



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 1

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OFFICE OF THE  
REGIONAL ADMINISTRATOR

March 6, 2006

Colonel Curtis L. Thalken  
Attn: Michael Keegan  
US Army Corps of Engineers, New England  
696 Virginia Road  
Concord, MA 01742-2751

Re: Draft Supplemental Environmental Impact Statement and Notice of Project Change for the Boston Harbor Inner Harbor Maintenance Dredging Project (CEQ# 20060007)

Dear Colonel Thalken:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA), Section 10 of the Rivers and Harbors Act, and Section 103 of the Marine Protection, Research, and Sanctuaries Act, we have reviewed the Draft Supplemental Environmental Impact Statement (DSEIS) for the Boston Harbor Inner Maintenance Dredging Project.

The DSEIS details the proposed dredging of a total of 3.2 million cubic yards of material. Approximately 1.7 million cubic yards of this material will be dredged from the Main Ship Channel, the upper Reserved Channel and the approach to the Navy Dry Dock in Boston Harbor. Approximately 1.3 million cubic yards of this material has been determined to be unsuitable for open water disposal. This material is proposed to be disposed of in two confined aquatic disposal (CAD) cells to be constructed in the Mystic River. The construction of the two CAD cells through dredging will generate 1.5 million cubic yards of material which will be disposed at the Massachusetts Bay Disposal Site.

The Port of Boston is New England's primary container port. Large vessels that transit the harbor to load and unload goods, have been experiencing tidal delays due to water depths in the navigation channels. EPA recognizes the importance of the maintenance dredging project to improve the efficiency of port operations. Due to improved wastewater treatment, continued combined sewer overflow remediation and moving the wastewater treatment discharge to Massachusetts Bay, the MWRA has documented improvements in water clarity and the recovery of soft bottom benthic habitats<sup>1</sup>.

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<sup>1</sup> Massachusetts Water Resources Authority (MWRA). 2004. State of Boston Harbor Report, March 2004.

EPA has actively participated as a member of the Technical Working Group established to help with the planning and review of the maintenance dredging project. We appreciate the opportunity to comment on the DSEIS and look forward to reviewing the Corps response to our comments and concerns in the FEIS. For the reasons discussed in the attached comments, EPA has rated this DSEIS "EC-2-Environmental Concerns-Insufficient Information" in accordance with EPA's national rating system, a description of which is attached to this letter. Please feel free to contact me or Timothy Timmermann of the Office of Environmental Review at 617/918-1025 if you wish to discuss these comments further.

Sincerely,



Robert W. Varney  
Regional Administrator

Attachment

## **Summary of Rating Definitions and Follow-up Action**

### Environmental Impact of the Action

#### **LO--Lack of Objections**

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

#### **EC--Environmental Concerns**

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

#### **EO--Environmental Objections**

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

#### **EU--Environmentally Unsatisfactory**

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

### Adequacy of the Impact Statement

#### **Category 1--Adequate**

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

#### **Category 2--Insufficient Information**

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

#### **Category 3--Inadequate**

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

**Additional Detailed Comments on the Draft Supplemental Environmental  
Impact Statement and Notice of Project Change for the  
Boston Harbor Inner Harbor Maintenance Dredging Project**

**Outstanding Concerns**

Impact Minimization

EPA endorses the minimization techniques that have been detailed in the DSEIS, which include:

- use of a closed bucket for dredging silt;
- no barge/scow overflow;
- disposal in CAD cells for 3 hours around slack tide;
- sand cap placed on CAD cells;
- use of fisheries observers, sonar detection and startle system from February 15 to June 15 for the Mystic River and Main Ship Channel CAD cells;
- no dredging or blasting seaward of the Third Harbor Tunnel between December 1 and March 31 for lobster protection;
- use of fisheries and marine mammal observers and sonar system to avoid the presence of fish or marine mammals during blasting;
- blasting to be conducted in a manner to minimize the shockwave;
- use of marine mammal observer on scows transiting to the Mass. Bay Disposal Site from February 1 to May 31; and,
- coordination with local lobstermen to minimize impact on their fishing activities.

Despite the minimization techniques described in the DSEIS, EPA remains concerned about potential impacts to winter flounder spawning, and anadromous fish migration. To mitigate potential impacts to anadromous fish migration, the Army Corps proposes fishery observers utilizing sonar systems. The design and efficacy of this approach has not been described in the DSEIS. The DSEIS cites the Boston Harbor Navigation Improvement Project Phase 2 Summary Report as supporting evidence that fishery observers with sonar systems sufficiently protected anadromous fish runs during the last Boston Harbor dredging. It appears that the sole evidence that anadromous fish were not harmed is based on the fact that large numbers of dead fish were not observed. Mortality may not be the only appropriate measure of impact from dredging on anadromous fish. We encourage the Corps to consider other impacts such as avoidance in the FEIS. Therefore, we believe the FEIS should present more information on the accuracy of the sonar system, how it is deployed, what the spatial and temporal coverage is to determine if fish are present. We are also willing to work with the Corps to develop an appropriate study design to determine whether anadromous fish are being negatively impacted during the dredging operation.

The DSEIS claims that disturbance of winter flounder spawning will be minimal due to the distance from the dredging to winter flounder spawning habitat and because dispersion of sediments outside the dredge footprint will be minimal. The DSEIS only considers the area around Snake Island in Winthrop as winter flounder spawning habitat, based on a study of that location by Mass. Division of Marine Fisheries. It has been established that winter flounder will generally spawn in waters less than 8 meters of depth and are often found in the lower portion of rivers.<sup>2</sup> Thus, areas outside of the federal navigation channel of depths less than 8 meters should be considered potential winter flounder spawning habitat. It has also been established that the burial of winter flounder eggs, with as little as a few centimeters of sediment, is sufficient to cause mortality (Walter Berry, pers. comm). The FEIS should document from SSFATE modeling results what the anticipated depth of burial would be to areas adjacent to the navigation channel and the CAD cells that are less than 8 meters in depth. The anticipated depth of burial should then be translated into a prediction of impact in the FEIS.

### Monitoring

The DSEIS commits to monitoring turbidity and total suspended solids at the CAD cells during the first time disposal occurs as a confirmation of minimal water quality impacts. EPA believes that water quality monitoring should be conducted throughout the duration of the project. Monitoring serves two purposes. The first is to verify if predictions in the DSEIS were accurate and the second is for compliance purposes. EPA believes that the Army Corps and Massport should develop a water quality monitoring plan that will demonstrate compliance with state water quality standards. This plan should consider dissolved oxygen, total suspended solids, turbidity and some limited chemical contaminant sampling. EPA is willing to participate in a workgroup to develop an appropriately scaled sampling effort.

### Additional Comments

Page 1-6: There should be a recognition that water quality and benthic habitat have significantly improved since 1995, primarily due to improved sewage treatment and the relocation of the MWRA sewer outfall.

Page 3-45: Mystic Power Station has collected impingement and entrainment data from the estuarine portion of the Mystic River. This data should be reviewed and included to provide a more comprehensive list of fish species that use the lower Mystic River.

Page 3-50: Table 3-11 should be updated to include the most recent softshell clam landing data available.

Page 3-58/59: Bar graphs on Figures 3-13 and 3-14 are not very clear, because they are presented with no scale on the y-axis.

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<sup>2</sup> Collette, B.B. and G. Klein-MacPhee. 2002. Fishes of the Gulf of Maine. Smithsonian Institution Press, Washington, 748pp.

Page 3-76: The New England Aquarium has some acoustic records on the distribution of harbor porpoise in Boston Harbor and Chelsea Creek. This information should be included in the analysis.

Page 4-13: There is a very brief discussion of the impact of sediment deposition on winter flounder eggs from the Boston Harbor Outer Harbor Maintenance Dredging Project. The FEIS should discuss the input values for the SSFATE model for the Outer Harbor Project and document how those inputs would be similar/identical for this proposed project.

Page 4-24: The DSEIS notes that dredged material mounds at the disposal site with a high percentage of sediments of glaciomarine origin (the predominant type of material that will be excavated to create the CAD cells) displays a slower rate of benthic recolonization when compared to other less cohesive sediment. We concur with this finding and suggest that the Corps evaluate whether or not this material could be covered a veneer of other material from the project for the purpose of speeding up the benthic recovery rates at the disposal site.

Page 4-31: The time frames on Table 4-1 need to be updated. Specifically, the Winthrop Shores Restoration Program has not occurred yet. The Hubline project is still ongoing in localized spots.