

Phase 2 Dredging Phase 2, Year 1 (2011) Factsheet

January 2012

Highlights

The second season of Hudson River dredging was conducted by General Electric Co. (GE), and overseen by EPA, from June 6 to November 8, 2011 to remove PCB-contaminated sediment from a one and one-half mile section of the Hudson River south of the Town of Fort Edward, New York. In Phase 2, Year 1, approximately 363,000 cubic yards of contaminated sediment were removed, exceeding the target of 350,000 cubic yards that was established for dredging in 2011. The second phase of the project targets 2.4 million cubic yards of PCB-contaminated sediment and is expected to take 5-7 years to complete.

After an extensive review of the first phase of dredging, EPA modified a number of the requirements for dredging. These refinements included:

Improved Sampling:

Before the start of the 2011 dredge season, additional samples were taken from the river bottom to more accurately determine the depth and location of PCBs. Improved sampling methods provided more complete information on the extent of the contamination in the targeted dredge areas.

Improved Dredge Design and Fewer Dredge Passes:

By dredging slightly deeper than the expected depth of contamination, fewer bucket bites or dredge "passes" were needed to remove PCBs. During the 2011 season, dredge operators were able to remove the contamination in most of the targeted area in one to two dredge passes.

Significantly Less Capping:

For Phase 2, capping is limited to 11 percent of the dredged area, excluding areas that must be capped due to considerations such as encountering bedrock. In some locations capping of the river sediments is necessary to isolate small amounts of PCBs remaining after dredging. During the 2011 dredging season, only about three percent was capped, well below the 11 percent limit.

Phase 2, Year 1 Statistics

- Dredging took place 24 hours a day, 6 days a week
- 350,000 cubic yards were targeted, but more than 363,000 cubic yards of sediment and debris were removed
- 15 areas of approximately five acres each ("Certification Units" 9-16 and 19-25) were dredged (see Figure 1)
- Up to four dredges operated in the river at a time
- 669 barges were processed at the project's dewatering facility
- More than 500 people worked on the project; many local people were hired
- Unit trains (typically made up of 61 to 93 cars) transported dredged sediment to PCB-approved disposal facilities in Idaho and Michigan



Figure 1: Upper Hudson River Certification Unit (CU) map. During 2011, dredging was completed in CUs 9-16 and 19-25.

Protective Limits on Resuspension:

The resuspension standard for dredging requires extensive water monitoring and takes into account the concentration of PCBs in the river water and the amount of PCBs moving downriver. During the 2011 dredging season there were no confirmed exceedances of the project standard of 500 parts per trillion (also the federal Safe Drinking Water Act standard) and the new limits set for the amount of sediment that could be resuspended, as measured at Thompson Island and Waterford, were also met.

Additional Changes:

GE implemented operational changes which resulted in reduced noise and air quality impacts during the 2011 season. These changes included keeping dredged sediment in barges covered with water and prioritizing the transport and processing of the most contaminated sediment first.

Monitoring Data

EPA established a website to provide the public with access to data generated by the project: www.hudsondredgingdata.com

Next steps

EPA and GE are in the process of determining what changes, if any, are needed for the next season of dredging set to begin in spring 2012 (Phase 2, Year 2). Any changes will be integrated into the project design and will be captured

in a series of technical documents prepared in winter/spring 2012. GE will also make equipment modifications, including changes at the processing facility (see Figure 2) that will further increase

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productivity in the years ahead. Phase 2, Year 2 dredging will resume beginning where dredging ended in 2011 and is expected to continue approximately 3 miles south, through the area of Griffin Island. The dredging target for 2012 is 350,000 cubic yards of sediment, which will likely be exceeded as a result of the improvements for 2012.



Figure 2: Processing Facility improvements for winter/spring 2012 include expansion of the coarse material staging area and construction of a second barge unloading station, additional size separation equipment, and a second gravity thickener.

Visit, call, or write to the Hudson River Field Office at the address below or log on to www.epa.gov/hudson.

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