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DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

REPLY TO:
ATTENTION OF:

May 13, 2009

Engineering/Planning Division
Environmental Resource Section

SUBJECT: Continuation of Remedial Dredging in the Upper Harbor at the New Bedford Harbor Superfund Project, New Bedford, Massachusetts

Mr. Jack Terrill, Coordinator
New Bedford Harbor Trustee Council
C/o National Marine Fisheries Service
55 Great Republic Drive
Gloucester, Massachusetts 01930-2298

Dear Mr. Terrill:

This is the eleventh coordination letter in a series describing upcoming activities associated with the New Bedford Harbor Superfund cleanup. The most recent letter of April 22, 2008 described the fifth year of full scale dredging which resulted in the removal of approximately 25,000 cubic yards (CY) of contaminated sediments from two locations (Aerovox shoreline and Pierce Mill Cove) in the Upper Harbor in the late summer and fall of 2008. The purpose of this letter is to inform you of this year's activities and to seek any comments you may have regarding their implementation.

The activities to be initiated in the 2009 dredge season will focus on the removal of contaminated sediments from five distinct areas within the upper portions of the harbor between the Coggeshall Street Bridge to the south and the Wood Street Bridge to the north (See Figure 1). Initial mobilization for these activities is scheduled to commence mid-May of this year with dredging activity to commence in early June and continuing to the mid-November timeframe. Background information and project descriptions for the upcoming work are provided below for your review:

In September 1998, the U.S. Environmental Protection Agency (USEPA) selected a cleanup remedy for the entire Upper and Lower Harbor areas, also known as Operable Unit #1, as a solution to the PCB contamination in and around New Bedford Harbor. An interagency agreement has been signed between USEPA and the U.S Army Corps of Engineers (USACE) requesting the assistance of USACE in implementing the remedy. This effort involves the dredging and disposal of approximately 900,000 CY of PCB contaminated sediment and includes the following major components:

SDMS DocID 507953

- Relocate Commonwealth Electric Power cables under the Acushnet River (Phase 1 completed 2002).
- Removal of abandoned vessels from the Herman Melville Shipyard on the New Bedford side of the Harbor (Completed-Spring 2002).
- Relocation of the Packer Marine, Inc. facility in New Bedford to the Herman Melville Shipyard and the dredging of an associated approach channel (Completed 2005).
- Construction of a Sediment Dewatering, Material Transfer and Receiving Facility at the former Packer Marine site just north of Hervey Tichon Avenue (Completed Summer 2004).
- Excavate contaminated sediments and restore wetlands along the Acushnet River north of the Wood Street Bridge (Completed Summer 2003).
- Dredge PCB-contaminated sediments and restore intertidal areas in New Bedford Harbor (Summer 2004 to approximately 2040 depending on yearly funding levels). As of this date approximately 106,705 cubic yards of PCB contaminated sediment have been removed from the upper reaches of the harbor (Figure 2).

For management purposes, the New Bedford Harbor Superfund Site has been divided into three areas – the Upper Harbor, the Lower Harbor, and the Outer Harbor consistent with the geographical features of the area and gradients of contamination. The boundary line between the Upper and Lower Harbor is the Coggeshall Street Bridge where the width of New Bedford Harbor narrows to approximately 100 feet. The boundary between the Lower Harbor and Outer Harbor is the 150 foot wide opening of the New Bedford Harbor Hurricane Barrier.

The Upper Harbor continues to be the focus of the remediation effort and is comprised of approximately 187 acres with sediment containing PCB concentrations ranging from below detection to thousands of parts per million (ppm). Within this area, the subtidal sediments with PCB concentrations greater than 10 ppm are being removed during the initial dredging phases. Subsequent efforts will also include the removal of sediments within salt marsh areas with concentrations of PCBs above 50 ppm, as well as within intertidal residential and recreational areas with PCB concentrations above 1 or 25 ppm respectively.

In order to accomplish this task, the Upper, Lower and Outer harbor areas have been separated into individual Dredge Management Units (DMU's) (Figure 1) based on engineering and environmental considerations. The specific DMU's to be remediated and associated volume of material to be removed in any given year will be dependent on the amount of funding that becomes available.

Continuing phases of the remedial dredging are scheduled to begin June 2009 and will consist of the removal of approximately 61,000 CY of PCB contaminated sediments from five dredge areas identified as Dredge Areas G, J, K, L, and M (See Figure 1) in the Upper Harbor between the Wood and Coggeshall Street Bridges. Material will be removed using a hydraulic auger type dredge (Mudcat) which has been successfully used during all previous year's remediation. This dredge type was specifically chosen to perform this work for its capability to dredge in shallow areas, proven efficiency in sediment removal and transport and its ability to

uniformly remove material to predetermined elevations. The horizontal augers are fully enshrouded along the back of the auger to minimize loss of material and to direct flow of material to the dredge pump. This serves to limit sediment resuspension thus minimizing water quality impacts. Debris removal will occur ahead of dredging operations in some areas to remove scrap, wood, tires, cables, boulders, etc. that have the potential to impair dredging production or to damage the equipment resulting in project delays and additional expense.

Due to the shallow nature of some of the dredge areas identified above, three "Mudcat" dredges (Figure 3) will be deployed to allow for continuous dredging over a given tidal cycle (with only one dredge in use at any time). One dredge will be shared between Dredge Area M and Dredge Area G and will be used predominantly during periods of high tide when there is sufficient water to allow adequate flotation of the dredge. A second dredge will be shared between Dredge Area J and Dredge Area K. The third dredge will be assigned to Dredge Area L which consists of deeper water and will be used when Areas M and G are inaccessible during low tidal cycles. This plan will allow for dredging activities to alternate between high tide dredge areas (Dredge Areas M, G and western Dredge Area K) and low tide dredge areas (Dredge Area J, eastern Dredge Area K and Dredge Area L) to provide the most efficient approach to accomplish this years remedial activities. During construction operations, oil booms will be deployed around the perimeter of the excavation areas to control any oil releases and a water quality monitoring program will also be employed to ensure operations are carried out in an environmentally protective manner.

The dredge sediment slurry, which consists of harbor water and sediment, will be transported from the dredge site via a floating 10-inch high-density polyethylene (HDPE) pipe using in-line booster pumps to the desanding facility (Figure 1 – Area C) located at Sawyer Street. The remaining components of the slurry will then be pumped to the dewatering facility located at Area D via an 18-inch dual wall HDPE pipe anchored on the harbor bottom. The dewatering process will create a dense material (filter cake) with low water content from the slurry material. This material will then be transported to an offsite disposal facility via railcar. The water extracted by the dewatering process will be treated by an on-site wastewater treatment system and discharged back into the harbor, meeting stringent discharge criteria. As in the past, ambient air monitoring will be conducted at specific sampling locations during the dredge operation and after its completion.

As in all past years, this year's dredge plan is being coordinated with the Massachusetts Division of Marine Fisheries and National Marine Fisheries Service to seek ways to minimize impacts to migrating fish species that may be present in the project area. No observable impacts to fisheries migration were noted during previous years dredging activities from either decreased water quality or physical obstruction. As with all previous dredging and construction activities associated with this project (2004-2008), a boat-based real time water quality monitoring program will continue to be implemented for this year's activities to assure adherence to the ecologically protective criteria established for this project. Prior monitoring has shown that water quality impacts were limited mostly to the immediate project area with any plumes

generated diminishing quickly as they moved down-current. In order to decrease the likelihood of water quality impact, an oil absorbent boom will be installed around the perimeter of all the work zones.

The USACE/USEPA will continue to keep you apprised in a timely manner of the various upcoming phases of the New Bedford Harbor Superfund Project. Once future funding levels are identified, the location and extent of future DMU remediation will be determined. Additional coordination letters will be generated at that time.

Should you have any questions or concerns or would like any additional information regarding the work described above, please feel free to contact Mr. David Dickerson, EPA Co-Remedial Project Manager, at (617) 918-1329, Ms. Elaine Stanley, EPA Co-Remedial Project Manager at (617) 918-1332 or Mr. Jay Mackay, USACE Environmental Resources Section Chief, at (978) 318-8142.

Sincerely,

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Enclosures

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Pipeline	Length
Dredge Area M to Aerovox	1,729 ft
Dredge Area G to Aerovox	1,310 ft
Dredge Area J to Aerovox	979 ft
Dredge Area K to Aerovox	769 ft
Dredge Area L to Manomet	1,056 ft
Manomet to Desanding	2,678 ft

Legend

- Line from Aerovox Booster Pump to Manomet St. Booster Pump
- Line from Dredge Area M to Aerovox Booster Pump
- Line from Dredge Area G to Aerovox Booster Pump
- Line from Dredge Area J to Aerovox Booster Pump
- Line from Dredge Area K to Aerovox Booster Pump
- Line from Dredge Area L to Manomet Booster Pump
- Line to Desanding
- 2009 Dredge Area M (1.1 Acres)
- 2009 Dredge Area G (6.9 Acres)
- 2009 Dredge Area J (6.9 Acres)
- 2009 Dredge Area K (9.9 Acres)
- 2009 Dredge Area L (7.5 Acres)
- Aerovox Booster Pump Station
- Manomet Booster Pump and Ferric Sulfate Injection Station
- Management Units
- MLLW
- MLW
- MHW
- MHHW

0 275 550 Feet

1:6,600

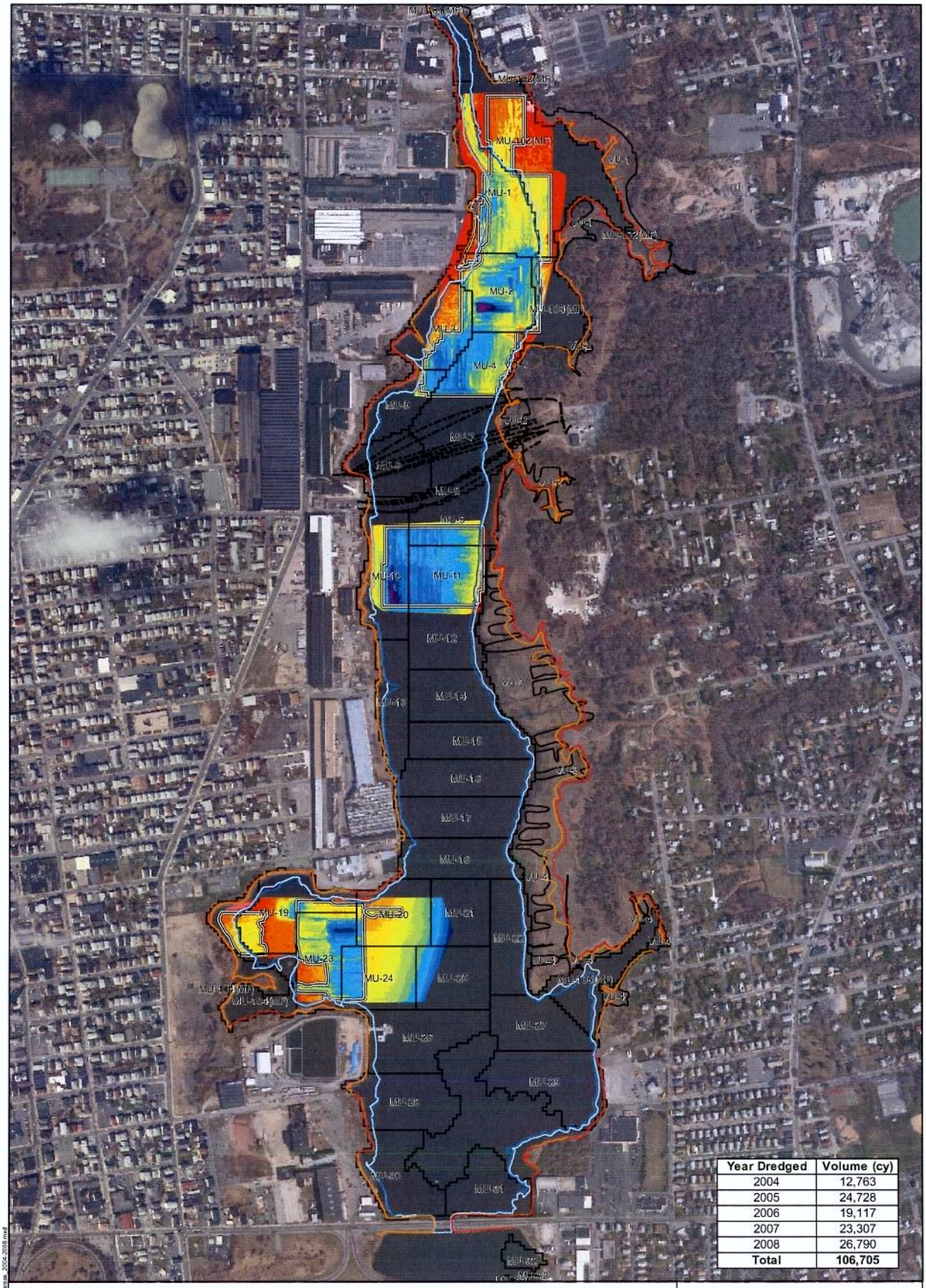
JACOBS

Booster Pump Locations, Ferric Sulfate Injection Location, Dredge Pipeline Routes

New Bedford Harbor Superfund Site

NAME: croberts DATE: 05/06/2009

Figure 1



Year Dredged	Volume (cy)
2004	12,763
2005	24,728
2006	19,117
2007	23,307
2008	26,790
Total	**106,705**

Legend

2004-2008 Dredged Areas

Management Units

NSTAR Cable Crossing

Bathymetry Elevation (ft)

- -1.0 - -0.5
- -1.5 - -1.0
- -2.0 - -1.5
- -2.5 - -2.0
- -3.0 - -2.5
- -3.5 - -3.0
- -4.0 - -3.5
- -4.5 - -4.0
- -5.0 - -4.5
- -5.5 - -5.0
- -6.0 - -5.5
- -6.5 - -6.0
- -7.0 - -6.5
- -7.5 - -7.0
- -8.0 - -7.5
- -8.5 - -8.0
- -9.0 - -8.5
- -9.5 - -9.0

MLLW
MLW
MHW
MHHW

N

0 300 600 Feet

1:7,200

Aerial Photography MASSGIS 2003

JACOBS

2004 - 2008 Dredged Areas

New Bedford Harbor Superfund Site

NAME: croberts DATE: 05/06/2009

Figure 2

JACOBS

Mudcat MC 2000 Dredge

New Bedford Harbor Superfund Site
New Bedford, Massachusetts

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Figure 3

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