

# New Bedford Harbor

## Confined Aquatic Disposal Cell (CAD) Construction Continues

U.S. EPA | SUPERFUND CLEANUP PROGRAM AT EPA NEW ENGLAND



**THE SUPERFUND PROGRAM** protects human health and the environment by investigating and cleaning up often-abandoned hazardous waste sites and engaging communities throughout the process. Many of these sites are complex and need long-term cleanup actions. Those responsible for contamination are held liable for cleanup costs. EPA strives to return previously contaminated land and groundwater to productive use.

### SITE DESCRIPTION:

As part of our accelerated Superfund cleanup, EPA is now in the process of designing and constructing a “CAD” cell or “Confined Aquatic Disposal” cell. CAD cells are being used as part of both the New Bedford Marine Commerce Terminal (South Terminal) project, as well as the US Environmental Protection Agency’s Superfund project designed to cleanup PCB contamination of the Harbor.

The Lower Harbor CAD cell (or LHCC) is designed to contain approximately 300,000 yards of sediments dredged as part of the EPA Superfund cleanup. The LHCC work is being done in two phases. The excavation of Phase I began in November 2013 and is now complete. The New Bedford Harbor Development Commission (HDC) is currently requesting bids from contractors to excavate the Phase II LHCC, which will be located as shown on the attached figure. Construction of the Phase II is expected to begin later this summer and take about a year to complete.

The decision to build the LHCC was made in

#### WHAT TO EXPECT?

The contractor’s work hours for the project will be Monday through Saturday, 6:30am to 10:30 pm. No overnight work in the harbor will be allowed. Sunday hours will only be allowed for maintenance of equipment. EPA expects work to begin in late summer 2014 and continue into mid-2015.

May 2011 by the US EPA after public comment.

#### WHO IS PERFORMING THE DESIGN AND CONSTRUCTION?

The work is being done through a cooperative agreement that EPA has signed with the HDC which has extensive experience with the construction of CAD cells. The HDC has hired APEX Companies, LLC to design the CAD cell. APEX has extensive experience designing and overseeing construction of navigational CAD cells in New Bedford Harbor. HDC hired the construction contractor that performed the Phase I work and will soon hire the construction contractor for the Phase II project. All work is completed with funds supplied by EPA.

#### WHY IS THE WORK BEING PERFORMED IN PHASES?

The contaminated sediment contained in the top 3 feet or so at the location of the Phase II CAD will be disposed of in the Phase I CAD constructed last year. Similarly, the sediment in the top 3 feet of the Phase I CAD were disposed of in another previously constructed CAD.

*continued >*

### KEY CONTACTS:

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### GENERAL INFO:

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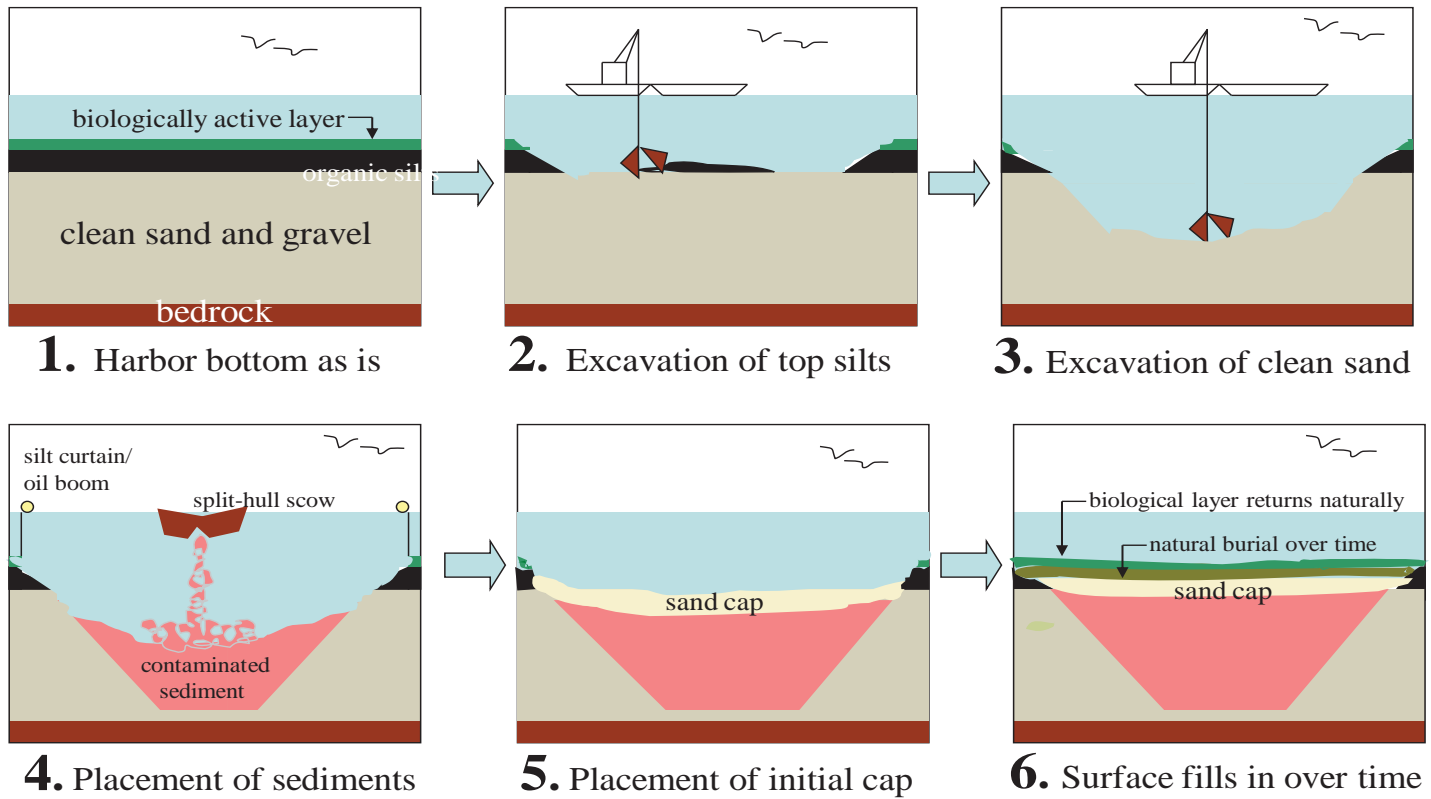
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#### LEARN MORE AT:

[www2.epa.gov/  
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**HOW DO CAD CELLS WORK?**



**For illustrative purposes only – NOT TO SCALE**

USEPA Region 1 - 2009

**WHAT IS A CAD CELL?**

The New Bedford Harbor Superfund LHCC is a man-made, capped underwater containment cell. First the CAD cell is dug into the harbor floor. Contaminated sediment from the harbor will then be placed into the CAD cell, allowed time to consolidate, and then capped. The contaminated sediment is held in place by tightly packed existing sediments on the sides and bottom of the cell, and a cap on the top. CAD cells have been used successfully for contaminated navigational sediments in New Bedford as well as many other ports and waterways. A simplified schematic of how the CAD cell will be constructed is shown below.

**WHY HAS EPA CHOSEN TO USE A CAD CELL IN NEW BEDFORD HARBOR?**

The Lower Harbor CAD cell will allow completion of the lower harbor cleanup in a way that protects human health and the environment much more quickly, at a much lower cost. The CAD cell was selected for the disposal of approximately 300,000 cubic yards of sediment containing between 50-190 ppm of PCBs, levels lower than those found in other parts of the Harbor. Due to the use of the CAD cell, the Superfund cleanup of more than 80% of New Bedford Harbor's area, from Sawyer Street area to the hurricane barrier can be completed in just 2-3 years of dredging.

**HOW DO YOU KNOW IT WILL BE SAFE TO INSTALL THE CAD CELL AND KEEP IT SEALED?**

EPA is confident that the LHCC will be safe when used in New Bedford due to experience collected during the construction of other CAD cells, including in New Bedford. EPA has also conducted computer modeling of potential leakage of contaminants. EPA will conduct an extensive program of monitoring air, water, and sediment during the project and make the data available to the public. After completion, the LHCC will be monitored as well on a recurring basis.