

52225

OPEN HOUSE ON NEW BEDFORD HARBOR
PILOT DREDGING AND DISPOSAL STUDY
December 3, 1988

- o GROUNDBREAKING CEREMONY FOR PILOT DREDGING AND DISPOSAL STUDY HELD ON APRIL 6, 1988.
- o ON NOVEMBER 21, 1988, JUST OVER 7 MONTHS LATER, DREDGING WAS BEGUN.
- o PILOT DREDGING AND DISPOSAL STUDY WILL INVOLVE TESTING THREE KINDS OF DREDGES (CUTTERHEAD, MUDCAT AND MATCHBOX) AND TWO METHODS OF DISPOAL (CONFINED DISPOAL FACILITY AND CONFINED AQUATIC DISPOSAL)
- o HARBOR HAS SOME OF HIGHEST LEVELS OF POLYCHLORINATED BIPHENYLS IN SEDIMENT OBSERVED ANYWHERE. (AS HIGH AS 250,000 PPM OR 25% PCB'S). IMMEDIATE HARBOR HAS BEEN MOSTLY CLOSED TO FISHING, SHELLFISHING AND SWIMMING SINCE 1979.
- o PURPOSE OF STUDY IS TO DETERMINE IF THE PCB AND METALS CONTAMINATED SEDIMENT CAN BE REMOVED EFFECTIVELY AND EFFICIENTLY WITHOUT CAUSING RESUSPENSION AND CONTAMINANT RELEASE TO LOWER HARBOR AND BAY.
- o AN EXTENSIVE AIR AND WATER MONITORING PROGRAM IS BEING CONDUCTED THROUGHOUT THE PILOT STUDY TO INSURE THE PUBLIC HEALTH AND ENVIRONMENT ARE PROTECTED WHILE OPERATIONS ARE ONGOING (NO VIOLATIONS TO DATE)
- o PILOT STUDY REPRESENTS A \$4M COMMITMENT BY EPA TO DEVELOP POSSIBLE METHODS TO CLEANUP THE HARBOR. DREDGING WILL BE COMPLETED DURING DECEMBER. IN ADDITION TO DREDGING OTHER METHODS ARE ALSO BEING INVESTIGATED. IN SUMMER OF 1989 EPA WILL PUBLISH ITS FEASIBILITY STUDY AND HOLD PUBLIC MEETINGS. IN FALL OF 1989 EPA WILL ISSUE ITS RECORD OF DECISION.
- o NEW BEDFORD IS 4TH LARGEST CITY IN MASS. FOR LAST SEVERAL YEARS IT HAS HAD THE RICHEST DOLLAR VALUE FISH CATCH OF ANY PORT IN ANY STATE INCLUDING ALASKA. VALUABLE STATE, REGIONAL AND NATIONAL RESOURCE.
- o NEED CONTINUED STRONG LOCAL SUPPORT TO DEVELOP AND IMPLEMENT A CLEAN-UP PLAN. GREATER NEW BEDFORD ENVIRONMENTAL COMMUNITY WORK GROUP RECENTLY RECEIVED THE FIRST TECHNICAL ASSISTANCE GRANT OF \$50,000 TO BE AWARDED IN NEW ENGLAND. ENCOURAGE OTHERS TO SUPPORT THIS GROUP WHICH MEETS AT THE LIBRARY 2ND MONDAY OF EACH MONTH AT 7 P.M.

**HARBOR DREDGING PILOT STUDY BEGINS
EPA HOSTS PUBLIC SITE VISIT**

The United States Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers are conducting a Pilot Study to evaluate dredging technologies for use in the cleanup of New Bedford Harbor. Past disposal practices by industries in the region resulted in the contamination of sediments in New Bedford Harbor and the Acushnet River Estuary with polychlorinated biphenyls (PCBs) and heavy metals. The Pilot Study is one part of EPA's continuing program to cleanup New Bedford Harbor to protect public health and the environment.

Pilot Study

The Pilot Study is a small-scale field demonstration of dredging and dredged material disposal methods being carried out in and adjacent to a small cove located just north of the Coggeshall Street Bridge in New Bedford Harbor. The Pilot Study will determine if contaminated sediments can be efficiently and effectively removed by a dredge; analyze the amount of sediments that are resuspended, or churned up, by the dredge; and, develop and test methods for constructing and filling of both underwater and shoreline deposition areas. Approximately 15,000 cubic yards of bottom materials will be removed and disposed of during the study. Half of the dredged material is expected to be contaminated with PCBs at levels in the 100 parts per million (ppm) range. This level is significantly lower than is found in the northern area of the estuary.

Dredging Equipment

The three hydraulic dredges being tested are a cutterhead dredge, a horizontal auger dredge called a Mudcat, and a specially designed dredgehead called a Matchbox. Each will be evaluated for effectiveness in: removing the two-foot layer of contaminated sediments; minimizing disturbance of surrounding areas; minimizing resuspension of contaminated sediments; and, operating in shallow waters.

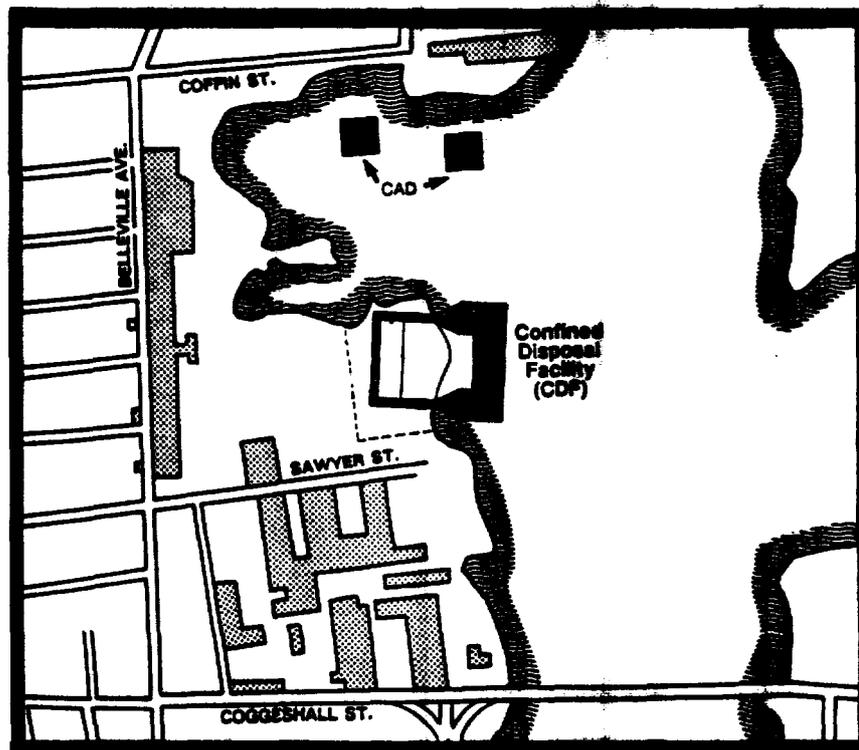
Disposal Methods

The two disposal methods being evaluated are the "confined disposal facility" (CDF) and "confined aquatic disposal" (CAD). The CDF is a 250,000 square foot holding basin divided into two sections and surrounded by a granular fill dike. The CDF has been constructed on a parcel of city-owned property at the foot of Sawyer Street. The dredges will remove contaminated sediment from the bottom of the cove and pump it into the first, or primary cell of the CDF. The solids settle out and excess water will be drained over a weir into the secondary cell. Polymers are added to the water at the weir, aiding in settling of remaining solids prior to the treated water being discharged back into the harbor. PCBs generally do not dissolve in water, but instead adhere to the surface of particles. By separating the solids and

liquids, most PCBs will be trapped within the CDF. Approximately 5,000 cubic yards of contaminated sediment will be placed in the CDF. An additional 5,000 cubic yards of clean dredged material will be placed in the CDF as a cap.

Confined aquatic disposal involves dredging a pit, or cell, on the bottom of the estuary. Contaminated sediment is dredged from another section of the estuary and discharged through a diffuser along the bottom of the cell. The cell is then capped with clean dredged material to prevent contact with the contaminated materials. At New Bedford, the area dredged during the filling of the CDF will be used as a CAD cell. A four foot layer of contaminated sediment will be placed at the bottom of the cell and capped with a two foot layer of clean material.

Figure 1: Pilot Study Location



Monitoring

The Pilot Study utilizes an extensive monitoring program to assess changes in water or air quality that may result from the dredging and CAD construction. The water quality program will register changes in estuary and cove water quality and track the routes of any contaminant release throughout the harbor. A comprehensive air quality program, utilizing monitoring equipment on all sides of the CDF, will likewise inform EPA of any changes in air quality. The program is designed so that, if any adverse impact to public health or the environment is detected, Pilot Study activities can be halted or changed.

For further information, contact: Frank Ciavattieri, EPA Remedial Project Manager (617/573-5710) or Diane Ready, EPA Community Relations Coordinator (617/565-34230).

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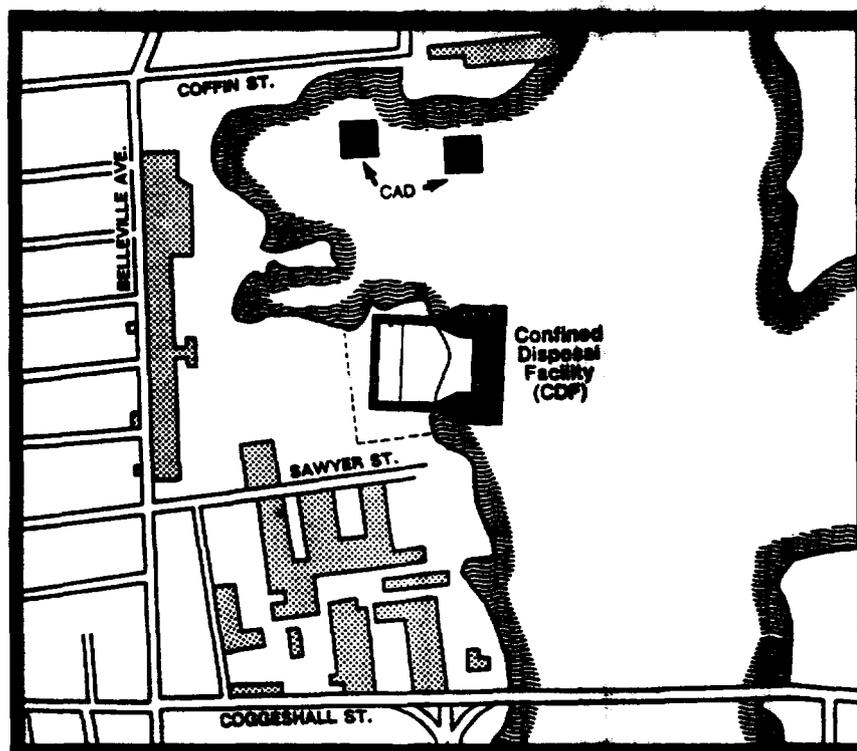
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