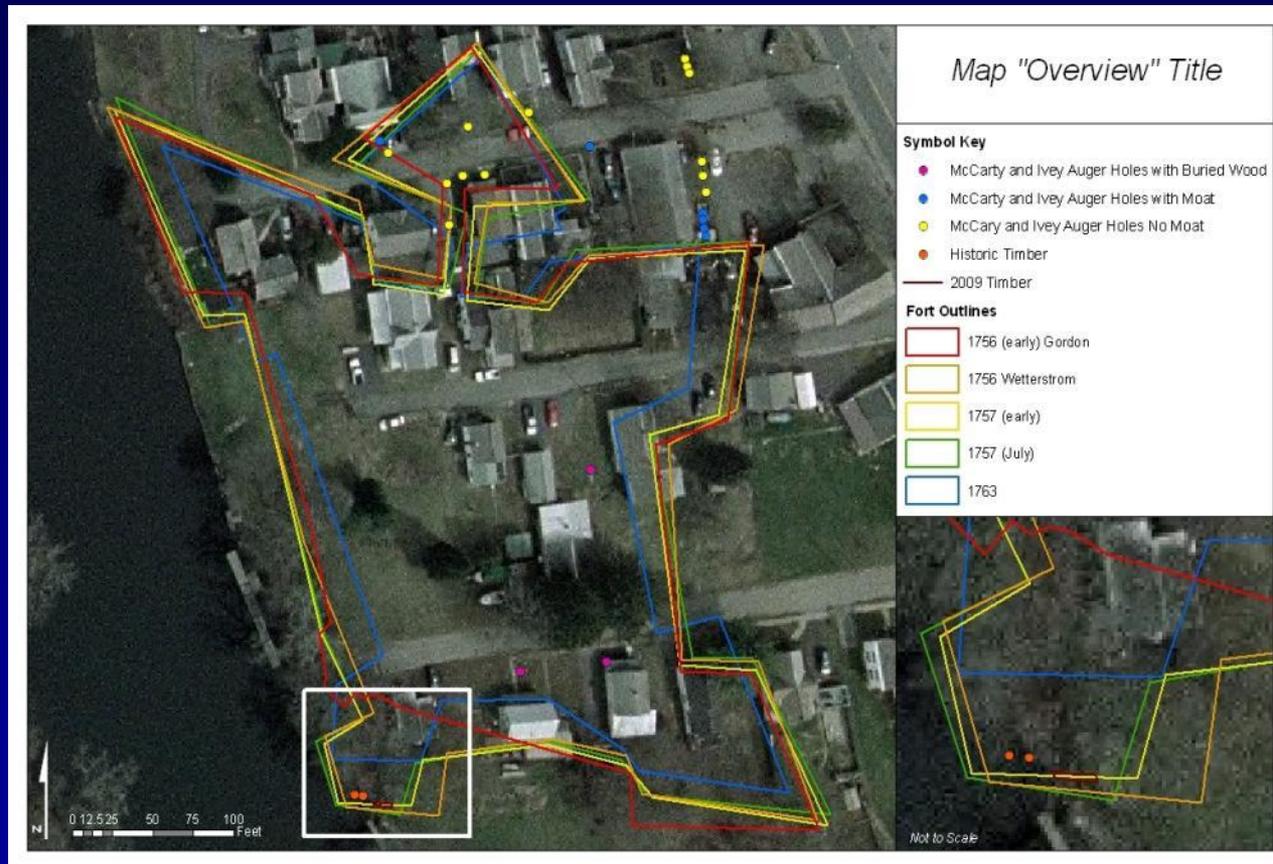
Interpretation of Finds: 1757 map

Historical research shows configuration of SW bastion and associated dock feature



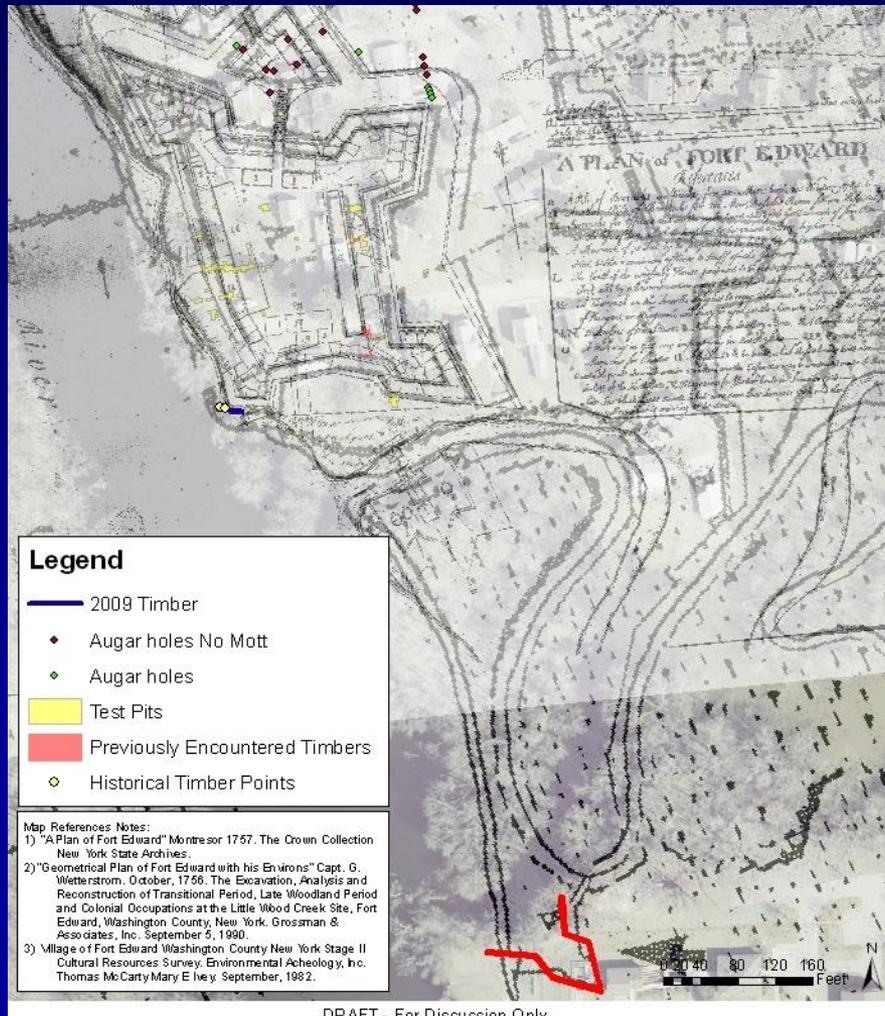
Investigation of Fort Edward

Georeferencing by URS Corporation



Investigation of Fort Edward

Georeferencing by E&E



Investigation of Fort Edward

Timber curation at LCMM



Investigation of Fort Edward

Dendrochronology: Extracting samples



Investigation of Fort Edward

Dendrochronology: tree rings indicating age



4. Other Unanticipated Find

Early 20th century tug boat propeller



Other Unanticipated Find

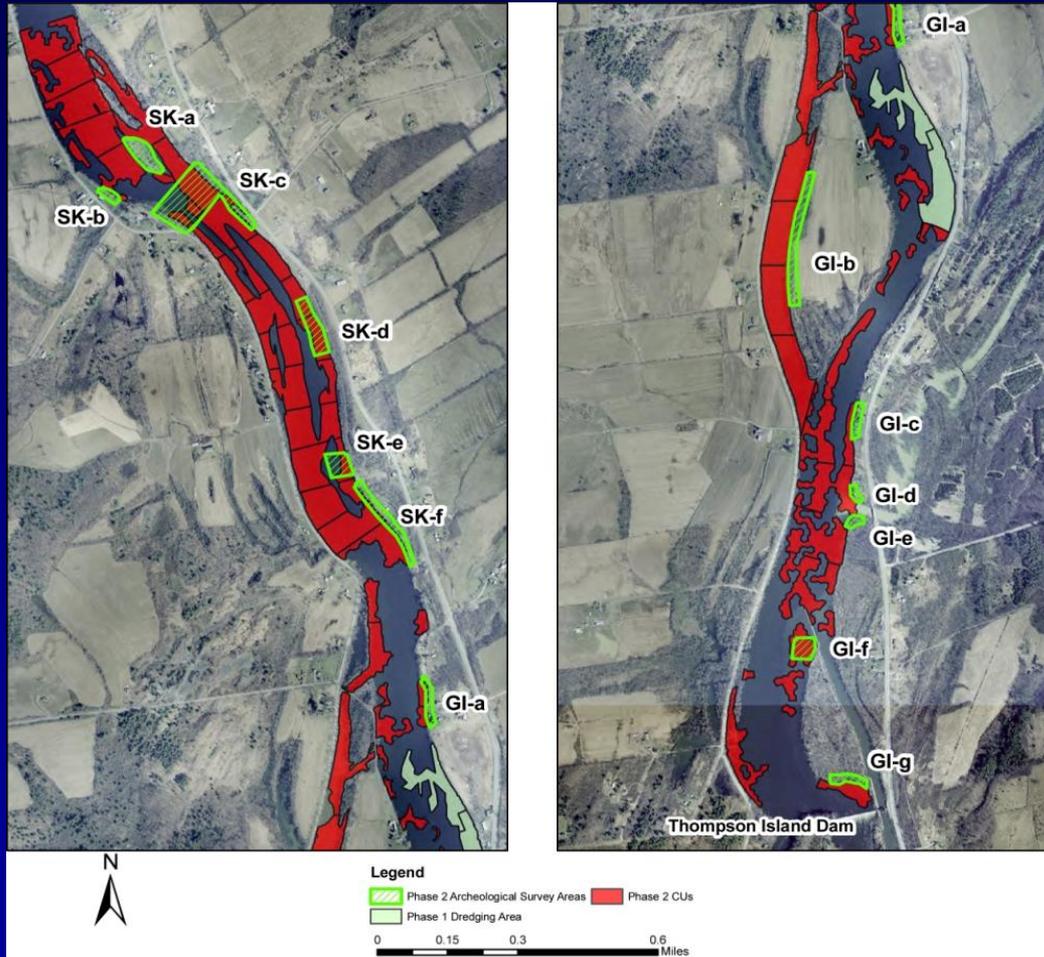
Propeller in curation at LCMM



5. Terrestrial Investigations of Hudson River Shoreline

- URS archaeological sensitivity study (2008)
- Investigation of 3 mile- long section of the river (3 Sisters Island to Thompson Dam)
- Phase I Survey of 10 archaeologically sensitive locations (2009)
- Phase II investigations of 8 sites (2010)
- Two sites Gi-a (north) and Gi-e were determined to be NRHP eligible

Terrestrial Investigations of Hudson River Shoreline



Terrestrial Investigations of Hudson River Shoreline

Low relief shore unprotected shore



High bank shore



Terrestrial Investigations of Hudson River Shoreline

Low relief shore partially unprotected and partially armored



Terrestrial Investigations of Hudson River Shoreline

Conducting shovel tests and test units (2010)



Terrestrial Investigations of the Hudson River Shoreline

Site Gi-a. Historic feature found in a shovel test (2010)



Terrestrial Investigations of Hudson River Shoreline

Site Gi-a. Historic archaeological deposits in a test unit (2010)



Terrestrial Investigations of Hudson River Shoreline

Site Gi-a. Horn knife handles and buttons



Terrestrial Investigations of Hudson River Shoreline

Site Gi-e

Low unprotected Shore

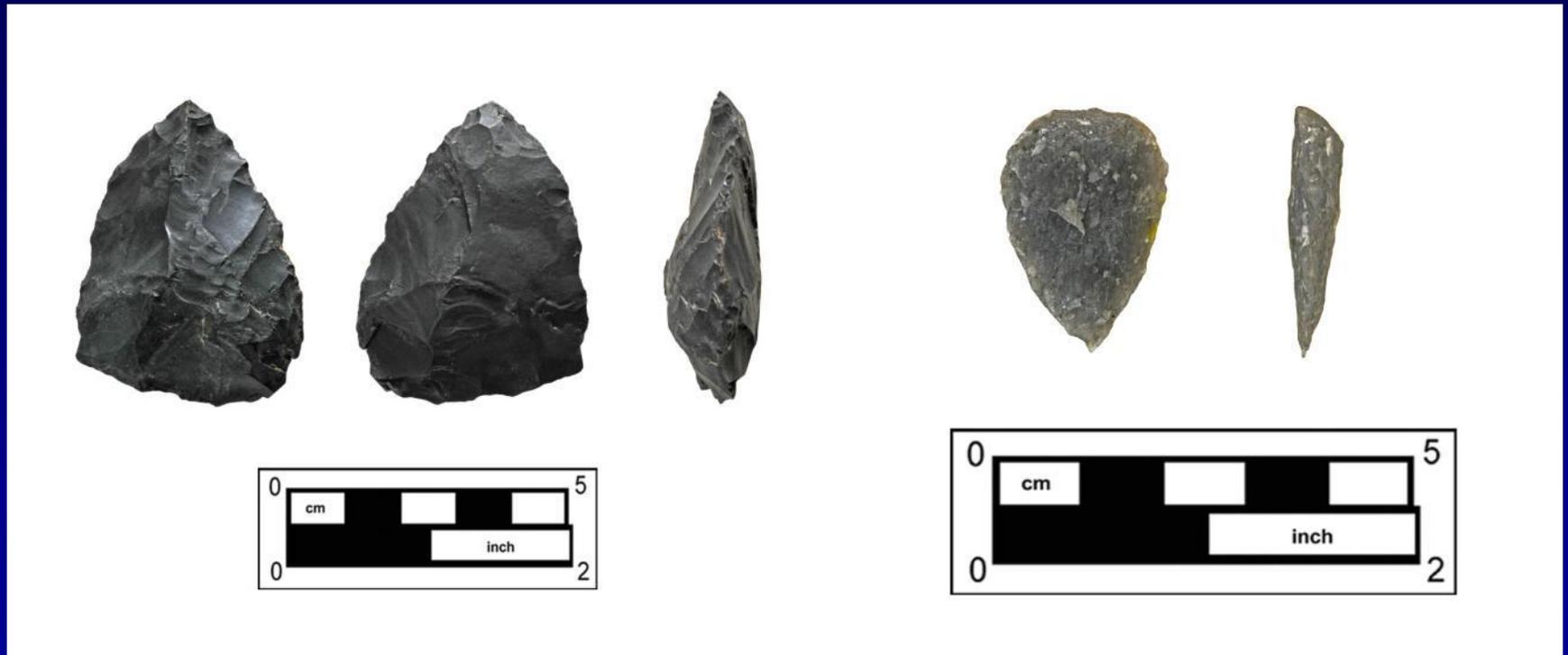


Artifacts in situ



Terrestrial Investigations of Hudson River Shoreline

Site Gi-e. Late Archaic Implements



6. Underwater Investigations

Completed 2007-2008

- Magnetometer survey
- Side Scan Sonar
- Sub-bottom Profiler

Planned Activities

- Multi-beam Bathymetry Survey
- Identified anomalies will be examined by divers

Underwater Investigations

50-foot main boat Neptune



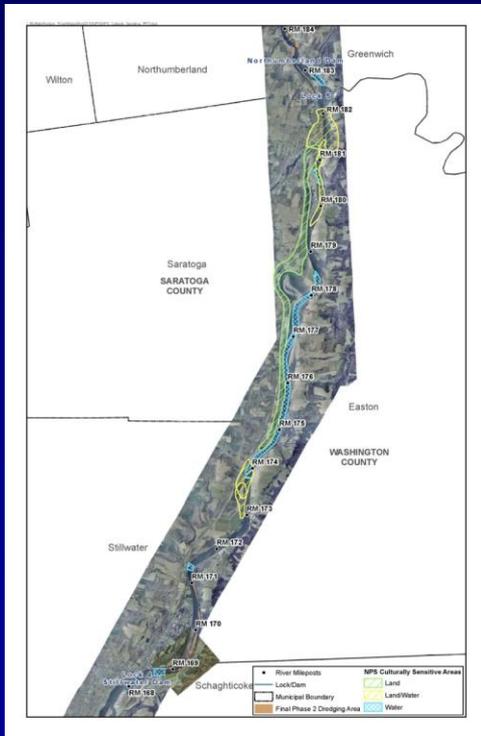
Underwater Investigations

Phase 2 Dredging

- GE will propose plans for underwater investigations following completion of bathymetric surveys
- NPS will perform additional underwater studies under Section 110 of NHPA in portions of Phase 2 project area
- EPA will coordinate effort with Phase 2 design

7. Sensitivity Areas

NPS



Saratoga Battlefield National Historic Landmark



8. Summary

Completed/Ongoing

- Investigation of Fort Edward
- Curation of important artifacts
- Terrestrial investigation of Phase 2 floodplain

Planned

- Underwater investigations of Phase 2 dredge prisms
- Sensitivity studies
- EPA oversight of Phase 2 Dredge activities