Dredging a Challenging Area of the Upper Hudson River

A two-mile section of the Upper Hudson River near Fort Miller in Washington County poses unique challenges. This area is inaccessible by boat due to the presence of dams at its northern and southern ends. Normally, boats travelling north and south on the Hudson bypass this section by way of a “land cut,” essentially a water-filled channel that serves as a detour around the two dams in the river.

In order to remove PCB-containing sediments targeted by the U.S. Environmental Protection Agency (EPA) for removal in this inaccessible area, GE, EPA, the New York State Canal Corporation, local elected officials and property owners worked together to develop a creative solution.

In the River During Dredging

Approximately 160,000 cubic yards of sediment (covering about 29 acres of river bottom) will be removed during dredging in this stretch of river. These areas are illustrated in dark blue on the map.

GE’s contractors, working from a support area on shore called the West Side Support Property, will use a crane to place dredging equipment and hopper barges into the water. The property, which has been temporarily leased to support project activities, is located just north of Harris Road in Northumberland on West River Road.
The dredge buckets will be similar to those used for dredging other areas of the Upper Hudson River. Each dredge will be mounted on a flat deck barge. One to two dredges will work simultaneously.

As barges are filled with sediment, they will be pushed by tugboats to a narrow sliver of land situated just south of the eastern portion of the Thompson Island Dam on the east shore. The property, called the East Side Support Property, is bordered by the Hudson River to the west, and the New York State Champlain Canal land cut to the east. It is owned by the New York State Canal Corporation.

Initially, standing water in the loaded barge will be pumped off and piped to a larger barge in the land cut. Then, a long-reach excavator stationed on the property will unload the sediments from the loaded barge and place them into a sediment transfer bin situated on a concrete pad. A second long-reach excavator stationed on the property will move sediments from the sediment transfer bin to the larger barge in the land cut. Essentially, sediments will be unloaded from a barge in the inaccessible section of the river to a lined bin on land, then loaded from the lined bin on land to a barge in the land cut. No on-site processing, sediment separation or dewatering will occur.

Any storm water that falls on the area where dredged sediments are temporarily staged will be collected and piped to holding tanks or a barge in the land cut.

Once loaded, hopper barges will be pushed upriver by tugboats to the existing Fort Edward processing facility, where the sediments will be dewatered and loaded onto railcars for off-site disposal.

Only a small number of project personnel will work at the East Side Support Property. These individuals will park their vehicles at an existing project parking lot on U.S. Route 4 and will access the site via boat.

Back in the river, after dredging is completed in an area, clean backfill material will be placed over the top of dredged areas. Backfill materials will be transported by truck to the West Side Support Property in Northumberland for temporary staging. Current estimates assume 3-5 trucks will enter the property, and 3-5 empty trucks will leave the property, each daylight hour work activities are performed in the river. Trucks delivering clean backfill materials will travel to and from the closest designated truck routes — Route 32 or Route 4.

The West Side Support Property also will be used as a parking location for field crews working on equipment in this stretch of river. All traffic entering and exiting the area will use a new driveway being constructed on the site.

**Schedule**

This unique approach enables dredging and backfilling activities to be completed in one construction season.

Activities at the East Side Support Property will likely be completed at the end of this year’s season, at which point improvements made to the property will be removed and the property will be restored.

The west side support property is expected to be used through the 2015 season, which will include habitat replacement and reconstruction, as is currently performed in other dredged areas outside this stretch of river. Aquatic vegetation,
East Side Support Property

- Water Storage Tanks
- Excavator
- Sediment Transfer Bin
- Loaded Mini-hopper
- Empty Barge for Loading

West Side Support Property

- Crew Access
- Crew Parking
- Undisturbed Area
- Backfill Material Staging
- Traffic
- Administrative Offices & Parking

* The above layouts are conceptual. Specific location of equipment and staging areas may be refined in discussions with EPA and other agencies.
wetlands and riverbank habitats will be replaced or reconstructed. A variety of submerged aquatic and wetland species will be planted in certain dredged areas, while other areas will be allowed to recover naturally.

**Performance Standards**

EPA performs oversight of all the work and approves all operations. All the work in the river and at the two support properties will be carried out in accordance with EPA’s strict Quality-Of-Life Performance Standards. These standards address noise, lighting, odor, air quality and navigation. An extensive monitoring program has been developed to assess project compliance with these standards. All data is submitted to EPA and posted on EPA’s project data website at www.hudsondredgingdata.com.

**Keeping Informed**

GE is keeping the public informed of progress on the project, with information on a project website at www.hudsondredging.com and through a phone line which is staffed 24/7 by project personnel to answer questions and evaluate concerns. That number is: 792-4087.

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To find out more about the Hudson River Dredging Project:

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