



**New Bedford Harbor, MA  
EPA Superfund Project  
Summary Sheet  
January 2003**

**US Army Corps  
of Engineers**  
New England District

**Project Background** The Corps of Engineers was requested by the US Environmental Protection Agency to clean-up PCB contaminated sediments from New Bedford Harbor located in the city of New Bedford and towns of Acushnet and Fairhaven in southeastern Massachusetts. The Harbor was contaminated from the 1940s through the 1970s by two electrical capacitor manufacturing plants that discharged PCB waste. It is one of the largest and most challenging hazardous waste sites in the country. Water, sediment and biota have been contaminated endangering public health and the environment with PCB levels in sediment exceeding 100,000 parts per million (ppm). The Corps of Engineers has been supporting EPA on this project since the mid-1980s. Our initial efforts focused on site investigations and feasibility studies, which were followed by on-site pilot studies of dredges and dredged material disposal techniques. The initial site remediation (“the hot spot”) was carried out in the early 1990s under EPA’s Record of Decision (ROD #1) and involved dredging 14,000 cubic yards (cy) of sediment with PCB levels exceeding 4,000 ppm.

New Bedford Harbor is the home of one of the largest fishing fleets and oldest recreational and commercial navigation harbors along the east coast. In 1966 the Corps built, and currently operates and maintains, a hurricane barrier at the mouth of the Harbor to protect the fleet and the heavily developed waterfront. There is a Federal Navigation Channel running up through the harbor, built and maintained by the Corps, which is currently under consideration for dredging and deepening due to the anticipated growth in commercial navigation.

There remains about 900,000 cy of contaminated sediments (up to 4,000 ppm PCBs) in the Upper and Lower Harbor which need to be removed and permanently stored in Confined Disposal Facilities (CDFs) to be built along the New Bedford shoreline. EPA’s ROD #2 was signed in September 1998 for the design and construction of this latest phase. The Corps is responsible for this phase, which is currently underway for this ten (10) year project. The Corps prime contractor, Foster Wheeler Environmental Corp., is assisting in the design and construction under a Total Environmental Restoration Contract (TERC) for the implementation of RODs #1 and #2.

**ROD #1 Project Description** The Hot Spot phase of the project includes:

- Dredging, CDF, Water Treatment - Implementation of the Hot Spot project started in 1990 with the signing of ROD #1 and followed by the modification of the CDF used for Pilot studies and the design & construction of a Water Treatment Plant. The facilities were completed and dredging of 14,000 cy was accomplished in 1994/95 with the material temporarily stored in a CDF. The cost to remediate and maintain the Hot Spot facilities through the summer 1999 was \$30 million. Public support reversed the decision to incinerate the sediments and the site was maintained until EPA amended the ROD.
- De-water, Stabilize, Excavate, Disposal – With the amended ROD #1 in April 1999 the EPA decided to de-water and stabilize the Hot Spot sediments stored in the CDF. This process was completed by the Corps and contractors in order to prepare the material for excavation and transport to an off- site disposal facility. The excavation of the material from the CDF and disposal was completed in April 2000 at an estimated cost of \$ 10 million which completed the Hot Spot project.

**ROD #2 Project Description** The Upper & Lower Harbor phase of the project includes the on-going investigations, design and construction to dredge, dewater and dispose of the remaining 900,000 cy of the contaminated sediments over a ten (10) year period. It also includes coordination with a large number of stake holders who will continue to influence and change the design and construction of the project, including EPA, Mass. DEP, the City and towns, developers, CSX Railroad, other transportation authorities, and the general public. The fully funded first cost (or capital cost) of the project with 3% per year annual inflation is currently estimated at \$341 million during construction, or \$367 million including O&M and Monitoring after construction. Features of the project include:

- Dewatering Facility – A facility will be constructed to dewater all the sediments prior to shipment for off-site disposal. The benefit being that dewatering will make the sediments easier to handle and reduce the weight and therefore the cost for off-site disposal. A bulkhead consisting of seven – 70’ diameter circular sheetpile cells connected with subarcs is currently being constructed so that the land in the area can be expanded to house the dewatering facility. The bulkhead will be complete in May 2003 with construction of the Dewatering facility to follow. Construction of the facility will be complete in February 2004.
- Water Treatment, Monitoring – The existing Water Treatment Plant will be enlarged to handle the decanted water from the dredging process before returning the water to the Harbor. Testing of the Granulated Activated Carbon (GAC) process to treat decanted water found that costs could be substantially reduced by using GAC, in lieu of, using the existing Ultraviolet/Oxidation process. A new state-of-the art dredge was tested and found that it could significantly reduce the amount of water to be treated and increase the dredging production rate. During dredging, the Harbor’s water and air will be monitored to control the spread of contamination and protect the public health.
- Dredging, Wetland Excavation/Restoration – Over a 6 to 10-year period an estimated 900,000 cy of contaminated sediments will be dredged and de-watered or excavated from a 2-mile stretch of the Harbor before being sent off-site for disposal. The relocation of the ComElectric power cables, which span the Harbor, require conduits placed below the river bottom in order to dredge contaminated sediments. The inter-tidal areas will be restored with about 300,000 cy of clean material. The Dredging and excavation requires extensive coordination to meet the demands of interest groups and Native Americans. Natural and cultural resources must be protected, removed and/or restored.
- Other activities – EPA has requested that certain portions of the harbor and other actions be completed prior to the completion of the dewatering facility and start of full-scale dredging. These expedited activities have occurred in order take other interests and stakeholders concerns into consideration. In the past, we have removed sediments from the extreme northern end of the harbor due their proximity to residences and this was termed the Early Action. We have also removed 16 derelict vessels in an area termed the North Lobe to facilitate future remediation as well as waterfront development. We are currently in the process of removing approximately 10,000 CY of sediments from North of the Wood Street because of access provided to the contaminated sediments from a nearby public park.
- Real Estate Activities – We are currently assisting EPA in real estate transfers and business relocations that are required to facilitate the remediation process. One business relocation involves dredging approximately 15,000 CY of sediments from the North Lobe area so that a business can be relocated from the Dewatering Facility Area to the North Lobe. We will perform the actual dredging with the TERC.