

**BOSTON HARBOR
MASSACHUSETTS**

NAVIGATION IMPROVEMENT STUDY

**FEASIBILITY REPORT
AND SUPPLEMENTAL ENVIRONMENTAL
IMPACT STATEMENT
AND MASSACHUSETTS
ENVIRONMENTAL IMPACT REPORT**

**APPENDIX A
PUBLIC INVOLVEMENT AND
PERTINENT CORRESPONDENCE**

THIS APPENDIX UPDATED THROUGH APRIL 2013

BOSTON HARBOR, MASSACHUSETTS NAVIGATION IMPROVEMENT STUDY

APPENDIX A PUBLIC INVOLVEMENT AND PERTINENT CORRESPONDENCE

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North Atlantic Division (NAD) – Memo to USACE Headquarters – 6 March 2013
 New England District – Memo to NAD Transmitting Final Report – 6 March 2013
 New England District – PGM Memo thru NAD to HQUSACE – 5 March 2013
 Massport – Letter to NAE Supporting Project – 27 February 2013
 South Atlantic Division (SAD) – Memo to NAE on ATR Certification – 21 February 2013
 HQUSACE – Memo to SAD on Economic Model Certification – 12 April 2012

Part 2. Correspondence Prepared or Received During Re-Coordination and Preparation of the Final Feasibility Report and Final SEIS/EIR

U.S. Fish and Wildlife Service – FCAR Letter to NAE – 11 January 2013
 Boston Harbor Pilots Association – Letter to NAE – 21 December 2012
 Massachusetts Executive Office of Energy and Environmental Affairs – Letter to Massport on MEPA Process and FEIR Scope – 12 December 2012
 New England District – Letter to National Marine Fisheries Service (NMFS) on Essential Fish Habitat – 10 December 2012
 North Atlantic Division (NAD) – Memo to USACE Headquarters – 7 December 2012

New England District – Letter to MA Board of Underwater Archaeological Resources – 4 December 2012

New England District (NAE) – Letter to U.S. EPA – 4 December 2012

Massachusetts Office of Coastal Zone Management – Letter to NAE – 29 November 2012

MA Board of Underwater Archaeological Resources – Letter to NAE – 27 November 2012

National Marine Fisheries Service (NMFS) – Letter to NAE on ESA – 27 November 2012

National Marine Fisheries Service – Letter to NAE on EFH – 26 November 2012

New England District – Memo to North Atlantic Division – 23 November 2012

U.S. Environmental Protection Agency (EPA), Region I – Letter to NAE – 9 November 2012

Massachusetts Water Resources Authority (MWRA) – Letter to NAE on Utility Crossings – 9 November 2012

New England District – Letter to NMFS Transmitting Endangered Species Blasting Impact Report – 7 November 2012

U.S. Coast Guard, Sector Boston – Letter to NAE – 7 November 2012

New England District – Letter to MA CZM on Consistency – 26 October 2012

New England District – Letter to NMFS Reinitiating EFH and ESA Consultations – 24 October 2012

Massachusetts Office of Coastal Zone Management – Letter to NAE – 24 October 2012

Massachusetts Historical Commission – Letter to NAE – 18 October 2012

New England District – Letter to MA CZM on Consistency – 16 October 2012

New England District – Letters to Federal and State Agencies and Tribes Reinitiating Coordination on Final Feasibility Report/SEIS – 11 October 2012

- U.S. Fish and Wildlife Service, Concord, NH
- U.S. Environmental Protection Agency, Region I, Boston, MA
- First Coast Guard District, Boston, MA
- Stellwagen Bank National Marine Sanctuary, Scituate, MA
- MA Executive Office of Energy and Environmental Affairs
- Mashpee Wampanoag Tribe
- Wampanoag Tribe of Gay Head (Aquinnah)
- Massachusetts Seaport Council, Fairhaven, MA
- Massachusetts Historical Commission (SHPO)
- MA Board of Underwater Archaeological Resources

Corps Headquarters – Memo to North Atlantic Division – 26 September 2012 – Enclosing Office of Water Project Review Memorandum – 12 September 2012

New England District – Letter to Massport with FCSA Amendment – 7 October 2009

Massport – Letter to NAE with FCSA Amendment – 29 September 2009

North Atlantic Division – Memo to NAE Approving FCSA Amendment – 22 September 2009

New England District – Letter to Massport on FCSA Amendment – 8 September 2009

New England District – Memo to NAD on FCSA Amendment – 28 August 2009

USACE Emails Approving CWRB Response Framework & Timeline, 13 August 2009

USACE Emails Approving and Transmitting CWRB Response Framework, 6 August 2009

- Includes Final Version of Response Framework for Additional Economic Analysis

Corps Headquarters – Memorandum on Response Framework – 4 August 2009

USACE Emails among Corps Vertical Team, 28 to 30 July 2009

- Includes 29 July 2009 Memorandum on Framework and Survey Scope

USACE Emails Documenting Post 2008 CWRB Activities and Decisions, 7-8 July 2009

Massport – Letter to NAE – 22 June 2009

New England District – Letter to Massport – 2 June 2009

Corps Headquarters – Letter to Massport – 23 March 2009

Corps Planning Center of Expertise for Deep Draft Navigation – Memo, 31 July 2008
Massport – Project Commitment Letter to NAE – 28 July 2008
National Marine Fisheries Service – Email to NAE on ESA – 21 July 2008
Boston Harbor Docking Pilots – Letter to NAE on Chelsea Creek – 17 July 2008
U.S. EPA, Region I – Email to NAE on Air Quality Compliance – 11 July 2008
New England District – Response Letter to U.S. EPA – 8 July 2008
New England District – Response Letter to NMFS – 30 June 2008
MWRA – Email to NAE on Chelsea River Utilities – 22 May 2008

Part 3. Correspondence Received During Public Review of the Draft Report and DSEIS

Federal Agencies

U.S. Environmental Protection Agency – Letter to NAE – 23 May 2008
National Marine Fisheries Service – Letter to NAE and EOEEA – 2 June 2008
U.S. Fish and Wildlife Service – ESA Letter to NAE – 14 May 2008
Department of the Interior, Office of Environmental Policy & Compliance –
Letter to NAE – 2 June 2008

State Agencies

Massachusetts Executive Office of Energy and Environmental Affairs
Secretary's Certificate on the Draft SEIS/EIR – 13 June 2008
Massachusetts Office of Coastal Zone Management – Letter to NAE – 2 June 2008
Massachusetts Dept of Environmental Protection – Letter to EOEEA – 2 June 2008
Massachusetts Board of Underwater Archaeological Resources – Letter to NAE –
2 June 2008
Massachusetts Historical Commission, SHPO – Letter to NAE – 5 May 2008
Massachusetts Water Resources Authority – Letter to NAE – 2 June 2008
Massachusetts Division of Marine Fisheries – Letter to EOEEA – 2 June 2008

Municipal Agencies

City of Boston, Environment Department – Letter to NAE and EOEEA – 2 June 2008
Town of Winthrop, Town Council – Letter to NAE Forwarding Comments
From a Constituent – 30 May 2008

Non-Governmental Organizations and Private Individuals

Boston Marine Society – Letter to NAE – 1 June 2008
The Boston Harbor Association – Letter to NAE – 2 June 2008
Boston Harbor Pilots Association – Letter to NAE – 2 June 2008
Save the Harbor, Save the Bay – Letter to NAE – 2 June 2008

Part 4. Draft Feasibility Report and Draft SEIS/EIR Transmittal Documents

Public Notice for Draft Feasibility Report and DSEIS/DEIR – 18 April 2008
Federal Register, Vol. 73, No. 76, Page 21121 – Notice of Availability – 18 April 2008
New England District – Press Release for Draft Report/SEIS – 18 April 2008
Massport – MEPA Filing Letter – 11 April 2008
New England District – Transmittal to Massport – 10 April 2008
New England District – Transmittal to Governor Patrick – 10 April 2008
New England District – Transmittal to Lieutenant Governor Murray – 10 April 2008

New England District – Transmittal to Senator Edward M. Kennedy – 10 April 2008
 New England District – Transmittal to Senator John F. Kerry – 10 April 2008
 New England District – Transmittal to Congressman Michael E. Capuano – 10 April 2008
 New England District – Transmittal to Congressman William F. Delahunt – 10 April 2008
 New England District – Transmittal to Congressman Stephen F. Lynch – 10 April 2008
 New England District – Transmittal to Congressman Edward J. Markey – 10 April 2008
 New England District – Transmittal to Congressman John F. Tierney – 10 April 2008
 New England District – Transmittal to Boston Mayor Thomas M. Menino – 10 April 2008
 New England District – Transmittal to Revere Mayor Thomas G. Ambrosino – 10 April 2008
 New England District – Transmittal to Chelsea City Manager Jay Ash – 10 April 2008
 New England District – Transmittal to U.S. Coast Guard First District – 10 April 2008
 New England District – Transmittal to U.S. EPA Region I – 10 April 2008
 New England District – Transmittal to U.S. Fish & Wildlife Service – 10 April 2008
 New England District – Transmittal to NMFS Northeast Region – 10 April 2008
 New England District – Transmittal to National Park Service, Boston Harbor Islands
 National Recreation Area – 10 April 2008
 New England District – Transmittal to NOAA Stellwagen Bank National Marine Sanctuary
 – 10 April 2008
 New England District – Transmittal to MA EOEEA Secretary Bowles – 10 April 2008
 New England District – Transmittal to MA Seaport Council – 10 April 2008
 New England District – Transmittal to MA Department of Conservation and Recreation
 – 10 April 2008
 New England District – Transmittal to Massachusetts Historical Commission – 10 April 2008
 New England District – Transmittal to Wampanoag Tribe of Gay Head – 10 April 2008
 New England District – Transmittal to Mashpee Wampanoag Tribe – 10 April 2008
 New England District – Federal Register Notice Transmittal to US EPA – 8 April 2008
 With Copy of Notice of Availability – Signed 8 April 2008

Part 5. Correspondence Received During Preparation of the Draft Feasibility Report and
 DSEIS

U.S. Coast Guard, Captain of the Port – Letter to NAE – 9 November 2007
 New England District – Letter to MA Board of Underwater Archaeological Resources –
 4 October 2007
 New England District – Letter to US Coast Guard, First District MSO – 14 August 2007
 New England District – Letter to Boston Harbor Pilots – 3 August 2007
 New England District – Letter to MA CZM on Beneficial Use – 30 July 2007
 Boston Harbor Pilots Association – Email to NAE – 30 June 2007
 Massachusetts Office of Coastal Zone Management – Letter to NAE – 28 June 2007
 U.S. EPA – Letter to NAE on Beneficial Use – 25 June 2007
 U.S. Fish and Wildlife Service – F&W Coordination Act Letter to NAE – 29 May 2007
 New England District – Letter to MA EOEA on Beneficial Use – 24 May 2007
 New England District – Letter to U.S. EPA on IWS Beneficial Use – 27 April 2007
 New England District – Letter to U.S. Fish & Wildlife Service – 24 January 2007
 New England District Memorandum – Regulatory Division – Suitability Determination
 for Dredged Material Disposal – 8 December 2006
 U.S. EPA – Email to NAE Concurring in Suitability Determination – 8 December 2006
 New England District – Letter to Applied Coastal Research & Eng. Inc. – 13 October 2006

Massachusetts Division of Marine Fisheries – Memo to NAE – 25 October 2005
 New England District – Letter to MA EOEA – 14 September 2005
 Massachusetts Division of Fisheries and Wildlife – Letter to NAE on State Endangered
 and Threatened Species – 16 September 2005
 National Marine Fisheries Service – Letter to NAE – 6 September 2005
 New England District – Letter to MA EOEA – 6 July 2005
 U.S. EPA – Letter to NAE – 30 June 2005
 Agreeing to participate in development of the SEIS as a Cooperating Agency
 Massachusetts Division of Fisheries and Wildlife – Letter to NAE – 31 May 2005
 New England District – Fax Memo and Exhibits to MA DFW – 19 May 2005
 Massachusetts Office of Coastal Zone Management – Letter to NAE – 24 May 2005
 Agreeing to participate in development of the SEIS as a Cooperating Agency
 National Marine Fisheries Service – Letter to NAE – 28 April 2005
 Agreeing to participate in development of the SEIS as a Cooperating Agency
 New England District – Letter to National Marine Fisheries Service – 29 March 2005
 U.S. Fish and Wildlife Service – Letter to NAE on Threatened and Endangered
 Species – 2 March 2005
 New England District – Letter to MA Division of Marine Fisheries – 2 March 2005
 National Marine Fisheries Service – Letter to NAE on EFH – 14 February 2005
 Massachusetts Division of Fisheries and Wildlife – Letter to NAE – 14 February 2005
 New England District – Letter to US Fish & Wildlife Service – 25 January 2005
 New England District – Letter to MA Division of Fisheries and Wildlife – 25 January 2005
 New England District – Letter to National Marine Fisheries Service – 10 January 2005
 New England District – Letter to MA Division of Marine Fisheries – 16 December 2004
 New England District – Letter to MA Board of Underwater Archaeology – 22 June 2004
 Massport – Letter to NAE on Study of Chelsea River – 17 June 2003
 U.S. EPA – Letter to Massport – 11 June 2003
 New England District – Letter to University of Massachusetts – 19 May 2003
 National Marine Fisheries Service – Letter to NAE – 19 May 2003
 Agreeing to participate in development of the SEIS as a Cooperating Agency
 U.S. EPA – Letter to NAE – 16 May 2003
 United States Coast Guard, First District MSO – Letter to NAE – 15 May 2003
 Agreeing to participate in development of the SEIS as a Cooperating Agency
 U.S. Fish and Wildlife Service – Letter to NAE – 14 May 2003
 New England District – TWG Letter to Boston Conservation Commission – 14 May 2003
 New England District – TWG Letter to U.S. Fish and Wildlife Service – 14 May 2003
 New England District – TWG Letter to University of Massachusetts – 14 May 2003
 New England District – TWG Letter to Save the Harbor/Save the Bay – 14 May 2003
 New England District – TWG Letter to National Marine Fisheries Service – 14 May 2003
 New England District – TWG Letter to MIT Sea Grant Program – 14 May 2003
 New England District – TWG Letter to MA Coastal Zone Management – 14 May 2003
 New England District – TWG Letter to MA Dept of Environmental Protection – 14 May 2003
 New England District – TWG Letter to U.S. EPA – 14 May 2003
 New England District – TWG Letter to The Boston Harbor Association – 14 May 2003
 New England District – TWG Letter to MA Div of Marine Fisheries – 14 May 2003
 New England District – Letter to the Wampanoag Tribe of Gay Head – 18 April 2003
 New England District – Cooperating Agency Letter to MA EOEA – 11 April 2003
 New England District – Cooperating Agency Letter to U.S. Coast Guard – 11 April 2003
 New England District – Cooperating Agency Letter to U.S. EPA Region I – 11 April 2003

New England District – Cooperating Agency Letter to U.S. F&WS – 11 April 2003
New England District – Cooperating Agency Letter to NMFS – 11 April 2003
New England District, Regulatory Division – Letter to NSTAR and MWRA – 20 March 2003
MA EOEAs – Secretary’s ENF Certificate and EIR Scope – 10 March 2003
 With Attached Comment Letters to MA EOEAs
 Massachusetts Department of Environmental Protection – 27 February 2003
 Massachusetts Division of Marine Fisheries – 27 February 2003
 Massachusetts Office of Coastal Zone Management – 27 February 2003
 Massachusetts Water Resources Authority – 28 February 2003
 Massachusetts Turnpike Authority – 27 February 2003
 City of Boston, Environment Department – 28 February 2002 (2003)
 The Boston Harbor Association – 28 February 2003
 NSTAR, Electric Operations – 28 February 2003
Massachusetts Port Authority – Letter Enclosing ENF to MA EOEAs – 31 January 2003
New England District – News Release on Public Meeting – 7 August 2002
MA Board of Underwater Archaeological Resources – Letter to NAE – 26 August 2002
Federal Register – Vol. 67, No. 164 – 23 August 2002 – Notice of Intent for SEIS
New England District – Letter to MA Board of Underwater Archaeological Resources
 on Cultural Resource Survey Scope – 20 August 2002

Part 6. Correspondence During Approval of the Reconnaissance Report and FCSA

New England District – Letter to Massport on FCSA Execution – 30 April 2002
HQUSACE – Memorandum to NAD Approves Proceeding to Feasibility Phase –
 17 April 2002
Massachusetts Port Authority – Letter to NAE on FCSA Commitment – 1 March 2002
Massachusetts Port Authority – Letter to NAE on 905(b) – 12 October 2000
New England District – Letter to Massport on 905(b) Approval – 20 September 2000
North Atlantic Division – Memorandum to NAE on 905(b) Approval – 18 August 2000
HQUSACE – Memorandum to NAD Approves 905(b) Reconnaissance – 11 August 2000

APPENDIX A PUBLIC INVOLVEMENT AND PERTINENT CORRESPONDENCE

Public Involvement Plan for the Boston Harbor Deep Draft Final Feasibility Study and Final SEIS/EIR

Public Information and Scoping Session

At the initiation of the Feasibility Study, Massport hosted a public information and study scoping session on 5 September 2002 at the Black Falcon Terminal in South Boston. Advance notice to the meeting was provided by U.S. Army Corps of Engineers (USACE) and the Massachusetts Port Authority (Massport) in News Releases and Memoranda. The Corps and Massport provided an overview of prior and ongoing project efforts and a description of the reconnaissance recommendations, feasibility study scope and timeline, NEPA process, and proposed public involvement plan. Massport also discussed the importance of the channel deepening to the future of the Port of Boston. A question and answer session and dialogue on study scope followed the presentations.

Cooperating Agencies

By letters dated 11 April 2003, the USACE sent invitations to Federal and State agencies and inviting participation in preparation of the SEIS as Cooperating Agencies. The US EPA, US Coast Guard, National Marine Fisheries Service and Massachusetts Office of Coastal Zone Management all responded in the affirmative. These agencies have each been active in the study's development and in evaluation and review of study products and reports.

State Regulatory Process (MEPA) Notice and Scoping

The Commonwealth of Massachusetts consolidates scoping for environmental permitting under the Massachusetts Environmental Policy Act (MEPA) office, an arm of its Executive Office of Energy and Environmental Affairs (MA EOEEA), a State cabinet level office. The MEPA process requires project proponents to file an Environmental Notification Form (ENF) with the MEPA office and with notice to State and local agencies and the public. There is a public review period for the ENF during which a scoping session or hearing is held. At the conclusion of the comment period the Secretary of MA EOEEA issues a Certificate that includes the required scope of environmental studies the State will require. Massport filed the ENF with the State on 31 January 2003. The MEPA Scoping Session was held on 25 February 2003 at the Black Falcon Terminal and included project presentations by Massport and the USACE. The MA EOEEA Secretary's Certification on the ENF was issued on 10 March 2003. The Certification and comment letters are included in this Appendix. Those documents, along with the ENF, and a comment/response table, are also included in Appendix P – *Massachusetts Regulatory Review Documents*.

The Draft Feasibility Report and Draft SEIS/EIR were released to the public and agencies on 11 April 2008 for concurrent Federal and State review. The joint Federal and State review period closed on 2 June 2008. A public meeting was held 20 May 2008 in Boston. The Secretary of the MA EOEEA issued a Certification of the Draft EIR on 13 June 2008, providing and summarizing the agency and public comments the State had received on the draft documents and outlining the requirements for addressing those comments and providing additional information in the Final EIR.

Public Review of Draft Feasibility Report and SEIS/EIR

The public comment period under the Federal National Environmental Policy Act (NEPA) and State MEPA processes closed on 2 June 2008. A total of 17 comment letters were received in response to both the Federal and State review processes; four from Federal agencies, seven from State agencies, the City of Boston, the Town of Winthrop, and four local non-governmental organizations or associations with interest in the harbor. The comment letters, annotated for significant comments, are included in Part 3. A Comment-Response table, cross-referenced to the annotated letters, is included at the end of this appendix immediately prior to the letters.

Boston Harbor Technical Working Group

The Boston Harbor Technical Working Group (TWG) was established in the 1990s as a means of managing interagency and public coordination for the Design Phase and preparation of the EIS for the Boston Harbor Main Tributaries Deepening Project authorized by Congress in 1990 and constructed between 1998 and 2002. The Boston Harbor TWG functions as a port-specific dredging team and has remained in operation to help facilitate the two major maintenance dredging actions in the harbor from 2004 to 2012. In May 2003 the participating agencies and groups were asked and agreed to continue their work with the TWG as part of the current deep draft navigation improvement study. The Boston Harbor TWG includes the following:

- Corps of Engineers (USACE) – New England District (NAE)
- Massachusetts Port Authority
- U.S. Environmental Protection Agency – Region I
- U.S. Fish and Wildlife Service
- National Marine Fisheries Service
- United States Coast Guard – MSO Captain of the Port
- Massachusetts Institute of Technology – Sea Grant Program
- City of Boston – Environment Department & Conservation Commission
- City of Revere - Conservation Commission
- City of Chelsea - Conservation Commission
- Boston Harbor Pilots Association
- Massachusetts Office of Coastal Zone Management
- Massachusetts Department of Environmental Protection
- Massachusetts Division of Marine Fisheries
- Massachusetts Executive Office of Energy and Environmental Affairs – MEPA Office
- University of Massachusetts at Boston

Massachusetts Water Resources Authority
The Boston Harbor Association
Save the Harbor/Save the Bay

Both the USACE and Massport have engaged contractors to assist in the studies and documentation required for the feasibility study. Contractor personnel regularly take part in the TWG meetings and presentations. Contractors include:

- For the USACE
- Battelle International (Environmental)
 - David Miller Associates (Economics)
 - University of Massachusetts Archaeological Services
 - GEI Consultants (Sediment & Geophysical)
 - TG&B Marine Services (Sediment Sampling)
 - Applied Marine Sciences, Inc. (Sediment Testing)
 - Ocean Surveys Inc. (Geophysical)
 - CDM/Smith (Air Quality)
 - CR Environmental (Sediment Sampling and Testing)
 - Woods Hole Environmental Laboratories (Sediment S&T)
- For Massport
- AECOM (formerly EarthTech – Environmental, Regulatory & AQ)
 - University of Massachusetts Boston (Economics)
 - Norbridge, Inc.

Meetings of the Boston Harbor Technical Working Group were held periodically during the feasibility study as follows:

- 10 June 2003 – Black Falcon Terminal, South Boston – Initial TWG Meeting for Study
- 27 January 2004 – Massachusetts Transportation Building, Boston
- 22 June 2004 – Massachusetts Transportation Building, Boston
- 5 January 2005 – Massachusetts Transportation Building, Boston
- 29 June 2005 – Black Falcon Terminal, South Boston
- 29 November 2005 – Black Falcon Terminal, South Boston
- 23 January 2006 – Black Falcon Terminal, South Boston
- 10 April 2006 – Black Falcon Terminal, South Boston
- 25 July 2006 – Black Falcon Terminal, South Boston
- 15 August 2007 – Black Falcon Terminal, South Boston
- 18 December 2007 – Black Falcon Terminal, South Boston
- 19 May 2008 – Massachusetts Transportation Building, Boston
- 21 July 2008 – Black Falcon Terminal, South Boston
- 3 December 2012 – Black Falcon Terminal, South Boston

A subgroup of the TWG was established to examine the effects of blasting operations on fisheries resources, investigate means of minimizing blasting impacts and ultimately recommend methods and procedures for future use. The group first met 4 February 2008 at the New England District offices in Concord, MA. The group will re-convene once Design Phase subsurface explorations results are available to enable development of a sequencing plan for project construction that will minimize resource impacts.

Boston Harbor Port Operators Group

The Port Operators Group (POG) is chaired by the US Coast Guard MSO Boston and Massport and meets about 11 times a year, on the third Wednesday of the month at either the Black Falcon Terminal or the conference room at the Boston Autoport. The POG includes many of the same parties participating in the project through the TWG. Additionally the POG includes terminal operators, shippers, law enforcement, tug companies, and other harbor interests. The POG focuses on issues of port operations and security, but also receives updates on issues such as whale sightings and activities in Massachusetts Bay, activities and conditions with respect to the Stellwagen Bank National Marine Sanctuary, and ongoing construction activities in the harbor and bay from project proponents and managers. The New England District project manager for Boston Harbor represents the USACE at the POG meetings and provides regular updates on ongoing maintenance dredging activities and the progress of the deep draft navigation improvement feasibility study.

Massachusetts State Dredging Team

The Massachusetts State Dredging Team (MASDT) is chaired by the Massachusetts Office of Coastal Zone Management. The team has met quarterly since MA CZM took over hosting the meetings from USEPA in late 2006. The MASDT consists of representatives from most of the agencies and groups comprising the Boston Harbor Technical Working Group. At each dredging team meeting the USACE and Massport provide updates on Boston harbor projects and activities including the Deep Draft Navigation Improvement Feasibility Study. Specific aspects of the Improvement Study, including the scope of channel improvements, resource studies, and beneficial use proposals, have been the subject of detailed presentations to the MASDT. State dredging team meetings where developments in the deep draft feasibility study were briefed have been held as follows:

- 14 December 2005 – Black Falcon Terminal, South Boston
- 24 January 2006 – US EPA Region I, Boston
- 17 October 2006 – US EPA Region I, Boston
- 20 December 2006 – MACZM Offices, Boston
- 18 January 2007 – MACZM Offices, Boston
- 8 March 2007 – MACZM Offices, Boston
- 15 May 2007 – MACZM Offices, Boston
- 15 November 2007 – MACZM Offices, Boston
- 16 January 2008 – MACZM Offices, Boston
- 28 January 2011 – MACZM Offices, Boston
- 19 October 2012 – MACZM Offices, Boston

Annual Regional Federal Agency Coordination

The U.S. EPA, U.S. FWS, and NMFS with responsibility for New England and for Boston Harbor in particular have held several sessions over the course of the feasibility study to update agency management on study progress and interim findings, and to foster improved interagency coordination. The Federal agencies meet annually, generally in the second quarter of the Federal fiscal year when project budget allocations typically become known to

review last year's project activities and be briefed on the coming year's river and harbor work. No meetings were held in 2006 or 2008 due to the lateness of the budget allocations. A project by project presentation and discussion is use to surface and help resolve any outstanding issues and concerns. The status of the Boston Harbor Feasibility Study and the work plan for the coming year's study activities is briefed and discussed by the agencies. Only the last couple meetings since 2008 are listed as economics was the primary discussion for the Deep Draft Project from 2008 to 2011. No meetings were held in 2012.

- 30 January 2002 – New England District, Concord, MA
- 15 January 2003 – New England District, Concord, MA
- 21 January 2004 – New England District, Concord, MA
- 20 January 2005 – New England District, Concord, MA
- 26 February 2007 – New England District, Concord, MA
- 10 March 2011 – New England District, Concord, MA
- 19 September 2011 – New England District, Concord, MA

New England Regional Dredging Team Coordination

New England's Regional Dredging Team (NERDT), known also as the Sudbury Group after its original meeting place at the Great Meadows National Wildlife Refuge in Sudbury, Massachusetts, meets twice annually to discuss issues of regional scope for the dredging and regulatory programs. Each meeting includes a briefing on the status and progress of the Boston Harbor Feasibility Study.

- 2 May 2002 – New England District, Concord, MA
- 17 May 2005 – Kittery, Maine, Town Council Room
- 16 November 2005 – Great Meadows National Wildlife Refuge, Sudbury, Massachusetts
- 5 October 2006 – Kittery, Maine, Town Council Room
- 15 February 2007 – Great Meadows National Wildlife Refuge, Sudbury, Massachusetts
- 10 May 2007 – Kittery, Maine, Town Council Room
- 20 November 2007 – Great Meadows National Wildlife Refuge, Sudbury, Massachusetts
- 29 May 2008 – New Hampshire DES Offices, Portsmouth, NH
- 13 October 2010 – New Hampshire DES Offices, Portsmouth, NH
- 6 December 2011 – New Hampshire DES Offices, Portsmouth, NH
- 8 May 2012 – Great Meadows National Wildlife Refuge, Sudbury, Massachusetts
- 27 November 2012 – Save the Bay Offices, Providence, Rhode Island

Other Agency Coordination

The New England regional offices of the Federal agencies also meet at least annually for a Mid-Level Managers Meeting (MLM), which typically involves staff one management level above those that attending the NERDT meetings. These managers meet to resolve policy and process issues referred up by the NERDT. The MLM is briefed in detail on the Boston Harbor Feasibility Study progress at each meeting.

Additionally the USACE has met with the U.S. Coast Guard to brief that agency on the project and solicit their input into issues including project design, port safety and security,

anchorage needs, replacement of the Chelsea Street Bridge, and navigation traffic concerns related to project construction.

The USACE has also met with the National Park Service at their Boston offices to discuss their comments on the draft Feasibility Report and their concerns with project construction and post-project vessel traffic and the potential for impacts to NPS properties in the harbor.

The USACE and US EPA and their contractors have also met at USACE District office in Concord, MA on 11 October 2007 to discuss the details and feasibility of the proposed beneficial use of dredged materials to cap the former Industrial Waste Site in Massachusetts Bay. Also discussed was the development of a demonstration effort to examine controlled capping at the MBDS.

Before establishment of the TWG and MASDT the USACE has also met with Massachusetts Office of Coastal Zone Management (MACZM) and other agencies to provide briefings on the feasibility study progress and to refine the study scope, provide detail on individual study tasks, and to help define design and regulatory concerns.

Other agency coordination meetings and briefings are listed below:

- 15 August 2002 – Feasibility Study Initiation Meeting with Sponsor – Fish Pier, South Boston
- 14 February 2003 – Meeting between NAE, Massport and MACZM, Boston CZM Offices
- 17 March 2003 – Meeting with Massport, University of Maine and University of Massachusetts Amherst to Plan Archaeological Survey Scope – NAE, Concord, MA
- 20 June 2003 – Project Briefing for U.S. Coast Guard at NAE on Chelsea Street Bridge
- 2 July 2003 – Meeting with USACE and USCG at USCG Headquarters, DC
- 9 July 2003 – Federal Agency Briefing on Boston Harbor – NAE Offices, Concord, MA
- 30 September 2004 – MLM Meeting at New England District, Concord, MA
- 16 March 2005 – MLM Meeting at New England District, Concord, MA
- 7 July 2005 – Teleconference between USCG and NAE on Port Safety and Security
- 26 October 2005 – MLM Meeting at New England District, Concord, MA
- 31 January 2006 – Meeting with NAE, Massport and FAA, Logan Airport, East Boston
- 15 November 2006 – MLM Meeting – at New England District, Concord, MA
- 15 March 2007 – MLM Meeting at New England District, Concord, MA
- 22 May 2007 – Meeting between NAE, NAD, PCX, Massport and Contractors on ITR
- 16 July 2007 – Meeting between NAE and EPA-I on IWS Capping Beneficial Use
- 13 September 2007 – MLM at New England District, Concord, MA
- 14 August 2008 – Meeting between NAE and National Park Service, Boston, MA
- 10 March 2011 – MLM Meeting at New England District, Concord, MA
- 19 September 2011 – MLM Meeting at New England District, Concord, MA
- 10 October 2012 – ESA/EFH Meeting between NAE and NMFS at Gloucester, MA

Public Notice, Meetings and Hearings

In addition to the public information and scoping session in September 2002, and the periodic meetings of the TWG and POG, various outreach activities have been held for the harbor improvement study.

Public Meeting – Boston Harbor Inner Harbor Maintenance SEIS – Black Flacon Terminal – 14 February 2006

After approval by USACE Headquarters (HQUSACE) of release of the Draft Feasibility Report and DSEIS/DEIR for agency and public review, the District published the draft report, with advance notice to the Governor and Congressional interests, on 11 April 2008. A Public Notice and other advance materials consisting of project summaries and fact sheets were also distributed to Congressional interests, State and local public officials and agencies, and other interested parties. A Notice of Availability for the draft documents was provided to EPA's NEPA office on 11 April and was published in the Federal Register on 18 April 2008. A joint Press Release from Massport and the USACE was made on 18 April 2008.

Public Meeting – Boston Harbor Deep Draft Navigation Improvement Project – Draft Feasibility Report and Draft SEIS/SEIR – Black Flacon Terminal – 20 May 2008. This meeting was held during the 45-day public review period to solicit public comment on the draft documents.

Other Outreach and Communications

3 August 2004 – Meeting held with Massport, MADMF, Massachusetts Lobstermen's Association and Boston Harbor Lobstermen to identify potential sites for investigation for hard bottom habitat creation using rock and other hard materials removed by the project.

28 March 2007 – Meeting held with Massport and China Overseas Shipping Company (COSCO) at their offices in Seacaucus, New Jersey to discuss the shipper's plans for service with or without port deepening.

22 April 2008 – Project presentation to a meeting of Massachusetts Harbormasters, hosted by the U.S. Coast Guard, Sector Boston, Commercial Street, Boston, Massachusetts.

PUBLIC AND AGENCY REVIEW COMMENTS ON APRIL 2008 DRAFT FEASIBILITY REPORT AND SEIS/EIR AND RESPONSES

GENERAL RESPONSES

The availability of the Draft Feasibility Report and Draft Supplemental Environmental Impact Statement/Massachusetts Draft Environmental Impact Report (SEIS/EIR) was published in the Federal Register on 18 April 2008. Copies of the documents were mailed to Federal, State and municipal agencies, interested parties and elected officials on 10-11 April 2008. A public notice was published, and a joint press release by the USACE and Massport issued 18 April

2008. The public comment period for both the Federal and State review processes closed on 2 June 2008, and the MEPA Certificate was issued by the Secretary of the Massachusetts Executive Office of Energy and Environmental Affairs on 13 June 2008. A letter from the MEPA Office dated 12 December 2012 confirmed that the project changes described in this document did not require any change to the 2008 Final EIR Scope Certificate.

The USACE and Massport reviewed the comments provided by the public, and by municipal, State and Federal agencies on the Draft Feasibility Report and Draft SEIS/EIR. A meeting of the Boston Harbor Dredging Technical Working Group and a Public Information Meeting were held on 19 and 20 May 2008, respectively, to present the study recommendations, solicit comments and answer questions on the project. Responses to these comments are provided in this section of the Public Involvement Appendix.

A number of commenting parties had common concerns with certain aspects of the proposed project. These mainly dealt with the nature and firmness of commitments by the USACE and Massport for additional Design Phase investigations, planning and NEPA compliance on specific areas and topics. The following paragraphs provide responses on these topics.

1. USACE Civil Work Process and Project Implementation Schedule

The nature of the USACE Civil Works process, project phasing, and the relationship to the NEPA process was discussed with the agencies in the Technical Working Group meeting. Large USACE civil works projects require specific Congressional authority to initiate studies and construction. The Feasibility phase, for which this report and SEIS have been prepared, is intended to answer the request by Congress for a report and recommendation on whether Federal interest in further navigation project improvements to Boston Harbor is warranted. This includes providing a specific recommendation on proposed project features, and an estimated cost of those improvements. NEPA requires an open and transparent decision-making process and an opportunity for public comment.

The feasibility phase has investigated the proposed navigation improvements to the level of detail necessary to answer the Congressional request for a report, consistent with the USACE published Planning Guidance and policies governing the civil works project investigations. The Feasibility Report and Final SEIS are the Executive Branch's decision document and will provide Congress the necessary information to decide whether or not to authorize the recommended project or other improvements to the harbor. Following public and agency review of the Draft Feasibility Report and Draft SEIS, the USACE District prepares the draft Final Feasibility Report and Final SEIS. These documents will be reviewed within the USACE and the Department of the Army at the Washington level, and a decision made as to whether to release a final report for review at the Federal cabinet level, to the public, and for approval by the affected State(s). After those reviews are completed, the Final Feasibility Report and SEIS and the Chief of Engineers Report would be prepared, a Record of Decision (ROD) would be issued by the Assistant Secretary of the Army for Civil Works, and the reports forwarded to Congress.

Once the final Feasibility Report and Final SEIS are approved and the ROD issued, the project may advance into the Design Phase (Planning, Engineering and Design, or PED), subject to funding. The Design Phase will conduct any necessary field investigations needed to support detailed design of the project, prepare and publish any additional NEPA/MEPA documents related to Design Phase investigations and address significant changes made during Design Phase. Also during the PED, any amended regulatory approvals required due to design changes will be secured, and documents necessary to solicit bids for the project prepared.

The Feasibility Report identifies activities and their estimated costs to be undertaken in the Design Phase. These include: subsurface investigations to identify locations of and characterize rock requiring removal. A rock removal method will be developed in consultation with the TWG. A project sequencing plan, air quality mitigation plan and additional investigations related to potential beneficial uses of rock and other dredged material will be undertaken as well as development of monitoring plans for the project and remote sensing archaeological survey to identify historic properties within areas of potential effect. The Design Phase cannot be initiated until the final Feasibility Report is approved and forwarded to Congress and a design agreement is executed with the project sponsor.

The Design Phase investigations will yield more detailed data on the several technical issues and topics listed in the discussions below. A number of these may result in changes to or refinements of the Federal project base plan, and may require preparation of additional NEPA/MEPA documents. One or more additional NEPA/MEPA documents may be prepared to address any changes. At this time the following Design Phase activities are anticipated:

- Conduct subsurface investigations, revised dredged material quantities and prepare a blast mitigation plan.
- Conduct remote sensing archaeological survey to identify historic properties within project areas of potential effect.
- Conduct resource characterization and dredge area monitoring baseline of the benthic environmental, fisheries and shellfisheries as needed.
- Develop a construction sequencing plan for removal of rock and non-rock material needed for channel deepening.
- Pending changes to Federal conformity guidelines, conduct air quality emissions conformity evaluations may be needed to determine the appropriate means of meeting the emissions. Adjustments to the construction sequencing plan would be made according to whatever final means of meeting air quality requirements is selected.
- Investigate additional beneficial use opportunities for rock with the State and local communities.
- Rock reef habitat creation opportunities will be further investigated with the NMFS, U.S. EPA, the Commonwealth, and other interested TWG members
- Coordinate with the U.S. EPA regarding the potential use of dredged material to cap the former Industrial Waste Site. U.S. EPA will need to take regulatory action to permit placement of these materials as cap at that site.

2. Continuation of the Interagency Technical Working Group

During the last three major dredging projects for Boston Harbor, the Boston Harbor Dredging Technical Working Group (TWG) has met and provided comments, during the design and construction of those projects. The USACE and Massport have committed to continuing involvement of the TWG throughout the design and construction of this project, both as a means of outreach to the participating parties, and as a means of engaging and soliciting technical input on Design Phase investigations and adaptive management during construction and any post-construction monitoring. In addition, interested agencies from the TWG are invited to participate in sub-groups to help develop and comment on specific plans for blast mitigation measures, construction sequencing, air quality conformity, and consideration of beneficial use options for the rock and dredged material. The TWG would continue to include Federal, State and municipal agencies with a regulatory interest in the harbor and port, and those established non-governmental organizations (NGOs) with the technical expertise and experience critical to developing and providing comment on the necessary investigations and planning for detailed design of the project.

3. Development of the Rock Removal Approach and Blasting Mitigation Plan

The Design Phase of the project includes an extensive boring and probing program to supplement and refine the results of the acoustic surveys and historic boring data that the Feasibility Report relied on for its estimates. This work is critical to most of the remaining design efforts and will be accomplished during the first year of the Design Phase. Once the subsurface exploration program is completed, the division between rock and glacial till, and the exact nature of the rock to be removed, will be understood. In the Feasibility Report, all hard material identified by the acoustic surveys is classified as rock requiring blasting for removal. This is assumed to be a worst case scenario, as prior work at Boston and other New England harbors in recent years has shown that acoustic surveys overestimate the volume of bedrock. .

Once the subsurface design effort is completed, the USACE will determine the appropriate rock removal method for each project segment. Using this information, the USACE and Massport will work with interested TWG agencies to refine plans for the range of possible rock removal methods, which includes blast mitigation measures, that may be used for the project. These plans will be developed in concert with the larger construction sequencing plan (discussed separately) for the entire project. These plans will address environmental concerns.

The subsurface effort may show areas where rock can be removed economically by means other than drilling and blasting. During construction of the last Boston Harbor Navigation Improvement Project between 1998 and 2001, areas of rock in the Reserved Channel Turning Area, the Reserved Channel and in the inner confluence at the Head of the Main Ship Channel were removed by ripping the ledge with a large toothed bucket. The cut into the ledge in those areas was shallow; approximately two feet, and those outcrops at that shallow depth were sufficiently weathered and fractured to permit this method of removal. Some strata, while not sufficiently fractured to permit bucket ripping, may prove removable by other mechanical means, such as a hydraulic hammer, as has been possible in limited areas with the

deepening of the Elizabeth River Channel in New Jersey. A hydraulic hammer was also used in the spring 2008 removal of several small rock pinnacle areas in the Broad Sound North Entrance Channel. Some rock areas for the Boston Harbor Deep Draft Improvement Project may lend themselves to similar methods of removal without drilling and blasting. The boring program in the Design Phase will provide the information on the appropriate rock removal method.

However, some level of caution is in order. The depth of the rock cut at Boston is estimated to be between eight to fifteen feet in many areas, as the channel is being deepened from -40 feet at mean lower low water (MLLW) down to -47 feet MLLW. The Broad Sound North Entrance Channel will be deepened to a controlling depth of -51 feet MLLW. In all channels where rock is encountered the required channel depth will be increased two feet as a safety measure. For all channels a two-foot allowable overdepth in all materials is possible. Rock at that depth may not be weathered or fractured sufficiently to avoid a need for blasting. The blasting estimates for the Boston Harbor Deep Draft Improvement Project currently call for two drill barges, each with a three-gang drill rig, with blast daily for each. A hydraulic hammer would work around the clock, except when it moves between areas to allow a dredge to remove what has been fractured.

At this time, a few predictions as to likely components of the blasting plan can be made. For project construction to proceed on schedule, with minimal interruption and minimal excess mobilization-demobilization costs, drilling and blasting operations will need be underway in some area(s) of the harbor the majority of the time. Due to weather and sea state concerns, drilling and blasting in the Broad Sound North Entrance Channel will not likely occur in periods when heavy winter storms are expected. Fisheries observers and marine mammal observers would be present during blasting operations. Fish detection and fish startle systems would be employed.

For the Main Ship Channel Extension segment that extends up-harbor to about 1,000 feet downstream of the Ted Williams Tunnel, the USACE will coordinate development of the rock removal plan with the Massachusetts Department of Transportation, the owners of the I-90 tunnel to ensure no impact to the tunnel.

The blasting efforts conducted for the ledge pinnacle removal project in 2007-2008 employed several means of avoiding and minimizing fish kills, including use of the fish observer and a fish startle system, and blast hole stemming. Even so, four of the blast events in November and December of 2007 resulted in fish kills of varying size. An After Action Report prepared by the USACE determined that the placement of the fish startle system and side scan sonar on the blast barge may not be as effective as employing this system on a separate vessel (See Appendix Y in the FSEIS). This alternate method was employed in the most recent rock removal project in 2012 and no fish kills were experienced with this new method.

In response to comments from NMFS and others, the potential for noise in the water generated by blasting to impact whales in Massachusetts Bay was also investigated. The results of that investigation have been included in the FSEIS. The investigation concluded that noise would be confined to the short distance from the blast site of no more than 1500 feet, with allowance for an additional safety zone outside the calculated noise impact zone. The nearest concentrations of whales in the Bay are located several miles seaward around

Stellwagen Bank. The potential for blasting noise to interfere with the whale-tracking buoy system in Massachusetts Bay will be investigated during the Design Phase. The nearest of these buoys is located in the shipping lanes seaward of the precautionary buoy, about 10.5 miles east of the seaward-most blasting area in the entrance channel.

As stated above, the After Action Report on the 2007 blasting work and its impacts, and the results of the additional evaluation of blasting noise on aquatic resources, as well as those from the 2012 blasting have been included in the Final Feasibility Report and FSEIS/EIR. It is expected that the calculated blast safety zones presented in that report would be protective of Federally listed threatened and endangered species that could occasionally occur in the project area, including whales, sea turtles and Atlantic sturgeon. In addition, lessons learned from the previous blasting in Boston Harbor will be incorporated, where appropriate into the blasting mitigation measures. Some of these lessons include the development of a communication plan between the fish observer and the contractor, and deploying the fish startle system on an alternate vessel instead of the blast barge. Additional measures to minimize blasting impacts to listed species can be found in the Final Feasibility Report and FSEIS/EIR.

4. Beneficial Use of Rock - Investigation of Potential Rock Reef Sites

The USACE and Massport would prefer to find an acceptable beneficial use for the one million± cubic yards of blasted rock that would be generated by the improvement project, rather than merely disposing of it in 300 feet of water at the designated Massachusetts Bay Disposal Site (MBDS); the current base plan. Rock and other dredged material should always first be considered as a public resource for beneficial use. Many environmental resource agencies raise concerns about the potential loss of hard bottom habitat when dredging of hard bottom is proposed at any project in New England. Accordingly the USACE's first consideration was to reuse this excess blasted rock material to create new hard bottom habitat. However, some resource agencies believe that creation of additional hard bottom habitat in Massachusetts Bay at the expense of covering existing soft-bottom habitat may not be desirable.

In order for the USACE to recommend including such a beneficial use component in the project it must either (1) entail no or minimal additional cost to the Government, (2) have any additional cost paid for by non-Federal interests, or (3) involve a use where the benefits of that use outweigh the additional cost, and have any additional cost to the project cost-shared between the USACE and a non-Federal public agency. Accordingly, a zone of feasibility for reef creation siting was established whereby the reduced hauling costs to the more distant MBDS would offset by any additional project costs for beneficial use site investigations, controlled dumping practices, and monitoring of site recovery and recolonization.

The intent of the reef creation option was to create hard-bottom habitat, not merely for adult lobster, but also other species that prefer this type of habitat. Five candidate reef creation sites were selected with input from the local lobstermen and the State marine fisheries staff at a meeting held on 3 August 2004. The goal was to identify large areas where existing rocky habitat was less represented than sandy or softer substrates. The analysis to date as presented in the Feasibility documents was limited to bottom types, bathymetry, Essential Fish Habitat,

and benthic resource characterization. As no real consensus developed among the Federal and State agencies during the feasibility study as to the desirability of reef creation in Massachusetts Bay, additional examination was deferred until the Design Phase, when more specific information on the quantities and types of rock and other hard materials to be generated by the project would become known. Other reviewing agencies also identified concerns about the desirability of replacing soft-bottom habitat with rock reefs that may take years to colonize, and would supplant the functions and value of the existing soft-bottom habitat at these sites.

In response to Federal and State agency concerns expressed during meetings of the project's Technical Working Group, the District has committed to working with these agencies during the Design Phase to examine these issues, define the exact type and quantity of materials available for such use, and examine the candidate sites in greater detail to determine the value of the existing habitat relative to the anticipated value of the reefs. Should reef creation proceed, technical design issues such as mound width and elevation, mound spacing, setbacks from existing hard bottom areas, cultural resource presence and protection, and targeted species will all require further evaluation. A plan for monitoring recovery and recolonization of any constructed reef site will also be developed. Some State agencies have suggested that perhaps only half, or some other portion, of the rock should be made available for reef creation, and making the rest available for other uses if found feasible (see next comment).

If it is determined that rock reef creation is desirable and feasible, and will be included in the final design of the Federal Navigation Improvement Project, then the results of the additional investigations, reef design, and habitat recovery monitoring plans will be published in an additional NEPA/MEPA document if necessary.

5. Other Beneficial Uses for Rock Removed from the Project

In addition to reef habitat creation, some or all of the blasted rock could prove suitable for other beneficial uses. Making the rock available to industry for processing as aggregate or for other construction purposes has been mentioned. Making the rock available to State agencies or area municipalities for use in public projects, particularly shore protection, has also been mentioned. Some of these are discussed below. The Design Phase of this project will include consultation and collaboration with these agencies and others to determine what economically practical beneficial options may exist. The following information will be incorporated into the Beneficial Use and Conclusions sections of the Feasibility Report.

The Massachusetts Office of Coastal Zone Management (MA CZM) is working with other State agencies and industry to identify other potential beneficial uses of the rock beyond reef creation. However, without knowing exactly when the Deep Draft Project will be authorized and funds appropriated for construction, it is difficult to generate interest or get any commitment from other parties to take the rock. At this time no parties interested in receiving this material have been identified.

Massport, MA CZM and the USACE are discussing how making the rock available to upland users might be accomplished without increasing the cost to, or delaying the construction of the navigation project. The three agencies met on 18 June 2008 with a contractor identified

by the State to discuss the nature of the rock material expected to be removed, and limitations the dredged process would place on that material and opportunities for processing and re-using that material. Massport is investigating whether some of its waterfront property may be available for rehandling of this material. The Massport Marine Terminal and the Boston Autoport are possibilities. Other non-Massport properties such as the Fore River shipyard site in Quincy or partnerships with existing dry bulk terminals like Eastern Minerals should also be explored by any party interested in receiving this material.

Processing this material for aggregate, or use for specific construction projects, including shore protection, would require significant effort. Should the State or a private party agree to accept the rock at the dredge, or pay to rehandle material ashore at some point on the harbor, the Federal Deep Draft Navigation Improvement Project could save some of the transportation cost associated with placement of the rock at the designated ocean site.

Rock removed will be of a wide range of sizes in any particular scow-load; likely ranging from fist-sized up to several tons. There will be no ability to separate particular sizes of rock from a scow-load on the water without causing construction delays and increasing costs. Any sorting or processing would need to occur onshore. There are at least two large public shore protection projects proposed in close proximity to Boston Harbor (Winthrop Shores and Nantasket Beach) that might benefit from receipt of this material if it proves to be of a type suitable for those projects, and it can be transported and processed for such use economically compared to other sources.

The State and the Department of the Interior have also expressed an interest in rock as shore protection to stop erosion of some of the harbor islands. Most of the harbor islands are included in both a State Park and a National Recreation Area. The USACE and Massport will consult with the agencies managing these islands to determine if such needs can be reasonably met, and whether these agencies are willing to undertake the rehandling and additional transportation costs for rock from the project.

Once the design-phase subsurface investigations have been completed, more exact estimates of rock type and volumes will be known. Estimates can then be made of production rates and potential uses. The USACE and Massport have committed to working with the State to identify practicable beneficial uses beyond in-water placement once the Design Phase data has been developed.

Any changes to the Federal base plan for disposal of the rock at the MBDS would require publication of such changes in an additional NEPA/MEPA document. Should new proposals for reuse of the rock involve non-Federal projects, then the project proponent would need to fund and conduct any necessary investigations and documentation, and secure all regulatory approvals needed for such use or project(s) before the navigation project is advertised in order to use project rock.

6. Beneficial Use of Non-Rock Dredged Material – Former Industrial Waste Site Capping Potential and Demonstration

The USACE and the U.S. Environmental Protection Agency have proposed using some or all of the non-rock dredged material to create a cap of the former Industrial Waste Site (IWS) located in Massachusetts Bay north of and partially overlapping the existing Massachusetts Bay Disposal Site (MBDS). As outlined in the Draft Feasibility Report, SEIS and EPA's memorandum included in Appendix R, capping the IWS would remove any remaining potential conflict between fishing activities in the Bay and the sediments and disposed materials at that site. While the barrels and containers used to dispose of chemical and medical waste at the IWS from the 1940s to 1970s have largely deteriorated, sampling in the 1990s showed no contaminant levels of concern. However, EPA has indicated that radiological waste disposal containers are still intact. Dragger trawl scars are visible throughout the site, and fishermen occasionally bring up corroded waste containers. EPA believes there remains a potential for fishing activity to disturb exposed barrels and sediments at the site. EPA and the USACE believe that up to 11 million cubic yards of clay and other parent sediments generated by the harbor improvement project represents a one-time opportunity to cap the IWS and isolate any of its sediments and debris from the environment.

The principal concern discussed in the Feasibility Report and SEIS, and voiced by other agencies, is whether or not such a capping operation can be designed and accomplished in a manner that would limit the disturbance and resuspension of existing bottom sediments at the IWS. To address these concerns, and to develop a better understanding of the methods and feasibility of such a deep water capping operation using largely clay material, the USACE conducted a demonstration project in 2008 using Boston blue clay material dredged from Boston Harbor as part of the Boston Inner Harbor Maintenance Dredging Project. In that demonstration, illustrated in Figure 41 of the Feasibility Report, the USACE placed clay in targeted rows at an undisturbed portion within the MBDS well removed from the IWS. The demonstration assessed the ability to precisely place individual loads of material with split-hulled scows and the ability to limit impact to ambient sediments by building an initial berm of material and then advancing laterally by placing material on the flank of the berm. Monitoring and results of the demonstration will be coordinated with the TWG agencies.

Design Phase investigations by the USACE and EPA, including the results of the capping demonstration effort, may lead to a decision not to pursue capping of the IWS using the dredged materials from the Boston Harbor Deep Draft Improvement Project. In that case, the Federal base plan for disposal of those materials at the MBDS would be followed, unless another cost-effective beneficial use can be identified. EPA would modify the MBDS boundaries to permit placement of dredged materials in areas of the IWS now outside the designated MBDS boundary.

7. Construction Sequencing Plan Development

The Design Phase of the project will include development of a Construction Sequencing Plan to limit the impact of construction activities on harbor resources to the extent practicable. The USACE and Massport will work with interested TWG member agencies to develop this plan in a manner similar to the development and adaptive management of the rock removal including a blasting mitigation plan. Drilling, blasting and dredging production rates will then

be developed for each channel segment. The final determination of the air quality compliance mitigation methods to be used for the project will also be determined. This will permit a determination of construction durations for each piece of the project.

Critical times of year and geographic distribution within the harbor for various species of concern will be developed after additional resource surveys have been completed and with input from the TWG agencies. These spatial and temporal restrictions will be charted along with the project construction durations. A best fit of construction activities relative to resource concerns will then be developed. The intent will be to minimize to the extent practical any conflict between construction and resources, while permitting the project to proceed with minimal interruption and impact.

8. Benthic Resource Definition and Recolonization Studies for Dredged Areas

The benthic community in Boston Harbor has changed dramatically since the cessation in 1991 of sludge disposal in Boston Harbor, the conversion in 1998 of wastewater treatment from primary to secondary treatment, and the relocation of the wastewater discharge outfall from Boston Harbor to Massachusetts Bay in 2000. This is particularly true in the northern part of the harbor, where the proposed Deep Draft Project is located, where an increase in species diversity and numbers has been observed.

Benthic grab samples were collected from the navigation channels in 2003. Infaunal communities within the project study area are clearly separable into two geographic regions. The first extends from the innermost region, the Mystic and Chelsea Rivers to the vicinity of the Reserved Channel. Within this region, infaunal abundances are very low to low, and species numbers are also very small or small. The second region extends from the Reserved Channel to the mouth of the harbor and includes the Lower Harbor, Main Ship Channel, and President Roads Anchorage Area. Infaunal abundances here range from medium to large and species numbers range from medium to large. Infaunal abundances in the Outer Harbor (the entrance channels) are somewhat lower, but the species numbers are similar, than those in the Lower Harbor, Main Ship Channel, and President Roads Anchorage.

The variation in species diversity and abundance can be partially related to the substrate type and the location within the harbor. Physical samples were collected in 2002 to determine grain size of the material to be dredged. The results of these tests show that the improvement material corresponds to the sidescan and sub-bottom profile data. That is, coarser grained (predominantly sand and gravel in the Outer and Lower Harbor) and finer grained sediment (clay) in the upper portion of the harbor and rivers. After improvement dredging of the Chelsea River and Mystic River in 2000, the underlying parent material composed mostly of Boston blue clay was exposed. Until this material is reworked, or silt overlays the blue clay, very low numbers of benthic organisms were or will be observed in this habitat.

Deepening the navigation channels could change the substrate composition, in particular the Lower and Outer Harbor. In areas where recent maintenance or improvement dredging since 1998 has exposed parent glacial material (clay, till and bedrock) the proposed deepening will not be likely to change the current condition as recovery of these areas has not yet been completed. In some areas channel deepening will expose a different substrate. Bedrock exposure will increase slightly as the deepened channels will be closer to the bedrock

basement. Appendix Q to the Draft Feasibility Report/SEIS/EIR contains maps which compare the various harbor bottom classifications for the existing condition with improvement for either a 45-foot or 48-foot channel system. Overall the exposed areas of bedrock and coarse till will increase as channel depth increases.

Pre- and post-monitoring of the benthic and shellfish community is proposed for the various channel segments to document a baseline and to monitor the extent of recovery over time and potential changes in the infaunal and macrofauna benthic community. Proposed monitoring could include Sediment Profile Imaging (SPI) camera, benthic grabs, lobster traps (vented/ventless), divers to conduct early benthic phase lobster surveys, and/or a towed camera. Pre-construction baseline characterization surveys would be conducted during the Design Phase and no more than about one year before construction. Post-construction monitoring could begin one year after construction has been completed and continue for three to five years. Input from the Technical Working Group participants would be solicited on the details of the monitoring plan. The monitoring effort would need to be cost-shared with the project sponsor. The results of additional resource characterization investigations and detailed monitoring plans will be published in an additional NEPA/MEPA document, if required.

9. Air Quality Compliance Methodology and Alternatives

The method presented in the Draft Feasibility Report and SEIS/EIR used construction activity shut-down periods, in combination with a requirement that construction equipment meet projected 2011 emissions requirements, to ensure that construction plant emissions did not exceed compliance thresholds. By remaining below de minimis emission levels during construction, the project would not need to undergo a general conformity analysis that would require offsetting 100 percent of the project's construction emissions. While the shut-down method does keep the project in compliance with current emissions limits, it extends the construction period by the total of the shutdown terms, delaying project benefits. Project costs are also increased by additional demobilization and remobilization costs, and additional cost escalation for the extended construction duration. Delaying completion of the project by six months or more would also delay the start of benthic recolonization and ecological recovery of the dredged areas where work was delayed. The construction shutdown also does not reduce total project emissions or result in long-term emission reductions beyond those otherwise provided as a result of the project through a reduction in truck-miles for the New England region. The USACE and Massport would prefer an approach that further reduces or offsets emissions from project construction if a cost-effective source or method can be identified during the Design Phase.

The Draft Feasibility Report and SEIS/EIR stated that the USACE and Massport would revisit the air quality question during the Design Phase as construction durations for the various project segments became more defined by design level investigations. Several commenters questioned why commitments to other methods couldn't be made at the Feasibility phase.

Construction equipment used for this project would be required in the project specifications to have more efficient cleaner burning technologies so as to be compliant with EPA's 2011 tier 3 and tier 4 emissions standards. Even with this requirement, annual emissions thresholds for some pollutants would be exceeded without further reduction measures. Without construction

shutdowns to limit emissions in any one calendar year to below the conformity threshold level, the project would need to mitigate 100 percent of all emissions through some combination of emissions credits or emissions reduction offset measures. Substitution of any of these measures would require a general conformity analysis. Even so, such methods may prove less costly than construction shutdowns and require further consideration during project design once the extent of required ledge removal and other components of a construction sequencing plan are better known.

During the preparation of the Draft Feasibility Report and DSEIS/DEIR, available sources of credits were investigated. Credits need to be for the precursors of the same non-attainment pollutant that needs to be mitigated, if permitted by the State air pollution control authority, for the year(s) in which the project would occur, and from the same, or nearby, maintenance or non-attainment area as the project. While credits that meet these requirements may be available, it is not known exactly when Congress would authorize the project, or when project construction funds would be appropriated. The Government cannot commit to expenditure of construction phase funds until after authorization and appropriation. Until then no commitment can be made to any holder of credits that the Government could purchase those credits.

An alternative compliance option is offsets; investments in new technology or replacement of existing sources of emissions with more modern less emitting sources. Some offsets used for other recent navigation projects outside New England include refitting existing vessels with new cleaner engines, and replacement of municipal vehicle fleets in part with alternative fuel vehicles. The USACE and Massport will continue to explore potential offset opportunities during the Design Phase and will discuss these options with the TWG and agencies.

Project measures to demonstrate Air Quality Conformity cannot be finalized in the Feasibility Phase due to factors such as uncertainties in the project timeline, the availability of credits in the years that they would be required to offset construction-related emissions, and the potential for conformity regulatory changes to occur in the near term. The only means of complying with air quality requirements that is certain at the Feasibility Phase is construction period shutdowns that avoid exceeding the emissions thresholds and thus avoid triggering general conformity analysis. The USACE and Massport concur with reviewers of the Draft Feasibility Report and Supplemental EIS/ EIR that alternative Air Quality compliance strategies that result in real reductions in construction air emissions should be considered when additional information can be developed. Although not currently eligible for consideration in the Conformity Analysis, it should be noted that a key benefit of the proposed harbor deepening is the regional reduction of on-road emissions as a result of more New England based cargo being handled through the Port of Boston.

The Air Quality analysis will be re-examined following the Design Phase field investigations and development of a construction sequencing plan to determine if a more desirable and cost-effective means of compliance exists that would mitigate emissions rather than merely deferring them over a longer construction duration with shutdowns. The USACE and Massport are committed to working with EPA, the State, and interested TWG participants with experience in Air Quality mitigation issues to develop an appropriate air quality compliance strategy, should one still be required. This could be accomplished through establishment of a formal TWG Air Quality subcommittee. Any changes in Federal and State standards, conformity guidance, and implementation plans will be incorporated into the

revised analysis at that time. Should any change in the method of ensuring compliance of the project with air quality requirements result from this review, the USACE and Massport would give notice of these changes to the public and provide an opportunity for public comment through the General Conformity analysis and review process.

10. SSFATE (Turbidity) Monitoring and Impacts

An SSFATE model was used to predict the direction and concentration of the turbidity plume from dredging, and the thickness of the deposition layer for the Outer Harbor Maintenance Dredging Project in Boston Harbor. Grain sizes representative of silt were selected for use in the modeling to predict the resulting turbidity plume when the dredge was operating in the Lower Harbor, the President Roads Anchorage area, and the Broad Sound North Entrance Channel. The model may be found on the USACE New England District website.

The results of the SSFATE model predicted that the concentration of the turbidity plume at the mid-depth water column level would generally range from 30 to 60 mg/l with occasional readings of 80-90 mg/l near the dredge. In general the plume stayed within the navigation channel throughout the tide cycle. The SSFATE model also predicted the resulting thickness of the re-suspended material overlaying the bottom once the plume settled. Bottom thickness ranged from 0.01 to 0.1 mm outside the navigation channel, and up to 1-2 mm immediately adjacent to the dredge.

The SSFATE model is usually conservative in predicting turbidity plumes from dredging operations. Actual monitoring of the plume during dredging and disposal of the Boston Harbor Navigation Improvement Project (tributaries deepening project) in 1998-2001 showed that the plume stayed confined to the navigation channel and was generally difficult to discern beyond 600 feet down-current of the dredge or disposal event.

Plume monitoring was completed for the Boston IHMDP during dredging, ship passage and disposal into the CAD cell from June 30, 2008 through October 28, 2008. Plume tacking included cross channel transects 300 feet up-current of the dredge and from 100 to 1500 feet down-current of the dredge. Dredge plumes were monitored during four slack tides (two high and two low), two ebb and two flood tides in each study area (near the inner confluence and halfway between Castle Island and Spectacle Island) (USACE, 2009).

The Boston IHMDP dredge plume monitoring showed the dredging plumes to be of relatively low concentrations and localized to the immediate dredge area (within 500 feet for the highest turbidity readings) (USACE, 2009). In strong tidal currents the plumes were narrow and concentrated near the dredge (150-250 feet wide), up to 20 NTU above background, and usually present from surface to bottom and then they widened, dissipated and settled to the lower half to two-thirds of the water column as they were carried down the channel by the tide. The plumes dissipated to background levels typically between 1000 and 1500 feet down-current. As the dredge plumes dissipated they tended to be found across the full width of the channel in the lowest one-third (or less) of the water column at low concentrations (<5 NTU above background) as they approached background levels. During slack tide conditions the dredge plumes pooled beneath the dredge, typically no wider than 100-150 feet wide and dissipated to background levels in as little as 500 to 1000 feet down-current of the dredge.

The dredge plumes were typically confined to the channel, although low concentration plume filaments were observed on two occasions as far as 650 feet from the channel in the southern monitoring area where current flows are more complex, but did not impact any nearby sensitive resource areas.

Since the material to be dredged from the Boston Harbor Deep Draft Improvement Project is parent material composed of Boston blue clay and glacial till, the turbidity plume is expected to be smaller or at least not greater than the turbidity plume monitored during the Boston Harbor Navigation Improvement Project or the Inner Harbor Maintenance Dredging Project.

SPECIFIC RESPONSES TO CORRESPONDENCE RECEIVED

In addition to commonly raised issues and comments, each agency and individual commenter raised specific comments and questions on a variety of topics and concerns. Specific responses to these comments are provided below. Responses are made to these parties in a specific order as follows; first, from letters received to our request in 2012 for any updated information, and then in response to the release of the Draft SEIS/EIR in 2008:

Letters Received in 2012:

Federal Agencies

U.S. Department of Homeland Security, U.S. Coast Guard – 7 November 2012

U.S. Environmental Protection Agency – 9 November 2012

National Marine Fisheries Service (EFH Consultation) – 26 November 2012

National Marine Fisheries Service (Section 7) – 27 November 2012

State Agencies

Massachusetts Historical Commission – 18 October 2012

Massachusetts Executive Office of Energy and Environmental Affairs

Office of Coastal Zone Management – 24 October 2012

Office of Coastal Zone Management – 26 October 2012

Office of Coastal Zone Management – 29 November 2012

Board of Underwater Archaeological Resources – 27 November 2012

MA Environmental Policy Act (MEPA Office) – 12 December 2012

Massachusetts Water Resources Authority – 9 November 2012

Letters Received in 2008:

Federal Elected Officials – None Received

State and Municipal Elected Officials – None Received

Federal Agencies

U.S. Environmental Protection Agency – 23 May 2008

National Marine Fisheries Service – 2 June 2008

U.S. Fish and Wildlife Service – 14 May 2008

Department of the Interior, Office of Environ Policy & Compliance – 2 June 2008

State Agencies

Massachusetts Executive Office of Energy and Environmental Affairs

Secretary's Certificate on the Draft SEIS/EIR – 13 June 2008

Massachusetts Office of Coastal Zone Management – 2 June 2008

Massachusetts Department of Environmental Protection – 2 June 2008

Massachusetts Board of Underwater Archaeological Resources – 2 June 2008

Massachusetts Historical Commission, SHPO – 5 May 2008
 Massachusetts Water Resources Authority – 2 June 2008
 Massachusetts Division of Marine Fisheries – 2 June 2008

Municipal Agencies

City of Boston, Environment Department – 2 June 2008
 Town of Winthrop, Town Council – 30 May 2008

Non-Governmental Organizations and Private Individuals

Boston Marine Society – 1 June 2008
 The Boston Harbor Association – 2 June 2008
 Boston Harbor Pilots Association – 2 June 2008
 Save the Harbor, Save the Bay – 2 June 2008

The page reference to copies of the correspondence received and reproduced in this appendix is shown at the beginning of the responses to each party. The source of the comment is identified by number annotated on the correspondence and referenced to the response.

Correspondence from Re-Initiation of Coordination in 2012

U.S. Department of Homeland Security, U.S. Coast Guard – Letter to NAE – 7 November 2012		Letter at Page A-2-71
Comment USCG-01	Although the Coast Guard is charged with maximizing efficiencies of the Marine Transportation System (MTS), we do not feel that this one foot reduction in proposed project depth will negatively impact current and future needs of the MTS for the Port of Boston.	
Response	Comment noted.	

U.S. Environmental Protection Agency, Region 1 – Letter to NAE – 9 November 2012		Letter at Page A-2-59
Comment EPA-01	We suggest that the USACE discuss the general conformity issue with us after the proposed implementation rule for the 2008 ozone standard is published.	
Response	The USACE and Massport are currently re-examining the expected air quality impacts of the project with reference to the revised air quality determinations. The results of that examination will be discussed with the TWG when they become available.	
Comment EPA-02	As addressed in our 2008 scoping comments, the Boston area carbon monoxide attainment area [Middlesex County (part) Cities of Cambridge, Everett, Malden, Medford, and Somerville; Norfolk County (part) Quincy City; and Suffolk County (part) Cities of Boston, Chelsea, and Revere], with an associated maintenance plan would also trigger General Conformity provisions.	
Response	Comment noted.	

Comment EPA-03	On Monday April 25, 2010, EPA finalized revisions to the General Conformity Regulation (64 FR 17254-17279). The USACE may be able to take advantage of the flexibility and benefits offered by the revised general conformity rule. We should plan to discuss this issue at the upcoming Technical Working Group meeting.
Response	Agreed. The USACE and Massport added this topic to the TWG agenda for the 3 December 2012. The USACE and Massport are currently re-examining the expected air quality impacts of the project with reference to the revised air quality determinations. Any EPA regulatory revisions would be incorporated in the Design Phase conformity analysis. The results of that examination will be discussed with the TWG when they become available.
Comment EPA-04	Should any new onroad mobile modeling be required, MOVES should be used in developing the onroad mobile emission inventories.
Response	If needed, then MOVES would be used to develop the onroad mobile emission inventory.
Comment EPA-05	Our 2008 comments on the DSEIS noted our objections to the proposed blasting activities and rock reef creation due to a lack of information relative to the extent and impact of both. Our letter strongly encouraged the USACE to meet and work with us and other interested federal and state agencies to resolve those issues. Absent any meaningful coordination on both issues over the past four years, we note that the basis for our objections has not changed.
Response	See General Topics #2 and # 3 above for additional information and responses to this comment. Section 7 consultation has been conducted for effects of blasting on listed species and NMFS has concurred that the proposed blasting is not likely to adversely affect any NMFS listed species. Blasting mitigation measures will be developed in coordination with the TWG as well as other interested federal and state agencies.
Comment EPA-06	Moreover, we believe that these discussions are an important part of the USACE work to develop a comprehensive and defensible FSEIS and we would hope that interagency coordination can help to resolve our outstanding objections in advance of the finalization of the FSEIS analysis.
Response	See General Topics #2 and #3 above and response to previous comment. USACE will is planning to work with TWG and other interested agencies to develop mitigation measures for rock removal/fracturing and beneficial use of fractured rock.

U.S. Department of Commerce National Oceanic and Atmospheric Administration – National Marine Fisheries Service – Letter to NAE – 26 November 2012 – Habitat Conservation		Letter at Page A-2-46
Comment NMFS-01	Although your letter indicates that you will share additional information and details of the project as they are developed during the Design Phase of this project, it does not specify whether or not the information we requested in our June 2, 2008 letter will be provided.	
Response	Additional investigations would be conducted during the Design Phase of the project, see general topic #8 above. This information will be shared with NMFS and published in supplemental NEPA documents if necessary.	
Comment NMFS-02	In fact several of these BMPs were incorporated in the blasting conducted in September 2012, and we note that you reported no fish kills during that recent rock removal work. However, this project involved removing just over 3,000 cy over a three-day period of blasting in September, which is a time when minimal presence of diadromous fish are expected in Boston Harbor.	
Response	First, it should be noted that only about 500 cy of rock was removed over a few weeks; not 3,000 cy over a 3-day period. However, measures that were taken to reduce these blasting impacts included: stemming, blast delays, use of fish observers, sonar monitoring, and a fish startle system to deter fish. One noted difference from previous blasting in Boston Harbor was the location of the fish startle system on an alternative vessel, which appeared to be more effective in deterring fish from the presence of the blast location since the deterring system could operate until very shortly before a blast. An underwater blasting TWG will be formed during the Design Phase to explore the practicality and feasibility of any potential mitigative measures (including project sequencing). Recommendations agreed to by the TWG and the USACE to reduce potential blast impacts will be incorporated into the design specifications for the Deep Draft Project. USACE will work with the Technical Working Group to develop a blasting mitigation measures that seeks to minimize impacts to critical resources during sensitive time periods in the various areas of the harbor. Also see general topics #2 and #3 above.	
Comment NMFS-03	We continue to contend that an underwater blasting technical working group is needed for the proposed BHDDNIP. The complexities of underwater blasting, as well as the diverse technologies and best management practices that are available, require a thorough review by a technical working group composed of federal and state resource and permitting agencies.	
Response	Agree. See response NMFS-02 above. Also see general topics #2 and #3 above.	
Comment NMFS-04	We continue to believe the FSEIS/FEIR should consider the effects of the loss of soft bottom habitats as a result of the creation of artificial reefs relative to the overall ecosystem functions and values.	

Response	<p>As a matter of USACE policy, rock and other dredged material should always be considered first as a public resource. Many environmental resource agencies raised concerns about the potential loss of hard bottom habitat when dredging hard bottom is proposed at any project in New England.</p> <p>Accordingly, our first consideration was to reuse any rock material removed to create new hard bottom habitat. However, some resource agencies believe that creation of additional hard bottom habitat in Massachusetts Bay at the expense of covering existing soft-bottom habitat may not be desirable. See general topic #4 and #5.</p>
Comment NMFS-05	<p>We continue to believe the results of this demonstration project should be considered in the FSEIS/FEIR to determine the efficacy of using the dredged material from the proposed BHDDNIP to cap the IWS.</p>
Response	<p>Results of the pilot project to demonstrate the efficacy of using the dredged material to cap barrels at the IWS are summarized in the FSEIS/FEIR with reference to a detailed report to be published in the spring of 2013. The results of this pilot project showed that the potential to cap barrels at the IWS should be successful. See general topics # 6.</p>
Comment NMFS-06	<p>To avoid impacts to winter flounder spawning, egg, larvae, and juvenile development habitat, no dredging or underwater blasting should be conducted between February 1-June 15 of any year in any areas of the Mystic River and Chelsea River, and the Reserved Channel, and the Main Ship Channel and Turning Basin landward of the Conley Terminal.</p>
Response	<p>Only a small portion of the Mystic River navigation channel located opposite the Medford Street Terminal is proposed to be deepened; no underwater blasting is proposed for this area. The proposed area to be dredged is relatively small, especially when compared to the total amount of available area in the Mystic River for winter flounder habitat; therefore no significant impact to overall winter flounder habitat from dredging impacts is expected in the Mystic River.</p> <p>Winter flounder spawn in shallow waters less than six meters (<20 feet) deep (EFH, 1999). The navigation channels proposed to be deepened in Boston Harbor are -35 feet MLLW or more. Thus, the navigation channels would not be considered prime winter flounder spawning habitat.</p> <p>Plume monitoring was conducted between 1998 and 2000 for the Boston Harbor Navigation Improvement Project (BHNIP). Monitoring was conducted when both navigation channels were dredged and during disposal into Boston Harbor CAD cells. Plume monitoring was also conducted for the Inner Harbor Maintenance Dredging Project (IHMDP) in 2008 (Battelle, 2009). This monitoring showed that the plume stayed confined to the navigation channel. The only exception was the area just south of Castle Island where variable currents carried a filament of the plume out of the channel as far as 650 feet, away from the potential winter flounder spawning area near Governors Island. Maximum turbidity levels within the plume were low (~12 NTU above</p>

	<p>background).</p> <p>Therefore, while we disagree with this EFH conservation recommendation for the above areas proposed for navigation channel deepening, we will seek to accommodate the February 1 to June 15 environmental window to avoid dredging in the most sensitive areas for winter flounder to the extent practicable. We will coordinate with the TWG to help determine the extent of sensitive areas and period of concern for the various areas of the harbor during that timeframe. This restriction, however, will need to be evaluated during the Planning, Engineering and Design Phase (Design Phase) once the overall project sequencing plans are developed and taking into account potential blasting and air quality emission impacts.</p>
Comment NMFS-07	<p>In order to protect EFH forage species, no dredging or underwater blasting should be conducted between March 1-June 30 of any year in any areas of the Mystic River and Chelsea River channels and private terminals berths, the Reserved Channel and terminal berths at Massport facilities, the Main Ship Channel and terminal berths, and the Turning Basin west of the Conley Terminal to avoid adverse impacts on upstream spawning migrations of alewife, blueback herring, rainbow smelt.</p>
Response	<p>As mentioned above, both the BHNIP and the IHMDP plume monitoring showed that, except for the area just south of Castle Island, the plume stays confined to the navigation channel. See general topic # 10.</p> <p>The proposed deepening of the Chelsea River would increase the depth of the entire navigation channel by an additional two feet. Based on the above plume monitoring results, and the large areas of the harbor not impacted by a dredge plume, no impedance to upstream spawning migrations of alewife, blueback herring, and rainbow smelt is expected during dredging. However, given its confined nature, dredging in the Chelsea River could potentially impede upstream migration of fish species that may be present. We will coordinate with the TWG to determine what species are present at what time of year and then determine the appropriate means to minimize impacts, if necessary.</p>
Comment NMFS-08	<p>For the remaining sections of the BHDDNIP (i.e., Main Ship Channel east of the Conley Terminal, President Roads Anchorage, Broad Sound North Entrance Channel, maintenance of the 35-foot deep lane of the North Entrance Channel, 30-foot deep Broad Sound South Entrance Channel, 15-foot deep Nubble Channel and 35-foot deep MLLW Barge Anchorage), an underwater blasting plan should be developed during the Planning Engineering, and Design Phase of the proposed project. The underwater blasting plan should be convened as soon as possible to begin evaluating data from the proposed Boston Harbor Main Ship Channel rock removal project, as well as gathering information from other past underwater blasting projects in this and other regions. This technical working group should identify and evaluate the most current knowledge on the science and management of underwater blasting and monitoring needs that can be directly related to the proposed BHDDNIP.</p>

Response	An underwater blasting TWG will be formed during the Design Phase to explore the practicality and feasibility of any additional potential mitigation measures (including project sequencing). Recommendations agreed to by the TWG and the USACE to reduce potential blast impacts will be incorporated into the design specifications for the Deep Draft Project. See general topic # 3.
Comment NMFS-09	Recommendations of this [Blasting] Technical Working Group should be incorporated into the FSEIS/FEIR
Response	It should be noted that funding will not become available for use in the development of the underwater TWG and the subsequent development of blasting mitigation measures until the project enters the Design Phase. Therefore, any recommendations of this TWG cannot be incorporated into the FSEIS/FEIR.
Comment NMFS-10	Alternative beneficial reuse of rock material that avoid and minimize adverse impacts on biologically productive soft bottom habitats should be evaluated more fully within the FSEIS/FEIR, including using rock for upland construction purposes and the use for ongoing shore protection projects.
Response	<p>In order for the USACE to recommend including a beneficial use component in the project, it must either (1) entail no or minimal additional cost to the Government, (2) have any additional cost paid for by non-Federal interests, or (3) involve a use where the benefits outweigh the additional cost, and have any additional cost to the project cost-shared between the USACE and a non-Federal public agency. Accordingly, a zone of feasibility for reef creation siting was established whereby the reduced hauling costs to the more distant MBDS would be offset by any additional project costs for beneficial use site investigations, controlled dumping practices, and monitoring of site recovery and recolonization.</p> <p>In addition to reef habitat creation, some or all of the removed rock could prove suitable for other beneficial uses such as making the rock available to industry for processing as aggregate or for other construction purposes. Making the rock available to State agencies or area municipalities for use in public projects, particularly shore protection, was considered during preparation of the Draft Feasibility Report, but no parties interested in receiving the rock at their cost were identified. Therefore, the Federal base plan for rock disposal as laid out in the Feasibility Report and FSEIS/FEIR is placement at the MBDS. The Design Phase of this project will include additional consultation and collaboration with interested agencies and others to determine what, if any, economically practical beneficial use options for this material may exist at the time of construction and what parties are interested in receiving that material for their own uses. At this time however, without interested parties and uses identified, there are no quantifiable beneficial uses to evaluate. See general topics # 5.</p>

Comment NMFS-11	The results of the demonstration capping project within the IWS should be evaluated more fully within the FSEIS/FEIR in order to determine the efficacy of using the dredged material from the proposed BHDDNIP to cap the IWS and to assess potential impacts to biological communities within the MBDS.
Response	Detailed results of the capping demonstration project will be available in a report expected to be finalized in spring 2013 (too lengthy to include within the FSEIS/FEIR). The DAMOS Program has monitored the benthic community at MBDS for several decades. The results of this monitoring are also summarized in the FSEIS/FEIR and clearly show that the benthic community recovers after placement of dredged material at the disposal site. See general topic #6.
Comment NMFS-12	Please note that Section 305(b)(4)(B) of the MSA requires you to provide us with a detailed written response to these EFH conservation recommendations, including a description of measures you intend to adopt for avoiding, minimizing, or offsetting the impact of the project on EFH. In the case if a response that is inconsistent with our recommendations, Section 305(b)(4)(B) of the MSA also indicates that our must explain your reasoning for not following the recommendations.
Response	A letter dated December 6, 2012 was sent to NMFS in response to the EFH conservation recommendations received.
Comment NMFS-13	Please also note that a distinct and further EFH consultation must be reinitiated pursuant to 50 CFR 600.9209(1) if new information becomes available or the project is revised in such a manner that affects the basis for the above EFH conservation recommendations. Since additional information will be generated as you undertake the Planning, Engineering, and Design Phase of the BHDDNIP, it may affect the basis of our EFH conservation recommendations, which would require the re-initiation of our EFH consultation
Response	Additional information acquired during the Design Phase investigations will be provided to NMFS. If the results affect the EFH consultation recommendations, the consultation will be reinitiated.
Comment NMFS-14	As discussed above, the BHDDNIP supports populations of shellfish and American lobster, and a number of species of anadromous fish that use the area for various stages of their life history, including the spawning migrations of blueback herring, alewife, and rainbow smelt. In order to avoid adversely affecting the sensitive spawning periods of these species, we recommend all EFH conservation recommendations listed above be adopted.
Response	See responses NMFS-06 and 07 above as well as general topics #2, 7, 8, and 10.
Comment NMFS-15	Unfortunately, the lack of site-specific details for a project of this magnitude required us to take a risk-averse approach in the issuance of our EFH conservation recommendations in order to ensure protection of fishery

	resources and habitats. As additional information becomes available which would affect the basis of our EFH conservation recommendations, re-initiation of the consultation may be warranted.
Response	It is acknowledged that NMFS took a risk-averse approach to the issuance of the EFH conservation recommendations in light of your determination that the Deep Draft Project lacks site-specific details at this time. If additional information acquired during the Design Phase investigations would affect the EFH consultation recommendations, the consultation will be reinitiated.

U.S. Department of Commerce National Oceanic and Atmospheric Administration – National Marine Fisheries Service – Northeast Region – Letter to NAE – 27 November 2012 - ESA		Letter at Page A-2-26
Comment NMFS-01	This analysis relies on the full implementation of all special conditions listed above; we consider these to be part of the proposed action. It is important to note that project plans may be refined in the future. Prior to the USACE entering into any contracts or carrying out any dredging or blasting, updated project plans and special conditions will be provided to us. At that time we will determine if there are likely to be any effects that we did not consider here and, if there are, re-initiation of this consultation will be necessary.	
Response	Concur.	
Comment NMFS-02	Re-initiation of consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (a) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered in the consultation; (b) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the consultation; or (c) If a new species is listed or critical habitat designated that may be affected by the identified action. No take is anticipated or exempted. If there is any incidental take of a listed species, re-initiation would be required. As noted above, we expect that you will provide us with refined project plans once they are available.	
Response	Concur; refined project plans will be submitted as available	

The Commonwealth of Massachusetts – Massachusetts Historical Commission – Letter to NAE – 18 October 2012		Letter at Page A-2-81
Comment MHC-01	In regards to the project change, the MHC advises that the USACE should review the results of previous identification efforts for historic properties in the area of potential effect, and evaluate the potential of the currently proposed	

	project to affect previously identified historic properties, or properties not yet identified that may be located in the project area that have not yet been sufficiently surveyed for historic properties.
Response	Concur. USACE responded with a letter dated 4 December 2012..
Comment MHC-02	The MHC looks forward to review of scopes for any additional proposed archaeological identification and evaluation efforts, and the USACE findings and determinations in accordance with 36 CFR 800.
Response	The surveys proposed are for the Chelsea River channel widening areas only. These surveys are included in the Design Phase scope, and input will be sought from the MHC and the BUAR during that phase. Additional survey efforts may be required for disposal of dredged material at the MBDS and Industrial Waste Site and/or creation of new beneficial use sites.

The Commonwealth of Massachusetts, Executive Office of Energy and Environmental Affairs Office of Coastal Zone Management – Letter to NAE – 24 Oct 2012		Letter at Page A-2-80
Comment CZM-01	CZM is requesting additional information on commitment/planning by USACE and Massport to pursue viable options regarding alternatives for beneficial reuse beyond the creation of the rock reefs, including both shore protection and upland use.	
Response	We are committed to working further on beneficial use for the rock to be removed from this project. See response letter dated October 26, 2012 for additional detail.	

The Commonwealth of Massachusetts, Executive Office of Energy and Environmental Affairs Office of Coastal Zone Management – Letter to NAE – 26 October 2012		Letter at Page A-2-72
Comment CZM-01	CZM has received the necessary information to initiate their federal consistency review for the proposed project.	
Response	CZM Federal Consistency Review Schedule noted.	

The Commonwealth of Massachusetts, Executive Office of Energy and Environmental Affairs Office of Coastal Zone Management – Letter to NAE – 29 November 2012		Letter at Page A-2-23
Comment CZM-01	Based upon our review of applicable information, we concur with your certification and find that the activity’s effects...are consistent with the CZM enforceable program policies...If the above-referenced project is modified in any manner...it is incumbent upon the proponent to notify CZM.	
Response	Comment noted.	

The Commonwealth of Massachusetts – Board of Underwater Archaeological Resources Executive Office of Energy and Environmental Affairs – Letter to NAE – 27 November 2012		Letter at Page A-2-25
Comment BUAR-01	The Board notes the updated plan specifically calls for deepening access to the Chelsea River. This area is considered archaeological sensitive, particularly in relation to the 1775 Battle of Chelsea Creek and the loss of HMS <i>Diana</i> . The recommendation that a remote sensing archaeological survey should be conducted for the areas of potential affect in the Mystic River and Chelsea River Channels remains applicable.	
Response	Email communication between USACE and BUAR provided more detail regarding the proposed project activities in Chelsea River and the IWS. USACE concurred and commented in a letter dated 4 December 2012.	

Massachusetts Water Resources Authority – Letter to NAE – 9 November 2012		Letter at Page A-2-62
Comment MWRA-01	<p>MWRA’s concerns continue to focus on the need to protect MWRA’s infrastructure in two locations within the project area:</p> <ul style="list-style-type: none"> • Reserve Channel: where NSTAR’s four-mile 115 Kv Submarine Cross Harbor Cable runs the entire length beneath the channel and continues across the Harbor to Deer Island. • Chelsea Creek: where MWRA has an active 36-inch diameter water main that crosses the Creek supplying East Boston and Logan International Airport. 	
Response	.Phone communication between USACE and MWRA indicated that the Deep Draft Project would not interfere with the water main pipe crossing the Chelsea Creek. See comment below for the Reserved Channel.	

Comment MWRA-02	For these reasons, it is extremely important that the ACOE and Massport be satisfied that any plans which NSTAR may have to protect or to relocate the cable be sufficient to ensure its integrity. To date, NSTAR has not shared its plans with MWRA. MWRA remains very concerned about the protection of the cable which is a vital and non-expendable item of infrastructure upon which MWRA relies heavily.
Response	The U.S. Attorney's office is currently in negotiations with MWRA and NSTAR to ensure that the cable will not impact the Deep Draft Project.
Comment MWRA-03	Any future dredging and/or blasting in the Reserve Channel or the Chelsea Creak area should be carefully coordinated with MWRA through the 8 (m) permitting process.
Response	The project's non-Federal sponsor, Massachusetts Port Authority, is responsible for acquiring any MWRA 8(m) permit, should one be required for the project. Massport will discuss and coordinate with MWRA on any needed approvals.

The Commonwealth of Massachusetts, Executive Office of Energy and Environmental Affairs – 12 December 2012		Letter at Page A-2-6
Comment MEPA-01	Based on the review of the information you presented, I concur that the project changes do not warrant filing of a Notice of Project Change or revisions to the Scope for the FEIR.	
Response	Comment noted.	

Correspondence through Release of the Draft Report/DSEIS/EIR in 2008

U.S. Environmental Protection Agency, Region I – Letter to NAE – 23 May 2008		Letter at Page A-3-1
Comment EPA-01	EPA requested that the USACE consider means of ensuring air quality compliance other than construction shutdowns and to provide an analysis of tradeoffs and costs for shutdowns compared to securing credits or offsets.	
Response	Please see general topic #9 above for a response to this comment.	
Comment EPA-02	EPA recommended the establishment of two “advisory panels” of State and Federal stakeholders to address issues they believed were outstanding, including air quality compliance, rock reef creation impacts, and blasting impacts.	
Response	As discussed in general topics #2, 3, 4, 8 and 9 above, the USACE and Massport have committed to continuing involvement of the Boston Harbor	

	<p>Dredging Technical Working Group (TWG) throughout the Design and Construction Phases of the project to solicit technical input to project design and adaptive management approaches during construction and post-construction monitoring. Sub-groups of the TWG will be convened as needed to address specific issues, including those mentioned by EPA.</p>
<p>Comment EPA-03</p>	<p>EPA applied its rating system for NEPA documents to the Draft SEIS. EPA rated the base plan for disposal of dredged material at the MBDS, and the use of non-rock material for capping the IWS as “Lack of Objections-Adequate.” EPA rated the blasting of ledge from the navigation channels and beneficial use of blasted rock to creation hard bottom (rock reef) habitat as “Environmental Objections-Insufficient Information.”</p>
<p>Response</p>	<p>All available information on these topics and plans has been included in the Draft and Final Feasibility Report and SEIS/EIR. Additional investigations required to completely evaluate these two aspects of the project will need to await the detailed Design Phase of the project. The USACE and Massport have committed to making these investigations and working with the TWG agencies to develop a blasting plan, construction sequencing plan, and full investigation and evaluation of the reef creation alternative and other beneficial use opportunities for the blasted rock. The USACE and Massport will develop and file additional NEPA/MEPA documents needed to document these investigations and detailed plans, and any resulting project changes. See general topics #1, 3, 4, and 5 above for a response to this comment.</p>
<p>Comment EPA-04</p>	<p>In its specific comments attachment, EPA discussed the potential impacts of blasting and called for development of a blasting plan to minimize impacts. EPA also requested the USACE examine whether or not realignment of the channels could reduce rock removal quantities.</p>
<p>Response</p>	<p>See general topic #3 above for the blasting plan discussion. The existing channels at Boston are the result of nearly 14 decades of channel improvements to deepen and widen the port’s navigation arteries. The original controlling depth in the harbor in the 1860s was 17 feet at mean low water (MLW), and the first dredging project was to establish a 23-foot channel depth. Successive projects up to 2001 dredged and blasted these channels to the present 40-foot authorized depth, with rock often removed to a greater depth over most areas. Shifting the channel alignments would move the proposed dredging areas into shallower areas where ledge has not already been reduced to the 40-foot or greater depth, increasing blasting and dredging requirements. The Feasibility report examined the harbor’s three entrance channels to determine which would require the least work to deepen to 45 feet or beyond and concluded that the 40-foot North Entrance Channel would require less blasting and dredging than either the 30-foot South Entrance Channel or the 27-foot Narrows Channel. No further investigation on this topic is planned.</p>

Comment EPA-05	EPA requested that the USACE “commit to an extensive monitoring program spanning the entire project life cycle that will provide real-time information on the impacts of blasting”, and that such a plan be developed in consultation with the TWG.
Response	See general topics #2 and 3 above for a response to this comment.
Comment EPA-06	EPA requested that the USACE “work to make sure that the public is kept fully informed of the blasting program and work group discussions as the project advances.
Response	See general topics #1, 2 and 3 above for a response to this comment.
Comment EPA-07	EPA stated that it “does not object to the disposal of project generated material at the MBDS.”
Response	Noted
Comment EPA-08	EPA stated with respect to the industrial waste site that “the area is technically closed to fishing ...”
Response	It is the USACE understanding that this statement is incorrect; that neither NMFS or the NEFMC have “closed” the site to fishing.
Comment EPA-09	EPA raised concerns with the rock reef sites, their suitability for reef development, the substitution of soft bottom habitat for hard bottom habitat, and TWG involvement in further consideration of this alternative, and full investigation of this alternative before preparing a Final SEIS.
Response	Please see general topics #1, 2 and 4 above for a response to this comment.
Comment EPA-10	EPA requested that the USACE evaluate impacts of blasting on the acoustic monitoring system established with listening buoys in the shipping lanes. The system was established to provide ships transiting to and from the harbor with real time data on the location of whales, thereby reducing the potential for ship strikes. EPA also suggested consultation with NMFS on the potential for blasting impacts on whales, and inclusion of use of the acoustic monitoring system in contract documents.
Response	The USACE investigated the potential for noise from blasting activities in the harbor to impact whales in Massachusetts Bay and the listening buoys located in the separation zone of the Boston Harbor traffic lanes. A conservative calculation for the zone radii on the distance underwater noise would travel to create a nuisance for marine mammals was estimated to be approximately 1500 feet safety zone relative to the outermost area of blasting for the project in the Broad Sound North Entrance Channel. Based on distribution maps for whales in Massachusetts Bay, and the location of the listening buoys more than 10.5 miles from the seaward end of the harbor entrance channel, it was determined that the noise from blasting would not affect whales or the operation of the listening buoys. This has been coordinated with the National Marine Fisheries Service. The National Marine Fisheries Service has

	<p>concurred with the USACE determination that the proposed Boston Harbor Deep Draft Navigation Improvement Project is not likely to adversely affect any listed species under their jurisdiction (See letters dated November 7, 2012 and November 27, 2012).</p> <p>The USACE will include a requirement in our contract specifications that Contractor(s) must monitor the results of the listening buoy acoustic data for the presence of whales in the project area and take the necessary precautions.</p>
Comment EPA-11	EPA believes that the USACE and Massport should fund and carry out post-construction monitoring of any rock reef habitat creation site, and work with the TWG to “explore this issue”.
Response	The DSEIS (page 2-25) states that such monitoring of recolonization rates would be important. The estimated cost for such a monitoring plan is included in the project cost estimates. See general topics #2 and 4 above for further response to this comment.
Comment EPA-12	DSEIS page 3-23: EPA staff has observed European oysters within Boston Harbor along the Winthrop and East Boston shorelines.
Response	Noted. We have included this information in the FSEIS/EIR.
Comment EPA-13	DSEIS page 3-83: The DSEIS notes that only transient marine mammals are found in Boston Harbor. EPA believes that harbor seals and harbor porpoise are regular seasonal visitors to the harbor. Harbor porpoise are routinely observed around the Charles River dam in the spring during anadromous fish inward migration. They have also been observed in Chelsea Creek. Harbor seals have been observed year round throughout the harbor.
Response	Noted. The USACE has included this information in the FSEIS/EIR.
Comment EPA-14	EPA requested information on the change in water intake (cooling, ballast) with larger ships compared to usage with current vessel sizes.
Response	<p>The USACE discussed this question with COSCO and MSC, the two largest container shippers using the Port of Boston. Both shippers did not expect that ballast water requirements would increase at Boston with larger vessels. With the deepened channels, ships would be taking on more cargo, and would therefore require less ballast water than at present, even with larger vessels.</p> <p>MSC stated that larger vessels coming into service with newer engines have closed cooling systems. The first requirement for these vessels upon arrival at Boston, their first stop after crossing the Atlantic, would be to take on fresh water from the dock to fill their cooling system. Salt water intakes are on a separate loop that draws heat off the fresh water loop and return to the harbor. The closed system reduces intake requirements.</p>
Comment EPA-15	EPA suggested that the USACE should look at the cumulative impact of additional barge traffic to the MBDS to the risk of ship strikes on whales.

Response	The USACE currently has a mechanism in place to reduce the risk of a vessel collision with whales (whale observers will be on board scows transiting to the MBDS between February 1 and May 31). In addition, the Contractor will be required to monitor the buoy listening system for whales in the area. No vessel collisions with whales have occurred since monitoring disposal at the MBDS.
Comment EPA-16	EPA stated that this project would cause a conversion of between 1100 to 1300 acres of soft-bottom habitat to hard substrate.
Response	The project's total dredging area would impact a total of about 1200 acres of the harbor bottom. Existing bottom classification data and subsurface data indicate that post-construction conditions would include more surface exposure of bedrock and blue clay than existing conditions. However only a portion of the 1200 acres would be different habitat than the existing bottom. Bottom type change maps were included in Appendix Q. These will be updated using information developed from the Design Phase subsurface explorations.
Comment EPA-17	EPA stated that the SEIS should "analyze the cumulative impact to benthic habitat from this project and the large number of other projected projects in the harbor."
Response	Section 4.5.3 of the Final SEIS/EIR describes the cumulative benthic habitat from the Boston Harbor navigation projects and disturbance from other projects.
Comment EPA-18	EPA stated that the USACE should satisfy the issue of general conformity before issuing the Final SEIS. We also note that in paragraph 2 of page 9 of EPA's letter they state: "Should the USACE adopt ... enforceable environmental commitments that insure the use of new equipment with more stringent EPA emissions standards, and enforceable dredging schedule, then general conformity would be satisfied by the action falling below emission thresholds."
Response	See general topics #1 and 9 above for a response to this comment. EPA's statement repeated above indicates that the plan for combining the use of new cleaner construction equipment and construction shutdown periods, would if enforced contractually, satisfy emissions requirements. While concurring with EPA's statement, the USACE and Massport have committed to investigating alternative means of air quality compliance during the Design Phase to determine the most cost effective means of meeting the requirements. Pending U.S. EPA regulatory changes will also have a potential effect on the reanalysis.
Comment EPA-19	EPA stated that the USACE focused more emphasis on efforts to avoid triggering offset requirements of general conformity, and should analyze the relative cost and benefits of avoidance against the impacts of stretching the construction schedule over more years.

Response	See general topic #9 above for a response to this comment. The USACE “goal” was to develop and present an implementable project. When commitments to availability of future credits proved unobtainable and offset opportunities for the construction period were not able to be identified at this time, the combination of shutdowns and use of cleaner equipment proved the only option which could be said with any certainty was available to meet the requirements. As stated above, the Corps and Massport have committed to investigating alternative means of USACE air quality compliance during the Design Phase to determine the most cost effective means of meeting the requirements.
Comment EPA-20	EPA notes that offsets for a time-limited project such as this construction may be supplied using time-limited discrete emission reduction credits.
Response	As noted in General Comment #9, the USACE will investigate the feasibility of purchasing emission credits (including time-limited discrete emission reduction credits) and/or offsets in the next Design Phase of the project. The USACE will discuss the use of time-limited discrete emission reduction credits for this project with EPA.
Comment EPA-21	EPA also suggests that construction operations that occur during the winter may avoid the ozone season and emissions outside the ozone season may be excludable from the conformity analysis.
Response	At this time the proposed construction period shutdowns would occur for a six month period every other year from 1 October to 31 March. This is to limit construction to nine months per year while limiting the impact of shutdowns to a single 6-month period spanning two calendar years, rather than two separate 3-month periods. Pollutants other than ozone are of concern and need to be avoided by the shutdowns. With demobilization-remobilization costs at about \$4 to 6 million per event avoiding work during the summer ozone season would have significant additional costs. See general topic #9 above for additional information and response to this comment.
Comment EPA-22	EPA notes that the USACE base plan for air quality compliance includes a requirement for Contractor equipment to meet EPA’s emission reduction standards. EPA asks that a Record of Decision on this project include an enforceable commitment to include this requirement in the project specifications.
Response	The USACE concurs with including this requirement in the project specifications should it be necessary to include such a requirement in the final project plan after conclusion of the air quality compliance review during the Design Phase. EPA is among the agencies requesting that the USACE conduct an evaluation of whether construction shutdowns are the best method of compliance compared to credits and offsets. As stated in general topic #9 above the USACE and Massport have committed to conducting such a review and involving EPA, the State and interested TWG members in that analysis.

Comment EPA-23	EPA states that the relevant non-attainment or maintenance plan “areas for the project are the Boston-Lawrence-Worcester (E. Mass), MA moderate eight-hour ozone non-attainment area and the Boston area carbon monoxide attainment area with an associated maintenance plan.”
Response	The Final SEIS/EIR has been updated to reflect the latest regulatory designations.
Comment EPA-24	EPA requests that tables in the SEIS and Appendix O be revised to reflect recent changes in EPA ozone standards.
Response	Please see general response topic #9 above. The FSEIS/EIR has been updated as of December 2012 to address the regulatory issues raised in the comments. The Air Quality analysis will be re-examined following the Design Phase field investigations and development of a construction sequencing plan. The USACE and Massport will work with EPA, the State, and interested TWG participants with experience in Air Quality mitigation issues to develop an appropriate air quality compliance strategy, should one still be required. Changes in Federal and State standards and implementation plans will be incorporated into the revised analysis at that time.
Comment EPA-25	EPA requests that tables in the SEIS be revised to reflect changes in State Implementation Plans for ozone as recently submitted to EPA.
Response	Please see response to comment EPA-24 above.
Comment EPA-26	EPA notes that EPA’s proposed revisions to the general conformity regulations may provide more flexibility and benefits to the project’s air quality evaluation.
Response	The USACE notes that the FSEIS/EIR has been updated as of December 2012 to address regulatory concerns raised in the comment. We will include consideration of the revised regulations should they be in place at the time the Design Phase air quality conformance review is conducted.
Comment EPA-27	EPA requested that back-up data and calculations for the air quality analysis be provided to complete their review.
Response	The additional data and calculation files requested by EPA have been provided by the USACE to EPA separately.

National Marine Fisheries Service – Letter to NAE – 2 June 2008		Letter at Page A-3-13
Comment NMFS-01	The Service noted that while the EFH assessment contained in the DSEIS/ DEIR addresses many of the issues associated with the project, specific information described later in their letter, is necessary for the Service to evaluate anticipated impacts. Upon receipt of the additional information, the Service will provide appropriate specific EFH conservation recommendations.	

Response	As requested, the USACE will provide the additional information when available and include that information, the Service's recommendations, and any further USACE response in an additional NEPA document covering the additional resource studies to be conducted in the Design Phase. EFH conservation recommendations were received in a letter dated November 26, 2012 and responded to in a letter dated December 10, 2012.
Comment NMFS-02	The Service noted that due to the low populations of alewife and blueback herring throughout the Commonwealth of Massachusetts, the MADMF has prohibited all harvest of these species. In addition, rainbow smelt has been identified as a "species of concern" by the Service
Response	Noted. The USACE has included this information in the FSEIS/EIR in Section 3.3.5.
Comment NMFS-03	The Service noted that the proposed dredging and the resulting suspended sediment and deposition may result in adverse effects to fishery resources and habitats. The Service also indicated that larval stages of winter flounder may be susceptible to impacts from suspended sediment due to abrasion.
Response	SSFATE modeling results indicate that very low sedimentation rates are expected to occur outside the navigation channels from dredging. These rates are not expected to be different than naturally occurring rates from weather, tidal conditions, and/or ship conditions. Monitoring of the plume from the Boston Harbor Inner Harbor Maintenance Dredging in 2008 confirmed earlier plume monitoring results that indicate the dredge plume does not travel outside the navigation channel to winter flounder spawning areas.
Comment NMFS-04	The Service remains concerned that dredging activities and associated plumes of contaminated sediment have the potential to impair migration of anadromous species.
Response	The parent material to be dredged is composed of Boston blue clay, glacial till and rock and is not contaminated. This material has been approved by EPA as suitable for ocean water disposal. In addition, previous monitoring for the BHNIP showed that the width of the plume generally stayed within 200 feet of either side of the dredge. As the harbor is approximately 2,000 feet wide at the narrowest point, the turbidity plume should not inhibit the movement of anadromous fish.
Comment NMFS-05	The Service noted that a laboratory study found that rainbow smelt avoided suspended sediment when concentrations were in excess of 20 mg/l.
Response	Previous monitoring for the BHNIP showed that the width of the plume generally stayed within 200 feet of either side of the dredge and was difficult to discern beyond the edge of the plume. As the harbor is approximately 2,000 feet wide at the narrowest point, the turbidity plume should not inhibit the movement of anadromous fish.

Comment NMFS-06	The Service suggested that results of the real-time dredge plume tracking effort to be undertaken during the Inner Harbor maintenance project in 2008 be used in part to develop a dredging sequencing plan.
Response	The USACE agrees and intends to work with the TWG agencies to develop a construction sequencing plan for the project, including blasting and dredging. The sequencing plan, other detailed project plans developed during the Design Phase, and the results of the investigations used to develop those plans will be included in supplemental NEPA/MEPA document filings. See general topic #7 above for additional information and response to this comment.
Comment NMFS-07	The Service requested that an analysis of blasting impacts be incorporated into the EFH assessment and that a blasting plan be developed. Information needed to respond to this comment and to develop a blasting plan for the project will not be available until the Design Phase of the project has advanced to completion of the subsurface field effort.
Response	See general topics #2 and 3 above for additional information and response to this comment.
Comment NMFS-08	The Service requested that an After Action plan being developed to discuss the four fish kill events during the ledge pinnacle removal project in 2007 be incorporated into the recommended blasting plan. The Service also Discussed the TWG subgroup established to examine underwater blasting and that this group be engaged in development and approval of the blasting plan.
Response	The USACE concurs in these recommendations as further discussed in general topics #2 and 3 above. The After Action Report on the 2007 blasting operation and fish kill events is included in this Final SEIS/EIR.
Comment NMFS-09	The Service stated that as Massport recently indicated that the Marine Terminal could be used as a transfer facility, that upland alternatives for disposal of the rock should be explored more fully.
Response	The USACE and Massport have recently had additional discussions with MACZM. Please see general topic response #5.
Comment NMFS-10	The Service requested that the FSEIS/FEIR consider the loss of soft bottom habitats as result of the creation of artificial reefs relative to the overall ecosystem functions and values.
Response	Demersal species such as American plaice, Atlantic halibut, summer flounder, winter flounder, windowpane flounder, witch flounder, red and white hake, and yellowtail flounder may be present in the finer sediments at the proposed enhancement sites. The placement of a rock reef in the fine sediment areas of the proposed enhancement sites would displace some of these EFH listed species, but not all. Some EFH species such as juvenile and adult American plaice, juvenile Atlantic halibut, and adult winter flounder may also continue to use the rock reef as habitat. This information will also be added to the Final SEIS. This also will be considered as the USACE and Massport work with the

	TWG to further assess the potential creation of rock reef sites are discussed in general topic response #4.
Comment NMFS-11	The Service stated that the results of the capping demonstration effort should be presented to the Federal and State resource agencies in order to determine if this method is acceptable for use for the IWS capping project.
Response	Please see general topic response #6. The USACE and EPA reviewed the results of the capping demonstration with the TWG.
Comment NMFS-12	The Service will provide specific EFH conservation recommendations, as appropriate upon receipt of the following information: 1) a sequencing plan, 2) a comprehensive blasting plan, 3) an alternative beneficial reuse options alternatives discussion, and 4) results of the upcoming capping demonstration project at the MBDS.
Response	The USACE will provide the requested information to the Service and will publish the results of the Design Phase investigations in supplemental NEPA documents. This is further discussed in general topics #3, 5, 6, and 7. EFH conservation recommendations were provided in a letter dated November 26, 2012 and responded to in a letter dated December 10, 2012.
Comment NMFS-13	The Service notes that on occasion Federally endangered whales may enter Boston Harbor
Response	No blasting will occur in Boston Harbor if marine mammals are present in the area. Appropriate actions will be taken if the presence of the dredge and barge operation would interfere with the movement of any whale observed in the project area.
Comment NMFS-14	The Service requested that the USACE reinitiate Section 7 Endangered Species Consultation because the currently proposed blasting operation was not considered.
Response	Section 7 Consultation with the Service was reinitiated to address the effects of blasting on Federally listed whales, sea turtles and Atlantic sturgeon, and NMFS has concurred with USACE' determination that the proposed blasting is not likely to adversely affect any NMFS listed species (See letters dated November 7, 2012, and November 27, 2012).
Comment NMFS-15	The Service requests that additional information on the underwater noise resulting from blasting as well as information on project timing, sequencing, and monitoring be included in correspondence with the Service for listed species.
Response	The USACE has investigated the potential for noise from blasting activities in the harbor to impact whales in Massachusetts Bay and is coordinating this information with NMFS. That information will be included in the FEIS. The USACE will also provide the remaining information requested by the Service. Additional information on the effects of blasting on whales, sea turtles and Atlantic sturgeon has been added to the FSEIS/EIR.

U.S. Fish and Wildlife Service – ESA Letter to NAE – 14 May 2008		Letter at Page A-3-22
Comment F&WS-01	In its letter of 14 May 2008 the U.S. Fish and Wildlife Service provided its final comments under Section 7 of the Endangered Species Act and stated that “no Federally-listed or proposed threatened or endangered species or critical habitat under the Service’s jurisdiction are known to occur in the project area.”	
Response	Noted	

U.S. Department of the Interior, Office of Environmental Policy and Compliance, Boston, MA – Letter to NAE – 2 June 2008		Letter at Page A-3-24
Comment DOI-01	The DOI stated that indirect impacts of dredging on intertidal habitat were not fully addressed, “such as altered wave energy or sediment transfer dynamics due to increases shipping traffic with larger vessels.” DOI also stated that they were concerned with direct and indirect effects of the project on maritime cliff and beach communities from changes in “erosion rates and patterns in the harbor.”	
Response	<p>The navigation improvement project proposes to deepen the existing 40-foot deep navigation channels to 48 feet (50 feet in the case of the entrance channel). These channels are already periodically dredged for maintenance purposes every 16 to 40 years. The shoaling rates in Boston’s channels are very low leading to the conclusion that their presence, maintenance and the deepening under this project will have no effect on wave energy reaching the shores of the harbor islands, most of which are directly exposed to the open Atlantic. There is a significant distance between nearly all of the harbor islands and the channels to be dredged. The closest of the harbor islands to the dredged channels, Lovells, Gallops, and the Nixes Mate shoal are located in areas where the channel will not require dredging to deepen it as natural scouring of the bottom by tidal currents provides depths of 50 to 90 feet. The northern end of Long Island at the former Fort Strong was armored by previous projects, and some ledge removal is required along the channel margin closest to this headland. However no impacts are anticipated given the hard nature of the material at that location.</p> <p>Shipping is not expected to increase with the recommended improvements. In fact the number of ships transiting the harbor is expected to decrease, primarily due to conversion of the petroleum tankships and cement carriers to less frequent calls by larger vessels. The base economic case for containership traffic increases vessel size, but only for the four weekly services now calling on the port. Other economic scenarios projected the addition of a single weekly service for a total of five container ship calls weekly. No increase in vessel-related erosion is anticipated at the harbor islands.</p>	

Comment DOI-02	DOI stated that excessive noise and light would affect park visitor experience and degrade park habitat.
Response	The dredge plant activities will be minor sources of noise and light compared to the other activities of the Port, airport and City. Lovells and Gallops Islands are located more than ¾ of a mile from the nearest dredging areas. Submarine blasting will not result in surface noise and will only occur in daylight. Lighting on dredge equipment working at night will be insignificant compared to lights from the airport, seaport or the MWRA sewage treatment plant (STP) on Deer Island.
Comment DOI-03	DOI stated that dredging activities would likely impact the viewshed of the park.
Response	Dredging plant vessels would be insignificant objects compared to the 1000+-foot long tankships and containerships transiting the channel several times a day and using the anchorage. The port, airport and STP are far larger objects than a 100-foot long dredge barge ¾ of a mile to several miles distant. The dredge and drilling plants will move over the entire project area of more than 10 miles of channel. The floating plant would only be in any particular channel reach for several months before moving on to the next area of the project.
Comment DOI-04	DOI stated that island archaeological sites are subject to indirect impacts of the project's influence on erosion rates and patterns in the harbor. DOI also stated that historic structures on the harbor islands may be sensitive to impacts from dredging and increased ship traffic.
Response	See response to DOI-1 above. The USACE is aware of the seawalls at Fort Warren on Georges Island; in fact the USACE built the seawalls at Fort Warren, Lovells, Long and Gallops Islands and most of the other armored headlands and islands around the harbor as "works of preservation" as part of the Boston Harbor Federal Navigation Project in the early to mid 1800s, with modifications made during construction of the various coast defenses. Fort Warren is located more than 1.4 nautical miles from the nearest dredging location along a channel (The Narrows Channel) that is not proposed for dredging under this project. Therefore, the proposed project is not expected to have an impact on the historic structures on the harbor islands.
Comment DOI-05	DOI asked what volumes/rates of suspended sediment would not be contained during dredging operations, and what "trajectories" these suspended sediments might take.
Response	Refer to Section 4.2.1 in the SEIS for this information.
Comment DOI-06	DOI asked about the results of chemistry performed on samples.
Response	The materials to be removed by the navigation improvement project to deepen the harbor are parent materials of largely glacial origin. These materials were sampled by coring, and physical tests were conducted that determined them to

	<p>be glacial till, Boston blue clay, sand and gravel. These materials were excluded from further chemical testing due to their non-industrial origin. The fine blue clay is very cohesive and contains no contaminants. There will be no contaminants released from the dredging and disposal of these materials. This improvement dredging material has been approved by EPA for ocean water disposal at the MBDS.</p>
<p>Comment DOI-07</p>	<p>DOI asked “what is meant in the report by sediment disposal will not disrupt navigation.”</p>
<p>Response</p>	<p>Disposal at the MBDS will occur in areas removed some distance from the shipping lanes in areas of about 300 feet of water. The MBDS is located approximately 20 miles east of Boston and is not located within any Federal navigation channels. MBDS is an active EPA-approved dredged material disposal site and is marked on navigation charts. Therefore there will be no impact on shipping from either disposal activities or the disposal mounds formed on the ocean floor.</p>
<p>Comment DOI-08</p>	<p>Feasibility report discussion on sediment characteristics and quality should be more “clear and meaningful.”</p>
<p>Response</p>	<p>Comment Noted</p>
<p>Comment DOI-09</p>	<p>Appendix K, Sediment Sampling, presents a data compilation with no discussion or synthesis of results.</p>
<p>Response</p>	<p>Comment Noted. Appendix K is intended only to present test results.</p>
<p>Comment DOI-10</p>	<p>Appendix J, Geology, should be revised to state that the lower till may be Wisconsinian or pre-Wisconsinian while the younger till is not post-Wisconsinian</p>
<p>Response</p>	<p>Comment Noted</p>
<p>Comment DOI-11</p>	<p>NEPA requires an analysis of deepening all New England ports, as other ports may seek deepening if Boston is deepened. Deepening other New England Ports should be considered as alternatives to Boston Harbor or in addition to Boston Harbor deepening.</p>
<p>Response</p>	<p>A detailed discussion on the non-structural alternatives and why these alternatives do not meet the project purpose is available in the Feasibility Report. The Feasibility Report was attached to the Draft SEIS/EIR and circulated to the public for review.</p> <p>There are no proposals currently to deepen either of New England’s two other 40-foot ports, as was discussed in the Feasibility Report section on alternative ports. The only two other 40-foot ports in New England are New London CT and Providence RI. New London was deepened to 40 feet solely for the Navy’s use and neither the Navy nor the other deep draft users have any need to deepen that harbor further. There are no container terminals or large petroleum</p>

	<p>terminals at New London, nor any sites available for development of such facilities.</p> <p>Providence recently underwent a major maintenance dredging operation, its first dredging project since 1970. CAD Cells were constructed beneath the upper harbor basin at elevations that will limit future deepening as no need for future port deepening was anticipated by the State of Rhode Island.</p>
Comment DOI-12	<p>Completion of maintenance dredging will “reset the colonization clock” in 2009. Resources in the harbor and at the disposal sites may change before the deepening project is authorized and constructed, a process which could take a decade or longer. DOI recommends that the Feasibility Report and SEIS include a “look back” requirement to review the impacted resources in coordination with other agencies.</p>
Response	<p>Please see general topics #1, 2 and 8 above for additional information and response to this comment. The USACE cannot predict in what timeframe Congress may act on any recommendation to deepen Boston Harbor. There near-term timeline is for construction to begin in late 2014 and take up to three years to complete.</p>
Comment DOI-13	<p>DOI requests that additional hydrographic surveys be conducted of the channels to be dredged and expanded out 1000 feet from the channel limits to monitor adjacent areas to determine if erosion or accretion results from deepening the channels. These expanded surveys should be conducted pre and post-dredging, one-year post-dredging and then every three years for an additional nine years. Data should be evaluated against the pre- and immediate post-dredging baselines.</p>
Response	<p>The USACE will conduct additional hydrographic surveys during the Design Phase, immediately before dredging commences on each channel segment and after dredging of each segment is complete. For channels of this depth and width surveys are typically extended about 200 feet outward from the side slopes of the channels to examine slope stability and ensure adequate coverage.</p> <p>Boston Harbor’s navigation channels shoal very slowly, requiring maintenance dredging every 16 to 40 years, with the entrance and Main Ship Channels having the longest maintenance cycle, and the inner channels in the Mystic and Chelsea Rivers having the shortest. The dredging and maintenance of the channels have had no discernible effect on the elevations of surrounding sub-tidal flats as these areas do not produce shoal materials for the channels at any significant rate. The USACE sees no need to expand the typical survey limits further unless any channel segment were to exhibit shoaling. In that case the limit of the next survey would be expanded in the likely source direction. However, without a demonstrated need, the survey cost and limits would be held to the area of the channel, its side slopes and immediate area as at present.</p> <p>Similarly, post-construction surveys would not be conducted outside of the typical condition survey cycle presently followed for the various channels.</p>

	Harbor pilots, the USCG and other port users keep a close eye on depth conditions in the channels and advise the USACE of any problems. The USACE performs additional surveys when these parties report any reduction in controlling depth. If shoaling is found sooner than expected, then it would make some sense to investigate the potential sources more distant from the channel. In the absence of any such shoaling, the USACE sees no need to increase the frequency of post-dredging condition surveys.
Comment DOI-14	USGS states that the reference provided for its data is no longer current.
Response	Noted. The web link reference has been updated.

Massachusetts Executive Office of Energy and Environmental Affairs – Certificate of the Secretary on the Draft SEIS/EIR – 13 June 2008		Letter at Page A-3-29
Comment EOEEA-01	The Certificate on page 2 states that the TWG “will develop conditions for the Water Quality Certification, evaluate disposal alternatives and modify construction and monitoring techniques as necessary to ensure adequate environmental protection.”	
Response	This seems to misrepresent the role of the Technical Working Group. As stated in general topic response #2, the USACE [and Massport] will continue to involve the TWG in the scoping of Design Phase studies, evaluation of study results, development of monitoring plans, development of the blasting and construction sequencing plans, and adaptive management of environmental protection measures employed during construction. However, it is the USACE, and not the TWG that will develop and propose these plans. The USACE will frequently seek and rely on the technical expertise of the members of the TWG in developing its plans, and provide the TWG members with opportunity to review and comment on all scopes and Design Phase studies and plans. The USACE will apprise the TWG of any developments in project impacts during construction and will seek the TWG input to solving any situations that may develop. If a Water Quality Certificate is required for the project (see below), our understanding is that development of conditions is the responsibility of MA DEP, although they would likely solicit input from the TWG as well as the USACE and Massport on appropriate conditions.	
Comment EOEEA-02	The Certificate on page 3 states that the project requires a 401 Water Quality Certification and it may require an 8(m) permit from the Mass Water Resources Authority.	
Response	The USACE will seek a Water Quality Certification from the State only if disposal or other placement of dredged materials occurs in State waters. A WQC will not be sought for dredging activities, which are characterized as de minimis discharges under the Clean Water Act, or for placement of dredged	

	<p>material seaward of the territorial sea in Federal Waters where the Marine Protection Research and Sanctuaries Act is the regulatory authority and not the Clean Water Act.</p> <p>The project's non-Federal sponsor, Massachusetts Port Authority, is responsible for the acquisition of the MWRA 8(m) permit if needed. Massport is aware of the requirement and will coordinate with MWRA on its acquisition. See response to comment MWRA-08.</p>
Comment EOEEA-03	The Certificate on page 4 states that "because the proponent [Massport] is a state agency and, under a cost sharing agreement is responsible for providing a significant percentage of the project costs, MEPA jurisdiction extends to all aspects of the project that may cause significant Damage to the Environment including air quality, water quality, threatened and endangered species, marine habitat, fisheries and historic and archaeological resources.
Response	Comment acknowledged
Comment EOEEA-04	The Certificate on page 4 states that the several prior dredging projects at Boston required removal of only a small amount of rock compared to the proposed project, and the volume of parent material is 3 to 6 times greater than that for the last improvement project. Due to the fish kills during blasting with the current maintenance project the large volume associated with this improvement project is a significant concern.
Response	The USACE and Massport share the Secretary's concern. The After Action Report on the 2007 blasting operation and fish kill events has been included in the Final SEIS/EIR (see Appendix Y). Blasting and construction sequencing plans and monitoring programs will be developed with input from the TWG agencies as described in general topic responses #3, 7 and 8. These plans will be published in supplemental NEPA/MEPA documents during the Design Phase of the project. It should be noted that during the most recent blasting in September of 2012, there were no apparent fish kills. In addition, lessons learned from the previous blasting in Boston Harbor will be incorporated, where appropriate into the blasting mitigation measures. Some of these lessons include the development of a communication plan between the fish observer and the contractor, and that the fish startle system will be deployed on an alternate vessel instead of the blast barge to facilitate longer effectiveness.
Comment EOEEA-05	The Certificate noted that the evaluation of beneficial reuse of the rock was not thorough and should be re-evaluated.
Response	Additional beneficial uses for the blasted rock will be investigated during the next Design Phase of the project. Please see general topic response #4.
Comment EOEEA-06	The Certificate states on page 6 that the Final EIR should address whether any of the material would be appropriate for beach nourishment at Winthrop Beach.

Response	<p>The Federal project base plan is to dispose of the material at the MBDS. As has been stated in general topic response #4, the USACE and Massport are willing to work with the State and others during the Design Phase to determine if other practicable beneficial use options for the rock exist. However, whether or not any of the dredged materials to be generated by the navigation project are suitable for use on any other project must be determined by the proponent of such project(s). The Corps will better define, through surveys and subsurface explorations, the quantities, locations, and physical nature of the material to be removed for channel deepening. That information will be shared with all interested parties. The responsibility for further investigation, testing, design and regulatory approvals for any project or party desiring to take the materials generating by dredging rests with those parties. The Federal project will not bear those costs or conduct those evaluations. During construction, any additional costs associated with rehandling, processing or transporting materials for use on other projects, such as Winthrop Beach, would need to be funded by non-Federal parties and would not be a cost to the Federal Navigation Project.</p>
Comment EOEEA-07	<p>If the artificial reef is intended to serve as a major mitigation commitment, then close consultation with the state and federal agencies...is needed to identify a site and develop a design that meet the project objectives.</p>
Response	<p>For clarification purposes, at this time the artificial rock reef would be developed as a beneficial use, not as mitigation. We have not identified any significant adverse environmental impacts from the navigation dredging that in our view would require compensatory mitigation. The Federal base plan is to dispose of the rock at the MBDS if a practicable beneficial use can not be identified. See response to General Topic Response #4 regarding our commitment to working with the State and Federal agencies on identifying appropriate site(s), design, placement methodology, and monitoring for the rock reef.</p>
Comment EOEEA-08	<p>The Draft SEIS/EIR generally characterizes impacts as insignificant and/or temporary in nature, even though the dredging project will convert more than 1,100 acres of soft bottom to hard bottom.</p>
Response	<p>Table 4-1 in the DSEIS/EIR states that between 186 and 518 acres of soft bottom would be used for the rock reef, not 1,100 acres. In addition, Table 2-5 in the DSEIS/EIR states that the habitat enhancement sites would create a permanent (not temporary) change from soft bottom to mixed hard bottom habitat.</p> <p>In the dredged areas, the Feasibility Report states that 1205 acres of bottom habitat would be impacted through dredging, including side slopes and about 20 acres of previously undredged areas where the channels and turning basin require widening. Many areas will have the same post-construction bottom type as before dredging, however there will be a variety of pre-dredge v. post-dredge changes in bottom type over the project. In general, the deeper the channels are dredged, the more hard-bottom materials will be exposed, such as</p>

	till and rock. Appendix Q to the Draft report contains maps of the existing and post-construction bottom types (for a 45 and 48-foot channel depth). These maps and the areas of various bottom types existing and with the project will be refined once the Design Phase field exploration programs have been completed.
Comment EOEEA-09	The Draft SEIS/EIR does not provide the “After Action Report” or identify revisions to protocols or mitigation. ...the DSEIS/EIR does not provide a sequencing schedule to minimize fish impacts.
Response	The “After Action Report” has now been completed and is included as Appendix Y to the Final SEIS/EIR. The “After Action Report” provides a base from which to develop the Blasting Plan for the Deep Draft Project. The Blasting Plan would also inform the development of the larger construction sequencing plan. See General Topic #3 for additional discussion on the Blasting Plan.
Comment EOEEA-10	The Draft SEIS/EIR indicates that, development of more detailed data, including more extensive borings to characterize the type and quantities of rock to be removed, will not be conducted until the final Design Phase.
Response	This is correct. Please see general topic response #3 for development of the blasting plan during the Design Phase.
Comment EOEEA-11	EOEEA notes that comments from MA DEP and US EPA state that credits should be pursued as a means of air quality compliance and if not that any construction shutdowns be targeted to summer.
Response	Please see general topic response #9 for information on Design Phase air quality compliance investigations. Currently, construction shutdowns are targeted to the winter months so that a single extended shutdown (with its \$4 to \$6 million demobilization-remobilization costs) would suffice for two calendar years’ emission reduction requirements.
Comment EOEEA-12	Cultural resource investigations to be continued – Page 9 EOEEA notes that the SEIS indicates that borings and remote sensing surveys should be conducted for the widening of the Chelsea River Channel to assess the presence of cultural resources, and that the Draft EIS/EIR indicates that the USACE will continue consultation with the Massachusetts Historical Commission (MHC) and the Massachusetts Board of Underwater Archaeological Resources (BUAR).
Response	These statements are correct. The MHC and BUAR have both concurred in the determination of no cultural resource impacts from work in the lower and outer harbor. The USACE has agreed to develop a scope of work for areas of Chelsea River that may not yet have been fully investigated, and to conduct those surveys during the Design Phase. Disposal of dredged material at the IWS and/or creation of beneficial use sites may require additional surveys and evaluation as well as coordination with MHC and BUAR.

Comment EOEEA-13	Review of the Draft SEIS/EIR, review of comment letters and consultation with state agencies indicate support for the proposed project. Although additional review of alternatives is not warranted, there are significant outstanding issues that must be resolved regarding development of measures to avoid, minimize and mitigate project impacts.
Response	We concur with this statement and will work with the agencies during the Design Phase to adequately investigate and address the remaining issues.
Comment EOEEA-14	The EOEEA notes that in the event that the Final EIS does not fully address the remaining issues, EPA has noted that an additional NEPA process may be necessary to engage the agencies and public on supplemental information during the Design Phase of the project. EOEEA also notes that State MEPA regulations allow the filing of a Notice of Project Change (NPC) subsequent to the review of the Final EIR that can be used to provide public review of significant changes to the project and/or development of additional information/analysis.
Response	This is the overall plan that the USACE and Massport have presented in the Draft and Final Feasibility Report and SEIS/EIR. The Design Phase commitments are spelled out in the several general topic comments, and in other commitments made in these responses.
Comment EOEEA-15	EOEEA state that a Water Quality Certificate, issued by MA DEP, will be the vehicle for establishing enforceable mitigation commitments, that adequate resource characterization and mitigation commitments will be necessary for CZM to issue Consistency, and that the Final EIR should provide information on 401 WQC standards and demonstrate project consistency with these requirements. EOEEA states that provision of adequate resource characterization and mitigation will balance the need for more conservative mitigation approaches such as strict dredging windows.
Response	The USACE agrees that best management practices should be employed to the extent practicable to limit impacts, whether significant or not. Given current project status we do not at this time believe that there are any adverse resource impacts from this project of such significance as to require compensatory mitigation. As stated in general topic response #7 and #8 we will conduct additional resource characterization investigations in the Design Phase in consultation with the TWG and will develop a construction sequencing plan to best avoid impacts to identified resources in different areas of the harbor and different times of the year. CZM consistency concurrence was issued on November 29, 2012. A Water Quality Certificate would only be needed if disposal of unsuitable maintenance material into the Main Ship Channel CAD cell or for creation of rock reef (State waters) is needed.
Comment EOEEA-16	EOEEA notes that the Final EIR must provide more information on sequencing including the location, timing and methods of proposed blasting and anticipated impacts on marine resources. The Final EIR should further illustrate how much hard bottom is impacted, how much will be converted to

	other habitat and how much may be created within the project site. In addition, a pre- and post-monitoring plan must be developed for the project as a whole, including the artificial reef if that remains as a project component
Response	Please see general topic responses #3, #4, #6, #7 and #8 above.
Comment EOEEA-17	The Final EIR should identify total impacts (permanent and temporary) to Land Under the Ocean. It should include a timeline and plans that clearly illustrate where and when the BHNIP, IHMDP, OHMDP and the BHDDNIP overlap. It should provide a plan that clearly delineates areas that BHDDNIP will alter that have not been disturbed by the BHNIP, IHMDP and OHMDP. The Final EIR should include maps that clearly delineate resource areas including eelgrass beds and shellfish habitat.
Response	As stated in response to comment EOEEA #08 above, the Design Phase subsurface investigations will result in updating the survey and bottom classification maps already included in the Draft Report. The timeline and work conducted for the BHNIP have been described in detail in the Phase II report prepared by ENSR at the conclusion of that project. There will be no timeline overlap between the other projects and the Deep Draft Improvement Project. Shellfish beds in proximity to the navigation project are mapped. All eelgrass beds are greater than 1,000 feet from the project sites. Maps showing the Deep Draft Project relative to the existing project areas will be prepared.
Comment EOEEA-18	EOEEA stated that the Final EIR should assess noise impacts associated with the blasting, in particular, for blasting associated with the Mystic River and Chelsea River.
Response	There is no blasting in the Mystic River. Blasting in the Chelsea River will be limited to a small are of ledge requiring less than 2000 CY of rock removal in the area adjacent to the petroleum terminals at the upstream turning basin in Revere. Submarine blasting generates only negligible surface noise due to charge size, the significant depth of water (>40 feet) at low tide, and measures taken to reduce shock waves. Noise has not been and will not be a factor with submarine blasting for this project.
Comment EOEEA-19	Monitoring plan & Resource characterization – page 11
Response	Please see general topic response #8 above.
Comment EOEEA-20	The total amount of conversion of soft-bottom habitat to hard substrate should be identified and conversion should be identified on project plans.
Response	Please see response to comment EEOEA #08 above.
Comment EOEEA-21	EOEEA stated that MA DMF noted concern with softshell clam habitat that will be impacted by dredging in the Chelsea River, including permanent loss through habitat conversion. The Final EIR should include a clear delineation of the shellfish habitat potentially impacted by dredging and assess the functional loss to other species.

Response	The DSEIS/EIR noted that softshell clam habitat is present along the <u>banks</u> of the Chelsea River. The population was determined to be negligible as softshell clam was noted in only one grab sample collected in the area of this identified habitat. Also see response to EOEEA #17 above.
Comment EOEEA-22	EOEEA states that the Final EIR should identify any elements of the project that are located within the Cod Conservation Zone.
Response	Portions of the project occur within the Cod Conservation Zone. Fisheries and cod are discussed in the FEIS/EIR at Section 3.3.5, 4.2, and 5.3. The Cod Conservation Zone was designated to shut down fishing for cod in specified areas of Massachusetts Bay during winter months to protect aggregations of cod engaged in spawning, and as currently envisioned the project will not be active during some winter months due to Clean Air Act conformity issues and winter weather safety restriction on rock removal and dredging activities in the entrance channels. Due to this timing of the shutdowns, it is not expected that aggregations of spawning cod will be impacted. Moreover, as discussed in Section 5.3 of the FEIS/EIR, cod are not expected to be found in the dredging areas. To the extent that the winter shutdown schedule changes or that aggregating cod are expected to be found in the project area, and are expected to be affected by dredging operations, this can be taken into account in determining how the project is sequenced, as we do for other species.
Comment EOEEA-23	EOEEA stated that the sequencing plan should include a plan for sequencing the most disruptive and potentially damaging aspects of the project (e.g. blasting) to avoid sensitive locations during critical times of the year.
Response	Please see general topic response #7 above. The blasting mitigation measures will be used in part to inform the larger sequencing plan for the project to avoid and minimize significant impacts to critical resources while permitting the project to proceed.
Comment EOEEA-24	EOEEA stated that a minimum of one year of biological surveys of fisheries resources and habitat should be completed to support a rational sequencing plan, and that DEP and DMF should be consulted to determine what data is necessary to support sequencing and monitoring. EOEEA also stated that the plan should consider timing of disposal to dredge contaminated material early phases so that it can be capped with clean material dredged in subsequent phases.
Response	See response to General Topics #7 and #8. The USACE and Massport anticipate including DEP and DMF, and the TWG for consultation during the Design Phase on the data needed to support sequencing and monitoring. There is no “contaminated material” associated with the navigation improvement project. All harbor maintenance dredging will have been completed before the improvement project commences and the harbor’s channels have very low shoaling rates. All improvement material has been approved by EPA for disposal at the MBDS.

Comment EOEEA-25	Communicate with lobstermen – page 12 The proponent should establish plans for communication with the fishing and lobstering communities regarding construction activities and timing to avoid impacts and conflicts
Response	As with the recently completed and currently ongoing navigation projects in Boston Harbor, the USACE will provide, through its contractors, a public notice informing the fishing and shellfishing communities of the location and timing of dredging.
Comment EOEEA-26	EOEEA noted that the blasting plan should consider avoidance measures (shifting channel limits, and rock removal by bucket ripping rather than blasting), and should consider sequencing and time of year restrictions, and technological approaches including use of additional acoustic fish exclusion devices and consideration of bubble curtains.
Response	Please see rock removal including blasting mitigation measures and the later construction sequencing plan.
Comment EOEEA-27	EOEEA noted that EPA stated that the Final EIR should evaluate the potential for impacts of blasting on the recently installed buoy listening and monitoring system
Response	The FEIS/EIR addresses this issue and concludes that the blasting will have no impact on the buoy listening system. The nearest buoy is more than 10.5 miles from Finns Ledge at the outer end of the entrance channel – the seaward-most location of blasting. See Section 4.2.5 of the Final SEIS/EIR.
Comment EOEEA-28	EOEEA notes a need to re-assess beneficial uses for the rock material, and to reconsider upland disposal options as a first priority and creation of the proposed reef as a secondary consideration, in addition to consulting with MA CZM regarding an upland disposal alternative it is pursuing.
Response	The USACE and Massport agree. See general topic response #5 above.
Comment EOEEA-29	EOEEA states that the artificial reef alternative should require continued consultation with the TWG to develop better alternatives for providing fish habitat, and that further planning for the reef include defining the loss of soft bottom habitat and related impacts, and include a monitoring program to document colonization rates and other indicators of habitat creation.
Response	The USACE and Massport agree to conduct such investigations during the Design Phase of the project. See general topic response #4 above.
Comment EOEEA-30	EOEEA notes that US EPA and MA CZM support use of parent material to cap the IWS in Massachusetts Bay, and states that the results of the preliminary capping demonstration should be reviewed by the TWG and included in the Final EIR.
Response	Please see general topic response #6 above. The capping demonstration results were favorable and are currently in report preparation. The report will

	be reviewed with the TWG and serve as a basis for designing the capping project for the IWS if a decision is made to proceed.
Comment EOEEA-31	EOEEA states that the Final EIR should address whether any of the material that will be dredged is appropriate for placement on Winthrop Beach for its beach nourishment program, and should assess the compatibility of material with Winthrop Beach using the additional geotechnical investigations that will be conducted, and should consult with the DCR and the Town of Winthrop.
Response	Please see the response to comment EOEEA #06 above on this topic. The USACE will make the results of its Design Phase investigations of dredged material types, quantities and locations available to all interested parties for their consideration of uses for that material and will work with any party expressing an interest in taking such material.
Comment EOEEA-32	EOEEA states that the TWG should participate in the development of the Final EIR, the Design Phase, and development of monitoring and mitigation requirements. EOEEA also states that the TWG should be convened during construction to assess the success of control measures and review project progress.
Response	Please see general topic response #2 above.
Comment EOEEA-33	EOEEA notes that MA CZM suggested that the project employ a third-party contractor as an independent facilitator for the TWG to manage “unforeseen developments as they arise during the construction phase of the project,” and to coordinate with the independent fisheries observer during dredging operations to provide a rapid, coordinated response from agency and community representatives.
Response	The USACE and Massport agree that the independent observer played a beneficial role in the BHNIP (1998-2001). However, the need for an independent observer for the Deep Draft Project is not evident at this point.
Comment EOEEA-34	EOEEA noted that MA DEP and US EPA requested that additional air quality mitigation strategies be explored, including the use of emission reduction credits to offset project related emissions. EOEEA also urged a project commitment to the purchase of emission reduction credits.
Response	See general topic response #9. No actual purchase commitment can be made until Congress authorizes and funds the project.
Comment EOEEA-35	EOEEA states that the MHC indicates that it anticipates continued consultation with ACOE regarding the methodology and results of its cultural resource surveys (for the Chelsea River), and that the MA BUAR indicates that it has been satisfied with findings and recommendations of archaeological surveys conducted to date and concurs with the recommendation that a remote sensing archaeological survey should be conducted for the areas of potential affect in the Mystic River and Chelsea River channels.

Response	See response to comment EOEEA #12 above. In its 4 December 2012 letter to BUAR, the USACE stated that the plan of improvement includes deepening an area of the existing 35-foot Mystic River Channel to 40 feet. This area accesses Massport's Medford Street Terminal in Charlestown. Massport has already deepened its berth at this terminal to 40 feet. As this area was deepened in the past to reach the current 35-foot depth and sampling shows the improvement material to be Boston blue clay, no plans for further investigations are necessary.
Comment EOEEA-36	EOEEA repeats a statement from the MWRA that the proposed limit of the project may deepen the Reserved Channel at or deeper than the current location of the NSTAR cable supplying Deer Island.
Response	Based on the best information currently available, dredging to 47 feet, with 2 feet of overdepth allowance and 2 feet additional required removal in rock areas would not reach the MWRA cable. Because this work would be sufficiently close to the cable, however, NSTAR has developed a proposed protection scheme that, assuming its feasibility, would allow the Improvement Project to move forward without requiring the much more expensive option of removing and reinstalling the cable. NSTAR has already conducted field data collection to refine the corrective plan, and reported those results to the USACE. The USACE has requested some additional studies and information, and NSTAR is in the process of addressing that request. The USACE anticipates entering into an Agreement with NSTAR and MWRA that will specify timelines and requirements for NSTAR to implement its cable protection scheme.
Comment EOEEA-37	EOEEA notes the MWRA comments that work in Chelsea River be carefully coordinated with the MWRA to avoid impacts to its 36" water main and three wastewater crossings, and that an 8(m) permit may be required.
Response	Massport will coordinate the need for any 8(m) permits with the MWRA. Correspondence from the MWRA indicates the Chelsea utilities are of sufficient depth (50 feet) that they will not be impacted by the proposed deepening of Chelsea River to 40 feet.
Comment EOEEA-38	The FEIR should include an updated mitigation section and draft Section 61 Findings for the 401 WQC.
Response	The mitigation section of the Final SEIS/EIR has been updated. A draft Section 61 Findings is included in the Final SEIS/EIR.
Comment EOEEA-39	Indicate whether compensatory mitigation plans will be developed for direct and indirect mortality of fisheries resources, delayed recovery of habitat and areas of habitat that are permanently lost or altered.
Response	Upon completion of the additional resource characterization to be conducted during the Design Phase, the USACE and Massport will work with the TWG agencies to develop blasting mitigation measures and sequencing plans, best management practices, beneficial use plans, and adaptive management

	<p>procedures that would avoid or minimize significant adverse impacts to the maximum extent practicable. If the habitat enhancement sites are considered a permanent loss of soft-bottom habitat then the rock would be disposed or beneficially used elsewhere. The impacts from delayed recovery or alteration of habitat, and direct and indirect impacts to fisheries resources are expected to be temporary and short-term. Critical resources and special aquatic sites are not expected to be impacted by the channel deepening. Compensatory mitigation is not believed necessary. Should the investigations that will be conducted during the Design Phase lead the USACE to a different conclusion, then appropriate mitigation strategies and measures will be developed.</p>
<p>Comment EOEEA-40</p>	<p>EOEEA noted the Town of Winthrop’s concern with the project which cited impacts on fisheries habitat and potential changes to sediment transport patterns. EOEEA expects the USACE to respond to those issues and, in particular, address the potential of the project to affect long-term sediment transport patterns.</p>
<p>Response</p>	<p>Please see responses to the Town of Winthrop’s comments below, in particular the response to comment TOW #12.</p>

<p>Massachusetts Office of Coastal Zone Management – 2 June 2008</p>		<p>Letter at Page A-3-46</p>
<p>Comment CZM-01</p>	<p>MZ CZM suggests continuation of the TWG during the Design Phase of the project. CZM also suggested establishment of a smaller “sub-committee” facilitated by an “independent third party contractor” to “manage situations as they arise during the construction phase.”</p>	
<p>Response</p>	<p>The USACE concurs with continuing the involvement of the TWG in this project. Please see general topic #2 above.</p>	
<p>Comment CZM-02</p>	<p>MA CZM states that, besides lobster, there was little or dated information on the other potentially impacted natural resources such as shellfish, fish, benthic infauna, and epifauna, and other species of decapod crustaceans.</p>	
<p>Response</p>	<p>Based on discussions with the TWG, a conservative approach was determined to be the best method for describing natural resources considered important to the discussion of the Affected Environment and Environmental Impact sections of the SEIS/EIR. This approach assumes that a natural resource is in the area unless the physical environment or other data suggests the habitat is not suitable for a particular species or community.</p> <p>As discussed in general response topic #8 above, additional resources surveys will be conducted during the Design Phase to inform the development of the construction sequencing plan and to serve a baseline for the monitoring surveys measuring habitat recovery post-construction.</p>	

Comment CZM-03	The lack of site-specific data for the blast areas is of particular concern due to the potential impacts to the relatively stable exposed bedrock seafloor habitat. The area to be blasted is largely different from the proposed dredging areas. The seafloor in the inner and lower harbor is largely comprised of relatively mobile soft sediments that support dynamic community of benthic infauna and epiuafauna typical of highly disturbed environments. The area in the outer harbor to be blasted is an area of hard bottom (bedrock and boulders) that is presumably very stable and not highly disturbed, potentially supporting a stable community.
Response	<p>Benthic resource characterization was investigated through sampling and analysis in the project area (including the blast areas) and is described in the Final SEIS/EIR.</p> <p>All areas proposed for dredging and rock removal, with very limited exceptions where the entrance bend at Finns Ledge and the turning area off the Army Base pier will be widened, are within the existing channel and subjected to periodic maintenance dredging. In fact, maintenance of the 40-foot lane of the north entrance channel was accomplished in 2004-2005. Most areas of rock removal will need to be dredged first to remove overlying unconsolidated substrate, before drilling can occur. Only a small portion of the ledge areas are exposed bedrock.</p>
Comment CZM-04	MA CZM suggested that a pre- and post blasting/dredging monitoring program of the impacted areas, particularly the areas to be blasted and outer and lower harbor resources would allow for a sufficient description of the baseline characteristics and potential impacts, while facilitating the monitoring of recovery in the area.
Response	The USACE agrees to perform a pre and post monitoring program to document the recovery of the impacted areas. The details of the monitoring program will be discussed with the TWG. See general topic #8 above for an outline of the monitoring proposed.
Comment CZM-05	A comprehensive blast plan should be developed. An independent third-party observer should be present during the project to ensure the blast plan procedures are followed, or modified on a real time basis with the TWG.
Response	See general topics #2 and 3 above for details on the rock removal blast plan and coordination with the TWG. USACE inspectors and fish observers will be on-site during construction to ensure adherence to the specifications for the project, including the blast mitigation measures.
Comment CZM-06	MA CZM suggested that consideration should be given to harvesting American lobsters and rock crabs from the blast areas as part of the plan to limit the impact to these valuable commercial lobsters. Substantial concentrations of mussels should also be removed and relocated (transported to similar nearby habitat) to minimize impacts to these resources.

Response	Lobsters, mussels and crabs do not have air bladders like many fish that need them for buoyancy. Because of this, they are not usually impacted from the blast shock wave. Divers exploring for unexploded ordnance after each blast event in Boston Harbor fall of 2007, did not note the presence of dead lobsters from blasting. Also, dredging will disturb the area prior to blasting, as unconsolidated overburden must be removed prior to drilling, which may limit the value of this habitat for these resources.
Comment CZM-07	MA CZM suggested that the concentration of total suspended solids in the sediment plume should be modeled. CZM also noted that SSFATE data and maps were not presented in the draft report/SEIS/EIR.
Response	An SSFATE model was used for the Outer Harbor Maintenance Dredging Project, which much of the Deep Draft Project overlaps. Details from plume monitoring of the IHMDP are included in the FSEIS/EIR. Please see general topic #10 above for additional response.
Comment CZM-08	Project sequencing should be addressed to avoid or minimize the effects on different species occurring at different times of year.
Response	A project sequencing plan will be developed as more specific data is collected during the Design Phase. Please see general topic #7 above for additional details on this commitment.
Comment CZM-09	The creation of the proposed rock reef may not be warranted. A better understanding is required to make a judgment on this proposal. The use of rock for shore protection and upland uses should be further evaluated.
Response	See general topics #4 and 5 above for response to these topics.
Comment CZM-10	CZM supports the plan to use parent material (clay) to cap the IWS. Results of the capping demonstration planned for the MBDS should be reviewed by the TWG and used to design the capping project.
Response	The USACE concurs with CZM's statements. Please see general topic #6 above for response to these comments.
Comment CZM-11	The project is subject to Federal consistency review and must be found consistent with CZM's enforceable policies.
Response	The USACE concurs. A CZM Consistency Determination was provided to the Massachusetts Office of Coastal Zone Management on October 16, 2012, followed by a conference a call on October 24, 2012 and then another letter on October 26, 2012. CZM Consistency Determination concurrence was received on November 29, 2012.

Massachusetts Department of Environmental Protection – Letter to MAEOEEA – 2 June 2008		Letter at Page A-3-50
Comment DEP-01	The Department notes that a Section 401 Water Quality Certification will be required for the project.	
Response	The USACE concurs that a WQC will be required for any disposal of dredged material or fill in State waters.	
Comment DEP-02	The Department stated that “the proponents should perform a community outreach effort to provide coastal communities with an opportunity to use the material for projects addressing shoreline erosion, beach renourishment, and other needs.”	
Response	Please see general topic responses #4, 5 and 6. The USACE and Massport are working with MACZM to identify additional potential uses for rock and other hard materials. There is unlikely to be any significant sandy materials practical for use as traditional beach nourishment. Should Design Phase subsurface investigations determine such materials are present in sufficient localized quantities to make the additional cost of segregating those materials practicable and identifiable, then the State and other interested parties will be canvassed to determine their willingness to receive any such materials as their cost.	
Comment DEP-03	The Department stated that “as sequencing allows, clean material may function as a suitable cap over material to be disposed of in a confined aquatic disposal (CAD) cell.”	
Response	As all improvement dredging materials are clean and have been found suitable for unconfined ocean disposal at the Massachusetts Bay Disposal Site, no CAD cells are proposed for the improvement project. If CAD cells are required for any concurrent maintenance dredging activities yielding materials unsuitable for ocean disposal, the use of clean improvement materials for capping CAD cells will be considered, as the Department suggests.	
Comment DEP-04	The Department stated that “rocky materials may provide suitable habitat in some instances” and recommended consultation with the agencies to develop a suitable habitat enhancement plan.	
Response	Please see general topic response #4.	
Comment DEP-05	The Department stated that a sequencing plan be developed, in particular for blasting activities.	
Response	Please see general topic responses #3 and #7.	
Comment DEP-06	MA DEP recommends that the most contaminated dredged material be placed at the bottom of a CAD cell to maximize the separation of such materials from aquatic habitats.	
Response	The material to be removed by the improvement project is all parent material, all of which has been found suitable for ocean placement at the MBDS. No	

	CAD cells are anticipated for this project. If CAD cells are required for any concurrent maintenance dredging activities yielding materials unsuitable for ocean disposal, then sequencing of disposal into any cells will be examined as the Department suggests.
Comment DEP-07	The Department stated its belief that the Technical Working Group's involvement in the project be continued. The TWG's ability to provide input on minimizing impacts, and for communicating unexpected occurrences were cited. The Department also stated that the proponent should provide a third-party contractor to facilitate and report to the TWG.
Response	Please see general topic response #2. The USACE and Massport are committed to continuing the role of the TWG through the design and construction phases of the project. There will be USACE inspectors on the project to ensure the Contractor(s)' compliance with the requirements of the project's Plans and Specifications. Use of a facilitator proved helpful during the Navigation Improvement Project of 1998-2001. However, the need for a facilitator for the Deep Draft Project is not evident at this time.
Comment DEP-08	MA DEP suggests that the enforcement of the emission reduction strategy be described, that additional engine retrofit opportunities be explored, as well as the use of emission credits. More detailed information on the dredging schedule within each year including targeting dredging operations in the pre- and post-ozone season.
Response	Please refer to general topic #9 for a response to the above comments. The USACE will work with U.S. EPA, MA DEP, and interested TWG members with expertise in air quality issues during the Design Phase to develop an appropriate strategy for any required mitigation of air quality impacts.

Massachusetts Bureau of Underwater Archaeological Resources – Letter to NAE – 2 June 2008		Letter at Page A-3-54
Comment BUAR-01	The Board has concurred with the findings and recommendations of the surveys conducted to date for the Main Ship Channel, Reserved Channel and its Turning Area, President Roads Channel Reach and Anchorage and the North Entrance Channel from Broad Sound.	
Response	Noted. No further cultural resource surveys are required in these areas.	
Comment BUAR-02	The Board concurs in the recommendation that a remote archaeological survey of potential effect areas in the Mystic and Chelsea Rivers should be conducted and will work with the USACE to develop a survey strategy.	
Response	As stated in the draft Feasibility Report/SEIS/EIR, the USACE has included surveys of the widened channel areas in the Chelsea River in the design phase scope.	

Massachusetts Historical Commission, SHPO – Letter to NAE – 5 May 2008		Letter at Page A-3-55
Comment MHC-01	The MHC looks forward to reviewing the scope of the proposed additional cultural resource surveys as stated in the USACE letter of 4 October 2007.	
Response	The surveys proposed are for the channel widening areas along the Chelsea River. As described above in response to the BUAR letter, these surveys are included in the Design Phase scope, and input will be sought from the MHC and the BUAR at that time.	

Massachusetts Water Resources Authority – Letter to NAE – 2 June 2008		Letter at Page A-3-56
Comment MWRA-01	The project would bring the Reserved Channel to a finished depth of not less than -52 feet MLLW.	
Response	In areas of ordinary material a 2-foot overdepth is allowed, not required. In areas of rock, there is a two foot overdepth required and an additional 2 foot of overdepth allowed. For a channel to be dredged to -47 feet in rock, the contractor is required to remove material to -49 feet and can remove material to -51 feet. However, the comment that the finished depth would be not less than -52 feet is incorrect. That is the maximum depth that would be allowed, not the minimum.	
Comment MWRA-02	NSTAR’s documents indicate that this cable was installed at approximately - 50 feet with variations higher and lower along its course ...	
Response	The as-built drawings submitted to the USACE of Engineers and the MWRA do not support the statement that the cable was installed at a depth of -50 feet. The permit issued to the MWRA and the NSTAR required the cable to be installed to a minimum of -60 feet MLLW. As-built drawings appear to show that the minimum elevation of the cable is -54 feet MLLW.	
Comment MWRA-03	The permit required the cable to reach a depth of -60 MLLW which, based upon the “as-built” data of NSTAR’s contractor, was not achieved.	
Response	We concur with your comment that the permit issued to NSTAR and the MWRA for the installation of the cable required the cable to be buried to a minimum depth of -60 feet and that the as-built drawings clearly indicate that that minimum depth was not achieved.	
Comment MWRA-04	MWRA staff has attended meetings with the USACE, NSTAR and the U.S. Justice Department over the past several years ... in response to the USACE insistence that corrective action be taken to bring the cable’s location into compliance with [the] permit. ... No concrete progress has been made toward	

	finding a solution that will assure that the cable could survive the channel deepening process.
Response	<p>When it became apparent that the cable was not installed to the minimum depth required under the USACE permit, the USACE initiated discussions with NSTAR and the MWRA. After the initial discussions between the USACE, NSTAR, and MWRA in 2003-2004, this matter was referred to the U.S. Attorney's Office for the District of Massachusetts, and since then the parties have engaged in productive settlement discussions. These discussions have resulted in a plan developed by NSTAR for protection of the cable.</p> <p>This commitment led NSTAR to develop a proposed protection scheme that, precludes the need of requiring the much more expensive option of removing and reinstalling the cable. NSTAR has already conducted field data collection to refine the corrective plan, and reported those results to the USACE. The USACE has requested some additional studies and information, and NSTAR is in the process of addressing that request. The USACE anticipates entering into an Agreement with the MWRA and NSTAR that will specify timelines and requirements to allow for a timely, effective resolution of the cable matter.</p>
Comment MWRA-05	NSTAR's preferred option of placing protective mats over the cable cannot be expected to work if the cable's current location is already at or above -52 MLLW.
Response	See response to Comment 4.
Comment MWRA-06	It appears that the proposed dredging may impact MWRA's Section 38, a 36 inch water main that crosses the Chelsea River. ... Section 38 is located at approximately -44 feet, so that any dredging or blasting should be carefully coordinated with MWRA.
Response	A new Section 38 line was installed near the Chelsea Street Bridge. Since there is no additional widening proposed for this area, the line should not be impacted.
Comment MWRA-07	There are three wastewater crossings of the Chelsea River, an abandoned siphon (Section 10), an active deep tunnel (Section 101), and an active siphon (Section 37.5).
Response	In an email dated 22 May 2008 which was provided to the USACE, Mr. Terrence Flynn of the MWRA indicated that the wastewater siphons in the Chelsea River are at an elevation of approximately -50 feet mean low water. This is approximately 10 feet below the required depth being proposed in the Chelsea River.
Comment MWRA-08	An MWRA 8(m) permit will be required.
Response	The project's non-Federal sponsor, Massachusetts Port Authority, is responsible for acquiring any MWRA 8(m) permit, should one be required for

	the project. Massport will discuss and coordinate with MWRA on any needed approvals.
Comment MWRA-09	MWRA understand that the Chelsea River deepening assumes that the Chelsea Street Bridge and the Keyspan gas siphon would be replaced.
Response	This comment is correct. The Chelsea Street Bridge has been replaced in 2012. The pipeline was relocated in 2007. Neither the bridge or pipeline pose a restriction to deepening the Chelsea River.

Massachusetts Division of Marine Fisheries – Letter to MA EOEEA – 2 June 2008		Letter at Page A-3-60
Comment DMF-01	This project constitutes work begun in 1995 ... and continued through 2007. ... work has proceeded for nearly this entire period.	
Response	These statements are incorrect. Work for the last improvement project began in August 1998 and continued through December 2001. Work for the outer harbor maintenance was accomplished from August 2004 to May 2005. The inner harbor ledge removal work was completed in two phases; 2008 and 2012. Work of this nature and frequency is common for a major regional commercial industrial port like Boston Harbor. One of the factors contributing to the improvement in water quality in the port is the removal by dredging of silty shoal material a portion of which includes contaminants of sufficient elevation to require confined disposal. The USACE concurs that harbor deepening activities should be sequenced, if possible, to avoid critical fish spawning and passage at various times of year in various areas of the harbor. Please see general topic #7 and 8 above for discussion of the proposed construction sequencing plan and resource monitoring.	
Comment DMF-02	The Division stated that virtually every estuarine waterway in Massachusetts is impacted by dredging. There is considerable concern regarding cumulative impacts on the overall ecosystem. With continuous dredging these projects change from an acute short-term impact to a chronic impact.	
Response	The cumulative impact section of the DSEIS/EIR discusses cumulative impacts. The combined subtidal impact from all projects in Boston Harbor is less than 20% (approximately 18%), with the majority of impacts attributable to the Boston Harbor dredging projects and the Hubline. However, the areas proposed for dredging within Boston Harbor associated with this project are contained within existing previously impacted navigation channels. Table 1-2 shows the years dredging has occurred in Boston Harbor. Dredging has not been continuous over this period allowing impacted areas to recolonize and recover and would therefore not be considered a chronic condition. In addition, past dredging has targeted different areas of the harbor allowing areas to recover over varying extended periods. Construction of the Deep Draft Project will, however, impact some of the same previously dredged areas. The	

	shoaling rates within Boston Harbor are low. Maintenance dredging is not needed more than once every 16 to 40 years, dependent on the channel segment, thereby allowing ample time for recovery.
Comment DMF-03	The DEIR relies heavily on information collected and examined for previous efforts. The proponents have not conducted a sufficient impact assessment.
Response	The DEIS/EIR is a supplement to the EIR/S prepared for the previous Boston Harbor Navigation Improvement Project (BNHIP). The Supplemental EIS/DEIR builds on the lessons learned from the BHNIP. The BHNIP and maintenance dredging projects used the same channels now proposed for the Deep Draft Project. The data and investigations used for those prior projects, and used for the Deep Draft Project, were deemed relevant and sufficient to evaluate the proposed navigation project.
Comment DMF-04	Many decisions are being left to the discretion of the TWG during the Design Phase. Given the experience and significant resources of the USACE and impacts from current activities ... a more concerted effort could have been made to examine potential impacts ...
Response	To clarify, it is the USACE and Massport, not the TWG, who make decisions regarding this project. Our analysis has examined impacts based on the best available information. If the USACE is authorized to proceed to the Design Phase of the project, the investigative efforts associated with that work will result in additional information that will be used to further analyze potential impacts of the project. The TWG will be engaged to provide technical input and review of the various work plans and management techniques to be developed in the Design Phase and followed during construction.
Comment DMF-05	Fish kills during blasting events this past year in Boston Harbor were not addressed in the DEIR.
Response	The DSEIS/EIR did address the four fish kill events in Boston Harbor in the fall of 2007 in Section 4.13. As stated in the DSEIS/EIR, an After-Action Report was prepared to provide information on those blast events. This report was shared with the TWG and included in the Final SEIS/EIR. An interagency subgroup of the TWG will be developing blasting mitigation measures using information developed over the next several years. See general topic #3. Also, as noted previously, during the most recent rock blasting in September of 2012, there were no fish kills. In addition, lessons learned from the previous blasting in Boston Harbor will be incorporated, where appropriate into the blasting mitigation plan. Some of these lessons include the development of a communication plan between the fish observer and the contractor, and the location of the fish startle system that will be deployed on an alternate vessel instead of the blast barge.
Comment DMF-06	A sequencing plan should be generated based on biological surveys (ideally three years) to assess resources, trends and their use.

Response	<p>A project construction sequencing plan will be developed (see general topic #7), and limited additional resource surveys will be accomplished (see general topic #8) during the Design Phase of the project. The TWG will be invited to participate in the development of these plans.</p> <p>The USACE had previously proposed and contracted for additional resource surveys during the Feasibility phase. However, requirements by MA DMF that 1) USACE secure State permits from that agency before conducting any resource sampling in support of the USACE navigation mission, 2) two years of multi-seasonal data must be collected, and 3) statements by MA DMF counsel to the USACE that its contractor personnel would be arrested by the State Environmental Police if found conducting such sampling in the harbor without MA DMF approval and permits, led the USACE to suspend further resource characterization efforts during the feasibility study. Accordingly, prior sampling efforts and State data were relied on for the feasibility study. These issues will need to be addressed by State officials and resolved to the USACE satisfaction before further resource sampling efforts are undertaken.</p>
Comment DMF-07	Development of a blasting mitigation plan is recommended. Sample plans and standards have already been provided to the proponent but were not in the DEIR.
Response	A blasting mitigation plan will be developed in coordination with the TWG (see general topic #3 above). We are unable to locate the sample plans referred to above and do not recall their submittal by DMF.
Comment DMF-08	Early benthic phase lobster (EBP) are present year-round in hard bottom habitat. DMF recommends that the extent of hard bottom habitat to be impacted, removed and created within the project site be clarified. Also states that the proposal to use blasted rock to create new hard bottom habitat not be included in the assessment.
Response	Appendix Q to the Feasibility Report/SEIS/EIR contains mapping prepared to show the harbor bottom types under the existing condition, with deepening for a 45-foot channel (to -47 feet) and with deepening for a -48 foot channel (to -50 feet). In general the area of hard bottom, including exposed bedrock, will increase with channel depth, particularly in the main ship channel above Spectacle Island, where ledge is shallow and widespread. More areas of till and cobble would be exposed in the lower harbor and entrance channel with greater depth. These areas and comparisons will be further detailed once the subsurface exploration program is completed as an early step in the Design Phase.
Comment DMF-09	DMF recommends a specific examination of the recovery time of hard bottom habitats that includes sampling of EBP lobsters.
Response	The USACE proposes to conduct pre- and post-construction monitoring of the benthic habitat. This may include sampling for EBP lobster based on further consultations with the TWG.

Comment DMF-10	The DEIR notes that softshell clam habitat will be impacted by potential work in the Chelsea River (p. 3-23).
Response	The DSEIS/EIR noted that softshell clam habitat is present along the <u>banks</u> of the Chelsea River. The population was determined to be negligible as softshell clam was noted in only one grab sample collected in the area of this identified habitat.
Comment DMF-11	Recommends that upland disposal options be revisited.
Response	The 1995 EIS on which this SEIS is based included an extensive evaluation of non-in-water disposal options. That evaluation concluded that no practicable upland options sufficient to accommodate that project's 2 to 4 million cubic yards of dredged material were available. The USACE is working with MA CZM to identify additional upland uses for rock to be removed from the project, including state shore protection projects and making this material available to the construction industry to avoid the cost of hauling that material to the ocean disposal site. See general topic #5 above for additional response. If such investigations identify practicable options, the USACE and Massport will work with the State to determine if such options can be included in the project plan. The proponents of any such use will be responsible for any additional investigations, regulatory requirements, and costs associated with such options. No additional evaluation of upland options for non-rock material is planned.
Comment DMF-12	Recommends that the site selection model for rock reef habitat enhancement be revisited in conjunction with the TWG.
Response	Please see general topic #2 and 4 above for response to this comment.
Comment DMF-13	Recommends identifying measures to prevent the spread of invasive species, such as by contractor barges coming to Boston from foreign harbors or those known to have species invasive to New England.
Response	The USACE will develop, with input from the TWG, requirements for inspection of contractor equipment for invasive species if that equipment is coming to Boston from origins of concern, including submittal of certification that inspections have been performed by qualified inspectors and the vessels found free of such species. These requirements would be included in the construction specifications for the project.
Comment DMF-14	Improvement dredging, by its very definition, is designed to alter the environment as permanently as possible. It is also inaccurate to identify impacts from maintenance dredging as temporary since they are chronic in nature and will result in permanent functional changes of the habitat.
Response	Not all improvement dredging alters the environment in a significant manner that result in permanent adverse functional changes. Areas can recover and be recolonized by benthic organisms from adjacent areas when the resulting

	<p>substrate has not been altered. The changes in depth of up to seven feet (up to eleven feet in the entrance channel) in Boston Harbor as a result of the dredging would not be expected to significantly alter the benthic community when substrates largely similar to pre-dredge conditions remain. Areas where the resulting substrate has been altered may result in permanent changes to habitat and its overall value to the system. However, recovery of these areas would be expected to occur by species suited to the existing habitat.</p> <p>A pre- and post construction monitoring plan will assist in determining what changes have occurred after deepening Boston Harbor. See general topic #8. As mentioned in comment DMF-02, the shoaling rate in Boston Harbor is low. Maintenance dredging is not expected to be needed for at least 16 to 40 years, allowing ample time for a stabilized benthic recovery to occur and not an impact that would be considered a chronic condition.</p>
Comment DMF-15	DMF recommends an environmental monitoring system designed to evaluate the recovery period of impacted areas.
Response	The USACE proposes a pre- and post monitoring plan for the Deep Draft Project be developed and implemented. See general topic #8.
Comment DMF-16	Requests a delineation of areas where habitat conversion will take place due to dredging and blasting activities.
Response	See response to comment DMF-08 above.
Comment DMF-17	DMF requests an estimate of the time needed for recovery of all impacted habitats.
Response	Recovery time of the benthic community directly impacted by dredging could take a few months to years, depending on the time of year the dredging takes place and the resulting underlying substrate that becomes available for recolonization. Recovery could take a few years if Boston blue clay is exposed. In these cases benthic recolonization would occur when the clay has been weathered or a layer of silt is deposited (re-deposition) over the affected area(s). The exposure of glacial till and rock could be expected to begin to be recolonized within months (based on experience with DMF's own Hubline mitigation rock reef creation project) depending on seasonal conditions at the time of dredging (i.e., more rapid during the warmer months when benthic organisms are spawning).
Comment DMF-18	DMF recommends development of compensatory mitigation plans for direct and indirect mortality of fisheries resources, delayed recovery of habitat, and areas of habitat that are permanently lost or altered.
Response	The USACE has developed an appropriate mitigation plan for impacts as currently identified in the Feasibility Phase. See Section 4.13 in the FSEIS/EIR. The improvement dredging is confined to existing navigation channel limits which are subject to periodic maintenance dredging except for minor areas where the channel bends and turning areas would be widened

	<p>(Finns Ledge in BSNEC, Reserved Channel Turning Area expansion, Chelsea River bend widening at two locations).</p> <p>Additional mitigation measures may be included for the project once supplemental Design Phase investigations are completed. See Responses to the General Topics above.</p>
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City of Boston, Environment Department – Letter to NAE and MA EOEEA – 2 June 2008		Letter at Page A-3-65
Comment BED-01	The proponents should also continue to work with state and local resource conservation agencies ...	
Response	The USACE and Massport are committed to continuing involvement of the Boston Harbor TWG through design and construction of the project. See general topic #2 for further response.	
Comment BED-02	Beneficial uses of dredged rock may include hard bottom habitat .. armoring shore areas ...	
Response	The USACE will investigate alternative beneficial uses for the rock removed from the project beyond the rock reefs or the base plan (placement of the rock at the MBDS). These options will be investigated in consultation with the State and other TWG participants. See general topic #4 and 5 above.	
Comment BED-03	The blasting of rock is of particular concern ... A complete review of blasting mitigation measures should be addressed...and reviewed prior to the development of a blasting plan.	
Response	Please see general topic #3 above for response.	
Comment BED-04	The findings of [the IWS demo] study should be provided and utilized to inform the deep draft project final design.	
Response	Please see general topic #6 above for response.	
Comment BED-05	If unsuitable silt material needs to be disposed of into CAD cells within the harbor, then disposal activities should not delay the capping of cells utilized for the Inner Harbor Maintenance Dredging Project.	
Response	As all the improvement material from the deep draft project is parent material, no CAD cells are needed for this project. However maintenance dredging of some harbor areas may occur at the same time. Should any of that maintenance material come from channel areas already determined unsuitable for ocean disposal, then new CAD cells would need to be opened from among the population of CAD Cell sites included in prior NEPA documents for either the 1998-2001 work or the inner harbor maintenance work.	

Comment BED-06	The rationale for not selecting the Magnolia site as a preferred enhancement location should be substantiated. The final design should be coordinated with state and federal resource agencies...
Response	The ranking of the enhancement sites was modified as the Magnolia site was too shallow at one end, rock ledge at the site is exposed, and the site is the farthest distance from the project area of the five sites. The USACE proposes to continue its investigations into the suitability and practicability of the enhancement sites and design with input from the TWG. See general topic #5
Comment BED-07	Use of removed rock for shore protection should be discussed further.
Response	Please see general topic #5 above for response and discussion of limitations on application due to the nature of the blasted rock as removed and delivered by scow. The USACE will be working with the State and other TWG participants to examine other beneficial uses for the rock including shore protection. If the City has specific information on sites around the harbor and islands where a potential public sponsor has a need for shore protection material we would appreciate receiving information.
Comment BED-08	The Environmental Consequence section should include a discussion of possible impacts of dredge material transport and disposal at the IWS and MBDS upon the adjacent Stellwagen Bank National Marine Sanctuary.
Response	Decades of research at the MBDS by the USACE DAMOS program has not revealed any impacts to the Stellwagen Bank National Marine Sanctuary.
Comment BED-09	A discussion on operational techniques and parameters such as dredge cycle-time, and practices such as scow washing, will be managed to limit turbidity. In addition, the use of a Cable Arm bucket or environmental dredge buckets during the project to minimize water quality impacts should be employed.
Response	No scow washing is proposed for this project. The parent material to be dredged is Boston blue clay and glacial till material. Consequently, turbidity generated during the improvement dredging should be less than that generated (and monitored) when silty material was removed during the BHNIP and subsequent maintenance dredging actions. The physical properties of the parent material to be removed (Boston blue clay and rock) will not allow the use of an environmental bucket. In addition, it would not be an effective management tool for controlling turbidity given the nature of the material.
Comment BED-10	Turbidity is problematic for eelgrass beds which provide important habitat for finfish and shellfish. The Final SEIS/EIR should update the section to include eelgrass beds located along the northwest shoreline of Long Island which have been established as part of the MA DMF eelgrass restoration project.
Response	Eelgrass restoration sites were selected for the State's restoration effort after discussion with USACE on the potential impact from dredging in the Federal channels. Based on water quality monitoring performed as part of the BHNIP

	<p>and IHMDP, which determined that the turbidity plume generally stayed confined to the navigation channel although occasionally a low concentration filament of plume moved a short distance from the channel. Overall, it was difficult to discern a plume more than 600 feet down current and it was determined that eelgrass beds located at distances greater than 1,000 feet from the Federal navigation channel would not be impacted by dredging. The beds established along the shoreline of Long Island are located further than 1,000 feet from the Federal channels to be dredged under this project.</p> <p>The Final SEIS/EIR has been updated to include reference to the eelgrass beds located along the northwest shoreline of Long Island.</p>
Comment BED-11	Given the scope of impacts the project will have on benthic habitat, the lack of specific study information on Boston Harbor benthic communities and uncertainty over such communities' ability to reestablish, a biological monitoring program should be developed...
Response	Refer to Sections 3.3.2 and 3.3.3 in the SEIS/EIR for specific information on benthic and shellfish communities for the project area. A pre- and post construction monitoring program will be developed in coordination with the TWG. See general topic #8.
Comment BED-12	Work areas and barge routes should be coordinated with the Boston Harbor Lobstermen's Cooperative and the Massachusetts Lobstermen's Assoc'n.
Response	The USACE will publish a public notice that identifies the work areas and the proposed scow route. See Section 4.13 in the SEIS/EIR.
Comment BED-13	As NOx and VOCs are pre-cursors to ozone, an air pollutant most problematic during the summer months, the proponents should provide more detail as to why dredging is not occurring during the winter months.
Response	The current plan for air quality compliance is 6-month construction shutdowns every other winter to limit work to 9 months in any one calendar year. With the winter shutdown period a single shutdown will accommodate two years of work, cutting demobilization-remobilization costs in half for the shutdowns. This will save \$4 to \$6 million in shutdown costs for each year. Please see general topic #9 for additional response on the air quality compliance strategy.
Comment BED-14	Ensure that the TWG continued to meet regularly throughout the duration of the dredged project ...
Response	Please see general topic #2 for additional response on the USACE and Massport's commitment to continue involvement of the TWG.

Town of Winthrop, Town Council – Letter to NAE Forwarding Comments – 30 May 2008		Letter at Page A-3-69
Comment TOW-01	<p>The Town of Winthrop is extremely concerned that the Army Corps of Engineers inappropriately denied the long anticipated and critically necessary shore protection on Winthrop Shore Drive. If the rationale utilized in its Winthrop Beach decision is consistently applied, then the Boston Harbor project should also be denied.</p>	
Response	<p>The Town goes to great lengths to rationalize similarities between the State and Town proposal for offshore mining of sand and cobble deposits from never-before impacted areas and the dredging of the port's North Entrance Channel. Boston Harbor is the region's largest most active commercial industrial port. Large cargo vessels transit the entrance channel several times daily. The channel is already subject to periodic dredging to maintain its controlling depth.</p> <p>The two situations are dissimilar. If the port is to be deepened, then the channel must be deepened. There is no practicable alternative for harbor access. There are practicable alternatives for the source material for Winthrop Beach as discussed in the USACE permit decision.</p> <p>It may be possible that coarse grained material generated through deepening of the North Channel could be suitable for beneficial use on the Winthrop Shores project. If subsurface explorations to be undertaken during the Design Phase show that to be the case, the USACE will discuss whether that material can be made available to the State for processing for such use.</p> <p>Responses to the Town's letter address only those concerns specific to the Boston Harbor Deep Draft Navigation Improvement Project. These responses will not address Town concerns for the Winthrop Shores project or any comparison between the two projects. The USACE documents concerning the Winthrop Shore permit have adequately addressed that project's issues.</p>	
Comment TOW-02	<p>A large portion of the Broad Sound and the North Channel areas are designated Essential Fish Habitat (EFH) for cod and American lobster.</p>	
Response	<p>The American lobster is not listed as an EFH species for the Broad Sound North Channel. In any case, lobster and cod could be found inhabiting the Broad Sound North Channel area, although it would not be expected to be significant habitat for cod due to the shallow depths adjacent to the channel. Nonetheless this area will be temporarily disturbed while the benthic habitat recovers post-construction. It is expected that the habitat will recover in a few months to a few years. The exposed substrate is expected to be similar after dredging (a mixture of bedrock, till, sand and clay), so no permanent alteration in functional value over the long term would be expected. A pre- and post-construction monitoring plan will be developed, with input from the TWG, and implemented.</p>	

Comment TOW-03	NMFS will be required to determine that the seaward portion of the proposed Boston Harbor Deep Draft Navigation Improvement Project is an Aquatic Resource of National Importance (ARNI) to be consistent with their conservation recommendations for identical bottom type and EFH concerns at the proposed NOMES Site I borrow site (8 miles offshore of Boston Harbor).
Response	The Broad Sound North Channel is a previously impacted Federal Navigation Channel authorized by Congress as a shipping channel. As such, the North Channel is not likely to qualify as an ARNI.
Comment TOW-04	The proposed project will cause a change in the bottom substrate, resulting in a permanent impact to EFH ...
Response	Bottom type change maps for the harbor channels were included in the Feasibility Report/SEIS/EIR in Appendix Q. These maps show little change in the North Channel between existing conditions and dredging to either 45+2 feet or 48+2 feet. Other depths are expected to show a similar lack of overall change in bottom classification. With increased channel depths the exposed surface area of both bedrock and glacial till are likely to increase somewhat, but not significantly so. Additional explorations in the Design Phase will allow more detailed determinations of expected change.
Comment TOW-05	The DEIR lacks the level of geotechnical investigation appropriate for a project of this magnitude.
Response	<p>Given the size of this project, some 1200 acres of bottom area to be dredged, the USACE used a combination of past subsurface exploration data for these channels from throughout the 1900s, acoustic data (sub-bottom profiling and side scan sonar), and a ground truth program of borings and probes to adjust the assumed acoustic basement, to establish elevations of ledge and till for purposes of a Feasibility Phase estimate of costs and habitat classification.</p> <p>During the project's Design Phase, an extensive program of subsurface explorations (borings and probes) would be conducted to more accurately define the strata at depth and the pre and post construction bottom classifications. Please see general topic #3 for additional response on the Design Phase subsurface explorations.</p>
Comment TOW-06	Since the proposed dredging activities will have a substantial spatial and water quality (turbidity) impact on the "Cod Conservation Zone," the FEIR, Feasibility Report, and FEIS should provide a full assessment of these impacts.
Response	<p>Prior water quality monitoring for the BHNIP did not document any water quality violations, therefore no substantial long-term water quality impacts to the "Cod Conservation Zone" are expected. See general topic #10.</p> <p>The impacts of the BHNIP on fisheries and cod are discussed in the FEIS/EIR at Section 3.3.5, 4.2, and 5.3. The Cod Conservation Zone was designated by Massachusetts DMF to shut down fishing for cod in specified areas of Massachusetts Bay during winter months to protect aggregations of cod</p>

	<p>engaged in spawning, and as currently envisioned the project will not be active during winter months due to Clean Air Act conformity issues and winter weather safety restriction on rock removal and dredging activities in the entrance channels. Due to this timing of the shutdowns, it is not expected that aggregations of spawning cod will be impacted. Moreover, as discussed in Section 5.3 of the FEIS/EIR, cod are not expected to be found in the dredging areas. To the extent that the winter shutdown schedule changes or that aggregating spawning cod are expected to be found in the project area and are expected to be affected by dredging operations, this can be taken into account in determining how the project is sequenced, as we do for other species.</p>
Comment TOW-07	<p>The FEIR and FEIS needs to show how the proposed dredging activities as well as any disposal activities, will not degrade the waters of the U.S. in a similar fashion, especially considering that many of the dredge-related activities will be performed within areas with the same EFH concerns and the disposal areas will create suspended sediment that will directly impact or migrate into areas of gravel and cobble bottom that have been designated as ARNI by the NMFS.</p>
Response	<p>See response to TOW-03. The base plan for disposal is the MBDS. The MBDS is an U.S. EPA designated dredged material disposal site, and impacts of disposal were considered by EPA in its site designation EIS and site management plans. Disposal of parent material from the Deep Draft Project at the MBDS has been approved by the U.S. EPA.</p>
Comment TOW-08	<p>The FEIR should clearly delineate areas that have previously been dredged versus areas of proposed new dredging/mining (including increased channel area associated with side slopes).</p>
Response	<p>See Table 58 in the Feasibility Report.</p>
Comment TOW-09	<p>For clarity, it would be more appropriate to evaluate the “soft bottom” and “hard bottom” benthic communities and fisheries resources in separate sections. For example cod is an important species of concern for the “hard bottom” associated with the outer harbor channel; however, the Feasibility Study does not even mention the species as a primary interest.</p>
Response	<p>The Final SEIS/EIR (Sections 3.3.2, 3.3.3, and 3.3.5) discusses the benthic and shellfish communities, and fish resources by areas of the harbor: Mystic River, Chelsea River, Inner Harbor, Lower Harbor, and Outer Harbor.</p>
Comment TOW-10	<p>The DMF and the NMFS required an intensive one-year fish trawl and benthic survey to evaluate the resources at...Since Figure 3-33 clearly indicates that no fisheries data exist within the project area, the fisheries analysis contained within the DSEIS and DEIR is incomplete.</p>
Response	<p>The discussion of fish in the project area is based on the life-history characteristics and requirements of the species and the physical environment present in the project area. This could be considered a conservative estimate as species are assumed to be present unless data suggests otherwise. See Section 3.3.5 of the Final SEIS/EIR.</p>

<p>Comment TOW-11</p>	<p>The DEIR and DSEIS acknowledge that early benthic phase lobsters presently are (a) prevalent in the project area, primarily adjacent to the existing channel, and (b) would lose substantial habitat if the outer channel footprint is increased as proposed. Unlike the recently denied Winthrop Beach project, it is highly unlikely that this area of “hard bottom” will recover, since it will be within the channel footprint and, therefore maintenance dredging will be allowed to continuously damage the habitat.</p>
<p>Response</p>	<p>The Deep Draft Project is likely to uncover more hard bottom habitat suitable for recolonization. See Appendix Q. The detailed boring program to be conducted during the Design Phase of the project will provide more accurate information on the type and amount of material expected to be encountered once construction is complete. Also, periodic maintenance dredging of these channels is already required to maintain the navigability of the port, and occurred recently in the Outer Harbor in 2004 to 2005 and in the inner harbor in 2008.</p>
<p>Comment TOW-12</p>	<p>The Town expressed concerned about the deepening of the North Channel relative to potential changes in wave energy or wave direction that could impact the shoreline and its beaches. The Town requested an evaluation of the long-term impacts of the present North Channel on coastal sediment transport patterns relative to pre-channel conditions and proposed channel improvements.</p>
<p>Response</p>	<p>The Broad Sound North Entrance Channel was originally constructed between 1903 and 1910. The channel is located about 1.8 nautical miles offshore of Winthrop Head. Extensive shallows exist in the waters between the Winthrop Beaches and the North Channel, and between the channel and the outer harbor islands located further east and southeast. The channel has a very low maintenance frequency, on the order of 36 years, indicating that it is not a sediment trap and that erosion of the adjacent shallow flats is not occurring. Wave attack from the northeast reaches the Winthrop shore without crossing the channel. Seas from the east must cross the channel before reaching the southern shores of the Town, but must also still cross the 1.8 miles of shallows between the channel and beaches. Seas from the southeast are interrupted by the harbor islands before even reaching the channel. It is highly unlikely that the channel has any impact on the frequency or severity of seas reaching the Winthrop shoreline from any direction. Deepening the channel by 11 feet over a 900-foot width within the existing channel limits will not impact the elevations of the adjacent shallows any more than the existing 40-foot channel has not impacted those areas. The bottom in these areas is largely rocky and well scoured by waves. If sediment movement were occurring the channel would be shoaling at a far higher rate.</p>
<p>Comment TOW-13</p>	<p>The Town states that the USACE has a “conflict of interest in this situation,” presumably referring to its attempt to compare the Winthrop Shores permit decision with the dredging of the port’s entrance channel. The Town requested the USACE fund an independent technical review by consultants selected by the Town. The Town further states it will “seek damages” from the USACE in</p>

	the form of beach nourishment or structural improvements as compensatory mitigation if the historic or proposed navigation channels cause any alteration in nearshore wave climate to the Winthrop shore.
Response	As to a perceived "conflict of interest" by the USACE as a regulatory agency and as a civil works construction agency, these are roles that Congress has assigned to the USACE by various statutes. Thus, acting in both capacities does not represent a "conflict of interest," but rather is the fulfillment of the will of Congress. Given the level of review this project has received and the unlikelihood of any changes to wave energy from the project (as discussed in response to TOW-12 above), the USACE does not intend to fund a consultant for the Town to review the project. As to the Town's statement that it will "seek damages" from the USACE, the Town is free to pursue whatever legal theories it deems appropriate, but at this time the USACE does not find it plausible that the Improvement Project will have any impact whatsoever on wave energy affecting Winthrop.

The Boston Marine Society – Letter to NAE – 1 June 2008		Letter at Page A-3-76
Comment BMS-01	The Society stated that it recognizes the importance of the President Roads Anchorage; that deepening the channel necessitates deepening the anchorage; that the anchorage is needed for vessels waiting for favorable transit conditions, for US Coast Guard security and inspection checks, and for safe haven for mechanical repairs.	
Response	The Corps concurs with the Society’s statements. They support the views expressed by the Coast Guard and harbor pilots.	

The Boston Harbor Association – Letter to NAE – 2 June 2008		Letter at Page A-3-78
Comment BHA-01	The Association stated that the FEIS should detail an evaluation and monitoring program to determine how successful the habitat creation and colonization efforts are at the hard-bottom reef creation sites.	
Response	Please see general topic response #4.	
Comment BHA-02	The Association stated that it strongly supports the proposed capping demonstration project for the IWS, “with care taken to ensure that ambient sediment does not become re-suspended during the disposal process.”	
Response	We welcome the Association’s support and continued involvement in the process. Please see general topic response #6 and the results of the IWS pilot capping project in this FSEIS/EIR.	

Comment BHA-03	The Association asked that a communication system be established with fishermen and lobstermen to avoid impacts to lobster gear, or a monetary fund be established to compensate for the loss of gear located outside the Federal channel.
Response	As with the past and current dredging projects, the USACE will require its contractors to issue a public notice outlining the dredging areas and scow routes. All floating plant (dredges, barges, tugs and scows) will be equipped with real-time GPS tracking (silent inspector system) to monitor their movements. The lobstermen should be aware that it is illegal to place gear in the Federal channel, and to the extent that gear is damaged due to its presence in the dredge area when dredging occurs the USACE will not entertain any claims for reimbursement.
Comment BHA-04	The Association noted the fish kills that occurred in 2007 during the blasting for the rock pinnacle removal project and expressed their concern with fish mortality and urged stricter requirements to prevent fish kills.
Response	Please see general topic response #3 for discussion of the blasting mitigation measures.
Comment BHA-05	The Association noted that past private projects in the harbor area have been required by State permits to make “contributions” to harbor interests. The Association suggests that the State require a similar “contribution” from the Federal Navigation Project to support “water transportation in Boston Harbor and Massachusetts Bay if water transportation service is impacted from construction activities ..”
Response	The USACE does not expect the Deep Draft Project to result in any adverse impacts on Boston Harbor water transportation services, and the USACE does not intend to provide funds for such water transportation services.
Comment BHA-06	The Association asked that the Technical Working Group continue to meet “to review progress of the project, any monitoring data with the project’s independent environmental observer, and discuss prevention measures.”
Response	We concur. Please see general topic response #2 for discussion of TWG.

Boston Harbor Pilots Association – Letter to NAE – 2 June 2008		Letter at Page A-3-85
Comment BHP-01	The Pilots stated their concern with retaining the deepening of the President Roads Anchorage in the proposed project as important to the continued safe flow of commerce, the USCG options for Maritime Domain Awareness, safe emergency use for deep draft vessels, repairs, protected safe boarding for law enforcement, improved harbor efficiency, lightering of petroleum and bulk cargoes, and bunkering of deep-draft vessels.”	

Response	We note the Pilot's concerns. Deepening of the President Roads Anchorage to the same depth as the improved inner channels is included in the project being recommended.
Comment BHP-02	The Pilots stated that 70 percent of the regions petroleum needs originate through the Chelsea River, and that modern tankers have a 106-foot beam, and that the Chelsea Street Bridge with its 90-foot beam restriction is a navigation hazard.
Response	The Chelsea Street Bridge has been replaced and the navigation channel widened to 175 feet.
Comment BHP-03	The Pilots "urge the acceptance and prioritization of this project to the regions interest ..."
Response	Comment noted.

Save the Harbor Save the Bay – Letter to NAE – 2 June 2008		Letter at Page A-3-87
Comment STH/B-01	The organization noted its concern with air quality. The organization stated that they viewed the proposal to impose construction shutdowns as 'gaming the numbers', and 'working dirty for nine months ... then averaging the numbers to artificially meet annual air quality standards.'	
Response	Air emissions thresholds are measured on an annual basis. Projects that fall under those thresholds are not required to undergo conformity analysis. Construction shutdowns entail a significant cost (\$4 to \$6 million per occurrence) to avoid exceeding the annual emissions thresholds. See general topic response #9.	
Comment STH/B-02	The organization expressed its concern about the impact of the extensive blasting with the project.	
Response	Please see general topic response #3 for development of the blasting mitigation measures, particularly those that proved successful in eliminating fish kills during the 2012 blasting events.	

PART 1

FINAL FEASIBILITY REPORT AND FINAL SEIS/EIR TRANSMITTAL DOCUMENTS



DEPARTMENT OF THE ARMY
NORTH ATLANTIC DIVISION, CORPS OF ENGINEERS
FORT HAMILTON MILITARY COMMUNITY
GENERAL LEE AVENUE, BLDG 301
BROOKLYN, NY 11252

REPLY TO

CENAD-PD-CS

MAR 06 2013

MEMORANDUM FOR Commander, Headquarters, US Army Corps of Engineers, (CECW-NAD/Mr. Luisa), 441 G Street, NW, Washington DC 20314

SUBJECT: Boston Harbor Navigation Improvement Project, Massachusetts

I hereby submit the Boston Harbor Navigation Improvement Project, Final Feasibility report and EIS. Further, I concur with the findings and recommendations of the New England District Commander, COL Charles P. Samaris. In addition, I confirm that the report complies with all applicable policy and laws in place at the time of its completion.

A handwritten signature in black ink, appearing to read "K. Savre", is positioned above the typed name of the signatory.

KENT D. SAVRE
Colonel, EN
Commanding

3 Encls

1. Subject main report (14 copies)
2. Appendices (2 copies)
3. HQUSACE submittal package

CF: CENAE-DE



REPLY TO
ATTENTION OF

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

CENAE-EP-PN

6 March 2013

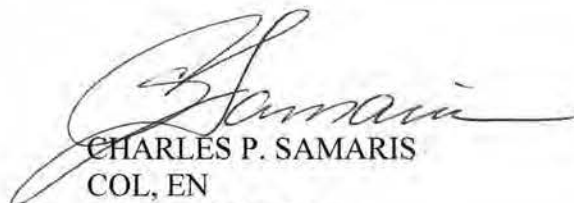
MEMORANDUM FOR Commander, North Atlantic Division, U.S. Army Corps of Engineers,
ATTN: CENAD-PD-CID-P (Attn: Mr. Joseph Forcina), Fort Hamilton Military Community,
301 General Lee Avenue, Brooklyn, NY 11252-6700

SUBJECT: Boston Harbor, Massachusetts Navigation Improvement Study, Final Feasibility
Report and Supplemental Environmental Impact Statement, Submission Package, PWI #013654

REFERENCE: Appendix H, Amendment #1, or ER 1105-2-100, Policy Compliance Review
and Approval of Decision Documents, dated 20 November 2007

1. In accordance with the referenced guidance, and vertical team conferences with Division and HQUSACE staff, the New England District is submitting copies of the subject report for review, approval and submittal to HQUSACE. The final report submittal package includes the items on the attached list.
2. The hard copies of the Final Feasibility Report and FSEIS were shipped earlier separately to NAD (6 copies) and HQUSACE (14 copies).
3. Items #17 District Slide Presentation, #18 Draft CWRB Project Abstract, and #19 Draft IEPR Response Document are being transmitted electronically.
3. The project is scheduled for presentation to the Civil Works Review Board at its 26 April 2013 meeting. Based on weekly in-progress review discussion between the New England District, North Atlantic Division and HQUSACE, the District requests that the report and submittal package documents be transmitted for receipt by HQUSACE before 15 March 2013.
5. If further information is needed, please contact NAE Planning Branch Chief, Mr. John Kennelly at (978) 318-8505, the study manager, Mr. Mark Habel at (978) 318-8871, or the project manager, Mr. Michael Keegan at (978) 318-8087.

Encl


CHARLES P. SAMARIS
COL, EN
COMMANDING

CF:

Joseph Forcina, NAD

Joseph Vietri, NAD

Naomi Fraenkel, NAD

Michael Keegan, NAE PPM

Documents Submitted by NAE for Boston Harbor CWRB Transmittal

Item Number	Document	Hard Copy Enclosed	Electronic Copy Provided Separately on CD	Hard Copy Provided Separately	Document (Electronic) to be Provided Separately
01	Final Feasibility Report and FSEIS		X	X	
02	Report Summary	X	X		
03	Draft Record of Decision	X	X		
04	Report Mailing List	X	X		
05	Project Study Issue Checklist	X	X		
06	Documentation and Certification of Independent External Peer Review	X	X		
07	Documentation and Certification of Agency Technical Review (ATR)	X	X		
08	Certification of Legal Review	X	X		
09	Policy Compliance Review and PGM Compliance Memoranda	X			
10	Sponsor's Signed Letter of Support	X	X		
11	Sponsor's Signed Self-Certification of Financial Capability	X	X		
12	Draft Proposed Report of the Chief of Engineers	X	X		
13	Economic Model Certification - CECW-P	X	X		
14	Value Engineering Deferral Justification	X	X		
15	Total Project Cost Summary with NWW Certification	X	X		
16	Project Maps	X	X		
17	District Commander's Briefing Slides				X
18	Draft CWRB Project Abstract				X
19	Draft IEPR Response Document				X
20	PED Phase Review Plan	X	X		
21	Risk Management Plan	X	X		
22	Project Schedule	X	X		



REPLY TO
ATTENTION OF

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

CENAE-EP-PN

5 March 2013

MEMORANDUM THRU Commander, North Atlantic Division, U.S. Army Corps of Engineers
CENAD-PD-CID-P (Attn: Mr. Joseph Forcina), Fort Hamilton Military Community,
301 General Lee Avenue, Brooklyn, New York 11251-6700

FOR Director of Civil Works, U.S. Army Corps of Engineers, ATTN: NAD Regional Integration
Team (Mr. Peter Louisa), 441 G Street, N.W., Washington, DC 20314-1000

SUBJECT: Boston Harbor Navigation Improvement Feasibility Study, PWI #013654 -
District Response to HQUSACE Planning Guidance Memorandum

1. Reference the following documents (enclosed):

- a. CEMP-NAD Memorandum to NAD, 26 September 2012, attaching CECW-PC Memorandum providing HQUSACE policy comments on the May 2012 Boston-Harbor Additional Economic Analysis
- b. CENAE Memorandum to NAD, 22 January 2012, responses to HQUSACE 29 November 2011 Memorandum
- c. CECW-PC Memorandum, 29 November 2011, comments on the Boston Harbor Containerized Benefits Appendix
- d. CENAE Responses, 1 October 2010, to HQUSACE comments of 10 September 2010 container benefits landside analysis.
- e. Framework for Additional Economic Analysis, Boston Harbor, final approved version 6 August 2009, with CEMP-NAD Memorandum for the Record, 4 August 2009 on IWR IPR and final scope of study
- f. CENAE Memorandum for NAD, 25 July 2008, CWRB Submittal enclosing NAE responses to OWPR comments on Draft Feasibility Report and AFB
- g. CEMP-NAD Memorandum, 17 July 2008, enclosing CECW-PC 16 July 2008 comments on Draft Feasibility Report and SEIS
- h. CENAE 3 April 2008 Responses to (included) 7 December 2007 AFB Comments

2. NAE submits the subject responses to the Policy Compliance Review comments as provided in reference 1, and requests concurrence in the submittal of the Final Feasibility Report and FSEIS to the Civil Works Review Board and HQUSACE support for release of the final report for public and agency review.
3. The Final Feasibility Report and FSEIS, with all supporting technical appendices have been previously provided electronically and hard copy. All remaining comments have been addressed in the Final documents.
4. Specific Responses: The issues raised in the 12 September 2012 policy compliance memorandum of CECW-PC are as follows:

Issue: Plans D and E – Dry Bulk Cargo Channel Segments - Main Ship Channel extension to the Massport Marine Terminal and the Mystic River access to Massport's Medford Street Terminal

OWPR Statement: The CWRB concurred that the recommendations for the Main Ship Channel extension to the MASSPORT Marine Terminal and the Mystic River access to MASSPORT's Medford Street Terminal would be contingent on further analysis and preparation of a Limited Re-evaluation Report during the design phase, as neither of these two terminals was yet occupied.

District Response: The District continues to concur with this approach. There are varying degrees of speculation with respect to the target imports and exports from the two Massport dry bulk facilities that are the subject of improvements to these two project segments. Limited Re-evaluation Reports will be prepared during the design phase on each.

Issue: Plan ABC – Main Channels Improvements for Container Cargo Benefits

OWPR Statement: The HQUSACE policy review team raised three basic issues with the economic analysis for the access to the Conley Terminal: 1) the landside analysis of transportation costs and determination of the portion of land transported cargo that could shift to ship transport to Boston; 2) waterside analysis of the vessels that might carry those shifting boxes at various depths with or without deepening; and 3) the analysis of vessel loading and sailing drafts used.

The reanalysis and supporting assumptions submitted by the New England District evaluated the economic effects of channel depths ranging from 46-49 feet MLLW for the Main Ship Channel to the Conley Terminal. Assumptions were made regarding vessel loading, trade routes, and other factors such as tidal delays. The results indicate that net benefits increase significantly with each additional foot of depth to a depth of 47 feet MLLW. Net benefits experience only a minimum increase between 47 and 48 feet MLLW, which is the depth where the maximum net benefits are realized. ER 1105-2-100 requires that where two cost-effective plans produce no significantly different levels of net benefits, the less costly plan is to be the

NED plan, even though levels of outputs may be less. Based on the reanalysis submitted by the New England District, the HQUSACE policy review team concurs that the policy compliant NED plan consists of a 47-foot channel for the segment of the project that includes the Main Ship Channel to the Conley Terminal. Where appropriate, qualitative outputs such as the beneficial use of dredged material and reduced truck traffic and air quality impacts should be described to further support the recommended plan.

District Response: The District's revised Feasibility Report concludes that a 47-foot project depth for the inner harbor portions of the project reasonably maximizes net annual benefits in keeping with the requirements of ER 1105-2-100 (Appendix G) , Exhibit G-1, General Evaluation Guidelines. Since the increase of net benefits between the 47 foot plan and the 48 foot plan was only \$500,000 per year, resulting in a flattening of the net benefits curve between those depth increments, then based on the guidelines the 47 foot plan becomes the recommended plan.

Issue: Additional Entrance Channel Depth Required for Entrance Channel

OWPR Statement: In accordance with ER 1110-2-1404, the depth of the entrance channel will reflect this 47-foot depth adjusted to address squat, sinkage in fresh water, the effect of wind and wave action, and safety and efficiency clearance. Should the non-Federal sponsor desire a Locally Preferred Plan (LPP) with deeper depths in either the main ship channel or in the entrance channel, a waiver from ASA(CW) is required.

District Response: The District has re-evaluated the entrance channel depth correction for vessel movement consistent with current engineering guidance. Agency Technical Review staff and the Boston Harbor Pilots were involved with the development of the criteria applied and in review of the technical evaluation and recommendation (see second part of Design Appendix D1). Recent specific Corps guidance was followed, as opposed to the more generic under keel PIANC guidance used in the 2008 report, and with reference to recent entrance channel analysis conducted by ERDC for New York Harbor. For a 47-foot project the recommended increase in entrance channel depth for vessel motion in the exposed conditions of Massachusetts Bay is 4 feet. The analysis concludes, and the Boston Harbor Pilots have confirmed, that a 48-foot draft containership will be able to safely transit the harbor using the top third of the tide with a 51-foot MLLW entrance channel and 47-foot MLLW main channel under wind and wave conditions present about 96 percent of the time.

CENAE-EP-PN

SUBJECT: Boston Harbor Navigation Improvement Feasibility Study. PWI #013654-District
Response to HQUSACE Planning Guidance Memorandum

7. If further information is needed, please contact NAE Planning Branch Chief,
Mr. John Kennelly at (978) 318-8505, the study manager, Mr. Mark Habel at (978) 318-8871, or
the Boston Harbor project manager, Mr. Michael Keegan at (978) 318-8087.



Anthony T. Mackos, P.E.
Chief, Engineering/Planning Division

Encls

CF:

Joseph Forcina, NAD (DST)

Joseph Vietri, NAD

Naomi Fraenkel, NAD



Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, MA 02128-2909
Telephone (617) 568-5000
www.massport.com

February 27, 2013

Colonel Charles P. Samaris
District Engineer
New England District
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

Re: Boston Harbor Deep Draft Navigation Improvement Project

Dear Colonel Samaris:

The Massachusetts Port Authority (“Massport”) and the U.S. Army Corps of Engineers (“the Corps”) New England District have had a long and productive history of working together to deepen and maintain the Port of Boston’s navigation channels and we look forward to continuing this partnership under your leadership. We greatly appreciate the ongoing hard work of your staff on the Boston Inner Harbor Maintenance Dredging Project (BIHMDP), which is currently underway in the harbor, as well as on the Boston Harbor Deep Draft Navigation Improvement Project (BHDDNIP), for which the Final Feasibility Report/Supplemental Environmental Impact Statement/Environmental Impact Report (“Final FR/SEIS/EIR”) will be submitted for public review in the coming weeks.

Massport has reviewed the Final FR/SEIS/EIR for the BHDDNIP. We concur with the report’s conclusions and support the Recommended Plan of Improvement. Specifically, the following four improvements to Boston Harbor’s system of General Navigation Features are proposed:

1. Deepen the federal navigation channels from Massachusetts Bay to Massport’s Conley Container Terminal in South Boston to enable deeper draft containerships to access the Port. A depth of -51 feet at mean lower low water (MLLW) would be provided in the Broad Sound North Entrance Channel, and -47 feet in the Main Ship Channel between the Outer Confluence and the Reserved Channel, the President Roads Anchorage, the lower Reserved Channel, and the Reserved Channel Turning Area. The Main Ship Channel above the Roads would be widened to 900 feet below Castle Island and 800 feet above Castle Island, with additional width provided in the bends of the Main Ship and North Entrance Channels. Massport would deepen the two active berths at Conley Terminal to a depth of at least three feet greater than that provided in the improved channel.
2. Extend the deepening of the Main Ship Channel above the Reserved Channel Turning Area to the Massport Marine Terminal, at a depth of -45 feet MLLW and width of 600 feet. Massport or our tenant at this facility would provide a depth of at least -45 feet MLLW in the berth at the Marine Terminal. We understand this recommended

improvement is contingent on development of an active bulk cargo operation requiring the deeper channel prior to initiation of construction for the deeper channel.

3. Deepen an approximately 9-acre area of the 35-foot lane of the Mystic River Channel to -40 MLLW feet to improve access to Massport's Medford Street Terminal in Charlestown. Massport has already deepened the berth at this terminal to -40 feet MLLW and would maintain that depth in the future. We understand this recommended improvement is also contingent on development of an active bulk cargo operation requiring the deeper channel prior to initiation of construction for the deeper channel.
4. Deepen the existing 38-foot Chelsea River Channel to -40 feet MLLW. The channel would be widened by about 50 feet along the East Boston shore in the bend immediately upstream of the McArdle Bridge and in the bend downstream of the Chelsea Street Bridge. The channel would also be widened through the new navigation opening of the Chelsea Street Bridge. We understand this recommended improvement is contingent on replacement of the Chelsea Street Bridge by the Commonwealth of Massachusetts and the City of Boston, and the agreement of the five principal Chelsea River marine terminals to deepen their berths to at least -40 feet MLLW.

All of these improvements are integral to ensuring the future competitiveness, safety and security of the Port of Boston. The Port of Boston is New England's only full service port, providing infrastructure and value-added services to enhance the competitiveness of New England trade-dependent companies, and ultimately benefitting New England residents and consumers. The Port generates an estimated 34,000 total jobs and \$2.4 billion annual economic impact to the Commonwealth of Massachusetts and the New England region, and provides significant environmental benefits by reducing the number of trucks and related air emissions on the region's roadways. Key port cargos include containerized cargo, petroleum products, and dry bulk cargo (automobiles, cement, road salt, gypsum and scrap metal) – most of which will benefit from the proposed improvements.

Of particular importance to Massport is the channel deepening to Conley Terminal. Container volumes at Conley have increased significantly since 1995 and we expect annual volumes to more than double over the coming decades to exceed 500,000 TEUs. The shipping lines calling Conley continually seek to bring larger ships into their east coast rotation and this pressure will increase once the Panama Canal expansion is completed. If the Port of Boston cannot accommodate the deeper draft vessels, the shipping lines will not call Boston and the cargo will need to be trucked into the region from other ports resulting in significant economic and environmental impacts.

Massport is actively working to increase our terminal capacity, efficiency and minimize our environmental impact to allow us to accommodate our projected future growth. Specifically, we recently completed the following projects:

- a \$25 million repaving and equipment purchasing project to increase Conley Terminal capacity by 50 percent;
- Implementation of a terminal productivity improvement program and an upgraded terminal operating system;
- Increased the container handling footprint of Conley Terminal and purchased three additional dockside cranes and more yard equipment to support the increased vessel activity;
- Purchased the former Coastal Oil Terminal abutting Conley to preserve our future terminal expansion options;
- Implemented a comprehensive ISO 14001 Certified Environmental Management System;
- Retrofitted our existing yard equipment and purchase new “greener” equipment to reduce air emissions; and
- Converted all of our yard equipment to Ultra Low Sulfur Diesel to reduce air emissions.

In addition we are designing and planning to construct a dedicated freight corridor to Conley Terminal and Phase I of the expansion of container operations onto the former Coaster Oil property to accommodate further growth.

Contingent on the approval of Massport’s Board and appropriation of the needed funding by our Board, the Commonwealth of Massachusetts or other funding sources, Massport intends to enter into a Design Phase agreement to share the cost of project design with the Corps. Design Phase activities are expected to commence as early as 2013 and be completed in two years. We understand the Design Phase cost for the Federal project features is estimated at \$6,584,000, with Massport responsible for an initial 25 percent, or \$1,646,000 plus an additional 10% or \$658,000 prior to or after construction for a total design non-Federal cost share of \$2,304,000.

We further understand that the Construction Phase costs for the Federal project features is estimated at \$309,001,000 with the non-Federal sponsor responsible for an initial cost share of \$94,389,000 based on: (1) division of cost-sharing between the cost of deepening the channels to 45 feet requiring a 25 percent cost share and the cost of deepening the channels beyond 45 feet requiring a 50 percent cost share; plus (2) the remaining non-Federal share of Design Phase costs allocated to deepening beyond 45 feet. The non-Federal sponsor will also provide an additional ten percent of the total design and construction costs at the completion of construction, currently estimated at \$30,900,000, for a total non-Federal cost share of \$125,289,000 in addition to approximately \$5 million for berth dredging and other non-federal costs. We understand that construction commencement by the Corps is contingent on Congressional authorization of the project and appropriation of Federal funds. Construction is estimated to take approximately three years to complete. Massport intends to actively pursue funding for the non-Federal project costs, and to serve as the non-Federal sponsor, contingent on approval by our Board and appropriation of adequate funds.

Subject to the approval of Massport’s Board and provision of the needed funding by our Board or other funding sources, Massport also intends to fully fund any work performed by

Colonel Charles P. Samaris

February 27, 2013

Page 4


the Corps for design and construction activities associated with berth dredging, and will provide all lands, easements, rights of way and relocations (LERR) required for construction and future maintenance of the project. We further understand that any LERR costs incurred by Massport for construction of the project, currently estimated at \$165,000, will be credited against the 10 percent post-construction share of project costs.

Massport is a legislatively-chartered independent State authority. Massport owns and operates Logan International Airport, the Conley Container Terminal, the Black Falcon Cruise Terminal, and several bulk cargo terminals. Massport has the statutory authority to set and collect fees for the use of its facilities, enter agreements for lease and operation of facilities, and issue bonds to raise funds for capital improvements of its facilities.

Massport is the non-Federal Sponsor for the BHDDNIP Feasibility Study, the 1990-authorized deepening of the harbor's major tributary channels constructed in 1998-2001 (the Boston Harbor Navigation Improvement Project), and construction of the confined disposal cells being constructed in the harbor for the ongoing BIHMDP. Massport has reviewed the cost-sharing and other responsibilities of the Sponsor as detailed in the Feasibility Report. Massport intends to work with the Commonwealth and other potential funding sources to provide the non-Federal share of design and construction of the improvements recommended in the Feasibility Report. The completed "Non-Federal Sponsor's Self-Certification of Financial Capability for Decision Documents" is attached to this letter, as requested by the Corps.

We look forward to continuing to work with you and your staff on this exciting and critical project for the Port of Boston.

Sincerely,



Deborah A. Hadden
Acting Port Director

Enclosure: Non-Federal Sponsor's Self-Certification of Financial Capability for Decision Documents

cc: Thomas Glynn, Massport CEO and Executive Director

dh/wordfile/dredge2/ddnip/Massport FFR letter - Feb 2013.docx



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
SOUTH ATLANTIC DIVISION
60 FORSYTH STREET SW, ROOM 10M15
ATLANTA, GA 30303-8801

CESAM-PD-D (1105-2-40a)

21 February 2013

MEMORANDUM FOR MR. MICHAEL KEEGAN, PROJECT MANAGER, (CENAE-PP-P),
USACE, NEW ENGLAND DISTRICT, 696 VIRGINIA ROAD, CONCORD, MA 01742-2751

SUBJECT: Certification and Completion of Agency Technical Review, Final Feasibility Report
and Final Supplemental Environmental Impact Report for Deep Draft Navigation Improvement,
Boston Harbor, Boston, Chelsea and Revere Massachusetts

1. References:

- a. EC 1165-2-214, Civil Works Review, 15 December 2012
- b. EC 1105-2-412, Assuring Quality of Planning Models, 31 March 2011
- c. Memorandum, CECW-CP, 30 March 2007, Subject: Peer Review Process
- d. Supplemental information for the "Peer Review Process" Memo, dated March 2007

2. In accordance with EC 1165-2-214, "Civil Works Review," dated 15 December 2012, Agency
Technical Review (ATR) of the Final Feasibility Report and Final Supplemental Environmental
Impact Report for Deep Draft Navigation Improvement of Boston Harbor, Boston, Chelsea and
Revere Massachusetts has successfully been coordinated with and executed through the Deep Draft
Navigation Planning Center of Expertise (DDNPCX).

3. We certify that ATR of the study documents has been completed and satisfies peer review policy
requirements outlined in Engineering Circular (EC) 1165-2-214, Civil Works Review, dated 15
December 2012. All outstanding issues have been addressed and satisfied. The ATR Completion
Report and the DrChecks Report are enclosed. The review Team Leader is Ms. Candida Bronson,
CESAJ-PD-PN and the DDNPCX point of contact is Mr. Johnny L. Grandison, CESAM-PD-D,
(251) 694-3804.

JOHNNY L. GRANDISON
Review Manager, DDNPCX

Encls

CF:
CESAJ-PD-PN/BRONSON
CESAD-PD-S/PAYNE
CESAD-PD-/SMALL
CESAD-PD-S/STRATTON

**COMPLETION OF AGENCY TECHNICAL REVIEW
FINAL FEASIBILITY REPORT and FINAL SUPPLEMENTAL ENVIRONMENTAL
IMPACT STATEMENT/ MASSACHUSETTS FINAL ENVIRONMENTAL IMPACT
REPORT for DEEP DRAFT NAVIGATION IMPROVEMENT**

BOSTON HARBOR, BOSTON, CHELSEA AND REVERE MASSACHUSETTS

March 2013

The Agency Technical Review (ATR) has been completed for the Boston Harbor, Deep-Draft Navigation Final Feasibility Report and Final Supplemental Environmental Impact Statement. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-214.

A panel of five reviewers was established by the Deep Draft Navigation Planning Center of Expertise (DDNPCX), the Review Management Organization (RMO) that managed the conduct of this review. The ATR was initiated on 2 January 2013 and was completed on 7 February 2013.

During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing U.S. Army Corps of Engineers (Corps) policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrChecks. A complete copy of the final ATR report from DrChecks is enclosed.

We certify that the ATR of the Boston Harbor, Deep-Draft Navigation Final Feasibility Report and Final Supplemental Environmental Impact Statement was performed as required by EC 1165-2-214.

BRONSON.CANDIDA
KOENIG.1230376120

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BRONSON.CANDIDA KOENIG.1230376120
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c=BRONSON.CANDIDA KOENIG.1230376120
Date: 2013.02.12 14:48:59 -05'00'

Candida K. Bronson
ATR Team Lead
CESAJ-PD-PN

12 Feb 2013

Date

KEEGAN.MICHAEL
L.F.1228576316

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ou=USA, cn=KEEGAN.MICHAEL.F.1228576316
Date: 2013.02.12 15:03:59 -05'00'

Michael F. Keegan
Project Manager
CENAE-PP-P

12 Feb 2013

Date

Johnny Grandison
Review Management Organization
Representative DDNPCX

21 Feb 2013

Date

CERTIFICATION OF AGENCY TECHNICAL REVIEW

**FINAL FEASIBILITY REPORT and FINAL SUPPLEMENTAL ENVIRONMENTAL
IMPACT STATEMENT/ MASSACHUSETTS FINAL ENVIRONMENTAL IMPACT
REPORT for DEEP DRAFT NAVIGATION IMPROVEMENT**

BOSTON HARBOR, BOSTON, CHELSEA AND REVERE MASSACHUSETTS

March 2013

There are no remaining open comments, and all concerns resulting from the ATR of the project have been fully resolved.

22 Feb 2013

John R. Kennelly
Chief, Planning Branch
New England District

Date

Anthony T. Mackos, P.E.
Chief, Engineering/Planning Division
New England District

Date



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET, NW
WASHINGTON, DC 20314-1000

CECW-P

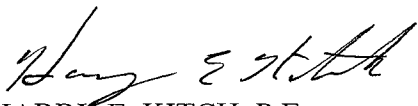
12 April 2012

MEMORANDUM FOR Director, National Deep Draft Navigation Planning Center of Expertise (DDN-PCX)

SUBJECT: Boston Harbor Deep Draft Navigation Improvement Project Feasibility Study, Economic Spreadsheet Model Approval

The economic spreadsheet model for estimating transportation cost savings and tide delay benefits for the Boston Harbor Deep Draft Navigation Improvement Project is approved for use. Adequate technical reviews have been accomplished and the model meets the certification criteria contained in EC 1105-2-412. Documentation of the model and its use must be included in the feasibility report for the study. This approval for use is based on the decision of the HQUSACE Model Certification Panel which considered the DDN-PCX assessment of the model. There are no unresolved issues at this time.

APPLICABILITY: This approval for use is limited to the subject feasibility study.


HARRY E. KITCH, P.E.
Deputy Chief, Planning and Policy Division
Directorate of Civil Works

PART 2

CORRESPONDENCE DURING RE-COORDINATION AND PREPARATION OF THE FINAL FEASIBILITY REPORT AND FINAL SUPPLEMENTAL EIS/EIR



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
<http://www.fws.gov/newengland>

Re: Update of Final Feasibility Report (FR)
and joint Final Supplemental Environmental Impact Statement
and Final Environmental Impact Report (FSEIS/FEIR)
for the Boston Harbor Deep Draft Navigation Improvement Project

January 11, 2013

Mr. John Kennelly
Chief of Planning
U.S. Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA 01742-2751

Dear Mr. Kennelly:

This letter is in response to your letter dated October 11, 2012, and the U.S. Fish and Wildlife Service's New England Field Office (NEFO) past review of the Draft Environmental Report/Draft Supplemental Environmental Impact Statement (DEIR/DSEIS) for the Boston Harbor Deep Draft Navigation Improvement Project, located in Boston, Massachusetts. NEFO appreciates the opportunity to review the updated FR and the FSEIS/FEIR and to provide comments on the reduced scope of improvements being proposed for Boston Harbor.

As stated in your letter, NEFO previously provided several items of correspondence for this project and a synthesis of past letters follows: 1) in correspondence dated June 2, 2008, NEFO submitted comments along with other Department of Interior bureaus regarding our NEPA review of the DEIR/DSEIS; 2) in correspondence dated May 29, 2007, NEFO provided comments pertaining to our Fish and Wildlife Coordination Act 2b report pursuant to the Fish and Wildlife Coordination Act of 1956 (16 U.S.C. 742a, *et seq.*); and 3) in correspondence dated May 14, 2008, NEFO provided information pursuant to the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531, *et seq.*).

As outlined in your most recent letter, you have requested a determination whether NEFO's previous comments summarized above in numbers 1) and 2) are still applicable. We have reviewed the information you recently provided and based on the proposed modification to the project description have determined that our original comments remain applicable.

Almost five years have passed since the original request for information on the presence of federally listed or proposed, threatened or endangered species was received. Therefore, we have reviewed information currently available to us, and have determined that no federally listed or proposed, threatened or endangered species or critical habitat under jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area. No further ESA coordination is

Mr. John Kennelly
January 11, 2013

2

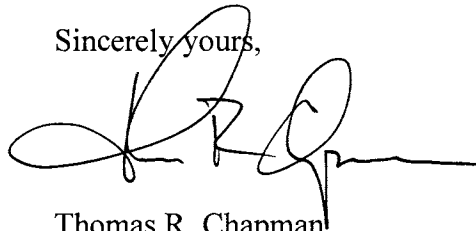
necessary for a period of one year from the date of this letter, unless project plans change or if additional information on listed and proposed species becomes available.

Furthermore, to alleviate the need to annually contact NEFO in the future for updated lists of federally listed or proposed, threatened or endangered species and critical habitats, please visit the Endangered Species Consultation page on the NEFO website:

www.fws.gov/newengland/endangeredspec-consultation.htm (accessed January 2013)

We appreciate the opportunity to provide more current information relative to our trust resources and wildlife issues. If you have any questions regarding this letter, please contact Maria Tur of my office at (603) 223-2541.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'T. Chapman', with a long horizontal flourish extending to the right.

Thomas R. Chapman
Supervisor
New England Field Office



21 December 2012

Mike Keegan, P.E.; L.C.S.
Project Manager
Corps of Engineers, New England District
696 Virginia Road
Concord, MA 01742-2751

Dear Mr. Keegan:

Thank you for soliciting our input regarding the current operating guidelines on Boston Harbor and how the pilots would operate if the Boston Broad Sound North Channel and Boston Main Ship Channel were deepened.

Since the last improvement in 2001, we have been safely bringing in 42 foot draft containerships near the top of the tide. Originally after the 2001 improvement we had a controlling depth of 39.4 feet in the North Channel. Subsequent maintenance has restored that channel to its authorized depth of 40 feet. We also operated with a controlling depth of 38.1 feet in the Main Ship Channel. Additional maintenance efforts have also removed this shoaling and restored the channel to its authorized depth.

In our discussions you indicated that the Corps has recommended an improvement to deepen the Main Ship Channel to 47 feet. We also understand that your office has taken into account various factors such as vessel squat, roll, pitch, wind and wave action in determining the proposed depth of 51 feet in the Broad Sound North Channel. With a 51 foot channel depth in the North Channel we would expect to be able to safely transit containerships having a draft of 48 feet or greater.

Pilots make the decision when (or if) a ship will enter the various channels en route to the berth. The decision is most often based upon the tide, and sometimes, the tide and the weather. To explain our procedures, when a deep-draft containership is scheduled to call the Port of Boston, the ship's local agent will fax a request for "tide windows" days, or perhaps a week, prior to the ship's arrival in Boston. The expected draft of the ship is provided to us in the fax request. The request is often for a three or four day ETA period asking us which hours the ship can and cannot enter the channel due to the ship's draft with respect to the predicted tide. Using the information provided by the pilots, the agent then weighs schedule and labor considerations, and then places an order for a pilot for a specific time. If, on the day of arrival (or departure), the wind and sea conditions are not suitable to transit the channels, the pilot assigned to the ship would postpone the transit for a later time.

A typical inbound transit from the pilot station takes approximately one hour to the Main Ship Channel Buoys "1" and "2" near Spectacle Island. This is the point where the ship will have reduced its speed to about 6 or 7 knots to meet its tug boats. The pilot will adjust the ship's speed to arrive at the ordered time, so, often ship speeds are low during the transit to meet the tug at the required time. If the pilot boards at a later time, the average speeds would be greater.

With the current channel depths at Boston Harbor a typical transit for a 41' draft containership on a day with a 9.1' tide may look like this:

From:	To:	Distance (miles)	Time (minutes)	Av. Speed (knots)	Tide (feet)	Controlling Depth (ft.)	UKC (feet)
Pilot Station	BG	1.00	7	8.6	5.6		
"BG"	"NC"	2.27	21	6.5	6.4		
"NC"	North Channel "3"	1.04	9	6.9	7.1		
North Channel "3"	SW of "PR"	1.73	15	6.9	7.4	40	4.39
SW of "PR"	Long Is. Head	0.81	6	8.1	7.8		
Long Is. Head	Main Ship "2:"	1.05	8	7.9	8		
Main Ship "2:"	Main Ship "4"	0.38	4	5.7	8.2		
Main Ship "4"	Main Ship "6"	0.42	5	5.0	8.3	40	4.82
Main Ship "6"	Main Ship "10"	0.79	10	4.7	8.45		
		9.49	85	6.7			

The same transit with a 48' draft, fully loaded 8000 TEU container ship with the proposed improvements in Boston Harbor, may look like this:

From:	To:	Distance (miles)	Time (minutes)	Av. Speed (knots)	Tide (feet)	Controlling Depth (ft.)	UKC (feet)
Pilot Station	BG	1.00	7	8.6	5.6		
"BG"	"NC"	2.27	21	6.5	6.4		
"NC"	North Channel "3"	1.04	9	6.9	7.1		
North Channel "3"	SW of "PR"	1.73	15	6.9	7.4	51	8.08

SW of "PR"	Long Is. Head	0.81	6	8.1	7.8		
Long Is. Head	Main Ship "2:"	1.05	8	7.9	8		
Main Ship "2:"	Main Ship "4"	0.38	4	5.7	8.2		
Main Ship "4"	Main Ship "6"	0.42	5	5.0	8.3	47	6.73
Main Ship "6"	Main Ship "10"	0.79	10	4.7	8.45		
		9.49	85	6.7			

The 8000 TEU ship would be able to maintain sufficient under keel clearance up to a speed of about 13.75 knots, in an improved North Channel.


Although the above examples are for a day with a 9.1 foot high tide, Boston Harbor's *median* high tide is 10.1 feet. This compares to approximately only 5.0 feet in New York Harbor, and 2.6 feet in Hampton Roads, Virginia.

Because of the rapid rate of rise of the tide, and the relatively short run, using the rising top one-third of the tide (or later) is standard safe practice in Boston on containership calls. Similar practice is found with other deep draft ships (e.g., tankers bound for Chelsea River) to obtain sufficient under keel clearance, but with their lighter drafts, this practice can be achieved on the top half of the tide, or earlier.

Currently, during any transit, even with 35' tankers entering the North Channel, when wave and wind conditions result in significant pitch or roll, entry of ship is delayed until the conditions subside and the tide allows.

Thank you again for allowing us to provide input for this crucial project.

Sincerely,



Andy Hammond
Executive Director



The Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Deval L. Patrick
GOVERNOR

Timothy P. Murray
LIEUTENANT GOVERNOR

Richard K. Sullivan, Jr.
SECRETARY

Tel: (617) 626-1000
Fax: (617) 626-1181
<http://www.mass.gov/envir>

December 12, 2012

Stewart Dalzell, Deputy Director
Environmental Planning and Permitting
Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, MA 02128-2909

Re: Request for Advisory Opinion
EEA #12958 Boston Harbor Deep Draft Navigation Improvement Project

Dear Mr. Dalzell:


I am writing in response to your letter of November 20, 2012 in which you requested an advisory opinion as to whether changes to the above-referenced project require revisions to the Scope of the Final EIR. A Certificate on the Draft Environmental Impact Report (DEIR) was issued on June 13, 2008 and included the Scope of the Final EIR.

According to your letter and attachment (Executive Summary Figure), the project change consists of a one-foot reduction in project depth in the inner harbor from the President Roads Channel and Main Ship Channel to Massport's Conley terminal. Project depth will be reduced from 48 feet to 47 feet at mean lower low water (MLLW). This change was proposed in response to additional economic studies conducted by the U.S. Army Corps of Engineers (ACOE). No other changes are proposed to project elements that were described and analyzed in the DEIR.

Based on the review of the information you presented, I concur that the project changes do not warrant filing of a Notice of Project Change (NPC) or revisions to the Scope for the FEIR. Please contact Deirdre Buckley, MEPA Analyst, at (617) 626-1040 if you have any questions concerning this matter.

Comment
MEPA #1

Sincerely,


Maeve Valley-Bartlett
Assistant Secretary



REPLY TO
ATTENTION OF

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

December 10, 2012

Engineering/Planning Division
Evaluation Branch

Mr. Louis A. Chiarella
Assistant Regional Administrator for Habitat Conservation
National Marine Fisheries Service
55 Great Republic Drive
Gloucester, Massachusetts 01930-2276

Dear Mr. Chiarella:

This letter is written in response to your Magnuson-Stevens Fishery Conservation and Management Act (MSA) Essential Fish Habitat (EFH) conservation recommendations dated November 26, 2012 for the Boston Harbor Deep Draft Improvement Project (Deep Draft Project) Feasibility Report and Supplemental Environmental Impact Statement/Environmental Impact Report (SEIS/EIR). The MSA requires Federal agencies to provide a written response to the National Marine Fisheries Service (NMFS) within 30 days after receiving EFH conservation recommendations. In the case of a response that is inconsistent with NMFS' conservation recommendations, we must explain our reasons for not following the recommendations, including the scientific justification for any disagreements with NMFS over the anticipated effects of the action or the measures needed to avoid, minimize, mitigate, or offset such effects.

As described in your letter, the following EFH conservation recommendations were provided to us. It is acknowledged that your agency took a risk-averse approach to the issuance of the EFH conservation recommendations in light of your determination that the Deep Draft Project lacks site-specific details at this time. The EFH conservation recommendations are as follows:

1. To avoid impacts to winter flounder spawning, egg, larvae, and juvenile development habitat, no dredging or underwater blasting should be conducted between February 1 to June 15 of any year in any areas of the Mystic River and Chelsea River, and the Reserved Channel, and the Main Ship Channel and Turning Basin landward of the Conley Terminal.
2. In order to protect EFH forage species, no dredging or underwater blasting should be conducted between March 1 to June 30 of any year in any areas of the Mystic River and Chelsea River channels and private terminal berths, the Reserved Channel and terminal berths at Massport facilities, the Main Ship Channel and terminal berths, and the Turning Basin west of the Conley Terminal to avoid adverse impacts on upstream spawning migrations of alewife, blueback herring, rainbow smelt.

3. For the remaining sections of the BHDDNIP (i.e., Main Ship Channel east of the Conley Terminal, President Roads Anchorage, Broad Sound North Entrance Channel, maintenance of the 35-foot deep lane of the North Entrance Channel, 30-foot deep Broad Sound South Entrance Channel, 15-foot deep Nubble Channel and 35-foot deep MLLW Barge Anchorage), an underwater blasting plan should be developed during the Planning, Engineering, and Design phase of the proposed project. The underwater blasting plan should be directed and developed on an underwater blasting technical working group, which should be convened as soon as possible to begin evaluating data from the proposed Boston Harbor Main Ship Channel rock removal project, as well as gathering information from other past underwater blasting projects in this and other regions. This technical working group should identify and evaluate the most current knowledge on the science and management of underwater blasting and monitoring needs that can be directly related to the proposed BHDDNIP. Recommendations of this Technical Working Group should be incorporated into the FSEIS/FEIR.
4. Alternate beneficial reuse of rock material that avoid and minimize adverse impacts on biologically productive soft bottom habitats should be evaluated more fully within the FSEIS/FEIR, including using the rock for upland construction purposes and the use for ongoing shore protection projects.
5. The results of the demonstration capping project within the IWS (Industrial Waste Site) should be evaluated within the FSEIS/FEIR in order to determine the efficacy of using the dredged material from the proposed BHDDNIP to cap the IWS and to assess potential impacts to biological communities within the MBDS (Massachusetts Bay Disposal Site).

We will respond to your EFH conservation recommendations in the order presented above.

EFH Conservation Recommendation 1: In your first conservation recommendation, it was suggested by your agency that no dredging or underwater blasting occur in any areas of the Mystic River and Chelsea River, and the Reserved Channel, and the Main Ship Channel and Turning Basin landward of the Conley Terminal between February 1 and June 15 to protect winter flounder spawning, egg, larvae, and juvenile development habitat. We assume that “landward of the Conley Terminal” means up-river of the turning basin in the Main Ship Channel.

Only a small portion of the Mystic River navigation channel located opposite the Medford Street Terminal is proposed to be deepened; no underwater blasting is proposed for this area. The proposed area to be dredged is relatively small, especially when compared to the total amount of available area in the Mystic River for winter flounder habitat; therefore no significant impact to overall winter flounder habitat from dredging impacts is expected in the Mystic River.

In the Chelsea River, the current 38-foot channel would be deepened to 40 feet. The only blasting that would occur is in the turning basin located at the head of the navigation channel. In the Main Ship Channel, all dredging and blasting associated with the Deep Draft Project would occur downstream of the I-90 tunnel in navigation channels already -35 feet deep MLLW or deeper, except for minor widening of the turning basin.

Winter flounder spawn in shallow waters less than six meters (<20 feet) deep (EFH, 1999). The navigation channels proposed to be deepened in Boston Harbor are -35 feet MLLW or more. Thus, the navigation channels would not be considered prime winter flounder spawning habitat.

Plume monitoring was conducted between 1998 and 2000 for the Boston Harbor Navigation Improvement Project (BHNIP). Monitoring was conducted when both navigation channels were dredged and during disposal into Boston Harbor CAD cells. Plume monitoring was also conducted for the Inner Harbor Maintenance Dredging Project (IHMDP) in 2008 (Battelle, 2009). This monitoring showed that the plume stayed confined to the navigation channel. The only exception was the area just south of Castle Island where variable currents carried a filament of the plume out of the channel as far as 650 feet, away from the potential winter flounder spawning area near Governors Island. Maximum turbidity levels within the plume were low (~12 NTU above background).

Therefore, while we disagree with this EFH conservation recommendation for the above areas proposed for navigation channel deepening, we will seek to accommodate the February 1 to June 15 environmental window to avoid dredging in the most sensitive areas for winter flounder to the extent practicable. We will coordinate with the Technical Working Group (TWG) to help determine the extent of sensitive areas and period of concern for the various areas of the harbor during that timeframe. This restriction, however, will need to be evaluated during the Planning, Engineering and Design Phase (Design Phase) once the overall project sequencing plans are developed and taking into account potential blasting and air quality emission impacts.

EFH Conservation Recommendation 2: The second EFH conservation recommended that no dredging or underwater blasting be conducted between March 1 to June 30 in any area of the Mystic River and Chelsea River channels and private terminal berths, the Reserved Channel and terminal berths at Massport facilities, the Main Ship Channel and terminal berths, and the Turning Basin west of the Conley Terminal to avoid adverse impacts on upstream spawning migrations of alewife, blueback herring, rainbow smelt.

As mentioned above, both the BHNIP and the IHMDP plume monitoring showed that, except for the area just south of Castle Island, the plume stays confined to the navigation channel.

The proposed deepening of the Chelsea River would increase the depth of the entire navigation channel by an additional two feet. Dredging, and potential underwater blasting, would affect a large portion of the Chelsea River. Based on the above plume monitoring results, and the large areas of the harbor not impacted by a dredge plume, no impedance to upstream spawning migrations of alewife, blueback herring, and rainbow smelt is expected during dredging. However, given its confined nature, dredging in the Chelsea River could potentially impede upstream migration of fish species that may be present. We will coordinate with the TWG to determine what species are present at what time of year and then determine the appropriate means to minimize impacts, if necessary.

Underwater blasting could occur in various areas of the harbor during the course of the project. The U.S. Army Corps of Engineers (USACE) is committed to reducing blasting impacts to all fish species in the harbor by instituting protective measures as developed from previous lessons learned in prior dredging projects, and through coordination with affected agencies in the development of an overall blasting approach. Measures taken to reduce these blasting impacts will likely include: stemming, blast delays, use of fish observers, sonar monitoring, and a fish startle system to deter fish. It may also include sequencing of the work effort at various portions of the harbor as well. Lessons learned from the Boston Harbor rock removal project conducted in 2007 and 2008, which were instituted for the 2012 rock removal effort, will be incorporated into blast mitigation measures for the project. These measures proved effective in that no fish kills were observed during this project (rock removal in 2012 from Boston Harbor). An underwater blasting TWG will be formed during the Design Phase to explore the practicality and feasibility of any potential mitigative measures (including project sequencing). Recommendations agreed to by the TWG and the USACE to reduce potential blast impacts will be incorporated into the design specifications for the Deep Draft Project.

This EFH conservation recommendation also noted that a TWG should identify and evaluate the most current knowledge on the science and management of underwater blasting and monitoring needs that can be directly related to the proposed Deep Draft Project. Recommendations of this Technical Working Group should be incorporated into the FSEIS/FEIR.

It should be noted that funding will not become available for use in the development of the underwater TWG and the subsequent development of blasting mitigation measures until the project enters the Design Phase. Therefore, any recommendations of this TWG cannot be incorporated into the FSEIS/FEIR.

Conservation Recommendation 3: The third conservation recommendation requested that a plan incorporating blasting mitigation measures be developed during the Design Phase of the proposed project. We agree with this conservation recommendation to extent that we will work with the Technical Working Group to develop a rock removal approach that seeks to minimize impacts to critical resources during sensitive time periods in the various areas of the harbor.

The Design Phase of the project includes an extensive program of borings and probes to supplement and refine the results of the acoustic surveys and historic boring data that the Feasibility Report relied on for its estimates. This work is scheduled to be accomplished during the first year of the Design Phase. Once the subsurface exploration program is completed, we will have determined where in the channel rock is located and the characteristics of that rock. In the Feasibility Report, all potential hard material identified by the acoustic surveys was classified as rock requiring blasting for removal. This is assumed to be a worst case scenario as prior work in Boston and other New England harbors in recent years have shown that acoustic surveys overestimate the volume of bedrock.

We will then determine where blasting may be required and the appropriate rock removal method from each project segment. Using this information, the USACE and Massachusetts Port

Authority (Massport) will work with interested TWG agencies to refine approaches for the range of possible rock removal methods that may be used for the project. These approaches will be developed in concert with the larger construction sequencing plan for the entire project.

EFH Conservation Recommendation 4: The fourth EFH conservation recommended that alternate beneficial reuse of rock material should be evaluated more fully within the FSEIS/FEIR, including using the rock for upland construction purposes and the use for ongoing shore protection projects. We agree with this EFH conservation recommendation that the beneficial reuse of rock be discussed in the FSEIS/FEIR, but given the fact that this alternative has not yet been defined for the reasons identified below it can only be discussed in a general manner.

As a matter of USACE policy, rock and other dredged material should always be considered first as a public resource. Many environmental resource agencies raised concerns about the potential loss of hard bottom habitat when dredging hard bottom is proposed at any project in New England. Accordingly, our first consideration was to reuse any rock material removed to create new hard bottom habitat. However, some resource agencies believe that creation of additional hard bottom habitat in Massachusetts Bay at the expense of covering existing soft-bottom habitat may not be desirable.

In order for the USACE to recommend including a beneficial use component in the project, it must either (1) entail no or minimal additional cost to the Government, (2) have any additional cost paid for by non-Federal interests, or (3) involve a use where the benefits outweigh the additional cost, and have any additional cost to the project cost-shared between the USACE and a non-Federal public agency. Accordingly, a zone of feasibility for reef creation siting was established whereby the reduced hauling costs to the more distant MBDS would be offset by any additional project costs for beneficial use site investigations, controlled dumping practices, and monitoring of site recovery and recolonization.

In addition to reef habitat creation, some or all of the removed rock could prove suitable for other beneficial uses such as making the rock available to industry for processing as aggregate or for other construction purposes. Making the rock available to State agencies or area municipalities for use in public projects, particularly shore protection, was considered during preparation of the Draft Feasibility Report, but no parties interested in receiving the rock at their cost were identified. Therefore, the Federal base plan for rock disposal as laid out in the Feasibility Report and FSEIS/FEIR is placement at the MBDS. The Design Phase of this project will include additional consultation and collaboration with interested agencies and others to determine what, if any, economically practical beneficial use options for this material may exist at the time of construction and what parties are interested in receiving that material for their own uses. At this time however, without interested parties and uses identified, there are no quantifiable beneficial uses to evaluate.

EFH Conservation Recommendation 5: The last EFH conservation recommendation suggested that the results of the demonstration capping project within the IWS (Industrial Waste Site) be evaluated within the FSEIS/FEIR in order to determine the efficacy of dredged material to cap the IWS and to assess potential impacts to biological communities within the MBDS (Massachusetts Bay Disposal Site). We agree with this EFH conservation recommendation.

Results of the pilot project to demonstrate the efficacy of using the dredged material to cap barrels at the IWS will be summarized in the FSEIS/FEIR with reference to a detailed report to be published in the spring of 2013. The results of this pilot project showed that the potential to cap barrels at the IWS should be successful.

Our DAMOS Program has monitored the benthic community at MBDS for several decades. The results of this monitoring are also summarized in the FSEIS/FEIR and clearly show that the benthic community recovers after placement of dredged material at the disposal site.

In summary, the USACE, in partnership with the Massport, is committed to continuing coordination with the Boston Harbor Technical Working Group throughout the Design and Construction Phases of the project. Sub-groups of the TWG will be convened as needed to address specific issues, including those mentioned by your office. In particular, the sub-groups could help develop and comment on construction sequencing plans including rock removal, and consideration of beneficial use options for the rock and other dredged material.

We look forward to working with your office in continuing to refine how we address potential project impacts during the Design and Construction Phases and to bring this project to a successful completion. In the event that you have any questions or comments about the above proposals, please contact Ms. Catherine Rogers at (978) 318-8231 or via email at catherine.j.rogers@usace.army.mil.

Sincerely,



John R. Kennelly
Chief of Planning

Copy Furnished:

Stewart Dalzell, Deputy Director
Environmental Planning and Permitting
Massachusetts Port Authority
One Harborside Drive
Boston, Massachusetts 02128

References

Battelle. 2009. Final Summary Report Plume Monitoring Boston Harbor Inner Harbor Maintenance Dredging Project. Submitted to: U.S. Army Corps of Engineers, New England District. Contract Number: DACW33-03-D-0004, Delivery Order Number:44.

EFH. 1999. Essential Fish Habitat Designations within the Northeast Region (Maine to Virginia), Working Copy. NOAA/National Marine Fisheries Service, Gloucester, MA.

FEIR/FEIS. 1995. Boston Harbor, Massachusetts Navigation Improvement Project and Berth Dredging Project Final Environmental Impact Report and Final Environmental Impact Statement. Prepared by the U.S. Army Corps of Engineers, New England Division and the Massachusetts Port Authority.



DEPARTMENT OF THE ARMY
NORTH ATLANTIC DIVISION, CORPS OF ENGINEERS
FORT HAMILTON MILITARY COMMUNITY
GENERAL LEE AVENUE, BLDG 301
BROOKLYN, NY 11252

REPLY TO

CENAD-PD-CS

7 December 2012

MEMORANDUM FOR Commander, Headquarters, US Army Corps of Engineers,
(CECW-NAD/Mr. Luisa), 441 G Street, NW, Washington DC 20314

SUBJECT: Boston Harbor, MA – CWIS 013654; P2: #109034

1. References:

a. Memorandum, CENAE-PP-P, 23 Nov 12, subject: Boston Harbor Deep Draft Navigation Improvement Study, Draft Feasibility Report and Supplemental Environmental Impact Statement, PWI#013654

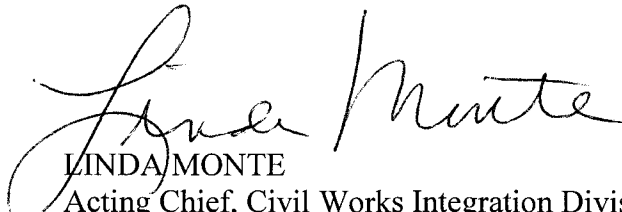
b. Memorandum, CEMP-NAD, 26 Sep 12, subject: Boston Harbor Navigation Improvements Study – Additional Economic analyses to respond to HQUSACE Policy Comments on the Final Feasibility report and Supplemental Environmental Impact Statement (SEIS).

2. The Division has reviewed the enclosed District response (Reference 1a) to HQUSACE guidance (Reference 1b) concerning the recommended plan, and we concur with the technical path forward, as laid out by the District. The District has committed to providing the revised feasibility report and all requisite items, in accord with the requirements of Engineer Regulation (ER) 1105-2-100, to HQUSACE by 20 February 2013 (CW 160 Final Report Submission to HQUSACE - P2 milestone date). Additional commitments locked into P2 by the District include: the CW 170 Report approval milestone on 28 March 2013 and the CW 270 Chief's Report milestone on 22 July 2013.

3. Bringing the feasibility study to closure from this point forward will require a fully integrated team effort in order to secure a Chief's Report in 2013. In order to facilitate this process, we request your assistance to ensure HQUSACE corporate agreement. If there are any concerns with the approach laid out by the District, we request that you advise us as soon as possible in order to avoid delays in report completion and approval.

4. The point of contact for this action is Mr. Joseph Vietri. Mr. Vietri may be reached at (347) 370-4570.

Encls.


LINDA MONTE
Acting Chief, Civil Works Integration Division



REPLY TO
ATTENTION OF

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

December 4, 2012

Engineering/Planning Division
Evaluation Branch

Mr. Victor Mastone, Director
Board of Underwater Archaeological Resources
251 Causeway Street, Suite 800
Boston, Massachusetts 02114-2136

Dear Mr. Mastone:

The U.S. Army Corps of Engineers, New England District (USACE) has been in contact with your office concerning the recent change in scope for the Boston Harbor Deep Draft Navigation Improvement Project. We appreciate your prompt reply and concurrence that you have no additional comments based on the change in project scope.

For clarification purposes, we would like to reiterate the original recommendations for additional archaeological investigations to be conducted as part of this project:

Chelsea River Channel Deepening: This plan consists of deepening the Chelsea River Channel from its currently authorized depth of -38 feet mean lower low water (MLLW) to a depth of -40 feet MLLW. The work involves dredging to deepen the channel within the existing channel limits, except for two small bends in the Chelsea River Channel that must be widened to accommodate larger vessels. An area immediately upstream of the A.P. McArdle Bridge, and an area of the bend between the bridges just downstream of the Sunoco Logistics Terminal, both along the East Boston side of the channel, would be widened by no more than 50 feet. A third area around the Chelsea Street Bridge has already been widened in a previous Corps dredging effort that was coordinated with your office and is no longer part of the current project.

A remote sensing archaeological survey of the two sections to be widened is recommended in order to identify the possible presence of submerged archaeological resources including shipwrecks in these areas. The original remote sensing survey of the Federal navigation channel (Mulholland et al. 2003) did not include the Chelsea River. Borings of the Chelsea River Channel are also proposed for the project's design phase to confirm material types and examine the areas of channel widening for the presence of buried land surfaces and pre-Contact archaeological sites.

Mystic River – Medford Street Terminal Access Deepening: Your letter also mentions investigation of the Mystic River Channel. The plan of improvement includes deepening an area of the existing 35-foot channel to 40 feet. This area accesses Massport's Medford Street

Terminal in Charlestown. Massport has already deepened its berth at this terminal to -40 feet. As this area was deepened in the past to reach the current -35-foot depth and sampling shows the improvement material to be blue clay, no plans for further investigation were included in our 2008 plan.

Disposal of Dredged Material under all Channel Improvement Plans: The Massachusetts Bay Disposal Site (MBDS) is the Federal base plan for disposal of all dredged material from the deep draft navigation improvement project, including rock. The MBDS was designated by the US EPA for disposal of dredged material in 1992 after preparation of an Environmental Impact Statement. The former Industrial Waste Site (IWS) is located north of and overlaps the northern portion of the MBDS. The IWS was used from the 1940s to 1970s for disposal of chemical, medical and low level radiological waste. The site was also used for general disposal of dredged material, construction debris, and other materials before and during that time. Remains of waste barrels are located throughout the IWS and most are concentrated in several areas. The Corps and US EPA are investigating the potential to use the improvement project's millions of cubic yards of unconsolidated dredged materials to form a cap over these barrel "fields". A side scan sonar survey of the IWS and portions of the MBDS was conducted by US EPA Region I in July 2006. A number of shipwrecks were identified within the IWS and the MBDS in the area where those two sites overlap.

The MBDS and IWS are located seaward of the territorial sea (three-mile limit) in Federally regulated waters. If the IWS is ultimately recommended for capping via beneficial use of the dredged material from the improvement project, further data on the significance of the wrecks may be required if the capping plan was determined to have an impact on those resources. If impacts are unavoidable, a Phase II site examination level survey of the wrecks may be needed to determine the boundaries of these potentially significant resources and determine whether any are eligible for listing on the National Register of Historic Places. The scope of any studies and results would be coordinated with EPA. However, given the large area available for disposal and capping at these sites, unavoidable impacts are unlikely. Disposal activities, including any capping of areas of the IWS would be designed to avoid any shipwrecks determined to be significant.

Disposal of Rock: Rock removed from the project has been proposed for beneficial use by the State and other parties. Most proposals involve the rock being delivered ashore for others to transport for use on projects not involving the Corps. However, one proposal for use of the rock would involve the creation of reef habitat in Massachusetts Bay including Broad Sound. Any areas identified for rock reef creation would require coordination and potentially investigation to determine if cultural resources of significance could be impacted, and plans modified to avoid such impacts.

If you have any questions or concerns regarding these recommendations, please contact Mr. Marc Paiva of the Evaluation Branch at 978-318-8796.

Sincerely,



John R. Kennelly
Chief of Planning

Copy Furnished:
Ms. Brona Simon, Executive Director and SHPO
Massachusetts Historical Commission
The Massachusetts State Archives Building
220 Morrissey Boulevard
Boston, Massachusetts 02125

December 4, 2012

Engineering/Planning Division
Evaluation Branch

Mr. Timothy L. Timmermann, Associate Director
Office of Environmental Review
U.S. Environmental Protection Agency, Region 1
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912

Dear Mr. Timmermann:

We are writing in response to your comments in a letter dated November 9, 2012 regarding updates we provided to you in order to finalize the Boston Harbor Deep Draft Improvement Project Feasibility Report and Supplemental Environmental Impact Statement/Environmental Impact Report (SEIS/EIR). Your office provided comments to assist us in finalizing the FSEIS/EIR on air issues and marine issues. This letter is being written in response to marine issues only; in particular, proposed blasting activities and rock reef creation. Responses related to air issues and comments will be incorporated into the FSEIS/EIR.

The U.S. Army Corps of Engineers (USACE), New England District, in partnership with the Massachusetts Port Authority (Massport), is committed to continuing coordination with the Boston Harbor Dredging Technical Working Group (TWG) throughout the Design and Construction Phases of the project. Sub-groups of the TWG will be convened as needed to address specific issues, including those mentioned by your office. In particular, the sub-groups could help develop and comment on construction sequencing plans including rock removal, air quality conformity (if mitigation is found necessary), and consideration of beneficial use options for the rock and other dredged material. Additional information regarding proposed rock removal activities and rock reef creation are provided in more detail below.

Proposed Blasting Activities - The Design Phase of the project includes an extensive program of borings and probes to supplement and refine the results of the acoustic surveys and historic boring data that the Feasibility Report relied on for its estimates. This work is scheduled to be accomplished during the first year of the Design Phase. Once the subsurface exploration program is completed, we will have determined where in the channel rock is located and the characteristics of that rock. In the Feasibility Report, all potential hard material identified by the acoustic surveys was classified as rock requiring blasting for removal. This is assumed to be a worst case scenario as prior work in Boston and other New England harbors in recent years have shown that acoustic surveys overestimate the volume of bedrock.

Once the subsurface design effort is completed, the USACE will determine if blasting is required for all or part of the rock to be removed from each project segment. Using this information, the USACE and Massport will work with interested TWG agencies to refine plans for the range of possible rock removal methods that may be used for the project. These plans will be developed in concert with the larger construction sequencing plan (discussed separately) for the entire project.

The subsurface effort may show areas where rock can be removed economically by means other than drilling and blasting. During construction of the last Boston Harbor Navigation Improvement Project between 1998 and 2001, areas of rock in the Reserved Channel Turning Area and in the Inner Confluence at the head of the Main Ship Channel were removed by ripping the ledge with a large toothed bucket. The cut into the ledge in those areas was shallow; approximately two feet, and those outcrops at that shallow depth were sufficiently weathered and fractured to permit this method of removal. Some strata, while not sufficiently fractured to permit bucket ripping, may prove removable by other mechanical means, such as a hydraulic hammer, as has been used in the deepening of the Elizabeth River Channel in New Jersey. A hydraulic hammer was used in the spring 2008 removal of several small rock pinnacle areas in the Broad Sound North Entrance Channel. Some rock areas for the Boston Harbor Deep Draft Improvement Project may lend themselves to similar methods of removal without drilling and blasting. The boring program in the Design Phase will provide the information on the appropriate rock removal method.

However, some level of caution is in order. The depth of the rock cut at Boston is up to eight to fifteen feet in many areas, as the Main Ship Channel is being deepened from -40 feet at mean lower low water (MLLW) down to -47 feet MLLW. The Broad Sound North Entrance Channel will be deepened to a controlling depth of -51 feet MLLW. In all channels where rock is encountered the required depth of the channel will be increased two feet as a safety measure. For all channels a two-foot allowable overdepth in all materials is possible. Rock at that depth is less likely to be weathered or fractured sufficiently to avoid a need for blasting. Removal by a hydraulic hammer typically takes a longer time than blasting. The blasting estimates for the Boston Harbor Deep Draft Improvement Project currently call for two drill barges, each with a three-gang drill rig, with one blast daily for each. A hydraulic hammer would work around the clock, except when it moves between areas to allow a dredge to remove what has been fractured.

At this time, a few predictions as to likely components of a rock removal plan can be made. For project construction to proceed on schedule, with minimal interruption and minimal excess mobilization-demobilization costs, drilling and blasting operations will need to be underway in some area(s) of the harbor as needed. Due to weather and sea state concerns, drilling and blasting in the Broad Sound North Entrance Channel will not likely occur in periods when heavy winter storms are expected. Fisheries observers and marine mammal observers would be present during blasting operations. Fish detection and fish startle systems would be employed.

The blasting efforts conducted for the ledge pinnacle removal project in 2007-2008 employed several means of avoiding and minimizing fish kills, including use of the fish observer and a fish startle system, and blast hole stemming. Even so, four of the blast events in November and December of 2007 resulted in fish kills of varying size. An After Action Report prepared by the USACE determined that the placement of the fish startle system and side scan sonar on the blast barge may not be as effective as employing these systems on a separate vessel. This alternate method was employed in the most recent rock removal project in 2012 and no fish kills were experienced with this new method.

In response to comments from NMFS and others, the potential for noise in the water generated by blasting to impact whales and other marine mammals, sea turtles, and fish (specifically sturgeon) was also investigated. Based on sound data collected from blasting during the most recent 2012 rock removal project, it was determined that a safety zone of 1,500 feet would be protective of the three animal types listed above, with allowance for an additional 50-foot observation zone outside the calculated safety zone. The nearest concentrations of whales in the Bay are located several miles seaward around Stellwagen Bank.

Rock Reef Creation - The USACE and Massport would prefer to find an acceptable beneficial use for the up to one million± cubic yards of rock that could be generated by the improvement project, rather than merely disposing it in 300 feet of water at the designated Massachusetts Bay Disposal Site (MBDS); the current base plan. Rock and other dredged material should always first be considered as a public resource. Many environmental resource agencies have raised concerns about the potential loss of hard bottom habitat when dredging of hard bottom is proposed at any project in New England. Accordingly, our first consideration was to reuse this blasted rock material to create new hard bottom habitat. However, some resource agencies believe that creation of additional hard bottom habitat in Massachusetts Bay at the expense of covering existing soft-bottom habitat may not be desirable.

In order for the USACE to recommend including such a beneficial use component in the project it must either (1) entail no or minimal additional cost to the Government, (2) have any additional cost paid for by non-Federal interests, or (3) involve a use where the benefits outweigh the additional cost, and have any additional cost to the project cost-shared between the USACE and a non-Federal public agency. Accordingly, a zone of feasibility for reef creation siting was established whereby the reduced hauling costs to the more distant MBDS would be offset by any additional project costs for beneficial use site investigations, controlled dumping practices, and monitoring of site recovery and recolonization.

The intent of the reef creation option was to create hard-bottom habitat, not merely for adult lobster, but also other species that prefer this type of habitat. Five candidate reef creation sites were selected with input from local lobstermen and the State marine fisheries staff at a meeting held on August 3, 2004. The goal was to identify large areas where existing rocky habitat was less represented than sandy or softer substrates. The analysis to date as presented in the Feasibility documents was limited to bottom types, bathymetry, Essential Fish Habitat, and benthic resource characterization. As no real consensus developed among the Federal and State

agencies during the Feasibility study as to the desirability of reef creation in Massachusetts Bay, additional examination was deferred until the Design Phase, when more specific information on the quantities and types of rock and other hard materials to be generated by the project would become known and more detailed data requested by the agencies is available. Other reviewing agencies also identified concerns about replacing soft-bottom habitat with rock reefs that may take years to colonize, and would supplant the functions and value of the existing soft-bottom habitat at these sites.

In response to Federal and State agency concerns expressed during meetings of the project's Technical Working Group, the District has committed to working with these agencies during the Design Phase to examine these issues, define the exact type and quantity of materials available for such use, and examine the candidate sites in greater detail to determine the value of the existing habitat relative to the anticipated value of the reefs. Should reef creation proceed forward, technical design issues such as mound width and elevation, mound spacing, setbacks from existing hard bottom areas, cultural resource presence and protection, and targeted species will all require further evaluation. A plan for monitoring recovery and recolonization of any constructed reef site will also be developed. Some State agencies have suggested that only a portion of the rock removed should be made available for reef creation, and using the remainder available for other uses if found feasible.


If it is determined that rock reef creation is desirable and feasible, and included in the final design of the Federal Navigation Deep Draft Project, then the results of the additional investigations, reef design, and habitat recovery monitoring plans may be published in an additional NEPA/MEPA document, if necessary.

Beneficial Uses for Rock - In addition to reef habitat creation, some or all of the removed rock could prove suitable for other beneficial uses. Making the rock available to industry for processing as aggregate or for other construction purposes has been mentioned. Making the rock available to State agencies or area municipalities for use in public projects, particularly shore protection, has also been mentioned. The Design Phase of this project will include consultation and collaboration with these agencies and others to determine what economically practical beneficial options may exist.

Air Quality Considerations - The Corps and Massport are currently re-examining the expected air quality impacts of the project with reference to the revised air quality determinations mentioned in your November 9, 2012 letter. The results of that examination will be discussed with the TWG when they become available.

We look forward to working with your office in continuing to refine how we address potential project impacts during the Design and Construction Phases and bring this project to a successful completion. In the event that you have any questions or comments about the above proposals, please contact Ms. Catherine Rogers at (978) 318-8231 or via email at catherine.j.rogers@usace.army.mil.

Sincerely,


John R. Kennelly
Chief of Planning

Copy Furnished:
Stewart Dalzell, Deputy Director
Environmental Planning and Permitting
Massachusetts Port Authority
One Harborside Drive
Boston, Massachusetts 02128



THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
OFFICE OF COASTAL ZONE MANAGEMENT
251 Causeway Street, Suite 800, Boston, MA 02114-2136
(617) 626-1200 FAX: (617) 626-1240

November 29, 2012

Mr. John R. Kennelly
Chief of Planning
Department of the Army
New England District, Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

Re: CZM Federal Consistency Review Boston Harbor Deep Draft Navigation Improvement Project – DEIR/DEIS; Boston.

Dear Mr. Kennelly:

The Massachusetts Office of Coastal Zone Management (CZM) has completed its review of the Draft Environmental Impact Report/Draft Environmental Impact Statement (DEIR/DEIS) for the proposed port improvements in the City of Boston. The project includes improving access to the Conley Terminal for containerships by deepening the harbor's existing 40-foot channels, turning basin, and anchorage to a depth of -47 feet MLLW, with an additional three feet of depth in the Broad Sound North Entrance Channel (up to -50 feet MLLW). The Massachusetts Port Authority (MassPort) would also deepen the berths in the Conley Terminal to at least -50 feet MLLW. The 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel would be deepened to -45 feet MLLW, access to MassPort's Medford Street Terminal on the Mystic River would be improved by deepening to -40 feet MLLW, and the existing -38 foot channel in the Chelsea River would be deepened to -40 feet MLLW.

Based upon our review of applicable information, we concur with your certification and find that the activity's effects on resources and uses in Massachusetts coastal zone as proposed in the DEIR/DEIS are consistent with the CZM enforceable program policies. We look forward to reviewing the Final Feasibility Report and the joint Final Supplemental Environmental Impact Statement/Final Environmental Impact Report for consistency with CZM's enforceable program policies, when released in 2013.

If the above-referenced project is modified in any manner, including any changes resulting from permit, license or certification revisions, including those ensuing from an appeal, or the project is noted to be having effects on coastal resources or uses that are different than originally proposed, it is incumbent upon the proponent to notify CZM, submit an explanation of the nature of the change pursuant to 15 CFR 930, and submit any modified state permits, licenses, or certifications. CZM will use this information to determine if further federal consistency review is required.



Thank you for your cooperation with CZM.

Sincerely,

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

Bruce K. Carlisle
Director

BKC/rlb/vg
CZM# 5376



The COMMONWEALTH OF MASSACHUSETTS
BOARD OF UNDERWATER ARCHAEOLOGICAL RESOURCES
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
251 Causeway Street, Suite 800, Boston, MA 02114-2136
Tel. (617) 626-1200 Fax (617) 626-1240 Web Site: www.mass.gov/czm/buar/index.htm

November 27, 2012

John R. Kennelly
Chief of Planning
New England District
US Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

RE: *Boston Harbor, Massachusetts Navigation Improvement Project – Update of the Final Feasibility Report and Final Supplemental Environmental Impact Statement/Final Environmental Impact Report*

Dear Mr. Kennelly,

The staff of the Massachusetts Board of Underwater Archaeological Resources has completed its review of your letter of 11 October 2012 and attached chart regarding the final FR and FSIES/FEIR reports for the above referenced report. We offer the following comments.

The Board provided comments on the draft version of the above referenced report in its letter of 2 June 2008. Based on the information provided in your recent letter, the Board's original comments remain appropriate and applicable to the updated plan.

The Board notes the updated plan specifically calls for deepening access to the Chelsea River. This area is considered archaeological sensitive, particularly in relation to the 1775 Battle of Chelsea Creek and the loss of HMS *Diana*. The recommendation that a remote sensing archaeological survey should be conducted for the areas of potential affect in the Mystic River and Chelsea River Channels remains applicable. The Board looks forward to working with the Corps and its consultants in developing a successful surveying strategy for these areas.

Comment
BUAR #1

Should you have any questions regarding this letter, please do not hesitate to contact me at the address above, by telephone at (617) 626-1141 or by email at victor.mastone@state.ma.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Victor T. Mastone".

Victor T. Mastone
Director

Cc: Brona Simon, MHC
Marc Paiva, USACE
Bob Bocri, MCZM
Stewart Dalzell, Massport



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

NOV 27 2012

John R. Kennelly
Deputy Chief, Engineering/Planning Division
Department of the Army, Corps of Engineers
New England District
696 Virginia Road
Concord, MA

RE: Boston Harbor Deep Draft Navigation Improvement Project

Dear Mr. Kennelly:

Your November 7, 2012, letter, requests consultation pursuant to section 7 of the Endangered Species Act (ESA) of 1973, as amended regarding the U.S. Army Corps of Engineer's proposed Boston Harbor Deep Draft Navigation Improvement Project. You have made the determination that the proposed action is not likely to adversely affect any species listed by NOAA's National Marine Fisheries Service (NMFS) under the ESA and have requested our concurrence with this determination. We agree that as all effects to listed species will be insignificant and discountable, the proposed action is not likely to adversely affect any NMFS listed species. The justification for our determination is provided below.

Proposed Project

The project will involve dredging approximately 10 to 11 million cubic yards of clays, sands, and tills, all parent materials largely of glacial origin, from the harbor bottom. All dredging will be with a mechanical dredge. In addition, you will remove up to about 1 million cubic yards of rock from the harbor, some of which may require blasting to allow removal with a dredge. In association with this improvement work, you will remove about 150,000 cubic yards of material to deepen some terminal berths, and about 500,000 cubic yards for maintenance of the improved and adjacent Federal channels. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site (MBDS), which is located about 18 miles seaward of the harbor. The project would take about three years to complete. You are currently planning to dispose all material, including rock, at MBDS; unconsolidated material may be disposed of at the former Industrial Waste Site (IWS) which is adjacent to the MBDS.

Specific project activities include:

- Deepening the harbor's 40-foot deep MLLW channels, turning basin and anchorage to a depth of -47 feet MLLW to provide container ships access to the Conley Terminal, with an additional two to five feet of depth in the Broad Sound North



Entrance Channel (up to -52 feet MLLW) to accommodate exposure of vessels to increased seas. The final depth selected for the entrance channel accounts for the range in quantities given above;

- Deepening the 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel to -45 feet MLLW, to improve access to Massport's Marine Terminal in South Boston;
- Deepening the existing 35-foot lane of the lower Mystic River Channel to -40 feet MLLW to improve access to Massport's Medford Street Terminal; and
- Deepening the existing 38-foot channel in the Chelsea River to -40 feet MLLW to improve access to its petroleum terminals.
- In addition, terminal berths at Massport facilities on the Reserved, Main Ship and Mystic River channels, as well as private terminal berths on the Chelsea River would be deepened commensurate with the deepening of the Federal channels.
- Any required maintenance of the Federal navigation channels being improved would be carried out concurrently, as would maintenance of adjacent Federal channels needed to route shipping traffic around the deepening operation, including maintenance of the 35-foot deep lane of the North Entrance Channel, 30-foot deep Broad Sound South Entrance Channel, 15-foot deep Nubble Channel and 35-foot deep MLLW Barge Anchorage.

Rock removal by blasting will occur over approximately 26 months, with the required times approximately broken down as follows (work in some areas will be simultaneous with work in other areas): 16 months in the Broad Sound North Entrance Channel; two months in the President Roads Anchorage; two months in the lower Main Ship Channel; three months in the Main Ship Channel extension area below the Ted Williams Tunnel; five months in the Reserved Channel and its Turning Area; and one month in the upper Chelsea River. The precise rock areas and construction times would be further refined after design phase subsurface explorations are completed.

The USACE will implement several special conditions during dredging, blasting and dredged material disposal, those include:

- USACE will develop a monitoring plan for blasting that will be submitted to NMFS for review and comment.
- One or more NMFS-approved endangered species observers will be present at each blast site. The number of observers will depend on the number that is necessary to observe the entire safety zone. No blasting will occur until the safety zone is free from any observations of whales or sea turtles for 60 minutes.
- The Right Whale Sightings Advisory System will be monitored as well as other communication media (i.e., NOAA weather radio, U.S. Coast Guard NAVTEX

broadcasts, Notices to Mariners, and U.S. Coast Pilots) for general information regarding North Atlantic Right Whale sighting locations. In addition, the Contractor will be required to monitor the Right Whale Listening Network for information on Right Whales detected near the shipping lanes.

- No blasting will occur if any whales or sea turtles are present within the safety zone of the blast area.
- In the unlikely event that any whales or sea turtles are observed within the safety zone during a blast event, all reasonable attempts to monitor the condition and behavior of the animal will be undertaken. These incidences will be reported immediately to NMFS to determine whether the incident would require reinitiating Section 7 Consultation.
- All blasting will be conducted using inserted delays of a fraction of a second per borehole as well as the use of stemming, which will be placed into the top of the borehole to deaden the shock wave reaching the water column.
- No blasting will occur when schools of fish are observed in the area (assuming that safety is not jeopardized). A fish observer will use hydro-acoustic monitoring (i.e. side-scan sonar) prior to any blasting event to determine that schools of fish are not located within or transiting the blast zone area (including any listed Atlantic sturgeon). In addition to the sidescan sonar, a fish startle system will be employed to deter fish. Existing startle systems are most effective with species from the Clupeid family. The startle system uses high amplitude sound at specific frequencies. Lessons learned from the previous blasting in Boston Harbor will be incorporated where appropriate into the Contractor's blasting plan. Some of these lessons include the development of a communication plan between the fish observer and the Contractor and the location of the fish startle system that will be deployed on an alternate vessel instead of the blast barge.
- All project vessels will comply with voluntary speed restrictions (10 knots or less) to minimize the risk of ship strikes as implemented in Dynamic Management Areas (DMAs) that may be established by NOAA Fisheries Service. NOAA Fisheries Service will announce DMAs to mariners through its customary maritime communication.
- All previously established permit conditions for use of the MBDS and IWS, including use of lookouts for whales and sea turtles and vessel speed restrictions, will be required, including:
 - Use NMFS guidelines to minimize interaction with and harassment of marine mammals during transit (i.e., tugs/scows will not approach within 100 feet of threatened or endangered species of whales (http://www.nero.noaa.gov/prot_res/mmv/approach.html) or within 500 yards of a right whale 50 CFR§224.103 (c)). Any vessel finding itself within the 500 yard buffer zone around a right whale must depart the area immediately at a safe, slow speed, unless one of the exceptions applies (see 50 CFR§224.103 (c));
 - When sea turtles are sighted, attempt to maintain a distance of 50 yards or greater between the animal and the vessel whenever possible;

- Report all sightings of right whales to NMFS as soon as possible (978-585-8473); and, Report within 24 hours any interactions with listed species to NMFS (1-866-755-NOAA and incidental.take@noaa.gov). This includes any reports of injuries or mortalities.

NMFS Listed Species in the Action Area

The action area is defined as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action” (50 CFR§402.02). For this project, the action area includes the project footprint as well as the underwater area where effects of dredging (i.e., increase in suspended sediment) and blasting (i.e., increase in underwater noise and pressure) will be experienced. The action area also includes the disposal sites and the vessel transit routes.

Whales

Federally endangered North Atlantic right whales (*Eubalaena glacialis*), Fin (*Balaenoptera physalus*), sei (*Balaenoptera borealis*), and humpback whales (*Megaptera novaeangliae*) are found seasonally in Massachusetts waters. North Atlantic right whales have been documented in the nearshore waters of Massachusetts from December through June. Humpback whales feed during the spring, summer, and fall over a range that encompasses the eastern coast of the United States. Fin (*Balaenoptera physalus*), sei (*Balaenoptera borealis*) and sperm (*Physeter macrocephalus*) whales are also seasonally present in New England waters but are typically found in deeper offshore waters.

Sei whales occur in deep water throughout their range, typically over the continental slope or in basins situated between banks (NMFS 2011). Sperm whales occur on the continental shelf edge, over the continental slope, and into mid-ocean regions. Based on the known habitats of these two species which do not overlap with the action area, we do not expect sei or sperm whales to occur in any portion of the action area.

Sightings and satellite tracking data along the East Coast indicate that endangered large whales rarely venture into bays, harbors, or inlets (70 FR 35849, June 25, 2005, NMFS 2007, 72 FR 57104, October 5, 2007). Right whale sightings from May 1997 to the present have been mapped (see <http://www.nefsc.noaa.gov/psb/surveys/SASInteractive2.html>). There are no recorded right whale sightings in Boston Harbor. The nearest sighting is a sighting listed as “probable” from April 7, 2012, approximately 4 miles offshore of Deer Island. The seasonal presence of right whales in Massachusetts waters is thought to be closely associated to the seasonal presence of dense patches of their preferred copepod prey (primarily *Calanus finmarchus* but also *Pseudocalanus* spp. and *Centropages* spp.; Pace and Merrick 2008). Dense concentrations of copepods are not known to occur in Boston Harbor. While small numbers of humpback whales may be present in Massachusetts waters year round, sightings are most frequent from mid-March through November between 41°N and 43°N, from the Great South Channel north along the outside of Cape Cod to Stellwagen Bank and Jeffreys Ledge (CETAP 1982) and peak in May and August (Waring *et al.* 2010). We have records of only one humpback whale occurring in Boston Harbor (2001) and consider this incident to be an outlier. There are no records of fin whales in Boston Harbor. Based on the best available information, it is extremely unlikely that any right, humpback or fin whales will occur in the channels where

blasting and dredging will occur. These species, may however be present at MBDS and IWS and along the transit route.

Sea Turtles

Four species of federally threatened or endangered sea turtles under our jurisdiction may be found seasonally in the coastal waters of Massachusetts, typically when water temperatures are higher than 15°C. The highest concentrations of sea turtles are normally present from June – October. The sea turtles in northeastern nearshore waters are typically small juveniles with the most abundant being the federally threatened Northwest Atlantic Ocean Distinct Population Segment (DPS) of loggerhead (*Caretta caretta*) followed by the federally endangered Kemp's ridley (*Lepidochelys kempi*) sea turtle. While green sea turtles (*Chelonia mydas*) may also occur sporadically in New England waters, any occurrence in Massachusetts waters is rare. Federally endangered leatherback sea turtles (*Dermochelys coriacea*) may be found in Massachusetts waters during the warmer months as well.

Suitable forage and habitat exists for sea turtles in small localized areas around the Boston Harbor area (e.g., Hull and Hingham Bay; shores of Long Island Spectacle Island, and Thompson Island, MA; Town River Bay; and Rock Island Cove). The harbor is not known to be a high use area for sea turtles and presence is likely limited to occasional transient sea turtles. In the channels where dredging and blasting will occur, limited forage for sea turtles exists (e.g., no submerged aquatic vegetation (SAV), limited benthic invertebrates) and as such, this site is not expected to serve as foraging area for sea turtles. Based on this information, it is extremely unlikely that sea turtles will occur within the channel where dredging and blasting will occur. However, sea turtles may be present at MBDS and IWS and along the transit routes.

Atlantic Sturgeon

Five DPSs of Atlantic sturgeon are listed; the Gulf of Maine DPS is threatened and the New York Bight, Chesapeake Bay, South Atlantic and Carolina DPSs are endangered (77 FR 5880; 77 FR 5914; February 6, 2012). The marine range of all five DPSs extends along the Atlantic coast from Canada to Cape Canaveral, Florida.

Atlantic sturgeon spawn in their natal river. The Kennebec (Maine) and Hudson (New York) Rivers are the nearest rivers to the action area that are known to currently support spawning populations. Sturgeon remain in the river/estuary for two to five years until 50-75 cm in length. After emigration from the natal river/estuary, subadults and adult Atlantic sturgeon travel within the marine environment, typically in waters less than 50 meters, using coastal bays, sounds, and ocean waters.

There is limited information on Atlantic sturgeon in Boston Harbor. In February 2012, an Atlantic sturgeon was documented in the Charles River. In the summer of 2012, a dead Atlantic sturgeon was found floating in the North River, Massachusetts. These represent the first reported occurrences of Atlantic sturgeon in this area. No tributary of Boston Harbor has been identified as a historic spawning river for this species. Due to the limited presence of suitable forage, the presence of Atlantic sturgeon in Boston Harbor in general is considered to be limited to occasional transient subadults or adults. Atlantic sturgeon are most likely to be present in the channels where dredging and blasting will occur if suitable forage is present. Based on the best

available information, only occasional transient subadult or adult Atlantic sturgeon are likely to be present in the channels where dredging and blasting will occur.

Effects of the Action

Below, we consider the effects of dredging, disposal of dredged material, blasting, and disposal of rock on listed species. This analysis relies on the full implementation of all special conditions listed above; we consider these to be part of the proposed action. It is important to note that project plans may be refined in the future. Prior to the USACE entering into any contracts or carrying out any dredging or blasting, updated project plans and special conditions will be provided to us. At that time we will determine if there are likely to be any effects that we did not consider here and, if there are, reinitiation of this consultation will be necessary.

Comment
NMFS #1

Dredging

A clamshell bucket dredge will be used to remove sediments and to remove loose rock after blasting. As explained above, whales are extremely unlikely to occur in the areas where dredging will occur. As such, they will not be exposed to any effects of dredging. Occasional transient sea turtles and Atlantic sturgeon may be present in the channels where dredging will occur, particularly in areas where benthic invertebrates are present. Here, we consider the potential for individuals to be captured in the dredge bucket and effects of increased turbidity/suspended sediment and loss of benthic resources/forage opportunities.

Capture in the Dredge Bucket

Bucket dredges are relatively stationary. Bucket dredging entails lowering the open bucket through the water column, closing the bucket after impact on the bottom, lifting the bucket up through the water column, and emptying the bucket into a barge. Aquatic species can be captured in dredge buckets and may be injured or killed from entrapment in the bucket or burial in sediment during dredging and/or when sediment is deposited into the dredge scow.

No sea turtles have been captured in mechanical dredges operating in the action area. The USACE has no records of any sea turtles being captured in mechanical dredges anywhere. As such, we do not anticipate any capture of sea turtles during any mechanical dredging considered here.

In rare occurrences, sturgeon have been captured in dredge buckets and placed in the scow. The USACE has reported four incidences of sturgeon captured in dredge buckets along the U.S. East Coast since 1990. One of these was in the Cape Fear River and the other three were at the Bath Iron Works facility in the Kennebec River, Maine. No sturgeon have ever been observed during dredging operations in the action area. Based on all available evidence, the risk of capture in a mechanical dredge is low due to the slow speed at which the bucket moves and the relatively small area of the bottom it interacts with at any one time. Atlantic sturgeon are highly mobile and it is anticipated that they will be able to avoid the dredge bucket in nearly all instances. The potential for a capture is further reduced by the small number of Atlantic sturgeon in the action area and the transient use of the area by these fish. Given the relatively low level of risk that an individual Atlantic sturgeon would be captured in a slow moving dredge bucket and the low likelihood that Atlantic sturgeon will be present in the channels where dredging will occur, it is

extremely unlikely that any Atlantic sturgeon will be captured, injured or killed during dredging activities.

Turbidity Associated with Mechanical Dredging

The proposed dredging will cause a temporary increase in the amount of turbidity in the action area; however, suspended sediment is expected to settle out of the water column within a few hours and any increase in turbidity will be short term. The size of a sediment plume is influenced by many factors. The turbidity plume associated with a typical mechanical dredging operation extends approximately 1,000 feet at the surface and 1600 feet near the bottom (ACOE 1983). The maximum distance reported in the literature is 1,500 meters (4,921 feet), which occurred in an area with very strong tidal currents (ACOE 2007). Several studies have monitored sediment plumes associated with dredging projects along the Atlantic coast. Turbidity levels associated with these sediment plumes typically range from 26-350mg/L (ACOE 2007, Anchor Environmental 2003) with the highest levels detected adjacent to the dredge bucket and concentrations decreasing with greater distance from the dredge (see ACOE 2007).

No information is available on the effects of turbidity or suspended sediment (TSS) on juvenile and adult sea turtles. Studies of the effects of turbid waters on fish suggest that concentrations of suspended solids can reach thousands of milligrams per liter before an acute toxic reaction is expected (Burton 1993). TSS is most likely to affect sea turtles if a plume causes a barrier to normal behaviors or if sediment settles on the bottom affecting sea turtle prey. As sea turtles are highly mobile they are likely to be able to avoid any sediment plume and any effect on sea turtle movements is likely to be insignificant. Additionally, the TSS levels expected (26-350mg/L) are below those shown to have an adverse effect on fish (580mg/L for the most sensitive species, with 1,000mg/L more typical; see summary of scientific literature in Burton 1993) and benthic communities (390mg/L (EPA 1986) upon which turtles depend. Based on this information, the effects of suspended sediment resulting from dredging operations on sea turtles will be insignificant.

Fish eggs and larvae can be buried or smothered as suspended solids settle out of the water column. Because no early life stages of Atlantic sturgeon occur in the action area, none will be exposed to any increase in TSS. TSS is most likely to affect subadult or adult Atlantic sturgeon if a plume causes a barrier to normal behaviors or if sediment settles on the bottom affecting their benthic prey. As Atlantic sturgeon are highly mobile they are likely to be able to avoid any sediment plume and any effect on their movements or behavior is likely to be insignificant. Additionally, the TSS levels expected (26-350 mg/L depending on site specific conditions during dredging and up to 500.0 mg/L for disposal) are below those shown to have an adverse effect on fish (580.0 mg/L for the most sensitive species, with 1,000.0 mg/L more typical; see summary of scientific literature in Burton 1993) and benthic communities (590.0 mg/L (EPA 1986)); therefore, effects to benthic resources that sturgeon may eat are extremely unlikely. Based on this information, it is likely that both the effect of the suspension of sediment resulting from dredging operations and the effects of the discharge of sediments at the disposal site will be insignificant.

Effects on Prey

As noted above, sea turtles and Atlantic sturgeon are rare in Boston Harbor; however, they are most likely to occur where suitable forage (benthic invertebrates or SAV) are present. Dredging can affect sea turtles and sturgeon by reducing prey species through the alteration of the existing biotic assemblages. Some reduction in the amount of potential prey in the area to be dredged is likely; however, these areas are not thought to be used by foraging sturgeon or sea turtles. Regardless, the action will not result in the permanent removal of forage items, as prey species will continually recolonize the area following a disturbance. In summary, as (1) the area affected by dredging is not known to support significant amounts of benthic resources which Atlantic sturgeon and sea turtles forage on; and, (2) recolonization of the benthic community will be rapid (weeks to months), we have determined that any effects of dredging and disposal to foraging Atlantic sturgeon and sea turtles will be insignificant.

Blasting

Sound waves generated by blasting are known as “transient” or short, powerful pulses of noise. Peak pressure, measured in Pascals (Pa) or pounds per square inch (psi), and impulse, measured in Pascal seconds (Pa.sec), are the units used to describe severity of blast transients. Impulse is defined as the average pressure level of the wave acting over a given time.

Sound in water follows the same physical principles as sound in air. The major difference is that due to the density of water, sound in water travels about 4.5 times faster than in air (approx. 4900 ft./s vs. 1100 ft./s), and attenuates much less rapidly than in air. As a result of the greater speed, the wavelength of a particular sound frequency is about 4.5 times longer in water than in air (Rogers and Cox 1988; Bass and Clarke 2003). The term decibel (dB) is most often used to compare the level, or intensity of a sound, but the reference medium must be stated so that the reader understands whether in-air or underwater acoustics are being used. In water, acousticians use the standard reference sound pressure of 1 micropascal, abbreviated **re 1 μ Pa** (the in-air reference is 20 μ Pa).

Whales, sea turtles and sturgeon have differing levels of tolerance to underwater noise. Below, we present the underwater noise and pressure levels that are likely to result in mortality, injury and behavioral disturbance of these species.

Table 1. Effects, Criteria, and Thresholds (for Marine Mammals) for Impulsive Sounds from Underwater Detonation (provided by NMFS Headquarters)

Effect	Criteria	Metric	Threshold	Effect
Mortality	Onset of Extensive Lung Injury	Goertner modified positive impulse	indexed to 30.5 psi-msec (assumes 100 percent small animal at 26.9 lbs)	Mortality
Injurious Physiological	50% Tympanic Membrane Rupture	Energy flux density	1.17 in-lb/in ² (about 205 dB re 1 microPa ² -sec)	Level A

Injurious Physiological	Onset Slight Lung Injury	Goertner modified positive impulse	indexed to 13 psi-msec (assumes 100 percent small animal at 26.9 lbs)	Level A
Non-injurious Physiological	TTS ¹	Greatest energy flux density level in any 1/3-octave band (> 100 Hz for toothed whales and > 10 Hz for baleen whales) - for total energy over all exposures	182 dB re 1 microPa ² -sec	Level B
Non-injurious Physiological	TTS	Peak pressure over all exposures	23 psi	Level B
Non-injurious Behavioral	Multiple Explosions Without TTS	Greatest energy flux density level in any 1/3-octave (> 100 Hz for toothed whales and > 10 Hz for baleen whales) - for total energy over all exposures (multiple explosions only)	177 dB re 1 microPa ² -sec	Level B

Sea Turtles

Pressure oscillations created by blasting cause a rapid contraction and over- extension of gas filled cavities (e.g., swim bladders, lungs, blood vessels) as pressure gradients change resulting in internal damage and/or mortality to aquatic species. For sea turtles, tissues that could be affected by detonations are mainly those at the air-fluid interface (e.g., ear cavities, lungs, gastrointestinal tract; Koschinski 2011).

Several studies have been undertaken that have demonstrated that explosions can injure and kill sea turtles (Duronslet *et al.* 1986; Gitschlag 1990; Gitschlag and Herczeg 1994; Kilma *et al.* 1988; O’Keefe and Young 1984); however, these studies have been based on the removal of large oil platforms, which involved the use of large, undelayed charges (i.e., 50 to 1,200 pounds per detonation) that were detonated in the open water (i.e., unconfined), which will produce greater levels of underwater noise and pressure levels.² In general, most sea turtles assessed in these studies suffered internal injuries (e.g., dilation of blood vessels, unconsciousness); only those exposed to the 1,200 pound charge within 656 feet of the blast succumbed to death. Although NMFS has not yet developed acoustic criteria for blasting activities, based on studies done by Yelverton and Richmond (1981), Finneran *et al.* 2002, and Southall *et al.* 2007, we believe that for sea turtles, blasting levels:

¹ TTS-Temporary, fully recoverable reduction in hearing sensitivity caused by exposure to sound.

² Information on the associated underwater noise and pressure levels (i.e., psi) were not available for these studies.

- ≥ 46 psi, 230_{peak} dB re $1 \mu\text{Pa}$ or 198 dB re $1 \mu\text{Pa}^2$ -s (SEL) will cause injury or mortality³;
- ≥ 23 psi, 224_{peak} dB re $1 \mu\text{Pa}$ or 183 dB μPa^2 -s will cause harassment, via temporary threshold shifts (TTS); and,
- levels at or above 166 dB_{RMS} re $1 \mu\text{Pa}$ will cause behavioral modification (Baker, 2008).⁴

Atlantic sturgeon

There have been numerous studies that have assessed the direct impact of underwater blasting on fish (e.g., Teleki and Chamberlain 1978; Wiley *et al.* 1981; Burton 1994; Moser 1999). While none of the studies have focused on Atlantic sturgeon, the results demonstrate that blasting can have an adverse impact on fish. Teleki and Chamberlain (1978) found that several physical and biological variables were the principal components in determining the magnitude of the blasting effect on fish. Physical components include detonation velocity, density of material to be blasted, and charge weight; while the biological variables are fish shape and size, location of fish in the water column, and swim bladder development. Composition of the explosive, water depth, and bottom composition also interact to determine the characteristics of the explosion pressure wave and the extent of any resultant fish kill. Furthermore, the more rapid the detonation velocity, the more abrupt the resultant hydraulic pressure gradient, and thus, the more difficulty fish have in adjusting to the pressure changes. That is, it is the pressure oscillations created by the detonation that cause a rapid contraction and over-extension of the swim bladder as pressure gradients change; this results in internal damage and/or mortality to species of fish (Wiley *et al.* 1981). If blasting detonations are undertaken at one time (i.e., not set up to be delayed), fish cannot recover from these pressure oscillations, resulting in internal injuries (e.g., swim bladder ruptures) that may result in death.

Currently, NMFS has no acoustic guidelines or criteria for effects of blasting on listed species of fish. However, lethal threshold peak pressure levels for a variety of marine fish species exposed to open water (unconfined) dynamite blasts have been suggested by Hubbs and Rechnitzer (1952). These thresholds varied from 40 pounds per square inch (psi) to 70 psi, the former being the more conservative in estimating mortality in fishes (Hempfen *et al.* 2007; Kevin 1995; AC0E 2004) since this waveform of mortality for this value was established from an open-water testing program and not from confined shots, which are known to reduce the pressure waves of detonations⁵. Keevin (1995) found no mortality or internal damage to bluegill exposed to a high explosive at pressures at or below 60 psi. Similarly, Yelverton *et al.* (1975) measured the impulse pressures resulting in 1%, 50%, and 99% mortality in large carp. The result of this study showed 1%, 50%, and 99% mortality at 35.1 pounds per square inch-milliseconds (psi-ms), 49.5

³ Sound Exposure Level (SEL) is defined as that level which, lasting for one second, has the same acoustic energy as the transient sound and is expressed as dB re: $1 \mu\text{Pa}^2 \cdot \text{sec}$.

⁴ Root Mean Square (RMS) pressure is the square root of the time average of the squared pressure and is expressed as dB re: $1 \mu\text{Pa}$.

⁵ The 40 psi criterion suggested by Hubbs and Rechnitzer (1952) is an estimate of 50 % mortality, rather than the onset of mortality (i.e., 1 % mortality) or threshold where no mortality is observed (Baker 2008).

psi-ms, and 69.7 psi-ms. Although this criteria is generally conservative for many non-listed species under the ESA, based on these studies, NMFS believes that the 40 psi threshold may not avoid mortality or serious injury for small size classes of listed fish species, especially eggs, fry, and juveniles that are vulnerable at much lower thresholds of injury than adults, but may overestimate ranges for larger individuals.

Although effects of blasting on Atlantic sturgeon have never been studied, effects of blasting on shortnose sturgeon have been examined and will serve as the best available information on potential effects of blasting on Atlantic sturgeon. Test blasting was conducted in Wilmington Harbor, North Carolina, in December 1998 and January 1999 in order to adequately assess the impacts of blasting on shortnose sturgeon and the size of the LDI area (the lethal distance from the blast where 1% of the fish died). As explained in Moser (1999), the test blasting consisted of 32-33 blasts (3 rows of 10 to 11 blast holes per row with each hole and row 10 feet apart), about 24 to 28 kg of explosives per hole, stemming each hole with angular rock, and an approximate 25 msec delay after each blast. During test blasting, 50 hatchery reared juvenile striped bass and shortnose sturgeon were placed in 0.25" plastic mesh cylinder cages (2 feet in diameter by 3 feet long) 3 feet from the bottom (worst case scenario for blast pressure as confirmed by test blast pressure results) at 35, 70, 140, 280, and 560 feet upstream and downstream of the blast location.

Results of the study indicated that there was a low survival rate for both species of fish located 35 feet from the detonation site; however, at distances of 70 feet, caged fish showed no sign of hemorrhage or swim bladder damage, although two fish exhibited extended intestines, which may have been caused by the blast. At distances at, and beyond 140 feet, there was no difference in survival or impulse pressure. In addition, necropsy results indicated that shortnose sturgeon juveniles were less seriously impacted by test blasting than were the juvenile striped bass. It is believed, therefore, that survival rates for shortnose sturgeon would have been higher than striped bass following blasting treatments, even within the 35-foot distance of the blast area (i.e., 88% of shortnose sturgeon would have survived versus 34 % of the striped bass; Moser 1999)⁶. Moser (1999) stipulated that shortnose sturgeon may be less susceptible and less sensitive to blasting effects due to the fact that the swim bladder in shortnose sturgeon is connected to the esophagus, allowing gas to be expelled rapidly without damage to the swimbladder (i.e., physostomus).

Based on the Moser (1999) studies, peak pressure levels at, or below, 75.6 psi, and peak impulse levels at or below 18.4 psi-msec, will cause no injury or mortality to species of sturgeon, including Atlantic sturgeon.

It should be noted that for both marine mammals and turtles, injury and behavioral effects are only expected when these animals are exposed to peak pressure levels above 23 psi. Therefore, levels below 23 psi would be expected to be non-injurious to both sea turtles and marine mammals. Also peak pressures below 75.6 psi would not be expected to cause injury or mortality to sturgeon. Therefore, peak pressures below 23 psi would be expected to be protective of marine mammals, sea turtles and Atlantic sturgeon (i.e., not result in any injury, mortality or harassment).

⁶ After 24 hrs of the blast treatments, fish were necropsied.

Expected Noise and Pressure Associated with Boston Harbor Blasting

When the blast is detonated, shock waves are diminished as they spread outward from the blast according to the cube root of the charge weight. As the wave travels further through the water away from the detonation point, it reflects repeatedly from the surface and seabed and loses energy. This reduction, referred to as “cube root scaling”, was utilized by Cole (1948) in conjunction with small land animals and humans, to construct an open-water (detonations set without stemming) mortality radius (MR_{OW}) (i.e., the distance from the detonation where mortality would be experienced) for single, open-water shots according to the following formula:

$$MR_{OW} = 260 \times W_{OW}^{1/3} \quad (\text{Equation 1})$$

where W_{OW} = the maximum charge weight (in pounds.) per delay of a single, open-water blast (i.e., the amount of explosive set in a single un-stemmed location).

Based on this equation, the mortality radius for a single, confined shot (MRC) was defined by the following formula: $MRC = 56 \times wc^{1/3}$ (Equation 2) where wc = the maximum charge weight (in pounds) per delay of a single confined blast (Hempfen et al. 2005; Hempfen et al. 2007).

Given the blast attenuation facilitated by confined borehole charges and the ability of marine animals to withstand pressure levels higher than land-based test subjects (small land animals and humans), the above equations provides a conservative calculation of safety ranges around a blasting project. This approach is further supported by Young (1991) who suggested that “cube root scaling may be used to provide an upper limit in the absence of data for a specific effect.”

USACE Blasting in Boston Harbor September 2012

Blasting was conducted in Boston Harbor for the Boston Rock Removal Project from September 6 – September 2, 2012. For the three blasts⁷ that occurred on September 6, 8 and 10, underwater sound monitoring was conducted to determine sound pressure levels at specific distances from the blast relative to protective criteria for marine mammals. Based on these data, protective zones were adjusted to ensure that they would be beyond the behavioral (Level B) threshold for marine mammals. The total weights of explosives per blast were 314 pounds for blast 1 (12 delays), 407 pounds for blast 2 (15 delays) and 554 pounds for blast 3 (17 delays). For blasts 1-3, calculated distances (based on the sound measurements) where sound pressure had attenuated to below Level B harassment thresholds for marine mammals were 773 feet, 783 feet, and 930 feet, respectively. As expected, the area where injury, mortality or harassment would be experienced increases with the total weight of explosives per blast.

When using Equation 2 (above) to calculate the protective radii for confined blasting, the protective radius does not change regardless of the weight of the total charge. This is because the equation calculates the mortality radius using the weight of a single charge per delay only, rather than the total blast weight. When comparing the calculated protective distances (using Cole’s equation) to the observations based on sound measurements in September 2012, it appears that the radius calculated on the single delay underestimates the distance where effects may be

⁷ Each blast consists of a series of delays, or individual detonations of explosives, set inside the rocks, that are set off within milliseconds of each other.

experienced. For example, during blast 1 in September 2012, the total weight of explosives was 314 pounds, for 12 delays. Based on the blast reports, the maximum weight of charge per delay was 32 pounds. Therefore, using equation 2 above, the zone where there would be mortality would be 178 feet ($MR_C(\text{feet}) = 56(32)^{1/3} = 178 \text{ feet}$).

The USACE determined based on the sound measurements made during the September 2012 blasting that the distances provided by Cole's equation were not sufficiently protective of listed species as they were likely to underestimate the size of the area where adverse effects could be experienced. They found that doubling the mortality zone results in the distance that would be protective (i.e., below Level B harassment thresholds) and then added fifty feet for an additional margin of safety. This additional calculation suggests that an area 406 feet beyond the blast site would have been below the Level B harassment thresholds. However, based on the measured sound data (i.e. Tech Environmental report), the calculated distance to protect from Level B harassment was 783 feet. Similarly for Blast 2, (total weight of explosives was 407) the maximum charge per delay was 33.5 pounds. The mortality zone for this single charge would be 181 feet, and doubling it and adding 50 feet would be 412 feet. However the calculated distance based on the measured sound data to protect from Level B harassment was 830 feet. Also for Blast 3, using 38.8 pounds per charge (total of 554 pounds of explosives) the protective zone based on Cole's equation 2 is 429 feet, but the calculated zone based on the sound data was 920 feet (see Appendix A in USACE BA for copy of Tech Environmental report). In addition, since Cole's equation 2 is calculated on the weight of the charge per single delay, and not on the total weight of explosives per blast, the exclusion zones will not change regardless of the total weight of explosives per blast event. However, the data collected from the September 2012 blasting events suggests attenuation distance does increase with an increase in the total weight of explosives per blast event. These data are summarized in Table 2 below.

Table 2. Comparison of Calculated Blast Safety Distances using Cole's Equation with those Measured from Tech Environmental for Boston Harbor Blasts 1-3, September 2012

Blast #	Number of Holes	Charge/Hole (lbs)	Total lbs/Blast	Calculated Mortality Zone (feet) (Coles) (D)	Safety Zone Dx2 +50	Safety Zone (Feet) (from Tech Envir. data) (ft)	Cole's Calculated on Total Wt x2 (ft) (Protective Radius)
1	12	32	314	178	408	773	761
2	15	33.5	407	181	411	783	830
3	17	38.8	554	190	429	930	920

If Cole's equation 2 is used on the total amount of explosives per blast event and then multiplied by 2, then the estimated distances to protect animals from Level B harassment approximate those calculated from the actual measured data (Table 2, last two columns). Therefore, when using Cole's equation 2 to calculate distances where Level B harassment could be experienced, one can use the total weight of explosives used in each blast and then double it to calculate the safety zone (i.e., the area outside of which Level B harassment would not occur). This is the method that USACE used to estimate the safety zones for the proposed blasting. Because this method is based on established calculations and actual monitoring in Boston Harbor, it is a reasonable way to estimate the areas where noise will be higher than 177 dB re 1uPa and peak pressure will be higher than 23 psi.

Calculation of Boston Harbor Deep Draft Blasting Safety Zones

Table 3 below provides the range in feet from the blast for the mortality and safety zones calculated by USACE on both the weight of charge per delay (i.e. individual borehole) and total estimated charge per blast (using 60 holes and a maximum charge of 40 pounds/hole) and multiplied by 2, in order to approximate the zones calculated by actual sound measurements (noted above). This is done for both the approximate mean weight of explosives expected to be used per charge (28.5 pounds), and the expected maximum weight of explosives to be used per blast/hole (40 pounds). Note that a total charge weight per blast using 60 holes and 40 pounds of explosives per hole would be 2,400 pounds. Based on the calculations used to protect species for the recent September 2012 Boston Harbor Rock Removal, it is presumed that the safety zone which is calculated on the single charges per delay, doubled with 50 feet added to it (column 5), would be sufficient to protect the listed species (i.e., it would provide the distance outside of which noise would be less than 177 dB re 1uPa and pressure would be less than 23 psi). However given the actual sound measurement from Boston Harbor blasting in September 2012, the safety zone calculated based on the total charge per blast and then doubled (last column) would be expected to be completely protective of marine mammals, sea turtles and Atlantic sturgeon; that is where no behavioral effects would be incurred at all (Level B Harassment).

Table 3. Estimated Safety Zones for Blasting in Boston Harbor

Number of Holes and/or Delays	Charge per Hole/Delay (lbs)	Total Charge per Blast (lbs)	Mortality Zone Based on Charge/Delay (feet)	Safety Zone Based on Charge/Delay x 2 + 50'	Mortality Zone Based on Total Charge/Blast (feet)	Safety Zone Based on Total Charge/Blast x2 (feet)
60	28.5	1995	171	392	705	1410
60	40	2400	192	433	750	1500

Therefore based on the above calculations it would be expected that a safety zone radius of 1,500 feet (based on the estimated maximum total charge of 2,400 pounds) would be completely protective of marine mammals, sea turtles and Atlantic sturgeon for the Boston Harbor blasting. That is, outside of this “danger zone” noise would be less than 177 dB re 1uPa and peak pressure would be below 23 psi.

Effects of Blasting on Listed Species

Up to two blast rigs may be working during the project. These blast sites will be separated by at least one mile. Each rig will detonate no more than one blast each day. All blasting will occur between sunrise and sunset. The USACE has determined that at distances of more than 1,500 feet from the blast site, peak pressures will be below 23 psi and underwater noise levels will be less than 177 dB re 1uPa.

As explained above, whales are extremely unlikely to occur in the channels where blasting will occur. There are no historical records or sightings of any whales in these areas with the exception of one transient humpback in 2002. The area where pressure may be greater than 23 psi and noise may be louder than 177 dB re 1uPa will be monitored by an endangered species observer. No blasting will occur if a whale is sighted in the safety zone and blasting will not

occur until the area is free of whales for at least 60 minutes. Each blast will last less than seven seconds. Because no blasting will occur if a whale is present within the danger zone, we do not anticipate that any whales will be exposed to underwater noise or pressure that could result in death, injury or behavioral disturbance.

Similarly, the danger zone will be monitored for sea turtles. No blasting will occur until the danger zone is clear of sea turtles for at least 60 minutes. Sea turtles are generally not expected to occur near the blast sites; it is extremely unlikely that a sea turtle will be present in the danger zone, (i.e., within a radius of 1,500 feet from the blasting site) during the seven seconds twice each day when the detonations will occur. An observer is expected to be able to detect sea turtles in the danger zone as sea turtles must come up for air at least every 45 minutes. No blasting will occur if sea turtles are present in the danger zone. Because of this, we do not anticipate that any sea turtles will be exposed to underwater noise or pressure that could result in death or injury. Sea turtles may exhibit behavioral avoidance when exposed to underwater noise of 166 dB re 1µPa. The area where this noise level will be experienced is just outside the danger zone. If a sea turtle was exposed to noise louder than 166 dB but less than 177 dB, we expect that behavior would result in swimming away from the sound source. Given the extremely short duration of the increase in underwater noise (seven seconds), and that this increase in noise will be experienced no more than twice per day, we do not expect this avoidance to result in any impacts to the sea turtles ability to carry out normal behaviors such as migration or foraging. The energy expenditure would be so small it would be undetectable; there would be no impact to fitness. In summary, we do not anticipate any sea turtles to be injured or killed and any behavioral effects will be extremely minor and limited to avoidance behavior for several seconds; these effects will be insignificant.

Atlantic sturgeon

Because Atlantic sturgeon surface only occasionally, it is unlikely that an observer monitoring the water's surface will be able to detect the presence of Atlantic sturgeon in the danger zone. Also, while sonar will be used to monitor the area prior to blasting and no blasting will occur if schools of fish are in the area, the monitor is not likely to be able to identify detected fish to species. In order for a sturgeon to be affected by the blasting, it would need to be within the danger zone when the detonation occurred. While detonations will occur once or twice per day for up to 26 months, each will last only seven seconds. The area where pressure and noise could cause negative effects to Atlantic sturgeon will be within 1,500 feet of the detonation. As established above, only occasional transient Atlantic sturgeon are likely to be present in Boston Harbor. These individuals are most likely to occur in areas where suitable forage is present. The rocky areas where blasting will occur are not known to support benthic resources that Atlantic sturgeon may forage on. Based on the rarity of Atlantic sturgeon in the blasting area, the small size affected by each blast (1,500 foot radius), the very short duration of the blast (seven seconds) and the lack of forage resources which could serve to attract sturgeon to the blasting areas, it is extremely unlikely that any Atlantic sturgeon will be present in the danger zone during blasting. Therefore, we do not expect any Atlantic sturgeon to be injured or killed. Any Atlantic sturgeon that are nearby may avoid the blasting area; however, because the increase in underwater noise and pressure will last for only a few seconds, we expect any behavioral effects to be extremely minor and limited to avoidance behavior for no more than a few seconds a day. These effects will be insignificant.

Effect of Fish Startle System on Listed Species

We have considered whether the use of the fish startle system would affect any listed species. The system emits high frequency noise (110-140 kHz or 110,000-140,000 Hz). The operating frequency is above hearing threshold of any species of sea turtle, Atlantic sturgeon or large whale (Ketten and Bartol 2005; Lovell *et al.* 2005; Meyer *et al.* 2010; Richardson *et al.* 1995; Ketten 1998). Therefore, these species will not be able to perceive the noise emitted by the system. As such, no listed species will be exposed to any increased underwater noise resulting from the fish startle system.

Disposal of Dredged Material and Rock

All material removed from the Boston Harbor channels will be disposed at the MBDS and/or IWA. The MBDS is a circular area two nautical miles (nm) in diameter, located approximately 10 nm south-southeast of Eastern Point in Gloucester, 12 nm southeast from Gales Point in Manchester, Mass. and 18 nm from the entrance to Boston Harbor. The IWS is located adjacent to the MBDS. Material will be loaded onto a barge and towed to the MBDS or IWS with a tug boat.

Vessel Interactions

Collision with vessels remains a source of anthropogenic mortality for sea turtles, Atlantic sturgeon, and whales. The proposed project will lead to a small temporary increase in vessel traffic (i.e., tug and scow) within the action area; however, the increase is not expected to be significant relative to the existing combined vessel traffic in Boston Harbor and Massachusetts Bay (i.e., 4,561 large vessel trips and an additional 54,914 transits from medium-sized cruise ships, ferries, whale watching vessels, commercial fishing vessels, and dredging vessels per year (USCG 2006)). With any increase in vessel traffic, some increased risk of vessel strike to listed species is possible. However, due to the limited information available regarding the incidence of ship strikes and the factors contributing to ship strike events, it is difficult to determine how a particular number of vessel transits or a percentage increase in vessel traffic will translate into a number of likely ship strike events or percentage increase in collision risk. In spite of being one of the primary known sources of direct anthropogenic mortality to whales, and to a lesser degree, sea turtles and Atlantic sturgeon, ship strikes remain relatively rare, stochastic events, and a small, temporary increase in vessel traffic in the action area would not necessarily translate into an increase in ship strike events. The risk of a vessel interaction with listed species in the portion of the action area located in MBDS and IBS is discussed below.

Sea Turtles

Interactions between vessels and sea turtles occur and can result in injury or death. Most forms of vessel interactions result from contact between sea turtles and boat propellers. Information is lacking on the type or speed of vessels involved in turtle vessel strikes. However, there does appear to be a correlation between the number of vessel struck turtles and the level of recreational boat traffic (NRC 1990). Although little is known about a sea turtle's reaction to vessel traffic, it is generally assumed that turtles are more likely to avoid injury from slower-moving vessels since the turtle has more time to maneuver and avoid the vessel. The speed of the tug/scow is not expected to exceed 10 knots while transiting to and from the disposal site. As such, the 10 knot or less speed of the vessels is likely to reduce the chances of collision with a

sea turtle. In addition, the presence of lookouts who can advise the vessel operator to slow the vessel or maneuver safely when sea turtles are spotted will further reduce to a discountable level the potential for interaction with vessels (see mitigation measures above). Based on this and the best available information, we believe the potential interaction of a tug/scow and a sea turtle will be discountable.

Atlantic Sturgeon

The factors relevant to determining the risk to Atlantic sturgeon from vessel strikes are currently unknown, but they may be related to size and speed of the vessels, navigational clearance (i.e., depth of water and draft of the vessel) in the area where the vessel is operating, and the behavior of Atlantic sturgeon in the area (e.g., foraging, migrating, etc.). It is important to note that vessel strikes have only been identified as a significant concern in the Delaware and James Rivers and current thinking suggests that there may be unique geographic features in these riverine areas (e.g., potentially narrow migration corridors combined with shallow/narrow river channels) that increase the risk of interactions between vessels and Atlantic sturgeon. These geographic features are not present in Massachusetts Bay, generally, or in the action area, specifically, and thus, the risk of vessel strikes are not considered to be a significant threat in Massachusetts Bay. In contrast to areas like the Delaware and James Rivers, where several individuals which have been struck by vessels have been identified each year, no Atlantic sturgeon with injuries consistent with vessel strike have been observed in Massachusetts Bay. Given the geographic features of Massachusetts Bay and the action area, the likelihood of a vessel collision with Atlantic sturgeon in the ocean environment is expected to be extremely low. Based on this and the best available information, the potential interaction of a scow/tug and an Atlantic sturgeon is likely to be discountable.

Whales

Large whales, particularly right whales, are vulnerable to injury and mortality from ship strikes. Ship strike injuries to whales take two forms: (1) propeller wounds characterized by external gashes or severed tail stocks; and (2) blunt trauma injuries indicated by fractured skulls, jaws, and vertebrae, and massive bruises that sometimes lack external expression (Laist *et al.* 2001). Collisions with smaller vessels may result in propeller wounds or no apparent injury, depending on the severity of the incident. Laist *et al.* (2001) reports that of 41 ship strike accounts that reported vessel speed, no lethal or severe injuries occurred at speeds below ten knots, and no collisions have been reported for vessels traveling less than six knots. Most ship strikes, however, have occurred at vessel speeds of 13-15 knots or greater (Jensen and Silber 2003; Laist *et al.* 2001). An analysis by Vanderlaan and Taggart (2006) showed that at speeds greater than 15 knots, the probability of a ship strike resulting in death increases asymptotically to 100%. At speeds below 11.8 knots, the probability decreases to less than 50%, and at ten knots or less, the probability is further reduced to approximately 30%. As noted above, under the proposed action, the speed of the dredge is not expected to exceed 10 knots while transiting to and from the disposal sites. Based on this information, and the fact that vessel strike avoidance measures will be in place throughout the proposed action (see mitigation measures above), the potential interaction of a scow/tug and a listed species of whale is discountable.

Habitat Alteration

The MBDS and IWS consist of a low density of benthic organisms, primarily sponges, tunicates, bryozoans, and worms. Due to depths, no SAV is known to grow at the MBDS or IWS. Based on this information, the habitat characteristics of the MBDS and IWS are sub-optimal for sea turtle and sturgeon foraging and as such, Atlantic sturgeon and sea turtles are not expected to be foraging at this site. As such, the alteration of the habitat as a result of the placement of dredged material and rock debris within the existing MBDS and IWS is not expected to remove critical amounts of prey resources for these species. Additionally, disposal operations are not likely to alter the habitat in any way that prevents Atlantic sturgeon, or sea turtles from using this portion of the action area as a migratory pathway to other areas of the Bay that are more suitable for foraging and therefore, there would not be any disruption of essential behaviors such as migrating or foraging. Based on this information, the effects of disposing rock debris at the MBDS and/or IWS on Atlantic sturgeon, or sea turtles migration and foraging are expected to be insignificant and discountable.

Generally speaking, the placement of rock debris has the potential to injure Atlantic sturgeon, sea turtles, or whales by being struck by the debris while it is being placed. However, these species are likely to move from the area upon the arrival of the scow/tug, making it extremely unlikely that any of these species will remain stationary beneath the scow before or during the disposal of rock debris. As noted above, sea turtles and sturgeon are also not expected to be found foraging at the MBDS or IWS, and as such, are not expected to be found within or near the reef benthos for any period of time. In addition, the MBDS has been in use since 1992 and the IWS even longer. Since that time, there have been no reports of injuries to any listed species at this site. In addition, with lookouts present on board the vessels, should an animal be located in the vicinity of the disposal area, disposal operations will be conducted accordingly to avoid injury to the species. Based on this information, we believe that the risk of being struck by rock debris during its placement at the MBDS or IWS on Atlantic sturgeon, whales, or sea turtles is discountable.

Turbidity

Disposal of dredged material and rock debris will cause a temporary increase in suspended sediment. If any sediment plume does occur, it is expected to be small and suspended sediment is expected to settle out of the water column within a few hours. Turbidity levels associated with debris disposal is expected to be only slightly elevated above background levels (average range of 10.0 to 120.0 mg/l) (ACOE 2007, Anchor Environmental 2003).

Studies of the effects of turbid waters on fish suggest that concentrations of suspended solids can reach thousands of milligrams per liter before an acute toxic reaction is expected (Burton 1993). The studies reviewed by Burton demonstrated lethal effects to fish at concentrations of 580.0 mg/L to 700,000.0 mg/L depending on species. Studies with striped bass adults showed that pre-spawners did not avoid concentrations of 954.0 to 1,920.0 mg/L to reach spawning sites (Summerfelt and Moiser 1976 and Combs 1979 in Burton 1993). While there have been no directed studies on the effects of total suspended solids (TSS) on Atlantic sturgeon, Atlantic sturgeon subadults and adults are often documented in turbid water and Dadswell (1984) reports that sturgeon are more active under lowered light conditions, such as those in turbid waters. As such, Atlantic sturgeon are assumed to be at least as tolerant to suspended sediment as other estuarine fish such as striped bass. The TSS levels expected for debris disposal (10.0 to 120.0

mg/L) are below those shown to have an adverse effect on fish (580.0 mg/L for the most sensitive species, with 1,000.0 mg/L more typical; see summary of scientific literature in Burton 1993) and benthic communities (390.0 mg/L (EPA 1986)). Based on this information, the effect of suspended sediment resulting from dredging on Atlantic sturgeon will be insignificant.

No information is available on the effects of total suspended solids (TSS) on juvenile and adult sea turtles or whales. TSS is most likely to affect sea turtles or whales if a plume causes a barrier to normal behaviors or if sediment settles on the bottom affecting sea turtle prey. As Atlantic sturgeon, sea turtles and whales are highly mobile they are likely to be able to avoid any sediment plume and any effect on Atlantic sturgeon, sea turtle or whale movements is likely to be insignificant. Additionally, the TSS levels expected are below those shown to have an adverse effect on fish (580.0 mg/L for the most sensitive species, with 1,000.0 mg/L more typical (Breitburg 1988 in Burton 1993; Summerfelt and Moiser 1976 and Combs 1979 in Burton 1993)) and benthic communities (390.0 mg/L (EPA 1986)); therefore, effects to benthic resources that sturgeon and sea turtles may eat are extremely unlikely.

While the increase in suspended sediments may cause Atlantic sturgeon, sea turtles or whales to alter their normal movements, any change in behavior is likely to be insignificant as it will only involve movements to alter their course out of the sediment plume. Based on this information, any increase in suspended sediment is not likely to hinder the movement of Atlantic sturgeon, sea turtles or whales between foraging areas or while migrating or otherwise negatively affect listed species in the action area. Based on this information, we believe that the effects of suspended sediment on sea turtles, whales, and sturgeon, resulting from the disposal of rock debris, will be insignificant.

Conclusion

Based on the analysis that all effects of the proposed project will be insignificant or discountable, we concur with your determination that the proposed Boston Harbor Deep Draft Navigation Improvement Project is not likely to adversely affect any listed species under our jurisdiction. Therefore, no further consultation pursuant to Section 7 of the ESA is required.

Reinitiation of consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (a) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered in the consultation; (b) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the consultation; or (c) If a new species is listed or critical habitat designated that may be affected by the identified action. No take is anticipated or exempted. If there is any incidental take of a listed species, reinitiation would be required. As noted above, we expect that you will provide us with refined project plans once they are available. At that time, if we determine the project will cause effects not considered here, reinitiation of this consultation will be necessary. Should you have any questions about this correspondence please contact Julie Crocker at (978) 282-8480 or by e-mail (Julie.Crocker@Noaa.gov).

Comment
NMFS #1

Coordination between NMFS' Habitat Conservation Division and your office regarding effects of the action on Essential Fish Habitat (EFH) and NOAA Trust Resources considered under the Fish and Wildlife Coordination Act is still ongoing. By completing this ESA consultation, you are not relieved of your obligations to complete consultation and coordination under these other authorities. I look forward to continuing to work with you and your staff as this action moves forward.

Sincerely,


foi John K. Bullard
Regional Administrator

EC: Crocker, F/NER3
Chiarella, Johnson – F/NER4
Rogers – ACOE NE

File Code: Sec 7 USACE NE – Boston Harbor Deep Draft Improvement Project
PCTS NER-2012-9217



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
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NOV 26 2012

John R. Kennelly
Deputy Chief, Engineering/Planning Division
Department of the Army, Corps of Engineers
New England District
696 Virginia Road
Concord, MA

RE: Boston Harbor Deep Draft Navigation Improvement Project

Dear Mr. Kennelly:

We have received your October 24, 2012, letter requesting our Essential Fish Habitat (EFH) conservation recommendations and completion of the EFH consultation pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (MSA) regarding the proposed Boston Harbor Deep Draft Navigation Improvement Project (BHDDNIP). A Final Feasibility Report (FR) and a joint Final Supplemental Environmental Impact Statement/Final Environmental Impact Report (FSEIS/FEIR) is being prepared and expected to be released to the public sometime in early 2013. At that time, a Feasibility Report will be released and the US Army Corps of Engineers (USACE) will initiate the Planning, Engineering, and Design phase of the proposed project.

As you know, we reviewed the Draft Supplemental Environmental Impact Statement (DSEIS) and Draft Environmental Impact Report (DEIR) for the proposed project in 2008. An EFH assessment for the project was also received by us at that time. However, we concluded that these documents did not contain sufficient information necessary for us to fully assess the effects of the proposed project on our trust resources. By letter dated June 2, 2008 (see attachment to this letter), we requested additional information regarding aspects of the proposed project, including: 1) development of a dredging sequencing plan, 2) development of a comprehensive blasting plan to be approved by an interagency technical working group, 3) evaluation of alternative beneficial reuses for disposal of rock removed from the dredging project and, 4) a review of the results from a capping demonstration study for the former offshore Industrial Waste Site (IWS) to assess potential impacts associated with disposing of dredged material at the IWS. Since 2008, the proposed project has undergone additional economic studies, resulting in a reduced scope of dredging improvements. However, the additional information requested by us in 2008 has not yet been provided. Although your letter indicates that you will share additional information and details of the project as they are developed during the design phase of this project, it does not specify whether or not the information we requested in our June 2, 2008 letter will be provided. We continue to believe that this previously requested information is critical to fully evaluating the effects of the project on EFH and our other trust resources, and for us to develop specific and effective conservation recommendations for the proposed project.

Comment
NMFS #1



Although our need for additional information for this project remain, we are obliged by our regulations at 50 CFR 600.920(i)(5) to provide EFH conservation recommendations using the best scientific information available.

As you are aware, the MSA and the Fish and Wildlife Coordination Act require Federal agencies to consult with one another on projects such as this. Insofar as a project involves EFH, as this project does, this process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in this consultation procedure. We offer the following comments and recommendations on this project pursuant to the above referenced regulatory processes.

Project Description

Based upon your letter, dated October 24, 2012, as well as additional project information provided to our Protected Resources Division (PRD) on November 7, 2012, the proposed project involves dredging approximately 10 to 11 million cubic yards (cy) of clays, sands, and tills from the harbor bottom using a mechanical dredge. In addition, up to about 1 million cy of rock will be removed, some of which will require blasting. In association with the improvement work, approximately 150,000 cy of material will be removed from some of the terminal berths, and about 500,000 cy will be removed for maintenance of the improved and adjacent Federal channels. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site (MBDS), which is located about 18 miles seaward of the harbor. The Federal base plan for all material includes disposal at the MBDS; however, unconsolidated material may be disposed of at the former IWS, which is adjacent to the MBDS, and the rock may be used to create reef habitat or shoreline restoration projects in Massachusetts Bay. The project would take about three years to construct.

Specific improvements include:

- Deepening the harbor's 40-foot deep MLLW channels, turning basin and anchorage to a depth of -47 feet MLLW to provide container ships access to the Conley Terminal, with an additional two to five feet of depth in the Broad Sound North Entrance Channel (up to -52 feet MLLW) to accommodate exposure of vessels to increased seas. ;
- Deepening the 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel to -45 feet MLLW, to improve access to Massport's Marine Terminal in South Boston;
- Deepening the existing 35-foot lane of the lower Mystic River Channel to -40 feet MLLW to improve access to Massport's Medford Street Terminal; and
- Deepening the existing 38-foot channel in the Chelsea River to -40 feet MLLW to improve access to its petroleum terminals.

- Terminal berths at Massport facilities on the Reserved and Main Ship channels, as well as private terminal berths on the Chelsea River would be deepened commensurate with the deepening of the Federal channels.
- Required maintenance of the Federal navigation channels being improved would be carried out concurrently, as would maintenance of adjacent Federal channels needed to route shipping traffic around the deepening operation, including maintenance of the 35-foot deep lane of the North Entrance Channel, 30-foot deep Broad Sound South Entrance Channel, 15-foot deep Nubble Channel and 35-foot deep MLLW Barge Anchorage.

Rock removal by blasting is anticipated to require approximately 26 months to complete, including: 16 months in the Broad Sound North Entrance Channel; two months in the President Roads Anchorage; two months in the lower Main Ship Channel; three months in the Main Ship Channel extension area below the Ted Williams Tunnel; five months in the Reserved Channel and its Turning Area; and one month in the upper Chelsea River. The rock areas and construction times would be further refined after design phase subsurface explorations are completed.

You propose to implement several conditions during dredging, blasting and dredged material disposal, which include:

- Development of a monitoring plan for blasting that will be submitted to us for review and comment.
- No blasting will occur when schools of fish are observed in the area (assuming that safety is not jeopardized). A fish observer will use hydro-acoustic monitoring (i.e., side-scan sonar) prior to any blasting event to determine that schools of fish are not located within or transiting the blast zone area. In addition to the sidescan sonar, a fish startle system will be employed to deter fish (most effective with species from the clupeid family). Lessons learned from the previous blasting in Boston Harbor will be incorporated where appropriate into the Contractor's blasting plan. Some of these lessons include the development of a communication plan between the fish observer and the Contractor, and the location of the fish startle system on an alternate vessel instead of the blast barge.

Fishery Resources in Boston Harbor

Boston Harbor supports living marine resources that provide for valuable recreational and commercial fisheries, as well as species and habitats that are critical to healthy marine and estuarine ecosystems. As discussed in our June 2, 2008 letter to you, Boston Harbor provides habitats for a number of federally-managed species such as winter flounder, as well as a number of NOAA trust resources such as rainbow smelt, alewife, blueback herring, shellfish, and American lobster.

Inshore spawning winter flounder occur in water depths between 1 and 30 meters over sand, mud, cobble, rock, and boulder substrates (Pereira et al. 1999). Because winter flounder eggs are demersal and adhesive in nature, and larval and young-of-the-year winter flounder prefer shallow

inshore waters (1-30 meters) and similar habitat types, spawning, egg development, and early juvenile development habitat tend to be close together (Pereira et al. 1999). NOAA's Estuarine Living Marine Resources Program has identified winter flounder eggs and larvae as being abundant in Boston Harbor during this portion of the year (US Department of Commerce 1994). The Mystic Power Generating Station 2004-2005 Final Report indicated approximately 16 million winter flounder larvae were entrained into the Everett, Massachusetts power plant facility in a 12-month period (Shaw 2006). While this facility is located upstream of the project footprint, these data strongly suggests that inner portions of Boston Harbor are being utilized for winter flounder spawning and juvenile development. In addition, in May 1995 Normandeau Associates prepared the Finfish Sampling and Description Report for the USACE (Normandeau 1995). This study included trawl sampling at stations in the inner harbor (i.e., Mystic and Chelsea rivers, Inner Confluence) and the outer harbor (i.e., Spectacle Island CAD and Subaqueous E/Outer Harbor). The trawl data identify winter flounder as being the most numerous finfish at each station, and winter flounder catch per unit effort (CPUE) as the highest of all species for all stations combined. The Chelsea River, Outer Harbor, and Mystic River stations had the highest CPUE of all trawl stations sampled. We also note that the trawl stations sampled by Normandeau in the Chelsea River, Mystic River, and the Inner Confluence were all within or at the edges of the Boston Harbor federal channels (Fig. 1, page 24). Based on these reports and other winter flounder literature, we continue to be confident that winter flounder are abundant in both the inner and outer Boston Harbor area. As such, it is anticipated that winter flounder eggs and larvae would be present within Boston Harbor during the winter, spring, and early summer.

In addition to winter flounder, the anadromous rainbow smelt, alewife, and blueback herring currently utilize Boston Harbor, the Mystic River, and the Chelsea River as a migratory pathway between upstream spawning locations and Massachusetts Bay. The 1995 Normandeau study associated with the improvement dredging of Boston Harbor provided evidence of an abundance of alewife, blueback herring, and rainbow smelt. For all gill net sampling stations combined, blueback herring (26%), rainbow smelt (25%), and alewife (15%) were found to be the most abundant species in the area (Normandeau 1995). Entrainment studies within the Mystic Station final report for 2004-2005 found that approximately 1.8 million rainbow smelt larvae were entrained in the facility (Shaw 2006). This study also reported 497 alewife and 27,379 blueback herring juveniles and adults were impinged by power plant operations. It is important to note that due to concerns of declining populations of blueback herring and alewife, these species were designated as "candidate species" under the Endangered Species Act (ESA) in November 2011. Our agency is currently reviewing this information as well as any other available information to determine if listing blueback herring and alewife under the ESA is warranted. Due to the depressed populations of rainbow smelt, this species has also been designated since 2004 as a "species of concern" under the ESA. Status reviews and research on rainbow smelt populations are ongoing. The declining population status of these anadromous species should warrant caution and a risk-averse approach in the activities that can adversely affect them, including dredging and blasting during the time of year when sensitive life history stages are present.

In addition, the substrate within the project area also serves as habitat for benthic organisms, such as shellfish and other invertebrates living within and on the surface of the sediment. These organisms contribute to the productivity of the federally-managed species as a food source for

juvenile and adult life stages of finfish. The commercially-important American lobster has been documented within Boston Harbor by the Massachusetts Division of Marine Fisheries through the Massachusetts Bay Lobster Trawl Sampling Program.

Impacts Associated with Dredging

We provided details on some of the known adverse effects to living marine resources associated with dredging and blasting in our June 2, 2008 letter. Although we do not intend to duplicate the information contained in that letter, we would like to emphasize two concerns associated with this proposed project: dredging and blasting impacts on winter flounder spawning, egg, larval, and young-of-the-year habitats and diadromous fish spawning migration passage.

Winter flounder eggs have been shown to be adversely affected by relatively small levels of sediment deposition. Research conducted at the NMFS Northeast Fisheries Science Center's Milford Lab found that sediment deposition at depths of $\frac{1}{2}$ the egg diameter (~ 0.5 mm) resulted in reduction in the number of hatched eggs (David Nelson, personal communication, 2003). An in-situ experiment with winter flounder (*Pseudopleuronectes americanus*) eggs exposed to sediment deposition from a navigational dredging project found a slightly lower larval survival rate compared to control sites, but the differences were not statistically significant (Klein-MacPhee et al. 2004). However, the viability of the larvae in this experiment was not monitored beyond burial escapement. Similarly, laboratory experiments with winter flounder eggs buried to various depths (i.e., control, < 0.5 mm, and up to 2 mm) indicated a decreased hatch success and delayed hatch with increasing depth; but differences were not statistically significant (Berry et al. 2004). More recently published laboratory studies investigating burial of winter flounder eggs reported variability among experiments, making it difficult to determine a maximum threshold level for egg burial. Berry et al. (2011) reported trends of decreasing hatching success and increased time to hatch with increasing sediment depth relative to controls. However, the percent total hatch of eggs exposed to ≤ 1.0 mm of sediment was not statistically different from the controls in the study. Although the percent total hatch was highly variable in eggs buried ≤ 2.5 mm of sediment in all experiments, less than 1 percent of winter flounder eggs hatched when sediment burial depths were > 2.5 mm. It is important to note that this study dealt solely with total hatch success, and did not deal with sublethal effects, such as developmental deformities, which may result from burial; nor did the study involve contaminated sediments. While an absolute maximum threshold for winter flounder egg burial remains uncertain, these studies indicate that sediment burial at even minimal levels can reduce hatching success and increase time to hatch.

We remain concerned that dredging activities and associated plumes of contaminated sediment have the potential to impair migration of anadromous species. Chiasson (1993) found an increase in swimming activity of rainbow smelt when elevated suspended sediments (≥ 10 mg/L) were present (such alarm reactions have been found to disrupt schooling behavior of fishes). In a laboratory study, Wildish and Power (1985) found that rainbow smelt avoided suspended sediment when concentrations were > 20 mg/L. Sublethal effects to estuarine fishes can include decreased feeding, decreased oxygen transfer in fish, as well as impacts on gills and associated respiratory impacts (Wilber and Clarke 2001; Nightingale and Simenstad 2001; Wilber et al. 2005).

Impacts Associated with Blasting

As you are aware, underwater blasting and other noise-producing activities, in addition to potential lethal effects, can disrupt fish behavior including spawning and spawning migrations into and from freshwater rivers. In previous letters to you, we discussed our concerns for the potential adverse effects to federally-managed species and other NMFS trust resources, including diadromous fish in the Boston Harbor area. Specifically, we have recommended that underwater blasting be conducted during a time of year that avoids and minimizes impacts on sensitive life history stages.

As you recall, in the fall of 2007 you conducted underwater blasting between October 24 and November 14 in order to remove rock from the Boston Harbor Federal Navigation Maintenance Dredging project. As a result of this blasting, four separate fish kill events occurred within the President Roads area of Boston Harbor, impacting approximately 2,500 fish. The majority of the fish killed during the blasting were alewife, blueback herring, and rainbow smelt, which are all identified by NMFS as "species of concern", although other species such as menhaden, cunner, red hake, butterfish, and Atlantic herring were also killed. We add that the reported number of fish killed in those blasting events may have been underestimated, since some fish may not float to the surface after being killed or injured, and others may have been preyed upon below the surface of the water by other fish and not accounted for by the observer on board the barge (Keevin 1998).

Following the 2007 fish kill event, you developed a post-project blasting report in June 2008, which provides an overview of the fish kill events, as well as corrective measures to be instituted for future blasting. You indicated in the draft Environmental Assessment for the Boston Harbor Main Ship Channel and the Weymouth Fore River Channel Rock Removal project that through lessons learned from the previous blasting in Boston Harbor, a number of new blasting best management practices (BMPs) would be incorporated into the Contractor's blasting plan (e.g., a communication plan between the fish observer and the Contractor and relocating the fish startle system to an alternate vessel instead of the blast barge). In fact, several of these BMPs were incorporated in the blasting conducted in September 2012, and we note that you reported no fish kills during that recent rock removal work. However, this project involved removing just over 3,000 cy over a three-day period of blasting in September, which is a time when minimal presence of diadromous fish are expected in Boston Harbor. Because the proposed BHDDNIP involves removing approximately 1 million cy of rock over a three-year period, some of which may occur during a time of year when diadromous fish densities are the highest, we believe the potential risk of injury and mortality are orders of magnitude larger than the rock removal project in September 2012.

Comment
NMFS #2

Although utilizing the BMPs incorporated in the rock removal project for the Boston Harbor Main Ship Channel and Weymouth Fore River Channel may provide some level of protection for fishery resources, we continue to contend that an underwater blasting technical working group is needed for the proposed BHDDNIP. The complexities of underwater blasting, as well as the diverse technologies and best management practices that are available, require a thorough review by a technical working group composed of federal and state resource and permitting agencies. This is particularly relevant for a project such as the BHDDNIP, which is proposed over a three-year period and involves removing approximately 1 million cy of rock.

Comment
NMFS #3

Beneficial Uses of Rock as Artificial Reefs

According to your letter, dated October 24, 2012, the rock removed from the BHDDNIP may be used to create reef habitat in Massachusetts Bay. The DSEIS/DEIR issued in 2008 indicated that this could involve placing rock over an area of approximately 220-530 acres of soft bottom habitat. The DSEIS/DEIR also included two additional disposal alternatives: using the rock for upland construction purposes and the use for ongoing shore protection projects. As we discussed in our letter, dated June 2, 2008, the DSEIS/DEIR assumes that hard bottom habitat is preferable to soft bottom habitat. Although less structurally complex, soft bottom substrates serve as habitat for a variety of resources, including benthic invertebrates such as lobsters and Atlantic sea scallops, and demersal and benthic fishes such as flounder, red hake, and sculpin. We continue to believe the FSEIS/FEIR should consider the effects of the loss of soft bottom habitats as a result of the creation of artificial reefs relative to the overall ecosystem functions and values.

Comment
NMFS #4

Capping of the Former Industrial Waste Site

According to your letter, dated October 24, 2012, and the DSEIS/DEIR, the USACE is considering the use of dredged material to cover potential hazardous and radioactive wastes located within the former IWS. A demonstration project to test the methodology and effectiveness of capping the IWS was scheduled during the 2007 Boston Harbor Federal Navigation Maintenance Dredging project. We continue to believe the results of this demonstration project should be considered in the FSEIS/FEIR to determine the efficacy of using the dredged material from the proposed BHDDNIP to cap the IWS.

Comment
NMFS #5

Essential Fish Habitat

Section 305(b)(2) of the MSA requires all federal agencies to consult with us on any action authorized, funded, or undertaken by that agency that may adversely affect EFH. The area of the BHDDNIP and the MBDS has been identified as EFH under the MSA for 24 federally-managed species. In our letter to you dated June 2, 2008, we requested additional EFH information, but have not received it. Such information would assist us in developing specific conservation recommendations that minimize impacts to fishery resources and habitats, while providing the flexibility for you to carry out the required dredging and blasting. Nonetheless, we are obligated by our regulations to provide our EFH conservation recommendations using the best scientific information available. Furthermore, a lack of site-specific information for a project of this magnitude requires that we take a risk-averse approach in the issuance of our EFH conservation recommendations in order to ensure protection of fishery resources and habitats. We recommend pursuant to Section 305(b)(4)(A) of the MSA that you adopt the following EFH conservation recommendations:

1. To avoid impacts to winter flounder spawning, egg, larvae, and juvenile development habitat, no dredging or underwater blasting should be conducted between February 1- June 15 of any year in any areas of the Mystic River and Chelsea River, and the Reserved Channel, and the Main Ship Channel and Turning Basin landward of the Conley Terminal.
2. In order to protect EFH forage species, no dredging or underwater blasting should be conducted between March 1- June 30 of any year in any areas of the Mystic River and

Comment
NMFS #6

Comment
NMFS #7

Chelsea River channels and private terminal berths, the Reserved Channel and terminal berths at Massport facilities, the Main Ship Channel and terminal berths, and the Turning Basin west of the Conley Terminal to avoid adverse impacts on upstream spawning migrations of alewife, blueback herring, rainbow smelt.

3. For the remaining sections of the BHDDNIP (i.e., Main Ship Channel east of the Conley Terminal, President Roads Anchorage, Broad Sound North Entrance Channel, maintenance of the 35-foot deep lane of the North Entrance Channel, 30-foot deep Broad Sound South Entrance Channel, 15-foot deep Nubble Channel and 35-foot deep MLLW Barge Anchorage), an underwater blasting plan should be developed during the Planning, Engineering, and Design phase of the proposed project. The underwater blasting plan should be directed and developed on an underwater blasting technical working group, which should be convened as soon as possible to begin evaluating data from the proposed Boston Harbor Main Ship Channel rock removal project, as well as gathering information from other past underwater blasting projects in this and other regions. This technical working group should identify and evaluate the most current knowledge on the science and management of underwater blasting and monitoring needs that can be directly related to the proposed BHDDNIP. Recommendations of this Technical Working Group should be incorporated into the FSEIS/FEIR Comment NMFS #8
4. Alternative beneficial reuse of rock material that avoid and minimize adverse impacts on biologically productive soft bottom habitats should be evaluated more fully within the FSEIS/FEIR, including using the rock for upland construction purposes and the use for ongoing shore protection projects. Comment NMFS #10
5. The results of the demonstration capping project within the IWS should be evaluated within the FSEIS/FEIR in order to determine the efficacy of using the dredged material from the proposed BHDDNIP to cap the IWS and to assess potential impacts to biological communities within the MBDS. Comment NMFS #11

Please note that Section 305(b)(4)(B) of the MSA requires you to provide us with a detailed written response to these EFH conservation recommendations, including a description of measures you intend to adopt for avoiding, minimizing, or offsetting the impact of the project on EFH. In the case of a response that is inconsistent with our recommendations, Section 305(b)(4)(B) of the MSA also indicates that you must explain your reasoning for not following the recommendations. Included in such reasoning would be the scientific justification for any disagreements with us over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects pursuant to 50 CFR 600.920(k). Comment NMFS #12

Please also note that a distinct and further EFH consultation must be reinitiated pursuant to 50 CFR 600.920(l) if new information becomes available or the project is revised in such a manner that affects the basis for the above EFH conservation recommendations. Since additional information will be generated as you undertake the Planning, Engineering, and Design phase of the BHDDNIP, it may affect the basis of our EFH conservation recommendations, which would require the reinitiation of our EFH consultation Comment NMFS #13

Fish and Wildlife Coordination Act

Comment
NMFS #14

As discussed above, the BHDDNIP supports populations of shellfish and American lobster, and a number of species of anadromous fish that use the area for various stages of their life history, including the spawning migrations of blueback herring, alewife, and rainbow smelt. In order to avoid adversely affecting the sensitive spawning periods of these species, we recommend all EFH conservation recommendations listed above be adopted.

Protected Resources and Endangered Species Act Consultation

Information regarding Section 7 of the Endangered Species Act (ESA) was provided to you by our Protected Resources Division in a separate letter. For questions regarding Protected Resources and ESA consultation issues, please contact Julie Crocker at 978-281-9480.

Conclusions

Comment
NMFS #15

Information that we requested in a letter to you dated June 2, 2008 was not provided, and has hampered our ability to consult on this action. However, we are obligated by our regulations to provide our EFH conservation recommendations using the best scientific information available. Unfortunately, the lack of site-specific details for a project of this magnitude required us to take a risk-averse approach in the issuance of our EFH conservation recommendations in order to ensure protection of fishery resources and habitats. As additional information becomes available which would affect the basis of our EFH conservation recommendations, reinitiation of the consultation may be warranted. Should you have any questions about EFH and fishery related issues, contact Michael Johnson at 978-281-9130, at mike.r.johnson@noaa.gov, or at the letterhead address of this letter.

Sincerely,



Louis A. Chiarella
Assistant Regional Administrator
for Habitat Conservation

cc: Crocker/Colligan, F/NER3
Rogers/Mackay, ACOE NE
Colarusso/Timmermann, USEPA
Boeri, MA CZM
Chin, MA DEP
Evans, MA DMF

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REPLY TO
ATTENTION OF

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

CENAE-PP-P

23 November 2012

MEMORANDUM FOR: Chief, Office of Water Project Review
ATTN: CEMP-NAD (Ms. Shuman), U.S. Army Corps of Engineers, 441 G. Street, N.W., Washington, D.C.
20314-1000

THRU: Commander, North Atlantic Division, U.S. Army Corps of Engineers, ATTN: CENAD-PD-CID-P
(Attn: Mr. Joseph Forcina), Fort Hamilton Military Community, 301 General Lee Avenue, Brooklyn, NY
11252-6700

SUBJECT: Boston Harbor Deep Draft Navigation Improvement Study, Draft Feasibility Report and
Supplemental Environmental Impact Statement, PWI #013654

1. Reference is made to the following:

- a. CECW-PC Memorandum dated, 12 September 2012
- b. CEMP-NAD Memorandum, dated 26 September 2012
- c. CENAD-PD-CS Memorandum, dated 22 October 2012.

2. It was suggested in paragraph 7 of reference 1 a. that the previously submitted Draft Boston Harbor Navigation Improvement Project Feasibility Report (FR) remain largely intact and that the Economic Reanalysis Framework, sensitivity analysis, and results be added as an addendum bound to the current Feasibility Report. Although the Supplemental Environmental Impact Statement (SEIS) is not addressed in reference 1a, it is the District's understanding that through discussions between USACE and the MSC it has been suggested that the SEIS also be updated by an addendum.

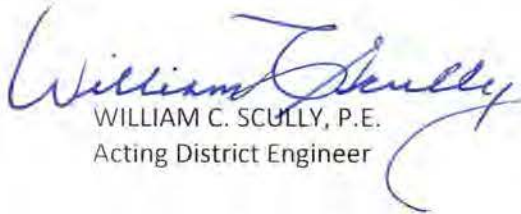
3. The District respectfully disagrees that the FR and SEIS should be updated by addendum since no final FR or SEIS was ever produced. We believe that we need to produce a final FR and SEIS for publication and support of the Chief's Report, not merely add an addendum to the draft reports. We believe it would be problematic not to produce a final SEIS, particularly since additional efforts are needed to address issues that were not present in 2008, such as the recent listing of the Atlantic Sturgeon as a threatened species, changes to bridges and utilities, extensive maintenance work in the harbor since 2008, and the many methods and lessons learned from that work.

4. It is our intent to update only the information in the FR and SEIS that is needed to finalize these reports. The majority of edits necessary to update the Feasibility Report are in the final third of the report where alternative evaluation and recommended plan selection are discussed. These also will be outlined in the Executive Summary. We will also conduct the analysis required by ER 1110-2-1404 to determine the appropriate depth of the entrance channel. Since the 2008 report, guidance on entrance

SUBJECT: Boston Harbor Deep Draft Navigation Improvement Study, Draft Feasibility Report and Supplemental Environmental Impact Statement, PWI #013654

channel depths to address squat, the effect of wind and wave action, and safety and efficiency clearance, has changed and we will be updating the report to reflect the revised analysis. We will be updating the economics to reflect the current 3-3/4 percent interest rate. We believe that these revisions to the reports will take approximately the same time as would be needed to prepare addendums covering all the applicable topics. We are currently well underway with these revisions

5. Since it was recommended that the New England District coordinate with the vertical team regarding report revisions to ensure consistency and agreement on format, we are requesting your concurrence with the NAE plan to revise and finalize the FR and SEIS. Please feel free to call me at 978-318-8230 should you have any questions, or you may reach the project manager (Mike Keegan) at 978-318-8087.



WILLIAM C. SCULLY, P.E.
Acting District Engineer



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

OFFICE OF THE
REGIONAL ADMINISTRATOR

November 9, 2012

John R. Kennelly, Chief of Planning
Department of the Army
New England District, Corps of Engineers
696 Virginia Road
Concord, Massachusetts 01742-2751

Re: Boston Harbor Deep Draft Navigation Improvement Project

Dear Mr. Kennelly:

We are writing in response to your October 11, 2012 letter regarding work you are doing to prepare the Final Supplemental Environmental Impact Statement (FSEIS) for the Boston Harbor Deep Draft Improvement Project. Your letter details changes in the project since the DSEIS was prepared and requests confirmation that our comments on air and marine issues offered in response to the project described in the 2008 DSEIS remain valid. The primary project change described in your letter includes a reduction in the recommended project depth from 48 to 47 feet at mean lower low water in the inner harbor (between President Roads Channel and Main Ship Channel to Massport's Conley Terminal). We reviewed our 2008 comment letter and offer the following comments to assist the Corps in its efforts to develop the FSEIS for the project.

Air Issues

Since we commented in 2008 a number of changes have occurred related to air quality issues that are described below. We believe it would be prudent to discuss these issues at the upcoming Technical Working Group Meeting on December 3, 2012.

Air Quality Designation in the Project Area

EPA's final rule designating nonattainment areas for the 2008 ozone National Ambient Air Quality Standard (NAAQS) was published in the Federal Register on Monday, May 21, 2012 (77 FR 30088) and became effective July 20, 2012. This rule established initial air quality designations and classifications for the 2008 ozone NAAQS for most areas in the United States, including areas of Indian country. For the State of Massachusetts only Dukes County, including Dukes County Wampanoag Tribe of Gay Head (Aquinnah) of Massachusetts, is designated nonattainment for the 2008 ozone standard. The rest of Massachusetts including the project area in Suffolk County is designated unclassifiable/attainment for the 2008 ozone standard.

Importantly, Suffolk County, Massachusetts was designated as unclassifiable / attainment for this new standard and General Conformity only applies to nonattainment or maintenance areas.

However, General Conformity requirements remain in place in Massachusetts due to their initial nonattainment designation for the 1997 ozone standard until such time as EPA revokes that standard. One possibility is that EPA will revoke the 1997 ozone standard one year from the effective date of our designations for the 2008 ozone standard, which would be on July 20, 2013. This is how we proceeded when we transitioned from the 1990 ozone standard to the 1997 ozone standard. However, EPA has not yet formally announced how we will handle revocation of the 1997 ozone standard and it is possible that the agency could take a different approach. Our position with regard to this change is expected to be contained within our implementation rule for the 2008 ozone standard. Publication of the rule is expected in the next month or so. We suggest that the Corps discuss the general conformity issue with us after the proposed implementation rule for the 2008 ozone standard is published.

Comment
EPA #1

As addressed in our 2008 scoping comments, The Boston area carbon monoxide attainment area [Middlesex County (part) Cities of Cambridge, Everett, Malden, Medford, and Somerville; Norfolk County (part) Quincy City; and Suffolk County (part) Cities of Boston, Chelsea, and Revere], with an associated maintenance plan would also trigger General Conformity provisions.

Comment
EPA #2

General Conformity Regulations

On Monday April 25, 2010, EPA finalized revisions to the General Conformity Regulation (64 FR 17254 – 17279). The Corps may be able to take advantage of the flexibility and benefits offered by the revised general conformity rule. We should plan to discuss this issue at the upcoming Technical Working Group meeting.

Comment
EPA #3

Clean Data Determination

EPA published a "clean data determination" for Boston-Lawrence-Worcester (E. Mass), Massachusetts with regard to the 1997 ozone standard (see Tuesday, May 29, 2012; 77 FR 31496). Note that a "clean data determination" does not relieve states of all of their air quality planning obligations, and one such obligation that was not removed by EPA's clean data determination was the General Conformity requirement. In this same notice EPA also determined that the Boston-Lawrence-Worcester (Eastern Massachusetts) moderate 1997 eight-hour ozone nonattainment area attained the 1997 eight-hour NAAQS for ozone by its applicable attainment date (June 15, 2010).

MOVES (MOTOR Vehicle Emission Simulator)

MOVES is EPA's state-of-the-art tool for estimating emissions from highway vehicles. The model is based on analyses of millions of emission test results and considerable advances in the Agency's understanding of vehicle emissions. Compared to previous tools, MOVES incorporates the latest emissions data, more sophisticated calculation algorithms, increased user flexibility, new software design, and significant new capabilities. EPA announced the release of MOVES2010 in March 2010 (75 Federal Register 9411), and released a minor revision as MOVES2010a in September 2010. In April 2012 EPA released MOVES2010b to allow MOVES users to benefit from several improvements to general model performance. MOVES2010b does not significantly affect the criteria pollutant emissions results of MOVES2010 and therefore is not a new model.

Should any new onroad mobile modeling be required, MOVES should be used in developing the onroad mobile emission inventories.

Comment
EPA #4

Marine Issues

Our 2008 comments on the DSEIS noted our objections to the proposed blasting activities and rock reef creation due to a lack of information relative to the extent and impact of both. Our letter strongly encouraged the Corps to meet and work with us and other interested federal and state agencies to resolve those issues. Absent any meaningful coordination on both issues over the past four years, we note that the basis for our objections has not changed. We continue to be willing to meet with the Corps and other agencies to discuss these important issues and identify ways to reduce the impact of blasting on fish and other marine life. Moreover, we believe that these discussions are an important part of the Corps work to develop a comprehensive and defensible FSEIS and we would hope that interagency coordination can help to resolve our outstanding objections in advance of the finalization of the FSEIS analysis. The comments and questions expressed in our May 23, 2008 comments on the DSEIS related to marine issues remain unchanged. We look forward to discussing the Corps' approach to address these comments at upcoming coordination meetings including the Technical Working Group Meeting scheduled for December 3, 2012.

Comment
EPA #5

Comment
EPA #6

Thank you for the opportunity to update our previous comments. Please contact me at 617-918-1025 with any comments or questions.

Sincerely,



Timothy L. Timmermann
Associate Director
Office of Environmental Review



MASSACHUSETTS WATER RESOURCES AUTHORITY

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November 9, 2012

Mr. John R. Kennelly, Chief of Planning
Department of the Army
New England District, U.S. Army Corps of Engineers
696 Virginia Road
Concord, Massachusetts 01742-2751

Re: Boston Harbor Deep Draft Navigational Improvement Project
EOEEA #12958
Feasibility Report and Supplemental Environmental Impact Report

Dear Mr. Kennelly:

The Massachusetts Water Resources Authority (MWRA) appreciates your recent letter requesting confirmation that our previous comments on the above mentioned project are still valid and remain the same. MWRA reiterates our comments submitted on the Environmental Notification Form dated February 28, 2003 and on the Feasibility Report and Supplemental Environmental Impact Report dated June 2, 2008. MWRA's concerns continue to focus on the need to protect MWRA's infrastructure in two locations within the project area:

Comment
MWRA #1

- Reserve Channel: where NSTAR's four-mile 115 Kv Submarine Cross Harbor Cable runs the entire length beneath the channel and continues across the Harbor to Deer Island.
- Chelsea Creek: where MWRA has an active 36-inch diameter water main that crosses the Creek supplying East Boston and Logan International Airport.

Reserved Channel: NSTAR Cable

NSTAR's Cross Harbor Cable originates at the K Street Substation in South Boston and services the Deer Island Treatment Plant that serves over 2.5 million people in the metropolitan Boston area. The proposed dredging plan now calls to deepen the harbor's main channels and the lower portion of the Reserved Channel at the Conley Terminal from their existing - 40 foot depth at mean lower low water (MLLW) to a depth of - 47 feet MLLW. In addition to this - 47 foot dredging level, standard procedures require adding an additional two feet (for over-dredge) and in this case, given the presence of ledge, an additional two feet must be factored into the final dredge depth. As a result of these standard dredging procedures, the actual proposed depth of dredge in the Reserve Channel is - 51 MLLW. Most recent underwater surveys have revealed that NSTAR's cable at the highest point is - 52.2, which places the cable at approximately 1.2 feet below the proposed dredging depth.

As MWRA has said in the past, MWRA's primary concern is that any blasting and dredging as part of this proposal near the cable in the Reserved Channel cannot help but pose a direct threat of damage to the cable which would result in the long-term loss of a vital energy link to its Deer Island facility and, in the process, cause a release of insulating oil in the cable to the waters of Boston Harbor, the same waters which have seen dramatic improvement in quality precisely because of the contributions of that wastewater treatment facility.

The disruption of this primary source of power to the treatment plant servicing over 43 cities and towns in metropolitan Boston would be catastrophic for MWRA over the lengthy period which would be required to replace that cable. It should be noted that even in the short term, any disruption in the use of the cable would require that MWRA depend upon and use its own back-up generating capability, which given today's fuel costs, could result in millions of dollars in annual additional expenditures charged to MWRA's ratepayers, whose municipal budgets are already substantially over-burdened. Additionally, should MWRA's sole source of back-up power fail for any reason, the environmental impacts would be disastrous.

MWRA's National Pollutant Discharge Elimination System (NPDES) Permit, issued by the U.S. EPA and the Massachusetts Department of Environmental Protection, authorizing the discharge of wastewater from the Deer Island Treatment Plant requires two separate power sources to operate MWRA's wastewater treatment and pumping facilities. Any disruption or damage to the cable would eliminate one of MWRA's two existing power sources (the cross harbor cable and the on-island power plant) thereby violating MWRA's permit condition.

For these reasons, it is extremely important that the ACOE and Massport be satisfied that any plans which NSTAR may have to protect or to relocate the cable be sufficient to ensure its integrity. To date, NSTAR has not shared its plans with MWRA. MWRA remains very concerned about the protection of the cable which is a vital and non-expendable item of infrastructure upon which MWRA relies heavily.

Comment
MWRA #2

Chelsea River: MWRA Section 38 Water Main Crossing

MWRA understands that some dredging has already occurred in Chelsea Creek as part of the Department of Transportation's (DOT) recently completed Chelsea Street Bridge project. MWRA staff worked closely with DOT staff during that project. Now that the Bridge is complete, the proposal calls for further dredging in the channel to a depth of - 40, which is actually - 42 to accommodate a two foot over-dredge. It appears that the proposed depth of - 42 will not impact MWRA's Section 38, a 36-inch water main crossing under the Chelsea River because Section 38 is located at elevation - 45 (top of pipe).

It appears that the proposed dredging width of 175 feet will also not impact the existing water main. The 36- inch main at its - 45 foot depth has a minimum perpendicular width across Chelsea Creek of 195 feet. Therefore there is sufficient "length" of 10 feet on either side of the pipe.

Comment
MWRA #3

Any future dredging and/or blasting in the Reserve Channel or the Chelsea Creek area should be carefully coordinated with MWRA through the 8 (m) permitting process. The Proponents should contact Mr. Ralph Francesconi at (617) 305-5827 within MWRA's Water Field Operations Group.

Please contact me at (617) 788-1165 if you have questions or need additional information. Thank you for the opportunity to comment.

Sincerely,



Marianne Connolly
Sr. Program Manager, Regulatory Compliance

cc: Mr. Frederick Laskey, MWRA Executive Director
Michael Hornbrook, MWRA COO
Steven Remsberg, MWRA, General Counsel
Kevin McCluskey, MWRA, Dir. Public Affairs
Mike McCarthy, Work Coordination Center Mgr, MWRA
Ralph Francesconi, MWRA Water Field Operations Permitting
Michael Keegan, Project Mgr., US Army Corps of Engineers
Deb Hadden, Massport, Acting Port Director, Massport
Stewart Dalzell, Massport, Deputy Director, Env. Planning & Permitting

C: 2012BosHarDredging 12958ArmyCorp2012Nov9final.doc



REPLY TO
ATTENTION OF

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

November 7, 2012

Engineering/Planning Division
Evaluation Branch

Mr. John Bullard
Regional Administrator
NOAA Fisheries
Northeast Regional Office
55 Great Republic Drive
Gloucester, Massachusetts 01930-2276

Dear Mr. Bullard:

This letter is to follow up on recent discussions with Ms. Julie Crocker of your staff as well as our letters of June 30, 2008 and October 24, 2012, requesting continuation of informal consultation under Section 7(c) of the Endangered Species Act (ESA) for the Boston Harbor Deep Draft Navigation Improvement Feasibility Study. As described in our letter of October 24, 2012, the project will involve dredging approximately 10 to 11 million cubic yards of clays, sands, and tills, all parent materials largely of glacial origin, from the harbor bottom. In addition, up to about 1 million cubic yards of rock could be removed from the harbor, some of which may require blasting. In association with this improvement work, about 150,000 cubic yards of material would be removed to deepen some terminal berths, and about 500,000 cubic yards of material would be removed for maintenance of the improved and adjacent Federal channels. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site (MBDS) which is located about 18 miles seaward of the harbor. The project would take about three years to construct. The Federal base plan includes disposal at the MBDS. The unconsolidated materials may be used to cap the former Industrial Waste Site (IWS) in Massachusetts Bay in response to a request from the U.S. Environmental Protection Agency (EPA). The rock may be used to create reef habitat or shoreline restoration projects in Massachusetts Bay. Dredging will be accomplished using a mechanical dredge.

Specific improvements include:

- deepening and widening the harbor's 40-foot deep mean lower low (MLLW) channels, turning basin and anchorage to a depth of -47 feet MLLW to provide container ships access to the Conley Terminal, with an additional two to five feet of depth in the Broad Sound North Entrance Channel (up to -52 feet MLLW) to accommodate exposure of vessels to increased seas. The final depth selected for the entrance channel accounts for the range in quantities given above;
- deepening the 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel to -45 feet MLLW, to improve access to Massport's Marine Terminal in South Boston;

- deepening a portion of the existing 35-foot lane of the lower Mystic River Channel to -40 feet MLLW to improve access to Massport's Medford Street Terminal; and
- deepening the existing 38-foot channel in the Chelsea River to -40 feet MLLW to improve access to its petroleum terminals with widening of the channel in the bends and bridge approaches.
- In addition, terminal berths at Massport facilities on the Reserved, Main Ship and Mystic River channels, as well as private terminal berths on the Chelsea River would be deepened commensurate with the deepening of the Federal channels.
- Any required maintenance of the Federal navigation channels being improved would be carried out concurrently, as would maintenance of adjacent Federal channels needed to route shipping traffic around the deepening operation, including maintenance of the 35-foot deep lane of the North Entrance Channel, 30-foot deep Broad Sound South Entrance Channel, 15-foot deep Nubble Channel and 35-foot deep Barge Anchorage.

Rock removal by blasting is anticipated to require approximately 26 months to complete, with the required times approximately broken down as follows: 16 months in the Broad Sound North Entrance Channel; two months in the President Roads Anchorage; two months in the lower Main Ship Channel; three months in the Main Ship Channel extension area below the Ted Williams Tunnel; five months in the Reserved Channel and its Turning Area; and one month in the upper Chelsea River. Blasting may be accomplished using two blast plants working in the harbor, with each plant detonating no more than one blast per day, for maximum of two blasts per day. No blasting will occur at night. The rock areas and construction times would be further refined after design phase subsurface explorations are completed.

Federally listed species that can be found in Massachusetts waters include three species of threatened or endangered sea turtles and five species of endangered whales. In addition on February 6, 2012, five distinct population segments (DPS) of the Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) that inhabit the waters of the northeast and the southeast were listed under the Endangered Species Act. These include in the northeast, the Gulf of Maine (GOM) DPS, listed as threatened, the New York Bight (NYB) DPS, listed as endangered, and the Chesapeake Bay (CB) DPS listed as endangered; and in the Southeast, the Carolina DPS listed as endangered, and the South Atlantic, listed as threatened.

The sea turtles in Massachusetts nearshore waters are typically small juveniles. The most abundant being the Federally threatened loggerhead (*Caretta caretta*), followed by the Federally endangered Kemp's ridley (*Lepidochelys kempi*), and the Federally endangered leatherback sea turtle (*Dermochelys coriacea*). Green sea turtles (*Chelonia mydas*) may occur in New England waters, but are rare. Sea turtles are known to occur in Massachusetts Bay. While no surveys for sea turtles have been conducted in Boston Harbor, National Marine Fisheries Service (NMFS) believes that suitable forage and habitat exists in this area and it is likely that sea turtles occasionally visit Boston Harbor.

The Federally endangered North Atlantic Right Whale (*Eubalaena glacialis*), and humpback whale (*Megaptera novaeangliae*) are not considered residents of Boston Harbor, but on occasion entered the harbor as they complete seasonal migrations in nearby Massachusetts Bay. The Fin (*Balaenoptera physalus*), Sei (*Balaenoptera borealis*), and Sperm (*Physeter macrocephalus*) whales, which are also Federally endangered species, are seasonally present in New England waters, but are typically found in deeper offshore waters and are not likely to occur in Boston Harbor.

Atlantic sturgeon belonging to each of the five DPSs occur in marine and estuarine habitat, including freshwater reaches of large rivers with access to the sea, ranging from Hamilton Inlet, Labrador, Canada, to Cape Canaveral, Florida, in the U.S. The range of all five DPSs overlap (http://www.nere.noaa.gov/prot_res/esp/ListE&I/spec.pdf). Despite extensive mixing in coastal waters, Atlantic sturgeon return to their natal river to spawn (ASSRT, 2007). Therefore, although individual sturgeon from each of the distinct population segments would generally be expected to be found within the designated areas for their populations, because their ranges overlap it is possible that fish from a given DPS may be found throughout the entire geographic range of the species. The federally threatened GOM DPS of Atlantic sturgeon includes all Atlantic sturgeon whose range occurs in watersheds from the Maine/Canadian border and extending southward, to include all associated watersheds draining into the Gulf of Maine as far south as Chatham, Massachusetts. It also includes wherever these fish occur in coastal bays, estuaries, and the marine environment from the Bay of Fundy, Canada, to the Saint Johns River Florida (FR, 2010). Only one river located in Massachusetts, the Merrimack, is known to support Atlantic sturgeon. Boston Harbor is not known to have been used historically by Atlantic sturgeon (NMFS, 1998).

Although this species is not believed to forage or spawn in Boston Harbor or its tributaries, transient individuals may occasionally be found in these areas (a juvenile was observed in the Charles River in February of 2012). However as discussed with Ms. Julie Crocker of your staff (conference call, October 17, 2012), there have been only anecdotal reports of Atlantic sturgeon being in the area, and no other confirmed reports other than the single fish observed in the Charles River in February, 2012. Any single sturgeon that may be found in Boston Harbor could have originated from any of the five DPSs due to the overlapping of the species range. However, due to the fact that the Gulf of Maine includes Boston Harbor, it is more likely that any sturgeon found in Boston Harbor would be from the GOM DPS, which is listed as threatened. (Additional information concerning the life history of Atlantic sturgeon is attached to this letter).

As mentioned previously, a mechanical dredge will be used for the removal of the unconsolidated materials and for removal of the rock after it has been fractured. Sea turtles have been known to be impacted from hopper dredges only, not mechanical dredges (Dickerson, et al. 2004). Although sturgeon have been impacted by mechanical dredges, the majority of dredging related injuries to these species has resulted from entrainment in the dragarms of hopper dredges (ASSRT, 2007). Therefore, we do not expect impacts to sea turtles, Atlantic sturgeon or

whales from dredging operations due to the type of dredge employed and the unlikelihood of their being in the area.

In our letter of October 24, 2012 we stated that we would provide supporting information concerning the effects of blasting in Boston Harbor on the above listed species relative to established noise criteria. Please find attached a summary of background information on the anticipated range of noise impact from underwater blasting to listed species. Maps showing the distribution of right whales in Massachusetts Bay, and blasting noise areas for the outermost point of blasting in the Broad Sound North Entrance Channel are also included as well as a table with calculated safety zones that we believe to be protective of marine mammals, sea turtles and Atlantic sturgeon. These safety zones were based on criteria recently received from your office and calculated using blast equations agreed upon in discussions with Ms. Julie Crocker, as well as additional information from other blasting events (Miami Harbor and Boston Harbor). We believe that they will adequately protect listed species that may occasionally occur in Boston Harbor from effects due to blasting.

In addition as indicated in your letter of September 6, 2005, sea turtles are seasonally present in Massachusetts Bay from June through November, but are not known to be present in Boston Harbor. As there have been no known sightings of sea turtles in Boston Harbor reported to the U.S. Army Corps of Engineers (USACE) by the resource agencies, it is likely that a sea turtle in the Boston Harbor navigation channels would be rare. Also as noted above, the Atlantic sturgeon occurrences in Boston Harbor are also rare, particularly in those specific areas where blasting would take place in the lower harbor, harbor entrance, and upper Chelsea River. Aside from the Chelsea River turning basin, no blasting or rock removal would occur in the upper harbor (above the tunnels).

Based on our calculations and analysis of effects on listed species, and the distribution and low probability of whales, sea turtles and Atlantic sturgeon occurring in the project area, we believe that the Boston Harbor Deep Draft Project would not likely adversely affect listed species. To further reduce potential impacts to threatened and endangered whales, sea turtles and Atlantic sturgeon in the project area, the following mitigation measures will be implemented:

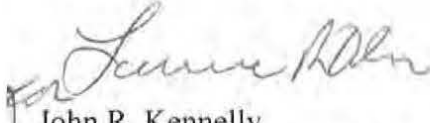
- One or more NMFS-approved endangered species observers will be present at each blast site. The number of observers will depend on the number that is necessary to observe the entire safety zone. No blasting will occur until the safety zone is free from any observations of whales or sea turtles for 60 minutes, subject to safety considerations. These requirements can be added to the monitoring plan for blasting which can be submitted to NMFS for review and comment.
- The Right Whale Sightings Advisory System will be monitored as well as other communication media (i.e. NOAA weather radio, U.S. Coast Guard NAVTEX broadcasts, Notices to Mariners, and U.S. Coast Pilots) for general information regarding North Atlantic Right Whale sighting locations. In addition, the Contractor will be required to monitor the Right Whale Listening Network for information on Right Whales detected near the shipping lanes.

- No blasting will occur if Right Whales are present within the safety zone of the blast area or within a specified distance agreed to between NMFS and USACE, barring any safety concerns.
- In the unlikely event that any whales or sea turtles are observed within the safety zone during a blast event, all reasonable attempts to monitor the condition and behavior of the animal will be undertaken. These incidences will be reported immediately to NMFS to determine whether or not they would require reinitiating Section 7 Consultation.
- All blasting will be conducted using inserted delays of a fraction of a second per borehole as well as the use of stemming, which will be placed into the top of the borehole to deaden the shock wave reaching the water column.
- No blasting will occur when schools of fish are observed in the area (assuming that safety is not jeopardized). A fish observer will use hydro-acoustic monitoring (i.e. side-scan sonar) prior to any blasting event to determine that schools of fish are not located within or transiting the blast zone area (including any listed Atlantic sturgeon). In addition to the sidescan sonar, a fish startle system will be employed to deter fish. Existing startle systems are most effective with species from the Clupeid family. The startle system uses high amplitude sound at specific frequencies. Lessons learned from the previous blasting in Boston Harbor will be incorporated, where appropriate, into the Contractor's blasting plan. Some of these lessons include the development of a communication plan between the fish observer and the Contractor, and the location of the fish startle system that will be deployed on an alternate vessel instead of the blast barge.
- All project vessels will comply with voluntary speed restrictions (10 knots or less) to minimize the risk of ship strikes, as implemented in Dynamic Management Areas (DMAs) that may be established by NOAA Fisheries Service. NOAA Fisheries Service will announce DMAs to mariners through its customary maritime communication.

The proposed Federal base plan for dredged material disposal is the MBDS and/or IWS. Beneficial use of the rock would be developed with input from the Technical Working Group during the Design Phase. If something other than placing the rock at MBDS, and involving in-water disposal, becomes part of the USACE Federal Base Plan, then we would reinitiate Section 7 Consultation with you during the Design Phase to consider that change.

Your response by November 26, 2012 confirming our conclusion that the Boston Harbor Deep Draft Project would not likely adversely affect listed species would be appreciated so that we can meet our commitment to the U.S. Army Corps of Engineers Civil Works Review Board. Any questions or comments can be addressed to Ms. Catherine Rogers at (978) 318-8231.

Sincerely,


John R. Kennelly
Chief of Planning Branch

Enclosure

Copy Furnished (w/Enclosures)
Stewart Dalzell
Massachusetts Port Authority
One Harborside Drive
Boston, Massachusetts 02128

U.S. Department of
Homeland Security

United States
Coast Guard



Commander
U.S. Coast Guard
Sector Boston

427 Commercial Street
Boston, MA. 02109-3046
Phone: 617 223-5757
Fax: 617 223-8219

Internet: <http://homeport.uscg.mil/boston>

16600/12-1251
November 7, 2012

U. S. Army Corps of Engineers
New England District
Attn: Mr. John Kennelly
696 Virginia Road
Concord, MA 01742

Dear Mr. Kennelly:

This office recently received your letter of October 11, 2012 addressed to the First Coast Guard District Commander, RDML Daniel Abel, concerning the proposed update to the Feasibility Report and associated Environmental Impact Statement and Report for the Boston Harbor Deep Draft Navigation Improvement Project. As this project is proposed for Boston Harbor, your correspondence was forwarded to Coast Guard Sector Boston for review and opportunity for comment.

As you noted, the Captain of the Port Boston provided a statement of full support for this project in 2007. We note that the currently proposed Feasibility Report offers a one foot reduction in the scope of the recommended project depth in the President Roads and Main Ship Channels from 48 feet to 47 feet at mean lower low water. Although the Coast Guard is charged with maximizing efficiencies of the Marine Transportation System (MTS), we do not feel that this one foot reduction in proposed project depth will negatively impact current and future needs of the MTS for the Port of Boston.

Comment
USCG #1

I thank you for the opportunity to review and validate our 2007 position pertaining to the Boston Harbor Deep Draft Navigation Improvement Project. Please direct any future correspondence concerning this project to the Chief of my Waterways Management Division utilizing this letterhead address. Should you have any questions concerning this correspondence please contact Lieutenant Commander Scott White at (617) 223-3028 or via email at Scott.C.White@uscg.mil.

Sincerely,

A handwritten signature in blue ink, appearing to read "J. C. O'Connor III".

J. C. O'CONNOR III
Captain, U.S. Coast Guard
Commander, Sector Boston



THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
OFFICE OF COASTAL ZONE MANAGEMENT
251 Causeway Street, Suite 800, Boston, MA 02114-2136
(617) 626-1200 FAX: (617) 626-1240

October 26, 2012

Michael F. Keegan
Department of the Army
New England District, Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

Re: CZM Federal Consistency Review Boston Harbor Deep Draft Navigation
Improvement Project – DEIR/DEIS; Boston.

Dear Mr. Keegan:

Comment
CZM #1

The Massachusetts Office of Coastal Zone Management (CZM) has received the necessary information to initiate our federal consistency review for the proposed project referenced above.

The notice that this proposal is undergoing federal consistency review by CZM will be published in the next edition of the *Environmental Monitor*. The publication date of that issue of the *Monitor* will initiate a 21-day public comment period. Enclosed please find a copy of the schedule that we will follow during our review. Although we have 60 days (extendable with your permission) in which to review your determination and concur with or object, we will make a vigorous effort to complete our review shortly after the close of the 21-day comment period.

Note: CZM cannot complete its review and issue a decision of consistency with its enforceable program policies until all applicable licenses, permits, certifications and other authorizations have been issued by Massachusetts environmental agencies. Further, the applicable federal permit cannot be issued until the federal permitting agency receives a consistency concurrence letter from CZM for the proposed project. To keep our review timely, we suggest that you forward copies of state environmental agency licenses, permits, etc. to CZM as you receive them.



Future communications with this Office regarding the technical aspects of the above-referenced project should be directed to Valerie Gingrich (617) 626-1064 who will be conducting the federal consistency review of this project for CZM. Please call me at (617) 626-1050 if you have any procedural questions about the review process.

Sincerely,

A handwritten signature in black ink that reads "Robert L. Boeri". The signature is written in a cursive, flowing style.

Robert L. Boeri
Project Review Coordinator

RLB/pb
Enclosure
CZM# 5376

CZM Federal Consistency Review Schedule
For a Federal Agency Activity*

Review Steps

1. *Document Receipt*
 - (a) Received consistency certification on Oct. 26, 2012.

2. *Public Notice*
 - (a) Notice of the initiation of this federal consistency review will appear in the next edition of the MEPA *Monitor* which will appear on or about Nov. 7, 2012.
 - (b) Publication in the *Monitor* begins a 21 day public comment period which will close on or about Nov. 28, 2012.

3. CZM must issue its consistency decision within 60 days of commencement of our review unless granted an extension by the federal project proponent. The review period closes and a consistency decision will issued no later than Dec. 28, 2012.

* 301 CMR 21.01 - 21.04, 15 CFR 930.41



REPLY TO
ATTENTION OF

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

October 26, 2012

Project Management Division
Programs and Civil Project Management Branch

Mr. Robert Boeri
Project Review Coordinator
The Massachusetts Office of Coastal Zone Management
251 Causeway Street, Suite 800
Boston, Massachusetts 02114-2138

Dear Mr. Boeri:

In our letter dated October 16, 2012, the U.S. Army Corps of Engineers (USACE), New England District, sought your reaffirmation of support and concurrence that the Boston Harbor Deep Draft Navigation Improvement Project is consistent to the maximum extent practicable with the Massachusetts Coastal Zone Management Program policies, which were attached to our letter of October 16, 2012. This current letter is written in response to your recent letter of October 24, 2012 requesting additional information on the commitment and planning by the USACE to pursue viable options regarding alternatives for beneficial reuse beyond the creation of rock reefs, including both shore protection and upland use, prior to initiating your Federal consistency review.

As discussed in a conference call between staff from our offices earlier on October 24, 2012, the USACE is committed to working further on beneficial uses for the rock to be removed from the Boston Harbor Deep Draft Navigation Improvement Project. As with the Commonwealth of Massachusetts, it is the USACE policy to investigate potential beneficial uses of dredged material for our projects. During the design phase of the project, the USACE will be conducting more extensive subsurface explorations of suspected areas of hard material to determine how much of that material is rock and how much of the rock will require drilling and blasting as opposed to removal by mechanical means. The USACE will share that information with the Massachusetts Office of Coastal Zone Management (MACZM) and the other participants in the technical working group, develop a sequencing plan for construction, and seek input from the group on those plans.

Once the volumes and the nature of the rock material as well as the sequencing plan are known, we will work with the State and Federal agencies to investigate potential beneficial uses and users for the rock material, including making the materials available for other parties to transport and use in their own projects.

As we discussed at the State Dredging Team meeting held at the MACZM offices on October 16, 2012, Federal and non-Federal responsibilities, and non-Federal sponsorship, for any beneficial uses would need to be defined before any beneficial use plan could be pursued with

the Federal project. We look forward to working with MACZM and the other agencies, and Boston Harbor interests in the final design and construction of this project.

Based on the above information, the USACE understands that MA CZM will be able to complete its Federal consistency review and determine whether or not the proposed project is consistent to the maximum extent practicable with the Massachusetts Coastal Zone Management Program policies.

If you have any questions or require any additional information please contact me at michael.f.keegan@usace.army.mil or at 978-318-8087.

Sincerely,



Michael F. Keegan, P.E.; L.C.S.
Project Manager

Copy Furnished:

Stewart Dalzell
Massachusetts Port Authority
One Harborside Drive
Boston, Massachusetts 02128



REPLY TO
ATTENTION OF

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

October 24, 2012

Engineering/Planning Division
Planning Branch

Mr. John Bullard, Regional Administrator
NOAA Fisheries Service, Northeast Regional Office
55 Great Republic Drive
Gloucester, Massachusetts 01930-22768

Dear Mr. Bullard:

The U.S. Army Corps of Engineers (USACE), New England District, in partnership with the Massachusetts Port Authority (Massport), is updating the Final Feasibility Report (FR) and joint Final Supplemental Environmental Impact Statement and Final Environmental Impact Report (FSEIS/FEIR) for the Boston Harbor Deep Draft Navigation Improvement Project prior to its public release sometime in early 2013. The Final FR and joint FSEIS/FEIR examines proposed improvements to the deep-draft Federal navigation channels in Boston Harbor, Massachusetts.

Since the 2008 Draft FR and DSEIS/DEIR were released, the USACE has been conducting additional economic studies of the proposed port improvements at the direction of USACE Headquarters. That process has resulted in a reduced scope of improvements being recommended for Boston Harbor. The change in recommendation consists of a reduction in the recommended project depth in the inner harbor from the President Roads Channel, Main Ship Channel and the Lower Reserved Channel to Massport's Conley terminal of -47 feet at mean lower low water (MLLW). See attached figure. The prior recommended plan included a depth of -48 feet in these areas. The following is a description of the past and current improvements now being recommended:

- Improving access to the Conley Terminal for containerships by deepening the harbor's existing 40-foot channels, turning basin and anchorage to a depth of -47 feet MLLW, with an additional depth in the Broad Sound North Entrance Channel to allow for exposure of vessels to increased seas (between two to five feet greater depth, or up to -52 feet MLLW). Massport would also deepen the berths at the Conley Terminal to at least 50 feet. These improvements would allow a greater percentage of New England cargo to be shipped through the Port of Boston, rather than through the Port of New York and New Jersey and moved to New England by truck.

- Improving access to Massport's Marine Terminal in South Boston. This terminal was recently returned to Massport after many years of use for the Ted Williams Tunnel and Central Artery Projects. Massport and its partners are developing the terminal for dry bulk cargo operations. The 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel would be deepened to -45 feet MLLW.
- Improving access to Massport's Medford Street Terminal on the Mystic River for lesser draft dry bulk and break-bulk carriers. This small area of the existing 35-foot lane of the lower Mystic River Channel accessing the terminal would be deepened to -40 feet MLLW. Massport has already cleared the site and deepened the berth to -40 feet MLLW.
- Improving access to the Chelsea River primarily to its petroleum terminals by deepening the existing -38-foot channel to -40 feet MLLW.

For the above recommended improvements, approximately 9.8 million cubic yards of clays, sands, and tills, all parent materials largely of glacial origin, will be dredged from the harbor bottom. In addition, up to about 880,000 cubic yards of rock could be blasted and dredged from the harbor. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site which is located about 18 miles seaward of the harbor. The project would take about three years to construct. The unconsolidated materials may be used to cap the former industrial waste site in Massachusetts Bay in response to a request from EPA. The rock may be used to create reef habitat in Massachusetts Bay.

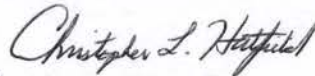
Your office commented on the Draft FR and DSEIS/DEIR in a letter dated June 2, 2008 (attached) covering Essential Fish Habitat (EFH), fish and wildlife resources, and Federally threatened and endangered species. Your June 2, 2008 letter requested that we reinitiate Section 7 consultation because of the increase in the proposed dredged material quantities from the initial project descriptions and the need for blasting. We responded to your Section 7 consultation request in a letter dated June 30, 2008. In our letter, we requested confirmation that the Boston Harbor Deep Draft Project would not likely adversely affect listed species at that time (sea turtles and whales). However, on August 1, 2008, an email from Julie Crocker of your staff was sent to Cathy Rogers at the USACE with questions about how the different zones aligned with marine mammal noise criteria. Because these questions were never answered, consultation was never completed. Since that time, the Gulf of Maine Distinct Population Segment of Atlantic sturgeon was listed as threatened in the Federal Register on February 6, 2012. The USACE met with your staff at your office on October 10, 2012 to discuss a path forward for Section 7 consultation. The result of this meeting was that we would send a letter requesting continued informal consultation for threatened and endangered whales, sea turtles while adding Atlantic sturgeon for your review with supporting information requested in your email dated August 1, 2008.

We are also requesting at this time that Essential Fish Habitat (EFH) recommendations be provided based on the EFH Assessment and the best available project information as previously provided in the DSEIS/EIR along with the updated project description discussed in this letter. It is understood that as additional information and details are developed within the design phase of this project it will be shared with National Marine Fisheries Service and consultation may be re-initiated along with additional studies, should it be deemed necessary. We are requesting written comments

to conclude EFH consultation by November 26, 2012, to be included in the Final FR and FSEIS/EIR.

If you have any questions or comments, please contact Ecologist, Ms. Catherine Rogers, at (978) 318-8231.

Sincerely,


for John R. Kennelly
Chief of Planning

Copy Furnished (w/o enclosure):

Stewart Dalzell
MASSPORT
One Harborside Drive
Boston, Massachusetts 02128



THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
OFFICE OF COASTAL ZONE MANAGEMENT
251 Causeway Street, Suite 800, Boston, MA 02114-2136
(617) 626-1200 FAX: (617) 626-1240

October 24, 2012

John Kennelly
Chief, Planning Branch
New England Division
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742

Mr. Kennelly,

This morning, the Corps and CZM participated in a conference call regarding the Boston Harbor Deep Draft Navigational Improvement Project. As you know, CZM is in the process of initiating a federal consistency review of the DEIR/DEIS for the project, which was released in 2008. CZM participated in the review of the project as part of the Massachusetts Environmental Policy Act review. At that time, CZM indicated our support for the project and also provided comments on several issues, including the continuation of the Technical Working Group/Technical Advisory Committee, documentation of outer and lower harbor resources (including a pre- and post-blasting/dredging monitoring program), the development of a comprehensive blast plan, and the evaluation of the beneficial reuse of rock material for shore protection and upland use.

In the letter prepared by the Corps on October 16, 2012 in response to these comments, a commitment was made to continue the Technical Working Group/Technical Advisory Committee, to conduct additional resource surveys of benthic and shellfish communities, develop a sequencing plan for the project, including a comprehensive blast plan, and develop a pre- and post construction monitoring program. CZM is requesting additional information on the commitment/planning by the Corps to pursue viable options regarding alternatives for beneficial reuse beyond the creation of rock reefs, including both shore protection and upland use. Several options were discussed during both the Massachusetts dredging Team meeting held on October 19, 2012 and today's conference call, including, but not limited to, use by the Department of Conservation and Recreation for the maintenance of shore protection structures, potential use by MassPort, and use by private aggregate companies.

Comment
CZM #1

CZM is preparing to initiate the federal consistency review, and once the additional information has been provided, a scheduling letter will be sent to the Corps. As always, we look forward to working with the Corps on enhancing the capabilities of the port of Boston.

Regards,

Bob Boeri
Project Review/Dredging Coordinator
Massachusetts Office of Coastal Zone Management





October 18, 2012

John R. Kennelly
Chief of Planning
New England District
US Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

Attn. Marc Paiva

RE: Boston Harbor Deep Draft Navigation Improvements Project. MHC #RC.323.

Dear Mr. Kennelly:

Thank you for your letter dated October 11, 2012, received by the Massachusetts Historical Commission (MHC) on October 17, 2012. Staff of the MHC have reviewed the information regarding the change in scope for the project referenced above, and the MHC's files.

Review of the MHC's files indicates that the MHC commented on May 5, 2008, in response to the Corps letter of April 10, 2008. A copy of the MHC's comments are enclosed.

The Corps, in a letter to Massachusetts Board of Underwater Archaeological Resources, dated October 4, 2007, proposed to conduct additional identification surveys for historic properties that may be affected by the project.

In regards to the project change, the MHC advises that the Corps should review the results of previous identification efforts for historic properties in the area of potential effect, and evaluate the potential of the currently proposed project to affect previously identified historic properties, or properties not yet identified that may be located in project area that have not yet been sufficiently surveyed for historic properties.

Comment
MHC #1

The MHC looks forward to review of scopes for any additional proposed archaeological identification and evaluation efforts, and the Corps findings and determinations in accordance with 36 CFR 800.

Comment
MHC #2

These comments are provided to assist in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800). Should you have any questions, please contact me.

Sincerely,

Edward L. Bell
Deputy State Historic Preservation Officer
Massachusetts Historical Commission

Enclosure (MHC 5/5/2008)

xc w/enclosure:
Stewart Dalzell, Massport
Victor T. Mastone, BUAR
Joe Bagley, Boston City Archaeologist



REPLY TO
ATTENTION OF

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

October 16, 2012

Engineering/Planning Division
Planning Branch

Mr. Robert Boeri
Project Review Coordinator
The Massachusetts Office of Coastal Zone Management
251 Causeway Street, Suite 800
Boston, Massachusetts 02114-2138

Dear Mr. Boeri:

The U.S. Army Corps of Engineers (USACE), New England District, in partnership with the Massachusetts Port Authority (Massport), is updating the Final Feasibility Report (FR) and joint Final Supplemental Environmental Impact Statement and Final Environmental Impact Report (FSEIS/FEIR) for the Boston Harbor Deep Draft Navigation Improvement Project prior to its public release sometime in early 2013. The Final FR and joint FSEIS/FEIR examines proposed improvements to the deep-draft Federal navigation channels in Boston Harbor, Massachusetts. At this time we are seeking your reaffirmation of support and concurrence with our Federal consistency determination for this work.

Since the 2008 Draft FR and DSEIS/DEIR were released, the USACE has been conducting additional economic studies of the proposed port improvements at the direction of USACE Headquarters. That process has resulted in a reduced scope of improvements being recommended for Boston Harbor. The change in recommendation consists of a reduction in the recommended project depth in the inner harbor from the President Roads Channel and Main Ship Channel to Massport's Conley terminal of 47 feet at mean lower low water (MLLW). The prior recommended plan included a depth of 48 feet in these areas. The following is a description of the past and current improvements now being recommended:

Improving access to the Conley Terminal for containerships by deepening the harbor's existing 40-foot channels, turning basin and anchorage to a depth of -47 feet MLLW, with an additional three feet of depth in the Broad Sound North Entrance Channel (up to -50 feet MLLW). Massport would also deepen the berths at the Conley Terminal to at least 50 feet. These improvements would allow a greater percentage of New England cargo to be shipped through the Port of Boston, rather than through the Port of New York and New Jersey and moved to New England by truck.

- Improving access to Massport's Marine Terminal in South Boston. This terminal was recently returned to Massport after many years of use for construction of the Ted Williams Tunnel and Central Artery Projects. Massport and its partners are developing the terminal for dry bulk cargo operations. The 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel would be deepened to -45 feet MLLW.
- Improving access to Massport's Medford Street Terminal on the Mystic River for lesser draft dry bulk and break-bulk carriers. This small area of the existing 35-foot lane of the lower Mystic River Channel accessing the terminal would be deepened to -40 feet MLLW. Massport has already cleared the site and deepened the berth to -40 feet MLLW.
- Improving access to the Chelsea River primarily to its petroleum terminals by deepening the existing -38-foot channel to -40 feet MLLW.

For the above recommended improvements, approximately 9.8 million cubic yards of clays, sands, and tills, all parent materials largely of glacial origin, will be dredged from the harbor bottom. In addition, up to about 880,000 cubic yards of rock could be removed from the harbor, some of which may require blasting. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site which is located about 18 miles seaward of the harbor. The project would take about three years to construct. The unconsolidated materials may be used to cap the former Industrial Waste Site in Massachusetts Bay in response to a request from the US Environmental Protection Agency (EPA). The rock may be used to create reef habitat in Massachusetts Bay.

The following is a response to your major comments with the proposed project as detailed in your letter dated June 2, 2008. USACE will continue to involve the technical work group (TWG) through the design phase of this project. The design phase of the project includes an extensive boring and probing program that will be used to determine how much rock is expected within the project area and whether blasting would be required to remove all or part of the rock from each project segment.

Using this information, USACE and Massport will work with interested TWG agencies to address concerns about potential impacts to natural resources by conducting additional resource surveys of the benthic and shellfish communities (i.e., sediment profile imaging, benthic grabs, lobster traps, early benthic phase lobster surveys, and/or towed camera) during the design phase if deemed necessary. The above information will be used to develop a construction sequencing plan for the project. A blast sequencing plan will be developed, if needed, in concert with the larger construction sequencing plan for the entire project. USACE also agrees to develop and implement a pre and post monitoring program to document the recovery of the impacted areas for benthic organisms, and shellfisheries. Post construction surveys would occur 1-3 years after completion depending on when construction is completed and availability of funding. The details of the pre and post-construction survey program will be discussed with the TWG and included in any additional NEPA/MEPA document filing, if required.

SSFATE modeling was used for the Boston Harbor Outer Harbor Maintenance Dredging Project which much of the Deep Draft Project overlaps. Actual plume monitoring was conducted during the Boston Harbor Inner Harbor Maintenance Dredging Project for USACE by Battelle in 2008. This monitoring showed that suspended sediment plumes from dredging operations were relatively low. The highest turbidity readings within 500 feet of the dredge were less than 20 NTU above background and suspended sediment concentrations less than 40 mg/l. The dredge plumes were typically confined to the channel, although low concentration plume filaments were observed on two occasions as far as 650 feet from the channel in the southern channel area. Maximum dredge plume length varied with tidal currents in the channel. Some dredge plumes detected during slack conditions had maximum lengths of less than 500 feet. The maximum ebb and flood plumes traveled further but dissipated to near background levels within 1500 feet of the dredge often evident across the full width of the channel. Since the majority of the material is parent material that is composed of Boston blue clay and glacial till material, the turbidity plumes should be less than those listed above.

In response to the agency's concerns expressed about the creation of the proposed rock reef, USACE has committed to working with the TWG during the design phase to examine potential issues, define the exact type and quantity of materials available for such use, examine the candidate sites in greater detail to determine the value of the existing habitat relative to the anticipated value of the reefs and identify a cost-sharing partner for this effort, if needed. In addition to reef habitat creation, some or all of the rock to be removed could prove suitable for other beneficial uses.

Based on the above information, the USACE has determined that the proposed work is consistent to the maximum extent practicable with the attached Massachusetts Coastal Zone Management Program policies. We are requesting your concurrence with our determination. We would appreciate your concurrence with our consistency determination by November 16, 2012. Any questions or comments can be addressed to Ms. Catherine Rogers, ecologist, at 978-318-8231.

Sincerely,


John R. Kennelly
Chief of Planning

Enclosure

Copy Furnished:

Stewart Dalzell
MASSPORT
One Harborside Drive
Boston, Massachusetts 02128

Coastal Zone Management Consistency Determination

The Coastal Zone Management (CZM) Act of 1972 established a national program to "preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation's coastal zone for this and succeeding generations" and to "encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs to achieve wise use of the land and water resources of the coastal zone..." (16 U.S.C. 1452, Sec. 303 (1) and (2)). Section 307 (c)(3)(A) of the CZMA provides that "...any applicant for a required Federal license or permit to conduct an activity, in or outside the coastal zone, affecting any land or water use or natural resource of the coastal zone of that state shall provide...a certification that the proposed activity complies with the enforceable policies of the state's approved program and that such activity will be conducted in a manner consistent with the program." Similar requirements are included for activities conducted by or funded by a Federal agency.

The policies that are applicable to the proposed dredging project and the project's consistency with those policies are as follows:

Water Quality Policy #1. – Ensure that point-source discharges in or affecting the coastal zone are consistent with federally approved state effluent limitations and water quality standards. *The material proposed for dredging is parent material, not associated with contaminants. Also the dredged material is composed of Boston blue clay and glacial till material, not likely to produce a large sediment plume. The disposal of rock in one of the identified habitat enhancement sites would not create any water quality violations. Only minimal amounts of sediment would adhere to the rock which would be washed away as the rock falls through the water column. Any turbidity created should dissipate rapidly. The material would not be a carrier of contaminants as the rock is surrounded by material suitable for ocean disposal.*

Habitat Policy #1. - Protect coastal resource areas including salt marshes, shellfish beds, dunes, beaches, barrier beaches, salt ponds, eelgrass beds, and fresh water wetlands for their important role as natural habitats. *These resources are outside the zone of influence from the project or the resource occurs in limited amounts. Rock removed from the navigation channel is under consideration to be disposed at a beneficial use site to create hard bottom habitat.*

Coastal Hazards Policy #1. – Preserve, protect, restore and enhance the beneficial functions of storm damage prevention and flood control provided by natural coastal landforms, such as dunes, beaches, barrier beaches, coastal banks, land subject to coastal storm flowage, salt marshes and land under the ocean. *Deepening a portion of the Boston Harbor navigation channels would result in a very minor increase in land under the ocean and would not impact any storm damage prevention or flood control feature of the areas. No significant change in the beneficial function of the land under the ocean is expected from the proposed project.*

Coastal Hazards Policy #2. - Ensure construction in water bodies and contiguous land areas will minimize interference with water circulation and sediment transport. *The proposed dredging activities will not interfere with water circulation in Boston Harbor. No permanent*

structures are proposed in the body of water. Proposed dredging may result in slight increases circulation.

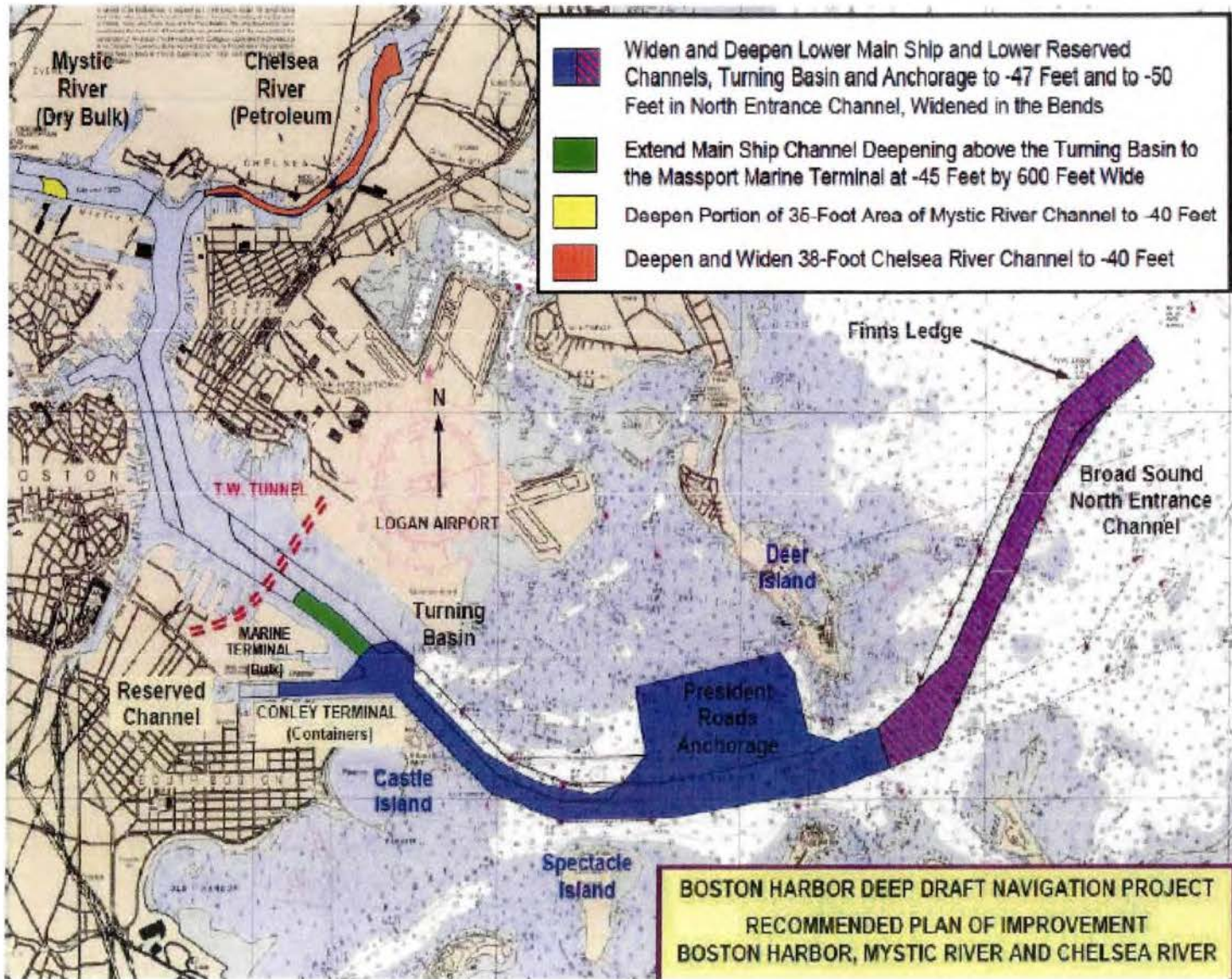
Coastal Hazards Policy #3. - Ensure that state and Federally funded public works projects proposed for location in the coastal zone will not exacerbate existing hazards or damage natural buffers or other natural resources and will not promote growth and development in hazard-prone or buffer areas. *The proposed dredging will improve navigation in Boston Harbor by deepening the navigation channels and berths to accommodate deeper draft ships expected to be added to the fleet to utilize the deeper and wider Panama Canal. The project area is in an area of marine commerce and is located in or adjacent to the State's Designated Port Area. Therefore the project is consistent with the State's policy of promoting marine development in Designated Port Areas. The proposed Deep Draft Project will remove ledge that could create a navigation hazard if not removed during deepening of the navigation channels. The proposed project is not expected to have any long-term significant adverse damage to natural resources or promote growth and development in hazard-prone or buffer areas.*

Ports Policy #1. - Ensure that dredging and disposal of dredged material minimize adverse effects on water quality, physical processes, marine productivity, and public health. *The material proposed for dredging is parent material, not associated with contaminants. Also the dredged material is composed of Boston blue clay and glacial till material, not likely to produce a large sediment plume. In addition, if feasible, rock removed during construction would be used to enhance biological productivity by increasing hard bottom habitat for marine species that favor rock habitat. Any adverse impacts will be localized and temporary. Therefore, the proposed project is not likely to have a significant long-term impact on water quality, physical processes, or public health, and could benefit marine productivity.*

Ports Policy #2. - Obtain the widest possible public benefit from channel dredging, ensuring that designated ports and developed harbors are given highest priority in the allocation of federal and state dredging funds. Ensure that this dredging is consistent with marine environmental policies. *The proposed improvement dredging is located in the Port of Boston, the largest port in New England. The proposed project would continue to promote commercial navigation in Boston Harbor by allowing larger ships to transit the port more efficiently to load and unload goods.*

Ports Policy #3. - Preserve and enhance the capacity of Designated Port Areas (DPAs) to accommodate water-dependent industrial uses, and prevent the exclusion of such uses from tidelands and any other DPA lands over which a state agency exerts control by virtue of ownership, regulatory authority, or other legal jurisdiction. *Portions of the Port of Boston are in a DPA. Deepening Boston Harbor will enhance the safety and economic efficiency of deep draft vessels transiting to these marine terminals in the DPA. This will accommodate and further promote water-dependent industrial uses.*

Boston Harbor Deep Draft Improvement Project Boston, MA





REPLY TO
ATTENTION OF

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

October 11, 2012

Engineering/Planning Division
Planning Branch

Mr. Tom Chapman, Supervisor
U.S. Fish and Wildlife Service
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087

Dear Mr. Chapman:

The U.S. Army Corps of Engineers (USACE), New England District, in partnership with the Massachusetts Port Authority (Massport), is updating the Final Feasibility Report (FR) and joint Final Supplemental Environmental Impact Statement and Final Environmental Impact Report (FSEIS/FEIR) for the Boston Harbor Deep Draft Navigation Improvement Project prior to its public release sometime in early 2013. The Final FR and joint FSEIS/FEIR examines proposed improvements to the deep-draft Federal navigation channels in Boston Harbor, Massachusetts.

Your office commented on the Draft FR and DSEIS/DEIR in a letter (enclosed) dated May 14, 2008, addressing Federally-listed threatened and endangered species, and provided your final comments pursuant to the Fish and Wildlife Coordination Act in a letter dated May 29, 2007 (enclosed). Separately, the Department of the Interior commented in a letter dated June 2, 2008 on the Boston Harbor Islands National Recreation Area, including information related to harbor fish and wildlife resources. A meeting was also held in the spring of 2008 with several agencies including the National Park Service to discuss additional options for rock placement. At this time we are requesting confirmation that previous determinations remain valid before we proceed with issuing the final report.

Since the 2008 Draft FR and DSEIS/DEIR were released, the USACE has been conducting additional economic studies of the proposed port improvements at the direction of USACE Headquarters. That process has resulted in a reduced scope of improvements being recommended for Boston Harbor. The change in recommendation consists of a reduction in the recommended project depth in the inner harbor from the President Roads Channel and Main Ship Channel to Massport's Conley terminal of 47 feet at mean lower low water (MLLW). The prior recommended plan included a depth of 48 feet in these areas. The following is a description of the past and current improvements now being recommended:

- Improving access to the Conley Terminal for containerships by deepening the harbor's existing 40-foot channels, turning basin and anchorage to a depth of -47 feet MLLW, with an additional three feet of depth in the Broad Sound North Entrance Channel (up to -50 feet MLLW). Massport would also deepen the berths at the Conley Terminal to at least 50 feet. These improvements would allow a greater percentage of New England cargo to be shipped


through the Port of Boston, rather than through the Port of New York and New Jersey and moved to New England by truck.

- Improving access to Massport's Marine Terminal in South Boston. This terminal was recently returned to Massport after many years of use for the Ted Williams Tunnel and Central Artery Projects. Massport and its partners are developing the terminal for dry bulk cargo operations. The 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel would be deepened to -45 feet MLLW.
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For the above recommended improvements, approximately 9.8 million cubic yards of clays, sands, and tills, all parent materials largely of glacial origin, will be dredged from the harbor bottom. In addition, up to about 880,000 cubic yards of rock could be blasted and dredged from the harbor. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site which is located about 18 miles seaward of the harbor. The project would take about three years to construct. The unconsolidated materials may be used to cap the former industrial waste site in Massachusetts Bay in response to a request from EPA. The rock may be used to create reef habitat in Massachusetts Bay.

Please advise us whether your prior comments are still applicable based on the slight reduction in the proposed project description and in light of any new circumstances or information released since 2008 that would be relevant to the proposed project. If no written comments are received by November 9, 2012, then we will determine that the previous comments on the Draft FR and SEIS/EIR are still current. Any questions or comments can be addressed to Ms. Catherine Rogers, ecologist, at 978-318-8231.

Sincerely,


John R. Kennelly
Chief of Planning

Enclosure

Copy Furnished (w/enclosure):

Mr. Andrew L. Raddant, Regional Environmental Officer
Office of Environmental Policy and Compliance
U.S. Department of the Interior
408 Atlantic Avenue, Room 142
Boston, Massachusetts 02210-3334

Stewart Dalzell (w/o enclosure)
MASSPORT
One Harborside Drive
Boston, Massachusetts 02128



REPLY TO
ATTENTION OF

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

October 11, 2012

Engineering/Planning Division
Planning Branch

Mr. Curt Spalding, Regional Administrator
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912

Dear Mr. Spalding:

The U.S. Army Corps of Engineers (USACE), New England District, in partnership with the Massachusetts Port Authority (Massport), is updating the Final Feasibility Report (FR) and joint Final Supplemental Environmental Impact Statement and Final Environmental Impact Report (FSEIS/FEIR) for the Boston Harbor Deep Draft Navigation Improvement Project prior to its public release sometime in early 2013. The Final FR and joint FSEIS/FEIR examines proposed improvements to the deep-draft Federal navigation channels in Boston Harbor, Massachusetts.

Your office commented on the Draft FR and DSEIS/DEIR in a letter (enclosed) dated May 23, 2008 covering air and marine impacts. At this time we are requesting confirmation that previous determinations remain valid before we proceed with issuing the final report.

Since the 2008 Draft FR and DSEIS/DEIR were released, the USACE has been conducting additional economic studies of the proposed port improvements at the direction of USACE Headquarters. That process has resulted in a reduced scope of improvements being recommended for Boston Harbor. The change in recommendation consists of a reduction in the recommended project depth in the inner harbor from the President Roads Channel and Main Ship Channel to Massport's Conley terminal of 47 feet at mean lower low water (MLLW). The prior recommended plan included a depth of 48 feet in these areas. The following is a description of the past and current improvements now being recommended:

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cargo operations. The 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel would be deepened to -45 feet MLLW.

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Please advise us whether your prior comments are still applicable based on the slight reduction in the proposed project description and in light of any new circumstances or information released since 2008 that would be relevant to the proposed project. If no written comments are received by November 9, 2012, then we will determine that the previous comments on the Draft FR and SEIS/EIR are still current. Any questions or comments can be addressed to Ms. Catherine Rogers, ecologist, at 978-318-8231.

Sincerely,


John R. Kennelly
Chief of Planning

Enclosure

Copy Furnished (w/enclosure):

Mr. Mel Coté, Jr., Manager
Ocean and Coastal Protection Unit
U.S. Environmental Protection Agency, Region 1
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912

Stewart Dalzell (w/o enclosure)
MASSPORT
One Harborside Drive
Boston, Massachusetts 02128



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

October 11, 2012

Engineering/Planning Division
Planning Branch

RDML Daniel B. Abel, Commander
First Coast Guard District
408 Atlantic Avenue
Boston, Massachusetts 02110

Dear Commander Abel:

The U.S. Army Corps of Engineers (USACE), New England District, in partnership with the Massachusetts Port Authority (Massport), is updating the Final Feasibility Report (FR) and joint Final Supplemental Environmental Impact Statement and Final Environmental Impact Report (FSEIS/FEIR) for the Boston Harbor Deep Draft Navigation Improvement Project prior to its public release sometime in early 2013. The Final FR and joint FSEIS/FEIR examines proposed improvements to the deep-draft Federal navigation channels in Boston Harbor, Massachusetts.

Your office commented during preparation of the Draft FR and DSEIS/DEIR in a letter (enclosed) dated November 9, 2007 providing support for the proposed project. At this time we are requesting confirmation that previous determinations remain valid before we proceed with issuing the final report.

Since the 2008 Draft FR and DSEIS/DEIR were released, the USACE has been conducting additional economic studies of the proposed port improvements at the direction of USACE Headquarters. That process has resulted in a reduced scope of improvements being recommended for Boston Harbor. The change in recommendation consists of a reduction in the recommended project depth in the inner harbor from the President Roads Channel and Main Ship Channel to Massport's Conley terminal of 47 feet at mean lower low water (MLLW). The prior recommended plan included a depth of 48 feet in these areas. The following is a description of the past and current improvements now being recommended:

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Please advise us whether your prior comments are still applicable based on the slight reduction in the proposed project description and in light of any new circumstances or information released since 2008 that would be relevant to the proposed project. If no written comments are received by November 9, 2012, then we will determine that the previous comments on the Draft FR and SEIS/EIR are still current. Any questions or comments can be addressed to Ms. Catherine Rogers, ecologist, at 978-318-8231.

Sincerely,


John R. Kennelly
Chief of Planning

Enclosure

Copy Furnished (w/o enclosure):

Stewart Dalzell
MASSPORT
One Harborside Drive
Boston, Massachusetts 02128



REPLY TO
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NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

October 11, 2012

Engineering/Planning Division
Planning Branch

Mr. Craig D. MacDonald, Superintendent
Stellwagen Bank National Marine Sanctuary
175 Edward Foster Road
Scituate, Massachusetts 02066

Dear Mr. MacDonald:

The U.S. Army Corps of Engineers (USACE), New England District, in partnership with the Massachusetts Port Authority (Massport), is updating the Final Feasibility Report (FR) and joint Final Supplemental Environmental Impact Statement and Final Environmental Impact Report (FSEIS/FEIR) for the Boston Harbor Deep Draft Navigation Improvement Project prior to its public release sometime in early 2013. The Final FR and joint FSEIS/FEIR examines proposed improvements to the deep-draft Federal navigation channels in Boston Harbor, Massachusetts.

Your office was asked to comment on the Draft FR and DSEIS/DEIR in a letter dated April 10, 2008. We have received no comments from you. At this time however, we are notifying you of a slight change in the project scope. We request any comments that you may have on this undertaking before we proceed with issuing the final report.

Since the 2008 Draft FR and DSEIS/DEIR were released, the USACE has been conducting additional economic studies of the proposed port improvements at the direction of USACE Headquarters. That process has resulted in a reduced scope of improvements being recommended for Boston Harbor. The change in recommendation consists of a reduction in the recommended project depth in the inner harbor from the President Roads Channel and Main Ship Channel to Massport's Conley terminal of 47 feet at mean lower low water (MLLW). The prior recommended plan included a depth of 48 feet in these areas. The following is a description of the past and current improvements now being recommended:

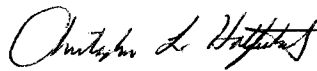
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Please advise us whether you have any comments based on the slight reduction in the proposed project description and in light of any new circumstances or information released since 2008 that would be relevant to the proposed project. If no written comments are received by November 9, 2012, then we will determine that the Draft FR and SEIS/EIR are still valid as to areas within your jurisdiction and concern. Any questions or comments can be addressed to Ms. Catherine Rogers, ecologist, at 978-318-8231.

Sincerely,


for John R. Kennelly
Chief of Planning

Enclosure

Copy Furnished (w/o enclosure):

Stewart Dalzell
MASSPORT
One Harborside Drive
Boston, Massachusetts 02128



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696 VIRGINIA ROAD
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October 11, 2012

Engineering/Planning Division
Planning Branch

Mr. Richard K. Sullivan Jr., Secretary
Massachusetts Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, Massachusetts 022114

Dear Mr. Sullivan:

The U.S. Army Corps of Engineers (USACE), New England District, in partnership with the Massachusetts Port Authority (Massport), is updating the Final Feasibility Report (FR) and joint Final Supplemental Environmental Impact Statement and Final Environmental Impact Report (FSEIS/FEIR) for the Boston Harbor Deep Draft Navigation Improvement Project prior to its public release sometime in early 2013. The Final FR and joint FSEIS/FEIR examines proposed improvements to the deep-draft Federal navigation channels in Boston Harbor, Massachusetts.

Your office commented on the Draft FR and DSEIS/DEIR in a letter (enclosed) dated June 13, 2008 which summarized comments from State, local and non-governmental agencies. At this time we are requesting confirmation that previous determination remains valid before we proceed with issuing the final report.

Since the 2008 Draft FR and DSEIS/DEIR were released, the USACE has been conducting additional economic studies of the proposed port improvements at the direction of USACE Headquarters. That process has resulted in a reduced scope of improvements being recommended for Boston Harbor. The change in recommendation consists of a reduction in the recommended project depth in the inner harbor from the President Roads Channel and Main Ship Channel to Massport's Conley terminal of 47 feet at mean lower low water (MLLW). The prior recommended plan included a depth of 48 feet in these areas. The following is a description of the past and current improvements now being recommended:

- Improving access to the Conley Terminal for containerships by deepening the harbor's existing 40-foot channels, turning basin and anchorage to a depth of -47 feet MLLW, with an additional three feet of depth in the Broad Sound North Entrance Channel (up to -50 feet MLLW). Massport would also deepen the berths at the Conley Terminal to at least 50 feet. These improvements would allow a greater percentage of New England cargo to be shipped through the Port of Boston, rather than through the Port of New York and New Jersey and moved to New England by truck.

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- Improving access to the Chelsea River primarily to its petroleum terminals by deepening the existing -38-foot channel to -40 feet MLLW.

For the above recommended improvements, approximately 9.8 million cubic yards of clays, sands, and tills, all parent materials largely of glacial origin, will be dredged from the harbor bottom. In addition, up to about 880,000 cubic yards of rock could be blasted and dredged from the harbor. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site which is located about 18 miles seaward of the harbor. The project would take about three years to construct. The unconsolidated materials may be used to cap the former industrial waste site in Massachusetts Bay in response to a request from EPA. The rock may be used to create reef habitat in Massachusetts Bay.

Please advise us whether your prior comments are still applicable based on the slight reduction in the proposed project description and in light of any new circumstances or information released since 2008 that would be relevant to the proposed project. If no written comments are received by November 9, 2012, then we will determine that the previous comments on the Draft FR and SEIS/EIR are still current. Any questions or comments can be addressed to Ms. Catherine Rogers, ecologist, at 978-318-8231.

Sincerely,


John R. Kennelly
Chief of Planning

Enclosure

Copy furnished (w/enclosure):

Mr. Bruce Carlisle, Director
Massachusetts Coastal Zone Management
251 Causeway Street, Suite 800
Boston, Massachusetts 02114

Mr. Kenneth L. Kimmell, Commissioner
Massachusetts Department of Environmental Protection
One Winter Street
Boston, Massachusetts 02108

Mr. Thomas French
Natural Heritage/Endangered Species
Massachusetts Division of Fisheries and Wildlife
100 Hartwell Street, Suite 230
West Boylston, Massachusetts 01583

Ms. Marianne Connolly, Program Manager
Regulatory Compliance
Massachusetts Water Resources Authority
Charlestown Navy Yard
100 First Avenue, Building 39
Boston, Massachusetts 02129

Stewart Dalzell (w/o enclosure)
MASSPORT
One Harborside Drive
Boston, Massachusetts 02128



REPLY TO
ATTENTION OF

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

October 11, 2012

Engineering/Planning Division
Planning Branch

Ms. Ramona Peters, Tribal Historic Preservation Officer
Mashpee Wampanoag Tribe
483 Great Neck Road South
Mashpee, Massachusetts 02649

Dear Ms. Peters:

The U.S. Army Corps of Engineers (USACE), New England District, in partnership with the Massachusetts Port Authority (Massport), is updating the Final Feasibility Report (FR) and joint Final Supplemental Environmental Impact Statement and Final Environmental Impact Report (FSEIS/FEIR) for the Boston Harbor Deep Draft Navigation Improvement Project prior to its public release sometime in early 2013. The Final FR and joint FSEIS/FEIR examines proposed improvements to the deep-draft Federal navigation channels in Boston Harbor, Massachusetts.

Your office was asked to comment on the Draft FR and DSEIS/DEIR in a letter (enclosed) dated April 10, 2008. We received no comments from you. At this time however, we are notifying you of a slight change in the project scope. We request any comments that you may have on this undertaking before we proceed with issuing the final report.

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Please advise us whether you have any comments based on the slight reduction in the proposed project description and in light of any new circumstances or information released since 2008 that would be relevant to the proposed project. If no written comments are received by November 9, 2012, then we will determine that the Draft FR and SEIS/EIR are still valid as to areas within your jurisdiction and concern. Any questions or comments can be addressed to Mr. Marc Paiva at 978-318-8796.

Sincerely,


John R. Kennelly
Chief of Planning

Enclosure

Copy Furnished (w/o enclosure):

Stewart Dalzell
MASSPORT
One Harborside Drive
Boston, Massachusetts 02128



REPLY TO
ATTENTION OF

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

October 11, 2012

Engineering/Planning Division
Planning Branch

Ms. Bettina Washington
Tribal Historic Preservation Officer
Wampanoag Tribe of Gay Head (Aquinnah)
20 Black Brook Road
Aquinnah, Massachusetts 02535

Dear Ms. Washington:

The U.S. Army Corps of Engineers (USACE), New England District, in partnership with the Massachusetts Port Authority (Massport), is updating the Final Feasibility Report (FR) and joint Final Supplemental Environmental Impact Statement and Final Environmental Impact Report (FSEIS/FEIR) for the Boston Harbor Deep Draft Navigation Improvement Project prior to its public release sometime in early 2013. The Final FR and joint FSEIS/FEIR examines proposed improvements to the deep-draft Federal navigation channels in Boston Harbor, Massachusetts.

Your office was asked to comment on the Draft FR and DSEIS/DEIR in a letter dated April 10, 2008. We received no comments from you. At this time however, we are notifying you of a slight change in the project scope. We request any comments that you may have on this undertaking before we proceed with issuing the final report.

Since the 2008 Draft FR and DSEIS/DEIR were released, the USACE has been conducting additional economic studies of the proposed port improvements at the direction of USACE Headquarters. That process has resulted in a reduced scope of improvements being recommended for Boston Harbor. The change in recommendation consists of a reduction in the recommended project depth in the inner harbor from the President Roads Channel and Main Ship Channel to Massport's Conley terminal of 47 feet at mean lower low water (MLLW). The prior recommended plan included a depth of 48 feet in these areas. The following is a description of the past and current improvements now being recommended:

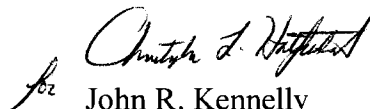
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Sincerely,


John R. Kennelly
Chief of Planning

Enclosure

Copy Furnished (w/o enclosure):

Stewart Dalzell
MASSPORT
One Harborside Drive
Boston, Massachusetts 02128



REPLY TO
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NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

October 11, 2012

Engineering/Planning Division
Planning Branch

Mr. Louis Elisa
Executive Secretary & Director of Port Development
Massachusetts Seaport Council
40 Center Street
Fairhaven, Massachusetts 02719

Dear Mr. Elisa:

The U.S. Army Corps of Engineers (USACE), New England District, in partnership with the Massachusetts Port Authority (Massport), is updating the Final Feasibility Report (FR) and joint Final Supplemental Environmental Impact Statement and Final Environmental Impact Report (FSEIS/FEIR) for the Boston Harbor Deep Draft Navigation Improvement Project prior to its public release sometime in early 2013. The Final FR and joint FSEIS/FEIR examines proposed improvements to the deep-draft Federal navigation channels in Boston Harbor, Massachusetts.

Your office was asked to comment on the Draft FR and DSEIS/DEIR in a letter dated April 10, 2008. We received no comments on our letter. At this time however, we are notifying you of a slight change in the project scope. We request any comments that you may have on this undertaking before we proceed with issuing the final report.

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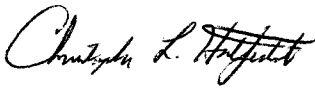
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Sincerely,


John R. Kennelly
Chief of Planning

Enclosure

Copy Finished (w/o enclosure):

Stewart Dalzell
MASSPORT
One Harborside Drive
Boston, Massachusetts 02128



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

October 11, 2012

Engineering/Planning Division
Planning Branch

Ms. Brona Simon
Executive Director and SHPO Massachusetts Historical Commission
Massachusetts State Archives Building
220 Morrissey Boulevard
Boston, Massachusetts 02125

Dear Ms. Simon:

The U.S. Army Corps of Engineers (USACE), New England District, in partnership with the Massachusetts Port Authority (Massport), is updating the Final Feasibility Report (FR) and joint Final Supplemental Environmental Impact Statement and Final Environmental Impact Report (FSEIS/FEIR) for the Boston Harbor Deep Draft Navigation Improvement Project prior to its public release sometime in early 2013. The Final FR and joint FSEIS/FEIR examines proposed improvements to the deep-draft Federal navigation channels in Boston Harbor, Massachusetts.

Your office was asked to comment on the Draft FR and DSEIS/DEIR in a letter dated April 10, 2008. We received no comments from your office. At this time however, we are notifying you of a slight change in the project scope. We request any comments that you may have on this undertaking before we proceed with issuing the final report.

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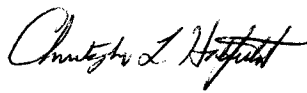
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Sincerely,


for John R. Kennelly
Chief of Planning

Enclosure

Copy Furnished (w/o enclosure):

Stewart Dalzell
MASSPORT
One Harborside Drive
Boston, Massachusetts 02128



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

October 11, 2012

Engineering/Planning Division
Planning Branch

Mr. Victor T. Mastone
Director and Chief Archaeologist
Board of Underwater Archaeology
251 Causeway Street, Suite 800
Boston, Massachusetts 02114

Dear Mr. Mastone:

The U.S. Army Corps of Engineers (USACE), New England District, in partnership with the Massachusetts Port Authority (Massport), is updating the Final Feasibility Report (FR) and joint Final Supplemental Environmental Impact Statement and Final Environmental Impact Report (FSEIS/FEIR) for the Boston Harbor Deep Draft Navigation Improvement Project prior to its public release sometime in early 2013. The Final FR and joint FSEIS/FEIR examines proposed improvements to the deep-draft Federal navigation channels in Boston Harbor, Massachusetts.

Your office was asked to comment on the Draft FR and DSEIS/DEIR in a letter (enclosed) dated April 10, 2008. We received a letter from your office dated June 2, 2008 that concurred with the findings and recommendations of the archaeological surveys. The Board also concurred with the recommendation that a remote sensing archaeological survey should be conducted for the areas of potential affect in the Mystic River and Chelsea River Channels, should proposals to deepen these areas be implemented. At this time however, we are notifying you of a slight change in the project scope. We request any comments that you may have on this undertaking before we proceed with issuing the final report.

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Sincerely,


John R. Kennelly
Chief of Planning

Enclosure

Copy Furnished (w/o enclosure):

Stewart Dalzell
MASSPORT
One Harborside Drive
Boston, Massachusetts 02128



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET NW
WASHINGTON, D.C. 20314-1000

CEMP-NAD


26 Sep 2012

MEMORANDUM FOR Commander, North Atlantic Division, (CENAD-ET-P)
ATTN: Ms. Linda Monte

SUBJECT: Boston Harbor Navigation Improvements Study – Additional Economic analyses to respond to HQUSACE Policy Comments on the Final Feasibility report and Supplemental Environmental Impact Statement (SEIS).

1. Reference Office of Water Policy Review memo dated 12 Sep 2012, subject as above, providing final comments on the Final Feasibility reports and SEIS.
2. The HQ final comments are attached and are self-explanatory. I'll need a new schedule on when the required items are expected to be completed by the District, submitted through NAD, and then to HQ together with a Division Commanders submittal letter and when we can estimate a reasonable schedule for the Civil Works Review Board meeting. We will need to work on the proposed agenda as well.
7. If you should have any questions please contact me, or Catherine Shuman, HQ Planner for the NAD RIT at (202) 761-1379.

Encl


PETER C. LUISA
Deputy Chief, Civil Works
NAD Regional Integration Team
Directorate of Military Programs

MEMORANDUM FOR CEMP-NAD (ATTN: Mr. Pete Luisa)

SUBJECT: Boston Harbor, Massachusetts Navigation Improvement Study - Additional Economic Analysis to Respond to HQUSACE Policy Comments on the Final Feasibility Report and Supplemental Environmental Impact Statement (SEIS)

1. This memo is in response to the Boston Harbor Economic Reanalysis submitted by the New England District project delivery team on 31 May 2012. This reanalysis was conducted to address HQUSACE policy review comments on the Final Feasibility Report and SEIS.
2. A Civil Works Review Board (CWRB) briefing was held for the Boston Harbor, Massachusetts Navigation Improvement Study on 21 August 2008. The District Commander's recommended plan consisted of improvements for accessing four segments of the port: 1) the Main Ship Channel to the port's sole container terminal (Conley Terminal); 2) Main Ship Channel access to the non-Federal sponsor's (MASSPORT) redeveloped MASSPORT Marine Terminal; 3) the Mystic River Channel to MASSPORT's Medford Street Terminal; and 4) the Chelsea River Channel. The recommended plan was estimated to cost about \$304 million, to provide about \$12 million in net annual benefits, and to have a benefit-to-cost ration of 1.74 at 4-7/8 %.
3. The CWRB concurred that the recommendations for the Main Ship Channel extension to the MASSPORT Marine Terminal and the Mystic River access to MASSPORT's Medford Street Terminal would be contingent on further analysis and preparation of a Limited Re-evaluation Report during the design phase, as neither of these two terminals was yet occupied.
4. The HQUSACE policy review team raised three basic issues with the economic analysis for the access to the Conley Terminal: 1) the landside analysis of transportation costs and determination of the portion of land transported cargo that could shift to ship transport to Boston; 2) waterside analysis of the vessels that might carry those shifting boxes at various depths with or without deepening; and 3) the analysis of vessel loading and sailing drafts used.
5. The reanalysis and supporting assumptions submitted by the New England District evaluated the economic effects of channel depths ranging from 46-49 feet MLLW for the Main Ship Channel to the Conley Terminal. Assumptions were made regarding vessel loading, trade routes, and other factors such as tidal delays. The results indicate that net benefits increase significantly with each additional foot of depth to a depth of 47 feet MLLW. Net benefits experience only a minimum increase between 47 and 48 feet MLLW, which is the depth where the maximum net benefits are realized. ER 1105-2-100 requires that where two cost-effective plans produce no significantly different levels of net benefits, the less costly plan is to be the NED plan, even though levels of outputs may be less. Based on the reanalysis submitted by the New England District, the HQUSACE policy review team concurs that the policy compliant NED plan consists of a 47-foot channel for the segment of the project that includes the Main Ship Channel to the Conley Terminal. Where appropriate, qualitative outputs such as the beneficial use of dredged material and reduced truck traffic and air quality impacts should be described to further support the recommended plan.


CECW-PC

SUBJECT: Boston Harbor, Massachusetts Navigation Improvement Study - Additional Economic Analysis to Respond to HQUSACE Policy Comments on the Final Feasibility Report and Supplemental Environmental Impact Statement (SEIS)

6. In accordance with ER 1110-2-1404, the depth of the entrance channel will reflect this 47-foot depth adjusted to address squat, sinkage in fresh water, the effect of wind and wave action, and safety and efficiency clearance. Should the non-Federal sponsor desire a Locally Preferred Plan (LPP) with deeper depths in either the main ship channel or in the entrance channel, a waiver from ASA(CW) is required.

7. The previously submitted Boston Harbor Navigation Improvement Project Main Report would remain largely intact except that the Framework, sensitivity analysis, and results will be added as an addendum bound to the main report. The main report will include a new recommendation section that reflects the results of the reanalysis and is signed by the District Commander. The Executive Summary will be revised to reflect the additional information and other modifications to the report as appropriate. It is recommended that the New England District coordinate with the vertical team when incorporating these revisions to ensure consistency and agreement on format.

8. An abbreviated briefing of the CWRB will be held no less than 21 calendar days after HQUSACE receives the Division Commander's transmittal memo for the final report and SEIS. The purpose of the meeting is to secure approval to release the final report and SEIS and the draft Chief's Report for S&A review in accordance with the 1944 Flood Control Act and for final NEPA review. The abbreviated approach is expected to demonstrate a more efficient and effective way to conduct CWRB's consistent with the spirit of SMART planning. The Office of Water Project Review will work with the NAD Regional Integration Team and the NAD Chief of Planning and Policy to craft a proposed agenda and logistical arrangements for the CWRB.


Wesley E. Coleman, Jr.
Chief, Office of Water Project Review
Directorate of Civil Works



DEPARTMENT OF THE ARMY
NORTH ATLANTIC DIVISION, CORPS OF ENGINEERS
FORT HAMILTON MILITARY COMMUNITY
GENERAL LEE AVENUE, BLDG 301
BROOKLYN, NY 11252

REPLY TO

CENAD-PD-CID-S

22 September 2009

MEMORANDUM FOR: Commander, New England District, US Army Corps of Engineers, ATTN: CENAE-EP-PN

SUBJECT: Boston Harbor, Massachusetts – Feasibility Cost Sharing Agreement (FCSA) Amendment #2 – PWI 013654, P2 109034

1. Reference is made to CENAE-EP-PM memorandum, dated 28 August 2009, SAB, requesting approval to execute a Feasibility Cost Sharing Agreement (FCSA) amendment.
2. The District's request to execute the subject FCSA amendment is approved. The North Atlantic Division, Programs Directorate has reviewed the subject package and concurs with the District's proposal to execute an amendment to the FCSA for excess study costs in the amount of \$850,000. These costs must ultimately be shared on an equal (50% Federal and 50% non-Federal) basis in accord with the terms of the Agreement. The Federal Government may initially pay the Sponsor's share of excess study costs, which are ultimately reimbursed by the Sponsor, in accordance with the provisions and timeframes of Article II.C and Article III.D of the Agreement.
3. The amendment is approved for execution within 21 calendar days from the date of this memorandum. You may not deviate from this approved amendment without prior Programs Directorate authorization. The District should prepare a minimum of four final amendment originals. The Sponsor should sign the amendment first, and upon execution by the District Engineer, the District should retain two amendment originals, and the remaining original amendments should be provided to the sponsor. A copy of the amendment should be forwarded to CENAD-PD-CID (Mr. Paul Sabalis) not later than 14 days after execution.
4. The point of contact for this action is Mr. Paul Sabalis, P.E. Mr. Sabalis may be reached at (718) 765-7089.

LLOYD CALDWELL, P.E., SES
Director of Programs

Encls.



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

REPLY TO:
ATTENTION OF:
CENAE-EP-PN

28 August 2009

MEMORANDUM FOR Commander, North Atlantic Division, U.S. Army Corps of Engineers
CENAD-PD-CID-P (Attn: Mr. Joseph Forcina), Ft. Hamilton Military Community, 301 General
Lee Avenue, Brooklyn, New York 11252-5700

SUBJECT: Request Approval to Execute Amendment Number Two to the Feasibility Cost
Sharing Agreement (FCSA) for the Boston Harbor, Massachusetts, Deep Draft Navigation
Improvement Study, PWI 013654, P2 109034.

1. NAE requests NAD provide approval to execute enclosed Amendment Number Two to the FCSA between the Massachusetts Port Authority (Massport) and the Department of the Army for the Boston Harbor, Massachusetts, Deep Draft Navigation Improvement Study. This amendment increases the total study cost to cover changes for the additional economic analysis requested by HQUSACE as a result of the Civil Works Review Board action of 21 August 2008.
2. Also enclosed is a copy of the original FCSA, Amendment Number One to the FCSA dated July 1, 2008, and the District's Legal Certification for the proposed amendment, (Exhibits 1, 2 and 3).
3. Please contact Mr. Mark Habel of my staff at 978-318-8871 if you have any questions on the enclosed amendment. We look forward to receiving approval of this amendment as soon as possible so we can proceed with requested additional analysis and, if necessary, preparation of a revised final Feasibility Report.

Encls

ANTHONY T. MACKOS, P.E.
Acting Chief, Engineering/Planning Division

Copy Furnished:

Peter Sabalis, DST, NAD
Richard Ring, NAD

DST DST
RECEIVED
8/31/09

From: [Ring, Richard J NAD](#)
To: [Vietri, Joseph R NAD](#)
Cc: [Blum, Peter R NAD](#); [Habel, Mark L NAE](#)
Subject: FW: Boston Harbor - Revised Framework Estimate & Timeline
Date: Thursday, August 13, 2009 1:50:27 PM

Joe,
Looks like agreement on the revised RF from OWPR. Mark Habel (NAE) did a great job on this especially on #6. It looks like a final RF will be available to Massport tomorrow and can be mentioned by Col DeLuca and/or Col Feir if they phone Massport.
Rich

-----Original Message-----

From: Claseman, Kenneth G HQ02
Sent: Thursday, August 13, 2009 1:45 PM
To: Habel, Mark L NAE; Ring, Richard J NAD; Hughes, Thomas E HQ02; Coleman, Wesley E Jr HQ02; Thalhauser, Jenifer E NAN02; Cone, Steven R IWR; Vietri, Joseph R NAD; Blum, Peter R NAD; Brown, Theodore A HQ02; Caldwell, Lloyd NAD
Cc: O'leary, Edmund J NAE; Kennelly, John R NAE; Scully, William C NAE; Mackos, Anthony T NAE; Byrne, Robert H NAE; Keegan, Michael F NAE; Hodson, Thomas J NAN02; Fraenkel, Naomi R NAN02; Bradley, Kenneth P SAM; Moseby, Bernard E SAM
Subject: RE: Boston Harbor - Revised Framework Estimate & Timeline

OK, thanks Mark, all that makes sense to me.

Ken Claseman
Office of Water Project Review
HQUSACE
Office: (202) 761-5451
Cellular: (202) 281-0813

-----Original Message-----

From: Habel, Mark L NAE
Sent: Thursday, August 13, 2009 1:21 PM
To: Claseman, Kenneth G HQ02; Ring, Richard J NAD; Hughes, Thomas E HQ02; Coleman, Wesley E Jr HQ02; Thalhauser, Jenifer E NAN02; Cone, Steven R IWR; Vietri, Joseph R NAD; Blum, Peter R NAD; Brown, Theodore A HQ02; Caldwell, Lloyd NAD
Cc: O'leary, Edmund J NAE; Kennelly, John R NAE; Scully, William C NAE; Mackos, Anthony T NAE; Byrne, Robert H NAE; Keegan, Michael F NAE; Hodson, Thomas J NAN02; Fraenkel, Naomi R NAN02; Bradley, Kenneth P SAM; Moseby, Bernard E SAM
Subject: RE: Boston Harbor - Revised Framework Estimate & Timeline

Thank-you Ken: Per your comments:

1. The coordination meetings are identified by the red lines on the timeline, referenced to the note at the top of the page as "Checkpoints or in-Progress Reviews (Approximate)". These would be teleconferences, video conferences or face-to-face meetings as each situation required.
2. Agreed. Have moved this back two weeks to conclude concurrent with the ATR.
3. Changed line item to read "DDN PCX Review of any Models & Approval for Use/Certification" to cover both possibilities.
4. Changed line item to read "HQ Reviews Revised Report and Prepares for CWRB Action"
5. Agreed. Third from last line item changed to read "Prepare & Submit Revised FFR and Draft Chief's Report to NAD & HQ"

6. Disagree. When we began the Framework development process this was discussed and we had decided to have the re-analysis only cover getting back to the Board. The remainder of the process is already covered in the existing Feasibility scope and budget covered by the current FCSA. Completing the Framework effort will get us back to the point of resuming the ordinary course of the project. The FCSA modification will deal solely with the Framework effort. Wrapping the Feasibility phase completion tasks back into the Framework effort now will require us to also wrap in the budget and scope of that effort. The District would prefer not to have to further revise the package at this point and to continue keeping the two efforts separate. The Sponsor well understands the post-CWRB process.

Mark L. Habel, CENAE-EP-PN
978-318-8871

-----Original Message-----

From: Claseman, Kenneth G HQ02

Sent: Thursday, August 13, 2009 12:49 PM

To: Habel, Mark L NAE; Ring, Richard J NAD; Hughes, Thomas E HQ02; Coleman, Wesley E Jr HQ02; Thalhauser, Jenifer E NAN02; Cone, Steven R IWR; Vietri, Joseph R NAD; Blum, Peter R NAD; Brown, Theodore A HQ02; Caldwell, Lloyd NAD

Cc: O'leary, Edmund J NAE; Kennelly, John R NAE; Scully, William C NAE; Mackos, Anthony T NAE; Byrne, Robert H NAE; Keegan, Michael F NAE; Hodson, Thomas J NAN02; Fraenkel, Naomi R NAN02; Bradley, Kenneth P SAM; Moseby, Bernard E SAM

Subject: RE: Boston Harbor - Revised Framework Estimate & Timeline

Mark,

My thoughts - all are related to the timeline.

1. The coordination meetings between the District, the MSC and HQ should be clearly identified on the timeline.
2. I think the NWW Cost Review typically occurs concurrent with the ATR.
3. Models will probably be "approved for use" rather than "certified."
4. There needs to be time for a final HQ review after the submittal of the revised report. If that is what is intended by the statement "HQ prepares briefing" it should be revised to indicate a HQ review of the revised report.
5. Also, District preparation of the draft Chief's Report could be indicated on the timeline.
6. There are many items beyond CWRB approval which should probably included so the sponsor is clearly informed. These include an S&A Review {30 days} and final NEPA review {about 40 days mostly concurrent}, responses to S&A (RIT) and NEPA (MSC) comments, finalization of Chief's report package, complete Documentation of Review Findings (OWPR), Chief signs Final Report of the Chief of Engineers (RIT). Report is forwarded to ASA(CW) who forward it to OMB for concurrence, ASA(CW)transmits to Congress.

Ken Claseman
Office of Water Project Review
HQUSACE
Office: (202) 761-5451
Cellular: (202) 281-0813

-----Original Message-----

From: Habel, Mark L NAE

Sent: Tuesday, August 11, 2009 3:34 PM

To: Ring, Richard J NAD; Claseman, Kenneth G HQ02; Hughes, Thomas E HQ02; Coleman, Wesley E Jr HQ02; Thalhauser, Jenifer E NAN02; Cone, Steven R IWR; Vietri, Joseph R NAD; Blum, Peter R NAD;

Brown, Theodore A HQ02; Caldwell, Lloyd NAD
Cc: O'leary, Edmund J NAE; Kennelly, John R NAE; Scully, William C NAE; Mackos, Anthony T NAE;
Byrne, Robert H NAE; Keegan, Michael F NAE; Hodson, Thomas J NAN02; Fraenkel, Naomi R NAN02;
Bradley, Kenneth P SAM; Moseby, Bernard E SAM
Subject: Boston Harbor - Revised Framework Estimate & Timeline

Boston Team: Attached is an Excel sheet containing the revised study cost estimate and timeline for the Boston Harbor Reanalysis Framework. The consolidated estimate (contract and in-house costs, analysis and report revision/reviews) is the first worksheet in the file. The second worksheet is the timeline for the effort. The other sheets are the roll-up of contract cost details.

Also attached is the final version of the Framework scope - to give all pieces in one email.

In order to provide the final version to Massport by this Friday, please provide any comments on the estimate/timeline to me by 15:00 on Thursday 8/13.

Mark L. Habel, CENAE-EP-PN
978-318-8871

From: [Claseman, Kenneth G HQ02](#)
To: [Habel, Mark L NAE](#); [O'leary, Edmund J NAE](#)
Cc: [Ring, Richard J NAD](#); [Keegan, Michael F NAE](#); [Kennelly, John R NAE](#); [Scully, William C NAE](#); [Vietri, Joseph R NAD](#)
Subject: Re: Boston Harbor - Revised Framework
Date: Thursday, August 06, 2009 5:09:48 PM

I concur

----- Original Message -----

From: Habel, Mark L NAE
To: Habel, Mark L NAE; Claseman, Kenneth G HQ02; O'leary, Edmund J NAE
Cc: Ring, Richard J NAD; Keegan, Michael F NAE; Kennelly, John R NAE; Scully, William C NAE; Vietri, Joseph R NAD
Sent: Thu Aug 06 15:50:55 2009
Subject: RE: Boston Harbor - Revised Framework

Having spoken further with Ken just now, attached is a clean version covering his last request. Edits are all to Page 5 in the paragraphs on either side of the table. If all concur we'd like to make this available for release to Massport.

Mark L. Habel, CENAE-EP-PN
978-318-8871

-----Original Message-----

From: Habel, Mark L NAE
Sent: Thursday, August 06, 2009 4:14 PM
To: Claseman, Kenneth G HQ02; O'leary, Edmund J NAE
Cc: Ring, Richard J NAD; Keegan, Michael F NAE
Subject: RE: Boston Harbor - Revised Framework

Where referenced in the table and discussions paragraphs above and below the table, the term confidence interval has been replaced by error.

Mark L. Habel, CENAE-EP-PN
978-318-8871

-----Original Message-----

From: Claseman, Kenneth G HQ02
Sent: Thursday, August 06, 2009 3:01 PM
To: O'leary, Edmund J NAE; Habel, Mark L NAE
Cc: Ring, Richard J NAD; Keegan, Michael F NAE
Subject: Re: Boston Harbor - Revised Framework

I concur that the term "error" is preferable, however the main point of my concern is that we are not going to proceed with the analysis if we don't meet the minimum standard we have agreed too. Again, the sentence needs to be revised or deleted.

----- Original Message -----

From: O'leary, Edmund J NAE
To: Habel, Mark L NAE
Cc: Ring, Richard J NAD; Keegan, Michael F NAE; Claseman, Kenneth G HQ02
Sent: Thu Aug 06 13:45:17 2009

Subject: FW: Boston Harbor - Revised Framework

Mark,

Could you replace the term "confidence interval" with the word "error" to satisfy Ken's comment in Paragraph 2 of his e-mail below.

Ed

-----Original Message-----

From: Claseman, Kenneth G HQ02
Sent: Thursday, August 06, 2009 2:40 PM
To: O'leary, Edmund J NAE
Subject: Re: Boston Harbor - Revised Framework

Ed,

On point 2, the write-up still needs to be consistent with the minimum standard we agreed to.

Ken

----- Original Message -----

From: O'leary, Edmund J NAE
To: Claseman, Kenneth G HQ02
Cc: Habel, Mark L NAE; Ring, Richard J NAD; Hughes, Thomas E HQ02; Cone, Steven R IWR; Keegan, Michael F NAE
Sent: Thu Aug 06 13:11:20 2009
Subject: RE: Boston Harbor - Revised Framework

I agree with Paragraphs 1 and 3. However, I do not agree with Paragraph 2. Confidence interval and error are the same thing. The confidence level will always be 95 % and the maximum error or confidence interval that we can live with is + or - 15 %. To avoid confusion we should not use the term confidence interval (it's too close to confidence level) and use the term error.

Ed

-----Original Message-----

From: Claseman, Kenneth G HQ02
Sent: Thursday, August 06, 2009 1:22 PM
To: Habel, Mark L NAE; Hughes, Thomas E HQ02; O'leary, Edmund J NAE; Ring, Richard J NAD; Cone, Steven R IWR
Cc: Ware, Charles L HQ02
Subject: Re: Boston Harbor - Revised Framework

This SOW identifies a minimum confidence level of 15 percent in one place, which is not right. The minimum confidence level should be 95 percent and the maximum error bounds should be + or - 15 percent. Please make sure these numbers are used consistently throughout the document.

Also reference the sentence that states, "The vertical team recognizes the potential for the survey effort to yield a lesser confidence interval than 5 percent, and agrees that the re-analysis will need to proceed even with a lesser shipper participation." This statement is incorrect and contradicts the minimum 95 percent confidence level, with + or - 15 percent error limit. The sentence needs to be deleted or re-written to conform to minimum levels we have agreed to.

By the way, the example sample size example provided are for proportion. When estimating mean values a different sample estimating procedure based on variance is used.

Ken

----- Original Message -----

From: Habel, Mark L NAE

To: Ring, Richard J NAD; Keegan, Michael F NAE; Claseman, Kenneth G HQ02; Hughes, Thomas E HQ02; Coleman, Wesley E Jr HQ02; Thalhauser, Jenifer E NAN02; Cone, Steven R IWR; Vietri, Joseph R NAD; Blum, Peter R NAD; Brown, Theodore A HQ02; Caldwell, Lloyd NAD

Cc: O'leary, Edmund J NAE; Kennelly, John R NAE; Scully, William C NAE; Mackos, Anthony T NAE; Byrne, Robert H NAE

Sent: Thu Aug 06 10:39:22 2009

Subject: Boston Harbor - Revised Framework

I've revised the Framework to include Ken's track-changes and incorporated Ed's new language on the statistics and sampling. Two versions are attached: A final Mark-up showing today's changes/edits, and a "Clean" version without the mark-up that's easier to read.

In the Mark-up version, the following are of note.

On page 3 highlighted in yellow I added some language to respond to Steve Cone's email.

On Page 4 to 5 in track-change and highlighted in green is the reworked section on statistics and sampling.

On page 11 highlighted in yellow is a new paragraph on Tasks 5 and 6 to bring the Framework in line with the way the estimate is structured.

The District is seeking VT concurrence with the re-analysis Framework text.

Mark L. Habel, CENAE-EP-PN
978-318-8871

BOSTON HARBOR DEEP DRAFT NAVIGATION IMPROVEMENT STUDY FINAL FEASIBILITY REPORT AND SEIS

Framework for Additional Economic Analysis to Respond to Office of Water Project Review Comments from Civil Works Review Board Meeting of 21 August 2008 and CWRB VTC of 18 September 2008

Framework Revised 6 August 2009

This Framework outlines the scope of an economic reanalysis of the Boston Harbor Improvement Project resulting from comments raised at the August 2008 Civil Works Review Board meeting and subsequent conferences, vertical team meetings, and special meetings to review scope specifics and data source issues. The Framework scope provides a path forward to resolve the remaining comments and concerns with project design depth optimization.

BACKGROUND AND FEASIBILITY ANALYSIS

The Boston Harbor Feasibility Study was initiated in July 2002 in accordance with a Feasibility Cost-Sharing Agreement executed with Massport. The study underwent a Feasibility Review Conference in July 2005, a pre-Alternatives Formulation Briefing meeting in May 2007, Agency Technical Review of the AFB and Draft reports from August 2007 to June 2008, an Alternative Formulation Briefing in November 2008, public review of the Draft Feasibility Report and SEIS in April to May 2008, completion of Independent External Peer Review in June 2008, submission of the Draft Final Report in July 2008, a Civil Works Review Board meeting in August 2008, and follow-on CWRB Teleconference in September 2008.

The Draft and Draft Final Feasibility Reports recommended deepening the main channels of the port of Boston to 48 feet from the sea to Massport's Conley Container Terminal in South Boston, a distance of about 6 miles, with an additional two feet of depth in the entrance channel. The recommended project carried a cost of about \$308 million, of which about 89 percent was for the containership channel improvements. Benefits for the containership channel improvements were principally developed as reduced landside transportation costs, from containers now shipped to and from New England origins and destinations through the PONYNJ being shifted to water carriage directly to Boston. The shorter trucking distance from Boston v. PONYNJ generated the benefits, estimated at about \$480 per container shifted to Boston.

As drawn from the Feasibility Report's economic analysis; the base-year (2014) condition is for a total of at least 900,000 TEUs to be shipped through the Boston Harbor New England hinterland by all transportation means (ship, barge, truck, rail). The Feasibility Report estimates that the existing three services (1 COSCO service and 2 MSC services) will increase vessel size as demand grows to carry about 172,000 TEUs in the base year (as compared to 131,000 in 2006, or the total of 220,000 TEUs handled by Conley Terminal

from all carriers in 2007). The Feasibility Report also estimates that the most likely condition for barge and rail is a continuation of the existing 81,000 TEUs annually due to cost and infrastructure limitations on those means of transport. This leaves 647,000 TEUs out of the 900,000 base year total transported into the region in 2014 by truck from other ports, the majority of these from the PONYNJ, but also from other US east coast ports as well, with a minor number carried over the land bridge from the west coast.

These numbers are subject to constant change, as existing conditions continue to overtake industry volume projections. The 900,000 TEU number has likely changed since that part of the analysis was prepared. HQUSACE also notes that additional TEUs will likely be shipped into the region from other sources, including by rail over the land bridge from the US west coast. The completion of the expanded Panama Canal improvements in 2015 was included in the without-project condition for the Feasibility analysis and will continue to be assumed in the re-analysis.

HQUSACE QUESTIONS

There were three principal comments from HQUSACE (Office of Water Project Review) on Boston Harbor relative to container-shipping benefits and the District's 48-foot recommendation for the Main Channels Improvement Plan. As taken from the OWPR's presentation slides these comments are:

(1) Assessment of Existing Conditions: The study needs to provide more detailed information on the existing condition that will explain why trucking is more cost-effective than waterborne transportation. The report needs to determine what movements are sensitive to depth constraints and what movements are not. This analysis will identify the volume of movements that are sensitive to draft constraints as well as the destination of these movements. Both the demand for waterborne movements as well as the value of transportation savings for these movements will be more clearly defined. Project optimization could be impacted by the results of this information. The District needs to evaluate in more detail the existing commodity movements, compare commodities that are being trucked under existing conditions to those that are moving by ship and the final destination of both movements.

(2) Formulation and Analysis of Alternatives: The study needs to formulate and evaluate other alternatives that may achieve a reduction in transportation cost. The study's depth optimization considers the current shipping lines to Boston only. Considering alternate vessel mix to achieve the estimated shift of only 86,000 TEUs may lead to a different optimized depth. The District needs to analyze all current movements of New England containers through NY and Boston. This should include "analysis of current tonnage size and type of vessel, annual volume of movements, frequency of movements, and volume of individual shipments" (ER 1105-2-100). This information will help define potential movements that may occur due to various deepening alternatives.

(3) Sailing Drafts/Fleet Mix: The analysis for each channel depth, including the future without project condition, should use a realistic distribution of sailing drafts. Under existing conditions with constrained channel depths the distribution of sailing drafts may be very narrow. However, as channel depth increases and the constraint is removed this distribution

should approach what is seen in other ports. The distribution of sailing draft may effect channel optimization. The resolution of the prior comment should also provide the necessary data to resolve this issue.

These three HQUSACE comments all revolve around the same basic question – what is the most likely without-project condition for container shipping at Boston, and what is the appropriate means of performing depth optimization measured from that without-project condition.

In a conference call on 3 September 2008, the District, NAD and HQUSACE (RIT and OWPR) staff discussed the District’s proposed Framework for responding to the questions, HQUSACE’s additional comments on that draft Framework, and the type and level of analyses that HQUSACE believed would satisfy its request and answer the questions. The following Framework lays out the approach resulting from that discussion, as modified over the past ten months as the District, with assistance from the Vertical Team, investigated approaches and methodologies for conducting the several components to the re-analysis. Most recently, these discussions included a teleconference and interagency meeting, hosted by the Corps Institute for Water Resources (IWR) on 27-28 July 2009, with the U.S. Department of Transportation, Bureau of Transportation Statistics, the Internal Revenue Service, and U.S. Census, to determine what data sources existed on which to base the first phase of the analysis.

APPROACH TO THE RE-ANALYSIS

The several questions posed can be categorized as Landside Analysis, Waterside Analysis, Vessel Loading/Draft Analysis, and some additional minor questions. The Framework also includes a communications strategy for full involvement of the Vertical Team and Sponsor in all phases of the re-analysis. The specifics of each are as follows:

Task 1 - Landside Analysis:

The purpose of the Landside Analysis is two-fold. First, to attempt to confirm the cargo transportation shift levels the District used in the draft Feasibility Report, or provide a basis for a modified project depth optimization recommendation. And Second, to provide more substantial analysis of the existing, without-project, and with-project conditions with respect to carriers’ and shippers’ practices. This is intended to shed light on why so much of New England’s container volume is currently shipped through the PONYNJ and under what conditions that volume might shift to Boston. The output of Task 1 will be identification of the cargo volume determined “eligible” for a shift to direct waterborne carriage through the Port of Boston. This output would be used to conduct the Waterside Analysis in Task 2.

The first work element in Task 1 is to collect data on New England container shipments needed to conduct the analysis. The District will acquire more complete 2007 PIERS data from the Waterborne Commerce Statistical Center. An examination of the PIERS database indicates origin/destination fields in that source are not actual shipment addresses, but largely the billing addresses of the shippers. A direct survey of shippers will be required to acquire the origin/destination data. The District anticipates that this effort will be

accomplished through a combination of in-house labor by both NAE and NAN elements and by contract. The required information includes:

- The actual origin and destination of the containers; i.e. the specific locations (zip codes or municipalities) where the boxes are “stuffed or “unstuffed.” This will enable computation of overland transportation distances.
- The type and weight of cargo in individual containers and its value.
- The user or shipper of the cargo.
- Freight charges and fees
- The vessel carrying the container and terminal it was shipped through.
- The method of landside shipment or other trans-shipment (truck, rail, barge).
- Solicit information on how their operations would change as a result of channel deepening at the Port of Boston.

The available data sources would be examined in more detail to determine which of these questions can be answered without resorting to surveys in order to limit survey scope and costs.

Approximately 30 to 40 (exports) and 200 (imports) shippers/receivers account for about 80 % of container shipments through the PONYNJ. Additional shippers account for Boston’s container traffic, with some overlap between the two ports. Overall it is estimated that between 200 and 300 shippers carry New England cargo through the two ports. Data available through PIERS, USDOT and US Census will be used along with information supplied by the Port Authorities and trade organizations to develop a list of contacts for shippers, freight forwarders and other principal interests involved in shipping New England containers. These companies will be contacted to determine their willingness to participate in a survey or interviews to yield the required data. IWR will be consulted in developing the questions to be asked and the sampling plan to be employed, ensuring the representativeness of the sample and ensuring lack of bias in the survey and analysis of results. Depending on the nature of the survey, OMB approval of survey format and questions may be required. NAE will contact and attempt to get information from as many shippers as possible. The Vertical Team recognizes the difficulty in convincing private companies to share often proprietary information and recognizes that not all shippers will be willing to provide information.

It is understood that the PONYNJ conducted a Gate Survey at its terminals for its 1999 study. While dated, this information could give insight as to the distribution of origin/destination locations to check the reasonableness of our own analysis. In addition to shippers, other companies may track container shipments, such as the freight forwarders who stuff and un-stuff boxes carrying multiple shipments for a number of customers, the exchange companies that collect rent for box owners, and the drayage companies that own and manage the chassis that carry the containers. A number of each of these should be included in the survey for balance and to help provide a more complete picture of the industry’s practices.

At the conclusion of the survey/interview effort a stratified random sample of shippers/receivers by New England state, from the population surveyed, will be designed and conducted to analyze the data for the purpose of determining the physical location

where containers are transiting to and from. This information will be used to estimate weighted averages of distances from New York and Boston to each of the New England states. A sample shall be selected to ensure a minimum 95% confidence level for these estimated distances. The sample culled from the survey responses will take into account a balancing of the size of the shipping company, the type of cargo/commodity shipped, the origin/destination of the shipment, and other factors to use a representative sample of the total population of containers shipped.

NAE has calculated required sample sizes for a population of 250 shippers with a 95 % confidence level and error rates of 5%, 10% and 15%, shown in the table below. The formula used to calculate sample size can be found in Sampling Techniques by William Cochran, 1964, Section 4.4. The result is the same as that found at <http://www.surveysystem.com/sscalc.htm>, a web site referenced by HQ. This result is for a simple random sample for the entire population of shippers. It is likely that the District will be using stratified random sampling of sub-divisions (the six New England states) of this population. The survey will strive to achieve a sample size that meets the 5% error limit, but will proceed with the analysis provided a representative sample size that does not exceed the 15% error rate is achieved.

Population	Confidence Level	Error	Sample Size Needed
250	95%	5%	152
250	95%	10%	70
250	95%	15%	37

Vertical Team consensus will be sought on the formula used to calculate sample size, the representativeness of the sample, and the methodology used to determine the sample. The Vertical Team recognizes the potential to get conflicting information from users and shippers in competition with each other regionally. The Vertical Team recognizes the potential for the survey effort to yield a representative sample with a greater error than 5%, and agrees that the re-analysis will need to proceed even with a lesser shipper participation, but will not proceed with an error greater than 15%. The Vertical team also concurs that the results of the representative survey will allow an appropriate extrapolation of information collected to cover all applicable shippers so that a project benefit can be determined.

The second work element in Task 1 is analysis of the data to yield the required inputs for Task 2. The District anticipates that this effort will be accomplished by contract.

The landside analysis will include a detailed assessment of current shipping conditions based on existing trade routes and New England carrier container distribution by vessel class as well as by distance from origin and destination. Cargo origin/destination data will be used to answer questions such as the following:

- How many New England TEUs transported by truck from the Port of NYNJ are actually available to shift to waterborne transport directly to the Port of Boston?
- What factors result in such a large volume being transported by truck now, as opposed to direct carriage by water to Boston?

- Why do they use truck or water transport and at what cost?
- Are there other factors that favor truck transport over water such that any portion of this volume is not available for shift to ship carriage?
- Where specifically are the truck transported boxes going to (or coming from) in New England?
- And from that, what is the cost of truck transport per TEU? (It should be noted that measured from the existing three services carrying 172,000 TEUs, it would require at least twelve more direct containership services to carry the entire additional 647,000 TEUs to Boston.)
- Determine the rationale behind shippers' existing business practices and their flexibility to change these operations.

The analysis will rely on the results of the shipper survey effort and PIERS data for both Boston Harbor and the PONYNJ to describe the state and practices for New England container cargo shipped through both ports. Available data from IWR, USDOT, and US Census will be used to check the results of the analysis. The analysis will determine whether there are consistent differences in the New England cargo shipped through each port that might lead to a conclusion that only a portion of the PONYNJ landed New England cargo might be eligible to shift to direct Boston landing. The analysis will also develop, by trade route and by carrier, New England container distributions (1) by vessel class (waterborne) for both ports, and (2) by distance (landside) to origin and destination for both ports.

Additionally, a Probit Model will be developed to explain the current proportions of cargo shipped through the PONYNJ and Boston and the results used to forecast the potential change in future shipments to Boston Harbor. This analysis will be performed with proprietary data from at least one carrier, MSC. Its purpose is to identify the determinants of demand for direct container service into the ports of NYNJ and Boston. The results will be applied to other carriers to identify the potential for container shift directly to Boston. A sample of 20 shippers will be contacted to verify the conclusions of this analysis.

HQUSACE also requested that the analysis include a discussion of efforts by the PONYNJ under that Port's Port Inland Distribution Network (PIDN) initiative aimed at getting trucks off the road in NY and NJ. The District explained how the Feasibility Report discussed some of the initiatives, such as the unsuccessful barge feeders, the demise of the Albany barge feeder even with subsidies, and the demise of the Bridgeport CT feeder even before it got off the ground. NAE will confer with NAN and the Contractor and the report on Task 1 activities and analysis will provide additional discussion of the PONYNJ PIDN, but further detailed analysis of this will not be required.

Task 1 will conclude with preparation of a report describing in detail the data collection process, including the shipper survey effort, development of the representative sample used, the analysis performed including the methodologies followed, and the results. Data will be presented aggregated to the greatest level of detail possible without identifying individual shippers or carriers. At the conclusion of Task 1 it is expected that a more detailed understanding of container industry practices with respect to shipping New England container cargo through both Boston and PONYNJ will result. Conclusions will be reached as to whether and to what extent deepening of the port of Boston would result in shifting

containers now landed at PONYNJ to direct waterborne shipping through Boston. The population and distribution of containers determined “eligible” for such a shift will be used to guide the Waterborne Analysis in Task 2.

Task 1 will require a number of checkpoints for Vertical Team involvement in providing input, advice and decision-making. These will include in-progress reviews covering:

- Input on the questions to be asked during the shipper interviews will be sought from the Vertical Tea, Sponsor and IWR.
- Representativeness of the sample of shipper data used for the origin/destination analysis and the methodology used for determining the sample.
- Review of the Task 1 report including Agency Technical Review.

Task 2 - Waterside Analysis:

Once the population of TEUs “eligible” to shift to direct waterborne transport to Boston rather than land at NYNJ is determined, Task 2 will examine the existing means to affect that transport. Task 2 includes two work elements, a carrier survey effort followed by data analysis and conclusions.

The waterside analysis will be supported by interviews with the three carriers now calling on Boston and several of the many carriers now calling on PONYNJ but not on Boston which carry New England cargo. A total of 13 interviews with carriers will be conducted to assess fluctuations in Boston container volume and help define the range of possible without-project and with-project conditions. Interview questions will include:

- What was the reason behind the decision by COSCO to initiate a new service and MSC to retain one service and add another? Would an absence of deepening at Boston be likely to result in those lines dropping Boston service? Why do they call at Boston?
- What are CGM-CMA’s future plans for Boston service? They dropped one Boston service from Europe only to begin a new Boston service from the western hemisphere in 2009. What are their plans and what role would channel depth play?
- What has been the reason for the fluctuations in the volume of container cargo moving through Boston up to a few years ago when volumes began climbing? What was the reason behind the departure of some shippers from Boston service, including Maersk?
- In order to support an analysis of the without-project carrier fleet by trade route, interviews will discern what carriers and services carry New England boxes into PONYNJ that do not call at Boston, why they don’t currently call at Boston, and what changes if any would need to occur (deepening to what depths) to entice them to call on Boston. Would they call at Boston under the 40-foot fully maintained depth, or some greater improved depth? If not, then why not? What ships do they use now, and what ships do they plan to bring to the PONYNJ as that Port’s 50-foot deepening project gets completed? A sample of at least ten shippers landing New England boxes at PONYNJ that do not now call at Boston should be interviewed to determine answers to these questions.

At the conclusion of the carrier survey effort the Vertical Team and Sponsor will meet to review the information gathered and determine if adjustment to the details on the Task 2 analysis are warranted.

Using the results of Task 1, supported by the carrier interview responses, the analysis will clarify any change in the fleet mix, number of Boston services, or loading of vessels in either the without-project base year condition, or the with-project condition at any incremental depth. If any additional carriers express a strong interest in direct service to Boston with full maintenance or at some improved depth increment, then the following questions would require answers:

- How many of the boxes available for shift from PONYNJ landings to Boston landings would be carried by those services and by what vessel classes and drafts?
- What channel depths are required for those new services to operate?
- How would any new services be expected to evolve over the project period of analysis, with reference to the known evolution of the existing Boston services.
- Do those numbers affect the remaining pool of shift-eligible boxes available for carriage by larger vessels belonging to the existing three Boston services?

The carrier survey and analysis should also examine to potential for Boston Harbor to loose carriers in the without-project condition. The existing carriers should be questioned as to what conditions may cause them to eliminate Boston calls from their services. A sensitivity analysis will be included examining the impact of a potential loss of service at Boston.

Following the carrier survey and analysis of the data provided, the range of future fleet mix for the without-project and with-project futures at Boston will be developed. The future fleet for each carrier should be based on analysis of their existing fleets including new orders and supported by information collected in the survey. The stated plans of the three existing container services calling at Boston to use larger ships at Boston must continue to be considered. For example - MSC has been calling at Boston for several years and their fleet mix has changed over this time. Future fleet forecasting will be adjusted to reflect MSC's historic fleet mix. COSCO has its own evolution history for US East Coast service. Total Boston fleet forecast analysis will include how this change compares to other ports and changes to the world fleet. Questions to be considered include:

- Does the fleet-mix analysis adjusted for practices at PONYNJ support plans for moving to larger 5600 TEU or greater ships?
- Is there cargo remaining for them to carry after other modes of transport not requiring deepening at Boston (or requiring lesser depth deepening at Boston), such as new services by other carriers, are factored into the analysis?
- What effect does the continued deepening of the PONYNJ have on the future fleet at Boston?
- How do these considerations then effect the depth optimization for Boston, if at all?

The Task 2 analysis will develop the anticipated fleet mix for Boston Harbor under all conditions. Based on this future fleet mix, transportation costs based on origin to destination for the without-project and alternative with-project conditions will be calculated. The results of these inquiries may require running and presentation of additional sensitivity analyses by incremental depth, depending on the substance of the information gathered.

Task 2 will conclude with preparation of a report describing in detail the information developed (questions and responses) from the carrier survey effort, discussion of the carrier survey information, development and analysis of the future fleets including a description of methodology followed, display the number of TEUs by carrier for both without-project and alternative with-project conditions, and display the transportation cost savings, or benefits, for each with-project condition depth alternative. The fleet mix and TEU data will be used to conduct Task 3 of the re-analysis.

Task 2 will require a number of checkpoints for Vertical Team involvement in providing input, advice and decision-making. These will include in-progress reviews covering:

- Input on the questions to be asked during the carrier interviews.
- Review of the information developed through the carrier surveys and input on development of the Task 2 analysis methodology, including fleet mix development.
- Review of the fleet mixes and TEU volume distributions developed for the without-project and alternative with-project conditions.
- Review of the Task 2 report including Agency Technical Review.

Task 3 - Vessel Sailing Drafts Analysis:

HQUSACE points out that even under existing conditions, there is some variance in vessel loading and drafts inbound and outbound with the existing three services. The Feasibility Report concluded, based on interviews with the existing Boston carriers, and analysis of current practices (from pilots' detailed records of drafts on all transits), that vessels would always arrive and sail at drafts close to the maximum for those vessels. This was due primarily to the shippers statements concerning Boston's geographic location on their routes (first-in or last-out for North America), Boston's tidal advantage which encourages greater loading for specific arrival/sailing windows, and Boston's high export percentage relative to other east coast ports which results in loading of more full boxes outbound. HQUSACE has requested that sailing drafts be re-examined with reference to experience at other ports with depths similar to that being recommended for Boston.

The Corps New York District (NAN) is planning to conduct an analysis of vessel draft and loading trends and future projections for the PONYNJ, specifically traffic through Newark Bay (Port Elizabeth terminals), under a Memorandum of Agreement with the Port Authority of NY and NJ. That analysis is required as part of the investigations for raising the elevation of the Bayonne Bridge span over the shipping channel to Newark Bay to take full advantage of the ongoing deepening of those channels. That analysis will yield data pertinent to the PONYNJ carriers. NAE will coordinate with NAN to examine the results of the Bayonne study and determine the applicability of that data to the Boston re-analysis.

However, the PONYNJ and Boston are dissimilar in terms of number of services (more than 30 at NYNJ versus 4 at Boston), the distance from the terminals to the sea (24 miles at NYNJ and 6 miles at Boston), tides (average range of about 5 feet at NYNJ and 9 feet at Boston), and other factors such as routing and exports mentioned above. It may be more appropriate to select a subset of PONYNJ services that are first-in or last-out at NYNJ for consideration. IWR is also working on a container cargo loading model, in part using funds provided by the ARRA.

The data and any loading model, if used for this re-analysis, would still need to be adjusted to account for Boston's tidal advantage and export loads. The specifics of this analysis will require additional discussion with the Vertical Team once progress on Task 2 is sufficiently along to enable a determination on Task 3. Additional information beyond that solicited by NAN for the Bayonne Bridge study may need to be asked of the carriers to secure data necessary for the Boston Harbor responses. One question to be answered in adapting any model would be whether Boston's position as first-in or last-out in terms of port rotation for the services affect a difference in sailing drafts? Several ports are being looked at for the IWR loading model. Data is available in database format from 1999 to 2007 from the navigation data center that includes sailing draft, preceding port, next port, and vessel name. The analysis of this data could be completed in a short period of time, but will rely on substantial completion of Task #2 to initiate this work.

An analysis will be performed of actual sailing drafts for existing conditions, and predicted drafts for both the future without-project condition and the future with-project conditions for the alternative depths under consideration for Boston Harbor. The analysis will not assume that containerships sail at their design draft, but will assess anticipated sailing drafts for both the with-project and without-project conditions based on the estimated weight of the container cargo. Variation in sailing drafts on longer transoceanic routes may stem from differences in the weight of boxes (type of cargo) and the number of empty boxes carried.

At the conclusion of Task 3 the vessel loading analysis will be used to adjust the inputs on TEU loads and weights per vessel call at Boston Harbor for the several carriers and services included in the analysis. A report describing and summarizing Task 3 efforts will be prepared including tables and charts to showing distribution of vessels and demonstrating current operating practices in the container industry and specifically for Boston will be prepared. The future fleet distribution and sailing drafts for Boston Harbor should reflect industry practices and the weight of the cargo. Actual drafts relative to maximum drafts will be determined and displayed. In the end, data leading to a new mix of drafts under the without-project condition and the base year and other alternative with-project future conditions, may require re-visiting the project's depth optimization.

Task 3 will require a number of checkpoints for Vertical Team involvement in providing input, advice and decision-making. These will include in-progress reviews covering:

- The vessel loading model and adjustments to be made to that model for use at Boston Harbor will be discussed and concurrence sought before applying the model
- The revisions to the without-project and with-project fleet mixes from Task 2 for use in Task 3 analysis will be reviewed before use.

- The TEU weights and other inputs to the loading model will be reviewed before applying the model.
- The output of the model, confidence in its results, and appropriateness of its use will be discussed before using the results for any adjustment in the project depth optimization.
- Review of the Task 3 report including Agency Technical Review.

Task 4 - Sensitivity Analysis Concerning the ILA Fee:

One of the Independent External Peer Review comments questioned whether or not the avoidance of the ILA (International Longshoreman's Association) fee assessed on New York landed cargo was an NED benefit, or was simply a transfer. The District and HQUSACE agreed that the ILA fee could be looked at either way, and that the District would address this by running a sensitivity analysis to look at the project benefits with both a declining fee and with no fee as were suggested by the IERP. This is not expected to impact depth optimization. Once Task 3 is completed and the final project optimization has been prepared and discussed, a sensitivity analysis will be prepared using both a declining ILA fee and elimination of the ILA fee. This analysis will be included in the final revised economic appendix submitted for ATR and HQUSACE staff review.

Former Task 5 - Benefits for Existing Boston and Non-Boston Cargo:

Benefits from economies of scale to boxes not landed/shipped at Boston, but carried on ships calling at Boston, by the three existing Boston services, or any new Boston services will be investigated and any benefits determined. HQUSACE has pointed out that additional project benefits from savings in transportation of these boxes could be quantified and included in the project benefits, as deepening Boston would result in that cargo also being carried on larger ships at a per-box savings in transportation cost. These benefits will also be quantified if they exist, however, conditions at Boston are not likely to drive carrier decisions on what vessels to place in service compared to the PONYNJ. This analysis will be included in the benefit mix when conducting Task 2, and itemized in the final revised economic appendix submitted for ATR and HQUSACE staff review. This effort and its estimate have been incorporated into Task 2.

Tasks 5 and 6 – Review Responses and Revised Container Shipping Benefits Appendix:

The estimates and timeline developed for completing the work outlined in this Framework will include two additional Tasks as follows: Task 5 consists of responses by the PDT, including the contractors performing the bulk of this work, to the comments made by Corps and Sponsor reviewers, including the Agency Technical Review team, NAD and HQUSACE. Task 6 consists of drafting and finalizing a new Container Shipping Benefits Appendix incorporating the results of the prior Feasibility benefits analysis and the re-analysis conducted in accordance with this Framework, and where appropriate comparing and reconciling the results of the two efforts.

Other Required Reviews and Tasks:

In addition to the tasks identified above, other concerns were raised and suggestions made during IEPR team and OWPR staff review of the Feasibility Report. These items will also be addressed as part of the re-analysis

(A) Agency Technical Review of New Analyses: Any new analyses, including assumptions, calculations, and conclusions would be submitted to the PCX for DDN and the ATR team (NAN staff led by SAM, the PCX) for Agency Technical Review. The scope, cost and timeline for any further ATR cannot be determined until the specific nature of the new analyses and report to be reviewed is known. For purposes of this scope and estimate it was assumed that a revised recommendation would result from the re-analysis requiring a revised report that would need another round of ATR, and that each of the three major reanalysis tasks would yield a report that would be submitted for ATR. All ATR and responses would be conducted using Dr. Checks. The ATR team will be invited to participate in all project coordination meetings and in-progress review meetings.

(B) Model Certification of New Spreadsheets: It may be necessary to submit any new or revised benefit or commerce projections spreadsheets to the PCX for DDN if such spreadsheets are determined to be “models” requiring such review. That determination can not be made until the specific nature of the new analyses is determined. For purposes of this scope and estimate it was assumed that at least some tools used for the re-analysis would be considered models subject to certification review.

(C) Potential for Revisions to the Feasibility Report: Should the new analysis lead the team to make a different recommendation than that now in the Feasibility Report, then the report, and to a lesser extent the SEIS, would require revisions to the Report and other project documents. The extent of such revisions and the time required to complete them, and prepare a new version of the report for review and publication will not be known until the results of the re-analyses are completed and their impact on the recommendation is known. For the purposes of this scope and estimate, it is assumed that a different recommendation would be made, requiring a re-write with revisions to the SEIS and a need to re-coordinate with Federal and State resource agencies, harbor users, and the public.

(D) NWW Review of Revised TPCS: Should the new analysis lead the team to make a different recommendation than that now in the Feasibility Report, then the Total Project Cost Schedule and the Construction Schedule for the Recommended Plan would need to be revised and re-submitted to NWW for review and approval. In any event the project cost estimates will need to be updated to the current price level period once the economic re-analysis is completed for inclusion in the revised Feasibility Report. The District will submit any revised TPCS, cost estimates (including a revised contingency cost analysis), and construction schedule to NWW (the Center of Expertise for Cost Estimating) through the PCX for review and approval.

(E) Independent External Peer Review: This Framework was provided to the DDN PCX who contracted with Battelle for the Independent External Peer Review team that reviewed the Feasibility Report to review the Framework. The IEPR team reviewed the Framework and concurred that this scope will cover sufficient analyses to address the IEPR comments

made on the Feasibility Report. That action closed the IEPR process. No further IEPR review will be required for the additional analysis.

COMMUNICATIONS STRATEGY

This re-analysis for the Boston Harbor Feasibility Study represents a significant financial commitment on the part of the Corps and Massport to respond to the review questions and present a revised report for consideration and action. Completion of a quality product that will meet reviewer's expectations will require close coordination by the Corps Vertical Team, Sponsor and Contactors throughout the conduct of the re-analysis effort.

Frequent project delivery team (PDT) meetings, Vertical Team coordination meetings and in-progress review meetings will be held during the course of the re-analysis. The Sponsor, Contractors and ATR team will be invited to participate in all meetings and conferences. PDT meeting will be held at least once monthly at either the District or Massport offices.

A series of in-progress review meetings, most held by conference call, will be conducted as laid-out below to ensure Vertical Team buy-in at critical steps in the process for the three principal tasks.

Task 1 In-Progress Review Topics:

- Input on the questions to be asked during the shipper interviews will be sought from the Vertical Team, Sponsor and IWR.
- Representativeness of the sample of shipper data used for the origin/destination analysis and the methodology used for determining the sample.
- Review of the Task 1 report including Agency Technical Review.

Task 2 In-Progress Review Topics:

- Input on the questions to be asked during the carrier interviews.
- Review of the information developed through the carrier surveys and input on development of the Task 2 analysis methodology, including fleet mix development.
- Review of the fleet mixes and TEU volume distributions developed for the without-project and alternative with-project conditions.
- Review of the Task 2 report including Agency Technical Review.

Task 3 In-Progress Review Topics:

- The vessel loading model and adjustments to be made to that model for use at Boston Harbor will be discussed and concurrence sought before applying the model
- The revisions to the without-project and with-project fleet mixes from Task 2 for use in Task 3 analysis will be reviewed before use.
- The TEU weights and other inputs to the loading model will be reviewed before applying the model.
- The output of the model, confidence in its results, and appropriateness of its use will be discussed before using the results for any adjustment in the project depth optimization

Draft reports for the three principal tasks, results of ATR reviews, cost reviews and model certifications will all be submitted to the Sponsor by letter for review and comment. .

Any development during the course of the re-analysis that would require consideration of revisions to the study tasks, scope, estimate or schedule will require notice to, coordination with, and agreement by the entire Vertical Team and the Sponsor (Massport).

A revised Draft Final Feasibility Report and Draft Chief of Engineers Report would be prepared and submitted to NAD and HQUSACE at the conclusion of the re-analysis and all required reviews. All draft reports will be reviewed by the Sponsor before submittal for approval in the manner that the 2008 draft report was processed. The project will not require re-submission to the Civil Works Review Board, except perhaps in a summary manner for action on a recommendation consistent with the re-analysis results.

From: [Claseman, Kenneth G HQ02](#)
To: [Thalhauser, Jenifer E NAN02](#); [Habel, Mark L NAE](#)
Cc: [Ring, Richard J NAD](#)
Subject: RE: Boston Harbor Meeting Summary/Path Forward
Date: Thursday, July 30, 2009 11:19:46 AM

Yes - I concur.

Ken Claseman
Office of Water Project Review
HQUSACE
Office: (202) 761-5451
Cellular: (202) 281-0813

-----Original Message-----

From: Thalhauser, Jenifer E NAN02
Sent: Thursday, July 30, 2009 10:53 AM
To: Claseman, Kenneth G HQ02; Habel, Mark L NAE
Cc: Ring, Richard J NAD
Subject: RE: Boston Harbor Meeting Summary/Path Forward

Ken, Mark - I believe this now closes the loop on the minutes, and that Mark's version sent at 1043 is the final (highlighted area will remain but I will 'un-highlight' it.

Do you both agree?

-----Original Message-----

From: Claseman, Kenneth G HQ02
Sent: Thursday, July 30, 2009 10:46 AM
To: Habel, Mark L NAE
Cc: Kennelly, John R NAE; Coleman, Wesley E Jr HQ02; O'leary, Edmund J NAE; Hughes, Thomas E HQ02; Cone, Steven R IWR; Keegan, Michael F NAE; Ring, Richard J NAD; Thalhauser, Jenifer E NAN02; Ware, Charles L HQ02; Scully, William C NAE; Byrne, Robert H NAE; Blum, Peter R NAD; Hodson, Thomas J NAN02; Fraenkel, Naomi R NAN02; Bradley, Kenneth P SAM; Moseby, Bernard E SAM; Caldwell, Lloyd NAD; Brown, Theodore A HQ02; Coleman, Wesley E Jr HQ02; Vietri, Joseph R NAD
Subject: RE: Boston Harbor Meeting Summary/Path Forward

OK - this makes sense to me.

Thanks,

Ken Claseman
Office of Water Project Review
HQUSACE
Office: (202) 761-5451
Cellular: (202) 281-0813

-----Original Message-----

From: Habel, Mark L NAE
Sent: Thursday, July 30, 2009 10:43 AM
To: Claseman, Kenneth G HQ02
Cc: Kennelly, John R NAE; Coleman, Wesley E Jr HQ02; O'leary, Edmund J NAE; Hughes, Thomas E HQ02; Cone, Steven R IWR; Keegan, Michael F NAE; Ring, Richard J NAD; Thalhauser, Jenifer E NAN02; Ware, Charles L HQ02; Scully, William C NAE; Byrne, Robert H NAE; Blum, Peter R NAD; Hodson, Thomas J NAN02; Fraenkel, Naomi R NAN02; Bradley, Kenneth P SAM; Moseby, Bernard E SAM; Caldwell, Lloyd NAD; Brown, Theodore A HQ02; Coleman, Wesley E Jr HQ02; Vietri, Joseph R NAD

Subject: RE: Boston Harbor Meeting Summary/Path Forward

Yes it does. The 3rd sentence of the yellow highlighted paragraph in the meeting MFR reads "The shipper survey data used for the analysis should be broad enough to provide a representative sample of the range of cargo/commodity types, shipping company sizes, and New England origins/destinations." That seems to cover it.

The language intentionally implies that we will need to come to an agreement on what set of the data we end up collecting will be used for the sample - that's the "methodology" referenced that will need to be determined once we see what sources we've received data from.

The re-write of the Framework scope text, which we will have ready for all to look at tomorrow, will lay these points out in more detail.

Mark L. Habel, CENAE-EP-PN
978-318-8871

-----Original Message-----

From: Claseman, Kenneth G HQ02
Sent: Thursday, July 30, 2009 10:30 AM
To: Habel, Mark L NAE
Cc: Kennelly, John R NAE; Coleman, Wesley E Jr HQ02; O'leary, Edmund J NAE; Hughes, Thomas E HQ02; Cone, Steven R IWR; Keegan, Michael F NAE; Ring, Richard J NAD; Thalhauser, Jenifer E NAN02; Ware, Charles L HQ02; Scully, William C NAE; Byrne, Robert H NAE; Blum, Peter R NAD; Hodson, Thomas J NAN02; Fraenkel, Naomi R NAN02; Bradley, Kenneth P SAM; Moseby, Bernard E SAM; Caldwell, Lloyd NAD; Brown, Theodore A HQ02; Coleman, Wesley E Jr HQ02; Vietri, Joseph R NAD
Subject: RE: Boston Harbor Meeting Summary/Path Forward

Mark,

It seems to me Dr. Moser's input (that you can extrapolate the data as long as you obtain a "representative" sample) resolves the question. Do you agree?

Ken Claseman
Office of Water Project Review
HQUSACE
Office: (202) 761-5451
Cellular: (202) 281-0813

-----Original Message-----

From: Vietri, Joseph R NAD
Sent: Thursday, July 30, 2009 10:07 AM
To: Habel, Mark L NAE; Claseman, Kenneth G HQ02
Cc: Kennelly, John R NAE; Coleman, Wesley E Jr HQ02; O'leary, Edmund J NAE; Hughes, Thomas E HQ02; Cone, Steven R IWR; Keegan, Michael F NAE; Ring, Richard J NAD; Thalhauser, Jenifer E NAN02; Ware, Charles L HQ02; Scully, William C NAE; Byrne, Robert H NAE; Blum, Peter R NAD; Hodson, Thomas J NAN02; Fraenkel, Naomi R NAN02; Bradley, Kenneth P SAM; Moseby, Bernard E SAM; Caldwell, Lloyd NAD; Brown, Theodore A HQ02; Coleman, Wesley E Jr HQ02
Subject: Re: Boston Harbor Meeting Summary/Path Forward

Team:

Before we get too far down the road I want to make sure we are clear on expectations. In particular, there seems to be some minor disagreement as out lined in the notes from Mark and Ken on the Shippers to be interviewed and the value of that information.

I have cc'd both Lloyd, Wes and Tab on this e mail since we cannot afford anymore delays or confusion and we need to be in 100 percent agreement on the way forward.

Let's close the loop on these e mails and if still not in agreement we need to have a Call with the entire vertical team.

Thanks to everyone for your hard work and dedication in trying to move this study forward.

Thanks

Joe Vietri

Chief Planning & Policy

Director Nat Ping Center for Costal & Storm Damage North Atlantic Division

917 613 3873 (cell)

718 765 7070 (office)

----- Original Message -----

From: Habel, Mark L NAE

To: Claseman, Kenneth G HQ02

Cc: Kennelly, John R NAE; Coleman, Wesley E Jr HQ02; O'leary, Edmund J NAE; Hughes, Thomas E HQ02; Cone, Steven R IWR; Keegan, Michael F NAE; Ring, Richard J NAD; Thalhauser, Jenifer E NAN02; Ware, Charles L HQ02; Scully, William C NAE; Byrne, Robert H NAE; Vietri, Joseph R NAD; Blum, Peter R NAD; Hodson, Thomas J NAN02; Fraenkel, Naomi R NAN02; Bradley, Kenneth P SAM; Moseby, Bernard E SAM

Sent: Thu Jul 30 06:15:28 2009

Subject: RE: Boston Harbor Meeting Summary/Path Forward

Ken and VT: I have accepted all the suggested edits to the MFR, including some suggestions from Ed O'Leary, and all of Ken's edits except that dealing with his third comment from the email below.

In substitution, the District offers the new paragraph on page 4 highlighted in yellow. Since, as we learned Tuesday, the available data sources will not readily answer the origin/destination and other questions, we need to rely on surveys/interviews of shippers. Not everyone we talk to will end up being a beneficiary, and not everyone we don't talk to won't be. The survey, regardless of our best efforts to contact as many shipping interests as possible, will yield only a sample of the shipper/container population. The survey results will need to be extrapolated over the entire New England shipper/container population to provide us with credible answers. Once the survey is completed a methodology for accomplishing this will need to be developed, reviewed, and concurred in by the VT. Its is the survey, and the methodology developed for using the data resulting from the survey, that will be one step in the means of documenting eligible benefits. But we cannot limit our benefit stream to only those companiues willing to share data with us in our sample.

Mark L. Habel, CENAE-EP-PN

978-318-8871

-----Original Message-----

From: Claseman, Kenneth G HQ02

Sent: Thursday, July 30, 2009 8:30 AM

To: Habel, Mark L NAE

Cc: Kennelly, John R NAE; Coleman, Wesley E Jr HQ02; O'leary, Edmund J NAE; Hughes, Thomas E HQ02; Cone, Steven R IWR; Keegan, Michael F NAE; Ring, Richard J NAD; Thalhauser, Jenifer E NAN02; Ware, Charles L HQ02

Subject: RE: Boston Harbor Meeting Summary/Path Forward

Mark,

I have made a few suggested revisions to the MFR (see attachment).

My hope is that the District will at least try to contact as many shippers as possible (which I think is

NAE's intent). I just don't want to leave the impression that we are setting a minimum standard for interviews and then we will stop trying as soon as the minimum is attained (I don't think NAE has any intention of doing this, but I want the language in the SOW to be clear on this point).

I also added a suggestion for monthly meetings or conference calls as a minimum. I think it is a good idea to have a minimum number defined in the SOW (it may alleviate a concern of the sponsor), however the frequency is completely negotiable as far as I am concerned.

The other item in added was to note that the Corps can only claim benefits that can be documented (i.e. we can't count benefits for shippers who won't talk to us, unless there is another way to obtain an understanding of their operations).

I think the statement regarding the CWRB is correct, but I need to confirm, which I will do today and let you know.

Suggest you include the ATR team (Tom Hodson, Naomi Fraenkel and Bernard Moseby) in the review of the final SOW.

Thanks,

Ken Claseman
Office of Water Project Review
HQUSACE
Office: (202) 761-5451
Cellular: (202) 281-0813

-----Original Message-----

From: Habel, Mark L NAE

Sent: Wednesday, July 29, 2009 2:59 PM

To: Keegan, Michael F NAE; Ring, Richard J NAD; Thalhauser, Jenifer E NAN02

Cc: Kennelly, John R NAE; Coleman, Wesley E Jr HQ02; O'leary, Edmund J NAE; Claseman, Kenneth G HQ02; Hughes, Thomas E HQ02

Subject: Boston Harbor Meeting Summary/Path Forward

I've edited Jenifer's cut, with Mike and Rich's comments. Also attaches the attendees sheet and IWR agenda, both referenced in the MFR.

Mark L. Habel, CENAE-EP-PN
978-318-8871

Subject: Boston Harbor Deepening Feasibility Study Economic Reanalysis, Containerized Cargo Data Needs Meeting, 28 July 2009, Institute for Water Resources – Alexandria, Virginia

Background:

The Boston Harbor Draft Final Feasibility Study was presented to the Civil Works Review Board in August 2008. As a result of comments received during review, additional economic analysis was required to finalize optimization of the recommended project depth. A Framework for conducting the reanalysis was developed and concurred with by the Vertical Team. The Framework consists of three broad tasks, (1) develop additional detail on landside transportation practices, costs and cargo types to more accurately determine the population of NYNJ landed New England cargo considered eligible for a shift to direct water carriage to Boston, (2) analysis of waterborne carriage methods to handle that shift of cargo volume, and (3) analysis of vessel loading practices to determine actual transit drafts. Identification of data sources necessary to perform the first portion of Task #1 of the reanalysis has been ongoing for several months, with input from all levels of the Vertical Team. Consultation with the U.S. Customs, U.S. Census and the IWR identified several data sources that may provide part of the information needed. This meeting was scheduled to receive input and discussion amongst the several agencies and offices and determine what may or may not be possible to achieve with the available data.

The project Sponsor, Massport, was invited to attend the meeting, but declined. The U.S. Census Bureau was unable to attend the meeting, but did participate in a conference call with NAE, NAD and IWR the day prior. The information provided by the U.S. Census was relayed and discussed at the 28 July meeting.

Meeting Participants:

The meeting was held at the IWR offices, Casey Building, Fort Belvoir, Virginia, on 28 July 2009, from approximately 09:30 to 14:00. Participating agencies and offices were:

Corps - HQUSACE – OWPR and NAD RIT
Corps - NAD
Corps - NAE
Corps – IWR
Corps - LRB
Department of Transportation, Bureau of Transportation Statistics
Internal Revenue Service

The meeting sign-in sheet and agenda are attached.

Meeting Objectives:

The objective of the meeting was to determine a means to move forward with Task #1 of the Boston Harbor Framework for additional economic analysis requested by the OWPR. The first portion of Task #1 involves assembly of data on landside transportation practices, costs, routes, and origin/destination of containerized cargo landed at Boston or NYNJ and shipped to or from New England.

The meeting focused on the need to understand what data sources are available from IWR, Census, Customs, DOT, and IRS. Specifically, to determine the ultimate physical destination and origin of container imports and exports, respectively. The outcome of this discussion will facilitate further discussion on how to proceed: 1. use available data only to complete the container destination question and supplement existing PIERS data to be used in the economic re-analysis; 2. use the available data to identify data needs which may be met by on the ground surveys of shippers, to scope such surveys, and to check on the reasonableness of data collected by survey.

Leave meeting with a clear path forward to develop and execute a final Framework which will lead to an approved feasibility report, final favorable action by the CWRB, a Chief's report, and ultimately project authorization via WRDA 2010.

Discussion:

An in-depth discussion of available Import/Export Waterborne data was held; contributions were made by USACENDC, USDOT, and IRS. U.S. Census information from the 27 July conference call was also discussed.

IWR-NDC staff presented the available PIERS data, its source and use by the Corps. The limitations of this source were discussed. While some PIERS data is applicable and will be used in the analysis, all concluded that the major shortcoming is the lack of actual origin/destination data on containers, a key need for the reanalysis.

IWR-NDC and USDOT-BTS staff presented and led discussion on the U.S. Customs (import-focused) and U.S. Census (export-focused) data. Although the Customs and Census data is of value to the team three problems exist: 1. Census data is protected; physical access to this data is a challenge as it is protected and located in New Orleans, and 2. use of some data is restricted due to confidentiality restrictions. 3. The data collected is related to shipments, not containers and it is unknown if a direct correlation can be made from the available data to the containers which is the basis for the land-side analysis. Use of the Census data would require a National Interest Determination, and MOU with the Census Bureau, Security Inspection of the data storage/use location by Census, and signing a non-disclosure agreement. Access to and use of the data would entail a number of additional restrictions, and putting such agreements in place would take more than one year.

Discussion was held on whether average weights by volume for various commodities could be used to back-into part of the analysis, the practicability of this approach was questioned. The “entering commerce” locations from these data sources may not correspond to the location where the container is “stuffed” or “de-stuffed” (the location needed for the analysis; containers may carry multiple (even 100s) of “shipments” (or a single shipment may include multiple containers); and containers may pass through multiple handlers on their journey to and from the port or warehouse.

US DOT-BTS discussed their data and its application and the reports they produce (some summary copies were provided). DOT prepares a Freight Analysis Framework, develops conversions factors for weight by volume for commodities, and conducts Commodity Flow Surveys. While these include some origin/destination data, it is by shipment and is not correlated to containers. You could use DOT’s Freight Analysis Framework (FAF) to look at commodity movements between cities, but only to support general arguments on tonnage of cargo moved by commodity, not numbers of containers.

It was brought up that the PONYNJ has conducted a Gate Survey of containers entering and leaving selected terminals in that port. NAE will contact NAN to determine how best to acquire the data that resulted from that survey from the Port Authority, and determine its applicability to the Boston reanalysis.

Direct surveys of shipping interests could be conducted to yield the needed data. Interests with origin/destination information would include Shippers and Shipping Agents, Freight Forwarders (those stuffing, de-stuffing and renting boxes for smaller shippers), Exchange Companies (who keep track of boxes for owners and collect rent), and Chassis Management Companies (who keep track of chassis for owners). A quick look at the PONYNJ revealed that about 30 to 40 shippers accounted for 80% of exports from the PONYNJ. Extrapolating to the number of import shippers would yield an additional 200 or so companies. Adding Boston shippers to the mix would give a total of between 200 and 300 companies accounting for 80% of the shipping through the two ports.

It was suggested that some of the available data sources (DOT, PIERS, Census) could be used to narrow the search for the population of shippers to be surveyed or interviewed. Also, that some of the data sources could be used as a check of any information yielded by such surveys. However the consensus was that the available data sources alone would not yield the information required for the first step of Task #1 – identifying the origin and destination of container traffic in New England.

Summary:

It was apparent at end of discussion that although there is additional data available for NAE use which can supplement the data to be used in the economic re-analysis. Because the data is not container specific it cannot be used directly in the re-analysis but can be used to guide survey efforts to obtain

missing data, particularly container origin/destination data. Shipper interviews will be required. The data likely will help NAE identify the key NYNJ and Boston shippers and other interests to be contacted and to check information provided from the interviews. Data that is applicable to this purpose includes Census data, Selectivity File Data (USACENDC source), and possibly the Gate Survey that were done on the PONYNJ (NAE will contact NAN and determine the applicability of this information).

IWR, NAD RIT, OWPR, NAD, and NAE fully understand that available data will still not give a clear picture of the destination of container boxes and therefore must be supplemented by on-the-ground surveys of shippers. It is believed that approximately 200 to 300 shippers in Boston and NYNJ account for approximately 80 percent of the containers shipped. The surveys will focus on these shippers, but must also take care to include a relatively representative sample of cargo types and volumes. NAE will attempt to contact all of the aforementioned 200-300 shippers, however it was recognized that it is unlikely that responses will be provided by all shippers and that NAE will ultimately obtain information from a representative sample to support the methodology analysis. Confidence limits will be identified in the reanalysis scope.

The District and the Vertical Team understand that an analysis based on shipper surveys will yield specific data for only a sample of the shipper/container population. The District will endeavor to contact as many shippers and other pertinent interests as possible. The shipper survey data used for the analysis should be broad enough to provide a representative sample of the range of cargo/commodity types, shipping company sizes, and New England origins/destinations. Once the survey is complete and the data distribution known, the District will develop the methodology to be used to analyze the survey data for use in the re-analysis and seek Vertical Team consensus on that methodology. The methodology must include a means of extrapolating the survey results to the larger New England container population.

NAE is scheduled to deliver a detailed Scope of Work for the remainder of the Response Framework to MassPort by end of the first week in August with a study cost constraint of a total 850k. The scope is required to have interim milestones, specific tasks costs and a communication plan that identifies how interim “buy-off” with the Corps vertical team will occur (In-Progress Reviews, etc.).

Path Forward:

Following the interagency meeting, Corps staff including USACE-NAE; USACE-NAD; HQUSACE-CEMP-NAD; and HQUSACE-OWPR conferred as to the path forward and concluded as follows:

NAE will develop a revised Framework scope of work including methodology to identify survey methods supplemented by existing data, the analyses to be undertaken for each Task and expected products and outputs. .

Once developed the revised Framework will be reviewed by the Vertical Team for concurrence.

With Vertical Team concurrence, NAE will complete the revised Framework to include the cost, interim milestones and communication plan which will be provided to the Vertical Team review and concurrence prior to submittal to Massport.

Additional SOW effort cost will not exceed \$850,000.

The revised Framework's Communications Strategy will include IPR 'check point' meetings or conference calls involving the Sponsor and Vertical Team, which will be held on an as needed basis, approximately once a month.

Once work is initiated, a time frame of approximately one year consisting of approximately 9 months of data collection and analysis and 3 months of report processing. Where possible this timeframe will be shortened to meet the goal of a revised draft final Feasibility Report and Chief's Report submitted in time for the project's inclusion in a potential WRDA 2010 for authorization.

NAE will ask for an expedited ATR and approval of the report. The Vertical Team believes that a full re-presentation of the project to the CWRB is not needed.

**BOSTON HARBOR DEEPENING FEASIBILITY STUDY
CONTAINERIZED CARGO DATA NEEDS MEETING**

28 July 2009

Institute for Water Resources – Alexandria, Virginia

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JON BROWN	USACE INCX	716 879-4430

Availability and quality of data sources for Boston Harbor
Tuesday July 28th 0930 -1430 EDT
IWR Classroom, Casey Building Room 264
7701 Telegraph Rd.
Alexandria, VA 22315

Directions and Map (IWR Headquarters): <http://www.iwr.usace.army.mil/inside/people/facilities.cfm>

Call in Number if necessary: 1-866-846-1051

Passcode: 9739 032#

Problem to be addressed: Of the 900,000+/- container TEUs with an eastern or northern New England origin or destination, only about 200,000+/- are directly shipped through Boston Harbor on three carrier services. The bulk of the remainder are shipped through the PONYNJ. What carriers and shippers carry these New England TEUs? Are there factors or reasons that some TEUs would not shift to direct shipment through Boston? What costs and time are involved with overland transport. Can the data shed light on why more carriers don't ship through Boston now given the potential savings. The result of our analysis will determine what portion of the PONYNJ-shipped boxes might be considered eligible for a shift to direct shipment through Boston.

- * Introductions, expectations, and concerns (All)
- * Discussion of the problem at hand (lead by USACE-NAE)
- * Timelines addressing the issue/problem (USACE-NAE)
- * Corps Import waterborne data from Customs (USACE-NDC), (CBP)
 - * Data handling and safeguards
 - * What's readily available
 - * What's the Quality
- * Corps Export waterborne data from Census (USACE-NDC), (CENSUS)
 - * Data handling and safeguards
 - * What's readily available
 - * What's the Quality
- * Other sources: PIERS, Manifest Data, etc.
- * Quality and completeness of data for cargo origin/destination (USACE-NDC)
- * Linking Census/Customs data with other sources (All)
- * Enhancing Census/Customs data with survey information (DOT)
- * Landside data available from Federal Highways and Railways (DOT)
- * Survey and sampling methods. Can the Commodity Flow Survey, or the techniques used for the survey, help? (DOT), (CENSUS)
- * Conclusion : Can problem be solved given what is known from discussion above, and time and resource constraints (ALL). Creating a template for future studies

From: [Scully, William C NAE](#)
To: [Keegan, Michael F NAE](#); [Kennelly, John R NAE](#); [Habel, Mark L NAE](#); [Byrne, Robert H NAE](#)
Subject: FW: Boston Harbor
Date: Wednesday, July 08, 2009 8:16:57 AM

Team:

For your info, review and comments as appropriate back to me. I believe there are a couple of things in here that are not quite on the mark. For example: 1) Wes' comment that suggests NAE never sent up the draft ltr as requested for MG Temple's signature to Customs - - which Lloyd corrects in his response email to Wes; 2) The comment in Wes's recap that Massport informed the DCG that they could only afford 45 feet is I believe incorrect - - I think they only were saying we're willing to go with 45 feet out of total frustration.

Bill

-----Original Message-----

From: Caldwell, Lloyd NAD
Sent: Tuesday, July 07, 2009 10:06 PM
To: Coleman, Wesley E Jr HQ02; DeLuca, Peter A COL NAD; Feir, Philip T Col NAE; Vietri, Joseph R NAD; Forcina, Joseph NAD; Scully, William C NAE
Cc: Temple, Brian H NAD
Subject: Re: Boston Harbor

Wes--- Absolutely excellent recap of the saga. Others may have details of some of the events, but this portrays it well. I can add that regarding the letter to Customs, it was my guidance that it was a District Cdr action vs a DCG action. I expect the results would be the same in any case.

One question. How did this go from what appears to be three straight forward actions last Sept to something so complex today? Have the three agreed actions morphed to something different, or is it just the "devil's in the details" factor?

Lloyd

Sent from my BlackBerry Wireless Handheld

----- Original Message -----

From: Coleman, Wesley E Jr HQ02
To: Caldwell, Lloyd NAD; DeLuca, Peter A COL NAD; Feir, Philip T Col NAE; Vietri, Joseph R NAD; Forcina, Joseph NAD; Scully, William C NAE
Cc: Temple, Brian H NAD
Sent: Tue Jul 07 21:18:34 2009
Subject: RE: Boston Harbor

Sirs...

Our 23 March letter to Massport stated that the draft scope of work had been provided to the Independent External Peer Review team, we were in the process of evaluating their review comments, would revise the scope of work and timeline as appropriate, and that we would share the revised scope with them on or about 31 May 2009. There was no commitment to when the work would be completed, but the DCG-CEO, in the same letter, committed that we would be vigilant to limit the scope and cost of any additional analysis to that which is absolutely necessary to finalize this effort.

As an aside, I was copied on an email exchange between the DCG-CEO and IWR on 1 June regarding Savannah Harbor in which the DCG-CEO suggests that perhaps we can apply lessons learned from

Savannah to other projects including Boston Harbor and believed that we owed feedback on Boston by this Fall. Then in a 26 June email, following a 22 June Massport response to NAE's 2 June letter, the DCG-CEO expressed concern that when he visited NAE on 10 April, he promised Massport that we'd have an answer by Fall 2009.

Below is my take on events since the CWRB. It obviously doesn't detail all of the behind the scenes work being done by NAE, NAD, and HQUSACE. Hope this helps, and please advise if the information is incorrect:

At the 18 September CWRB follow-up meeting, the District summarized the scope of work developed by the vertical team that would address the three OWPR concerns. The effort would include Landside Analysis with additional trade and cost information for trucked cargo; Waterside Analysis with additional fleet mix and service information from existing and other carriers; additional sensitivity and benefit analyses; and additional review, report revision and management efforts. This would result in an effort costing \$579,000 (\$263,000 non-Federal) and requiring 9-months.

The decision of the Board at that time was that additional analyses would be conducted before release of the project for S&A review would be considered. They also wanted the team to resolve the EPR comments and reexamine the scope/time/cost estimate to ensure only essential elements/data were included in the estimate. The revised scope or a written status report was to be delivered to the Board members within 3 weeks (9 October 2008) and the CWRB did not plan to reconvene to review the reexamined scope. The DCW is the decision authority regarding the additional analyses.

The team pulled together the revised framework in by the 9th of October, and on the 28th of October, the DCW notified the NAD Commander that he was aware that the scope outlined additional work that would cost about \$600K and require about 6 months to complete. Checkpoints were incorporated in the schedule to ensure that work is reviewed at key points and not just at the end of the process. He had coordinated the scope with the DCG and he concurred with the path forward. NAD was directed to move out and to expedite, as much as practicable, this work at minimum cost necessary to properly identify the NED plan and support a recommendation by the Chief of Engineers.

The team had its first Checkpoint on 21 November. GI feasibility funds in the amount of \$50,000 were provided to NAE to proceed. As Boston Harbor was only budgeted for PED in FY09, these funds under the CRA were transferred to an account to fund the extended feasibility efforts for the first quarter. Additional funds for the remainder of the FY would be transferred from PED to feasibility as needed as work progressed. As of 21 November, funds had been provided to the DDN PCX (SAM) to modify the contract with Battelle to engage the IEPR team in reviewing the July responses to the 14 original June IEPR comments. This further IEPR review was to cover the Corps responses to all the original IEPR comments, whether economic related or on other project topics. The further review of the economic topics was to be conducted with a view to whether the Framework for the Additional Economic Analyses was sufficient to address the IEPR comments on project economics. SAM expected to have an IEPR response to the Corps by 19 December.

The IEPR response was provided to SAM on 22 December, and to the District and HQUSACE on 29 December. The panel stated that "The Framework for Responding to Office of Water Project Review Comments from Civil Works Review Board Meeting of 21 August and CWRB VTC of September 18 (hereafter: Framework) represents a reasonable and thorough scoping of the issues, data and expected outputs to correctly redress the economics issues that are not currently addressed by the Draft Feasibility Report (DFR) April 2008." The panel also made two suggestions: to have a plan for dealing with missing PIERS data, and to explicitly recognize the relative costs of the waterside services that include and exclude Boston Harbor so that nearly all of the benefits not rest on truck freight savings, "which is an incorrect simplification and misspecification of the problem." On 13 January, following our receipt and review of the IEPR response, we held our second Checkpoint.

Massport wrote the DCG on 22 January expressing its frustrations.

NAE and Massport met with HQUSACE staff at the AAPA meeting in Los Angeles on 29 January. NAE committed to meeting with NAD, Massport and the vertical team in a series of conference calls the following week to discuss the ongoing effort to define the data needs and availability for the Framework of additional analyses. There were also to be discussing a potential work-around raised by Massport to

move out on an interim recommendation for a 45-foot project provided (1) no further analysis (the Framework) is required by HQUSACE for that depth to be recommended, and (2) with analysis in support of 48 feet and a final recommendation to be deferred to occur a little down the road.

At the beginning of February, NAE contacted NAD and HQUSACE regarding additional funds needed for data collection due to data accuracy issues. The first task of the Framework assumed that only an in depth examination of the PIERS data was needed to determine what portion of cargo was really New England origin or destination cargo, who the users, shippers and carriers are, what the value of the cargo and cargo types are, and just where the cargo is being shipped from/to. This task is the foundation of the other future tasks. On further examination by NAE, and by NAN with respect to their ongoing study of the Bayonne Bridge, it was determined that the PIERS data were largely inaccurate when it came to the most critical information on origin and destination of the containerized cargo. The PIERS data most often cite the shipping entities' billing addresses, and not the addresses to which the containers are being transported overland. The only other means of getting this data is to solicit it from the carriers, shippers, end users, trucking firms, US Customs, US Census, etc. NAE thought this a very labor-intensive effort far beyond the scope and cost estimated originally for the Framework. NAE requested \$30,000 to determine what data other than PIERS existed from each of these potential sources, whether it is obtainable/accessible, useful for our purpose of filling the gaps in the PIERS data, whether any confidentiality issues exist with that data, and what effort would be involved to acquire, screen and analyze such data. Because Boston Harbor is one of the first port studies to raise the issue of landside transportation cost savings benefits, and that all port studies may be to some extent impacted by the recognition of PIERS data shortcomings on origin/destination and other data, NAE requested that the \$30,000 be provided at 100% Federal expense outside of the project FCSA. HQUSACE did not approve the request. A modification to the Framework based on the results of the \$30,000 effort was ultimately promised to Massport by 31 May in our 23 March response to their 22 January letter to the DCG.

On 24 March, the DCG wrote the DCG-CEO and the NAD Commander advising of "a very disappointing, and frankly embarrassing" discussion at the AAPA Conference with Massport in which they suggested that we not only had done nothing, but we had actually gone backwards, now deciding that the data we used earlier was invalid. Massport informed the DCG that they could only afford 45 feet and were willing to move out with construction at that depth. The DCG asked the DCG-CEO and the NAD Commander (and through them, the DCW, the HQUSACE Chief of Planning, and the RIT Deputy) if we could accommodate the 45-foot request. The RIT Deputy advised the DCW that we do not have the latitude to make a recommendation of 45' unless the analysis optimizes the project at that depth. The Chief of Planning concurred. The RIT Deputy also suggested that we could consider through risk and uncertainty that the project be optimized at one depth now, but possibly support a deeper depth in the future - stopping short of pursuing a contingent authorization for the deeper depth..

On 10 April, the DCG-CEO met with Massport. In preparation for that, we were asked our take on the delay and when we thought we would be ready for the CWRB. The DCW advised that the District had committed to providing the scope, cost, and schedule together for the additional analyses, including review by HQUSACE, by 31 May and that this was included in our response to Massport. He also advised that this information is the first step with the CWRB and that the optimum channel depth would depend on the fleet forecast, sailing draft assumptions, and assumptions regarding use of tides. These are the key waterside issues and we expected to see reasonable assumptions based on good empirical evidence.

On 5 May, NAE conducted a vertical team call because they had hit a roadblock in acquiring the necessary data on container origin/destination. They identified that US Customs collects and has this info, but that Customs would not release the data. NAE wanted to confer with HQUSACE and NAD on how to proceed or what HQUSACE may be able to do to change Customs position. Two options were offered on how to draft the Framework and estimate - get the data from Customs and it is exactly what is needed, or undertake a labor-intensive canvassing of the carriers and shippers to get what will likely be a more limited population of data, and develop some type of model to adapt and extrapolate that data to arrive at the inputs needed. NAE would cost both options. The OWPR offered to see if the DCG-CEO would sign a letter to Customs requesting the data. NED was to provide a draft letter for the DCG-CEO's signature. It was to include an explanation of specifically what data was needed and how it would be used. NED was also to identify a POC in Customs. OWPR requested that the draft letter be properly coordinated with the NAD Commander confirm this way forward. I don't believe the draft

letter was provided to HQUSACE.

On 2 June, NAE wrote Massport with the cost and schedule for the revised Framework. The DCW asked his independent advisor if the Framework was on the right track. The DCW was told that the Framework is on the right track with respect to measuring the land side cost savings and that based on the data he had seen for the Savannah Harbor study with respect to cargo weights and sailing drafts of various classes of vessels at various ports, it may be difficult to optimize the net NED benefits at 48 ft.

On 15 June, the NAD Chief of Programs and HQUSACE Chief of Planning discussed the project. NAD offered to brief the Chief of Planning with a focus on current issues and if there are things HQUSACE can do to help. The Chief of Planning thought that experts in the PCX for Inland Navigation may be able to assist in the data issue.

Massport responded to NAE's 2 June letter on 22 June.

On 24 June, NAE held a call to request HQUSACE assistance in getting the Customs data and how to proceed if that effort fails.

On 26 June, the DCG-CEO expressed concern that when he visited NAE on 10 April,, he promised Massport that we'd have an answer by Fall 2009. He also wished that he'd known about the difficulty with Customs earlier and might have been able to help. He asked that we re-look and see what can be done by this Fall.

Wesley E. Coleman, Jr.
Deputy Chief for Civil Works
North Atlantic Division Regional Integration Team
Phone: 202-761-5782 Fax: 202-761-1829

-----Original Message-----

From: Caldwell, Lloyd NAD
Sent: Tuesday, July 07, 2009 5:44 PM
To: DeLuca, Peter A COL NAD; Feir, Philip T Col NAE; Coleman, Wesley E Jr HQ02; Vietri, Joseph R NAD; Forcina, Joseph NAD; Scully, William C NAE
Cc: Temple, Sheri M NAD; Temple, Brian H NAD
Subject: Re: Boston Harbor

Joe---

Now that the date/time is set, pls advise me who can be on the call, and let's prepare a chronology of actions to discuss. I got feedback today from Gary Loew that in his discussions at HQ, MG Temple has characterized this as a failure on our part. He might have talked directly with COL DeLuca about his thoughts. In any case, from what I know, that is not a fair characterization of the matter.

Reportedly he understands that we were committed to have initiated a study by 31 May with conclusion by this Fall. He believes the delay at this point to be due to our recalcitrance/ineffectiveness. Don't know where he's gotten his info, but expect he is not aware of the challenges. Do not want us to be defensive in any way, but think we can ensure he has the full picture by identifying the key actions over the past months- plus how we see the way ahead. If there are things we should have done better/differently, let's say so.

The meeting planned for 21 Jul was intended to get senior eyes on the matter to assess how we can adjust the requirement or plan concretely a way forward to which we all agree. Don't know that we can accomplish that in the meeting this week, but expect his objective to be to understand why no progress, and to get commitment for completion. Pls distribute the info I had previously asked for to COL D, Tab, Wes, NAE, and me; and advise who will be on the call. Pls coord with NAE to decide who can address each topic (CWRB tasker, chronology, next actions). Expect MG T will open the meeting with his thoughts. Others' thoughts?

Lloyd



Maritime Department
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www.massport.com

June 22, 2009

Colonel Philip T. Feir
District Engineer
New England District
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

Re: Boston Harbor Deep Draft Navigation Improvement Project

Dear Colonel Feir:

I am writing in response to your June 2, 2009 letter updating me on the Corps' progress on defining the scope and cost of the additional economic analysis required to complete the Boston Harbor Deep Draft Navigation Improvement Project (BHDDNIP) Feasibility Report. While I appreciate the hard work that the New England District staff have put into this effort, it is hard for me to understand how 10 months after the initial presentation to the Civil Works Review Board (CWRB), the Corps still has not reached final agreement on the scope and cost to move forward. It is also astounding that this additional work will require at least an additional year and \$850,000 to complete. I note that with this additional cost, the project budget will be 55 percent above the original budgeted cost. Additionally, there appears to be no agreement within the Corps that this analysis will satisfy all of the concerns raised at the CWRB. Nonetheless, I appreciate the update and trust that you will let me know when you have a firm estimate and need a commitment from us to move forward.

In order for Massport to consider your request for our commitment to move forward on this project, we will need the following:

1. A line item breakdown of costs for the additional work, including an associated scope of work for each task, the goal of each task, and indication of whether the work will be done internally or via contractors;
2. A detailed schedule for each task;
3. A plan for how the Corps will manage and adhere to the budget and schedule;
4. A detailed plan for how the New England District staff will communicate effectively with HQ staff and external reviewers such that we do not get to the end of the 12 months and \$850,000 dollars and learn that they disagree with nuances of the methodology, interpretations of the data, etc.;

Colonel Philip T. Feir

June 22, 2009

Page 2

5. A commitment from the Corps to notify us immediately of disagreements or other factors that may impact the schedule or budget; and
6. Quarterly reports on the project status and consistency with the schedule and budget.

We look forward to receiving confirmation on the final scope and budget for the additional work as well as the information noted above.

Sincerely,



Michael A. Leone
Port Director

cc: Major General Temple

dh/wordfile/dredge2/ddnip/Col Feir letter June 2009.doc



REPLY TO:
ATTENTION OF:

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

June 2, 2009

Engineering-Planning Division
Planning Branch

Mr. Michael A. Leone
Director of Maritime
Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, Massachusetts 02128-2909

Dear Mr. Leone:

I am writing as a follow-up to the commitments Major General Temple made to Massport in his letter dated March 23, 2009, concerning the scope and cost of the additional economic analysis required for the Boston Harbor deep draft improvement feasibility study.

Following the Civil Works Review Board (CWRB) meetings held last summer, the Corps prepared a Framework to address the reviewers' comments that highlighted a requirement to reanalyze the project's economic justification and depth optimization. The cost of the Framework's effort was estimated at about \$580,000, and after additional analysis was updated in January 2009 to \$645,000 in order to capture increased labor rates and make up for a calculation error in the original estimate. This included \$275,000 for contract economic analysis; \$210,000 for non-contract analysis, preparation of a new Economic Appendix, revision of the Feasibility Report (assuming no change in the recommended plan), reviews of the revised report, and another visit to the CWRB; \$110,000 for a more extensive revision and review of the report should a different recommendation result from the reanalysis; and an estimated \$50,000 in Massport in-kind services for participating in the reanalysis, review and re-presentation.

Independent External Peer Reviewers reviewed the Framework and concurred with its scope. However, the peer reviewers and Corps staff concluded that a critical assumption in the Framework's first task – that PIERS data would be sufficient to make determinations of cargo origin and destination – was invalid, and that other sources would have to be identified in order to obtain this data. In response to this issue, the Corps has been working to identify a source that would allow us to obtain this necessary data more simply than having to engage in the potentially more costly and time consuming effort of acquiring data directly from carriers and shippers. As we learned more about each data source and the extent to which we could use the information as part of our analysis, we developed a more detailed scope and estimate to address the multitude of tasks identified in the reanalysis Framework. As part of this scope and estimate development process, we identified the U.S. Customs and Border Protection as a

possible data source, and have requested in writing that they provide us with access to their data. We are currently awaiting their response.

Acquiring and adapting the U.S. Customs data for use with the PIERS data is estimated to carry an additional cost of approximately \$75,000. Our more detailed scoping of the contract economics tasks led us to conclude that our original estimate was about \$130,000 too low. This is based in part on the Corps' ongoing experience with the scope of reanalysis efforts and data availability from other port deepening projects such as Savannah, Delaware River and Port Canaveral. The contract cost estimate for the Boston Framework now equates to \$480,000, which includes acquiring and adapting the Customs data. With \$210,000 for non-contract efforts, \$110,000 for more extensive revisions involving a changed recommendation, and \$50,000 for Massport in-kind services, the total estimate for the reanalysis Framework effort is \$850,000. Massport's share of this cost would be \$50,000 for in-kind services and \$375,000 in cash. As this effort would be conducted under the excess study cost provisions of the Feasibility Cost Sharing Agreement (FCSA), Massport's cash contribution would not be due until the construction phase of the project.

Before we finalize and forward to you the revised Framework scope and estimate, we want to ensure that we can obtain access to the U.S. Customs data. We expect to have this information shortly. Once your concurrence with the scope and estimate for the reanalysis effort is received, and an amended FCSA executed, the Corps will proceed with issuing a request for proposal for the contract task items. Upon successful negotiation and award of the task order we would then proceed with the Framework effort. The contracting process is estimated to take one month, with about eight months to conduct the work and an additional three months to complete the report revisions and re-present the project to the CWRB. If an FCSA amendment were executed by August 1, 2009, then an August 2010 CWRB meeting would be possible. The project would then be back on track for inclusion in a Chief of Engineers' Report, the publishing of a final Feasibility Report and SEIS for state and agency review, as well as preparation of a Record of Decision (ROD) and other documents for submittal to the Assistant Secretary, OMB and ultimately Congress by February 2011.

If you have any questions, please feel free to contact me at (978) 318-8220. We are anxious to resume working with you to complete this important project.

*Mike,
Staying positive and
continuing to push forward
on this effort!! Please call me
if you have any questions or
concerns. Mr. Tom*

Sincerely,



Philip T. Feir
Colonel, Corps of Engineers
District Engineer



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
WASHINGTON, D.C. 20314-1000

March 23, 2009

North Atlantic Division
Regional Integration Team

Mr. Michael A. Leone
Director of Maritime
Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, Massachusetts 02128-2909

Dear Mr. Leone:

Thank you for your letter of January 22, 2008, regarding the Boston Harbor Deep Draft Navigation Improvement Project. You raised concerns with the U.S. Army Corps of Engineers' review process. We value our partnership with Massport and I will address the concerns that you raised.

The Corps implemented a comprehensive peer review process in May 2005 with the publication of nationwide guidance that established a thoughtful, balanced peer review. That guidance adopted most of the recommendations from a National Research Council 2002 report, *Review Procedures for Water Resources Project Planning* and implemented the Office of Management Budget guidelines on peer review. Provisions in the Water Resources Development Act of 2007 (Sections 2034 and 2035) reinforce and add further definition to the Corps review processes. All decision documents and their supporting analyses undergo a district quality control and an agency technical review conducted by a qualified team outside of the home district. In cases where there are public safety concerns, a high level of complexity, novel or precedent-setting approaches, controversy, significant interagency interest, a total project cost greater than \$45 million, significant economic, environmental and social effects to the Nation, or where requested by the Governor of an affected State, an independent external peer review will be conducted. In addition to the technical reviews described above, decision documents are reviewed throughout the study process for their compliance with law and policy. These reviews culminate in Washington-level determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the Chief of Engineers.

As a result of this review process, the team is addressing comments raised by the external and policy compliance reviews. The methodology for evaluating project benefits has remained consistent throughout the study process. Most of the comments relate to the quality and quantity of the data that support the methodology and substantiate the benefits associated with the transportation savings for the container ships.

Resolution of these issues is necessary to properly optimize and identify the National Economic Development (NED) plan. For navigation projects, the alternative plan that reasonably maximizes net economic benefits consistent with protecting the Nation's environment is typically recommended.

The team is currently developing the tasks and costs for the analysis necessary to address the remaining comments. You have my commitment that we will be vigilant to limit the scope and cost of any additional analysis to that which is absolutely necessary to finalize this effort. I have enlisted the support of an independent advisor, at Federal expense, who has a wealth of technical and policy experience and who will act as an integrator. He has assisted in development of the draft framework which includes the identification of data needs and the scope of work and budget to address both the external peer review and Corps policy review comments. He will continue to assist throughout the Corps policy review. The draft scope of work was provided to the Independent External Peer Review team. We are in the process of evaluating their review comments and will revise the scope of work and timeline as appropriate. We will share the revised scope with you on or about 31 May 2009.

I understand that you have requested that the Corps fully fund this re-evaluation process or commit that the reanalysis required by the Civil Works Review Board this past summer be the last analysis required by the Corps to move forward. While the cost of the external review panel is a Federal expense and limited to \$500,000, any costs that are the result of the comprehensive review process are shared as described in the feasibility cost sharing agreement between the Department of the Army and the Massachusetts Port Authority for the Boston Harbor Navigation Improvement Feasibility Study, Boston, Massachusetts dated 27 June 2002 as amended in 2008 (see enclosure). Section 105(a) of the Water Resources Development Act of 1986, Public Law 99-662, as amended (33 U.S.C. 2215(a)), specifies the cost-sharing requirements applicable to the study. We have determined that these costs can be considered "excess feasibility study costs", so we can move forward using Federal funds, allowing Massport to defer providing its cost sharing match in accordance with the time frames shown in Article III.D of the agreement.

Completion of this analysis will address the remaining concerns of the Civil Works Review Board and ultimately will allow us to complete a Chief of Engineers Report for the Boston Harbor project. The schedule for this effort is subject to the scope of work and timeline to be developed for the framework. The Chief of Engineers Report is transmitted to the Assistant Secretary of the Army for Civil Works (ASA(CW)) for approval. The ASA(CW) will formally submit the report to the Office of Management and Budget (OMB) for budgeting consideration. OMB will determine how the proposed project relates to the policy and programs of the President. Upon receiving OMB advice, the ASA(CW) will transmit the report to Congress for authorization. Authorizing legislation normally references the recommendation outlined in Chief of Engineers Report.

I am available to meet with you to further discuss your concerns if you are so inclined. If you require further assistance, please feel free to contact me or Mr. Wesley E. Coleman, Jr., Deputy Chief, North Atlantic Division Regional Integration Team at 202-761-5782.

We will move forward together with you as expeditiously as possible and as prudence will allow.

Encl

Sincerely,



Merdith W. B. Temple
Major General, U.S. Army
Deputy Commanding General
for Civil and Emergency Operations



Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, MA 02128-2909
Telephone (617) 428-2800
www.massport.com

July 28, 2008

Colonel Philip T. Feir
District Engineer
New England District
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

Re: Boston Harbor Deep Draft Navigation Improvement Project

Dear Colonel Feir:

Welcome to the New England District Office! I look forward to working with you to continue to provide safe, accessible navigation channels into the Port of Boston.

The Massachusetts Port Authority ("Massport") and the U.S. Army Corps of Engineers ("the Corps") New England District have had a long and productive history of working together to deepen and maintain the Port of Boston's navigation channels and we look forward to continuing this partnership under your leadership. We greatly appreciate the ongoing hard work of your staff on the Boston Inner Harbor Maintenance Dredging Project (BIHMDP), which is currently underway in the harbor, as well as on the Boston Harbor Deep Draft Navigation Improvement Project (BHDDNIP), for which the Final Feasibility Report/Supplemental Environmental Impact Statement/Environmental Impact Report ("Final FR/SEIS/EIR") will be submitted for public review in the coming weeks.

Massport has reviewed the Final FR/SEIS/EIR for the BHDDNIP. We concur with the report's conclusions and support the Recommended Plan of Improvement. Specifically, the following four improvements to Boston Harbor's system of General Navigation Features are proposed:

1. Deepen the federal navigation channels from Massachusetts Bay to Massport's Conley Container Terminal in South Boston to enable deeper draft containerships to access the Port. A depth of -50 feet at mean lower low water (MLLW) would be provided in the Broad Sound North Entrance Channel, and 48 feet in the Main Ship Channel between the Outer Confluence and the Reserved Channel, the President Roads Anchorage, the lower Reserved Channel, and the Reserved Channel Turning Area. The Main Ship Channel above the Roads would be widened to 900 feet below Castle Island and 800 feet above Castle Island, with additional width provided in the bends of the Main Ship and North Entrance Channels. Massport would deepen the two active berths at Conley Terminal to a depth of at least three feet greater than that provided in the improved channel.

Operating

Boston Logan International Airport • Port of Boston general cargo and passenger terminals • Tobin Memorial Bridge • Hanscom Field • Boston Fish Pier • Commonwealth Pier (site of the World Trade Center Boston) • Worcester Regional Airport

RECYCLED PAPER

A-2-158

2. Extend the deepening of the Main Ship Channel above the Reserved Channel Turning Area to the Massport Marine Terminal, at a depth of -45 feet MLLW and width of 600 feet. Massport or our tenant at this facility would provide a depth of at least -45 feet MLLW in the berth at the Marine Terminal. We understand this recommended improvement is contingent on development of an active bulk cargo operation requiring the deeper channel prior to initiation of construction for the deeper channel.
3. Deepen an approximately 9-acre area of the 35-foot lane of the Mystic River Channel to -40 MLLW feet to improve access to Massport's Medford Street Terminal in Charlestown. Massport has already deepened the berth at this terminal to -40 feet MLLW and would maintain that depth in the future. We understand this recommended improvement is also contingent on development of an active bulk cargo operation requiring the deeper channel prior to initiation of construction for the deeper channel.
4. Deepen the existing 38-foot Chelsea River Channel to -40 feet MLLW. The channel would be widened by about 50 feet along the East Boston shore in the bend immediately upstream of the McArdle Bridge and in the bend downstream of the Chelsea Street Bridge. The channel would also be widened through the new navigation opening of the Chelsea Street Bridge. We understand this recommended improvement is contingent on replacement of the Chelsea Street Bridge by the Commonwealth of Massachusetts and the City of Boston, and the agreement of the five principal Chelsea River marine terminals to deepen their berths to at least -40 feet MLLW.

All of these improvements are integral to ensuring the future vitality, safety and security of the Port of Boston. The Port of Boston is New England's only full service port, providing infrastructure and value-added services to enhance the competitiveness of New England trade-dependent companies, and ultimately benefitting New England residents and consumers. The Port generates an estimated 34,000 total jobs and \$2.4 billion annual economic impact to the Commonwealth of Massachusetts and the New England region, and provides significant environmental benefits by reducing the number of trucks and related air emissions on the region's roadways. Key port cargos include containerized cargo, petroleum products, and dry bulk cargo (automobiles, cement, road salt, gypsum and scrap metal) – most of which will benefit from the proposed improvements.

Of particular importance to Massport is the channel deepening to Conley Terminal. Container volumes at Conley have increased 50 percent since 1995, and we expect annual volumes to more than double by 2025 to exceed 500,000 TEUs. The shipping lines calling Conley continually seek to bring larger ships into their east coast rotation. If the Port of Boston cannot accommodate the deeper draft vessels, the lines will not call Boston and the cargo will need to be trucked into the region from other ports resulting in significant economic and environmental impacts.

Massport is actively working to increase our terminal capacity, efficiency and minimize our environmental impact to allow us to accommodate our projected future growth. Specifically, we have completed or are actively working to:

- Complete a \$25 million repaving and equipment purchasing project to increase our terminal capacity by 50 percent;
- Implement a terminal productivity improvement program and acquire an upgraded terminal operating system;
- Maximize the container handling footprint of Conley Terminal and purchase three additional dockside cranes and more yard equipment to support the increased vessel activity;
- Purchase the former Coastal Oil Terminal abutting Conley to preserve our future terminal expansion options;
- Implement a comprehensive ISO 14001 Certified Environmental Management System (this was completed in 2003 - the first container terminal in the U.S. to achieve this milestone, and a model for other ports);
- Retrofit our existing yard equipment and purchase new "greener" equipment to reduce air emissions; and
- Convert all of our yard equipment to Ultra Low Sulfur Diesel to reduce air emissions.

Contingent on the approval of Massport's Board and appropriation of the needed funding by our Board, the Commonwealth of Massachusetts or other funding sources, Massport intends to enter into a Design Phase agreement to share the cost of project design with the Corps. Design Phase activities are expected to commence in early 2009 and be completed in early 2011. We understand the Design Phase cost for the Federal project features is estimated at \$5,634,000, with Massport responsible for an initial 25 percent, or \$1,408,500 plus an additional 10% or \$563,400 prior to or after construction for a total design non-Federal cost share of \$1,971,900.

We further understand that the Construction Phase costs for the Federal project features is estimated at \$297,805,000 with the non-Federal sponsor responsible for an initial cost share of \$97,885,000 based on: (1) division of cost-sharing between the cost of deepening the channels to 45 feet requiring a 25 percent cost share and the cost of deepening the channels beyond 45 feet requiring a 50 percent cost share; plus (2) the remaining non-Federal share of Design Phase costs allocated to deepening beyond 45 feet. The non-Federal sponsor will also provide an additional ten percent of the total design and construction costs at the completion of construction, currently estimated at \$30,344,000. We understand that, contingent on Congressional authorization of the project and appropriation of Federal funds, that construction could begin as early as 2011. Massport intends to actively pursue funding for the non-Federal project costs, and to serve as the non-Federal sponsor, contingent on approval by our Board and appropriation of adequate funds.

Subject to the approval of Massport's Board and provision of the needed funding by our Board or other funding sources, Massport also intends to fully fund any work performed by the Corps for design and construction activities associated with berth dredging, and will provide all lands, easements, rights of way and relocations (LERR) required for construction

Colonel Philip T. Feir
July 28, 2008
Page 4

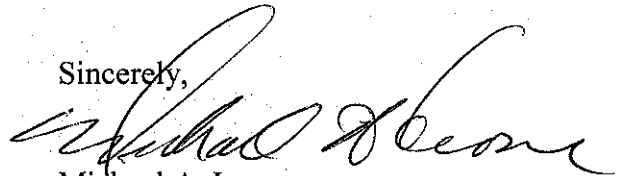
and future maintenance of the project. We further understand that any LERR costs incurred by Massport for construction of the project, currently estimated at \$165,000, will be credited against the 10 percent post-construction share of project costs.

Massport is a legislatively-chartered independent State authority. Massport owns and operates Logan International Airport, the Tobin Bridge, the Conley Container Terminal, the Black Falcon Cruise Terminal, and several other bulk cargo terminals. Massport has the statutory authority to set and collect fees for the use of its facilities, enter agreements for lease and operation of facilities, and issue bonds to raise funds for capital improvements of its facilities.

Massport is the non-Federal Sponsor for the BHDDNIP Feasibility Study, the 1990-authorized deepening of the harbor's major tributary channels constructed in 1998-2001 (the Boston Harbor Navigation Improvement Project), and construction of the confined disposal cells being constructed in the harbor for the ongoing BIHMDP. Massport has reviewed the cost-sharing and other responsibilities of the Sponsor as detailed in the Feasibility Report. Massport intends to work with the Commonwealth and other potential funding sources to provide the non-Federal share of design and construction of the improvements recommended in the Feasibility Report. The completed "Non-Federal Sponsor's Self-Certification of Financial Capability for Decision Documents" is attached to this letter, as requested by the Corps.

We look forward to continuing to work with you and your staff on this exciting and critical project for the Port of Boston.

Sincerely,



Michael A. Leone
Port Director

Enclosure: Non-Federal Sponsor's Self-Certification of Financial Capability for Decision Documents

cc: Louis Elisa, Seaport Advisory Council

dh/wordfile/dredge2/ddnip/Massport FFR letter - July 2008.doc

From: [Rogers, Catherine J NAE](#)
To: ["Julie.Crocker@Noaa.Gov"](mailto:Julie.Crocker@Noaa.Gov);
cc: [Habel, Mark L NAE](#); [Keegan, Michael F NAE](#); [Mackay, Joseph B NAE](#);
[Kammerer-cody, Denise E NAE](#);
Subject: RE: boston
Date: Monday, July 21, 2008 9:19:13 AM

Julie,

Thanks much for the quick response!

Thanks,
Catherine J. Rogers
Environmental Resources Section
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742
Phone - (978) 318-8231; Fax - (978) 318-8560
catherine.j.rogers@usace.army.mil

-----Original Message-----

From: Julie.Crocker@Noaa.Gov [<mailto:Julie.Crocker@Noaa.Gov>]
Sent: Monday, July 21, 2008 9:17 AM
To: Rogers, Catherine J NAE
Subject: boston

Hi Cathy.

I did receive your letter re. the blasting and the information looks like just what we were looking for - thank you! I've drafted a response concurring with the Corps' not likely to adversely affect determination. I noted on the clearance sheet that there needed to be a quick review so hopefully I will have it soon...I'll email a PDF of the signed letter as soon as I have it.

Thanks again for taking the time to put together all the info that is in the letter,

Julie



BOSTON HARBOR DOCKING PILOTS

36 NEW STREET EAST BOSTON, MA 02128

1-800-836-8847

July 17, 2008

Mr. Michael Keegan
Army Corp. o Engineers
696 Virginia Road
Concord, MA 01742-2751

RE: EOE A #12958

Dear Mr. Keegan

I thank you for your recent help in directing me with regard to comments on the Boston Harbor Deep Draft Navigational Project. For the purposes of this letter I am directing comments towards Plan "F" or the Chelsea River area. I do understand that the comment period is closed but would appreciate your considering my comments nevertheless.

As a brief introduction so you can better understand from whom these comments are coming, please allow me to provide you a short description of our position in the Port of Boston. As a group we provide pilotage service to a large percentage of all vessels calling at Chelsea River terminals. Our pilots have many years experience and many thousands of transits in this river. Verification of this can be attained from the terminal operators, vessel owners and the USCG.

I appreciate the Area "F" plan and agree with the proposed changes as described. However, I see a potential for a future situation which may create a new congestion problem for the upper Chelsea River. I understand, of course, that all of this depends on the replacement of Chelsea Street Bridge.

At present we have a congestion problem that arises when large vessels are moored at the Conoco Terminal which creates a situation where other vessels do not have enough room to safely transit past. This problem is **not** solely created by the Chelsea Street Bridge but additionally by the channel width and the turn prior to the Conoco terminal, as well. This is an example which would be envisioned further up the river in the area of the Gulf Terminal.

At present the maximum size of vessels transiting the upper reaches of the Chelsea River is set at 90' (due to Chelsea Street Bridge regulations). At present, passage of one large vessel past another moored at the Gulf terminal is a challenging maneuver with little room for error. We are able to accomplish this maneuver safely but we believe any increase in vessel beam past 90' and possibly to 106' (panamax) would be unsafe without widening the Federal channel.

In 2007 we piloted 44 ships with a 90' beam into the Gulf Chelsea Terminal. As the average panamax vessel's discharge time is 30 – 36 hours the terminals above the Gulf Terminal could potentially be looking at up to 66 days of delay time each year to vessels calling at their facilities. This would not be an economic improvement for these terminals. Because it would seem the driving force behind the Bridge replacement project and this dredging project is both economic and safety driven and would suggest allowing larger vessels to move in and out of the entire river (an idea we don't completely agree with) we would like to propose that the Area "F" plan include a widening of the federal channel on the east side of Chelsea River adjacent to the Gulf Terminal.

With the potential reduction of the safe usable channel by as much as 32' (2 panamax vessels at 106' of beam each) we believe that the federal channel should be widened by a least 50' directly abeam of the Gulf Terminal and another 200' along the length of the channel both up and down stream.

Thank you for considering our comments.

Best Regards,

Captain George Lee
President – Boston Harbor Docking Pilots
36 New Street
East Boston, Ma 02128
gelee@comcast.net
(978)-360-6602

Habel, Mark L NAE

From: Habel, Mark L NAE
Sent: Sunday, July 13, 2008 10:53 AM
To: Habel, Mark L NAE
Subject: FW: EPA's January 8, 2008 Proposed General Conformity Revisions.

Attachments: 20080108_NPRM_fs.pdf; Proposed Rule_Revisions to General Conformity Regulations_73 FR 1402 1428 01082008.pdf



20080108_NPRM_f
s.pdf (29 KB)



Proposed
ile_Revisions to Gen

-----Original Message-----

From: Williamson.Tim@epamail.epa.gov [mailto:Williamson.Tim@epamail.epa.gov]
Sent: Friday, July 11, 2008 4:57 PM
To: Rogers, Catherine J NAE
Cc: cooke.donald@epamail.epa.gov; Timmermann.Timothy@epamail.epa.gov;
Higgins.Elizabeth@epamail.epa.gov
Subject: Fw: EPA's January 8, 2008 Proposed General Conformity Revisions.

Hi Catherine,

Per our conversation this morning, my colleague Donald Cooke assembled the information below concerning EPA's proposed modifications to our conformity regulations. His note nicely summarizes and presents the substance, but let me re-emphasize two procedural points:

1. The timing of any final regulation is very uncertain. It's currently slotted for Feb 09, but that assumes a new administration will jump on these changes and get them out within a month of taking office. I'll let you be the judge of how likely that is.

2. These are only proposals; a lot could change in the final regulation. Again, note that the final will be issued by the next administration in all likelihood.

Hope this helps.

Tim Williamson
Office of Regional Counsel
EPA New England
617-918-1099

----- Forwarded by Tim Williamson/R1/USEPA/US on 07/11/2008 04:53 PM

Donald
Cooke/R1/USEPA/U
S

07/11/2008 10:48
AM

To
Tim Williamson/R1/USEPA/US@EPA
cc

Subject
EPA's January 8, 2008 Proposed
General Conformity Revisions.

General Conformity Regulations.

On Tuesday, January 8, 2008, EPA proposed revisions to the General Conformity Regulations (73 FR 1402 — 1428). Depending on the timing of the Final Environmental Impact Statement and the Army Corps of Engineers' General Conformity Determination, the Corps of Engineers may be able to take advantage of the flexibility and benefits offered by a revised final general conformity rule.

The purposes of the above comment was to alert the Corps of Engineers to potential changes which could help the COE in satisfying its general conformity requirements. EPA's Spring 2008 - Semi Annual Regulatory Agenda lists a Final Rule "Revisions to the General Conformity Regulations" action date for February 2009, which is subject to change.

I have attached a copy of EPA's fact sheet as well as a copy of the January 8, 2008 Federal Register Proposed Rule for you information,
(See attached file: 20080108_NPRM_fs.pdf) (See attached file: Proposed Rule_Revisions to General Conformity Regulations_73 FR 1402 1428 01082008.pdf)

In addition I have identified a number of proposed changes in the proposed rule which may be of interest with respect to the Boston Harbor Project.

- The EPA is proposing additional categories of actions that Federal agencies can include in their "presume to conform" lists and EPA is also proposing to permit States or Tribes to establish in their General Conformity SIPs or TIPS "presume to conform" lists for actions within their State or Tribal area.
- EPA is proposing to allow, under certain conditions, the State and Federal agency to negotiate alternate schedules for the implementation of the offsets and mitigation measures. The EPA is proposing a new section (40 CFR 93.163) to allow alternate schedules for mitigating emissions increases. The mitigation timing approach could allow some flexibility for Federal agencies and States or Tribes to negotiate a program for some emissions mitigation to occur in future years. States or Tribes could consider this approach to accommodate short term increases in emissions if there is a substantial long-term reduction in emissions.
- The EPA is proposing to allow Federal agencies to obtain emission offsets for general conformity purposes from another nearby nonattainment or maintenance area of equal or higher nonattainment classification provided the emissions from that area contribute to violation of the NAAQS in the area where the Federal action is located or in the case of maintenance areas, the emissions from the nearby area contributed in the past to the violations in the area where the Federal action is occurring.
- Several Federal agencies and other parties involved in the process suggested that EPA should consider exempting construction activity emissions from the conformity regulations requirements. Although the existing General Conformity Regulations do not specifically mention construction emissions,

they implicitly require Federal agencies to include emissions from construction activities in the conformity evaluation.

The EPA understands the concerns of the other Federal agencies and in the discussion about the revision to the definition of ``caused by,`` has identified a number of ways that Federal agencies can work with the State, Tribe, and local agencies to ease the burden of reviewing construction emissions. In addition, EPA is seeking comment on the possibility of exempting short-term construction projects from the General Conformity Regulations. One option would be to define short-term emissions as lasting no more than 2 years. Another option would be to define short-term emissions consistent with how they are defined for Transportation Conformity. Currently under the Transportation Conformity regulations, construction emissions are not required to be included for construction that lasts no longer than 5 years at individual sites

- The EPA is proposing to allow States or Tribes to include an enforceable commitment in the SIP or TIP to address future emissions from a Federal action.

Donald O. Cooke, Environmental Scientist U.S. Environmental Protection Agency
EPA New England Regional Office One Congress Street, Suite 1100 (CAQ) Boston,
Massachusetts 02114-2023

Telephone (617) 918-1668
Fax # (617) 918-0668
E-Mail cooke.donald@epa.gov



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

REPLY TO:
ATTENTION OF:

July 8, 2008

Engineering/Planning Division
Evaluation Branch

Mr. Robert Varney, Regional Administrator
U.S. Environmental Protection Agency, Region 1
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Dear Mr. Varney:

This letter is written in response to your comments dated May 23, 2008 on our Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement/Environmental Impact Report (SEIS/EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. In addition to complying with the National Environmental Policy Act (NEPA), the SEIS/EIR also serves the State and Massport's needs for a Massachusetts Environmental Policy Act (MEPA) document.

Your office rated the Draft SEIS/EIR sections on dredged material disposal at the Massachusetts Bay Disposal Site (MBDS) and capping of the Industrial Waste Site as L0-1 "Lack of Objections-Adequate", in accordance with EPA's national rating system. However, a rating of E0-2 "Environmental Objections-Insufficient Information" was given for aspects of the project relating to impacts from blasting of ledge rock to deepen the port's channels, and for potential impacts from the proposal to beneficially use the blasted rock to create rock reefs in Massachusetts Bay as habitat enhancement. This letter responds to your three general comments regarding impacts from:

1. blasting,
2. our proposal to beneficially use the rock removed from the deepened navigation channels as habitat enhancement, and,
3. air quality conformity requirements.

In addition, EPA's concern that these issues would not be addressed in full until the design phase of the project, which is after the issuance of the Final SEIS/EIR and the closure of the NEPA process, is also discussed below. More specific comments submitted by EPA are addressed in our response to comments in the Final Feasibility Report and SEIS/EIR. A comment and response table covering the issues raised by your letter is enclosed. This text will be included in the revised Public Involvement Appendix to the Final Feasibility Report and SEIS/EIR. Also, commitments on specific topics will be included in the design phase scoping section of the Final Feasibility Report and in the Final SEIS/EIR.

The Corps civil works process and project phasing, and the relationship to the NEPA process was discussed with the agencies in the Technical Working Group meetings, most recently on May 19, 2008, and also with your staff in a conference call on July 1, 2008. Large Corps civil works projects of this nature require specific Congressional action (authorization and/or funding) at each phase of project investigation and development: including reconnaissance, feasibility, design, and construction. The feasibility phase, for which this report and SEIS/EIR have been prepared, is intended to answer the request by Congress for a report and recommendation on whether Federal involvement in further navigation project improvements to Boston Harbor is warranted. This includes providing a specific recommendation on proposed project features, and an estimated cost for design and construction of those improvements. The feasibility phase has investigated the proposed navigation improvements to the level of detail necessary to answer the Congressional request for a Feasibility Report and the requirement to satisfy NEPA with the public release of the SEIS.

A Record of Decision (ROD) would be issued by the Assistant Secretary of the Army for Civil Works once the draft Chief of Engineers Report, which includes the Final Feasibility Report and SEIS/EIR, is reviewed at the Federal cabinet level and by the public. The State would also need to approve the project before a ROD is released. The Chief of Engineers Final Feasibility Report would then be forward to Congress for approval. Upon receipt of funding, the project would advance into the design phase (Planning, Engineering and Design, or PED). The design phase will cover the following tasks:

1. complete any necessary field investigations to support detailed design of the project,
2. prepare and publish for public review any needed supplemental NEPA/MEPA documents to present design phase investigations and any project design changes,
3. secure any required regulatory approvals, and
4. prepare the documents necessary to solicit bids for construction of the project.

The Feasibility Report includes a list and estimate of the costs of several tasks to be undertaken in the design phase. These include: subsurface investigations to define the exact nature of hard materials at depth and differentiate between rock and other materials; development of several "plans" in consultation with the Technical Working Group as detailed below (blasting plan, project sequencing plan), further investigation(s) and recommendation(s) on potential beneficial uses of rock and other dredged material, and development of monitoring plans for various aspects of the project.

The design phase investigations will yield additional detailed data on several technical issues and topics as listed below. At this time the following principal study areas are expected to include:

- Design Phase subsurface investigations, revised dredged material quantities and subsequent preparation of the blasting plan.
- Design Phase resource characterization efforts and dredge area baseline monitoring to allow for impact and recovery assessment of the benthic, fisheries, and shellfish resources.

- Detailed construction sequencing plan employing the dredged materials estimates, blasting plan and resource characterization effort.
- Air Quality emissions conformity evaluation to determine if there are any cost-effective alternatives available to meet the emissions requirements other than construction period shutdowns. Availability and cost of emission credits and offset opportunities will be investigated. Adjustments to the construction sequencing plan would be made according to the selected final plan of meeting air quality requirements.
- Beneficial use opportunities for rock. Once final rock quantities, types and locations are identified, the potential for beneficial use other than rock reef creation will be further investigated with the State and local communities.
- Additional opportunities for the creation of rock reef habitat will be further investigated with the NMFS, EPA, the State, and other interested TWG members. Modification to site selection locations, site investigations, reef design, placement methods, and post-construction monitoring will be developed in coordination with affected resource agencies.
- The use of dredged material to cap the former Industrial Waste Site will be evaluated. This will require U.S. EPA to prepare a NEPA document to permit placement of these materials as cap at that site.

The information generated by the above investigations may result in changes to the Federal project base plan, which would require preparation of one or more supplemental NEPA and MEPA documents. These document(s) will present the findings and recommended actions consistent with the investigations initiated during the design phase and subsequent negotiations with the Federal and State agencies, and other TWG participants. This will allow for public review and input into the design of the project. If as a result of the above investigations it is determined that additional mitigation is required beyond what has already been identified in the SEIS/EIR, then additional Federal and/or Sponsor funding would be sought to cover those costs as part of the project.

Any questions or comments can be addressed to Ms. Catherine Rogers at 978-318-8231 or the study manager, Mr. Mark Habel at 978-318-8871.

Sincerely,



John R. Kennelly
Chief of Planning

Enclosure



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

REPLY TO:
ATTENTION OF:

June 30, 2008

Engineering/Planning Division
Evaluation Branch

Ms. Mary Colligan, Assistant Regional Administrator
National Marine Fisheries Service
One Blackburn Drive
Gloucester, Massachusetts 01930-3097

Dear Ms. Colligan:

This letter is written in response to your letter dated June 2, 2008 requesting reinitiation of Section 7 consultation pursuant to the Endangered Species Act for the Boston Harbor Deep Draft Navigation Improvement Feasibility Study. Your letter states that our initial description of the project indicated that only two to six million cubic yards (cy) of material would be removed, as opposed to the 12.1 million cy currently proposed for removal, and that we did not indicate that blasting would be necessary. As requested in your letter, we are providing your agency with a determination of effects to listed species in the project area from the additional dredging as well as from the proposed blasting. Potential effects to listed species to be analyzed include underwater noise resulting from blasting, and project information on timing, sequencing, and monitoring.

Federally listed species that can be found in Massachusetts waters include three species of threatened or endangered sea turtles and three species of endangered whales. The sea turtles in Massachusetts nearshore waters are typically small juveniles. The most abundant being the Federally threatened loggerhead (*Caretta caretta*), followed by the Federally endangered Kemp's ridley (*Lepidochelys kempi*), and the Federally endangered leatherback sea turtle (*Dermochelys coriacea*). Green sea turtles (*Chelonia mydas*) may occur in New England waters, but are rare. Sea turtles are known to occur in Massachusetts Bay. While no surveys for sea turtles have been conducted in Boston Harbor, NMFS believes that suitable forage and habitat exists in this area and is likely that sea turtles occasionally visit Boston Harbor.

The Federally endangered North Atlantic right whale (*Eubalaena glacialis*), and humpback whale (*Megaptera novaeangliae*) are not considered residents of Boston Harbor, but on occasion entered the harbor as they complete seasonal migrations in nearby Massachusetts Bay. The Fin (*Balaenoptera physalus*), Sei (*Balaenoptera borealis*), and Sperm (*Physeter macrocephalus*) whales, which are also Federally endangered species, are seasonally present in New England waters, but are typically found in deeper offshore waters and are not likely to occur in Boston Harbor.

Although the amount of dredged material indicated in our letter dated March 29, 2005 has increased, the amount of time indicated to remove the material has remained the same. With construction shut-downs for air quality compliance, the recommended deepening plan would be completed in less than three years. If no construction shut-downs are needed, then the project would be completed in a little over two years. A dredging and blasting schedule based on the recommended deepening alternative with construction shut-downs was outlined in Table D2-30 of the Draft Feasibility Report and Supplemental Environmental Impact Statement/Report. However, this may change, dependent on recommendations provided by the Technical Working Group on the best sequencing plan based on project need and biological resources of concern. In either case, sea turtles have been known to be impacted from hopper dredges only, not mechanical dredges (Dickerson, et.al. 2004). As the project would only use a mechanical dredge, no impacts to sea turtles, or whales, from dredging would be expected. Impacts from blasting would be limited and are discussed in more detail below.

Please find attached a summary of background information on the anticipated range of noise impact from underwater blasting to listed species. Maps showing the distribution of large whales in Massachusetts Bay, and blasting noise areas for the outermost point of blasting in the Broad Sound North Entrance Channel are also included. As indicated in your letter, sea turtles are seasonally present in Massachusetts Bay from June through November, but are not known to be present in Boston Harbor. As there have been no known sightings of sea turtles in Boston Harbor reported to the Corps by the resource agencies, it is likely that a sea turtle in the Boston Harbor navigation channels would be rare.

Based on our calculations and analysis of effects on listed species, and the distribution of whales and sea turtles in the project area, we believe that the Boston Harbor Deep Draft Project would not likely adversely affect listed species. To further reduce potential impacts to threatened and endangered whales and sea turtles in the project area, the following mitigation measures will be implemented. A marine mammal and sea turtle observer will be present any time blasting in the harbor is to occur. Blasting will not occur while marine mammal(s) or sea turtle(s) are present within the safety zone. If blasting needs to occur to prevent injury to humans, and a marine mammal or sea turtle is present within the safety zone, then efforts will be made to encourage the animal to move from the area or other efforts, based on recommendations from the marine mammal and sea turtle observer. In addition, all disposal scows will follow the protocols for disposal at the Massachusetts Bay Disposal Site or Industrial Waste Site to prevent ship collisions with whales, in particular the North Atlantic Right Whale, and sea turtles. There have been no past occurrences of collision of disposal vessels with whales. In addition, the Contractor will be required to monitor the Right Whale Listening Network for information on Right Whales detected near the shipping lanes.

We request your response by July 18, 2008 confirming our conclusion that the Boston Harbor Deep Draft Project would not likely adversely affect listed species would be appreciated so that we can meet our commitment to the Civil Works Review Board. Any questions or comments can be addressed to Ms. Catherine Rogers at 978-318-8231.

Sincerely,


John R. Kennelly
Chief of Planning

Enclosure

Habel, Mark L NAE

From: Keegan, Michael F NAE
Sent: Tuesday, June 10, 2008 8:54 AM
To: Habel, Mark L NAE
Subject: FW: Emailing: 10461-1

Attachments: 10461-1.TIF



10461-1.TIF (504
KB)

FYI

-----Original Message-----

From: Connolly, Marianne [mailto:Marianne.Connolly@mwra.state.ma.us]
Sent: Thursday, May 22, 2008 8:42 AM
To: Keegan, Michael F NAE
Subject: FW: Emailing: 10461-1

<<10461-1.TIF>> Hi Mike,
It seems that the wastewater siphons are safe. Just fyi.

Who is the proponent for the Bridge replacement? I need to get our engineering folks to talk to them? Is it Mass Highway? Or the City?
Thanks,
Marianne

-----Original Message-----

From: Flynn, Terrence
Sent: Thursday, May 22, 2008 8:07 AM
To: Connolly, Marianne
Subject: Emailing: 10461-1

Here is a drawing of the wastewater siphons crossing the river. I think the siphon shown on the Section 38 drawing has been abandoned. This drawing shows the wastewater siphons at approximately 50 below mean low water.

Terry
x5734

PART 3

CORRESPONDENCE RECEIVED DURING PUBLIC REVIEW OF THE DRAFT FEASIBILITY REPORT AND DSEIS/DEIR



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

OFFICE OF THE
REGIONAL ADMINISTRATOR

May 23, 2008

Curtis L. Thalken, Colonel
District Engineer
ATTN: Programs and Project Management Division (Mr. Michael Keegan)
696 Virginia Road
Concord, Massachusetts 01742-2751

RE: Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) for the Boston Harbor Deep Draft Navigation Improvement Dredging, Boston, Massachusetts (CEQ # 20080143)

Dear Colonel Thalken:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, we have reviewed the U. S. Army Corps of Engineers, New England District (Corps) Draft Supplemental Environmental Impact Statement (DSEIS) for the Boston Harbor Deep Draft Navigation Improvement Dredging project proposed in various areas of Boston Harbor.¹ The DSEIS was prepared by the Corps in partnership with the Massachusetts Port Authority (Massport).

The DSEIS details Massport's goal to establish a deeper channel for access to the Conley Container Terminal in South Boston and to make port improvements in the Mystic and Chelsea Rivers and in the Main Ship Channel above the Reserved Channel. The proposed channel deepening is intended to help reduce tidal delays currently experienced by containerships and bulk carriers that use Boston Harbor. Other anticipated improvements beyond the Corps work to deepen the Federal channels would include work by Massport to deepen vessel berths at the Conley and Marine terminals. The project is expected to generate a total of 12.1 million cubic yards of non-rock dredged material (parent material) and 1.2 million cubic yards of rock.

The DSEIS proposes disposal of the majority of the dredged material at the Massachusetts Bay Disposal Site (MBDS)² and proposes the use of some of the non-rock dredged material (parent material) as cover at the former Industrial Waste Site.³ Based

¹ This letter serves as our comment on the DSEIS and the Draft Environmental Impact Report prepared under the Massachusetts Environmental Policy Act.

² The MBDS is approximately 17 nautical miles east of the entrance to Boston Harbor adjacent to the Stellwagen Bank National Marine Sanctuary.

³ The Industrial Waste Site is located 20 miles east of Boston in 300 ft. of water.

on our review of the information contained in the DSEIS, EPA has no objections to use of the MBDS for disposal of the dredged material. Also, EPA has no objection to the use of parent material as cover at the former Industrial Waste Site, and we view the proposed capping plan as an opportunity to further reduce the remaining risk associated with waste barrels that may still exist at the site.

We focused our review of the DSEIS on air quality impacts, removal of rock in the project area by blasting, and the potential for beneficial reuse of rock material to construct rock reefs. Each of these issues is discussed to varying degrees in the DSEIS. These issues are discussed below and in detail in the attachment to this letter.

The DSEIS describes a range of potential impacts to air quality that are directly related to the type of dredging equipment utilized and the duration of the work, and proposes a multi-year dredging/construction schedule in order to keep annual emissions low enough to avoid triggering the offset requirements of the Clean Air Act general conformity regulations. We are concerned that the DSEIS focuses on avoiding the need to offset emissions without a vigorous examination of the possible cost to the marine environment as a result of lengthening construction schedules to reduce annual emissions. We request that the Corps provide a full analysis of the environmental tradeoffs and costs of avoiding triggering the air emission offsets. In addition, this analysis should include developing contract provisions to require the cleanest construction equipment available and fully consider offsets as a means to reduce the in-water construction time/marine impacts of the project. We are also concerned that as currently written, the DSEIS postpones the determination on the use or viability of emission credits/offsets until the design phase after completion of the NEPA process and Record of Decision. We do not support this approach because we believe the issue should be fully vetted for public review as part of the EIS. We recommend that the Corps work closely with EPA and other interested state and federal stakeholders to resolve this issue in advance of the publication of the FEIS.

Comment
EPA #1

In addition to unresolved air issues the DSEIS lacks information to fully describe the potential impacts associated with proposed rock blasting and the creation of rock reefs--a proposed beneficial use of the dredge material. At a May 19, 2008 interagency meeting the Corps reported that the final extent and amounts of the proposed blasting will not be made known until sometime after the Spring of 2009 when extensive borings will be conducted to characterize the type and quantities of the rock to be removed, and that more specific discussions regarding how the material will be removed will not be possible until that point.

Comment
EPA #2

We are concerned that there is only limited information in the DSEIS regarding the potential for impacts and whether measures can be implemented to successfully minimize and mitigate blasting impacts, and that the Corps does not intend to fully address this issue until post EIS design and permitting. In addition, we are also concerned that only limited information is included in the DSEIS regarding the establishment of rock reefs, not enough information to inform a decision whether the proposed sites and potential impacts are acceptable. Our comments in the attachment recommend the establishment

of two advisory panels comprised of state and federal stakeholders (and others as appropriate) to address these outstanding issues.

EPA appreciates the opportunity to offer comments on the DSEIS and encourages the Corps to work closely with EPA and other interested federal and state agencies and other stakeholders to develop strategies to effectively address the air and marine impacts associated with the proposed project. We have rated the disposal of the dredged material at the MBDS and capping of the Industrial Waste Site LO-1 "Lack of Objections-Adequate", in accordance with EPA's national rating system, a description of which is attached to this letter. Moreover, based on a lack of information relative to the extent and impacts of blasting and the proposal to create rock reefs we have rated those aspects of the EIS EO-2 "Environmental Objections-Insufficient Information." We look forward to working with the Corps to resolve these issues and suggest a meeting to discuss our comments more fully. Please feel free to contact Timothy Timmermann of the Office of Environmental Review at 617/918-1025 to set up a meeting.

Comment
EPA #3

Sincerely,



Robert W. Varney
Regional Administrator

Attachment

cc:

MEPA Unit

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 State Draft Environmental Impact Report (DSEIS/DEIR) for the Boston Harbor Deep Draft Navigation Improvement Dredging, Boston, Massachusetts

Marine Issues

Blasting

According to the DSEIS, the project will result in the removal of between 450,000 and 1,400,000 cubic yards of rock through dredging and blasting. The duration and magnitude of blasting described in the DSEIS is of a scope that has the potential for serious and significant impacts to fish and marine mammals. The DSEIS highlights the multiple fish kills that resulted from blasting performed in Boston Harbor last fall despite the implementation of preventative measures. Based on that experience, we view the blasting as the most significant source of risk for impact to marine organisms associated with the project. While we understand the difficulty of quantitatively predicting impacts from blasting, we believe that significant effort will be required to develop an acceptable plan to minimize the impacts of blasting on the wide range of marine organisms in Boston Harbor. We appreciate the Corps' and Massport's commitment in the DSEIS to work with federal and state agencies to develop approaches to minimize impacts from blasting. In order for this project to move forward, we believe that the Corps and Massport should:

- **Continue their work to establish an interagency underwater technical working group.** We recommend that the Corps work closely with the working group to identify, discuss and evaluate measures that could be implemented to minimize blasting impacts. These measures should include, but not necessarily be limited to, technological fixes, sequencing, time-of-year restrictions, and examination of whether or not the limits of the channel could be shifted as a means to avoid the areas of rock. We strongly encourage the Corps to establish the working group immediately so that the group's work can be incorporated into the FEIS. We also note that the Draft Feasibility Report (page 186) explains that it may be possible to rip (remove) the bedrock with a large toothed bucket mounted on an excavator. According to the analysis, the viability of that alternate removal method (and the overall magnitude of impacts expected from the rock removal component of the project) will not be known until the design phase of the project. We believe that the development of this critical information should proceed now and be presented in the FEIS, not delayed to the design phase of the project outside of the NEPA/MEPA review process. If the development of that information is delayed and information regarding the impacts of rock removal will be developed after the current NEPA process, the Corps should explain how the information will be made available to the agencies and public for review and comment through a supplemental NEPA process. We also recommend that the

Comment
EPA #4

working group be maintained throughout the life of the blasting component of the project to help address any unforeseen developments should they arise. As part of the process we recommend that the working group be convened or informed on a regular basis to gauge success of control measures and review project progress (based on the reported results of the monitoring program described below). Rock removal techniques should be revisited as necessary when additional detailed geologic information becomes available.

Comment
EPA #4

- **Commit to an extensive monitoring program spanning the entire project life cycle that will provide real-time information on the impacts of blasting.** The monitoring program should be developed in consultation with the working group and should include reporting protocols to explain the chain of events should large fish kills or marine mammal impacts occur as a result of blasting. EPA looks forward to working with the Corps and participating on the working group to help develop the protocols, including those regarding notification of the group following notable events. The working group in conjunction with the Corps and Massport will then explore options for response actions, operational changes, or additional minimization measures, if they are indicated.

Comment
EPA #5

- **Work to make sure that the public is kept fully informed of the blasting program and working group discussions as the project advances.** We recommend that the Corps also consider inviting interested members of the public and industry to join the working group. Transparency in this part of the process will be critical given that the DSEIS does not include complete impact information related to rock removal for the project.

Comment
EPA #6

Beneficial Reuse

The DSEIS presents the Massachusetts Bay Disposal Site (MBDS) as the preferred method of disposal for the non-rock dredged material. The DSEIS also provides preliminary information regarding the potential beneficial reuse (disposal) of some or all of the parent material to cap areas of the Industrial Waste Site and use of the blasted rock material to create rock reefs. EPA does not object to the disposal of project generated dredged material at the MBDS. And, in general, we support the Corps and Massport investigation of the potential to beneficially reuse a portion of the dredged material generated by the project.

Comment
EPA #7

Comment
EPA #8

With respect to the plan to cap areas of the former Industrial Waste Site we note that the risk of a fisherman recovering an intact waste barrel to the surface is fairly remote because the area is technically closed to fishing and many of the barrels have already corroded. Therefore we view the proposed capping plan as an opportunity to further reduce the remaining risk.

With respect to the proposal to establish rock reefs, we support the concept of habitat restoration and enhancement; however, we have concerns about the locations selected for reef development and believe that significantly more information needs to be developed to fully understand the potential for impacts from this use proposal. The DSEIS states that reefs encompassing between 186 and 518 acres could be constructed at the Broad Sound or Massachusetts Bay sites. We have concerns about these particular sites due to the large size of the proposed reefs and the habitat functions these areas now appear to perform. The DSEIS describes the geomorphology of Broad Sound site as 43% gravel and cobble and the Massachusetts Bay site as 50% sand waves. The Corps' recent denial of the proposal to place dredged material at Winthrop Beach due to fisheries concerns (including adverse affects on cod spawning and lobsters) and comments highlighting the value of sand waves for fish in comments recently submitted by the National Marine Fisheries Service on the Minerals Management Service's Cape Wind EIS are relevant to this issue. Both of these instances support our position that the Corps and Massport need to more precisely define the potential for impacts associated with the project. As part of this additional evaluation we believe that the impacts associated with a range of reef sizes for both potential sites should be explored in the FEIS.

Comment
EPA #9

EPA strongly recommends that the Corps consider establishing a separate working group comprised of federal and state agencies and other interested stakeholders to address issues associated with rock reef creation. As with the blasting issues detailed above, the results of the working group efforts related to rock reef formation should be incorporated into the FEIS for review and comment. As above, we also believe that the information should be provided during the NEPA process, not later during the design phase of the project. At this point, the DSEIS does not contain sufficient information for EPA to determine whether rock reefs will be an acceptable use of the rock material generated by the project.

Acoustic Monitoring System

The FEIS should evaluate the potential for impacts of blasting on the recently installed buoy listening and monitoring system in the Boston shipping lanes.⁴ As you may know, the listening and monitoring system is designed to reduce the likelihood of ships colliding with whales by providing close to real time information to ship captains regarding the presence of whales in the shipping channel. The FEIS should include substantive information, including results of consultation with NOAA, to explain whether any proposed blasting will harm marine mammals and/or the effectiveness of the monitoring system.

Comment
EPA #10

In addition, the Corps and Massport should commit to use the data generated by the buoy listening and monitoring system and contract specifications should require that barges and other construction equipment are equipped with the proper communication equipment to receive the updates.

⁴ <http://www.listenforwhales.org/NetCommunity/Page.aspx?pid=467>

Specific comments

Comment
EPA #11

DSEIS page 2-25: States that monitoring of the habitat enhancement sites for several years would be important to document colonization rates and provide information for future projects. Yet, there is no commitment in the DSEIS from the Corps or Massport to fund or carry out this monitoring. We believe that if the habitat enhancement (rock reef) efforts advance, the Corps and/or Massport should fund a monitoring plan that is commensurate with the ultimate size of the reefs and is consistent with the input of the working group established to explore this issue (see above).

Comment
EPA #12

DSEIS page 3-23: EPA staff have observed European oysters within Boston Harbor along the Winthrop and East Boston shorelines.

Comment
EPA #13

DSEIS page 3-83: The DSEIS notes that only transient marine mammals are found in Boston Harbor. We believe that some marine mammals (harbor seals and harbor porpoise) are regular seasonal visitors into the harbor.⁵ Harbor porpoise are routinely observed around the Charles River dam in the spring during anadromous fish inward migration. They have also been observed in Chelsea Creek. Harbor seals have been observed year round throughout the harbor.

Comment
EPA #14

The FEIS discusses a change in the size and number of vessels projected to come to the port as a result of the development of the project. The FEIS should calculate the change in water usage (for cooling water intake, ballast, etc.) associated with the projected fleet change.

Comment
EPA #15

Cumulative Impacts

Comment
EPA #16

The FEIS should look at the cumulative impacts of additional barge traffic to MBDS to the risk of vessel collision with whales. Also, this project will cause a conversion of between 1100-1300 acres of soft-bottom to hard substrate. The FEIS should also analyze the cumulative impact to benthic habitat (from both temporary and permanent conversion) from this project and the large number of other projected projects in the harbor.

Comment
EPA #17

Air QualityGeneral Conformity

Comment
EPA #18

EPA disagrees with the approach to general conformity described in the DSEIS which leaves the decision on satisfying the Clean Air Act requirements of general conformity to the design phase of the project (see page 4-51 under "Emission Credits" and page 4-75 under "Mitigation"). We believe that under NEPA the Corps has an obligation to include in the EIS the information about how general conformity requirements will be met. The general conformity provisions at 40 CFR 93.150 mandate that the Corps must make a determination that its action conforms prior to engaging in, supporting, providing financial assistance for, licensing or permitting, or approving it. We believe this requires satisfying conformity prior to issuing a Record of Decision for the project. Therefore, we

⁵ Dave Wiley, PhD, personal communication, 5-16-2008.

strongly encourage the Corps to work closely with the EPA and other state and federal agencies as appropriate to develop an approach to general conformity, in a fashion that can be presented in the FEIS. We believe that leaving a determination on the use or viability of emission credits until the design phase is inappropriate.

The Corps position on its general conformity obligations presented in the DSEIS is unclear and leads to confusion, as evidenced by the statement on page 5-5 under “Environmental Compliance,” which states: “*Clean Air Act, as amended, 42 U.S.C. 7401 et seq.* Compliance: The ‘general conformity’ requirements of Section 17[6 *sic.*] (c)(1) of the Clean Air Act, 42 U.S.C. 7506(c)(1), will be adhered to by limiting construction and using ‘clean’ equipment to avoid exceeding air quality standards [general conformity emission applicability thresholds *sic.*] or by purchasing emission credits.”

Should the Corps ultimately adopt either Alternative 1 or 2 with Emission Reduction Option 2 (which includes replacement of older equipment with new equipment⁶ and increased/spread-out dredging schedule⁷) with enforceable environmental commitments that insure the use of new equipment with more stringent EPA emissions standards, and enforceable dredging schedule, then general conformity would be satisfied by the action falling below emission thresholds. However, should the Corps select not to use equipment with more stringent emission standards and/or shorten the construction schedule, then a general conformity analysis is required. Once project emissions exceed the *de minimis* threshold all emissions of the exceeded pollutant would have to be offset or otherwise accounted for in the state implementation plan.

Comment
EPA #18

Should an alternative or construction process be chosen that triggers a general conformity analysis (an alternative without emission reduction option # 2), we point out that a draft conformity analysis must undergo a public review process and a final conformity determination issued by the Corps before issuance of the Record of Decision. We are willing to work closely with the Corps to address these issues.

EPA is concerned that the Corps’ has focused more emphasis on efforts to avoid triggering the offset requirements of the general conformity regulations than the need for an analysis of the relative costs and benefits of that avoidance against the other project impacts that may be worsened by stretching the construction schedule out over more years. Those impacts include but are not limited to increased aquatic impacts or

Comment
EPA #19

⁶ Replace all non-road equipment with newer equipment that would meet EPA Tier 2, 3 and 4 emission standards that would be required for equipment model years 2011 and beyond. (Page 4-50 and 4-51; “This environmental commitment requires replacing all non-road equipment with newer equipment that would meet EPA Tier 3 and 4 emission standards that would be required for equipment model years 2011 and beyond. The clamshell and backhoe engines would need to meet Tier 4 emissions standards and support equipment would need to comply with Tier 3 and Tier 4 emission standards, depending on the equipment category and engine size. Table 4-12 presents the Tier 3 and Tier 4 emission limits based on engine size, in horsepower. In addition, the tugboats would also have to be equipped with engines that meet EPA’s Tier 2 marine engine emissions standards presented in Table 4-12.”

⁷ Alternative One, 45-Foot MLLW Alternative would increase the dredging six months (from 36 to 42 months) while Alternative 2, 50-Foot MLLW Alternative would increase the dredging four years (from 48 months to 73 months over eight calendar years). Air quality shutdown periods would occur every other winter.

Comment
EPA #20

increased costs from multiple re-deployments of equipment. EPA requests that the Corps take a hard look at these comparisons before any final decision is made to avoid one impact at the expense of increasing another. With respect to general conformity, EPA notes that offsets for a time-limited project such as this construction may be supplied using time-limited discrete emission reduction credits. The Agency is aware of at least two recent projects that have successfully secured such credits to offset emissions from construction projects. It is possible that such credits may be available in the open market, and it would be important to weigh the cost of such credits against the potential impacts and costs of an extended schedule. In addition, the analysis in Appendix O of the DSEIS does not appear to explore the option of excluding emissions of ozone precursors that occur outside the ozone season from the conformity analysis. The options for a construction schedule presented in Appendix O, Attachment A, Part 4 suggest that a substantial portion of the construction operations will occur during the winter under most of the options. If the project proponent is prepared to accept enforceable commitments that require a portion of its operations to occur outside the ozone season, those emissions attributable to non-ozone season operations may be excluded from the conformity analysis and reduce the emissions subject to the offset requirement.

Comment
EPA #21

Emission Reduction and Mitigation

Comment
EPA #22

EPA strongly encourages the Corps to require the use of new non-road equipment that would meet EPA Tier 2, 3 and 4 emission standards. As specified in the DSEIS's "Environmental Commitments," section 4.8.4, page 4-50, the clamshell and backhoe engines would meet Tier 4 emissions standards and support equipment would need to comply with Tier 3 and Tier 4 emission standards, depending on the equipment category and engine size. The DSEIS also notes that tugboats would be equipped with engines that meet EPA's Tier 2 marine engine emissions standards.

EPA recommends including an enforceable commitment in the Record of Decision and specifying this environmental commitment in the contract specifications with enforceable provisions to reduce impacts on air quality, consistent with CEQ's NEPA regulations which require that the Record of Decision include mitigation as conditions in the approvals and funding for the project. 40 CFR 1505.3(a) and (b).

Comment
EPA #23

National Ambient Air Quality Standard Nonattainment Areas, and Attainment Areas with an Ongoing Maintenance Plan

The DSEIS identifies the project area as located in the Metropolitan Boston Interstate Air Quality Control Region (AQCR), [40 CFR 81.19]. While this is a true statement, it is more relevant in determining applicable Clean Air Act requirements to indicate that the project is in an area that has been designated nonattainment or is subject to a maintenance plan. The relevant areas for the project are the Boston-Lawrence-Worcester (E. Mass), MA moderate eight-hour ozone nonattainment area and the Boston area carbon monoxide attainment area with an associated maintenance plan.

Table 3-11 & Table O-1 Ambient Air Quality Standards

These tables should be updated to reflect recent revisions to the ozone standard. On March 12, 2008, EPA Administrator Stephen L. Johnson signed the final rule revising the National Ambient Air Quality Standards (NAAQSs) for eight-hour ozone to a level of 0.075 parts per million (ppm), specifying the level of the primary standard to the nearest thousandth ppm. EPA also revised the secondary eight-hour ozone standard by making it identical to the revised primary standard. The Federal Register was published March 27, 2008 (73 FR 16436 — 16514) making the revised eight-hour ozone standards effective on May 27, 2008. NAAQSs can be found on EPA's web site at URL address: <http://www.epa.gov/air/criteria.html>.

Comment
EPA #24

Eight-Hour Ozone SIP

Page 3-94 identifies the eight-hour ozone demonstration State Implementation Plan as under development. Please note that the Massachusetts Department of Environmental Protection submitted its eight-hour ozone Reasonable Further Progress (RFP) State Implementation Plan, as well as its eight-hour ozone Attainment Demonstration State Implementation Plan to EPA on January 31, 2008.

Comment
EPA #25

General Conformity Regulations

On Tuesday, January 8, 2008, EPA proposed revisions to the general conformity Regulations (73 FR 1402 — 1428). Depending on the timing of the FEIS and the Corps general conformity determination, the Corps may be able to take advantage of the flexibility and benefits offered by a revised final general conformity rule.

Comment
EPA #26

CD-ROM disk provided in Attachment B

Page O-11 references a marine vessel MS Excel emissions calculation spreadsheet developed by CDM which was to be included in the CD-ROM disk provided in Attachment B. Our copy of the DSEIS did not include a copy of the CD-ROM. Please submit a copy of the MS Excel spreadsheet for marine vessel emissions to EPA for review.

Page O-14 references a non-road emissions spreadsheet which was to be included in the CD-ROM disk provided in Attachment B. As noted above, our copy of the DSEIS did not include a copy of the CD-ROM. Please submit a copy of the MS Excel spreadsheet for non-road emissions. Page O-14 also references a MS Excel spreadsheet developed by CDM to calculate the on-road annual emissions, which is presented in Attachment A. Please submit a copy of the MS Excel spreadsheet for on-road annual emissions.

Comment
EPA #27

Finally, page O-14 references the MOBILE6.2 model input and output files which was to be included on a CD-ROM disk provided in Attachment B. Page O-18 also makes reference to the CD-ROM disk containing MOBILE6.2 input and output files. Because the CD-ROM was not included in our review copy of the DSEIS we respectfully request a copy of all MOBILE6.2 input and output files for review.

We will review the new information contained in the spreadsheets and the CD-ROM and supplement our comments on the DEIS as appropriate based on our review of that information.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
One Blackburn Drive
Gloucester, MA 01930-2298

JUN 2 2008

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

Ian A. Bowles, Secretary
Attn: Deirdre Buckley, MEPA Analyst
Executive Office of Energy and Environmental Affairs
Suite 900
100 Cambridge Street
Boston, MA 02114

**Re: Boston Harbor Deep Draft Navigation Improvement Dredging Project,
Feasibility Report and Draft Supplemental Environmental Impact Statement; Draft
Environmental Impact Report**

Dear Colonel Thalken and Secretary Bowles:

The National Marine Fisheries Service (NMFS) has reviewed the Draft Supplemental Environmental Impact Statement (DSEIS) and the Commonwealth of Massachusetts' Draft Environmental Impact Report (DEIR) for the Boston Harbor Deep Draft Navigation Improvement Dredging Project. This project involves the improvement dredging of approximately 12.1 million cubic yards (cy) of material from the Broad Sound entrance channel, the Main Ship channel, the Reserved channel, the Mystic River channel, and the Chelsea River channel. Dredged material from the proposed project will be placed at Massachusetts Bay Disposal Site (MBDS). In addition, approximately 1.2 million cy of rock will be removed from the Broad Sound entrance channel, Main Ship channel, and the Chelsea River channel by blasting.

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Fish and Wildlife Coordination Act require federal agencies to consult with one another on projects such as this. Insofar as a project involves essential fish habitat (EFH), as this project does, this process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in this consultation procedure. While the EFH assessment contained in the DSEIS/DEIR addresses many of the issues associated with this project, specific information necessary to evaluate anticipated impacts has not been received. This information, as described below, is necessary for NMFS to fully evaluate anticipated

Comment
NMFS #1



Comment
NMFS #1

impacts on fishery resources and habitat. Upon receipt of additional information, NMFS will provide specific EFH conservation recommendations, as appropriate.

Presence of Fishery Resources in Boston Harbor

Boston Harbor provides habitat for a variety of living marine resources, including, but not limited to, the commercially and recreationally important winter flounder (*Pseudopleuronectes americanus*), rainbow smelt (*Osmerus mordax*), alewife (*Alosa pseudoharengus*), blueback herring (*Alosa aestivalis*), and American lobster (*Homarus americanus*). There is ample evidence that winter flounder utilize the proposed project area for spawning and juvenile development habitat. According to the NOAA Technical Memorandum NMFS-NE-138 (EFH Source Document), winter flounder generally spawn over sand, silt, and mud substrates in nearshore habitats from less than five meters deep, as well as offshore areas at depths of up to 90 meters on Georges Bank (Pereira et al. 1999). With the exception of Georges Bank and Nantucket Shoals populations, mature winter flounder spawn in the shallow waters of inshore bays and estuaries (Pereira et al. 1999). Because winter flounder eggs are demersal and adhesive in nature and larval and young of year winter flounder also prefer shallow inshore waters, spawning, egg development and early juvenile development habitat tend to be close together (Pereira et al. 1999). According to the EFH Source Document, winter flounder eggs and larvae have been collected at temperatures ranging from 0 to about 20.5 degrees Celsius. As such, it is anticipated that winter flounder eggs and larvae would be present within Boston Harbor during the winter, spring, and early summer. In addition, NOAA's Estuarine Living Marine Resources Program has identified winter flounder eggs and larvae as being abundant in Boston Harbor during this portion of the year (US Department of Commerce 1994).

The 2004-2005 final report for the Mystic Power Generating Station along the Mystic River in Everett, Massachusetts contains detailed information regarding the impingement and entrainment of fishery resources as a result of operations. This power station is located upstream of the proposed dredging footprint. As noted within the final report, approximately 16 million winter flounder larvae were entrained into the facility in this 12-month period (Shaw 2006). While this facility is located upstream of the proposed project footprint, this study suggests that inner portions of Boston Harbor are currently being utilized for winter flounder spawning and juvenile development.

The May 1995 Finfish Sampling and Description Report prepared by Normandeau Associates for the Army Corps of Engineers (ACOE) 1995 improvement dredging project of the inner Boston Harbor identified substantial winter flounder presence in the project area. This study included sampling at stations located within the inner and outer harbor. The trawl data identify winter flounder as being the most numerous finfish at each station, and winter flounder catch per unit effort (CPUE) as the highest of all species for all stations combined (Normandeau 1995). In view of these data provided in the reports and publications provided above, NMFS maintains that Boston Harbor and the Mystic and Chelsea Rivers support populations of winter flounder that utilize the area for spawning and juvenile development.

In addition to winter flounder, anadromous rainbow smelt, alewife, and blueback herring currently utilize Boston Harbor, the Mystic River, and the Chelsea River as a migratory pathway between upstream spawning locations and Massachusetts Bay. The 1995 Normandeau study associated with the improvement dredging of Boston Harbor found use of the area by alewife, blueback herring, and rainbow smelt through gill net sampling. Over all stations combined, blueback herring (26%), rainbow smelt (25%), and alewife (15%) were found to be the most abundant species sampled using gill nets (Normandeau 1995). Entrainment studies within the Mystic Station final report for 2004-2005 found that approximately 1.8 million rainbow smelt larvae were entrained in the facility (Shaw 2006). Further, this study found that 497 alewife and 27,379 blueback herring juveniles and adults were subject to impingement resulting from operations (Shaw 2006). As such, NMFS maintains that this area is being utilized by anadromous fish, including blueback herring, rainbow smelt, and alewife. It is important to note that due to the low populations of alewife and blueback herring throughout the Commonwealth of Massachusetts, the Massachusetts Division of Marine Fisheries has prohibited all harvest of these species. In addition, rainbow smelt has been identified as a "species of concern" by NMFS, who is assessing whether the species warrants listing under the Endangered Species Act. These actions underscore the importance of these species in Massachusetts and New England as well as the need for measures which avoid and minimize impacts on anadromous fishery resources.

Comment
NMFS #2

The substrate found within the project area also serves as habitat for benthic organisms, such as shellfish and other invertebrates living within and on the surface of the sediment. These organisms contribute to the productivity of the federally managed species as a food source for both juvenile and adult life stages of finfish. The commercially important American lobster has been documented extensively within Boston Harbor by the Massachusetts Division of Marine Fisheries through the 1990-2002 Massachusetts Bay Lobster Trawl Sampling Program.

Issues associated with dredging

The proposed dredging and the resulting suspended sediment and deposition may result in adverse effects to fishery resources and habitats. The EFH Source Document states that winter flounder eggs range in size from 0.74-0.85 mm in diameter, and are demersal and adhesive (Pereira et al. 1999). The eggs have been shown to be adversely affected by minimal levels of sediment deposition. Research conducted at the NMFS Northeast Fisheries Science Center's Milford Lab found that sediment deposition at depths of ½ the egg diameter (~0.5 mm) resulted in reduction in hatch of eggs (David Nelson, personal communication, 2003). In addition, a recent study found that deposition of suspended sediments can have adverse effects on winter flounder eggs at approximately 1.0 mm (Walter Berry, personal communication, 2006). While this study found that deposition at greater than 3mm reduced hatch significantly, there was also a reduction in hatching success (approximately 60 percent down to 35 percent) at deposition levels of 0.5mm-1.0mm (Berry et al. 2006). It is important to note that this study dealt solely with total hatch success, and did not deal with sublethal effects, such as developmental deformities, which may result from burial. There is also evidence that egg burial of approximately 1.0 mm results in increased time for winter flounder eggs to hatch, which results in a greater

Comment
NMFS #3

risk of predation (Berry et al. 2006). Furthermore, it has been indicated that larval stages of winter flounder may be susceptible to impacts from suspended sediment due to abrasion (Walter Berry, personal communication, 2006).

Comment
NMFS #4

As stated above, Boston Harbor, Mystic River, and Chelsea River serve as habitat for a number of anadromous fishery resources. These anadromous fishery resources serve as prey for a number of federally managed species and are considered a component of EFH pursuant to the MSA. In addition, these are NOAA trust resources that are covered under the Fish and Wildlife Coordination Act. NMFS remains concerned that dredging activities and associated plumes of contaminated sediment have the potential to impair migration of anadromous species. Chiasson (1993) found an increase in swimming activity of rainbow smelt when suspended sediments were present. Such alarm reactions have been found to disrupt schooling behavior of fishes (Wildish and Power 1985). In a laboratory study, Wildish and Power (1985) found that rainbow smelt avoided suspended sediment when concentrations were in excess of 20 Mg/L. Furthermore, sublethal effects to estuarine fishes can include decreased feeding, impacts from lowered oxygen levels, as well as impacts on gills and associated respiratory impacts (Wilber and Clarke 2001).

Comment
NMFS #5

The DSEIS/DEIR states that the sediment plume from the dredging is expected to be contained within the vicinity of the proposed dredge area. The primary means for this determination was the use of the SSFATE model for the 2004-2005 Outer Boston Harbor maintenance dredging project, as well as the plume tracking performed for the construction of the CAD cell within Boston Harbor during the previous improvement dredging project in 1998-2002. During the review of the Boston Harbor Inner Harbor Maintenance Dredging project in 2006, NMFS raised concerns regarding the applicability of the SSFATE model used in the suspended sediment dispersion analysis, as described in our May 12, 2006 letter to the ACOE. In a letter dated February 22, 2007, the ACOE developed a water quality monitoring plan for the inner harbor maintenance dredging project to be performed in 2008. This plan includes a real-time dredge plume tracking effort in order to identify the extent of suspended sediment dispersion resulting from dredge operations. Results of this effort should be utilized, in part, to develop a dredge sequencing plan to avoid and minimize adverse effects to fishery resources in certain areas and times when they would be most susceptible to adverse impacts.

Comment
NMFS #6

Issues associated with blasting

The DSEIS/DEIR contains limited information regarding anticipated effects resulting from the proposed blasting. Specifically, the DSEIS/ DEIR and EFH assessment does not include an analysis of the location, timing, and methods of the proposed blasting and the anticipated impacts on living marine resources. NMFS acknowledges the need to advance the project, however, this blasting impact information is important in order to fully anticipate adverse effects to fishery resources and to identify suitable minimization techniques. This detailed assessment of impacts should be incorporated into the proposed blasting plan.

Comment
NMFS #7

The recent blasting events associated with the Boston Harbor Maintenance Dredging project resulted in a series of fish kills. As noted in the DSEIS/ DEIR, the ACOE is

currently in the process of preparing an “after action report” to provide information and determine what lessons can be learned from the 2007 fish kill events, and to identify corrective measures that can be used to avoid and minimize impacts on fishery resources during the proposed deep draft improvement project. This “after action report” should be incorporated into the recommended blasting plan.

Comment
NMFS #8

The DSEIS/DEIR discusses the formation of an interagency underwater blasting technical working group in order to discuss construction sequencing and potential constraints as well as operational procedures and equipment for the proposed blasting. NMFS believes that this can be an effective approach in the development of a comprehensive blasting plan. In addition to an assessment of impacts, the blast plan should address potential operational impact minimization measures, sequencing options, impact thresholds, and an adaptive management protocol. This blasting plan should be developed and approved by the interagency technical working group prior to any blast operations.

Beneficial uses of rock as artificial reefs

According to the DSEIS/DEIR, the ACOE is considering the utilization of the blasted rock to create artificial reefs over an area of approximately 220-530 acres of soft bottom habitat within Broad Sound. The DSEIS/DEIR discuss three alternatives considered as beneficial reuse, including the use of rock for upland construction purposes, use for ongoing shore protection projects, and use of rock as artificial reefs. The document states that upland alternatives and shore protection alternatives were eliminated from consideration due to uncertainty. Due to recent discussions with MassPort regarding the potential use of the Marine Terminal as a transfer facility, NMFS maintains that the upland alternatives should be more fully explored.

Comment
NMFS #9

In the context of the beneficial reuse of blasted rock for creating artificial reefs, the DSEIS/DEIR assumes that hard bottomed habitat is preferable to soft bottom habitat. Although less structurally complex, soft bottom habitats serve as habitat for a variety of resources. As noted in the DSEIS/DEIR, soft bottom areas of the Broad Sound preferred reef site are utilized by benthic invertebrates, lobster, and fishery resources such as flounder, red hake, and sculpin. As the Broad Sound reef site contains areas of both hard and soft substrates, the FSEIS/FEIR should consider the loss of soft bottom habitats as a result of the creation of artificial reefs relative to the overall ecosystem functions and values.

Comment
NMFS
#10

Capping of the former Industrial Waste Site

As noted in the DSEIS/DEIR, the ACOE is considering the use of dredged material to cover potential hazardous and radioactive waste located within the former Industrial Waste Site (IWS) located adjacent to the MBDS. In order to test a methodology for capping of the IWS, a demonstration project is planned for the dredged material disposal in the MBDS associated with the upcoming Boston Harbor Maintenance Dredging project. While the results of the demonstration project will be unavailable for the FSEIS/FEIR, information should be presented to federal and state resource agencies in order to determine if this method is acceptable for use for the IWS capping project.

Comment
NMFS
#11

Essential Fish Habitat Assessment

As noted in the EFH assessment included in the DSEIS/DEIR, this portion of Boston Harbor serves as EFH for 23 federally managed species, including, but not limited to, Atlantic cod, haddock, pollock, whiting, red hake, white hake, winter flounder, yellowtail flounder, windowpane flounder, American plaice, ocean pout, Atlantic mackerel, and summer flounder. As noted above, our ability to assess potential impacts on EFH and associated marine resources was complicated by insufficient information in the document. Section 305(b)(2) of the MSA requires all federal agencies to consult with NMFS on any action authorized, funded, or undertaken by that agency that may adversely affect EFH. Included in this consultation process is the preparation of a complete and appropriate EFH assessment to provide necessary information on which to consult. NMFS recommends that the following additional information regarding project impacts and issues relative to fishery resources and habitats be provided in order for us to fully assess the adverse effects of the proposed project. Upon receipt of this information, NMFS will provide specific EFH conservation recommendations, as appropriate.

- 1) A sequencing plan should be developed for dredging activities. This plan should avoid and minimize adverse impacts on winter flounder and anadromous fish resulting from increased levels of suspended sediment and deposition. This sequencing plan should be coordinated with federal and state resource agencies.
- 2) A comprehensive blasting plan should be developed by an interagency underwater blasting technical working group. As noted above, this plan should have a detailed discussion of anticipated impacts on fishery resources, and should address potential operational impact minimization measures, sequencing options, impact thresholds, and an adaptive management protocol. This blasting plan should be approved by the interagency technical working group.
- 3) Alternative beneficial reuse options that avoid and minimize adverse impacts on biologically productive soft bottom habitats should be evaluated more fully within the FSEIS/FEIR.
- 4) In order to assess potential impacts resulting from the proposed capping at the IWS, the results of the upcoming demonstration capping project within MBDS should be presented to federal and state resource agencies.

Comment
NMFS
#12

Endangered Species Act

Three species of federally threatened or endangered sea turtles and three species of endangered whales may be found in Massachusetts waters. The sea turtles in Massachusetts nearshore waters are typically small juveniles with the most abundant being the federally threatened loggerhead (*Caretta caretta*), followed by the federally endangered Kemp's ridley (*Lepidochelys kempfi*). Loggerheads and Kemp's ridleys have been documented in waters as cold as 11°C, but generally migrate northward when water

temperatures exceed 16°C. These species are typically present in Massachusetts waters from June through November. Federally endangered leatherback sea turtles (*Dermochelys coriacea*) are located in New England waters during the warmer months as well. While leatherbacks are predominantly pelagic, they may occur close to shore, especially when pursuing their preferred jellyfish prey. Green sea turtles (*Chelonia mydas*) may also occur sporadically in New England waters, and any occurrence in Massachusetts waters is likely to be rare. Sea turtles are known to occur on Stellwagen Bank and in Massachusetts Bay. While no surveys for sea turtles have been conducted in Boston Harbor, suitable forage and habitat exists in this area and it is likely that sea turtles occasionally are present in Boston Harbor.

Federally endangered North Atlantic right whales (*Eubalaena glacialis*) and humpback whales (*Megaptera novaeangliae*) are also found seasonally in Massachusetts waters. North Atlantic right whales have been documented in the nearshore waters of Massachusetts from December through June. Humpback whales feed during the spring, summer, and fall over a range that encompasses the eastern coast of the United States, including Massachusetts Bay. While these whale species are not considered residents of the Boston Harbor area, transients occasionally enter the area as they complete seasonal migrations in nearby Massachusetts Bay. For example, in April 1996 a right whale was documented in Boston Harbor, and in the fall of 2000, a humpback whale was documented in Boston Harbor. Fin (*Balaenoptera physalus*), Sei (*Balaenoptera borealis*), and Sperm (*Physeter macrocephalus*) whales are also seasonally present in New England waters, but are typically found in deeper offshore waters and are not likely to occur in Boston Harbor.

Comment
NMFS
#13

The ACOE requested consultation pursuant to Section 7 of the Endangered Species Act (ESA) of 1973, as amended, regarding the Boston Harbor Deep Draft Navigation Improvement Project in 2005. In a letter dated September 6, 2005, NMFS concurred with the ACOE's determination that the project was not likely to adversely affect listed species. However, at that time, the ACOE had indicated that the removal of 2-6 million cy of material was likely and the ACOE did not indicate to NMFS that blasting would be necessary. As such, the consultation only considered the effects of dredging 2-6 million cy of material, as opposed to the 12.1 million cy currently proposed for removal, and did not contemplate the effects of the currently proposed blasting operations.

Reinitiation of consultation is required and shall be requested by the federal agency or by the Service, where discretionary federal involvement or control over the action has been retained or is authorized by law, and: (a) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered in the consultation; (b) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the consultation; or (c) if a new species is listed or critical habitat designated that may be affected by the identified action. As the action has been modified from the action considered by NMFS in the September 6, 2005 letter, reinitiation of consultation is necessary. As such, the ACOE will need to provide NMFS with a determination of effects to listed species that analyzes the potential for impacts of the

Comment
NMFS
#14

Comment
NMFS
#15

additional dredging as well as from the proposed blasting. In order to determine the likely effects of blasting on listed species, additional information on the underwater noise resulting from the project as well as information on timing, sequencing, and monitoring is necessary. Should you have any questions about these comments, or the reinitiation of consultation, please contact Julie Crocker in NMFS' Protected Resources Division at (978) 281-9300 ext. 6530, or by e-mail (Julie.Crocker@Noaa.gov).

Conclusion

In summary, NMFS requests additional information be provided in order to fully evaluate potential impacts on listed species, fishery resources, and habitats. Specifically, we recommend that a dredging sequencing and comprehensive blasting plan be developed for this project. Further, we recommend that alternative beneficial reuse options for blasted rock be explored. Finally, NMFS recommends that further coordination regarding the capping demonstration project and proposed capping at the IWS should occur. Upon receipt of this information, NMFS will provide specific EFH conservation recommendations, as appropriate. Additionally, as noted above, section 7 consultation must be reinitiated to consider the effects of the additional dredging as well as the effects of blasting on listed species. Should you have any questions regarding these comments, please contact Christopher Boelke of my staff at (978) 281-9131.

Sincerely,



Peter D. Colosi
Assistant Regional Administrator
for Habitat Conservation

cc: US ACOE - Michael Keegan, Cathy Rodgers
US EPA - Robert Varney, Phil Colarusso
US FWS - Vern Lang, Maria Tur
MA DMF - Paul Diodati, Kathryn Ford
MA CZM - Leslie Ann McGee, Bob Boeri
MA DEP - Lealdon Langley, Ken Chin
MassPort Maritime Department - Deb Hadden
MEPA - Deerin Babb-Brott
Boston Conservation Commission - Chris Busch
NOA/PPI - Steve Kokkinakis

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United States Department of the Interior



FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087

<http://www.fws.gov/northeast/newenglandfieldoffice>

May 14, 2008

Reference: Project Location
Draft feasibility report/SEIS, Boston Harbor, MA
deep draft navigation improvement project

Curtis L. Thalken
Colonel, Corps of Engineers
Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

Dear Colonel Thalken:

This responds to your recent correspondence requesting information on the presence of federally-listed and/or proposed endangered or threatened species in relation to the proposed activity(ies) referenced above.

Based on information currently available to us, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

Comment
FWS #1

This concludes our review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

In order to curtail the need to contact this office in the future for updated lists of federally-listed or proposed threatened or endangered species and critical habitats, please visit the Endangered Species Consultation page on the New England Field Office's website:

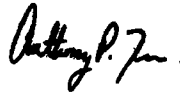
www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation.htm

In addition, there is a link to procedures that may allow you to conclude if habitat for a listed species is present in the project area. If no habitat exists, then no federally-listed species are present in the project area and there is no need to contact us for further consultation. If the above conclusion cannot be reached, further consultation with this office is advised. Information describing the nature

and location of the proposed activity that should be provided to us for further informal consultation can be found at the above-referenced site.

Thank you for your coordination. Please contact us at 603-223-2541 if we can be of further assistance.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Anthony P. Tur". The signature is written in a cursive style with a prominent initial "A".

Anthony P. Tur
Endangered Species Specialist
New England Field Office



United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
408 Atlantic Avenue – Room 142
Boston, Massachusetts 02210-3334



June 2, 2008

(ER 08/415)
(9043.1)

Colonel Curtis L. Thalken
District Engineer
U.S. Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA 01742-2751

Dear Colonel Thalken:

The Department of the Interior (Department) has reviewed the Draft Environmental Report/Draft Supplemental Environmental Impact Statement (DEIR/DSEIS) for the Boston Harbor Deep Draft Navigation Improvement Project, Boston, Massachusetts, and offers the following general and specific comments.

General Comments

The draft feasibility report (DFR), DSEIS, and supporting documentation for the proposed navigation improvement project. These documents contain a significant amount of information on the proposed navigation improvements, as well as on other water resource developments in Boston Harbor. Nonetheless, due to the nature of the proposal, the Department has concerns regarding potential secondary and cumulative effects, and from direct construction-related effects. We are also concerned about the potential for information in the DEIR/DSEIS to become outdated if construction is not initiated for some period of years, perhaps as long as a decade from now.

Specific Comments

Boston Harbor Islands National Recreation Area

Boston Harbor Islands National Recreation Area includes 34 islands and peninsulas, ranging in size from less than 1 acre to 270 acres. Together, they encompass 1,600 acres of land and nearly 1,600 acres of intertidal habitat within an area of 50 square miles. This unit of the national park system is charged with protecting the islands as a resource of national significance for present and future generations. Sensitive park resources that may be of particular relevance to the analysis in the DEIR/DSEIS include the following:

Intertidal habitats. The large mean tidal range within Boston Harbor creates an extensive intertidal zone that encompasses an area almost equal to the terrestrial area of the park. It includes a diversity of habitats such as bedrock outcrops, tide pools, rock, cobble and gravel beaches, small sandy barrier beaches, mud and sand flats, salt marshes and others. Rich assemblages of macroalgae, vascular plants, invertebrates, fishes, birds, and mammals are associated with and dependent upon these habitats. Direct impacts to these resources from deep dredging are not expected. However, indirect impacts are not fully addressed, such as those from altered wave energy or sediment transfer dynamics due to increased shipping traffic with larger vessels.

Maritime cliff and beach communities. Maritime erosional cliffs, maritime rock cliffs, maritime dunes, and beach strand communities are close to the shoreline and periodically subject to salt spray and storm flooding. All are considered rare in Massachusetts and are tracked by the Natural Heritage and Endangered Species Program. They support a diversity of migrating and nesting birds, including least terns (*Sterna antillarum*) and common terns (*Sterna hirundo*), both listed in Massachusetts as Species of Special Concern. American oystercatchers (*Haematopus palliatus*), a Species of High Concern in the U.S. Shorebird Conservation Plan, also nest widely in the park beach strand communities. Rare Massachusetts plants, such as seabeach dock (*Rumex pallidus*), seaside angelica (*Angelica lucida*), and Rich's sea-blite (*Suaeda richii*) are maritime species within the park. These communities and associated species are particularly vulnerable to impacts from increased wave energy. Park management is concerned with both direct and indirect effects of the project that may influence erosion rates and patterns in the Harbor.

Comment
DOI #1

Air quality. Management seeks to perpetuate the best possible air quality to safeguard park resources from the adverse impacts of air pollution. Short-term impacts to air quality are expected from the project.

Natural soundscape and lightscape. While the park is located in an urban environment containing human-generated noise and light, it offers a relatively natural soundscape and natural darkness that the park seeks to protect. The production of excessive noise caused by mechanical devices and of artificial lighting affects visitor experience and degrades park habitats, impacting wildlife and other biota.

Comment
DOI #2

Viewshed. Scenic attributes of the park, such as natural island landscapes and open water, are considered important resources and contribute to the visitor experience. Dredging operations will likely impact this resource.

Comment
DOI #3

Archeological sites. The Harbor Islands have a rich human history. Artifacts have been found dating from the Early Archaic period (8000 B.C. to 6000 B.C.). Twenty-one islands have been designated within an archeological district listed on the National Register of Historic Places. While all islands have not been surveyed, archeologists assume that they all potentially have prehistoric or pre-contact sites. These sites are subject to indirect impacts from the project that may influence erosion rates and patterns in the harbor.

Comment
DOI #4

Historic structures. Structures currently on the National Register that may be sensitive to impacts from dredging and increased shipping traffic include Fort Warren, a National Historic Landmark located on Georges Island, Long Island Head Light, and Nixes Mate. Historic sea walls can be found on Georges Island.

The Final EIS include the potential for long term improvements in water quality. Increasing the dimensions of the Boston Harbor entrance channel (Presidents Roads Channel) will reduce tidal friction and enhance the tidal flow and the resulting tidal prism. The greater tidal exchange will improve tidal flushing and water quality within the harbor.

We also note that much of the sediment to be dredged consists of poorly sorted coarse to fine-grained sand and sand and gravel. This bottom sediment type extends from sample location A to P (Figure 3-3a; Table 3-1). Of these 16 sites, only five contain a mud content greater than 10% (ranging 12 to 26%).

The Final EIS should also provide information addressing the following questions:

- What are the volumes/rates of suspended sediment that will not be contained during dredging operation?
- What are the trajectories of these suspended sediments under varying wind, wave and tidal conditions?
- What were the results of the sediment chemistry performed on composite samples? This is important as the potential contaminants could be released in the water column and transported within Boston Harbor to fishing and shellfishing grounds. It is important to note that contaminants preferentially attach to the mud size fraction, which is most easily mobilized and least easily contained during dredging operations.
- What is meant by the statement in the report that sediment disposal will not disrupt navigation? This could simply mean that they will not discharge in federal channels. Much recreational navigation is outside of federal channels.

DFR page 16, *Sediment Characteristics and Quality*, paragraph 1, attempts to describe the sedimentary environments of Boston Harbor and Massachusetts Bay. It does not, however do so in a clear or meaningful way, other than saying that the sediments are variable. Although the end of the paragraph states that there a number of existing field investigations have been conducted in this area, the preparers did not describe the sediment characteristics in any useable way. This paragraph should be revised for the Final Feasibility Report.

Feasibility Report Appendix K, Sediment sampling, represents a data compilation with no discussion or synthesis of the results. The final document should be revised to include a synthesis of the results.

Feasibility Report Appendix J, Regional Geology, is generally accurate, but includes several minor errors. For example, the lower till may be Wisconsinian or pre-Wisconsinian. The younger till is not post-Wisconsinian, as stated. This Appendix should be subject to further review prior to finalization.

Fish and Wildlife Resources

The Department is concerned that if the proposed -48/-50-foot deep navigation project is approved for Boston, other New England states, delegations, and ports will seek similar treatment and projects for their areas as has happened sequentially over the past 100 or more years. In our view, the analysis of potential port development alternatives in New England, and

perhaps the Northeast, is too narrow due to the focus on Boston Harbor while making some reference to the Ports of New York and New Jersey (PONYNJ), and lesser attention to the remaining New England ports. While the Congressionally-authorized feasibility study could arguably focus on Boston Harbor, the EIS process for this study has a much broader mandate and purpose. Among other things, NEPA requires that all reasonable alternatives be evaluated and their likely direct, secondary, and cumulative effects must be identified and disclosed. The Department believes that these other New England ports should be considered as stand-alone alternatives to deep draft navigation in Boston, not only as alternatives under the non-structural alternatives section, as was done in the feasibility report. Most importantly, and in keeping with the history of port development in New England, these other New England ports should be considered as being in addition to Boston, not just as alternatives to deep draft navigation in Boston. From an environmental perspective, the cumulative dredging and disposal volume from deepening all of New England's -40-foot draft navigation channels would likely be multiples of the approximately 12 mcy estimated for deepening the 40-foot draft channels in Boston to -48/-50 feet. This is a significant issue that should be fully evaluated and vetted for inclusion in the Final EIS.

Comment
DOI #11

Another issue the Department has identified relates to the evaluation of environmental effects based on the knowledge and assumptions of present-day physical and biological resources in areas to be affected by dredging and/or disposal activities. We think it is possible that the review, approval, authorization, and funding process for this project may take a decade or longer before any construction would occur. Environmental conditions could change dramatically in a shorter time frame of perhaps three to five years. The DFR and DSEIS clearly establish that all of the channels proposed for improvement dredging will also complete full maintenance dredging by 2008/9. Completion of maintenance dredging will effectively reset the recolonization clock for benthic and related resources in these channels. We believe it is reasonable to expect that benthic recolonization would occur over a two-to-five-year period and that the pioneer or early successional stage communities would shift to more diverse and stable communities where conditions and time would allow. In a similar manner, areas at the Massachusetts Bay Disposal Site and other areas where rock or soft sediments have been proposed as beneficial use, shore protection, landfill or other uses will likely have different resource values a decade from now as compared to today or at the end of the full maintenance cycle in 2008/9.

Comment
DOI #12

Resource decisions made today regarding a dynamic system such as Boston Harbor may or may not be appropriate or acceptable a decade from now. Accordingly, procedural safeguards need to be incorporated into the feasibility report and EIS such that when the project is authorized by Congress, the safeguards become an integral component of the authorized plan. The Department recommends that the feasibility report and EIS include a "look back" requirement consistent with the Council on Environmental Quality's *NEPA's Forty Most Asked Questions* (question 32, "Supplements to Old EISs") that an environmental review of the project take place in coordination with other agencies as a prerequisite to the release and expenditure of construction funds. This safeguard would help ensure that the environmental review of the project would be reasonably contemporaneous with project construction and provide for better, more informed decision-making related to alternatives, impact avoidance, minimization, and compensatory mitigation.

We note on page 191 of the DFR that the Corps proposes to undertake hydrographic surveys of the areas proposed for dredging primarily for the purpose of verifying the volume of material

Comment
DOI #13

removed and for related contractual purposes. The Department believes that the hydrographic surveys can serve other useful purposes as well. These other purposes include monitoring of the channels and adjacent areas to determine if these adjacent areas or channels would be subject to erosion or accretion as a consequence of deepening the navigation channels beyond the current -40-foot depth. Adjacent areas being eroded or accreted would be likely candidate areas to conduct biological monitoring to establish a fuller understanding of these secondary effects of channel deepening. Accordingly, the Department recommends that the DFR and DSEIS be modified to include an expanded hydrographic survey of all portions of any channel deepened beyond the present -40-foot depth and the adjacent areas on either side of such channel or anchorage area extending perpendicular from the channel or anchorage limits 1,000 feet in distance or until landfall. These expanded hydrographic surveys would be conducted 1) immediately prior to dredging, 2) immediately after dredging, 3) one year post-dredging, and then 4) at three-year intervals for the next nine years. The data from # 3 and # 4 should be analyzed to show change from the baseline condition, # 2 above. This data should be presented in color-coded maps and tables to show changes in the survey area expressed in square feet/acres, cubic yards, and depth.

Comment
DOI #13

Geological Survey

Comment
DOI #14

The link provided in the reference on page 8-25 for USGS (2005) is no longer accurate; the new link is: <http://woodshole.er.usgs.gov/operations/modeling/index.html>.

* * *

Thank you for providing the Department with the opportunity to comment on the DFR/DSEIS. For questions regarding comments on park and recreational resources, please contact Sheila Colwell, National Park Service, at 617-223-8566. For questions regarding comments on fish and wildlife resources, please contact Mr. Vernon Lang, U.S. Fish and Wildlife Service, at 603-223-2541. For questions concerning Geological Survey comments, please contact Lloyd Woosley at 703-350-8797. Please also feel free to contact me at 617-223-8565 if I can be of further assistance.

Sincerely,



Andrew L. Raddant
Regional Environmental Officer



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June 13, 2008

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT/
DRAFT ENVIRONMENTAL IMPACT REPORT

PROJECT NAME : Boston Harbor Deep Draft Navigation
Improvement Project (BHDDNIP)
PROJECT MUNICIPALITY : Boston, Chelsea and Revere
PROJECT WATERSHED : Boston Harbor
EOEA NUMBER : 12958
PROJECT PROPONENT : Massport
DATE NOTICED IN MONITOR : April 23, 2008

Pursuant to the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62H) and Section 11.08 of the MEPA regulations (301 CMR 11.00), I hereby determine that the Draft Supplemental Environmental Impact Statement(SEIS)/Draft Environmental Impact Report (EIR) submitted on this project **adequately and properly complies** with MEPA and its implementing regulations. The proponent may prepare and submit the Final EIR for review.

The Boston Harbor Deep Draft Navigation Improvement Project (BHDDNIP) proposes navigation channel improvements within Boston Harbor to increase the commercial viability of this working port. The Port of Boston is the largest port in New England for bulk and container cargoes and an important economic engine within the local and regional economy. The Massachusetts Port Authority (Massport) indicates that the Port handles approximately 22 million tons of cargo worth approximately \$2.4 billion annually to the regional economy. Its growth is limited due to existing channel depths. This \$307 million dollar project will increase the ability of the port to attract larger, deeper draft vessels and thus ensure its continued use by the shipping industry. Comments from resource agencies reflect support for the selection of the

Preferred Alternative while emphasizing the significant amount of work required in the Final EIR to ensure that improvements are planned and implemented with adequate consideration and protection of other interests in the harbor, including fisheries and recreation.

As with the Boston Harbor Navigation Improvement and Berth Dredging Project (BHNIP) (#8695), the ACOE has formed a Technical Working Group (TWG) consisting of resource agencies, environmental advocates, scientists and others, to help advise the proponent through the design, permitting and construction phases of the project. The TWG will develop conditions for the Water Quality Certificate, evaluate disposal alternatives and modify construction and monitoring techniques as necessary to ensure adequate environmental protection.

Comment
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#1

Project Description

Massport is the local sponsor for this project that will be conducted by the US Army Corps of Engineers (ACOE). The purpose of the project is to meet shipping industry needs by providing access for deeper draft bulk and container vessels to enter the harbor without experiencing tidal delays. The primary goal of the project is to provide deeper access to the Massport Conley Container Terminal; however, additional port improvements in the Main Ship Channel, the Mystic River and Chelsea River are also under consideration. Based on the draft feasibility study included with the Draft SEIS/EIR, the Preferred Alternative includes the following elements:

- deepen the Broad Sound North Entrance Channel to -50 feet mean lower low water (MLLW);
- deepen the President Roads Anchorage and Main Ship Channel to -48 feet MLLW;
- deepen the Main Channel 2,600 feet above the Turning Basin to the Massport Marine Terminal to -45 feet MLLW;
- widen the Main Ship Channel to 900 feet between President Roads Anchorage and Castle Island;
- widen the Main Ship Channel to 800 feet above Castle Island to the Reserved Channel;
- widen the channel bends at Spectacle Island and Castle Island to 1,050 feet;
- widen the Reserved Channel Turning Area to a minimum of 1,500 feet;
- deepen the Mystic River Channel to the Medford Street Terminal to -40 feet MLLW;
- deepen the Chelsea River Channel and Turning Basin to -40 feet MLLW;¹
- widen the Chelsea River Channel at the bridge approaches, the bend between the two bridges and the area through the Chelsea Street bridge opening;
- deepen the two existing deep berths at Conley Terminal to -42 MLLW to -45 MLLW to allow vessels to employ tidal assistance to enter the Terminal; and
- deepen the Massport Marine Terminal to -45 feet MLLW.

¹ Deepening project depends upon replacement of the Chelsea Street Bridge and removal and relocation of the Keyspan gas siphon.

In addition, channel and anchorage areas not maintained in the past dredging projects may be dredged during the improvement dredging to provide alternative routes for shallow-draft traffic. Areas under consideration include the Broad Sound South Entrance Channel, the 35-foot northern lane of the Broad Sound North Entrance Channel, the Nubble Channel, and the 35-foot West Anchorage at Presidents Road. Approximately 264,000 cubic yards (cy) of maintenance material would be dredged and disposed.

The project will alter approximately 22 acres of previously undisturbed Land Under the Ocean and it could convert approximately 1,100 to 1,300 acres of soft-bottom to hard substrate. The project will take two years to design and from three to five years to complete, with construction estimated to begin in 2011. The ACOE will conduct most of the actual dredging and related mitigation while Massport may implement discrete elements of it. Channel deepening associated with the Preferred Alternative will require blasting and use of a mechanical bucket dredge. It will require removal and disposal of approximately 1,032,000 cy of rock and 11.7 million cy of dredged spoils.² Dredged material will consist of glacial parent material and rock ledge that is suitable for disposal at the Massachusetts Bay Disposal Site (MBDS). The glacial materials are composed primarily of Boston blue clay and mixed tills with compacted sands, gravel and cobble. Any silty material not suitable for disposal at the MBDS site will be disposed of in one of the previously permitted Confined Aquatic Disposal (CAD) Cells developed as part of the Boston Harbor Navigation Improvement Project (BHNIP). Although the material may be disposed at the MBDS, the proponent has analyzed and proposed beneficial uses. ACOE proposes to create an extensive artificial reef with the rock material and to cap the EPA Industrial Waste Site (IWS), located adjacent to the MBDS, with the parent material.

Permits and Jurisdiction

The project is undergoing MEPA review and requires the preparation of an EIR pursuant to Section 11.03 (a)(1)(a) because it requires a state permit and will alter more than ten acres of wetlands. The project requires a 401 Water Quality Certification from the Department of Environmental Protection (DEP) and it may require an 8(m) permit from the Massachusetts Water Resources Authority (MWRA). It requires an Order of Conditions from the Boston, Chelsea and Revere Conservation Commissions. Also, it will require Federal Consistency Review by Coastal Zone Management (CZM).

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The project requires review under the National Environmental Policy Act (NEPA). The proponent requested that the MEPA/NEPA review processes be coordinated. Accordingly, the proponent submitted a joint Draft SEIS/EIR review document and coordinated the comment period. Although the Draft SEIS/EIR addresses both the federal and state scopes, I am issuing a determination of adequacy only for those portions of the document required in the state scope.

² This estimate is based on Table 2-2. This estimate assumes a 2-foot overdepth allowance and a 1:3 side slope for ordinary material. It assumes an additional two feet where ledge is encountered and a 1:1 side slope for rock removal.

Comment
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#3

Because the proponent is a state agency and, under a cost sharing agreement, is responsible for providing a significant percentage of the project costs, MEPA jurisdiction extends to all aspects of the project that may cause significant Damage to the Environment including air quality, water quality, threatened and endangered species, marine habitat, fisheries and historic and archaeological resources.

Review of the Draft EIR

The Draft SEIS/EIR provides a thorough description of the project and all project elements. It provides a description of existing environmental conditions and resources, includes an alternatives analysis, identifies associated environmental impacts and identifies measures to avoid, minimize and mitigate project impacts.

Review of the BHNIP, the Inner Harbor Maintenance Dredging Project (IHMDP) and the Outer Harbor Maintenance Dredging Project (OHMDP)

As required, the Draft SEIS/EIR includes a section on the previous improvement dredging and maintenance dredging projects. The BHNIP included the maintenance and improvement dredging of the main shipping channels and berths within Boston's Inner Harbor. Over 784,850 cubic yards of dredged material deemed unsuitable for open-water disposal was placed within nine Confined Aquatic Disposal (CAD) cells constructed within the dredging footprint of navigation channels. The planning and permitting process for the BHNIP addressed a number of issues that are directly relevant to the design and implementation of this project. The BHNIP, which was completed in late 2002, provided a framework for creating an environmentally acceptable dredging and disposal plan. It furthered understanding of dredging operations and techniques, provided information about baseline conditions within Boston Harbor, and resulted in the development of guidelines for permitting and constructing CAD cells for disposal of contaminated materials. The recommendations included in the EIR, including water quality monitoring methodology, are informed by the experience developed during the BHNIP.

Although the BHNIP, the Inner Harbor Maintenance Project (IHMDP) and the Outer Harbor Maintenance Project (OHMDP) project provide useful framework for decision-making and baseline environmental information, this project differs from previous projects in two significant respects – the scale of the project and the type of material to be dredged. The improvement and maintenance dredging consisted primarily of dredging significant amounts of contaminated silty material for disposal at the MBDS or within CAD cells. These projects required only a relatively small amount of rock removal, the majority of which could be removed with an excavator, compared to this project. The amount of parent material to be dredged for the BHDDNIP is approximately 3 to 6 times greater than the BHNIP. The Draft SEIS/EIR identifies four fish kill events associated with 13 blasting events during the maintenance project. In light of these events, the amount of rock removal and the blasting associated with its removal is a significant concern.

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#4

Alternatives Analysis

The Draft SEIS/EIR includes a draft feasibility study and an alternatives analysis that addresses the Port of Boston's current and future role in maritime commerce and identifies potential levels of future vessel traffic and commerce. The analyses explore options for accommodating increased deep draft vessel traffic in Boston Harbor, including No Action, Non-Structural Alternatives, and Structural Alternatives/Navigational Channel Depths and it includes a cost-benefit analysis for the range of alternatives. In addition, it analyzes alternative dredging methods, dredged material disposal alternatives and beneficial use alternatives for dredged material.

Non-Structural Alternatives include measures that allow for greater unit-loading of vessels without deepening (e.g. use of tides, light-loading of vessels, and lightering), alternative sites for cargo transfer and alternative means of cargo transport. The analysis concludes that management measures are already being employed to the extent feasible and are not sufficient to support deeper draft vessels expected to be employed by the shipping industry. It indicates that there are no other ports within New England with sufficient facilities and depths to provide a viable alternative to Boston Harbor. The analysis indicates that alternative means of cargo transport consist of truck transportation of containers which increase the cost of shipping and add traffic to existing highways with associated increases in emissions of air pollutants.

Structural Alternatives examine channel deepening at a range of depths including deepening the Entrance Channel, Main Anchorage and Main Ship Channel from - 40 feet MLLW up to - 50 feet MLLW, the Mystic River Channel from -35 feet MLLW up to - 40 feet MLLW and the Chelsea River Channel from - 38 MLLW up to - 40 feet MLLW. Improvements were examined in one-foot increments. Three segments in the Main Ship Channel were selected for presentation of costs and impacts (Plan A - 45 foot, Plan B - 48 feet and Plan C - 50 feet). Improvements to support bulk cargo terminals and petroleum terminals were also examined and include: Plan D - extend Main Ship Channel above Reserved Channel to the Massport Marine Terminal to a depth of -45 feet MLLW; Plan E - deepen a small area of the Mystic River Channel up to - 40 feet MLLW to access the Massport Medford Street Terminal in Charlestown to divert smaller bulk cargo operations from the Marine Terminal; and Plan F - deepening the entire Chelsea River Channel to -40 feet to benefit the four active petroleum terminals along this waterway.

The Draft SEIS/EIR estimates dredge quantities associated with each alternative which will range from 6.4 to 15.0 million cy of parent material and 450,000 to 1.5 million cy of rock.³ The Preferred Alternative, which is described in the introduction to this Certificate, is based on providing the highest net economic benefits while meeting the objectives of the ACOE and Massport. The Draft SEIS/EIR indicates that the Preferred Alternative will evolve based on Congressional authorizations, updated shipping trends and economic information and completion of related projects (e.g. Chelsea River project is dependent upon replacement of the Chelsea Street Bridge and removal of the Keyspan gas siphon).

³ This estimate is also based on Table 2-2.

The Draft SEIS/EIR indicates that use of a mechanical dredge is the only feasible dredging method for rock, tills, stiff clays and other glacial deposits. In addition, because low levels of turbidity are associated with dredging of hard pack Boston blue clay, the proponent asserts that water quality standards will be maintained. The Draft SEIS/EIR identified disposal alternatives evaluated during the BHNIP and indicates that MBDS was the only practical alternative for non-contaminated material and CAD cells for disposal of contaminated material. Consistent with the policy of the ACOE to use dredged material, where practicable, for beneficial use, the Draft SEIS/EIR, evaluates several alternatives to disposal at the MBDS including: use of parent material for lining landfills or capping of the EPA IWS and use of rock for creation of an artificial reef, shore protection or construction. The Draft SEIS/EIR asserts that costs and logistical challenges render use of material for lining landfills, shore protection and/or construction purposes infeasible.

The alternatives analysis is adequate for MEPA purposes. Comment letters from state agencies support the Preferred Alternative, acknowledge that the Preferred Alternative may be revised, and agree that the majority of material will be suitable for disposal at the MBDS.

Comment EOEEA #5 Although material is suitable for disposal in the MBDS, most commentors agree that evaluation of beneficial reuse alternatives for rock was not thorough and should be re-assessed prior to the filing of the Final EIR. I understand that CZM is developing an alternative for reuse of rock

Comment EOEEA #6 material by a materials handling company that would provide a beneficial reuse while minimizing project costs associated with transport and disposal of dredged material. In addition, the Final EIR should address whether any of the material would be appropriate for beach nourishment at Winthrop Beach. Although general support is expressed for habitat restoration

Comment EOEEA #7 through creation of an artificial reef, significant concern is expressed with the siting and scale of the proposed reef. If the artificial reef is intended to serve as a major mitigation commitment, the proponent will need to consult closely with state and federal agencies and, in particular, DMF and NMFS, to identify a site and develop a design that meet the project objectives.

Environmental Conditions and Impacts – Marine Resources

The Draft SEIS/EIR includes a section on existing environmental conditions and environmental impacts of dredging and dredged material disposal including water quality issues, biological resources, threatened and endangered species, and historic and archaeological resources. Information on benthic resources was compiled from data collected by ACOE, MWRA and Massport. Information on lobsters, fisheries and marine mammals is based on data collected by DMF, MWRA and from previous dredging projects. The document addresses resources and impacts related to the dredging sites, the MBDS/IWS and the artificial reef sites. In addition, it addresses the secondary impacts of the deepening project including increased ship traffic and an increase in the size of ships entering the harbor. Although the Draft SEIS/EIR generally characterizes impacts as insignificant and/or temporary in nature, it indicates that the dredging project will alter approximately 22 acres of previously undisturbed bottom and may convert more than 1,100 acres of soft-bottom to hard substrate. In addition, the project will follow over ten years of maintenance and improvement dredging in the harbor that were conducted from 1998 – 2002 (BHNIP), 2004 – 2005 (OHMDP) and the current IHMDP that will extend from 2008 to 2009. The Draft EIS/EIR indicates that, cumulatively, these dredging

Comment EOEEA #8

projects will result in temporary and permanent impacts to approximately 3,600 acres (although portions of the projects overlap).

The proponent indicates that it will use dredging protocols developed during the BHNIP to minimize turbidity and migration of dredged sediments during dredging and disposal. Measures used during blasting to minimize impacts to fisheries included an independent fisheries observer, side scan sonar fish finder and fish startle system. The Draft SEIS/EIR identifies four fish kill events associated with 13 blasting events as part of the maintenance project (ledge pinnacle removal) that occurred despite implementation of protective measures. The Draft SEIS/EIR does not provide the "After Action Report" referenced in the ENF or identify revisions to protocols or additional mitigation necessary to avoid and minimize these impacts. Although blasting presents the most significant source of risk for impacts to marine resources, the Draft SEIS/EIR does not include an analysis of the location, timing and methods of proposed blasting and anticipated impacts on marine resources. It does indicate that the project will be sequenced to minimize impacts to fisheries but it does provide a schedule that supports this or indicate what factors will be considered for sequencing. Appendix D of the Draft SEIS/EIR provides a schedule (Table D2-30) that projects blasting for a 15-month period from May of 2011 to August 2012 within the Broad Sound North Entrance Channel. Additional blasting would occur in the Chelsea River in May, 2011, in the Presidents Road Anchorage from August to September of 2012, in the Lower Reserved Channel and Turning Basin from April to August of 2013, in the Main Ship Channel Roads to Reserved Channel from August to October 2013, and in the Main Ship Channel Extension to the Massport Marine Terminal from November to December, 2013. Further, the Draft SEIS/EIR indicates that, development of more detailed data, including more extensive borings to characterize the type and quantities of rock to be removed, will not be conducted until the final design phase.

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To assist the permitting agencies in their evaluation of the potential impacts of this project within the context of a growing and active harbor, the Draft SEIS/EIR includes a qualitative cumulative impacts analysis that identifies completed, ongoing and planned projects within Boston Harbor and Massachusetts Bay, including the Hubline Submarine Natural Gas Pipeline project and Everett Extension (EEA #12355) and the use of an offshore borrow site (NOMES I) by the Department of Conservation and Recreation (DCR) as a sand source for the Winthrop Shores Reservation and Restoration Program (EEA #10113). It includes a summary of the project impacts, individually and cumulatively, including the size of the impacted area, the resources impacted by the projects, and the duration of the impacts. In addition, it includes a timeline that shows when the projects are planned to occur in relation to the dredging project. This analysis underscores the amount of activity ongoing and planned within Boston Harbor with the potential to impact up to 18% of Boston Harbor. This analysis demonstrates that the BHDDNIP, HubLine and the the Winthrop Shores Reservation Restoration Program are associated with the vast majority of potential impacts (temporary and permanent).

Comment letters express significant concern with three issues – the timely development of additional data to adequately characterize sediment types and affected resources, development of mitigation to adequately avoid, minimize and mitigate impacts to fisheries, in particular from blasting impacts, and additional consideration of beneficial reuse opportunities. EPA comments indicate that the duration and magnitude of blasting described in the Draft SEIS/EIR is of a scope

that has the potential for serious and significant impacts to fish and marine mammals and is the most significant source of risk for impacts to marine resources associated with the project. Comments from DMF and NMFS stress the importance of this ecosystem to fisheries and indicate the grave status of some species within Boston Harbor. DMF identifies the importance of the project site to several species of shellfish and finfish, including lobster (*Homarus americanus*), soft shell clam (*Mya arenaria*), mussels and winter flounder (*Pseudopleuronectes americanus*). In addition, several diadromous species utilize the area including rainbow smelt (*Osmerus mordax*), Atlantic tomcod (*Microgadus tomcod*), white perch (*Morone Americana*), and river herring (*Alosa spp.*). Comments from NMFS also highlight the presence of alewife (*Alosa pseudoharengus*) and blueback herring (*Alosa aestivalis*). Boston Harbor is classified as Essential Fish Habitat (EFH) for 23 federally managed species including winter flounder and Atlantic cod. DMF has banned fishing for river herring due to population concerns and rainbow smelt is listed as a “species of concern” by NMFS. Commentors indicate that the Final EIS/EIR should include a sequencing plan, blasting plan and pre- and post-monitoring plan to ensure adequate provisions are made to avoid, minimize and mitigate project impacts.

Environmental Impacts – Air Quality

The Draft SEIS/EIR includes an air quality analysis and discusses alternatives for establishing consistency with the federal Clean Air Act (CAA) General Conformity provisions (section 176(c)(1)). MassDEP's role in a general conformity determination under federal regulation is to review and provide comments on conformity determinations. Federal actions must support the goals of the Massachusetts State Implementation Plan (SIP) and be shown not to:

- Cause or contribute to new violations of any national ambient air quality standard (NAAQS) in any area;
- Increase the frequency or severity of any existing violation of any NAAQS or interim emission reductions;
- Delay timely attainment of any NAAQs or interim emission reductions.

The Draft SEIS/EIR includes an air quality analysis for the No Build, Plan A and Plan C. The analysis indicates that emissions associated with both alternatives would exceed the general conformity de minimis thresholds.

The proponent has identified two approaches to address general conformity. It can structure the project to ensure its emissions are below identified thresholds or it can offset the total emissions of the projects through emission reductions projects or through the purchase of emission reduction credits. The Draft SEIS/EIR indicates that, without a work stoppage, the project will likely be subject to the General Conformity provisions of the CAA. The EIR indicates that sufficient emission reductions credits are available to offset project emissions and that the costs of this alternative are equivalent to those associated with the cost of one mobilization and demobilization of the project.

The EIR identifies two options (Alternatives 1 and 2) to reduce emissions below the general conformity review thresholds. Both alternatives propose the replacement of older, higher emitting equipment with newer and cleaner burning equipment in 2011 and beyond and extend the dredging schedule to reduce annual emissions associated with the project. Alternative 1 would increase the dredging schedule by 6 months and Alternative 2 would increase the dredging project by four years. Extension of the dredging schedule through work stoppages will not reduce actual emissions associated with the project. The use of cleaner burning equipment will provide a relatively small decrease in overall emissions. Nitrogen Oxide (NO_x) emissions associated with these alternatives would remain close to the de minimis level under the general conformity requirements.

Comments from MassDEP indicate that the proponent should explore additional mitigation strategies, including the use of emission reduction credits to offset emissions. MassDEP comments also express support of the use of lower emitting nonroad engines for the project and identify the need to verify how this strategy will be implemented and enforced. In addition, MassDEP notes that if the proponent chooses to delay the project schedule, it should consider targeting dredging operations in the pre-or post-ozone season.

Comments from EPA express concern with the approach to general conformity and, in particular, with the potential impacts to marine resources associated with an extended schedule which would increase the duration of impacts and therefore the recovery period. EPA indicates that the proponent should further consider the use of emission credits and/or offsets and that the approach to general conformity be fully vetted for public review as part of the environmental review document rather than addressed during the final design process. They note that a general conformity analysis requires a public review process and issuance of a final conformity determination prior to the issuance of the Record of Decision (ROD) and, therefore, draft conformity findings should be reviewed prior to the close of the NEPA process.

Comment
EOEEA
#11

Impacts to Historic and Archaeological Resources

The Draft SEIS/EIR identifies potential impacts to historic and archaeological resources. It indicates that, based on remote sensing surveys and vibracore investigations, significant cultural resources are unlikely to be encountered in the Main Ship Channel, the extension of the Main Ship Channel above the Turning Basin and in the Mystic River. It indicates that borings and remote sensing surveys should be conducted for the widening of the Chelsea River Channel to assess the presence of cultural resources. The Draft EIS/EIR indicates that the proponent will continue its consultations with the Massachusetts Historical Commission (MHC) and the Massachusetts Board of Underwater Archaeological Resources (BUAR).

Comment
EOEEA
#12

Conclusion

Review of the Draft SEIS/EIR, review of comment letters and consultation with state agencies indicate support for the proposed project. Although additional review of alternatives is not warranted, there are significant outstanding issues that must be resolved regarding development of measures to avoid, minimize and mitigate project impacts. These outstanding issues can be addressed in the Final EIR and the proponent may prepare and submit the Final

Comment
EOEEA
#13

EIR for review. I expect that the proponent will fully address the issues identified in the Scope below. In particular, I note that failure to adequately characterize resources could lead to requirement of more conservative mitigation measures in state permits.

Comment
EOEEA
#14

In the event that the Final EIS does not fully address issues, the comment letter from EPA has noted that a supplemental NEPA process may be necessary to provide to agencies and the public supplemental information during the design phase of the project. I note that the MEPA regulations allow the filing of a Notice of Project Change (NPC) subsequent to the review of the Final EIR that can be used to provide public review of significant changes to the project and/or development of additional information/analysis.

SCOPE

The Final EIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this scope. It should include a copy of this Certificate and of each comment received.

Marine Resources

Regulatory Consistency

The Water Quality Certificate, issued by MassDEP, will be the vehicle for establishing enforceable mitigation commitments. Adequate resource characterization and development of mitigation commitments will be necessary for CZM to issue a federal consistency statement.

Comment
EOEEA
#15

The Final EIR should provide additional information on 401 Water Quality Certification standards and criteria and demonstrate how the project is being designed to ensure consistency with these requirements. MassDEP, as the permitting agency, will incorporate requirements for fisheries protection into the Water Quality Certificate based on consultation with DMF. As noted previously, provision of adequate resource characterization and mitigation developed in response to these findings will balance the need for more conservative mitigation approaches such as strict dredging windows. Best management practices will need to be developed based on available technology.

Comment
EOEEA
#16

The ACOE has committed to convening an interagency underwater blasting technical working group with federal and state resource agencies to focus on construction sequencing for several areas of the harbor, constraints on work during certain tidal and weather conditions, operational changes and equipment changes. As noted previously, the Final EIR must provide more information on sequencing including the location, timing and methods of proposed blasting and anticipated impacts on marine resources. The Final EIR should further illustrate how much hard bottom is impacted, how much will be converted to other habitat and how much may be created within the project site. In addition, a pre- and post-monitoring plan must be developed for the project as a whole, including the artificial reef if that remains as a project component.

The Final EIR should identify total impacts (permanent and temporary) to Land Under the Ocean. It should include a timeline and plans that clearly illustrate where and when the BHNIP, IHMDP, OHMDP and the BHDDNIP overlap. It should provide a plan that clearly delineates areas that BHDDNIP will alter that have not been disturbed by the BHNIP, IHMDP and OHMDP. The Final EIR should include maps that clearly delineate resource areas including eelgrass beds and shellfish habitat. In addition, the Final EIR should assess noise impacts associated with the blasting, in particular, for blasting associated with the Mystic River and Chelsea River.

Comment
EOEEA
#17

Comment
EOEEA
#18

Monitoring Program

Resource agencies identify the need for an environmental monitoring plan to assess the recovery period of impacted areas. The monitoring plan should be included in the Final EIR. Its scope and duration should be developed in consultation with the working group. It should include pre- and post-monitoring, real-time information on the impacts of blasting and reporting protocols. The Final EIR should identify the extent of suspended sediment dispersion resulting from dredge operations and indicate how the plume is modeled and verified.

Comment
EOEEA
#19

Resource Characterization

Comments from CZM and DMF indicate that additional information on shellfish, fish, benthic infauna and epifauna, and other species of decapod crustaceans is necessary to adequately evaluate baseline conditions and recovery. The lack of site specific data for the blast area is of particular concern due to potential impacts to relatively stable exposed bedrock seafloor habitat. A minimum of one year of fisheries data should be collected to support the development of a sequencing plan. The total amount of conversion of soft-bottom habitat to hard substrate should be identified and conversion should be identified on project plans.

Comment
EOEEA
#20

In addition, CZM notes that the Draft SEIS/EIR identifies the presence of scallops in the outer and lower harbor, with areas of coarser-grain material and encourages the development of additional resource characterization and monitoring to further characterize these resources. DMF notes particular concern with softshell clam habitat that will be impacted by dredging in the Chelsea River, including permanent loss through habitat conversion. The Final EIR should include a clear delineation of the shellfish habitat potentially impacted by dredging and assess the functional loss to other species. The Final EIR should identify measures to avoid, minimize and mitigate impacts to these resources. In addition, the Final EIR should identify any elements of the project that are located within the Cod Conservation Zone.

Comment
EOEEA
#21

Comment
EOEEA
#22

The proponent should consult with MassDEP, as the permitting agency, DMF and CZM regarding further characterization of resources prior to the filing of the Final EIR.

Sequencing Plan

The sequencing plan should include a plan for sequencing the most disruptive and potentially damaging aspects of the project (e.g. blasting) to avoid sensitive locations during

Comment
EOEEA
#23

Comment
EOEEA
#23

critical times of year. Additional resource characterization, including a minimum of one year of biological surveys to assess fisheries resources and use of habitat, should be completed to support a rational sequencing plan. It should identify the volumes of material that will be dredged in what time periods and it should consider timing of disposal (i.e. dredge contaminated

Comment
EOEEA
#24

in early phases so that it can be capped with clean material dredged in subsequent phases). The Proponent should consult with DEP, as the permitting agency, and DMF to determine what additional data is necessary to support the sequencing plan and the monitoring plan. As noted previously, the proponent may choose to more fully characterize the resources affected by the project or may be subject to a more conservative management approach including time-of-year restrictions.

Comment
EOEEA
#25

The proponent should establish plans for communication with the fishing and lobstering communities regarding construction activities and timing to avoid impacts and conflicts.

Blasting Plan

Comment
EOEEA
#26

The blasting plan should be included in Final EIR to understand impacts and potential recovery of the area and plan for modifications that may be necessary as the project proceeds. ACOE has indicated it will provide an "After Action Report" to provide information and determine what lessons can be learned from 2007 fish kills. This report must be included in the Final EIR and will inform development of the blasting plan. The blasting plan should consider avoidance measures such as shifting of channel limits and, where feasible, removal of rock with a large toothed bucket mounted on an excavator. It should consider additional technological approaches, sequencing and time of year restrictions. Technological approaches could include use of additional acoustic fish exclusion devices and consideration of bubble curtains. The proponent should commit to provide an independent third party observer that will consult with the TWG and ensure procedures are followed or modified on a real-time basis.

Threatened and Endangered Species, Marine Mammals

Comments from NMFS indicate that its previous determination that the project is likely to have no adverse affect on marine mammals was based on removal of two to six cy of material and did not identify the need for blasting for rock removal. NMFS comments indicate the need to reinitiate consultation and provide additional information regarding the potential impacts of blasting on marine mammals.

Comment
EOEEA
#27

EPA has indicated that ACOE should evaluate the potential for impacts of blasting on the recently installed buoy listening and monitoring system. This system was designed to reduce the likelihood of ships colliding with whales by providing close to real time information regarding the presence of whales in the shipping channel.

Disposal and Reuse of Dredged Materials

The Draft EIS/EIR proposes to use dredged materials to cap the EPA IWS and to create an artificial reef. The Draft EIS/EIR indicates that five sites were evaluated for creation of an

artificial reef based on ACOE siting criteria. These were narrowed to two sites - one site in Massachusetts Bay and one site in Broad Sound. The Draft EIS/EIR indicates that, dependent upon the final alternative selected and the reef design, the project would alter 220 to 530 acres of soft bottom habitat.

As noted previously, comment letters indicate the need to re-assess beneficial uses for the rock material. Comments urge the proponent to reconsider upland disposal options as a first priority and creation of the proposed reef as a secondary consideration. The proponent should consult with CZM regarding an upland disposal alternative that is being developed by its staff and address its viability in the Final EIS/EIR.

Comment
EOEEA
#28

Comment letters indicate that, based on the information provided in the Draft EIS/EIR, both sites support a diverse and abundant benthic community, include substantial hard bottom habitat and are productive for managed species such as winter flounder and red hake. Comments from DMF indicate that the proponent should use the DMF Artificial Reef Policy for developing site selection and monitoring and consider application of the site selection model used by DMF for creation of the Hub Line cobble reef. If the proponent wants to include an artificial reef alternative in the Final EIR, it should continue consultation with the TWG to develop alternatives that may better meet the identified goal of providing fish habitat. The Final EIR should define more precisely the potential for impacts associated with the project, assess the loss of soft bottom habitat and related impacts and include a monitoring program to document colonization rates and other indicators of habitat creation.

Comment
EOEEA
#29

EPA and CZM support use of parent material to cap the IWS in Massachusetts Bay. EPA comments indicate that the capping of the site is an opportunity to further reduce the remaining risk associated with waste barrels that may still exist at the site. The results of the preliminary capping demonstration, which will be conducted as part of the OHMDP, should be reviewed by the TWG and included in the Final EIR.

Comment
EOEEA
#30

The Final EIR should address whether any of the material that will be dredged is appropriate for placement on Winthrop Beach for its beach nourishment program (EEA #10113). The proponent should assess the compatibility of material with Winthrop Beach using the additional geotechnical investigations that will be conducted for the BHDDNIP. The proponent should consult with the DCR and the Town of Winthrop regarding this assessment.

Comment
EOEEA
#31

Technical Working Group (TWG)

The EIR clearly states the proponent's commitment to ongoing participation in the project by the TWG. I expect the TWG will participate in the development of the Final EIR, as well as final design, to further develop monitoring and mitigation requirements. Close cooperation between the proponent and state and federal agencies during the design phase of the project must be built in to ensure that final plan meets goals of the proponent while avoiding, minimizing and mitigating project impacts. During dredging operations, the TWG should be convened on a regular basis to assess the success of control measures and review project progress.

Comment
EOEEA
#32

CZM has suggested the creation of a technical advisory sub-committee, facilitated by an independent, third-party contractor, to manage unforeseen developments as they arise during the construction phase of the project. The contractor would coordinate with the independent fisheries observer during dredging operations to provide a rapid, coordinated response from agency and community representatives. The Final EIR should indicate whether the proponent will incorporate this measure into its management plan.

Comment
EOEEA
#33

Air Quality

I urge the proponent to provide a revised approach to conformity within the Final EIR and to consult with EPA and MassDEP regarding this approach. As noted previously, comment letters, including letters from MassDEP and EPA, indicate that the proponent should explore additional mitigation strategies, including the use of emission reduction credits to offset project related emissions. The Final EIR should identify how use of lower emitting nonroad engines and extension of the dredging schedule will be implemented and enforced and should consider targeting dredging operations in the pre-or post-ozone season. In addition, the Final EIR should identify impacts to marine resources associated with an extended schedule. Consistent with EPA's comment that draft conformity findings should be reviewed prior to the close of the NEPA process and issuance of the Record of Decision (ROD), the Final EIR should provide additional information regarding measures for establishing consistency with general conformity and include a general conformity finding. Consistent with comment letters, I urge the proponent to commit to the purchase of emission reduction credits.

Comment
EOEEA
#34

Historic and Archaeological Resources

Comments from MHC indicate that it anticipates continued consultation with ACOE regarding the methodology and results of its cultural resource surveys. Comments from BUAR indicate that it has consulted with ACOE regarding mitigation for previous dredging projects and has been satisfied with findings and recommendations of archaeological surveys conducted to date. BUAR concurs with the recommendation that a remote sensing archaeological survey should be conducted for the areas of potential affect in the Mystic River and Chelsea River channels.

Comment
EOEEA
#35

Harbor Infrastructure

The EIR identifies potential conflicts with existing harbor infrastructure including tunnels and utility crossings. It identifies a potential conflict with the 115 Kv Submarine Power Cable that extends from the Reserved Channel to Deer Island and is the primary source of power to the Deer Island Treatment plant. The cable construction, operation and maintenance and associated substations is borne entirely by the MWRA and its ratepayers. The proposed limit of the project may deepen the Reserved Channel at or deeper than the current location of this cable. NSTAR documents indicate that the cable was installed at approximately -50 feet MLLW with variations higher and lower along its course. The permit for the cable required it to be buried at -60 feet MLLW to avoid conflicts with deepening projects. The Draft SEIS/EIR indicates that the

Comment
EOEEA
#36

ACOE, which issued a Section 10 permit for the cable, has referred the matter to the U.S. Attorneys' office as an enforcement action. The U.S. Attorney's office is negotiating with MWRA and NSTAR to address the conflict with the BHDDNIP.

MWRA comments express significant concern with the impacts of blasting and dredging on this cable and identify the need for additional survey work to determine the precise location and depth of the cable.

Comment
EOEEA
#36

The Final EIR should provide an update on negotiations, indicate who will be responsible for identifying actual locations and depths of existing infrastructure that could be directly affected by the project's construction, who is responsible for related costs, and assess the feasibility and cost of relocating the cable.

MWRA comments also note that work within the Chelsea River must be carefully coordinated with the MWRA to avoid impacts to its 36" water main and three wastewater crossings. In addition, the comments note that this element may require a 8(m) permit.

Comment
EOEEA
#37

Mitigation

The Draft SEIS/EIR identifies the following measures to avoid, minimize and mitigate project impacts:

- Sequencing to minimize impacts on fish and shellfish populations;
- Preparation of an "after action report" to provide information on all of the blasting events associated with fish kills;
- Establishment of an interagency underwater blasting technical working group comprised of federal and state resource agencies;
- Use of a fisheries observer, side scan sonar fish finder and fish startle system to minimize impacts to fisheries during blasting;
- Prohibition on blasting when schools of fish, sea turtles or mammals are observed in the vicinity;
- For any disposal of contaminated material, proponent will follow protocol for disposal in CAD cells developed through BHNIP;
- Creation of artificial reef with rock material to preserve space in MBDS and provide mitigation for habitat impacts;
- Remote sensing surveys and borings of the northern portion of the Presidents Road Anchorage and area of the Chelsea River proposed for widening to identify historic resources and proposed rock reef sites;
- Remote sensing surveys of proposed rock reef sites to identify historic resources; and
- Development of a disposal plan at the MBDS and a capping plan at the IWS to avoid located shipwrecks;
- Development of a communications system to provide notice to lobstermen and fishermen prior to drilling, blasting and dredging operations; and

- Replacement of older, higher emitting equipment with newer and cleaner burning equipment in 2011 and beyond and extension of the dredging schedule to reduce annual emissions associated with the project.

Comment
EOEEA
#38

The Final EIR should include an updated and revised mitigation section including a summary of all mitigation measures to which the proponent has committed. It should include draft Section 61 Findings for the 401 Water Quality Certificate. Mitigation should address temporary, short-term and long-term impacts.

Comment
EOEEA
#39

It should indicate whether the proponent will develop compensatory mitigation plans for direct and indirect mortality of fisheries resources, delayed recovery of habitat and areas of habitat that are permanently lost or altered.

Response to Comments

To ensure that the issues raised by commentors are addressed, the Final EIR should include a response to comments. This directive is not intended to, and shall not be construed to, enlarge the scope of the Final EIR beyond what has been expressly identified in the initial scoping Certificate or this Certificate. The Final EIR should include a copy of this Certificate and a copy of each comment letter received. I defer to the proponent as it develops the format for this section, but it should provide clear answers to questions raised.

Comment
EOEEA
#40

I note the comment letter submitted by the Town of Winthrop expressing concern with the scale of the proposed project, impacts on fisheries habitat and potential changes to sediment transport patterns. I expect the ACOE will provide a response to those issues that are within the Scope of this Certificate and, in particular, address the potential of the project to affect long-term sediment transport patterns.

Circulation

The Final EIR should be circulated in compliance with Section 11.16 of the MEPA regulations. Copies should be sent to any state agencies from which the proponent will seek permits or approvals, to the list of "comments received" below, to the Conservation Commissions in Boston, Revere and Chelsea and copies should be provided to the public library in Boston, Revere and Chelsea.

June 13, 2008

Date


Ian A. Bowles

Comments received:

6/2/08	Board of Underwater Archaeology (BUAR)
5/28/08	Coastal Zone Management (CZM)
6/3/08	Department of Environmental Protection (DEP)
6/2/08	Division of Marine Fisheries (DMF)
5/5/08	Massachusetts Historical Commission
6/2/08	Massachusetts Water Resources Authority (MWRA)
5/23/08	U.S. Environmental Protection Agency (EPA)
6/2/08	National Marine Fisheries Service (NMFS)
6/2/08	City of Boston/The Environment Department
6/2/08	The Boston Harbor Association (TBHA)
6/2/08	Save the Harbor/Save the Bay
5/30/08	Town of Winthrop/Town Council

IAB/CDB/cdb



THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
OFFICE OF COASTAL ZONE MANAGEMENT
251 Causeway Street, Suite 800, Boston, MA 02114-2136
(617) 626-1200 FAX: (617) 626-1240

June 2, 2008

Curtis L. Thalken, Colonel
U.S. Army Corps of Engineers
District Engineer
ATTN: Programs and Project Management Division (Mr. Michael Keegan)
696 Virginia Road
Concord, MA 01742-2751

RE: Feasibility Report and Draft Supplemental Environmental Impact Statement/Environmental Impact Report (Draft SEIS/EIR), Boston Harbor Deep Draft Navigation Improvement Project; Boston, Chelsea, Revere

Dear Colonel Thalken,

The Massachusetts Office of Coastal Zone Management (CZM) has completed its review of the above-referenced Feasibility Report and Draft Supplemental Environmental Impact Statement/Environmental Impact Report (Draft SEIS/EIR) and recommends the preparation of a Final Environmental Impact Statement/Environmental Impact Report for the project.

Project Description

The U.S. Army Corps of Engineers, in partnership with the Massachusetts Port Authority, are proposing to deepen the Port of Boston to allow deeper draft bulk and container vessels to enter without experiencing tidal delays in order to position the port to effectively meet current and future cargo needs of the shipping industry. The proposal recommends the deepening of the Broad Sound North Entrance Channel, the lower Main Ship Channel through President Roads to the Reserved Channel, the President Roads Anchorage Area, the lower Reserved Channel, and the Reserved Channel Turning Area to -48 feet at mean lower low water (MLLW), with an additional two feet of depth in the Entrance Channel (to -50 feet MLLW). The proposal also includes widening the Main Ship Channel to 900 feet through the reaches between President Roads and Castle Island and to 800 feet above Castle Island to the Reserved Channel; widening the Reserved Channel Turning Area to 1,600 feet; and further widening in the channel bends at Spectacle Island and Castle Island. The Main Ship Channel would be deepened for an additional distance of 2,600 feet above the expanded Reserved Channel Turning Area to -45 feet MLLW; the 9.1-acre, 35-foot channel lane approach to the Medford Street Terminal in the Mystic River would be deepened to -40 feet MLLW; and the 38-foot Chelsea River Channel and Turning Basin would be deepened to -40 feet MLLW, with accompanying widening of the bridge approaches, the bend between the two bridges, and through a new Chelsea Street bridge opening. These improvements would require the removal and disposal of between 6.6 and 14.8 million cubic yards of parent material and between 450,000 and 1.4 million cubic yards of rock.



Project Comments

CZM supports the proposed improvements to Boston Harbor included in the deepening project. Boston is the premier New England port for bulk and container cargoes, and the improvements will increase the ability of the port to attract larger, deeper draft vessels and thus improve the commercial viability of the port. As the project proceeds through the preparation of the Final EIS/EIR, the design phase, and the state permitting process, the proponents should provide additional information and discussion on the issues identified below.

Technical Working group/Technical Advisory Committee

CZM has participated in the Technical Working Group (TWG) for the completed Boston Harbor Navigation Improvement Project (BHNIP) and continues to believe that the ongoing participation of this group is critical to the success of the proposed project. Close cooperation between the project proponents and state and federal agencies during the design phase of the project must be built in to the process to ensure that the final plan both meets the goals of the proponents while avoiding or minimizing the potential environmental impacts. CZM also suggests the establishment of a smaller technical advisory sub-committee, facilitated by an independent, third-party contractor, to manage situations as they arise during the construction phase of the project. This model was employed during the BHNIP and was very successful in allowing the project to proceed with minimal delays.

Comment
CZM #1

Outer and Lower Harbor Resources

The information provided on the general abundance and distribution of the American lobster was sufficient to understand the population characteristics of the project area. However, there was little or dated information on the other potentially impacted natural resources such as shellfish, fishes, benthic infauna and epifauna, and other species of decapod crustaceans (e.g. rock crabs). The lack of site-specific data for the blast areas is of particular concern due to the potential impacts to the relatively stable exposed bedrock seafloor habitat. The area to be blasted is largely different than the proposed dredging areas. The seafloor in the inner and lower harbor is largely comprised of relatively mobile soft sediments that support a dynamic community of benthic infauna and epifauna typical of highly disturbed environments. The area to be blasted in the outer harbor is in an area of hard bottom (bedrock and boulders) that is presumably very stable and not highly disturbed, potentially supporting a stable community. A pre- and post blasting/dredging monitoring program of the impacted areas, particularly the areas to be blasted and outer and lower harbor resources would allow for a sufficient description of the baseline characteristics and potential impacts, while facilitating the monitoring of recovery in the area.

Comment
CZM #2

Comment
CZM #3

The Draft EIS/EIR indicates the presence of scallops in the outer and lower harbor, with areas of coarser-grain material. Scallops are an important commercial resource and indicative of the presence of coarse-sand to cobble substrate. This substrate is also valuable habitat to a number of marine species, including early benthic phases of Atlantic cod and American lobster. The resource characterization and monitoring should include a variety of techniques to assess benthic habitats, as sediment profile imaging (SPI) is only suitable for collecting data on sessile infauna and epifauna in soft sediments. A combination of underwater observations (e.g., diver-based and/or underwater vehicle), benthic grabs, and SPI would be useful to fully describe the resources. Further details on the ecological characteristics of the outer and lower harbor natural resources would better allow an understanding of potential impacts and the development of mitigation measures and strategies.

Comment
CZM #4

Environmental Consequences and Blast Plan

A comprehensive blast plan should be developed to better understand not only the impacts and potential recovery of the area, but to allow for any modifications of the plan that may be required as the project proceeds. The blast plan should include details regarding methods and materials to ensure that the minimum blast effect is generated. The blast plan should also include a

Comment
CZM #5

detailed fish-startle system description to be developed in consultation with state and federal regulatory agencies. This system should include strict guidelines on implementation and review procedures to ensure the most effective protection to fishes and resources in the project area. An independent third party observer should also be present during the project to ensure that these procedures are followed or modified on a real-time basis with the TWG.

Comment
CZM #6

Consideration should also be given to harvesting American lobsters and rock crabs from the blast areas as part of the plan to limit the impact to these valuable commercial fisheries. Substantial concentrations of attached shellfish such as mussels, encountered in the blast area should also be harvested and relocated as appropriate. These harvested resources could be transported to similar nearby habitat, helping to minimize the impacts associated with the removal of this valuable habitat.

Comment
CZM #7

In order to make informed decisions regarding the potential impacts to demersal eggs, benthic invertebrates, or fishes, the pattern of sediment settling around the dredge as well as the concentration of total suspended solids in the sediment plume should be modeled. This information may have been already determined using the SSFATE model, however the data and associated maps were not presented. The only modeling presented in the Draft EIS/EIR relates to the increase in harbor currents upon completion of the deepening project.

Project Sequencing

Comment
CZM #8

Boston Harbor is habitat to a number of managed and regulated fisheries. Both anadromous and catadromous species pass through the harbor and are species of concern for the project. Winter flounder use the area for both spawning and rearing. The determination of project sequencing should be addressed to avoid or minimize the effects on the species at different times during the year. Sequencing the most disruptive and potentially damaging aspects of the project (e.g. blasting) to avoid sensitive locations during the critical time of year, while continuing to work in less sensitive areas, would allow for a timely completion of the project. This sequencing should be developed with the input of the Massachusetts Division of Marine Fisheries and the National Marine Fisheries Service.

Beneficial Use

Comment
CZM #9

A better understanding of the need for a rock reef using blasted rock in Massachusetts Bay is required to make an appropriate judgment on the proposal. In general, there is not a lack of hard bottom in the bay and it is not likely to be the limiting factor for American lobster populations. The creation of the proposed rock reef for the benefit of the American lobster may not be warranted and may simply replace an existing productive habitat with rocky material. Both sites that are proposed (Broad Sound and Massachusetts Bay) were found to support a diverse and abundant benthic community with numbers of organisms on the order of tens of thousands per square meter. The applicant found that these proposed conversion sites were productive habitat for managed species such as winter flounder and red hake. CZM suggests that rather than convert existing, productive soft bottom habitat to hard bottom, the proponent further evaluate the use of rock material as shore protection and for upland use. In previous correspondence, CZM has identified potential locations for the material.

Comment
CZM #10

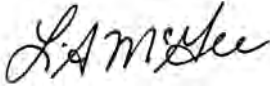
CZM supports the plan to use parent material, primarily composed of Boston blue clay, to cap the Industrial Waste Site in Massachusetts Bay. This project may result in the elimination of hazardous materials being dispersed to the water column or recovered during (illegal) commercial fishing operations. Results of a preliminary capping demonstration using material obtained from the present maintenance project should be reviewed by the TWG and used to design the capping project.

Federal Consistency

The proposed project is subject to CZM federal consistency review and must be found to be consistent with CZM's enforceable program policies. For further information on this process please contact Robert Boeri, Project Review Coordinator, at (617) 626-1050, or visit the CZM web site at www.state.ma.us/czm/fcr.htm.

Comment
CZM #11

Sincerely,



Leslie-Ann McGee
Director
Massachusetts Office of Coastal Zone Management

LAM/bkc/tc/taw/rlb

cc: Karen Adams, U.S. Army Corps of Engineers
Mike Keegan, U.S. Army Corps of Engineers
Catherine Rogers, U.S. Army Corps of Engineers
Jacquelyn Wilkins, Massachusetts Port Authority
Deb Hadden, Massachusetts Port Authority
Brad Washburn, Massachusetts Office of Coastal Zone Management
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Rachel Freed, Massachusetts Department of Environmental Protection
Christopher Boelke, National Marine Fisheries Service
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Eileen Feeney, Massachusetts Division of Marine Fisheries
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IAN A. BOWLES
Secretary

LAURIE BURT
Commissioner

Ian A. Bowles, Secretary
Executive Office of Environmental Affairs
100 Cambridge Street
Boston MA, 02114

RE: Boston Harbor Deep Draft Navigation Improvement Project
EOEA File No. 12958

Attn: MEPA Unit-Deirdre Buckley

Dear Secretary Bowles:

The Massachusetts Department of Environmental Protection (MassDEP) has reviewed the Feasibility Report and Draft Supplemental Environmental Impact Report/Environmental Impact Statement (DSEIR/EIS) for the Boston Harbor Deep Draft Navigation Improvement Project proposed by the U.S. Army Corps of Engineers and Massachusetts Port Authority (Massport). The purpose of the project is to allow access to Boston Harbor by deeper draft vessels without delays due to tidal cycles. The proposed project includes the following changes to the Main Channels, which would result in the removal of approximately 953,000 cubic yards (cy) of rock and 11.1 million cy of dredged material: deepening the 40-foot lane of the Broad Sound North Entrance Channel to 50 feet MLLW and widening it to allow turning of larger vessels; widening and deepening the Main Ship Channel from the Main Ship Channel to Reserved Channel to 48 feet MLLW; deepening the President Roads Anchorage to 48 feet MLLW to accommodate two large vessels at anchor; widening and deepening the lower reach of Reserved Channel; and widening and deepening the Reserved Channel Turning Basin. The project also includes: deepening a 2600 foot length the Main Ship Channel above the Reserved Channel Turning Area to 45 feet MLLW, requiring the removal of approximately 246,300 cy of dredged material and 78,400 cy of rock; deepening a 9 acre area of the Mystic River Channel to 40 feet, generating 67,100 cy of dredged material; and deepening and widening the Chelsea River Channel and Turning Basin to 40 feet MLLW, requiring the removal of 342,600 cy of dredged material and 500 cy of rock. Material unsuitable for disposal at the Massachusetts Bay Disposal Site (MBDS) is proposed to be placed in existing and proposed Confined Aquatic Disposal cells in Boston Harbor, or beneficially reused.

MassDEP generally supports the proposed improvements to support the working port areas of Boston Harbor. The project will require a s.401 Water Quality Certificate under 314 CMR 9.00 to ensure that the dredging and in-state disposal activities meet state Surface Water Quality Standards (314 CMR 4.00). In addition, MassDEP, as noted below, MassDEP will perform an Air Quality General Conformity Determination.

Comment
DEP #1

Dredging comments

Beneficial Reuse

The DSEIR/EIS proposes to beneficially reuse some of the clay parent material to use as a cap over contaminated material at the Industrial Waste Site (IWS) in Massachusetts Bay. MassDEP recommends that the proponent explore additional options to reuse the material to be generated by this project. Specifically we recommend that the FEIR explore the following:

- The proponents should perform a community outreach effort to provide coastal communities with an opportunity to use the material for projects addressing shoreline erosion, beach renourishment, and other needs.
- As sequencing allows, clean material may function as a suitable cap over material to be disposed of in a Confined Aquatic Disposal (CAD) cell.
- Rocky material may provide suitable habitat in some instances. MassDEP recommends that the proponents continue to consult with the Division of Marine Fisheries and other resource agencies to develop a suitable habitat enhancement project.

Comment
DEP #2

Comment
DEP #3

Comment
DEP #4

Project sequencing:

The FEIR should further develop, to the greatest extent possible, a sequence of the proposed activities. MassDEP believes that appropriate sequencing can serve to minimize or avoid some of the impacts associated with this project. In particular, performing blasting activities should be performed so as to avoid times that may result in impacts to fish spawning.

Comment
DEP #5

Refinement of the sequence of project activities may also result in environmental benefits during disposal activities. For example, MassDEP generally recommends that the most contaminated dredged material be placed at the bottom of a CAD cell to maximize the separation of such materials from aquatic habitats. Ideally, dredging of the most contaminated material should occur early so that it will be the first to be disposed of in the CAD cell. Similarly, dredging of suitably clean material at an appropriate time could facilitate its use as a cap over the CAD cell.

Comment
DEP #6

Technical Working Group

MassDEP believes that because of the scale and duration of the project, the Technical Working Group (TWG) will play a critical role in the success of the project. For longer-term design issues, the TWG can provide input on minimizing impacts through the use of Best Management

Comment
DEP #7

Boston Harbor Deep Draft Navigation Improvement Project

Practices based on Best Available Technology. The proponents should also continue to develop a framework for providing the TWG with regular updates during the construction period, particularly for communicating unexpected occurrences that require a rapid, coordinated response from agency and community representatives. To facilitate the timely response by the TWG, the proponent should provide a third-party contractor that reports to the group. The proponents should also use the TWG to help develop means of communicating with affected users of Boston harbor, particularly fishermen and recreational and commercial boaters.

Air Quality General Conformity Determination

The requirements for General Conformity are contained in section 176(c)(1) of the federal Clean Air Act and in the General Conformity regulations promulgated by EPA in 1993 (40 CFR Part 51, Subpart W, and 40 CFR Part 93). In general, federal actions must support the goals of the State Implementation Plan (SIP) and be shown to not:

- Cause or contribute to new violations of any national ambient air quality standard (NAAQs) in any area;
- Increase the frequency or severity of any existing violation of any NAAQs; or
- Delay timely attainment of any NAAQs or interim emission reductions.

The General Conformity regulations apply to nonattainment areas where the estimated emissions from the action meet or exceed specified emission rates for each NAAQs. Eastern Massachusetts is currently classified as a moderate nonattainment area for the eight-hour ozone standard and, therefore, the emission rates below that are contained in the General Conformity regulations apply to the proposed Boston Harbor Navigation Improvement Project (BHNIP). However, it should be noted that the U.S. Environmental Protection Agency adopted a more stringent eight-hour ozone standard in 2008 of 0.075 ppm. While MassDEP submitted an attainment demonstration to EPA under the eight-hour ozone standard adopted in 1997, additional reductions in ozone precursors may be needed to attain the 2008 standard.

- Volatile organic compounds (VOC) – 50 tons/year
- Nitrogen oxides (NOx) – 100 tons/year
- Carbon monoxide (CO) – 100 tons/year

In summary, the criteria for determining conformity for ozone nonattainment areas are as follows (see 40 CFR Part 51.858):

- The total of the direct and indirect emissions from the project are included in the SIP;
- The total of the direct and indirect emissions from the project are fully offset within the same nonattainment area through revision to the SIP or a similarly enforceable measure that affects emission reductions so that there is no net increase in emissions of that pollutant;
- The state air agency makes a determination that the total of the direct and indirect emissions from the project would not exceed the emission budgets in the SIP;

- The state air agency makes a commitment to a SIP revision to achieve the necessary reductions prior to the federal action.

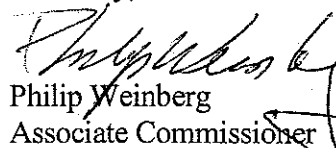
The DSEIR/EIS includes a general conformity analysis and presents an emissions analysis for the no action alternative and two additional build alternatives: Alternative 1 – 45 foot deep MLLW navigation channel; and Alternative 2 – 50 foot deep MLLW navigation channel. Both build alternatives show that the emissions would exceed the general conformity de minimus review thresholds. (See Tables 4-4 and 4-7 for Alternatives 1 and 2, respectively.) To address the exceedances and to reduce emissions below the general conformity review thresholds, the DSEIR/EIS proposes two primary emission reduction options for Alternatives 1 and 2 – the replacement of older, higher emitting equipment with newer and cleaner burning equipment in 2011 and beyond and extending the dredging schedule to spread out peak year emissions over the dredging schedule.

Comment
DEP #8

MassDEP supports the use of lower emitting nonroad engines for the project and notes that this strategy will significantly reduce ozone precursor emission (VOC and NOx) as well as particulate matter emissions. The proponent should verify how this strategy will be implemented and enforced (e.g., through contract specifications). MassDEP also suggests that the proponent explore whether there are any possible engine retrofit opportunities to further reduce emissions.

The extension of the dredging schedule, while it will reduce yearly emissions, will still result in NOx emissions close to the de minimus level under the general conformity requirements. Without this strategy, the proponent would be required to fully offset the increase in NOx emissions. MassDEP suggest the proponent explore additional mitigation strategies including the use of emission reduction credits to avoid these additional emissions. Finally, the proponent should present more detailed information on the dredging schedule within each year and explore targeting dredging operations in the pre- or post-ozone season. As noted above, additional reductions in ozone precursors may be needed to attain the more protective eight-hour standard adopted by EPA earlier this year.

Sincerely,


Philip Weinberg
Associate Commissioner

Cc: Paul Diodati, DMF
Tim Timmermann, EPA
Bob Boeri, CZM



The COMMONWEALTH OF MASSACHUSETTS
BOARD OF UNDERWATER ARCHAEOLOGICAL RESOURCES
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
251 Causeway Street, Suite 800, Boston, MA 02114-2136
Tel. (617) 626-1200 Fax (617) 626-1240 Web Site: www.mass.gov/czm/buar/index.htm

June 2, 2008

Curtis L. Thalken
Colonel, District Engineer
New England District
US Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

RE: *Boston Harbor, Massachusetts Navigation Improvement Project - Draft Feasibility Report and Supplemental Environmental Impact Statement and Massachusetts Draft Environmental Impact Report (EOEA #12958)*

Dear Colonel Thalken:

The staff of the Massachusetts Board of Underwater Archaeological Resources has completed its review of Appendix M (Cultural Resources Investigations and Coordination) of the above referenced report and offers the following comments.

Comment
BUAR #1

The Board has been in regular consultation with the Corps in developing a satisfactory research design and methodology to locate and identify potential submerged archaeological resources that could be impacted by this project. The Board has concurred with the findings and recommendations of the archaeological surveys conducted to date in support of this project (as detailed in the Board's correspondence of 26 August 2002, 18 July, 9 September 2003 and 22 June 2006), specifically for the Main Ship Channel, Reserved Channel and its Turning Area, President Road Channel Reach and Anchorage, and the North Entrance Channel from Broad Sound.

Comment
BUAR #2

The Board also concurs with this report's recommendation that a remote sensing archaeological survey should be conducted for the areas of potential affect in the Mystic River and Chelsea River Channels, should proposals to deepen these areas be implemented. The Board looks forward to working with the Corps and its consultants in developing a successful surveying strategy for these areas.

Should you have any questions regarding this letter, please do not hesitate to contact me at the address above, by telephone at (617) 626-1141 or by email at victor.mastone@state.ma.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Victor T. Mastone".

Victor T. Mastone
Director

Cc: Brona Simon, MHC
Marc Paiva, USACE-NED
Bob Boeri, MCZM
Brad Washburn, MCZM
Deirdre Buckley, MEPA
Ellen Berkland, City of Boston



May 5, 2008

The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

Curtis L. Thalken
Colonel, District Engineer
New England District
US Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

RE: Boston Harbor Deep Draft Navigation Improvements Project, Boston, Chelsea, Everett, MA.
MHC #RC.323. **EEA#12958.**

Dear Mr. Thalken:

Thank you for seeking the comments of the Massachusetts Historical Commission, the office of the Massachusetts State Historic Preservation Officer, for the project referenced above, in regards to the filing of a Draft Supplemental Environmental Impact Statement/Report.

Review of MHC's files indicates that the Corps (COE to Massachusetts Board of Underwater Archaeological Resources, 10/4/2007) proposed to conduct additional identification surveys for historic properties that may be affected by the project.

Comment
MHC #1

MHC looks forward to reviewing the scope of the proposed identification efforts, continuing to consult on the methodology and results, and to review of the Corps determinations in accordance with 36 CFR 800.

These comments are provided to assist in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800) and MEPA (301 CMR 11). Should you have any questions, please feel free to contact Edward L. Bell of my staff.

Sincerely,

A handwritten signature in cursive script that reads "Brona Simon".

Brona Simon
State Historic Preservation Officer
Executive Director
State Archaeologist
Massachusetts Historical Commission

xc:

Marc Paiva, COE-NED
Jacquelyn I. Wilkins, Massport
Secretary Ian A. Bowles, EEA, Attn. Deirdre Buckley, MEPA Office
Victor T. Mastone, BUAR
Ellen P. Berkland, Boston City Archaeologist



MASSACHUSETTS WATER RESOURCES AUTHORITY

Charlestown Navy Yard
100 First Avenue
Boston, Massachusetts 02129

Telephone: (617) 242-6000
Facsimile: (617) 788-4899

June 2, 2008

Colonel Curtis L. Thalken
U.S. Army Corps of Engineers
696 Virginia Road
Concord, Massachusetts 01742

Re: Boston Harbor Deep Draft Navigational Improvement
Project - EOEEA #12958
Feasibility Report and Supplemental Environmental Impact Report

Dear Colonel Thalken:

The Massachusetts Water Resources Authority (MWRA) appreciates the opportunity to review the Draft Feasibility Report and Supplemental Environmental Impact Report on the Boston Harbor Deep Draft Navigational Improvement Project. The Reports prepared by the U.S. Army Corps of Engineers (Corps) in partnership with the Massachusetts Port Authority (Massport) discuss proposed channel and associated navigation feature improvements to the Port of Boston. The Massachusetts Water Resources Authority (MWRA) is represented on the Dredging Technical Working Group created by Massport and the Corps in an effort to stay informed and participate in the review of this project in Boston Harbor.

The purpose of the Boston Harbor Navigation Improvement Study is to identify, formulate, evaluate and screen potential alternatives for channel deepening and related improvements at the Port of Boston. The recommended plan proposes to deepen the harbor's main channels and the lower portion of the Reserved Channel at the Conley Terminal from their existing - 40 foot depth at mean lower low water (MLLW) to a depth of between - 48 and - 50 feet MLLW. Additional minor port improvements in the Mystic and Chelsea Rivers and in the Main Ship Channel above the Reserved Channel are also under consideration. In all areas an overdepth dredging allowance of two feet is required, and in addition, in areas where ledge is encountered, (as is the case in the Reserved Channel) an additional two feet of required rock removal will be performed for vessel safety which would bring the Reserved Channel to a finished depth of not less than -52 feet MLLW.

Comment
MWRA #1

MWRA's comments are focused upon the need to protect existing infrastructure in the project area, specifically NSTAR's cable in the Reserved Channel, and MWRA water and sewer lines that may be impacted by the project located in the Chelsea River.

Reserved Channel: NSTAR Cable

MWRA commented on the Environmental Notification Form filed (ENF) in 2003, and at that time raised concerns specifically related to the potential impacts to NSTAR's existing cross-harbor electric cable located in the Reserved Channel that provides power to the MWRA's Deer Island Treatment plant serving over 2.5 million people in the metropolitan Boston area. While the cable is owned by Harbor Electric Energy Corp., a wholly owned subsidiary of NSTAR, the cost of construction, operation and maintenance of the cable and associated substations is borne entirely by MWRA and its ratepayers. The cable and substations were installed at a cost of approximately \$40 million and provided power for construction of the \$3.5 billion federal court-mandated Boston Harbor Project and presently provides power for the operation of the Deer Island Treatment Plant (DITP).

It appears that the proposed limit of this project will seek to achieve channel depths at or deeper than the current location of NSTAR's 115Kv Submarine Power Cable which feeds the MWRA's Treatment Plant. NSTAR's documents indicate that this cable was installed at approximately -50 feet with variations higher and lower along its course, and that the new dredging project proposes to increase the cut from the existing channel depth of -40 to a new depth of -50 to -52. The permit required the cable to reach a depth of -60 MLLW which, based upon the "as-built" data of NSTAR's contractor, was not achieved. MWRA has the same concerns now as it did when it commented upon the ENF -- the proposed depths of a newly-deepened channel directly threaten the current location of the cable.

Comment
MWRA #2

Comment
MWRA #3

Comment
MWRA #4

MWRA's primary concern is that any blasting and dredging as part of this proposal near the cable in the Reserved Channel cannot help but pose a direct threat of damage to the cable which would result in the long-term loss of a vital energy link to its Deer Island facility and, in the process, cause a release of insulating oil in the cable to the waters of the harbor, the same waters which have seen dramatic improvement in quality precisely because of the contributions of that wastewater treatment facility. The potential for disruption of this primary source of power to the treatment plant servicing over 43 cities and towns in metropolitan Boston would be catastrophic for MWRA over the lengthy period which would be required to replace that cable. It should be noted that even in the short term, any disruption in the use of the cable would require that MWRA depend upon and use its own generating capability which given today's fuel costs, could result in millions of dollars in annual additional expenditures charged to MWRA's ratepayers, whose municipal budgets are already substantially over-burdened. Additionally, should MWRA's sole source of back-up power fail for any reason, the environmental impacts would be disastrous.

Staff at MWRA have attended meetings with the Corps, NSTAR and the US Justice Department over the past several years in response to the Corps' claim raised in 2005 that NSTAR's cable, in certain stretches, was not laid by its contractor as deeply below the channel floor as required by its permit and in response to the Corps' insistence that corrective work be undertaken to bring the cable's location into compliance with that permit. While NSTAR has, over the past several years, identified and examined several alternative protection strategies that it believes would protect its submarine cable, no concrete progress has been made toward finding a solution that will assure that the cable could survive the channel-deepening project. Of the alternatives considered, NSTAR's preferred option for placing protective mats over the cable cannot be expected to work if the cable's current location is already at or above -52 MLLW. Until additional survey work is completed to determine the precise location and depth of the cable, it is impossible to define a protective measure that NSTAR could reliably employ. MWRA does not believe that consensus has been reached which will assure that channel-deepening to the depths desired by the project can be attained while guaranteeing that no damage will be caused to the infrastructure that is critical to MWRA's operations.

Comment
MWRA #5

MWRA has worked with the proponents to try to assure that MWRA's electric source is not jeopardized and equally as important, to assure that any costs associated with the protection or deepening of NSTAR's cable are not passed on to MWRA ratepayers. It is hoped that a reasonable solution will be realized to satisfy MWRA's operational and economic issues. MWRA, as a co-permittee of the Corps' cable permit, is already one of the entities targeted for litigation by the Justice Department if the permit conditions are not met. MWRA can ill afford to expose its ratepayers to the costs of replacing a damaged cable, which cannot be repaired via splicing, to the magnitude of the diesel fuel costs which will become necessary during the multiple years that will be required to replace the cable, if damaged, or worst of all, to the prospects of operating DITP with only a single source of power when the plant was designed to operate with a back-up source.

Chelsea River: Section 38 Water Main and Three Sewer Crossings

It appears that the proposed dredging may impact MWRA's Section 38, a 36" water main that crosses under the Chelsea River. The proposed dredging plan calls for the deepening and widening of the Chelsea River Channel to - 40 feet. Section 38 is located at an approximate elevation - 44, so any future dredging and/or blasting in this area should be carefully coordinated with MWRA.

Comment
MWRA #6

In addition to the Section 38 water main, there are three wastewater crossings located under the Chelsea River. These include an abandoned siphon, Section 10, an active deep tunnel Section 101, and an active siphon Section 37.5. Various elevation scales have been used by MDC, MWRA's predecessor, and will need to be researched to assure accuracy prior to dredging. We suggest that the proponent coordinate with MWRA permitting staff to identify specific elevations to determine whether or not there will be an impact to these facilities as an MWRA 8 (m) permit will be required for work in this area.

Comment
MWRA #7

Comment
MWRA #8

Questions regarding 8 (m) water permitting and MWRA's need to protect our water infrastructure should be directed to Ralph Francesconi at 617 305-5827. Permitting issues related to the wastewater crossings should be directed to Kevin McKenna at 617 305-5956.

MWRA understands that the deepening of the Chelsea River beyond the current -38 foot depth is based on the assumption that the Chelsea Street Bridge would be replaced by the Massachusetts Highway Department and that the Keyspan gas siphon would be removed and relocated. MWRA will continue to monitor progress of these projects and work with the Project Proponents to assure that MWRA's infrastructure is protected as all the alternatives are evaluated during the environmental review process.

Comment
MWRA #9

Please contact me at 617 788-1165 if you have questions, need additional information or agency coordination to review MWRA engineering plans. Thank you for the opportunity to comment.

Yours truly,



Marianne Connolly
Program Manager, Regulatory Compliance

cc: Deb Hadden, Massport
Michael Keegan, US Army Corps of Engineers

C: MEPA12958BosHarEIRcomments.doc



Paul J. Diodati
Director

Commonwealth of Massachusetts

Division of Marine Fisheries

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Deval Patrick
Governor

Ian A. Bowles
Secretary

Mary B. Griffin
Commissioner

June 2, 2008

Ian A. Bowles, Secretary
Executive Office of Environmental Affairs
Attention: MEPA Office, Deirdre Buckley
100 Cambridge Street
Boston, MA 02114-2150

Re: The Boston Deep Draft Project, EEA #12958

Dear Secretary Bowles:

The Division of Marine Fisheries has reviewed the Draft Feasibility Report and Draft Supplemental Environmental Impact Statement/Draft Environmental Impact Report (DEIR) prepared by the U.S. Army Corps of Engineers (the Corps) in partnership with the Massachusetts Port Authority (Massport) for additional dredging in Boston Harbor, Mystic River, and Chelsea River. The DEIR builds on two previous documents: the Final EIR prepared in 1995 for dredging to improve navigation in Boston Harbor and the DEIR prepared in 2006 for maintenance dredging that is occurring now. We offer the following comments for your consideration and recommendations for fisheries habitat concerns that should be more specifically addressed in the Final EIR (FEIR).

Background and resource information

This project continues work begun in 1995 dredging for navigation improvements, and continued through the 2007 maintenance dredging efforts. For operational reasons, work has proceeded for nearly this entire period, often during critical periods for fish spawning and passage. We acknowledge that Boston Harbor is an industrial harbor and a Designated Port Area. However, that designation should not devalue the fisheries resources and habitat found at the proposed work sites, particularly since significant efforts have been made to improve water quality in Boston Harbor. The status of some fisheries that use this ecosystem is considered grave or dire,¹ and requires the utmost consideration for management.

Since virtually every estuarine waterway in Massachusetts is impacted by dredging, there is considerable concern regarding cumulative impacts on the overall ecosystem. Also, because of continuous dredging, these projects change from a potential acute, short-term impact to the fisheries resources, to an impact that is chronic and considerably different in nature. It is clear by the paucity

¹ *Marine Fisheries* has banned fishing for river herring due to population concerns. Also, rainbow smelt is listed as a "species of concern" by NMFS.

Comment
DMF #1

Comment
DMF #2

of impact reports from Boston Harbor and the Providence River that limited lessons have been learned regarding the environmental impacts of previous dredging projects, let alone how a chronic impact would differ from an acute impact.

The wide geographic area of this proposed project supports several species of shellfish and finfish, including lobster (*Homarus americanus*), soft shell clam (*Mya arenaria*), mussels, and winter flounder (*Pseudopleuronectes americanus*). In addition, several diadromous species utilize the area including rainbow smelt (*Osmerus mordax*), Atlantic tomcod (*Microgadus tomcod*), white perch (*Morone americana*), and river herring (*Alosa* spp.) (Chase, 2008). Boston Harbor is classified as Essential Fish Habitat (EFH) for winter flounder by the New England Fisheries Management Council (NEFMC) and the ASMFC classifies spawning areas such as these as Habitat Areas of Particular Concern (HAPCs).

General Comments

This DEIR relies primarily on information collected and examined for previous efforts. This level of information was deemed insufficient in the past, and in many cases did not address the questions being asked. As such, the proponents have not conducted a sufficient impact assessment. Since there is a long history of dredge projects in Boston Harbor, we would anticipate a more directed and comprehensive effort to address specific environmental concerns. Instead, the DEIR provides only a review of previous documents and we are concerned about the precedent this sets.

Comment
DMF #3

Many decisions regarding this project are being left to the discretion of the technical working group (TWG) and are promised during the design phase. We commend the open process that Massport and the Corps have established to date. However, given the experience of these proponents in the project location, the significant resources that exist within the Corps to study the impact of dredging on marine habitats, and a recent history of impacts to marine resources resulting from the current and ongoing dredge activities in Boston Harbor, a more concerted effort could have been made to examine potential impacts of this new project.

Comment
DMF #4

Direct mortality of fisheries resources

This past year, several fish kills occurred during blasting events in Boston Harbor. This was not addressed in the DEIR. The FEIR should include a full assessment of the reasons behind the fish kills, and a reasoned response to avoid such impacts in the future. A multi-pronged approach is necessary to avoid impact to valuable fisheries resources:

Comment
DMF #5

- We recommend the proponents **generate a sequencing plan**. Based on available information, *Marine Fisheries* routinely provides recommendations for time-of-year (TOY) work windows to minimize impacts on fisheries resources. However, specific project sequencing should be based on biological surveys (ideally three years) to assess fisheries resources, annual trends, and their use of the affected habitat areas.
- We recommend the proponents **generate a blast plan**. This must include an analysis of the previous fish kills and the efforts being proposed to avoid such impact (e.g. use of additional acoustic fish exclusion devices, standards for their use, consideration of bubble curtains, and adherence to time of year recommendations). Sample plans and standards have already been provided to the proponents, but were not included in the DEIR.
- Since early benthic phase (EBP) lobsters are present year-round in hard bottom habitats (Glenn, 2008), impact to this resource is unavoidable. Therefore, we recommend the proponents **clarify how much hard bottom is impacted, how much is removed, and how much is created by the project within the project site**. The proposed addition of off-site hard bottom habitat as a beneficial use should not be included in this assessment.
- We recommend a specific examination of the recovery time of hard bottom habitats that **includes sampling of EBP lobsters**.

Comment
DMF #6

Comment
DMF #7

Comment
DMF #8

Comment
DMF #9

The DEIR notes that softshell clam habitat will be impacted by potential work in the Chelsea River (p. 3-23). *Marine Fisheries* expects that the proposed dredging will result in a permanent loss of this habitat by direct removal of shallow water and resulting conversion to an environment that may not support shellfish. The ecosystem function of these shellfish beds, which include softshell clam, razor clam, and blue mussels, may be significant to other fish and invertebrate species foraging in this area. Nevertheless, this habitat impact is not addressed in the DEIR. Therefore, we recommend the following:

Comment
DMF #10

- The FEIR should include **a clear delineation of the shellfish habitat potentially impacted by dredging and an assessment of the functional loss to other species.**
- We recommend that the applicants coordinate with the State and Federal resource agencies to address **avoidance, minimization and mitigation options for this lost habitat in the FEIR.**

Beneficial use of dredge material

We applaud the Corps continued efforts to explore beneficial uses of dredge material. However, upland reuse and disposal options have not been given due attention.

Comment
DMF #11

- We recommend that the proponents **revisit upland disposal options in the FEIR.** Only after upland disposal options have been exhausted should subaqueous habitat conversions be considered.

Comment
DMF #12

- If a subaqueous disposal is required, we recommend the proponents **revisit the site selection model** for the habitat enhancement in conjunction with the TWG. The currently proposed preferred subaqueous sites, Broad Sound and Massachusetts Bay, already have significant habitat value and substantial hard bottom habitat. Edge habitat and habitat heterogeneity are crucial, so these sites may not be appropriate for disposal of all (or any) of the rock material. We are concerned the proponents are making the assumption that hard bottom habitat is always considered of higher value than supplanted habitat and that artificial reefs have the same ecosystem function as natural reefs.
- We encourage the proponents to use the guidance provided by *Marine Fisheries'* Artificial Reef Policy for site selection and monitoring. Application of the site selection model used by *Marine Fisheries* for creation of the HubLine cobble reef would also improve the evaluation process.

Invasive Species

Dredge barges are in the harbor for many months. They typically travel at low speeds so eliminating hull fouling organisms is not a primary maintenance objective. As such, the barges pose a significant threat to the Boston Harbor environment via the introduction of invasive species. Eradication of marine invasive species has rarely been successful and has been enormously costly,² therefore,

Comment
DMF #13

- We recommend the **proponents identify measures to prevent the spread of invasive species** in the FEIR. For example, the proponents could require regular inspection of the barges. Such inspection should occur when a barge enters the harbor from use in foreign harbors or those known to have species invasive to New England. The inspection should follow a protocol approved by the technical working group.

Monitoring

² The cost of eradicating the seaweed, *Caulerpa taxifolia*, from California lagoons ran over \$4 M and monitoring continues (Anderson, 2005). Failed attempts at eradication include the green crab, *Carcinus maenas*, on the west coast (Grosholz, 2000), the tunicate, *Didemnum* from barges and pilings in New Zealand and Washington state (Coutts, 2007), and the sea star, *Asteria amurensis* from a bay in Australia (Thresher, 2001).

As previously mentioned, improvement or maintenance dredging has been occurring since 1998 in Boston Harbor. Improvement dredging, by its very definition, is designed to alter the environment as permanently as possible. It is also inaccurate to identify impacts from maintenance dredging as temporary since they are chronic in nature and will result in permanent functional changes of the habitat. We recommend that the chronic impacts associated with ten plus years of dredging be fully addressed.

Comment
DMF #14

- We recommend the proponents **include an environmental monitoring system, specifically designed to evaluate the recovery period of impacted areas** should the project move forward.
- We request a **delineation of areas where habitat conversion will take place** due to dredging and/or blasting activities.
- We request that the applicant **provide an estimate of the time needed for recovery** of all impacted habitats.

Comment
DMF #15

Comment
DMF #16

Comment
DMF #17

Mitigation

Even after appropriate avoidance and minimization measures are applied in the project design and sequencing, the proposed project may still result in unavoidable impacts, including habitat conversion and direct and indirect mortality of fisheries resources.

- We recommend that the applicant begin developing **compensatory mitigation plans** for direct and indirect mortality of fisheries resources, delayed recovery of habitat, and areas of habitat that are permanently lost or altered.

Comment
DMF #18

Thank you for considering our comments. If you have any questions about this review or require more information please contact Kathryn Ford in our New Bedford office at (508) 990-2860, ext. 145.

Sincerely,



Paul J. Diodati
Director

Cc: M. Keegan, ACOE
C. Boelke, NMFS
B. Boeri, CZM
P. Colarusso, US EPA
C. Bush, Boston Conservation Commission
K. Chin, DEP
T. Evans, M. Rousseau, E. Feeney, F. Germano, DMF
R. Lehan, DFG

References

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CITY OF BOSTON

THE ENVIRONMENT DEPARTMENT

Boston City Hall, Room 805 • Boston, MA 02201 • 617/635-3850 • FAX: 617/635-3435

June 2, 2008

Ian A Bowles, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, 9th Floor
Boston, MA 02114
Attention: Deirdre Buckley, MEPA

Colonel Curtis L. Thalken, District Engineer
United States Army Corps of Engineers, New England District
696 Virginia Road
Concord, MA 01742-2751
Attention: Michael Kægan, Project Management Division

Re: Boston Harbor Deep Draft Navigation Improvement Project - Draft Feasibility Report and Supplemental Environmental Impact Statement/Environmental Impact Report

Dear Secretary Bowles and Colonel Thalken:

The City of Boston Environment Department and staff of the City of Boston Conservation Commission have reviewed the Draft Feasibility Report (DFR) and joint Draft Supplemental Environmental Impact Statement/Environmental Impact Report (DSEIS/EIR) for the Boston Harbor Deep Draft Navigation Improvement Project (Deep Draft Project) and offers the following comments.

The U.S. Army Corps of Engineers (ACOE) and the Massachusetts Port Authority (Massport) have proposed the Deep Draft Project which will include increased navigation access to Massport's Conley Container Terminal on the Reserved Channel in South Boston by dredging to a depth of at least -45 feet mean lower low water (MLLW) and improvement dredging in the Mystic and Chelsea Rivers, Main Ship Channel, the Presidents Roads Anchorage and the Broad Sound North Entrance Channel. The project proponents note that the Deep Draft Project is necessary due to existing delays to container ships and bulk carriers caused by insufficient tidal depths; the light loading of vessels, or partial loading or unloading of vessel cargo to meet tidal windows; and the bypassing the Port of Boston by carriers to meet arrival schedules at other East Coast Ports. Other stated reasons for the project include carriers that add larger vessels to their fleets may not include Boston on their itineraries, and recent shipping trends indicating cargo being shifted increasingly from the Port of New York/New Jersey to Boston Harbor.

The Department supports the project and is aware of the need for the proposed improvement dredging due to the limitations that existing drafts place upon current and future vessel traffic, and the importance of Port of Boston's shipping activity to the local and regional economy. Given the

BED/Boston Conservation Commission comments - Boston Harbor Deep Draft Navigation Improvement Project, DFR/SEIS/EIR
Page 2

size and scope of this project, and the disruptive nature of dredging upon marine habitat, and impacts on water and air quality, the project environmental mitigation requirements should be thoroughly detailed in the Final SEIS/EIR. The proponents should also continue to work with state and local resource conservation agencies in the development and implementation of mitigation measures and protocols to ensure the protection of the harbor's environmental resources.

Comment
BED #1

The Deep Draft Project will be one of the most significant dredging projects in Boston Harbor, involving the dredging of between 6.6 and 14.8 million CY of parent material and between 450,000 and 1.4 million CY of rock, affecting over 1,140 acres of harbor bottom. Parent material will either be placed at the Massachusetts Bay Disposal Site (MBDS), and/or utilized for beneficial uses such as the capping of the Industrial Waste Site overlapping MBDS. Beneficial uses or dredged rock may include creation of hard bottom habitat in Massachusetts Bay and Broad Sound (and the armoring of seashore areas within Boston Harbor with problematic coastal erosion). Some unsuitable dredge material may be disposed of in existing or previously permitted Confined Aquatic Disposal (CAD) cells within the harbor.

Comment
BED #2

The blasting of rock is of particular concern given the four fish-kill events that occurred in the fall of 2007, associated with the Boston Inner Harbor Maintenance Dredge Project (BIHMDP). These events have illustrated the limitations of the blasting mitigation measures, which included insert delays, shock wave attenuation measures, a fish startle system, side scan sonar, and a fisheries observer. A complete review of the adequacy of these measures should be addressed in the ACOE "after action report" on the fish kill events, and discussed with the interagency blasting technical working group, once it is convened. The findings of this report, the mitigation measures used to date and potential new mitigation technologies must be reviewed prior to the completion of the development of a blasting plan for the Deep Draft Project. The project blast plan should require a stoppage of blasting in the event of a fish kill and assessment of possible causes and changes to blast methodology prior to re-commencement of blast activities. The blasting technical working group should also be informed and consulted on all marine mammal or fish kill event. Non-blasting options should also be discussed such as a closed dredge bucket, impact devices, or a large tooth bucket on an excavator, which have been previously employed for ledge removal. The non-blast methodologies should be assessed for the types of impacts they may have on marine species and whether they are viable methods of removing the different types of rock and ledge material found in the harbor.

Comment
BED #3

Comment
BED #4

The Beneficial Use Alternatives section of the DSEIS/EIR notes several possible applications of dredged parent material, including the capping of the Industrial Waste Site (IWS) in Massachusetts Bay and creation of new rock reef habitat in Broad Sound and Massachusetts Bay. It is our understating that a pilot study is to be conducted with parent material from the BIHMDP to assess the feasibility of using such material to cap the IWS. The findings of this study should be provided and utilized to inform the Deep Draft Project final design. If unsuitable silt material needs to be disposed of into CAD cells within the harbor, disposal activities should not delay the capping of cells utilized for the BIHMDP.

Comment
BED #5

Comment
BED #6

The DSEIS/EIR states that Broad Sound and Mass Bay are the most suitable sites for creation of hard bottom habitat after assessing and ranking five possible habitat enhancement sites.

**BED/Boston Conservation Commission comments - Boston Harbor Deep Draft Navigation Improvement Project, DFR/SEIS/EIR
Page 3**

However, the site ranking and Hard Bottom Habitat Report rate the Mass Bay site as fourth, it ranks last in benthic habitat quality. The DSEIS/EIR references depth and location constraints as the rationale for selecting Mass Bay. Given the extent of disturbance the project will cause to marine habitat, the beneficial use sites must be selected based upon locations where the greatest enhancement of bottom habitat will occur. The proponent should further substantiate the rationale for not selecting the Magnolia site as a preferred enhancement location. Whether all or a portion of the rock will be used for beneficial use, as well as the size and type of rock most appropriate for bottom habitat should also be addressed. Additionally, the final design should be coordinated with state and federal resource agencies to ensure that the rock is suitable and its placement is properly configured and located in areas where existing rock and cobble habitat is not currently present.

As noted in the DSEIS/EIR, multi-year monitoring of the habitat creation sites is necessary to determine if colonization occurs and if such rock disposal options serve as a beneficial use. The Department is also aware of the need for armoring stone for several coastal areas within Boston Harbor and the Harbor Islands. Use of removed rock for shoreline protection should be discussed further as it may serve to benefit the project proponent as well as state and local landowners within the harbor.

**Comment
COB #7**

The Environmental Consequences section (4.0) should include a discussion of possible impacts of dredge material transport and disposal at the IWS and MBDS upon the adjacent Stellwagen Bank National Marine Sanctuary. With the recent issuance of a Draft Management Plan for the sanctuary, there has been renewed focus on the lack of effective management of the ecosystem, resulting in serious decline of the sanctuary's marine life. The transport of dredge spoil and its disposal must be reviewed to ensure that such activities are not contributing to a decline in viability of sanctuary and the numerous marine species that inhabit the area.

**Comment
COB #8**

Turbidity from dredge activities has the potential of affecting harbor water quality in the vicinity of dredge equipment and adversely impacting important life stages of fish and shellfish. The DSEIS/EIR notes that the means by which the dredge equipment is operated can have an impact upon suspension of sediments and turbidity than the type of bucket used. The proponent should discuss how operational techniques and parameters such as dredge cycle-time, and practices such as scow washing, will be managed to limit turbidity. The document also references prior field monitoring results of dredge buckets and associated turbidity levels, noting greater turbidity associated with conventional buckets, and less with Cable Arm and environmental buckets. The proponent should employ to the greatest extent practicable the use of Cable Arm or environmental dredge buckets during the project to minimize water quality impacts. Closed buckets should be used for dredging of all silty material. Turbidity is problematic for eelgrass beds in particular, which provide important habitat to finfish and shellfish. The Biological Environment section (3.3.1) references eelgrass beds only located in small areas within Hull and Hingham Bay. The Final SEIS/EIR should update the section to include eelgrass beds located along the northwest shoreline of Long Island which have been established as part of the MA Department of Marine Fisheries Eelgrass Restoration Project.

**Comment
COB #9**

**Comment
COB #10**

The Biological Resource Impacts section of the DSEIS/EIR notes that benthic communities within the navigation channel will be destroyed as a result of dredging and blasting, and that such communities are expected to recover and return to pre-dredge conditions within a short period of

BED/Boston Conservation Commission comments - Boston Harbor Deep Draft Navigation Improvement Project, DFR/SEIS/EIR
Page 4

time after the project, citing a 1977 Oregon study. The document also states that if significant areas of blue clay are exposed through dredging the number and type of organisms may be reduced. Given the scope of impacts the project will have on benthic habitat, the lack of specific study information on Boston Harbor benthic communities and uncertainty over such communities' ability to reestablish, a biological monitoring program should be developed to adequately assess whether benthic species actually re-colonize in dredged areas within Boston Harbor, and if so, to what extent. Such results can better inform project mitigation measures and provide more accurate information on the environmental impacts of dredge projects in Boston Harbor.

Comment
COB #11

Comment
COB #12

As with prior and current dredging projects, prior to the start of dredging operations and barge transport of dredged materials, work areas and barge routes should be coordinated with the Boston Harbor Lobstermen's Cooperative and the Massachusetts Lobstermen's Association. To facilitate coordination the contractor should prepare a weekly schedule of dredging and disposal activities and forward it to these organizations at least 48 hours prior to the scheduled work.

Comment
COB #13

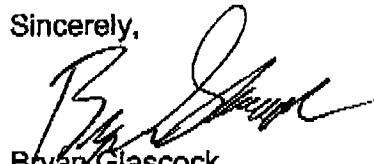
The Air Quality section (4.8), notes that mitigation measures will need to be implemented during the project to avoid exceeding annual air quality emissions thresholds for Carbon Monoxide (CO), Nitrogen Oxide (NOx), and Volatile Organic Compound (VOC) emissions. Specifically, utilizing newer, cleaner burning off-road equipment (model year 2011 and beyond), and extending the three year dredge schedule. The shut down periods are proposed to occur in six month periods every two years from October to March. As NOx and VOC's are pre-cursors to ozone, an air pollutant most problematic during the summer months, the proponents should provide more detail as to why dredging is not occurring during the winter months.

Comment
COB #14

The proponent should ensure that the Technical Working Group continues to meet regularly throughout the duration of the dredge project to review and address any problems and operational changes that may be suggested by the dredge contractor.

Thank you for the opportunity to offer comment.

Sincerely,



Bryan Glascock
Director

BHDDNIP DFR.SDEIS.EIR 6.08.doc.DBG:CB.cb



**TOWN OF WINTHROP
TOWN COUNCIL
Town Hall
1 Metcalf Square
Winthrop, Massachusetts 02152**

President:
Thomas E. Reilly

Vice President:
Philip R. Boncore, ESQ.
Councilor-at-Large

May 30, 2008

Councilor-at-Large:
Joseph V. Ferrino, Jr.

Dear Mr. Keegan,

Precinct 1:
Richard D. Gill

Precinct 2:
James L. Letterie

Precinct 3:
Nicholas A. DeVento

Precinct 4:
Jeanne L. Maggio

Precinct 5:
Russell C. Sanford

Precinct 6:
Linda J. Calla

Carla Vitale
Council Clerk

Attached is a report sent to the Town of Winthrop by a concerned constituent. Please accept it as our comments on the Boston Harbor Deep Draft Navigation Improvement Project. The Town of Winthrop is extremely concerned that the Army Corps of Engineers inappropriately denied the long anticipated and critically necessary share protection on Winthrop Shore Drive.

If the rationale utilized in its Winthrop Beach decision is consistently applied, then the Boston Harbor project should also be denied. If the Boston Harbor project is approved, then we expect that the Army Corps of Engineers will reconsider and reverse its denial of the Winthrop Beach project.

Very truly yours,

Comment
TOW #1

Thomas E. Reilly
Council President

May 7, 2008

U.S. Army Corps of Engineers – New England District
District Engineer
696 Virginia Road
Concord, MA 01742-2751
ATTN: Programs and Project Management Division (Mr. Michael Keegan)

and

Secretary Ian A. Bowles
EOEA, Attn: MEPA Office
[Deirdre Buckley], EOEA No.12958
100 Cambridge Street, Suite 900
Boston MA 02114

RE: Comments on the DSEIS/DEIR for the Boston Harbor Deep Draft Navigation Improvement Project

Dear Secretary Bowles:

Comment
TOW #2

The Town of Winthrop is very concerned about the substantial adverse environmental impacts associated with the proposed Boston Harbor deepening project. Specifically, a large portion of Broad Sound and the North Channel areas are designated Essential Fish Habitat (EFH) for cod and American lobster. This designation is based on the oceanographic conditions (basically, water temperature in this case), bottom type, and presence/absence data used by the National Marine Fisheries Service (NMFS) in accordance Magnuson-Stevens Fishery Conservation and Management Act.

Comment
TOW #3

As described in detail below, the NMFS will be required to determine that the seaward portion of the proposed Boston Harbor Deep Draft Navigation Improvement Project is an Aquatic Resource of National Importance (ARNI) to be consistent with their conservation recommendations for identical bottom type and EFH concerns at the proposed NOMES Site I borrow site (8 miles offshore of Boston Harbor). Moreover, the SDEIS/DEIR acknowledges that the proposed Boston Harbor project will cause a change in bottom substrate, resulting in a permanent impact to EFH and the associated ARNI. In an attempt to ensure consistent regulatory assessment, we request that both the “technical” personnel responsible for the ARNI determination from the U.S. Army Corps of Engineers and the NMFS be required to perform a scientifically-defensible comparison of EFH impacts associated with the outer harbor dredging and the NOMES Site I dredging prior to the preparation of a FEIS/FEIR. Once reviewed by qualified outside technical experts, this assessment should serve as the basis for EFH conservation

Comment
TOW #4

recommendations and hopefully ensure consistent regulatory decision-making for projects impacting cod and American lobster EFH in Massachusetts Bay.

In a recent decision, the U.S. Army Corps of Engineers recently denied the long anticipated shore protection project along Winthrop Shore Drive. The project was denied primarily because of one agency's (the National Marine Fisheries Service or NMFS) opinion regarding the value of offshore sand and gravel habitat to the "sustainability" of the cod population throughout the Northeastern U.S. In a letter from Louis A. Chiarella of NMFS to Christine Godfrey of the U.S. Army Corps New England District (NED) dated December 7, 2006,

NMFS maintain[ed] that gravel and cobble habitats (2mm - 256 mm) are an Aquatic Resource of National Importance [ARNI] due to its role in providing habitat essential to the sustainability of Northeast fisheries..

It is clear from this statement that the NMFS has determined that all gravel and cobble habitats in the Northeast U.S. are in an ARNI and this determination is not restricted to a 100-acre area 8 miles offshore of Boston Harbor. Areas designated as an ARNI prohibit activities that would impact the habitat such as dredging (including the proposed Boston Harbor navigation improvements), cable laying, and port development, but apparently not the equally damaging fishing-related impacts (e.g. bottom trawling and scallop dredging).

A review headed by Dr. Douglas Clarke of the U.S. Army Engineer Research and Development Center in Vicksburg, Mississippi indicated that "the NMFS case is primarily based on previous existing knowledge, presence/absence data, and assessments of critical habitat functions." They concluded that the sand, gravel, and cobble "habitat in question is of sufficient rarity with adequate evidence of significance to justify a high threshold of protection." The U.S. Army Corps North Atlantic Division (NAD) utilized this opinion as confirmation of the NMFS position and denied the use of NOMES Site I as a borrow source for Winthrop Beach.

Since the NMFS conclusions and the Army Corps denial were based strictly on the sediment comprising the ocean floor and whether the area was designated as an Essential Fish Habitat (presence/absence data), an area within Massachusetts Bay that has identical bottom habitat and EFH concerns should be afforded identical treatment and protection by the U.S. Army Corps of Engineers.

The geotechnical data presented in the Draft EIR for the Boston Harbor Deep draft Navigation Improvement Project clearly determined that the "sediments consist mostly of sand, gravel, and rock [cobble and boulder]" within the outer harbor. This information from the DEIR indicates that the sediments within the Boston outer harbor are as coarse as or coarser than the sediments at NOMES Site I. In addition, the DEIR acknowledges that the outer channel is EFH for most of the same species as NOMES Site I, most notably cod and American lobster.

One possible difference is the water depth at NOMES Site I, where the proposed borrow site is located at depths in excess of 80 ft MLLW that likely make it unsuitable for early benthic phase lobster (as proven by the extensive benthic sampling). However, the Boston outer harbor area where deepening is proposed consists of water depths that are highly conducive to early benthic phase lobsters and, therefore should receive a higher level of protection than the NOMES Site I habitat.

As described above, the NMFS has already designated gravel and cobble habitats within the Northeast as an ARNI, based upon EFH and bottom type considerations. Since this ARNI by default includes the Boston outer harbor channel (it has the same bottom type and EFH concerns as NOMES Site I), it will not be possible for the U.S. Army Corps of Engineers to issue a permit on the proposed dredging of the outer harbor channel.

To ensure consistency with recent previous habitat evaluations that have impacted regulatory decisions, the Town of Winthrop requests the following:

- The NMFS and DMF should be required to provide an analysis of the EFH and bottom type of the outer harbor channel relative to NOMES Site I and portions of the approved Hubline that crossed similar habitat. Using objective scientifically-defensible criteria, NMFS and DMF should be asked to develop fisheries conservation recommendations for the Boston outer harbor channel, supported by a clear concise reasoning for these recommendations in relation to the concerns they raised for NOMES Site I.
- Dr. Clarke's team at the Army Corps should review this NMFS/DMF analysis to determine whether they still agree with the ARNI designation for NOMES Site I and, if so, whether it is appropriate to impact one portion of the ARNI (the Boston outer harbor channel) and mandate protection of a different portion (NOMES Site I). This Army Corps team should justify their opinion with sound scientific arguments.
- An independent outside technical review of the analysis and Army Corps review should be performed to corroborate the conclusions and/or results of these other analyses. If this objective outside review should indicate that there is not clear scientific evidence supporting differences between the EFH, as well as bottom type, of NOMES Site I and the Boston outer harbor channel, the Army Corps should adopt this opinion as part of their regulatory decision and deny this portion of the harbor deepening project to protect the ARNI.

All of these analyses and reviews should be funded by the project proponent that has proposed the Boston Harbor deepening. In addition, the Town of Winthrop should be allowed to select the consultant to perform the independent technical review, subject to Army Corps approval based on the consultant's qualifications.

Regardless of the ARNI concerns for the Boston outer harbor, the DEIR lacks the level of geotechnical investigation appropriate for a project of this magnitude. For example, the NMFS indicated that 15 cores at NOMES Site I was not sufficient to characterize the post-dredging substrate of an approximate 100-acre site (~1 core per 7 acres of dredged

Comment
TOW #5

area). However, the density of coring performed for the Boston Harbor deepening project is not nearly as dense as the NOMES Site I project. This is especially concerning, since the DEIR acknowledges a high variability in bottom sediments throughout the project footprint. This level of sampling may be sufficient for a dredging contractor to perform the work, but clearly (according to NMFS) is inadequate to characterize the fisheries and benthic habitat that will exist once the deepening project is completed. In addition to these geotechnical concerns, we have the following specific comments regarding the DEIR:

).

- The DEIR does not indicate that the proposed project is within the DMF designated “Cod Conservation Zone”. According to the recent Army Corps denial of the Winthrop Beach project, the importance of the “Cod Conservation Zone” to the sustainability of the cod population in the northeast was an important consideration. Since the proposed dredging activities will have a substantial spatial and water quality (turbidity) impact on the “Cod Conservation Zone”, the FEIR, Feasibility Report, and FEIS should provide a full assessment of these impacts. Winter flounder may be the primary concern within the upper portion of the Boston Harbor estuary; however, the outer portion of the system is prime American lobster and cod habitat. Turbidity impacts to EFH near the dredge footprint, any proposed mitigation sites, and at the offshore or nearshore dump sites should be included in this analysis. According to the recent Winthrop Beach decision, the discharge of dredged material was deemed to “cause or contribute to substantial degradation of waters of the U.S. including adverse effects on human health, life stages of organisms dependent on the aquatic ecosystem, ecosystem diversity, productivity and stability, and recreational, aesthetic and economic values.” The FEIR and FEIS needs to show how the proposed dredging activities, as well as any disposal activities, will not degrade the waters of the U.S. in a similar fashion, especially considering that many of the dredge-related activities will be performed within areas with the same EFH concerns and the disposal areas will create suspended sediment that will directly impact or migrate into areas of gravel and cobble bottom that have been designated an ARNI by the NMFS. Comment
TOW #6
- The FEIR should clearly delineate areas that have previously been dredged versus areas of proposed new dredging/mining (including increased channel area associated with side slopes). In addition, maps clearly indicating bottom type within each of these areas, as well as EFH concerns. Although the DSEIS and DEIR indicate that two very different benthic environments exist within the project footprint, the document does not adequately evaluate these areas as distinct habitats relative to potential impacts associated with the proposed deepening project. For clarity, it would be more appropriate to evaluate the “soft bottom” and “hard bottom” benthic communities and fisheries resources in separate sections. For example cod is an important species of concern for the “hard bottom” associated with the outer harbor channel (Broad Sound and North Comment
TOW #7
- The FEIR should clearly delineate areas that have previously been dredged versus areas of proposed new dredging/mining (including increased channel area associated with side slopes). In addition, maps clearly indicating bottom type within each of these areas, as well as EFH concerns. Although the DSEIS and DEIR indicate that two very different benthic environments exist within the project footprint, the document does not adequately evaluate these areas as distinct habitats relative to potential impacts associated with the proposed deepening project. For clarity, it would be more appropriate to evaluate the “soft bottom” and “hard bottom” benthic communities and fisheries resources in separate sections. For example cod is an important species of concern for the “hard bottom” associated with the outer harbor channel (Broad Sound and North Comment
TOW #8
- The FEIR should clearly delineate areas that have previously been dredged versus areas of proposed new dredging/mining (including increased channel area associated with side slopes). In addition, maps clearly indicating bottom type within each of these areas, as well as EFH concerns. Although the DSEIS and DEIR indicate that two very different benthic environments exist within the project footprint, the document does not adequately evaluate these areas as distinct habitats relative to potential impacts associated with the proposed deepening project. For clarity, it would be more appropriate to evaluate the “soft bottom” and “hard bottom” benthic communities and fisheries resources in separate sections. For example cod is an important species of concern for the “hard bottom” associated with the outer harbor channel (Broad Sound and North Comment
TOW #9

Channel); however, the Feasibility Study does not even mention the species as a primary interest. The evaluation of the “hard bottom” habitat, its importance to the fisheries of the Northeast U.S., and the impacts to this habitat associated with the proposed improvement dredging need to be evaluated in significantly more detail.

Comment
TOW #10

- The DMF and the NMFS required an intensive one-year fish trawl and benthic survey to evaluate the resources at Since Figure 3-33 clearly indicates that no fisheries data exist within the project area, the fisheries analysis contained within the DSEIS and DEIR is incomplete. We recommend that the project proponent seek guidance from the DCR and or the Sconset Beach Preservation Fund to develop an adequate fisheries evaluation plan. This requirement would be consistent with other recent dredging proposals in Massachusetts state waters, since dredging improvement projects are regulated using the same guidelines as sand/gravel mining.

Comment
TOW #11

- The DEIR and DSEIS acknowledge that early benthic phase lobsters presently are (a) prevalent in the project area, primarily adjacent to the existing channel, and (b) would lose substantial habitat if the outer channel footprint is increased as proposed. Presumably this destruction of habitat would have similar impacts to the early life stages of the cod population that utilize similar habitat. The FEIR needs to assess the direct impacts associated with this loss of habitat. Unlike the recently denied Winthrop Beach project, it is highly unlikely that this area of “hard bottom” will recover, since it will be within the channel footprint and, therefore maintenance dredging will be allowed to continuously damage the habitat. Due to this concern, compensatory mitigation will be required for this loss of habitat functions and values. Since the Winthrop Beach project was denied because of the “concern” over potential for permanent impacts to identical habitat, it is unclear how the regulatory agencies are going to permit an acknowledged permanent impact to this same habitat.

Comment
TOW #12

In addition to the fisheries concerns, the Town of Winthrop is very concerned about the proposed dredging project relative to potential changes to wave energy and/or wave direction that could impact the shoreline. The historic navigation channel significantly deepened an area offshore of Winthrop and Yirrell Beaches likely leading to a significant increase in wave energy and the associated alteration of sediment transport patterns. These alterations have directly led to increased erosion at Winthrop Beach and the existing public safety hazard to the residents of Winthrop. Therefore, as part of the environmental review process for the proposed Boston Harbor deepening project, we request that the Army Corps evaluate the long-term impacts of the present North Channel on coastal sediment transport patterns relative to the pre-channel conditions (Figure 2). In addition, this analysis should include an evaluation of the wave climate associated with the proposed channel improvements relative to existing conditions.

Comment
TOW #13

Due to the inherent bias and/or conflict of interest of the Corps in this situation, we further request that the Corps fund an independent external technical review of this effort by appropriate consultants selected by the Town of Winthrop. As the Army Corps is well aware, independent technical reviews have been performed to address concerns related to

other controversial projects (e.g. Canaveral Inlet in Florida). In these cases, the technical experts are selected by the affected party (in this case, the Town of Winthrop). If the historical or proposed navigation improvements cause any alteration in nearshore wave climate to the Winthrop shoreline, the Town will seek damages from the Army Corps in the form of beach nourishment and/or structural improvements as compensatory mitigation.

Comment
TOW #14

. In our view, it is not possible for the Army Corps to issue the needed 404 permit based on their recent denial of the NOMES borrow site. Unfortunately, there does not appear to be consistent leadership at the Corps decision-making level(s), which is likely one of the primary reasons for the needless delay and costs associated with the Winthrop Beach project. To be consistent with the NOMES decision, the proposed dredging of the outer channel should be denied with prejudice by the U.S. Army Corps of Engineers.

Very Truly Yours,

Organized 1742



Incorporated 1754

BOSTON MARINE SOCIETY

Oldest Marine Society in the World

June 1, 2008

Colonel Curtis L. Thalkin
District Engineer
United States Army Corps of Engineers
New England District
696 Virginia Road
Concord, Massachusetts 01742-2751

Attention: Programs and Management Division

Dear Colonel Thalkin,

The Boston Marine Society was founded in 1742; it is the oldest association of sea captains in the world. Since its establishment the society has been instrumental in sponsoring measures to improve navigation in the Commonwealth of Massachusetts. In 1791 John Foster Williams, a member of the Society, commanded America's first revenue cutter, the predecessor to the Coast Guard, and took as his special task the drawing of an accurate chart for Cape Cod Bay. Of particular concern to the Society has been the appointment of pilots to see to the safe passage of vessels in and out of the Port of Boston. Since their beginning and continuing through the present, the Society through its Trustees is vested with the authority to appoint Pilot Commissioners, who in turn appoint Boston Harbor pilots. Aids to Navigation, the construction of lighthouses and placement of buoys and markers, have often been accomplished with the advice of the Society.

The proposed dredging project, Boston Harbor Deep Draft Navigation Improvement Project (Deep Draft Project) is of particular interest to the society that features: the 40-foot lane of the Broad Sound North Entrance Channel would be deepened to 50 feet and widened through the bend at Finn's Ledge.

National Historical Park, Building 32, Charlestown Navy Yard, Boston, Ma 02129

www.bostonmarinesociety.org

Tel: (617) 242-0522 Fax (617) 241-0505

The 40-foot lane of the Main Ship Channel from the Broad Sound North Entrance Channel upstream through President Roads to the Reserved Channel would be deepened to 48 feet and its 600-foot wide reaches widened to between 800 and 900 feet, with additional width in the bends. The 40-foot lower reach of Reserved Channel and its turning area would be deepened to 48 feet, with turning area also widened to 1600 feet. The 40-foot President Roads Anchorage would be deepened to 48 feet.

The Harbor Committee of the Boston Marine Society recognizes the importance of the President Roads anchorage for ships entering and exiting the Port of Boston. Being the only protected deep draft anchorage; it provides a safe haven consistent with the Main Ship Channel. The proposal to deepen the channel therefore necessitates the deepening of the anchorage in order to maintain the functionality of the anchorage. In-bound petroleum laden deep draft vessels invariably have need to anchor and wait for suitable transit conditions – visibility, wind and tide. The ability of the United States Coast Guard to effectively administer security checks as part of their Domain Awareness would be enhanced by the anchorage allowing them options for inspection. Deep draft vessels experiencing mechanical problems would have a safe area to anchor and effect repairs.

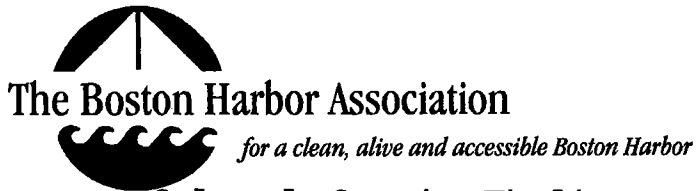
Comment
BMS #1

The Deep Draft Project improving President Roads channel will maintain safe commerce in the Port of Boston but it must be done in concert with improvements to the anchorage in order to provide an effective area of safety and security for deep draft vessels.

Respectfully submitted,



Captain Thomas Laird
Chairman of the Harbor Committee
Boston Marine Society



2 June 2008

Colonel Curtis Thalken
District Engineer
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751
ATT: Programs and Project Management

RE: Feasibility Report and Draft Supplemental
Environmental Impact Statement, Boston
Harbor Deep Draft Navigation Improvement
Project

Dear Colonel Thalken:

The Boston Harbor Association is a non-profit, public interest organization founded in 1973 by the League of Women Voters and the Boston Shipping Association to promote a clean, alive, and accessible Boston Harbor. We have reviewed the April, 2008 Feasibility Report and Draft Supplemental Environmental Impact Statement for the Boston Harbor Deep Draft Navigation Improvement Project submitted by the Massachusetts Port Authority and the U.S. Army Corps of Engineers.

The Boston Harbor Association is a member of the proposed project's Technical Working Group, comprised of environmental representatives, scientists, city, state and federal representatives, and local stakeholders, and has

been kept apprised of the project as well as the results of the prior maintenance dredging project.

Based on a review of the Draft Supplemental Environmental Impact Statement and briefings for the Technical Working Group, The Boston Harbor Association strongly supports the preferred alternative of the Deep Draft Navigation Improvement Project, which calls for deepening the Broad Sound North Entrance Channel of the Harbor to 50 feet, and the Main Ship Channel up to the Reserved Channel, the President Roads Anchorage, the Reserved Channel and its Turning Area to 48 feet.

The proposed alternative, known as Plan B, would allow existing companies calling on Conley Terminal in South Boston to use larger ships, and could potentially help attract additional container lines. During the past decade, the trend has continued where Boston is no longer a significant manufacturing center, but rather, a major distribution center for goods to the Northeast region. The Port of Boston will in the foreseeable future continue to receive extensive tonnage of imports (particularly from Asia) for distribution in the region, with some exports of raw materials such as scrap metal, paper, wood products, and some finished products.

Implementation of Plan B will allow deeper draft vessels into the Port of Boston. Two types of ships were modeled in the Draft Supplemental Environmental Impact Statement: a 4,700 TEU

(twenty-foot equivalent unit, the measurement size for cargo containers) Panamax ship that shippers believe will most likely call on the Port of Boston if deepened, and a larger 5,600 TEU ship which potentially may be used by existing companies if the channel is deepened (page 135, Draft SEIS). According to the Draft SEIS, a fully-loaded Panamax vessel requires 48 feet of water depth in the harbor channels and 50 feet of water depth in the entrance channel (page 135).

In addition, the Draft SEIS (page 71) examined the planned use of the Massport Marine Terminal in South Boston by larger ships. Expanded use of the Marine Terminal would be for bulk carriers with cement, salt, gypsum, frozen seafood, and/or manufactured goods, with larger vessels eventually requiring 45 feet depths (main ship channel deepening above the Reserved Channel Turning Area).

As the project proponents continue to secure the necessary environmental permits, we ask that the following issues be further addressed:

Beneficial Re-use of Dredged Materials: We highly commend Massport and the U.S. Army Corps of Engineers for including a detailed analysis of the potential beneficial re-use of the dredged materials to be generated by this project.

According to the DEIR, two types of the dredged materials may potentially be suitable for re-use. In the first instance, blasted ledge, cobble, gravel, and other stony materials may be suitable

for creation of hard bottom habitat favored by lobsters and other species in Boston Harbor and/or Massachusetts Bay (page 170 of Draft SEIS). Algonquin's Hubline project, for example, re-used some of its materials to create hard-bottom habitat, although on a much smaller scale than proposed for this project.

As indicated in the Draft SEIS, further evaluation needs to occur regarding two potential sites for hard-bottom habitat creation, and a plan needs to be developed for the placement of materials on the ocean floor. In addition, the final Environmental Impact Statement should detail an evaluation and monitoring program to determine how successful the habitat creation and colonization efforts are.

Comment
BHA #1

In the second instance, Boston Blue Clay, a stiff impervious clay, will be removed from the President Roads Anchorage and upper channel reaches. The Boston Blue Clay and other unconsolidated materials may potentially be suitable for capping the former Industrial Waste Site in Massachusetts Bay.

The former Industrial Waste Site overlaps and extends north of the current Massachusetts Bay Disposal Site in the Stellwagen Basin, and was used for the disposal of chemical, medical, and radiological wastes from the 1940s to the 1970s (page 174 of the Draft Supplemental Environmental Impact Statement). The waters around the Site were also used for disposal of construction waste, demolition debris, and derelict vessels.

Comment
BHA #2

The area in and around the former Industrial Waste Site is currently trawled by fishermen, and capping of the Site would reduce the potential of catching the debris, some of which is quite contaminated, in fishing nets. We strongly support a proposed demonstration project suggested by the project proponents, with care taken to ensure that ambient sediment does not become re-suspended during the disposal process.

Minimizing Impacts to Marine Life: In the past five years, thanks to the efforts of the Massachusetts Water Resources Authority, Boston Water and Sewer Commission, Department of Environmental Protection, City of Boston, and many others, Boston Harbor is cleaner than ever. A number of shellfish beds have re-opened near Logan Airport and Winthrop, and there are many more lobster traps in Boston Harbor.

Comment
BHA #3

Consistent with environmental mitigation requirements imposed upon the Algonquin Hubline project, we ask that a communications system be established with the fishing and lobstering communities regarding construction activities and timing to avoid impacts to lobster gear, and/or a monetary fund to compensate lobstermen in the event of damage to lobster traps located outside of the federal navigation channel from dredging or mobilization activities. In the case of the Algonquin project, a \$50,000 fund was established for damage to lobster gear outside of the federal navigation channel, which ultimately was not fully

utilized due to limited impact upon lobster traps from that project.

The Draft SEIS notes that four fish mortality events occurred in fall, 2007 during the ledge pinnacle removal project of the Boston Harbor maintenance dredging project. Subsequent to the first mortality event, the Army Corps of Engineers met with its contractor to identify ways to prevent other mortality events. In spite of these measures, three other mortality events occurred during blasting events by the contractor.

Comment
BHA #4

We are concerned about the inability of the contractor to prevent fish mortality events during the Harbor maintenance dredging activities last year, and urge the permitting agencies to impose strict requirements upon the project proponents and their contractors to prevent any fish mortality events as part of this project.

Other Environmental Mitigation Measures: Because of adverse environmental impacts from the Algonquin Hubline project, the state permitting agency required, amongst other conditions, a \$5 million contribution to the not-for-profit Island Alliance organization to support use of the Harbor Islands.

In the event that adverse environmental impacts are identified with this proposed project, we ask that consideration be given to requiring, amongst other conditions, a monetary contribution to support water transportation in Boston Harbor and Massachusetts Bay if water transportation service

Comment
BHA #5

is impacted from construction activities of this project.

Comment
BHA #6

On-going Environmental Oversight: In addition to local, state, and federal regulatory oversight of this project, we ask that a Technical Advisory Group continue to meet regularly to review progress of the project, any monitoring data with the project's independent environmental observer, and to discuss prevention measures in the unlikely event of fish mortality events or other environmental incidences.

Thank you for your consideration. We look forward to timely approval of this much-needed project.

Sincerely,



Vivien Li
Executive Director
The Boston Harbor
Association



THE BOSTON HARBOR PILOT ASSOCIATION, LLC
256 Marginal St — Building #11
East Boston, Massachusetts 02128
June 2, 2008

Colonel Curtis L. Thalken
District Engineer
USACOE, New England District
696 Virginia Rd.
Concord, MA. 01742

Re: Boston Harbor Proposed Deepening Project DEIS/DEIR

Dear Colonel Thalken:

The Boston Harbor Pilot Association LLC is a group of professional mariners commissioned by the Commonwealth of Massachusetts to pilot large vessels into and out of the port of Boston. The pilots of this association have attained the highest level of licensure possible from the U. S. Coast Guard, Master Unlimited, coupled with years of local marine experience in order to qualify for a commission. The Association operates on behalf of the public; all in order to safely and securely navigate vessels over 350 gross tons in and out of the port. The Boston Harbor Pilots are charged with the safe flow of commerce since 1783.

The Pilots urge the approval of this project in its entirety. In particular, the Environmental Impact materials submitted are important in the continued safe free flow of commerce to the New England Region. The project proposes: the 40-foot lane of the Broad Sound North Entrance Channel would be deepened to 50 feet and widened through the bend at Finn's Ledge. The 40-foot lane of the Main Ship Channel from the Broad Sound North Entrance Channel upstream through President Roads to the Reserved Channel would be deepened to 48 feet and its 600-foot wide reaches widened to between 800 and 900 feet, with additional width in the bends. The 40-foot lower reach of Reserved Channel and its turning area would be deepened to 48 feet, with turning area also widened to 1600 feet. The 40-foot President Roads Anchorage would be deepened to 48 feet. The second improvement would deepen the existing 40-foot lane of the Main Ship Channel from the Reserved Channel Turning Area upstream to just below the Third Harbor Tunnel to a depth of 45 feet, to improve access to the Massport Marine Terminal in South Boston. The third improvement would deepen a portion of the 35-foot Mystic River Channel lane to 40 feet to improve access to Massport's Medford Street Terminal. The fourth and final improvement would deepen the 38-foot Chelsea River Channel to 40 feet, with minor widening in the bridge approaches and the bend between the bridges.

The pilot association participated in the development of the proposals in September of 2005 during simulation exercises held at the ERDC in Vicksburg, MS. Key factors include the expansion of the navigational channel to safely maneuver the larger container vessels expected to call on the port, the deepening of anchorage #2 in President Roads, and the deepening and widening of the Chelsea River.

The pilots are of particular concern of two key pieces of the project. 1- The dredging of #2 Anchorage. Not only is this important to the continued safe flow of commerce, but it also enhances the USCG options in Maritime Domain Awareness. Anchorage uses: safe for emergency use of deep draft vessels, repairs, protected safe boarding for law enforcement, improved harbor efficiency, lightering of petroleum and bulk cargoes, and bunkering of deep draft vessels.

Comment
BHP #1

2- Chelsea River: Modern state of the art petroleum tankers are designed with 106 foot beam. The Chelsea Street Bridge (a well documented navigational hazard) restricts vessels to 90 foot beam. It has been reported that 70% of the regions petroleum needs originate from the Chelsea River. Failure to address the restrictions of the Chelsea River and the Chelsea Street Bridge affects three out of the four terminals along the River. That equates to 75% of the terminal capacity being restricted by a navigational hazard.

Comment
BHP #2

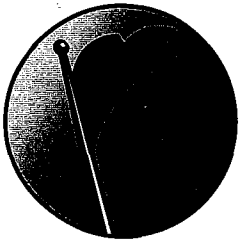
A recently published GOA report 08-321 points to the surplus in the Harbor Maintenance Tax reaching \$8 Billion by 2011. This report exemplifies the need to dredge our nation's ports and get it right the first time. NOAA also reports that as much as 90% of our nation's imports come through our ports. We urge the acceptance and prioritization of this project to the regions interest of the safe free flow of commerce, maritime safety, and its effects on the environment.

Comment
BHP #3

Very Truly Yours,

Captain Gregg H. Farmer
President, Boston Harbor Pilot Association LLC

Cc: Mike Keegan, Project Manager USACOE
USCG
Massport



Save the Harbor Save the Bay

For Everyone

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June 2, 2008

Colonel Curtis L. Thalken
District Engineer
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

Attn: Michael Keegan, Programs and Project Management Division

Re: Boston Harbor Deep Draft Navigation Improvement Project

Dear Colonel Thalken:

As you know, Save the Harbor / Save the Bay supports efforts such as dredging to keep the Port of Boston competitive provided that appropriate safeguards are in place to protect the environment.

I am writing to you today with two serious concerns about the proposed Boston Harbor Deep Draft Navigation Improvement Project that we hope you will address as you consider the feasibility of the proposed project.

Our first concern is air quality: Based on what we have seen, the Corps of Engineers apparently believes that it is simply not feasible to proceed with this project as described and meet air quality standards on a daily basis. Rather than look for a real solution to reduce daily emissions to an acceptable level and protect the public health and the environment, they appear to have chosen to "game" the numbers.

It is disingenuous to propose to "work dirty" for 9 months, then suspend work on the project for three or six months, and then average the numbers to artificially meet "annual" air quality standards. There has to be a better- or at least more honest -way.

We are also concerned about the impact of the extensive blasting that this project would require on forage fish such as herring, alewife, rainbow smelt, and menhaden, as well as on the lobster, striped bass, codfish, tautog, pollack and flounder that are so important to our region's fisherman.

As you may recall, last year the Boston Globe reported that more than 2,000 fish were killed in four separate incidents related to blasting associated with routine maintenance dredging of the Harbor. To date, the Corps has yet to release a final report on the incidents.

Comment
STH/B
#1

Comment
STH/B
#2

A-3-87

As a result, we remain concerned that measures presently in place are insufficient to protect these and other marine species during even a "routine" project, and are clearly insufficient to protect the resource during the 18 months or more of daily blasting that the proposed project would require.

Boston Harbor and the Port of Boston are both remarkable resources. We hope that you will work with us to make certain that improvements to the port do not come at the expense of the health of the public, or of our \$4.5 billion dollar investment in the harbor we have worked so hard to restore and protect.

Sincerely,

A handwritten signature in black ink, consisting of a stylized first name and a more elaborate last name.

E. Bruce Berman, Jr.
Director of Strategy and Communications
Save the Harbor/Save the Bay

cc: I. Bowles/EOEEA
J. Wilkins/Massport

PART 4

DRAFT FEASIBILITY REPORT AND DRAFT SEIS/DRAFT EIR TRANSMITTAL DOCUMENTS



Public Notice



U.S. Army Corps
Of Engineers
New England District
696 Virginia Road
Concord, MA 01742-2751

Date: _____ April 18, 2008
Comment Period Closes: _____ June 2, 2008
Evaluation Branch, Engineering/Planning Division

BOSTON HARBOR, BOSTON, MASSACHUSETTS DEEP DRAFT NAVIGATION IMPROVEMENT DREDGING

Interested parties are hereby notified that the U.S. Army Corps of Engineers, New England District in partnership with the Massachusetts Port Authority (Massport) has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) to examine improvements to deep-draft navigation channels in Boston Harbor, Boston, Massachusetts (see Figure 1). Comments are requested within 45 days of the date of this notice. This DSEIS/DEIR will build on a previous final EIS prepared in 1995 for navigation improvement in Boston Harbor.

Purpose of Work: The purpose of this Boston Harbor Federal Deep Draft Navigation Improvement Project (Deep Draft Project) is to evaluate the feasibility of channel deepening and related berth improvements at the Port of Boston, consistent with the goals of the study sponsor, Massport, and in response to direction from Congress in the authorizing resolution. Massport's goal is to provide deeper channel access to their Conley Container Terminal located on the Reserved Channel in South Boston at a depth at least equal to the -45 feet deep mean lower low water (MLLW) now available at that facility's berths. Additional minor port improvements in the Mystic and Chelsea Rivers and in the Main Ship Channel above the Reserved Channel are also under consideration. All depths are referenced to minus MLLW.

Without channel deepening, the containerships and bulk carriers currently using Boston Harbor will continue to experience tidal delays. Many vessels will continue to be light loaded or depart Conley Terminal without loading/unloading all of their cargo to ensure that they do not miss the tidal window. In some cases, vessels that would experience a tidal delay in Boston, would bypass Boston all together so as not to jeopardize their New York Harbor arrival schedule. As carriers add larger vessels to the services that currently include Boston, they may be forced to eliminate Boston from their rotation. Also, a large part of New England cargo will continue to be shipped in or out of the Port of New York/New Jersey (PONYNJ), increasing total transportation costs. Recent trends show cargo being shifted from the PONYNJ to Boston Harbor. This shift is due to the lower landside transportation costs for cargo shipped directly into Boston Harbor. However, the increased shift in cargo from the PONYNJ to the Port of Boston Harbor will cease once the carrying capacity of the ships has been maximized with the current 40-foot deep maintenance dredging.

Recommended Plan Description: Four separate improvements were developed for the Boston Harbor Deep Draft Project. The first examined deepening the outer and lower harbor's existing 40-foot deep channel system to provide deeper access to Massport's Conley Terminal in South Boston for containership traffic. Navigation channel depths of between 45 to 50 feet were examined, with a depth of 48 feet recommended; plus an additional two feet of depth in the entrance channel. Under this plan the following project features would be improved: the 40-foot lane of the Broad Sound North Entrance Channel would be deepened to 50 feet and widened through the bend at Finn's Ledge. The 40-foot lane of the Main Ship Channel from the Broad Sound North Entrance Channel upstream through President Roads to the Reserved Channel would be deepened to 48 feet and its 600-foot wide reaches widened to between 800 and 900 feet, with additional width in the bends. The 40-foot lower reach of Reserved Channel and its turning area would be deepened to 48 feet, with the turning area also widened to 1600 feet. The 40-foot President Roads Anchorage would be deepened to 48 feet.

The second improvement would be an incremental plan to deepen the existing 40-foot lane of the Main Ship Channel from the Reserved Channel turning area upstream to just below the Third Harbor Tunnel to a depth of 45 feet, to improve access to the Massport Marine Terminal in South Boston. The third improvement, also an incremental plan, would deepen a portion of the 35-foot Mystic River Channel lane to 40 feet to improve access to Massport's Medford Street Terminal. The fourth and final incremental improvement would deepen the 38-foot Chelsea River Channel to 40 feet, with minor widening in the bridge approaches and the bend between the bridges.

In conjunction with work in the Federal channels, Massport would deepen vessel berths at the Conley Terminal and Marine Terminal. Terminals on the Chelsea River would also deepen their berths to match the new channel depth. A total of about 12.1 million cubic yards (cy) of parent material, and 1.2 million cy of rock, would be removed by dredging and would be placed at the Massachusetts Bay Disposal Site (MBDS). The transportation of this dredged material for disposal in ocean waters is being evaluated to determine that the proposed disposal will not unreasonably degrade or endanger human health, welfare, or amenities or the marine environment, ecological systems, or economic potentialities. In making this determination, the criteria established by the Administrator, EPA pursuant to section 102(a) of the Marine Protection Research and Sanctuaries Act will be applied. In addition, based upon an evaluation of the potential effect which the failure to utilize this ocean disposal site will have on navigation, economic and industrial development, and foreign and domestic commerce of the United States, an independent determination will be made of the need to dispose of the dredged material in ocean waters, other possible methods of disposal, and other appropriate locations.

Coordination: The proposed work is being coordinated with Federal, State, and local agencies, including the following:

- U.S. Environmental Protection Agency
- National Marine Fisheries Service
- U.S. Fish and Wildlife Service
- Massachusetts Department of Environmental Protection
- Massachusetts Executive Office of Environmental Affairs
- Massachusetts Historic Commission
- Massachusetts Office of Coastal Zone Management
- State Natural Heritage Program
- Boston Conservation Commission

Environmental Impacts: A DSEIS/DEIR has been prepared for this Deep Draft Project. Temporary impacts to Essential Fish Habitat will occur by removing the benthic habitat in the Federal navigation channels. No water quality violations were recorded during monitoring of

the previous navigation improvement project in Boston Harbor; therefore no significant water quality impacts are expected from this proposed project. The base plan for disposal of dredged material is the MBDS. Beneficial use opportunities for the dredged material have been identified and would be evaluated further during final design of the project. Those beneficial use opportunities include: creation of rock reefs in Massachusetts Bay and Broad Sound, and using the non-rock material as cover at the former Industrial Waste Site, which overlaps the MBDS. Little or no disposal of unsuitable maintenance dredged material is expected to occur in the CAD cells located in the previously disturbed areas of the navigation channels. Disposal of unsuitable maintenance dredged material for Boston Harbor has been previously permitted and discussed in a previous SEIS published in June 2006.

Endangered Species: To protect the endangered right whale, whale observers will be on board the scows transiting to the MBDS from February to May 31 to avoid potential ship strikes

Cultural Resources: As this area has been previously dredged, no cultural resource impacts are expected to occur in the project area.

Clean Water Act: A draft Clean Water Act Section 404 (b)(1) Evaluation has been prepared as part of the draft SEIS/EIR. In addition, construction will not begin until a Water Quality Certification has been obtained from the Commonwealth of Massachusetts.

Coastal Zone Management Act: A determination that the proposed project is consistent with the State's coastal zone policies will be submitted to the Commonwealth of Massachusetts.

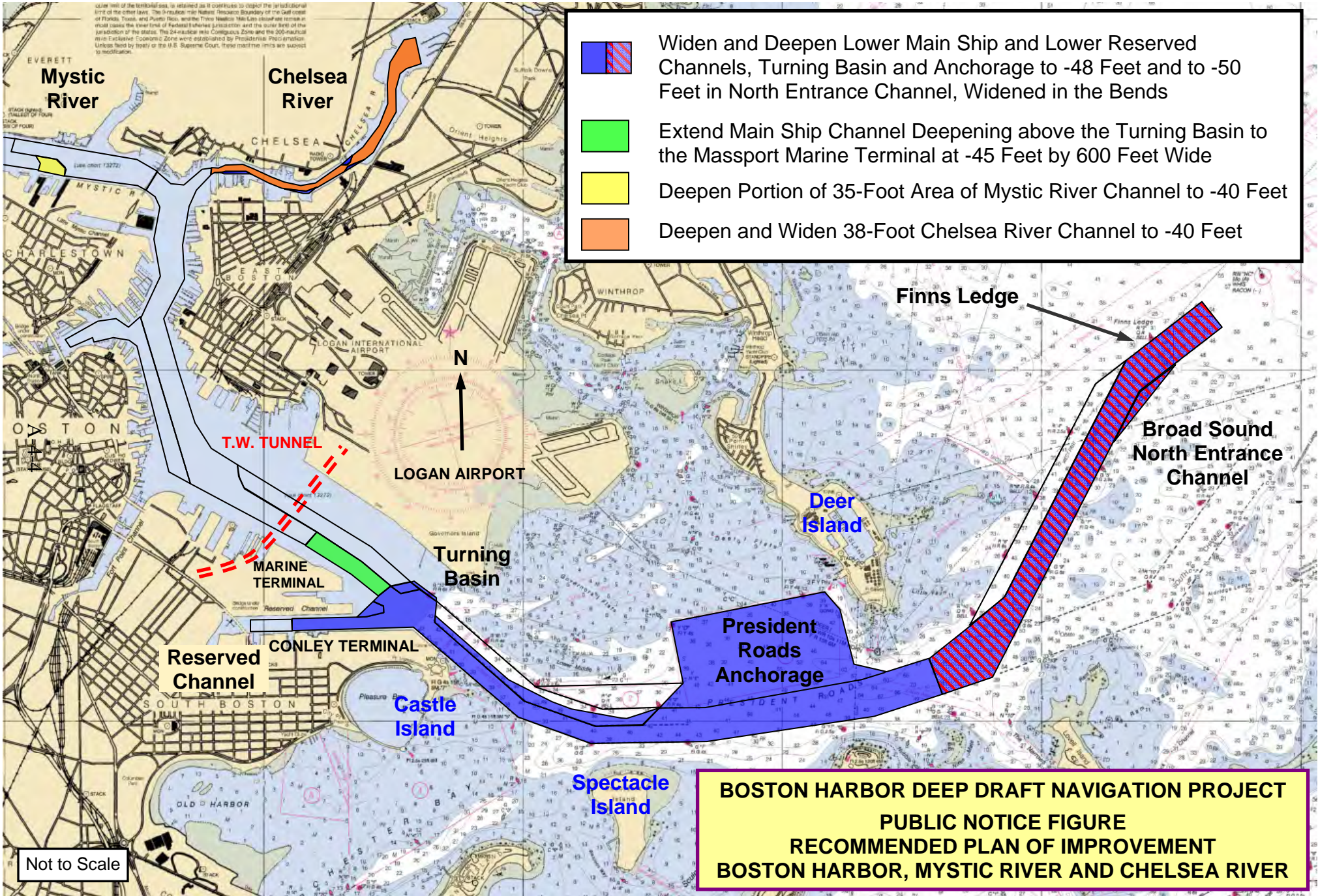
Compliance: This Public Notice is being issued in compliance with the environmental laws and regulations in Attachment A.





Additional Information: The project sponsor, Massport, will obtain appropriate State permits for the proposed project.

Any person who has an interest which may be affected by the disposal of this dredged material may request a public hearing. The request must be submitted in writing to the District Engineer within the comment period of this notice and must clearly set forth the interest which may be affected and the manner in which the interest may be affected by this activity. Please bring this notice to the attention of anyone you know to be interested in the project. Comments are invited from all concerned parties relating to this project and should be directed to the District Engineer at 696 Virginia Road, Concord, MA 01742-2751, ATTN: Programs and Project Management Division (Mr. Michael Keegan, 978-318-8087) within 45 days. A public meeting on the proposed project to solicit comments is scheduled for 1:00 pm on Tuesday May 20, 2008 at the Black Falcon Cruise Terminal, One Black Falcon Avenue, Boston, Massachusetts

4 April 2008
Date

for Andrew P. Nelson *CPL, EN*
Party *CDR*
CURTIS L. THALKEN
Colonel, Corps of Engineers
District Engineer



-  Widen and Deepen Lower Main Ship and Lower Reserved Channels, Turning Basin and Anchorage to -48 Feet and to -50 Feet in North Entrance Channel, Widened in the Bends
-  Extend Main Ship Channel Deepening above the Turning Basin to the Massport Marine Terminal at -45 Feet by 600 Feet Wide
-  Deepen Portion of 35-Foot Area of Mystic River Channel to -40 Feet
-  Deepen and Widen 38-Foot Chelsea River Channel to -40 Feet

**BOSTON HARBOR DEEP DRAFT NAVIGATION PROJECT
PUBLIC NOTICE FIGURE
RECOMMENDED PLAN OF IMPROVEMENT
BOSTON HARBOR, MYSTIC RIVER AND CHELSEA RIVER**

Not to Scale

Attachment A

Pertinent Laws, Regulations and Directives

American Indian Religious Freedom Act of 1978, 42 U.S.C. 1996.

Archaeological Resources Protection Act of 1979, as amended, 16 U.S.C. 470 et seq.

Clean Air Act, as amended, 42 U.S.C. 7401 et seq.

Clean Water Act of 1977 (Federal Water Pollution Control Act Amendments of 1972) 33 U.S.C. 1251 et seq.

Coastal Zone Management Act of 1982, as amended, 16 U.S.C. 1451 et seq.

Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq.

Estuarine Areas Act, 16 U.S.C. 1221 et seq.

Federal Water Project Recreation Act, as amended, 16 U.S.C. 4601-12 et seq.

Fish and Wildlife Coordination Act, as amended, 16 U.S.C. 661 et seq.

Land and Water Conservation Fund Act of 1965, as amended, 16 U.S.C. 4601-1

Magnuson-Stevens Act, as amended, 16 U.S.C. 1801 et seq.

Marine Protection, Research, and Sanctuaries Act of 1971, as amended, 33 U.S.C. 1401 et seq.

National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321 et seq.

National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470 et seq.

Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. 3000-3013,
18 U.S.C. 1170

Preservation of Historic and Archaeological Data Act of 1974, as amended, 16 U.S.C. 469 et seq.
This amends the Reservoir Salvage Act of 1960 (16 U.S.C. 469).

Rivers and Harbors Act of 1899, as amended, 33 U.S.C. 401 et seq.

Watershed Protection and Flood Prevention Act, as amended, 16 U.S.C. 1001 et seq.

Wild and Scenic Rivers Act, as amended, 16 U.S.C. 1271 et seq.

Executive Order 11593, Protection and Enhancement of the Cultural Environment, May 13, 1971.

Executive Order 11988, Floodplain Management, May 24, 1977 amended by Executive Order 12148,
July 20, 1979.

Executive Order 11990, Protection of Wetlands, May 24, 1977.

Executive Order 12114, Environmental Effects Abroad of Major Federal Actions, January 4, 1979.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and
Low-Income Populations, February 11, 1994.

Executive Order 13007, Accommodations of Sacred Sites, May 24, 1996.

Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks,
April 21, 1997.

Executive Order 13061, and Amendments – Federal Support of Community Efforts Along American
Heritage Rivers.

Executive Order 13175, Consultation and Coordination with Tribal Governments, November 2000.

Analysis of Impacts on Prime or Unique Agricultural Lands in Implementing NEPA, August 11, 1980.

White House Memorandum, Government-to-Government Relations with Indian Tribes, April 29, 1994.

before the BoV shall be in accordance with 41 CFR 102-3.140(c), section 10(a)(3) of the FACA, and this paragraph. The DFO and BoV Chairperson may, if desired, allot a specific amount of time for members of the public to present their issues for BoV review and discussion. Direct questioning of BoV members or meeting participants by the public is not permitted except with the approval of the DFO and Chairperson.

FOR FURTHER INFORMATION CONTACT: Or to attend this BoV meeting, contact Mr. Scotty Ashley, USAFA Programs Manager, Directorate of Airman Development and Sustainment, Deputy Chief of Staff, Manpower and Personnel, AF/A1DOA, 1040 Air Force Pentagon, Washington, DC 20330-1040, (703) 695-3594.

Bao-Anh Trinh,

Air Force Federal Register Liaison Officer.

[FR Doc. E8-8372 Filed 4-17-08; 8:45 am]

BILLING CODE 5001-05-P

DEPARTMENT OF DEFENSE

Department of the Army

Availability of the Record of Decision (ROD) for the Permanent Stationing of the 2/25th Stryker Brigade Combat Team (SBCT)

AGENCY: Department of the Army, DoD.
ACTION: Notice of availability.

SUMMARY: The Deputy Chief of Staff of the Army, G-3/5/7 has reviewed the Final Environmental Impact Statement (FEIS) for the Permanent Stationing of the 2/25th SBCT and has made the decision to proceed with all facets of Alternative A. Alternative A permanently stations the 2/25th SBCT at Schofield Barracks Military Reservation (SBMR) while conducting the required training at military training sites in Hawaii. This alternative is summarized in the Army's ROD and described fully in Chapter 2 of the FEIS.

ADDRESSES: The ROD can be accessed at <http://www.aec.army.mil>.

FOR FURTHER INFORMATION CONTACT: Public Affairs Office, U.S. Army Environmental Command, Building E4460, 5179 Hoadley Road, Attention: IMAE-PA, Aberdeen Proving Ground, MD 21010-5401; telephone: 410-436-2556; facsimile: (410) 436-1693. The Public Affairs Office is open during normal business hours Monday through Friday 9 a.m. to 5 p.m. Eastern time.

SUPPLEMENTARY INFORMATION: The FEIS assessed the potential environmental consequences of the alternatives on the

biological, physical, and cultural environments. This decision incorporates analyses contained in the FEIS, comments provided during formal public comment and review periods, and an evaluation of the ability of each alternative to meet the Purpose and Need for the Proposed Action. Hawaii was selected primarily because it is best able to meet the Army's strategic defense and national security needs in the Pacific Theater. A fuller rationale for the decision can be found in the Record of Decision.

Dated: April 11, 2008.

Addison D. Davis, IV,

Deputy Assistant Secretary of the Army (Environment, Safety, and Occupational Health).

[FR Doc. E8-8296 Filed 4-17-08; 8:45 am]

BILLING CODE 3710-08-M

DEPARTMENT OF DEFENSE

Department of the Army; Corps of Engineers

Availability of the Draft Feasibility Report and Supplemental Environmental Impact Statement and Draft State Environmental Impact Report for the Boston Harbor Deep Draft Navigation Improvement Project

AGENCY: Department of the Army, U.S. Army Corps of Engineers, DOD.
ACTION: Notice of availability.

SUMMARY: The U.S. Army Corps of Engineers, New England District in partnership with the Massachusetts Port Authority (Massport) has prepared a joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Boston, MA. Four separate improvements were developed. The first examined deepening the outer and lower harbor's existing 40-foot channel system to provide deeper access to Massport's Conley Terminal in South Boston for containership traffic. All depths are referenced to minus mean lower low water (MLLW). Navigation channel depths of between 45 to 50 feet were examined, with a depth of 48 feet recommended, with an additional two feet in the entrance channel. Under this plan the following project features would be improved: the 40-foot lane of the Broad Sound North Entrance Channel would be deepened to 50 feet and widened through the bend at Finn's Ledge. The 40-foot lane of the Main Ship Channel from the Broad Sound North Entrance Channel upstream

through President Roads to the Reserved Channel would be deepened to 48 feet and its 600-foot-wide reaches widened to between 800 and 900 feet, with additional width in the bends. The 40-foot lower reach of Reserved Channel and its turning area would be deepened to 48 feet, with the turning area also widened to 1600 feet. The 40-foot President Roads Anchorage would be deepened to 48 feet. The second improvement would deepen the existing 40-foot lane of the Main Ship Channel from the Reserved Channel Turning Area upstream to just below the Third Harbor Tunnel to a depth of 45 feet, to improve access to the Massport Marine Terminal in South Boston. The third improvement would deepen a portion of the 35-foot Mystic River Channel lane to 40 feet to improve access to Massport's Medford Street Terminal. The fourth and final improvement would deepen the 38-foot Chelsea River Channel to 40 feet, with minor widening in the bridge approaches and the bend between the bridges. In conjunction with work in the Federal channels, the Massachusetts Port Authority would deepen vessel berths at the Conley Terminal and Marine Terminal. Terminals on the Chelsea River would also deepen their berths to match the new channel depth. A total of about 12.1 million cubic yards (cy) of parent material, and 1.2 million cy of rock, would be removed by dredging and placed at the Massachusetts Bay Disposal Site (MBDS). Beneficial use opportunities for the dredged material have been identified and would be considered further during final design of the project. Those beneficial use opportunities include: creation of rock reefs in Massachusetts Bay and Broad Sound, and using the non-rock material as cover at the former Industrial Waste Site, which overlaps the MBDS. This joint Federal and State document builds on the lessons learned from the final EIR/S prepared in June of 1995 for the previous navigation improvement project in Boston Harbor.

DATES: Submit comments on or before June 2, 2008.

ADDRESSES: Comments should be submitted to Colonel Curtis L. Thalken, District Engineer, U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742.

FOR FURTHER INFORMATION CONTACT: Ms. Catherine Rogers, (978) 318-8231.

SUPPLEMENTARY INFORMATION: The U.S. Army Corps of Engineers is authorized to conduct this Feasibility Study by a Senate Subcommittee on Public Works Resolution dated September 11, 1969.

The DSEIS/DEIR is available on-line on the New England District's Web page at <http://www.nae.usace.army.mil/projects/ma/BHNIP/>

BostonHarbor_draft_FeasibilitySEIS.zip and at the following local libraries:

Boston Libraries—25 Parameter Street, 20 City Hall Avenue, 18 Barnes Avenue, 666 Boylston Street, Boston City Hall, 179 Main Street, 646 West Broadway, 276 Meridan Street; Chelsea Library—569 Broadway; Revere Library—179 Beach Street; and the Winthrop Library—2 Metcalf Square. If you wish to receive a copy of the Executive Summary or an electronic copy of the DSEIS/DEIR, please contact Ms. Catherine Rogers, Ecologist, U.S. Army Corps of Engineers, New England District, Evaluation Branch, 696 Virginia Road, Concord, MA 01742.

A public meeting to solicit comments has been scheduled for 1 p.m. on Tuesday, May 20, 2008, on the second floor of the Black Falcon Cruise Terminal, One Black Falcon Avenue, Boston, MA.

Dated: April 8, 2008.

Curtis L. Thalken,

Colonel, Corps of Engineers, New England District.

[FR Doc. E8-8202 Filed 4-17-08; 8:45 am]

BILLING CODE 3710-24-P

DEPARTMENT OF DEFENSE

Department of the Army, Corps of Engineers

Notice of Availability for the Final Environmental Impact Report/ Environmental Impact Statement for the Carryover Storage and San Vicente Dam Raise Project (CSP), San Diego County, CA

AGENCY: Department of the Army, U.S. Army Corps of Engineers, DoD.

ACTION: Notice of availability.

SUMMARY: Pursuant to section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969 (as amended), the U.S. Army Corps of Engineers, Los Angeles District (Corps) Regulatory Branch, in coordination with the San Diego County Water Authority (Water Authority), has completed a Final Environmental Impact Report/ Environmental Impact Statement (EIR/ EIS) for the Carryover Storage and San Vicente Dam Raise Project (CSP). Four alternatives were co-equally analyzed in the EIR/EIS, including Alternative 1 (100,000 acre-feet of carryover storage at San Vicente), Alternative 2 (100,000 acre-feet of carryover storage at Moosa Canyon), Alternative 3 (50,000 acre-feet

of carryover storage at San Vicente and 50,000 acre-feet of carryover storage at Moosa Canyon) and the No Action Alternative, as required by NEPA. As the project proponent and applicant, the Water Authority selected Alternative 1 as its preferred alternative. The proposed CSP requires authorization pursuant to section 404 of the Clean Water Act for approximately 0.34 acre of fill placement in jurisdictional waters of the United States, including wetlands, to construct an expansion of the existing San Vicente Dam to store approximately 100,000 acre-feet of carryover storage water.

FOR FURTHER INFORMATION CONTACT:

Questions or comments concerning the Final EIR/EIS should be directed to Mr. Robert R. Smith, Jr., Regulatory Project Manager/Team Leader San Diego Field Office, U.S. Army Corps of Engineers, Los Angeles District, 16885 W. Bernardo Drive, Suite 300A, San Diego, CA 92127, (858) 674-6784. Alternatively, comments can be submitted electronically to:

robert.r.smith@usace.army.mil.

SUPPLEMENTARY INFORMATION: Paper copies of the Final EIR/EIS will be made available to the public for review at the following: the San Diego County Water Authority offices at 4677 Overland Avenue, San Diego, CA 92123; the Lakeside Public Library, 9839 Vine Street, Lakeside, CA 92040; and the Valley Center Public Library, 29200 Cole Grade Road, Valley Center, CA 92082. A CD copy of the document may be obtained by contacting Ms. Kelley Gage at the San Diego County Water Authority at the address above, or by e-mailing Ms. Gage at kgage@sdca.org. A copy of the Final EIR/EIS is also available online at the Water Authority's Web site: <http://www.sdca.org/>. Interested parties are invited to provide their comments on the Final EIR/EIS, which will become a part of the official record and will be considered in the final decision. Written comments must be received on or before May 19, 2008 and should be submitted to the contact listed above. A Record of Decision (ROD) will be issued by the Corps no earlier than 30 days after the Notice of Receipt for the Final EIR/EIS is published in the **Federal Register**.

Dated: April 8, 2008.

Mark Durham,

Acting Chief, Regulatory Branch.

[FR Doc. E8-8282 Filed 4-17-08; 8:45 am]

BILLING CODE 3710-KF-P

DEPARTMENT OF DEFENSE

Department of the Navy

Notice of Availability of Finding

AGENCY: Department of the Navy, DoD.

ACTION: Notice.

SUMMARY: Pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA) of 1969 and the Council on Environmental Quality regulations (40 CFR parts 1500-1508), implementing procedural provisions of NEPA, and Executive Order (EO) 12114, Environmental Effects Abroad of Major Federal Actions, the Department of the Navy (DON) gives notice that a combined Finding of No Significant Impact (FONSI)/Finding of No Significant Harm (FONSH) has been issued and is available for Carrier Strike Group Composite Training Unit Exercise (CSG COMPTUEX) April/May 2008.

DATES: The effective date of the finding is April 14, 2008.

ADDRESSES: Electronic copies of the combined FONSI/FONSH are available for public viewing or downloading at <http://www.navydocuments.com>.

FOR FURTHER INFORMATION CONTACT: Commander, Second Fleet Public Affairs, Commander Phillips, telephone: 757-443-9822 or visit <http://www.navydocuments.com>.

SUPPLEMENTARY INFORMATION: CSG COMPTUEX (April-May 2008) is a major Navy Atlantic Fleet training exercise proposed to occur in April and May 2008 in the offshore Jacksonville Operating Area (OPAREA) and adjacent military installations. The purpose of this exercise is to certify naval forces as combat-ready. Activities conducted during the exercise include air-to-ground (ATG) bombing at land ranges, Combat Search and Rescue (CSAR), Maritime Interdiction Operations (MIO), Naval Gunfire, Fast Attack Craft/Fast Inshore Attack Craft (FAC/FIAC), and Anti-Submarine Warfare (ASW), including use of mid-frequency active (MFA) sonar.

The FONSI is based on analysis contained in a Comprehensive Environmental Assessment (EA) addressing environmental impacts associated with land-based training for Major Atlantic Fleet Training Exercises on the East and Gulf Coasts of the U.S.

The FONSH is based on analysis contained in a Comprehensive Overseas Environmental Assessment (OEA) and Supplement to the Comprehensive OEA (SOEA) for environmental impacts associated with Navy's conduct of major



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Mr. Michael Leone, Port Director
Massachusetts Port Authority
Logan Office Center
One Harborside Drive, Suite 200S
East Boston, Massachusetts 02128-2909

Dear Mr. Leone:

The New England District in partnership with Massport has completed the Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement - State Draft Environmental Impact Report examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed. These documents were reviewed by project staff from both Massport and the Corps and are being published for public review.

The Draft Feasibility Report recommends the following improvements to the Federal Navigation Project for Boston Harbor:

- Improving access to the Conley Terminal for containerships by deepening the harbor's existing 40-foot channels, turning basin and anchorage to a depth of 48 feet at mean lower low water, with an additional two feet of depth in the entrance channel from Broad Sound. Massport would also need to deepen the berths at the Conley Terminal.
- Improving access to Massport's Marine Terminal in South Boston. The 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel would be deepened to 45 feet, and Massport would deepen the berth to that depth.
- Improving access to Massport's Medford Street Terminal on the Mystic River for lesser draft dry bulk and break-bulk carriers. This small area of the existing 35-foot lane of the lower Mystic River Channel would be deepened to 40 feet. Massport has already cleared the site and deepened the berth to 40 feet.
- Improving access to the Chelsea River primarily for its petroleum terminals would deepen the existing 38-foot channel to 40 feet. Any improvement would be contingent on replacement of the Chelsea Street Bridge by the State, city and USCG, as the existing bridge precludes the use of larger vessels.

These improvements will involve dredging about 11.9 million cubic yards (MCY) of clays, sands, and tills, all parent materials largely of glacial origin, from the harbor bottom. In addition, about 1 MCY of rock would be blasted and dredged from the harbor. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site located about 18 miles seaward of the harbor. The project would take about three years to construct.

These improvements would cost approximately \$308 million, of which about \$272 million is to deepen the main channel improvements into the Conley Terminal. The project carries an annualized cost of about \$16.3 million and produces annual benefits of about \$28.4 million, yielding a benefit-cost ration of 1.74 to 1. All benefits derive from reducing the cost of carrying bulk and containerized cargo. Containerized cargo benefits come principally from shifting cargo now carried into the region by truck, to carriage by larger containerships. These improvements would allow a greater percentage of New England cargo to be shipped through the Port of Boston, rather than through the Port of New York and New Jersey.

The non-Federal share of costs for design and construction of the project is estimated at approximately \$133.4 million, of which \$1.7 million would be paid during project design, \$101.4 million would be paid during construction, and \$30.3 million following completion of construction.

The project will appear in the April 18 Federal Register. A copy of the Public Notice for the project, and a separate copy of the Executive Summary are also enclosed. Your staff has arranged for a public meeting for the project to be held at Massport's Black Falcon Cruise Ship Terminal in South Boston on May 20, 2008 at 1:00 PM. The public comment period on the project will close on June 2, 2008. The Massachusetts Environmental Policy Act review process will run concurrently with the Federal review process, with the State's review period closing on June 9, 2008.

Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures

Public Notice
Executive Summary
Draft Feasibility Report and DSEIS/DEIR
A CDROM with DFR/DSEIS/DEIR



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Honorable Deval Patrick
Governor of Massachusetts
Massachusetts State House, Room 360
Boston, Massachusetts 02133

Dear Governor Patrick:

The U.S. Army Corps of Engineers, New England District in partnership with the Massachusetts Port Authority (Massport) has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed.

The Feasibility Study is authorized by a Senate Subcommittee on Public Works Resolution dated September 11, 1969. The Corps and Massport began the study in 2002. After considering the needs of commercial navigation and public and private terminals in the several areas of the harbor, the following improvements are being recommended. A separate copy of the report's Executive Summary is also enclosed and more fully describes the study and the project being recommended.

- Improving access to the Conley Terminal for containerships by deepening the harbor's existing 40-foot channels, turning basin and anchorage to a depth of 48 feet at mean lower low water, with an additional two feet of depth in the entrance channel from Broad Sound. Massport would also deepen the berths at the Conley Terminal. These improvement would allow a greater percentage of New England cargo to be shipped through the Port of Boston, rather than through the Port of New York and New Jersey.
- Improving access to Massport's Marine Terminal in South Boston. This terminal was recently returned to Massport after many years of use for the big dig. Massport and its partners are developing the terminal for dry bulk cargo operations. The 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel would be deepened to 45 feet, and Massport would deepen the berth to that depth.
- Improving access to Massport's Medford Street Terminal on the Mystic River for lesser draft dry bulk and break-bulk carriers. This small area of the existing 35-foot lane of the lower Mystic River Channel would be deepened to 40 feet. Massport has already cleared the site and deepened the berth to 40 feet.
- Improving access to the Chelsea River primarily for its petroleum terminals would deepen the existing 38-foot channel to 40 feet. Any improvement would be contingent on

replacement of the Chelsea Street Bridge by the State, city and USCG, as the existing bridge precludes the use of larger vessels.

These improvements will involve dredging about 11.9 million cubic yards (MCY) of clays, sands, and tills, all parent materials largely of glacial origin, from the harbor bottom. In addition, about 1 MCY of rock would be blasted and dredged from the harbor. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site located about 18 miles seaward of the harbor. The project would take about three years to construct.

These improvements would cost approximately \$308 million, of which about \$272 million is to deepen the main channel improvements into the Conley Terminal. The project carries an annualized cost of about \$16.3 million and produces annual benefits of about \$28.4 million, yielding a benefit-cost ration of 1.74 to 1. All benefits derive from reducing the cost of carrying bulk and containerized cargo. Containerized cargo benefits come principally from shifting cargo now carried into the region by truck, to carriage by larger containerships.

The Massachusetts Port Authority is the Sponsor and cost-sharing partner for the Feasibility Study. The non-Federal share of costs for design and construction of the project is estimated at approximately \$133.4 million, of which \$1.7 million would be paid during project design, \$101.4 million would be paid during construction, and \$30.3 million following completion of construction.

The project will appear in the April 18 Federal Register. A copy of the Public Notice for the project is also enclosed. A public meeting will be held at Massport's Black Falcon Cruise Ship Terminal in South Boston on May 20, 2008 at 1:00 PM. The public comment period on the project will close on June 2, 2008. The Massachusetts Environmental Policy Act review process will run concurrently with the Federal review process, with the State's review period closing on June 9, 2008.

Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures

Public Notice
Executive Summary
Draft Feasibility Report and DSEIS/DEIR



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Honorable Timothy P. Murray
Lieutenant Governor of Massachusetts
Massachusetts State House, Room 360
Boston, Massachusetts 02133

Dear Mr. Murray:

The U.S. Army Corps of Engineers, New England District in partnership with the Massachusetts Port Authority (Massport) has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed.

The Feasibility Study is authorized by a Senate Subcommittee on Public Works Resolution dated September 11, 1969. The Corps and Massport began the study in 2002. After considering the needs of commercial navigation and public and private terminals in the several areas of the harbor, the following improvements are being recommended. A separate copy of the report's Executive Summary is also enclosed and more fully describes the study and the project being recommended.

- Improving access to the Conley Terminal for containerships by deepening the harbor's existing 40-foot channels, turning basin and anchorage to a depth of 48 feet at mean lower low water, with an additional two feet of depth in the entrance channel from Broad Sound. Massport would also deepen the berths at the Conley Terminal. These improvement would allow a greater percentage of New England cargo to be shipped through the Port of Boston, rather than through the Port of New York and New Jersey.
- Improving access to Massport's Marine Terminal in South Boston. This terminal was recently returned to Massport after many years of use for the big dig. Massport and its partners are developing the terminal for dry bulk cargo operations. The 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel would be deepened to 45 feet, and Massport would deepen the berth to that depth.
- Improving access to Massport's Medford Street Terminal on the Mystic River for lesser draft dry bulk and break-bulk carriers. This small area of the existing 35-foot lane of the lower Mystic River Channel would be deepened to 40 feet. Massport has already cleared the site and deepened the berth to 40 feet.
- Improving access to the Chelsea River primarily for its petroleum terminals would deepen the existing 38-foot channel to 40 feet. Any improvement would be contingent on

replacement of the Chelsea Street Bridge by the State, city and USCG, as the existing bridge precludes the use of larger vessels.

These improvements will involve dredging about 11.9 million cubic yards (MCY) of clays, sands, and tills, all parent materials largely of glacial origin, from the harbor bottom. In addition, about 1 MCY of rock would be blasted and dredged from the harbor. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site located about 18 miles seaward of the harbor. The project would take about three years to construct.

These improvements would cost approximately \$308 million, of which about \$272 million is to deepen the main channel improvements into the Conley Terminal. The project carries an annualized cost of about \$16.3 million and produces annual benefits of about \$28.4 million, yielding a benefit-cost ration of 1.74 to 1. All benefits derive from reducing the cost of carrying bulk and containerized cargo. Containerized cargo benefits come principally from shifting cargo now carried into the region by truck, to carriage by larger containerships.

The Massachusetts Port Authority is the Sponsor and cost-sharing partner for the Feasibility Study. The non-Federal share of costs for design and construction of the project is estimated at approximately \$133.4 million, of which \$1.7 million would be paid during project design, \$101.4 million would be paid during construction, and \$30.3 million following completion of construction.

The project will appear in the April 18 Federal Register. A copy of the Public Notice for the project is also enclosed. A public meeting will be held at Massport's Black Falcon Cruise Ship Terminal in South Boston on May 20, 2008 at 1:00 PM. The public comment period on the project will close on June 2, 2008. The Massachusetts Environmental Policy Act review process will run concurrently with the Federal review process, with the State's review period closing on June 9, 2008.

Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures

Public Notice
Executive Summary
Draft Feasibility Report and DSEIS/DEIR



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Honorable Edward M. Kennedy
United States Senate
317 Russell Senate Office Building
Washington, DC 20510

Dear Senator Kennedy:

The U.S. Army Corps of Engineers, New England District in partnership with the Massachusetts Port Authority (Massport) has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed.

The Feasibility Study is authorized by a Senate Subcommittee on Public Works Resolution dated September 11, 1969. The Corps and Massport began the study in 2002. After considering the needs of commercial navigation and public and private terminals in the several areas of the harbor, the following improvements are being recommended. A separate copy of the report's Executive Summary is also enclosed and more fully describes the study and the project being recommended.

- Improving access to the Conley Terminal for containerships by deepening the harbor's existing 40-foot channels, turning basin and anchorage to a depth of 48 feet at mean lower low water, with an additional two feet of depth in the entrance channel from Broad Sound. Massport would also deepen the berths at the Conley Terminal. These improvement would allow a greater percentage of New England cargo to be shipped through the Port of Boston, rather than through the Port of New York and New Jersey.
- Improving access to Massport's Marine Terminal in South Boston. This terminal was recently returned to Massport after many years of use for the big dig. Massport and its partners are developing the terminal for dry bulk cargo operations. The 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel would be deepened to 45 feet, and Massport would deepen the berth to that depth.
- Improving access to Massport's Medford Street Terminal on the Mystic River for lesser draft dry bulk and break-bulk carriers. This small area of the existing 35-foot lane of the lower Mystic River Channel would be deepened to 40 feet. Massport has already cleared the site and deepened the berth to 40 feet.
- Improving access to the Chelsea River primarily for its petroleum terminals would deepen the existing 38-foot channel to 40 feet. Any improvement would be contingent on

replacement of the Chelsea Street Bridge by the State, city and USCG, as the existing bridge precludes the use of larger vessels.

These improvements will involve dredging about 11.9 million cubic yards (MCY) of clays, sands, and tills, all parent materials largely of glacial origin, from the harbor bottom. In addition, about 1 MCY of rock would be blasted and dredged from the harbor. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site located about 18 miles seaward of the harbor. The project would take about three years to construct.

These improvements would cost approximately \$308 million, of which about \$272 million is to deepen the main channel improvements into the Conley Terminal. The project carries an annualized cost of about \$16.3 million and produces annual benefits of about \$28.4 million, yielding a benefit-cost ration of 1.74 to 1. All benefits derive from reducing the cost of carrying bulk and containerized cargo. Containerized cargo benefits come principally from shifting cargo now carried into the region by truck, to carriage by larger containerships.

The Massachusetts Port Authority is the Sponsor and cost-sharing partner for the Feasibility Study. The non-Federal share of costs for design and construction of the project is estimated at approximately \$133.4 million, of which \$1.7 million would be paid during project design, \$101.4 million would be paid during construction, and \$30.3 million following completion of construction.

The project will appear in the April 18 Federal Register. A copy of the Public Notice for the project is also enclosed. A public meeting will be held at Massport's Black Falcon Cruise Ship Terminal in South Boston on May 20, 2008 at 1:00 PM. The public comment period on the project will close on June 2, 2008. The Massachusetts Environmental Policy Act review process will run concurrently with the Federal review process, with the State's review period closing on June 9, 2008.

Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures

Public Notice
Executive Summary
Draft Feasibility Report and DSEIS/DEIR

Copy Furnished:

Honorable Edward M. Kennedy
United States Senator
2400 JFK Building
Boston, Massachusetts 02203



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Honorable John F. Kerry
United States Senate
304 Russell Senate Office Building
Washington, DC 20510

Dear Senator Kerry:

The U.S. Army Corps of Engineers, New England District in partnership with the Massachusetts Port Authority (Massport) has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed.

The Feasibility Study is authorized by a Senate Subcommittee on Public Works Resolution dated September 11, 1969. The Corps and Massport began the study in 2002. After considering the needs of commercial navigation and public and private terminals in the several areas of the harbor, the following improvements are being recommended. A separate copy of the report's Executive Summary is also enclosed and more fully describes the study and the project being recommended.

- Improving access to the Conley Terminal for containerships by deepening the harbor's existing 40-foot channels, turning basin and anchorage to a depth of 48 feet at mean lower low water, with an additional two feet of depth in the entrance channel from Broad Sound. Massport would also deepen the berths at the Conley Terminal. These improvement would allow a greater percentage of New England cargo to be shipped through the Port of Boston, rather than through the Port of New York and New Jersey.
- Improving access to Massport's Marine Terminal in South Boston. This terminal was recently returned to Massport after many years of use for the big dig. Massport and its partners are developing the terminal for dry bulk cargo operations. The 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel would be deepened to 45 feet, and Massport would deepen the berth to that depth.
- Improving access to Massport's Medford Street Terminal on the Mystic River for lesser draft dry bulk and break-bulk carriers. This small area of the existing 35-foot lane of the lower Mystic River Channel would be deepened to 40 feet. Massport has already cleared the site and deepened the berth to 40 feet.
- Improving access to the Chelsea River primarily for its petroleum terminals would deepen the existing 38-foot channel to 40 feet. Any improvement would be contingent on

replacement of the Chelsea Street Bridge by the State, city and USCG, as the existing bridge precludes the use of larger vessels.

These improvements will involve dredging about 11.9 million cubic yards (MCY) of clays, sands, and tills, all parent materials largely of glacial origin, from the harbor bottom. In addition, about 1 MCY of rock would be blasted and dredged from the harbor. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site located about 18 miles seaward of the harbor. The project would take about three years to construct.

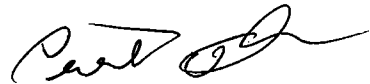
These improvements would cost approximately \$308 million, of which about \$272 million is to deepen the main channel improvements into the Conley Terminal. The project carries an annualized cost of about \$16.3 million and produces annual benefits of about \$28.4 million, yielding a benefit-cost ration of 1.74 to 1. All benefits derive from reducing the cost of carrying bulk and containerized cargo. Containerized cargo benefits come principally from shifting cargo now carried into the region by truck, to carriage by larger containerships.

The Massachusetts Port Authority is the Sponsor and cost-sharing partner for the Feasibility Study. The non-Federal share of costs for design and construction of the project is estimated at approximately \$133.4 million, of which \$1.7 million would be paid during project design, \$101.4 million would be paid during construction, and \$30.3 million following completion of construction.

The project will appear in the April 18 Federal Register. A copy of the Public Notice for the project is also enclosed. A public meeting will be held at Massport's Black Falcon Cruise Ship Terminal in South Boston on May 20, 2008 at 1:00 PM. The public comment period on the project will close on June 2, 2008. The Massachusetts Environmental Policy Act review process will run concurrently with the Federal review process, with the State's review period closing on June 9, 2008.

Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures

Public Notice
Executive Summary
Draft Feasibility Report and DSEIS/DEIR

Copy Furnished:

Honorable John F. Kerry
United States Senator
One Bowdoin Square, 10th Floor
Boston, Massachusetts 02114



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Honorable Michael E Capuano
House of Representative
1232 Longworth House Office Building
Washington, DC 20515

Dear Mr. Capuano:

The U.S. Army Corps of Engineers, New England District in partnership with the Massachusetts Port Authority (Massport) has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed.

The Feasibility Study is authorized by a Senate Subcommittee on Public Works Resolution dated September 11, 1969. The Corps and Massport began the study in 2002. After considering the needs of commercial navigation and public and private terminals in the several areas of the harbor, the following improvements are being recommended. A separate copy of the report's Executive Summary is also enclosed and more fully describes the study and the project being recommended.

- Improving access to the Conley Terminal for containerships by deepening the harbor's existing 40-foot channels, turning basin and anchorage to a depth of 48 feet at mean lower low water, with an additional two feet of depth in the entrance channel from Broad Sound. Massport would also deepen the berths at the Conley Terminal. These improvement would allow a greater percentage of New England cargo to be shipped through the Port of Boston, rather than through the Port of New York and New Jersey.
- Improving access to Massport's Marine Terminal in South Boston. This terminal was recently returned to Massport after many years of use for the big dig. Massport and its partners are developing the terminal for dry bulk cargo operations. The 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel would be deepened to 45 feet, and Massport would deepen the berth to that depth.
- Improving access to Massport's Medford Street Terminal on the Mystic River for lesser draft dry bulk and break-bulk carriers. This small area of the existing 35-foot lane of the lower Mystic River Channel would be deepened to 40 feet. Massport has already cleared the site and deepened the berth to 40 feet.
- Improving access to the Chelsea River primarily for its petroleum terminals would deepen the existing 38-foot channel to 40 feet. Any improvement would be contingent on

replacement of the Chelsea Street Bridge by the State, city and USCG, as the existing bridge precludes the use of larger vessels.

These improvements will involve dredging about 11.9 million cubic yards (MCY) of clays, sands, and tills, all parent materials largely of glacial origin, from the harbor bottom. In addition, about 1 MCY of rock would be blasted and dredged from the harbor. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site located about 18 miles seaward of the harbor. The project would take about three years to construct.

These improvements would cost approximately \$308 million, of which about \$272 million is to deepen the main channel improvements into the Conley Terminal. The project carries an annualized cost of about \$16.3 million and produces annual benefits of about \$28.4 million, yielding a benefit-cost ration of 1.74 to 1. All benefits derive from reducing the cost of carrying bulk and containerized cargo. Containerized cargo benefits come principally from shifting cargo now carried into the region by truck, to carriage by larger containerships.

The Massachusetts Port Authority is the Sponsor and cost-sharing partner for the Feasibility Study. The non-Federal share of costs for design and construction of the project is estimated at approximately \$133.4 million, of which \$1.7 million would be paid during project design, \$101.4 million would be paid during construction, and \$30.3 million following completion of construction.

The project will appear in the April 18 Federal Register. A copy of the Public Notice for the project is also enclosed. A public meeting will be held at Massport's Black Falcon Cruise Ship Terminal in South Boston on May 20, 2008 at 1:00 PM. The public comment period on the project will close on June 2, 2008. The Massachusetts Environmental Policy Act review process will run concurrently with the Federal review process, with the State's review period closing on June 9, 2008.

Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures

Public Notice
Executive Summary
Draft Feasibility Report and DSEIS/DEIR

Copy Furnished:

Honorable Michael E Capuano
Representative in Congress
110 First Street
Cambridge, Massachusetts 02141



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Honorable William D. Delahunt
House of Representative
2454 Rayburn House Office Building
Washington, DC 20515

Dear Mr. Delahunt:

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Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures

Public Notice
Executive Summary
Draft Feasibility Report and DSEIS/DEIR

Copy Furnished:

Honorable William D. Delahunt
Representative in Congress
146 Main Street
Hyannis, Massachusetts 02601

Honorable William D. Delahunt
Representative in Congress
1250 Hancock Street, Suite 802-N
Quincy, Massachusetts 02169



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Honorable Stephen F. Lynch
House of Representative
235 Cannon House Office Building
Washington, DC 20515

Dear Mr. Lynch:

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Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures

Public Notice
Executive Summary
Draft Feasibility Report and DSEIS/DEIR

Copy Furnished:

**Honorable Stephen F. Lynch
Representative in Congress
88 Black Flacon Avenue, Suite 340
Boston, Massachusetts 02210**



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Honorable Edward J. Markey
House of Representative
2108 Rayburn House Office Building
Washington, DC 20515

Dear Mr. Markey:

The U.S. Army Corps of Engineers, New England District in partnership with the Massachusetts Port Authority (Massport) has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed.

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Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures

Public Notice
Executive Summary
Draft Feasibility Report and DSEIS/DEIR

Copy Furnished:

Honorable Edward J. Markey
Representative in Congress
5 High Street, Suite 101
Medford, Massachusetts 02155



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Honorable John F. Tierney
House of Representative
2238 Rayburn House Office Building
Washington, DC 20515

Dear Mr. Tierney:

The U.S. Army Corps of Engineers, New England District in partnership with the Massachusetts Port Authority (Massport) has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed.

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Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures

Public Notice
Executive Summary
Draft Feasibility Report and DSEIS/DEIR

Copy Furnished:

Honorable John F. Tierney
Representative in Congress
17 Peabody Square
Peabody, Massachusetts 01960



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Honorable Thomas M. Menino
Mayor of Boston
Boston City Hall, Suite 500
Boston, Massachusetts 02201-2013

Dear Mayor Menino:

The U.S. Army Corps of Engineers, New England District in partnership with the Massachusetts Port Authority (Massport) has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed.

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Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

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Draft Feasibility Report and DSEIS/DEIR



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Honorable Thomas G. Ambrosino
Mayor of Revere
Revere City Hall
281 Broadway
Revere, Massachusetts 02151

Dear Mayor Ambrosino:

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Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

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Public Notice
Executive Summary
Draft Feasibility Report and DSEIS/DEIR



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Mr. Jay Ash, City Manager
Chelsea City Hall
500 Broadway
Chelsea, Massachusetts 02150

Dear Mr. Ash:

The U.S. Army Corps of Engineers, New England District in partnership with the Massachusetts Port Authority (Massport) has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed.

The Feasibility Study is authorized by a Senate Subcommittee on Public Works Resolution dated September 11, 1969. The Corps and Massport began the study in 2002. After considering the needs of commercial navigation and public and private terminals in the several areas of the harbor, the following improvements are being recommended. A separate copy of the report's Executive Summary is also enclosed and more fully describes the study and the project being recommended.

- Improving access to the Conley Terminal for containerships by deepening the harbor's existing 40-foot channels, turning basin and anchorage to a depth of 48 feet at mean lower low water, with an additional two feet of depth in the entrance channel from Broad Sound. Massport would also deepen the berths at the Conley Terminal. These improvement would allow a greater percentage of New England cargo to be shipped through the Port of Boston, rather than through the Port of New York and New Jersey.
- Improving access to Massport's Marine Terminal in South Boston. This terminal was recently returned to Massport after many years of use for the big dig. Massport and its partners are developing the terminal for dry bulk cargo operations. The 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel would be deepened to 45 feet, and Massport would deepen the berth to that depth.
- Improving access to Massport's Medford Street Terminal on the Mystic River for lesser draft dry bulk and break-bulk carriers. This small area of the existing 35-foot lane of the lower Mystic River Channel would be deepened to 40 feet. Massport has already cleared the site and deepened the berth to 40 feet.
- Improving access to the Chelsea River primarily for its petroleum terminals would deepen the existing 38-foot channel to 40 feet. Any improvement would be contingent on

replacement of the Chelsea Street Bridge by the State, city and USCG, as the existing bridge precludes the use of larger vessels.

These improvements will involve dredging about 11.9 million cubic yards (MCY) of clays, sands, and tills, all parent materials largely of glacial origin, from the harbor bottom. In addition, about 1 MCY of rock would be blasted and dredged from the harbor. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site located about 18 miles seaward of the harbor. The project would take about three years to construct.

These improvements would cost approximately \$308 million, of which about \$272 million is to deepen the main channel improvements into the Conley Terminal. The project carries an annualized cost of about \$16.3 million and produces annual benefits of about \$28.4 million, yielding a benefit-cost ration of 1.74 to 1. All benefits derive from reducing the cost of carrying bulk and containerized cargo. Containerized cargo benefits come principally from shifting cargo now carried into the region by truck, to carriage by larger containerships.

The Massachusetts Port Authority is the Sponsor and cost-sharing partner for the Feasibility Study. The non-Federal share of costs for design and construction of the project is estimated at approximately \$133.4 million, of which \$1.7 million would be paid during project design, \$101.4 million would be paid during construction, and \$30.3 million following completion of construction.

The project will appear in the April 18 Federal Register. A copy of the Public Notice for the project is also enclosed. A public meeting will be held at Massport's Black Falcon Cruise Ship Terminal in South Boston on May 20, 2008 at 1:00 PM. The public comment period on the project will close on June 2, 2008. The Massachusetts Environmental Policy Act review process will run concurrently with the Federal review process, with the State's review period closing on June 9, 2008.

Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures

Public Notice

Executive Summary

Draft Feasibility Report and DSEIS/DEIR



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

RADM Timothy S. Sullivan, Commander
First Coast Guard District
408 Atlantic Avenue
Boston, Massachusetts 02110

Dear Admiral Sullivan:

The U.S. Army Corps of Engineers, New England District, in partnership with the Massachusetts Port Authority (Massport), has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed.

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Your agency has participated in the technical working group for this study and has provided significant information on port operations, safety and security for consideration in our project design. We are now requesting your comments on the draft report and the recommended improvements to the Federal Navigation Project. Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.



CURTIS L. THALKEN
Colonel, Corps of Engineers
Commanding

- 3 Encls
1. Draft Feasibility Report and DSEIS/DEIR
 2. CD Rom with above documents
 3. Public Notice



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Mr. Robert Varney, Regional Administrator
U.S. Environmental Protection Agency
One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Dear Mr. Varney:

The U.S. Army Corps of Engineers, New England District, in partnership with the Massachusetts Port Authority (Massport), has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed.

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We are requesting comments under the U.S. Environmental Protection Agency's jurisdiction by law under the Clean Water Act, the Marine Protection, Research and Sanctuaries Act, the Clean Air Act, and the National Environmental Policy Act.

As a cooperating agency in this study, your regional staff have assisted in the investigation and evaluation of the proposed beneficial use of dredged material from this project to cap the former Industrial Waste Site in Massachusetts Bay. Correspondence and other reference materials submitted by your regional staff have been included in the draft report. Your continued assistance and evaluation of the potential beneficial use of dredged material is essential now and through detailed project design over the next two years.

Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures (2)
Draft Feasibility Report and DSEIS/DEIR
Public Notice



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Mr. Michael Bartlett, Regional Administrator
U.S. Fish and Wildlife Service
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087

Dear Mr. Bartlett:

The U.S. Army Corps of Engineers, New England District, in partnership with the Massachusetts Port Authority (Massport), has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed.

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Your agency provided a final coordination act report under the Fish and Wildlife Coordination Act, on May 29, 2007, based on project plans and draft reports submitted earlier. We are now requesting your comments under the Endangered Species Act per the U.S. Fish and Wildlife Service's jurisdiction. Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures (2)
Draft Feasibility Report and DSEIS/DEIR
Public Notice

Copy Furnished:

Mr. Andrew Raddant
U.S. Department of the Interior
408 Atlantic Avenue, Room 142
Boston, Massachusetts 02110



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Ms. Patricia Kurkul, Regional Administrator
National Marine Fisheries Service, Northeast Regional Office
One Blackburn Drive
Gloucester, Massachusetts 01930-2298

Dear Ms. Kurkul:

The U.S. Army Corps of Engineers, New England District, in partnership with the Massachusetts Port Authority (Massport), has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed.

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We are requesting comments under the National Marine Fisheries Service's jurisdiction under the Fish and Wildlife Coordination Act, the Endangered Species Act, and the Essential Fish Habitat provisions under the Magnuson-Stevens Fishery Conservation and Management Act. Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures (2)
Draft Feasibility Report and DSEIS/DEIR
Public Notice



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Mr. Bruce Jacobson, Superintendent
Boston Harbor Islands National Recreation Area
408 Atlantic Avenue, Suite 228
Boston, Massachusetts 02110

Dear Mr. Jacobson:

The U.S. Army Corps of Engineers, New England District, in partnership with the Massachusetts Port Authority (Massport), has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed. A separate copy of the report's Executive Summary is also enclosed and more fully describes the study and the project being recommended.

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We are requesting comments on the draft report and recommendations. Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures (3)
Public Notice
Executive Summary
CDRom with the Draft Feasibility Report and DSEIS/DEIR



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Mr. Craig D. MacDonald, Superintendent
Stellwagen Bank National Marine Sanctuary
175 Edward Foster Road
Scituate, Massachusetts 02066

Dear Mr. MacDonald:

The U.S. Army Corps of Engineers, New England District, in partnership with the Massachusetts Port Authority (Massport), has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed.

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Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures (2)
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Public Notice



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Mr. Ian A. Bowles, Secretary
Massachusetts Executive Office of Energy and Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

Dear Secretary Bowles:

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We are requesting comments under the Commonwealth of Massachusetts' jurisdiction by law under the Clean Water Act, the Coastal Zone Management Act, and other Federal Acts such as the Endangered Species Act and the National Historic Preservation Act. Copies of the draft documents have also been sent under separate cover to the State officials listed below. Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures (4)

Draft Feasibility Report and DSEIS/DEIR
CD Rom with above documents
Executive Summary
Public Notice

Copies furnished:

Ms. Leslie-Ann McGee, Director
Massachusetts Coastal Zone Management
251 Causeway Street, Suite 800
Boston, Massachusetts 02114

Ms. Laurie Burt, Commissioner
Massachusetts Department of Environmental Protection
One Winter Street
Boston, Massachusetts 02108

Ms. Brona Simon
Massachusetts Historic Commission
The MA Archives Building
220 Morrissey Boulevard
Boston, Massachusetts 02125

Mr. Vic Mastone
Board of Underwater Archaeology
251 Causeway Street
Boston, Massachusetts 02114

Mr. Thomas French
Natural Heritage/Endangered Species
Division of Fisheries and Wildlife
North Drive
Westborough, Massachusetts 01581



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Mr. Louis Elisa, Director
Massachusetts Seaport Council
40 Center Street
Fairhaven, Massachusetts 02719

Dear Mr. Elisa:

The U.S. Army Corps of Engineers, New England District, in partnership with the Massachusetts Port Authority (Massport), has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed. A separate copy of the report's Executive Summary is also enclosed and more fully describes the study and the project being recommended.

The Feasibility Study is authorized by a Senate Subcommittee on Public Works Resolution dated September 11, 1969. The Corps and Massport began the study in 2002. After considering the needs of commercial navigation and public and private terminals in the several areas of the harbor, the following improvements are being recommended:

- Improving access to the Conley Terminal for containerships by deepening the harbor's existing 40-foot channels, turning basin and anchorage to a depth of -48 feet at mean lower low water (MLLW), with an additional two feet of depth in the Broad Sound North Entrance Channel. Massport would also deepen the berths at the Conley Terminal. These improvements would allow a greater percentage of New England cargo to be shipped through the Port of Boston, rather than through the Port of New York and New Jersey.
- Improving access to Massport's Marine Terminal in South Boston. This terminal was recently returned to Massport after many years of use for the big dig. Massport and its partners are developing the terminal for dry bulk cargo operations. The 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel would be deepened to -45 feet MLLW, and Massport would deepen the berth to that depth.
- Improving access to Massport's Medford Street Terminal on the Mystic River for lesser draft dry bulk and break-bulk carriers. This small area of the existing 35-foot lane of the lower Mystic River Channel would be deepened to -40 feet MLLW. Massport has already cleared the site and deepened the berth to -40 feet MLLW.
- Improving access to the Chelsea River primarily for its petroleum terminals would deepen the existing -38-foot channel to -40 feet MLLW. Any improvement would be contingent on

replacement of the Chelsea Street Bridge by the State, city and USCG, as the existing bridge precludes the use of larger vessels.

These improvements will involve dredging about 11.9 million cubic yards (MCY) of clays, sands, and tills, all parent materials largely of glacial origin, from the harbor bottom. In addition, about one MCY of rock would be blasted and dredged from the harbor. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site located about 18 miles seaward of the harbor. The project would take about three years to construct.

These improvements would cost approximately \$308 million, of which about \$272 million is to deepen the main channel improvements into the Conley Terminal. The project carries an annualized cost of about \$16.3 million and produces annual benefits of about \$28.4 million, yielding a benefit-cost ration of 1.74 to 1. All benefits derive from reducing the cost of carrying bulk and containerized cargo. Containerized cargo benefits come principally from shifting cargo now carried into the region by truck, to carriage by larger containerships.

The Massachusetts Port Authority is the Sponsor and cost-sharing partner for the Feasibility Study. The non-Federal share of costs for design and construction of the project is estimated at approximately \$133.4 million, of which \$1.7 million would be paid during project design, \$101.4 million would be paid during construction, and \$30.3 million following completion of construction.

The project will appear in the April 18 Federal Register. A copy of the Public Notice for the project is also enclosed. A public meeting will be held at Massport's Black Falcon Cruise Ship Terminal in South Boston on May 20, 2008 at 1:00 PM. The public comment period on the project will close on June 2, 2008. The Massachusetts Environmental Policy Act review process will run concurrently with the Federal review process, with the State's review period closing on June 9, 2008.

We are requesting the Commonwealth's comments on the draft report. Copies of the draft documents have also been sent under separate cover to the Governor, Lieutenant Governor and other Federal, State and municipal officials. Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures (4)

Draft Feasibility Report and DSEIS/DEIR

CD Rom with above documents

Executive Summary

Public Notice



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

REPLY TO:
ATTENTION OF:

April 10, 2008

Engineering/Planning Division
Planning Branch

Mr. Richard K. Sullivan, Commissioner
Massachusetts Department of Conservation and Recreation
251 Causeway Street, Suite 600
Boston, Massachusetts 02114-2104

Dear Mr. Sullivan:

The U.S. Army Corps of Engineers, New England District, in partnership with the Massachusetts Port Authority (Massport), has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents are enclosed. A separate copy of the report's Executive Summary is also enclosed and more fully describes the study and the project being recommended.

The Feasibility Study is authorized by a Senate Subcommittee on Public Works Resolution dated September 11, 1969. The Corps and Massport began the study in 2002. After considering the needs of commercial navigation and public and private terminals in the several areas of the harbor, the following improvements are being recommended:

- Improving access to the Conley Terminal for containerships by deepening the harbor's existing 40-foot channels, turning basin and anchorage to a depth of -48 feet at mean lower low water (MLLW), with an additional two feet of depth in the Broad Sound North Entrance Channel. Massport would also deepen the berths at the Conley Terminal. These improvements would allow a greater percentage of New England cargo to be shipped through the Port of Boston, rather than through the Port of New York and New Jersey.
- Improving access to Massport's Marine Terminal in South Boston. This terminal was recently returned to Massport after many years of use for the big dig. Massport and its partners are developing the terminal for dry bulk cargo operations. The 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel would be deepened to -45 feet MLLW, and Massport would deepen the berth to that depth.
- Improving access to Massport's Medford Street Terminal on the Mystic River for lesser draft dry bulk and break-bulk carriers. This small area of the existing 35-foot lane of the lower Mystic River Channel would be deepened to -40 feet MLLW. Massport has already cleared the site and deepened the berth to -40 feet MLLW.
- Improving access to the Chelsea River primarily for its petroleum terminals would deepen the existing -38-foot channel to -40 feet MLLW. Any improvement would be contingent on

replacement of the Chelsea Street Bridge by the State, city and USCG, as the existing bridge precludes the use of larger vessels.

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These improvements would cost approximately \$308 million, of which about \$272 million is to deepen the main channel improvements into the Conley Terminal. The project carries an annualized cost of about \$16.3 million and produces annual benefits of about \$28.4 million, yielding a benefit-cost ration of 1.74 to 1. All benefits derive from reducing the cost of carrying bulk and containerized cargo. Containerized cargo benefits come principally from shifting cargo now carried into the region by truck, to carriage by larger containerships.

The Massachusetts Port Authority is the Sponsor and cost-sharing partner for the Feasibility Study. The non-Federal share of costs for design and construction of the project is estimated at approximately \$133.4 million, of which \$1.7 million would be paid during project design, \$101.4 million would be paid during construction, and \$30.3 million following completion of construction.

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We are requesting the Commonwealth's comments on the draft report. Copies of the draft documents have also been sent under separate cover to Secretary Bowles, and other Federal, State and municipal officials. Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts 01742-2751.

Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures (3)

CD Rom with Draft Feasibility Report and DSEIS/DEIR

Executive Summary

Public Notice

Copy furnished:

Ms. Martha King, Director

Office of Waterways

Massachusetts Department of Conservation and Recreation

349 Lincoln Street, Building #45

Hingham, Massachusetts 02043



DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751
April 10, 2008

REPLY TO:
ATTENTION OF:

Engineering/Planning Division
Evaluation Branch

Ms. Brona Simon, Executive Director and SHPO
Massachusetts Historical Commission
The Massachusetts State Archives Building
220 Morrissey Boulevard
Boston, Massachusetts 02125

Dear Ms. Simon:

The U.S. Army Corps of Engineers, New England District, in partnership with the Massachusetts Port Authority (Massport), has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents on CD-Rom is enclosed. A separate copy of the Executive Summary with detailed information on the project is also enclosed.

The Feasibility Study is authorized by a Senate Subcommittee on Public Works Resolution dated September 11, 1969. The Corps and Massport began the study in 2002. After considering the needs of commercial navigation and public and private terminals in the several areas of the harbor, the following improvements are being recommended:

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- Improving access to Massport's Marine Terminal in South Boston. This terminal was recently returned to Massport after many years of use for the Big Dig. Massport and its partners are developing the terminal for dry bulk cargo operations. The 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel would be deepened to -45 feet MLLW, and Massport would deepen the berth to that depth.
- Improving access to Massport's Medford Street Terminal on the Mystic River for lesser draft dry bulk and break-bulk carriers. This small area of the existing 35-foot lane of the lower Mystic River Channel would be deepened to -40 feet MLLW. Massport has already cleared the site and deepened the berth to -40 feet MLLW.
- Improving access to the Chelsea River primarily for its petroleum terminals would deepen the existing -38-foot channel to -40 feet MLLW. Any improvement would be contingent on replacement of the Chelsea Street Bridge by the State, City and USCG, as the existing bridge precludes the use of larger vessels.

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The project will appear in the April 18 Federal Register. A copy of the Public Notice for the project is also enclosed. A public meeting will be held at Massport's Black Falcon Cruise Ship Terminal in South Boston on May 20, 2008 at 1:00 PM. The public comment period on the project will close on June 2, 2008. The Massachusetts Environmental Policy Act review process will run concurrently with the Federal review process, with the State's review period closing on June 9, 2008.

We are requesting your comments on the Boston Harbor deep-draft navigation study in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and implementing regulations 36 CFR 800. Please feel free to call me with any questions or comments you may have on this project at (978) 318-8552 or Mr. Marc Paiva at (978) 318-8796 . Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742-2751.

Sincerely,



William A. Hubbard
Chief, Evaluation Branch

Enclosures (3)

Public Notice

Executive Summary

CD-Rom with Draft Feasibility Report and DSEIS/DEIR

Copy furnished (with enclosures):

Mr. Victor Mastone, Director

Board of Underwater Archaeological Resources

251 Causeway Street, Suite 800

Boston, Massachusetts 02114-2136



REPLY TO:
ATTENTION OF:

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

April 10, 2008

Engineering/Planning Division
Evaluation Branch

Ms. Cheryl Andrews-Maltais, Chairperson
Wampanoag Tribe of Gay Head (Aquinnah)
20 Black Brook Road
Aquinnah, Massachusetts 02535

Dear Chairperson Andrews-Maltais:

The U.S. Army Corps of Engineers, New England District, in partnership with the Massachusetts Port Authority (Massport), has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents on CDRom is enclosed. A separate copy of the Executive Summary with detailed information on the project is also enclosed.

The Feasibility Study is authorized by a Senate Subcommittee on Public Works Resolution dated September 11, 1969. The Corps and Massport began the study in 2002. After considering the needs of commercial navigation and public and private terminals in the several areas of the harbor, the following improvements are being recommended:

- Improving access to the Conley Terminal for containerships by deepening the harbor's existing 40-foot channels, turning basin and anchorage to a depth of -48 feet at mean lower low water (MLLW), with an additional two feet of depth in the Broad Sound North Entrance Channel. Massport would also deepen the berths at the Conley Terminal. These improvements would allow a greater percentage of New England cargo to be shipped through the Port of Boston, rather than through the Port of New York and New Jersey.
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- Improving access to the Chelsea River primarily for its petroleum terminals would deepen the existing -38-foot channel to -40 feet MLLW. Any improvement would be contingent on replacement of the Chelsea Street Bridge by the State, City and USCG, as the existing bridge precludes the use of larger vessels.

These improvements will involve dredging about 11.9 million cubic yards (MCY) of clays, sands, and tills, all parent materials largely of glacial origin, from the harbor bottom. In addition, about one MCY of rock would be blasted and dredged from the harbor. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site located about 18 miles seaward of the harbor. The project would take about three years to construct.

The project will appear in the April 18 Federal Register. A copy of the Public Notice for the project is also enclosed. A public meeting will be held at Massport's Black Falcon Cruise Ship Terminal in South Boston on May 20, 2008 at 1:00 PM. The public comment period on the project will close on June 2, 2008. The Massachusetts Environmental Policy Act review process will run concurrently with the Federal review process, with the State's review period closing on June 9, 2008.

We are requesting your comments on the Boston Harbor deep-draft navigation study in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and implementing regulations 36 CFR 800. Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. You may also contact Mr. Marc Paiva, the District Tribal Liaison at (978) 318-8796 with any specific comments or concerns. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742-2751.

Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures (3)
Public Notice
Executive Summary
CDRom with Draft Feasibility Report and DSEIS/DEIR

Copy furnished (with enclosures):
Ms. Bettina Washington, Acting THPO
Wampanoag Tribe of Gay Head (Aquinnah)
20 Black Brook Road
Aquinnah, Massachusetts 02535



DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751
April 10, 2008

REPLY TO:
ATTENTION OF:

Engineering/Planning Division
Evaluation Branch

Mr. Shawn W. Hendricks, Sr., Chairman
Mashpee Wampanoag Tribe
483 Great Neck Road, South
Mashpee, Massachusetts 02649

Dear Chairman Hendricks:

The U.S. Army Corps of Engineers, New England District, in partnership with the Massachusetts Port Authority (Massport), has prepared a Draft Feasibility Report and joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Massachusetts. A copy of the Draft Feasibility Report and accompanying documents on CDROM is enclosed. A separate copy of the Executive Summary with detailed information on the project is also enclosed.

The Feasibility Study is authorized by a Senate Subcommittee on Public Works Resolution dated September 11, 1969. The Corps and Massport began the study in 2002. After considering the needs of commercial navigation and public and private terminals in the several areas of the harbor, the following improvements are being recommended:

- Improving access to the Conley Terminal for containerships by deepening the harbor's existing 40-foot channels, turning basin and anchorage to a depth of -48 feet at mean lower low water (MLLW), with an additional two feet of depth in the Broad Sound North Entrance Channel. Massport would also deepen the berths at the Conley Terminal. These improvements would allow a greater percentage of New England cargo to be shipped through the Port of Boston, rather than through the Port of New York and New Jersey.
- Improving access to Massport's Marine Terminal in South Boston. This terminal was recently returned to Massport after many years of use for the Big Dig. Massport and its partners are developing the terminal for dry bulk cargo operations. The 40-foot lane of the Main Ship Channel above the Reserved Channel and below the Ted Williams Tunnel would be deepened to -45 feet MLLW, and Massport would deepen the berth to that depth.
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These improvements will involve dredging about 11.9 million cubic yards (MCY) of clays, sands, and tills, all parent materials largely of glacial origin, from the harbor bottom. In addition, about one MCY of rock would be blasted and dredged from the harbor. All materials have been tested and found suitable for ocean disposal at the Massachusetts Bay Disposal Site located about 18 miles seaward of the harbor. The project would take about three years to construct.

The project will appear in the April 18 Federal Register. A copy of the Public Notice for the project is also enclosed. A public meeting will be held at Massport's Black Falcon Cruise Ship Terminal in South Boston on May 20, 2008 at 1:00 PM. The public comment period on the project will close on June 2, 2008. The Massachusetts Environmental Policy Act review process will run concurrently with the Federal review process, with the State's review period closing on June 9, 2008.

We are requesting your comments on the Boston Harbor deep-draft navigation study in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and implementing regulations 36 CFR 800. Please feel free to call me with any questions or comments you may have on this project at (978) 318-8220. You may also contact Mr. Marc Paiva, the District Tribal Liaison at (978) 318-8796 with any specific comments or concerns. Written comments may be directed to me at the U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742-2751.

Sincerely,



Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosures (3)
Public Notice
Executive Summary
CDRom with Draft Feasibility Report and DSEIS/DEIR

Copy furnished (with enclosures):
Mr. George Greene, Jr., Tribal Historic Preservation Officer
Mashpee Wampanoag Tribe
483 Great Neck Road, South
Mashpee, Massachusetts 02649



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

REPLY TO:
ATTENTION OF:

April 8, 2008

Engineering/Planning Division
Evaluation Branch

U.S. Environmental Protection Agency
Office of Federal Activities
EIS Filing Section, Room 7241
Ariel Rios Building (South Oval Lobby)
1200 Pennsylvania Avenue, NW
Washington, DC 20004

Dear Sir or Madam:

Please find enclosed five copies of the Boston Harbor Deep Draft Navigation Improvement Project Draft Feasibility Report and Draft Supplemental Environmental Impact Statement and State Environmental Impact Report (DFR/DSEIS/DEIR) for filing with your agency. A copy of the Notice of Availability is also enclosed for your reference. The three originals of the signed Notice of Availability have been or will be sent to your office from the U.S. Army Records Management and Declassification Agency for filing in the Federal Register on April 18, 2008. Please send a copy of the Notice of Availability in the Federal Register to Ms. Catherine Rogers at the above address or email a copy to catherine.j.rogers@usace.army.mil.

Copies of these documents have been distributed for review by April 11, 2008. Ms. Catherine Rogers can be reached at (978) 318-8231 regarding questions on the distribution or contents of the DSEIS/EIR.

Sincerely,


John B. Kennelly
Chief of Planning

Enclosures

BILLING CODE: 3710-24

DEPARTMENT OF DEFENSE

Department of the Army; Corps of Engineers

Availability of the Draft Feasibility Report and Supplemental Environmental Impact Statement and Draft State Environmental Impact Report for the Boston Harbor Deep Draft Navigation Improvement Project

AGENCY: Department of the Army, U.S. Army Corps of Engineers, DOD.

ACTION: Notice of availability.

SUMMARY: The U.S. Army Corps of Engineers, New England District in partnership with the Massachusetts Port Authority (Massport) has prepared a joint Draft Supplemental Environmental Impact Statement and State Draft Environmental Impact Report (DSEIS/DEIR) examining improvements to deep-draft navigation channels in Boston Harbor, Boston, MA. Four separate improvements were developed. The first examined deepening the outer and lower harbor's existing 40-foot channel system to provide deeper access to Massport's Conley Terminal in South Boston for containership traffic. All depths are referenced to minus mean lower low water (MLLW). Navigation channel depths of between 45 to 50 feet were examined, with a depth of 48 feet recommended, with an additional two feet in the entrance channel. Under this plan the following project features would be improved: the 40-foot lane of the Broad Sound North Entrance Channel would be deepened to 50 feet and widened through the bend at Finn's Ledge. The 40-foot lane of the Main Ship Channel from the Broad Sound North

Entrance Channel upstream through President Roads to the Reserved Channel would be deepened to 48 feet and its 600-foot wide reaches widened to between 800 and 900 feet, with additional width in the bends. The 40-foot lower reach of Reserved Channel and its turning area would be deepened to 48 feet, with the turning area also widened to 1600 feet. The 40-foot President Roads Anchorage would be deepened to 48 feet.

The second improvement would deepen the existing 40-foot lane of the Main Ship Channel from the Reserved Channel Turning Area upstream to just below the Third Harbor Tunnel to a depth of 45 feet, to improve access to the Massport Marine Terminal in South Boston. The third improvement would deepen a portion of the 35-foot Mystic River Channel lane to 40 feet to improve access to Massport's Medford Street Terminal. The fourth and final improvement would deepen the 38-foot Chelsea River Channel to 40 feet, with minor widening in the bridge approaches and the bend between the bridges.

In conjunction with work in the Federal channels, the Massachusetts Port Authority would deepen vessel berths at the Conley Terminal and Marine Terminal. Terminals on the Chelsea River would also deepen their berths to match the new channel depth. A total of about 12.1 million cubic yards (cy) of parent material, and 1.2 million cy of rock, would be removed by dredging and placed at the Massachusetts Bay Disposal Site (MBDS). Beneficial use opportunities for the dredged material have been identified and would be considered further during final design of the project. Those beneficial use opportunities include: creation of rock reefs in Massachusetts Bay and Broad Sound, and using the non-rock material as cover at the former Industrial Waste Site which overlaps the MBDS. This joint Federal and State document builds on the lessons learned from the

final EIR/S prepared in June of 1995 for the previous navigation improvement project in Boston Harbor.

DATES: Submit comments on or before June 2, 2008.

ADDRESSES: Comments should be submitted to Colonel Curtis L. Thalken, District Engineer, U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742.

FOR FURTHER INFORMATION CONTACT: Ms. Catherine Rogers, (978) 318-8231.

SUPPLEMENTARY INFORMATION: The U.S. Army Corps of Engineers is authorized to conduct this Feasibility Study by a Senate Subcommittee on Public Works Resolution dated September 11, 1969.

The DSEIS/DEIR is available on-line on the New England District's web page at http://www.nae.usace.army.mil/projects/ma/BHNIP/BostonHarbor_draft_FeasibilitySEIS.zip and at the following local libraries: Boston Libraries - 25 Parameter Street, 20 City Hall Avenue, 18 Barnes Avenue, 666 Boylston Street, Boston City Hall, 179 Main Street, 646 West Broadway, 276 Meridan Street; Chelsea Library – 569 Broadway; Revere Library – 179 Beach Street; and the Winthrop Library – 2 Metcalf Square. If you wish to receive a copy of the Executive Summary or an electronic copy of the DSEIS/DEIR, please contact Ms. Catherine Rogers, Ecologist, U.S. Army Corps of Engineers, New England District, Evaluation Branch, 696 Virginia Road, Concord, MA 01742.

A public meeting to solicit comments has been scheduled for 1:00 p.m. on Tuesday May 20, 2008, on the second floor of the Black Falcon Cruise Terminal, One Black Falcon Avenue, Boston, MA.

8 April 08
Date

Curtis L. Thalken
Curtis L. Thalken
Colonel, Corps of Engineers
New England District

PART 5

CORRESPONDENCE RECEIVED DURING PREPARATION OF THE DRAFT FEASIBILITY REPORT AND DSEIS/DEIR

U.S. Department of
Homeland Security

United States
Coast Guard



Commander
United States Coast Guard
Sector Boston

427 Commercial Street
Boston, MA 02109
Phone: (617) 223-5456
FAX: (617) 223-3032

16600
November 9, 2007

U.S. Army Corps of Engineers
New England District
Attn: Mr. Michael Keegan
696 Virginia Road
Concord, MA 01742

Dear Mr. Keegan:

I recently received your letter outlining the proposed improvements contained in the Boston Harbor Deep Draft Navigation Improvement Feasibility Study. As Captain of the Port, one of my highest priorities is the safe transit of commercial vessels. Therefore, I am keenly interested in establishing and maintaining the maximum depth of navigable waterways within the harbor. I fully support the five areas slated for deepening as these improvements will significantly increase under keel clearance for commercial traffic in the Port.

You asked for specific feedback on proposed improvements regarding deepening of President Roads Anchorage. Maintaining adequate anchorage accessibility, particularly with the arrival of deeper-draft vessels anticipated within Boston Harbor, is essential and cannot be achieved without inclusion of President Roads Anchorage in the deepening project. This anchorage allows vessels a sheltered area to await pier availability and is a necessity in the event a vessel needs to anchor in an emergency during transit. It is also utilized by Coast Guard inspectors, in heavy weather, to conduct safety and security exams of vessels required to be boarded at sea, when a boarding out in Broad Sound may be too dangerous to accomplish safely. The Army Corps' deepening project is critical to the continued safe transit of commercial vessels within the port. I strongly support your proposal to include this viable anchorage in the larger plan.

Thank you for the opportunity to comment. If you have any questions please feel free to contact Lieutenant Junior Grade Heidi Miller, Assistant Chief of my Waterways Management Division, at (617) 223-5456.

Sincerely,

A handwritten signature in black ink, appearing to read "G. P. Kulisch".

G. P. KULISCH
Captain, U. S. Coast Guard
Captain of the Port
Boston, Massachusetts

Copy: Ms. Deborah Hadden, Massachusetts Port Authority
Mr. Stewart Dalzell, Massachusetts Port Authority



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

REPLY TO
ATTENTION OF

13 August 2007

Programs/Project Management Division
Programs & Civil Project Management Branch

Commander Claudia C. Gelzer
U. S. Coast Guard Sector Boston
45 Commercial Street
Boston, MA 02109-1045

Dear Commander Gelzer:

The New England District, Corps of Engineers and Massport are completing their draft Boston Harbor Deep Draft Navigation Improvement Feasibility Study evaluating deep draft channel improvements to Boston Harbor. Before submitting that document to internal Corps review we request your views on the proposed improvements, specifically as they relate to port safety and security.

The proposed improvements, as shown in the attached figures, consist of the following:

- Deepening the Harbor's main channels providing access from the sea to the Conley Terminal, including the Broad Sound North Entrance Channel, Main Ship Channel, lower Reserved Channel and Reserved Channel Turning Area to a depth of at least 45 feet and potentially to as much as 50 feet. Depths in the entrance channel would be increased an additional two feet to allow for increased seas.
- Deepening the President Roads Anchorage Area to the same depth as the Main Ship Channel
- Deepening the Main Ship Channel above the Reserved Channel Turning Area to a depth of up to 45 feet to access the Massport Marine Terminal (North Jetty), which Massport plans to develop as a deep draft bulk cargo terminal
- Deepen a small 35-foot area of the lower Mystic River to 40 feet to improve access to Massport's Medford Street Terminal for bulk cargo operations
- Deepen the 38-foot Chelsea River Channel to 40 feet, contingent on replacement of the Chelsea Street Bridge to permit a wider channel cut.

The Project's Draft Feasibility Report and Supplemental Environmental Impact Statement would be released for public and agency review in November 2007 contingent on Corps Headquarters review and approval. Construction would not commence until at least 2011, contingent on Congressional authorization and funding and Massport and State cost-sharing. Construction is anticipated to take 4 to 7 years depending on the final depth recommended for the main channels.

For the President Roads Anchorage, the current improvement plan includes deepening the anchorage to the same depth as the improved channel. Corps design guidance issued in 2004

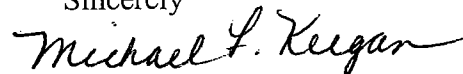
requires Corps projects to incorporate port security needs into project planning when designing modifications to a port's general navigation features (its channels and anchorages). In prior discussions with Coast Guard staff involved with Boston Harbor the need to include adequate anchorage accessible to the new deeper-draft cargo vessels that would use the deepened channels has been voiced. Reasons given have included the frequency of use of the anchorage for lightering, quarantine, inspection or emergency mooring of vessels. Please provide your views on the need for inclusion of anchorage deepening in the proposed improvement plans and the rationale for that need.

A ship simulation study conducted by the Corps Engineering Research and Design Center in Vicksburg, Mississippi, in cooperation with the Boston Harbor Pilots confirmed the basic channel layout developed from the PIANC and Corps deep-draft design guidance, with some minor modifications. At Finns Ledge and in the several channel bends between the Roads and the Reserved Channel Turning Area, bend wideners were recommended. The attached figures show those channel areas and turns. In general, the 900-foot width of the entrance channel was deemed adequate for the future vessel fleet, while widening the deep lane of the Main Ship Channel to 800 feet, with 900 feet in each bend, is included in the improvement design.

The Reserved Channel Turning Area would also be expanded under the current plan from its existing 1200-foot diameter to a general diameter of 1500 feet. In response to the results of the simulation study, the turning basin limits would also be flared in their junction with the northern side of the Reserved Channel and along the boundary of the Main Ship Channel as shown on the attached figures. The remaining question deals with the location of the centerline of the turning basin relative to the Logan International Airport runway and the Reserved Channel. The simulation study included runs on two alignments. The more northerly alignment was more centered on the Reserved Channel but located closer to the runway approach. The second alignment was centered further south along the Main Ship Channel and further from both the runway and Reserved Channel. While both alignments would impact runway use to some extent, the FAA is primarily interested in which alignment would enable large vessels to be turned the fastest, so as to limit runway down-time. Please examine the figures showing the two alignments and provide your views of each.

If you have any further questions or concerns, please feel free to contact the study manager for the deepening project, Mr. Mark Habel, at 978-318-8871 or me at 978-318-8087 or by email at michael.f.keegan@usace.army.mil.

Sincerely



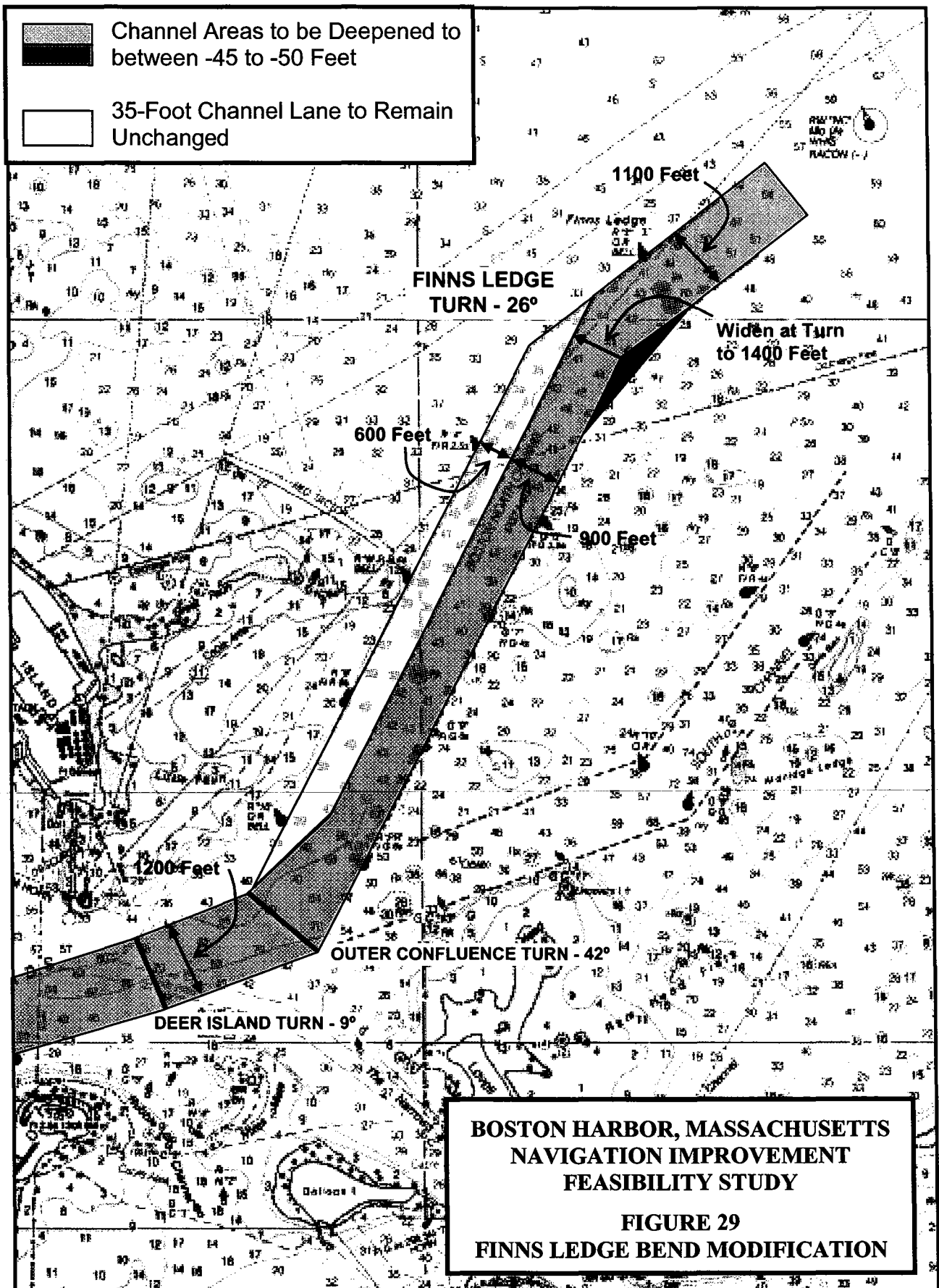
Michael F. Keegan, P.E; L.C.S.
Project Manager

Copy Furnished: See Attached Sheet

Copy Furnished:

Ms. Deborah Hadden, Deputy Port Director
Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, MA 02128-2909

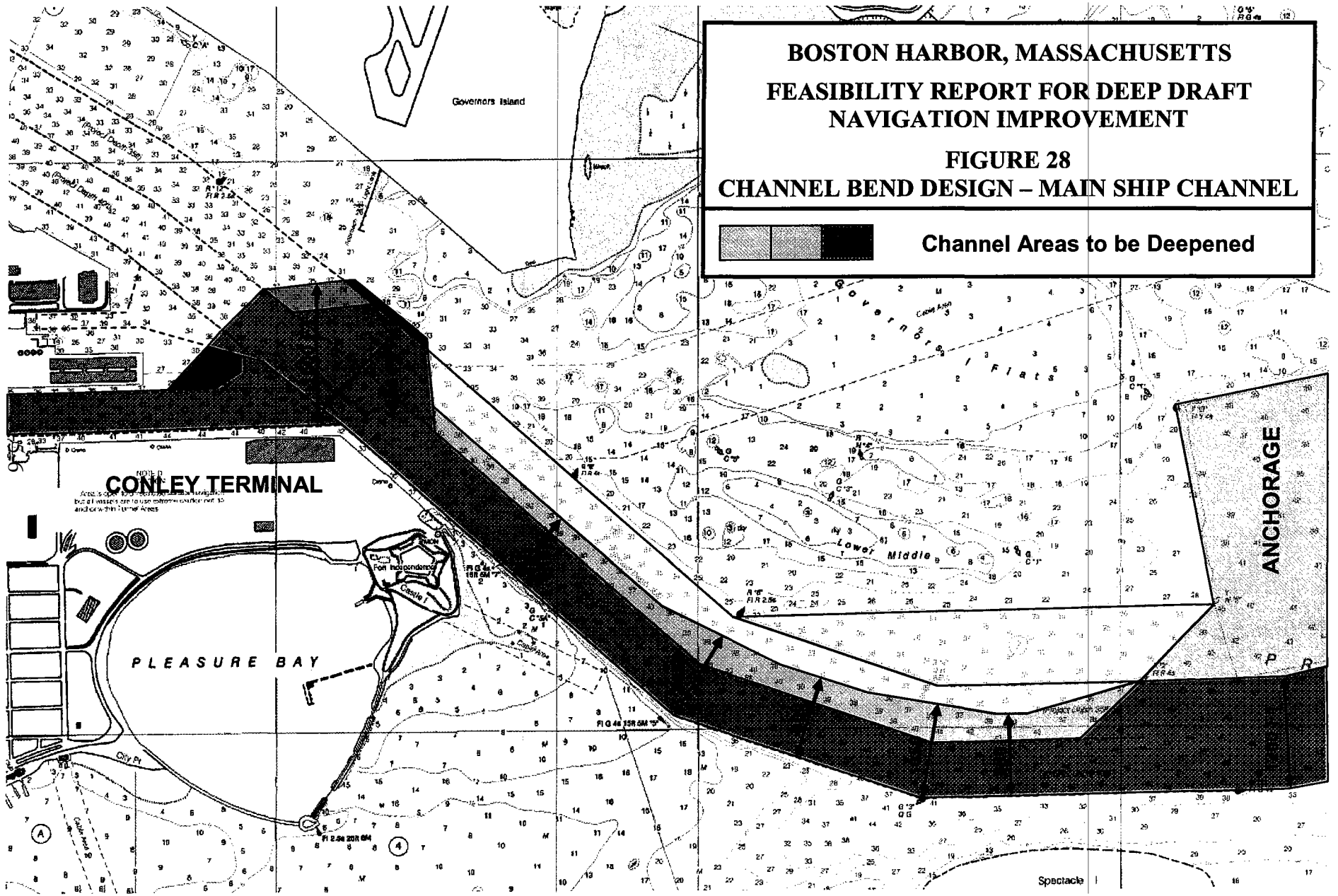
Mr. Stewart Dalzell
Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, MA 02128-2909

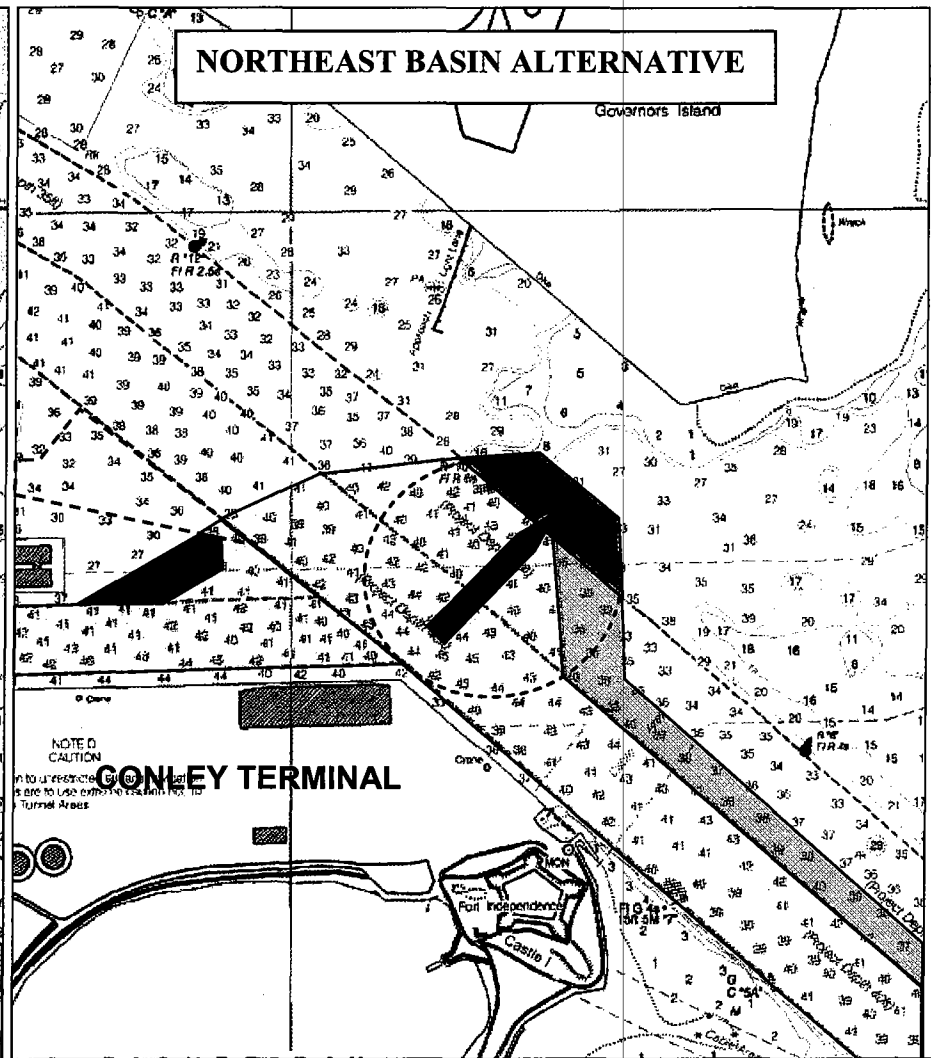
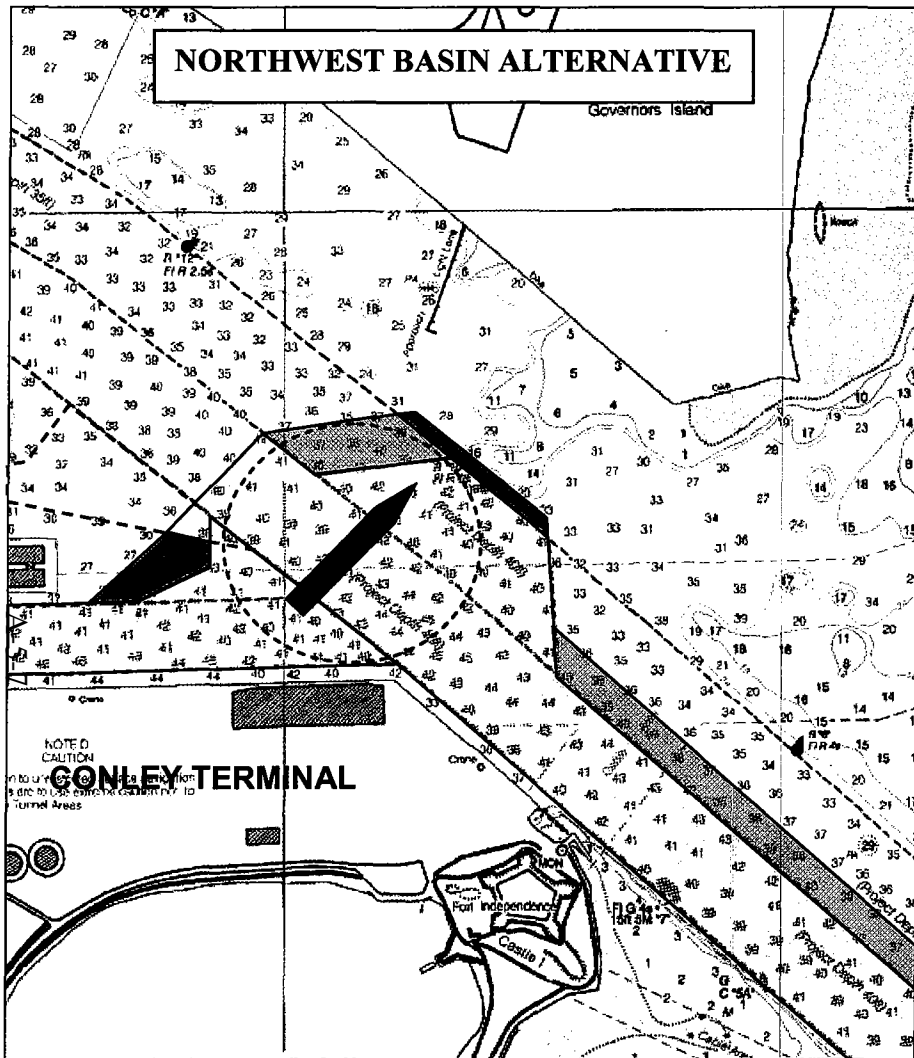





**BOSTON HARBOR, MASSACHUSETTS
FEASIBILITY REPORT FOR DEEP DRAFT
NAVIGATION IMPROVEMENT**

**FIGURE 28
CHANNEL BEND DESIGN - MAIN SHIP CHANNEL**

 **Channel Areas to be Deepened**





-  40-Foot Main Ship Channel Areas Deepened to 45 Feet for Marine Terminal Extension
-  Massport Marine Terminal Berths – Deepened to 45 Feet
-  35-Foot Main Ship Channel Lane Areas Deepened to 45 Feet

**BOSTON HARBOR, MASSACHUSETTS
 DEEP DRAFT NAVIGATION IMPROVEMENT
 FEASIBILITY STUDY**

**FIGURE 30
 RESERVED CHANNEL TURNING AREA EXPANSION
 ALTERNATIVE BASIN ALIGNMENTS**



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

REPLY TO:
ATTENTION OF:

August 3, 2007

Engineering-Planning Division
Planning Branch

Captain Gregg H. Farmer
Boston Harbor Pilots Association LLC
256 Marginal Street, Building #11
East Boston, Massachusetts 02128

Dear Captain Farmer:

I am writing concerning the feasibility study of deep draft channel improvements to Boston Harbor by the Corps and Massport. Specifically, we are seeking the views of the Boston Harbor Pilots on aspects of the proposed improvements related to navigational safety. Specifically we are requesting your views on widening the channel bends, the need to deepen the President Roads Anchorage Area, and the expansion of the Reserved Channel Turning Area.

The ship simulation study conducted by the Corps Engineering Research and Design Center in Vicksburg, Mississippi confirmed the basic channel layout developed from the PIANC and Corps deep-draft design guidance, with some minor modifications. At Finns Ledge and in the several channel bends between the Roads and the Reserved Channel Turning Area, bend wideners were recommended. The attached figures show those channel areas and turns. In general, the 900-foot width of the entrance channel was deemed adequate for the future vessel fleet, while widening the Main Ship Channel to 800 feet, with 900 feet in each bend, is included in the improvement design.


We are currently performing a depth optimization evaluation for the proposed channel improvement looking at depths of 45 to 50 feet to serve potential design containerships of 4300, 5600 and 7500 TEU capacities, with beams of 131 to 141 feet. The 7500 TEU vessel is new to the analysis and carries the 10 feet of additional beam. Information and views you could provide on the need for widened channel bends for these vessels would be helpful.

For the President Roads Anchorage, the current improvement plan includes deepening the anchorage to the same depth as the improved channel. Including the anchorage deepening in the plan was done mainly at the urging of your members and the US Coast Guard. Corps guidance also calls for the inclusion of such features in project recommendations where they are shown necessary for purposes of port security and safety. Information that you could provide on the frequency of use of the anchorage for lightering, quarantine, inspection, safe harborage, or emergency mooring of vessels would help in this analysis.

The Reserved Channel Turning Area would also be expanded under the current plan from its existing 1200-foot diameter to a general diameter of 1500 feet. In response to the results of the simulation study, the turning basin limits would also be flared in their junction with the northern side of the Reserved Channel and along the boundary of the Main Ship Channel as shown on the enclosed figures. The remaining question deals with the location of the centerline of the turning basin relative to the Logan International Airport runway and the Reserved Channel. The simulation study included runs on two alignments. The more northerly alignment was more centered on the Reserved Channel but located closer to the runway approach. The second alignment was centered further south along the Main Ship Channel and further from both the runway and Reserved Channel. While both alignments would impact runway use to some extent, the FAA is primarily interested in which alignment would enable large vessels to be turned and maneuvered into the Reserved Channel the fastest, so as to limit runway down-time. Please advise us what if any restrictions or notice requirements are currently practiced for vessel operations due to the airport. Please also examine the figures showing the two alignments and provide the opinion of the Boston Harbor Pilots as to the turning/maneuvering times associated with each for the larger vessels accessing the Reserved Channel.

If you have any further questions or concerns, please feel free to contact me at 978-318-8505, or the study or project managers for the deepening project, Mr. Mark Habel and Mr. Mike Keegan, at 978-318-8871 or 8087, respectively.

Sincerely






John R. Kennelly
Chief of Planning

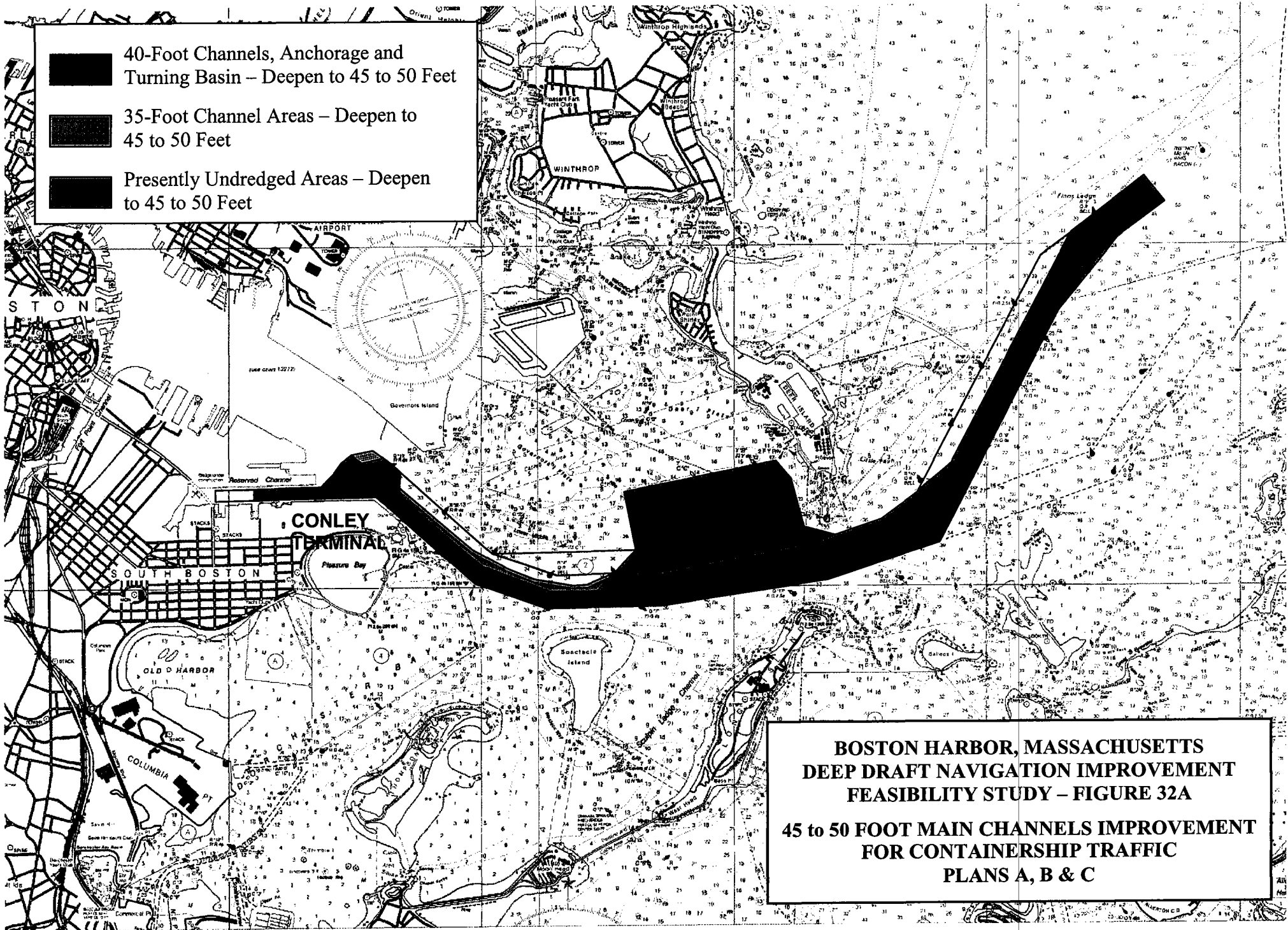
Enclosures

Copies Furnished:

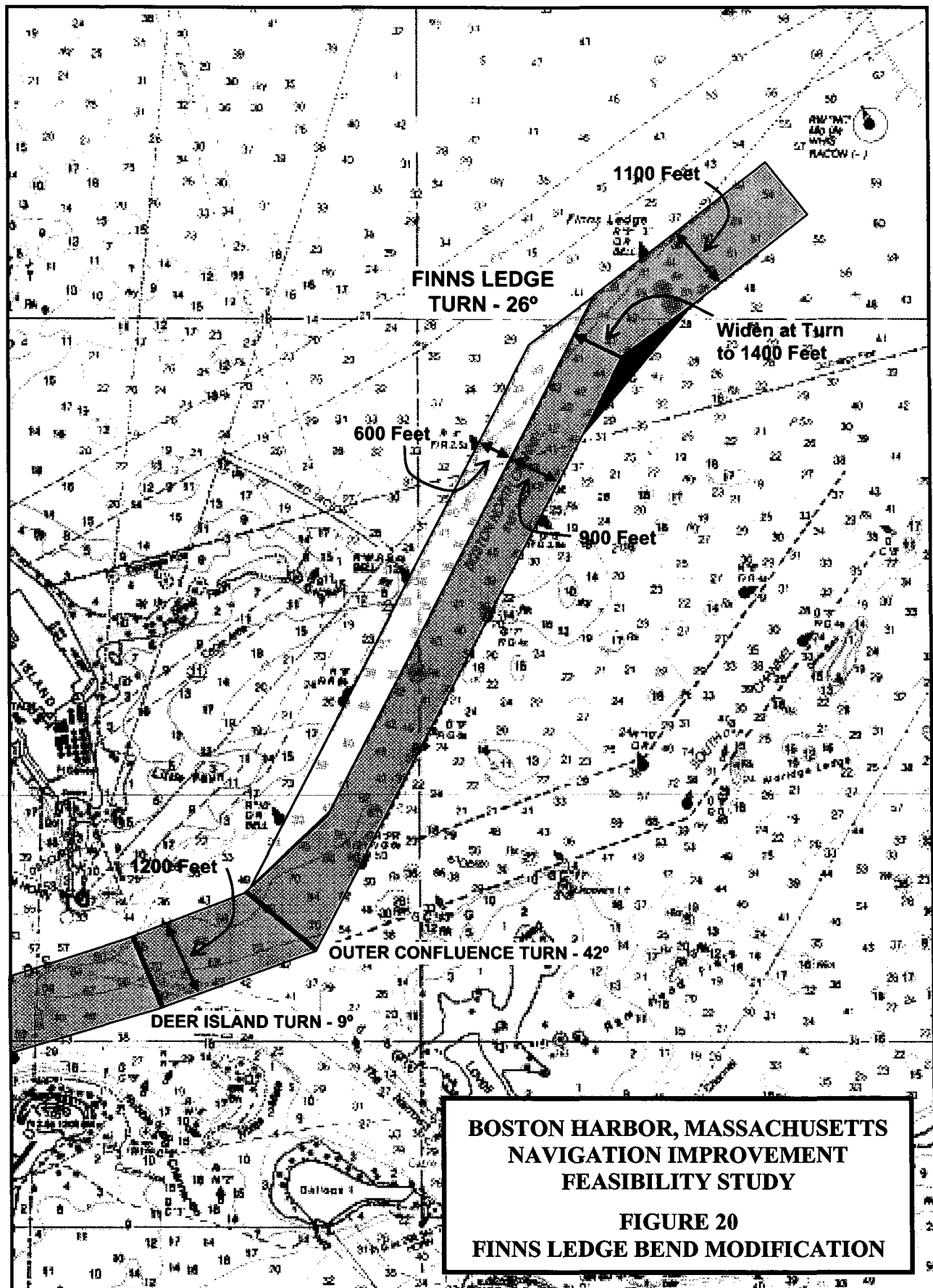
Deborah Hadden, Deputy Port Director
Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, Massachusetts 02128-2909

Stewart Dalzell
Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, Massachusetts 02128-2909

-  40-Foot Channels, Anchorage and Turning Basin – Deepen to 45 to 50 Feet
-  35-Foot Channel Areas – Deepen to 45 to 50 Feet
-  Presently Undredged Areas – Deepen to 45 to 50 Feet

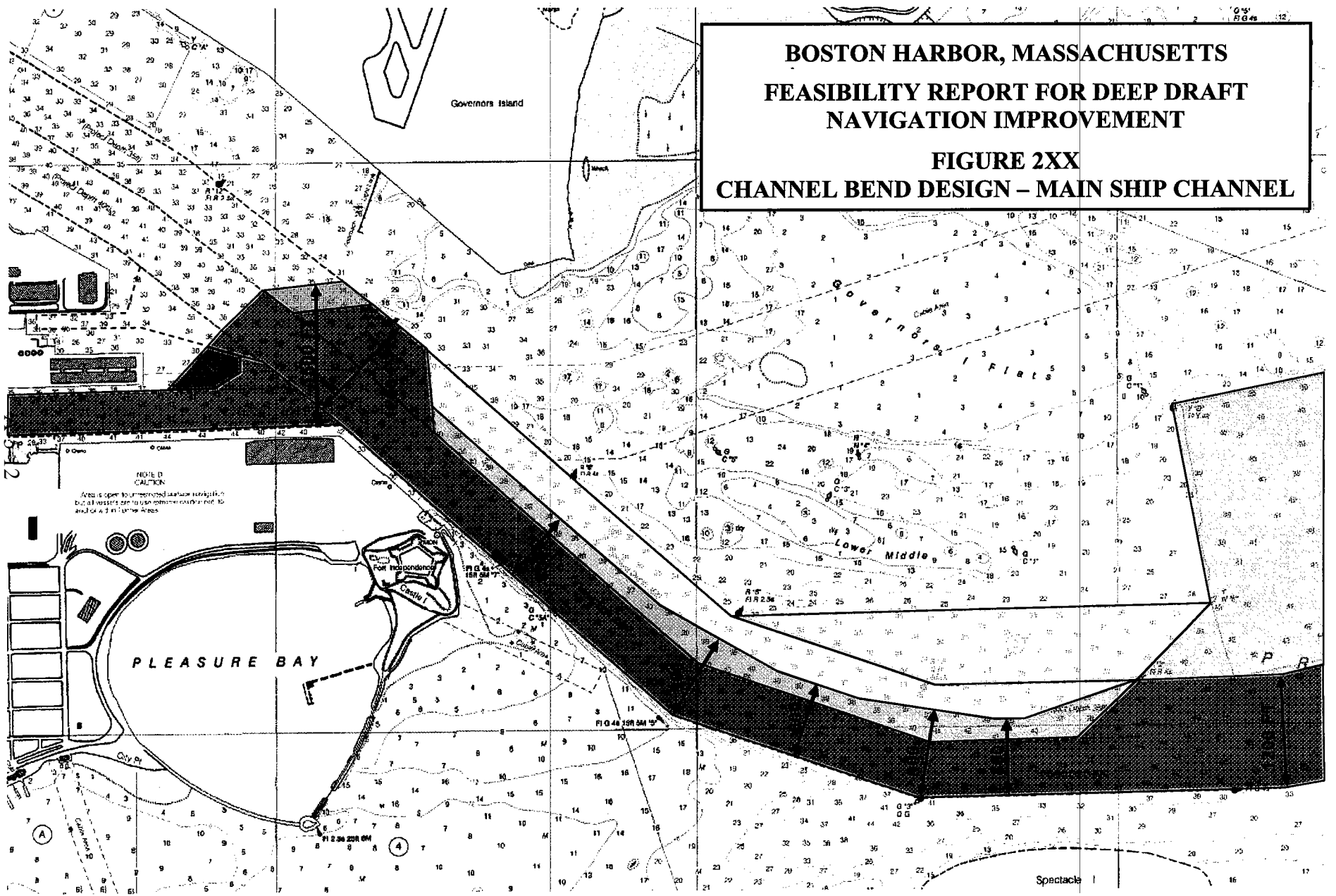


**BOSTON HARBOR, MASSACHUSETTS
 DEEP DRAFT NAVIGATION IMPROVEMENT
 FEASIBILITY STUDY – FIGURE 32A
 45 to 50 FOOT MAIN CHANNELS IMPROVEMENT
 FOR CONTAINERSHIP TRAFFIC
 PLANS A, B & C**



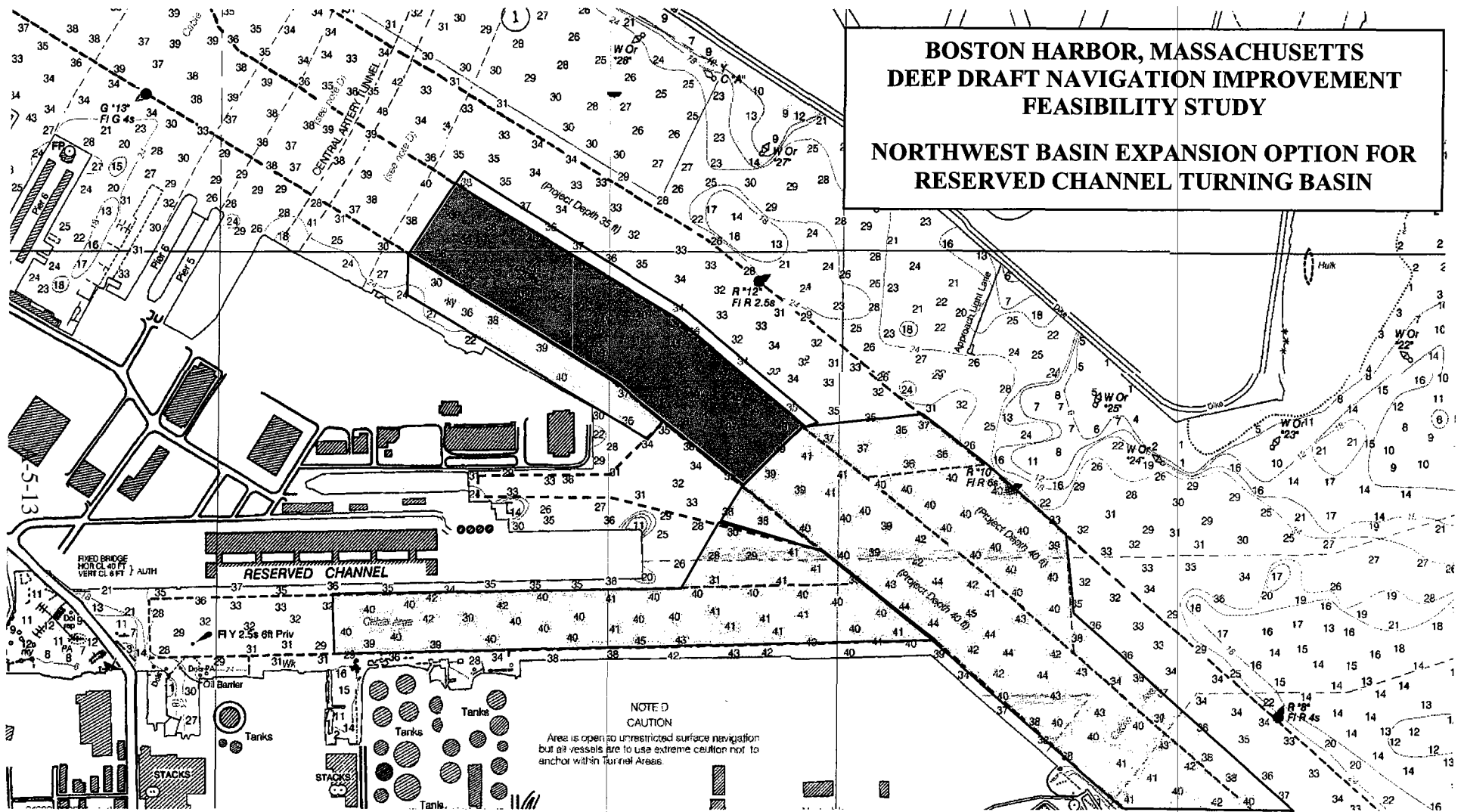
**BOSTON HARBOR, MASSACHUSETTS
FEASIBILITY REPORT FOR DEEP DRAFT
NAVIGATION IMPROVEMENT**

**FIGURE 2XX
CHANNEL BEND DESIGN - MAIN SHIP CHANNEL**







**BOSTON HARBOR, MASSACHUSETTS
DEEP DRAFT NAVIGATION IMPROVEMENT
FEASIBILITY STUDY**

**NORTHWEST BASIN EXPANSION OPTION FOR
RESERVED CHANNEL TURNING BASIN**

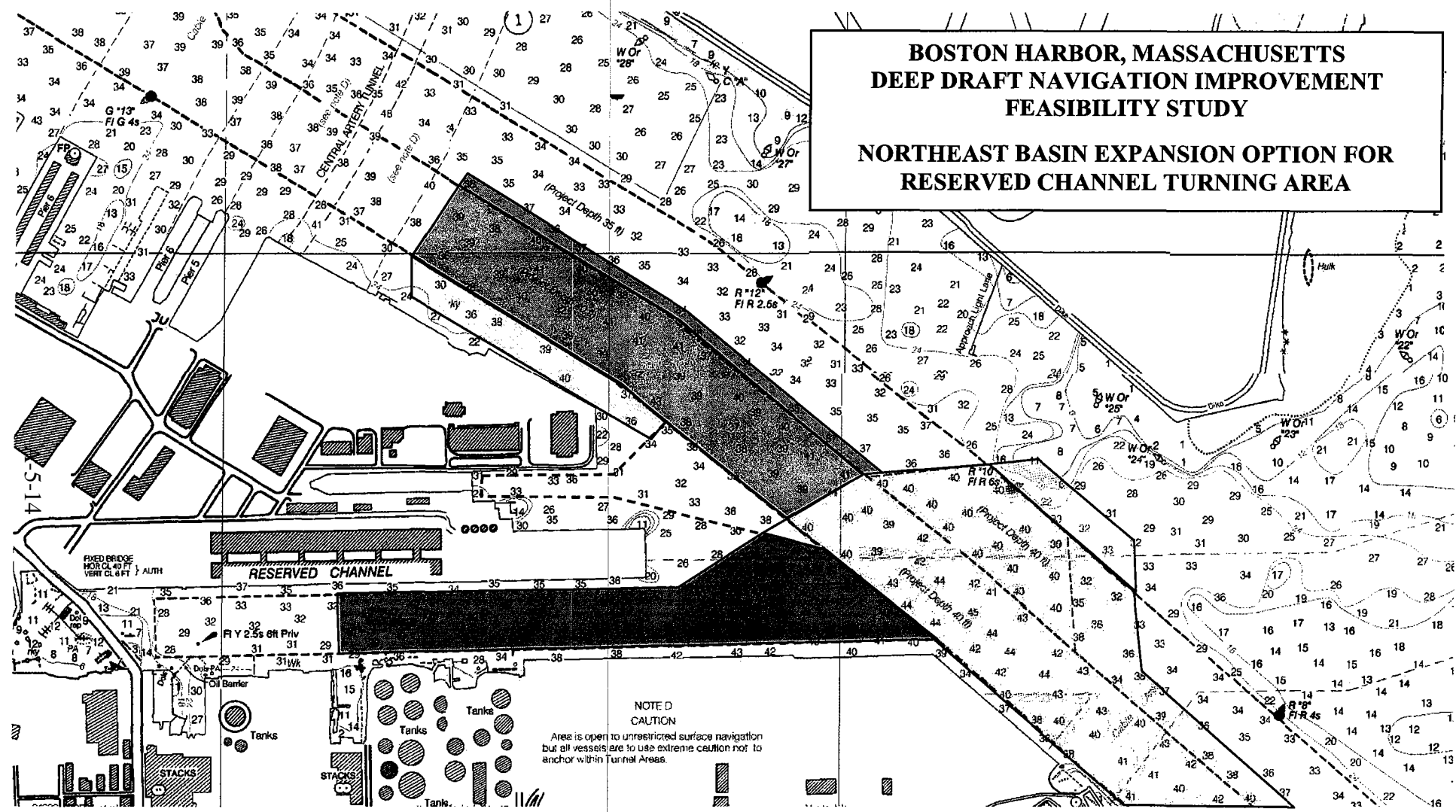


NOTE D
CAUTION
Area is open to unrestricted surface navigation
but all vessels are to use extreme caution not to
anchor within Tunnel Areas.

	40-Foot Main Ship Channel Areas Deepened to 45 Feet for Marine Terminal Extension		35-Foot Main Ship Channel Areas Deepened to 45 Feet for MMT
	40-Ft Areas Deepened to 45 or 48 Feet for Main Channels Deepening Project (Northwest Configuration for Expanded RTA)		Massport Marine Terminal Berths – to 45 Feet

**BOSTON HARBOR, MASSACHUSETTS
DEEP DRAFT NAVIGATION IMPROVEMENT
FEASIBILITY STUDY**

**NORTHEAST BASIN EXPANSION OPTION FOR
RESERVED CHANNEL TURNING AREA**



	<p>40-Foot Main Ship Channel Areas Deepened to 45 Feet for Marine Terminal Extension</p>		<p>40-Ft & 35-Foot Areas Deepened to 45 Feet for Main Channels Deepening Project (Northeast Configuration for Expanded RTA)</p>
	<p>35-Foot Main Ship Channel Areas Deepened to 45 Feet</p>		<p>Massport Marine Terminal Berths – to 45 Feet</p>
			<p>Northeast Expansion of Turning Area – to 45 Feet</p>



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

REPLY TO:
ATTENTION OF:

July 30, 2007

Engineering-Planning Division
Planning Branch

Mr. Bruce K. Carlisle, Acting Director
Massachusetts Office of Coastal Zone Management
251 Causeway Street, Suite 800
Boston, Massachusetts 02114-2136

Dear Mr. Carlisle:

I am writing in response to your letter of June 28, 2007 concerning the feasibility study of deep draft channel improvements to Boston Harbor by the Corps and Massport. Specifically, our correspondence has discussed the beneficial use potential for the 600,000 to 1.4 million cubic yards of blasted rock that would be generated by the proposed project, depending on the final channel depth recommended.

While the Corps would prefer to beneficially use the rock and other material generated by the project, the Corps and EPA have determined that all improvement material to be generated by the project, including the rock, is suitable for unconfined ocean disposal at the Massachusetts Bay Disposal Site (MBDS). The cost of disposal of the material at the MBDS is the least cost environmentally acceptable option, and is the Federal base plan for dredged material disposal for this project. Beneficial use options may be considered if there is no or minimal incremental cost involved over and above the base plan. Typically incremental disposal costs of ten percent or less are considered minimal. If incremental costs of beneficial use are more than minimal, those incremental costs must either be borne by others, or another Corps authority, such as our environmental restoration programs may potentially be applicable, subject to its own cost-sharing requirements.

The Corps and Massport have been considering beneficial uses for the projects dredged material, including hard bottom habitat creation using the rock from the project, since the beginning of the feasibility study in 2002. This use has been presented and discussed at each of the several meetings of the Boston Harbor interagency Technical Working Group (TWG) over the course of the study. The feasibility report and SEIS will begin their internal reviews later this month and will be provided to the Federal and State agencies, city and public in late fall for review and initiation of regulatory approvals prior to submittal of a report to Congress scheduled for the summer of 2008. Since you indicate that more in-depth analysis would be needed before you could support reef creation, at this time the Corps intends the feasibility report to not include a recommendation for beneficial use of the rock. The report will discuss our ongoing coordination and will state that reef creation and other potential beneficial use options will be further considered during the design phase of the project that would commence once Congress authorizes the improvement.

Your letter states that “there are questions as to the physical characteristics of the rock and hard material”. The nature and character of the material and the output of the construction process have been discussed at TWG and the State Dredging Team meetings. While there are some areas of hard cobbly glacial tills, particularly in the entrance channel, the vast majority of the hard material in question will be blasted ledge. The blasting and dredging process will result in scowloads of fractured rock ranging in size from a few inches in diameter up to perhaps as much as 20 tons. Under the Federal base plan, there would be no need to sort or process this material before disposal at the MBDS. A review of the geology in the vicinity of the channel indicates that most of the rock will be argillite, except the small (5,000 cubic yard) area in the Chelsea River which would be granite. Any scow loads of rock or other hard material deemed unsuitable for reef creation or other uses would be deposited at the MBDS.

Your letter identified various beneficial use alternatives for the rock and I will offer the Corps views on each of the alternative uses you’ve discussed.

Hard-Bottom Habitat Creation: Battelle, under contract to the Corps, and after consultation with lobstermen and the TWG, identified five sites for creation of rock reefs in Massachusetts Bay. Of these two sites, one in Broad Sound south of Nahant, and one in the Bay east of the Harbor, were determined to be candidates for further consideration based on available area, existing bottom conditions and benthic community, and distance from the dredging site. The contractor’s draft and final reports on these sites were made available to the TWG for review and comment. It is these two sites that the feasibility report will identify as potential beneficial use opportunities for hard bottom habitat creation that could be incorporated into the project plan during the final design phase of the project. Any allocation of incremental cost associated with the beneficial use would be subject to agreement between the Corps, the State and Massport, consistent with Federal authority to participate in such costs.

We understand that the Mass DMF, using mitigation funds provided by the Hubline project, has itself constructed a pilot project for hard bottom habitat creation in Boston Harbor. Mass DMF has consistently stressed the importance of such bottom habitat in the harbor and elsewhere for fisheries when dredging projects propose to impact such substrate. While the deepening of Boston’s main channels would create an even greater expanse of hard bottom within the channels than presently exists, the availability of a large volume of dredged hard material offers a unique opportunity to create even more such habitat. We would welcome DMF’s technical input on Battelle’s report on the candidate sites identified for the navigation project, and would like the opportunity to continue review of the plans, analyses and data generated on their habitat creation work.

State-Sponsored Shore Protection Projects: Your letter cites State-sponsored shore protection projects for Point Allerton (Hull), George’s Island, the Nahant Causeway and Winthrop Beach. We must stress that the rock as removed from the channels will not be engineered to any particular specification for such use. Should the State be willing to take the material by load at the dredge and supply rehandling, staging and transport for the rock, this material could be made

available on that basis. In order for the dredging project not to incur additional cost, sorting of the material would need to be a non-Federal responsibility, and would need to occur in a manner that would not compromise dredge production rates. The State would need to assume any costs to the dredging project above that which would be incurred for disposal at the MBDS.


Providing the Rock to Commercial Construction Contractors: The benefit to the government from this proposal would be avoiding the cost of hauling the rock material to the MBDS or some other disposal or beneficial use site outside the harbor. The material would need to be accepted by these parties as the dredge brings it up; unsorted and of mixed sizes and types, and potentially mixed with varying amounts of other unconsolidated material removed by the dredge bucket. As the Corps would simply haul all the material in a scow out to the dredge site for disposal, any costs for sorting or washing the material, or any other transport, storage, rehandling or disposal costs would need to be borne by the party receiving the material at the dredge. These parties would need to be identified in advance, and have agreements in place with the State allowing their receipt of the material. The Corps dredging contracts would need to be structured in a manner that allowed bidders access to these parties to make allowance in their bids for both material transferred to these users and material disposed by other means.

State Regulatory Approvals: Your letter also cites MEPA, Chapter 91, Water Quality Certification (WQC) and Federal Coastal Zone Consistency (CZMC) as State permitting authorizations required for any habitat creation work. As we understand, Massport, the non-Federal sponsor of the deepening project, is not required to secure a Chapter 91 license. The Corps would request CZMC for the Federal navigation project and would request WQC for any discharge of dredged materials into State waters. Massport would be responsible for MEPA and any other applicable State and local regulatory approvals.

We agree that the rock and any other dredged materials from the project should be considered for beneficial use opportunities to the extent consistent with applicable laws and regulations and the Corps authority to participate in such actions. In accordance with discussions with Mr. Bob Boeri of MACZM subsequent to receiving your letter we plan to bring these issues before the Boston Harbor Technical Working Group to attempt to reach a consensus on the steps needed to properly address these proposals and map out the actions needed to incorporate practicable beneficial use opportunities for these materials into the recommended project. We will also continue to keep the Massachusetts State Dredging Team apprised of these discussions and seek input from dredging team participants not represented on the TWG.

If you have any further questions or concerns, please feel free to contact me at 978-318-8505, or the study or project managers for the deepening project, Mr. Mark Habel and Mr. Mike Keegan, at 978-318-8871 or 8087, respectively.

Sincerely


for John R. Kennelly
Chief of Planning

Copy Furnished:

Robert Boeri, State Dredging Coordinator
Massachusetts Office of Coastal Zone Management
251 Causeway Street, Suite 800
Boston, Massachusetts 02114-2136

Deborah Hadden, Deputy Port Director
Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, Massachusetts 02128-2909

Stewart Dalzell
Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, Massachusetts 02128-2909



THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
OFFICE OF COASTAL ZONE MANAGEMENT
251 Causeway Street, Suite 800, Boston, MA 02114-2136
(617) 626-1200 FAX: (617) 626-1240

June 28, 2007

John Kennelly
Chief of Planning
Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA 01742-2751

Dear ^{JOHN}~~Mr. Kennelly~~:

Secretary Bowles has asked that I respond directly to you in response to your inquiry of May 24, 2007 regarding the Commonwealth's position on the beneficial use of rock and other hard material removed during the deepening of the Boston Harbor navigation channel.

On behalf of the Executive Office of Energy and Environmental Affairs (EOEEA), I applaud the Army Corps of Engineers, New England District ("Corps") for its firm commitment to seek the beneficial use of material that would otherwise be discarded at the Massachusetts Bay Disposal Site, particularly in light of the potential added expense involved in incorporating beneficial use into the dredging project. Depending on the final channel depths, the estimates of material range from 6 to 15 million cubic yards of sands and clays and 600,000 to 1.4 million cubic yards of rock and hard materials. The Massachusetts State Dredging Team, which is chaired by the Office of Coastal Zone Management (CZM) and includes EOEEA agencies, has been working closely with the Corps to collaborate on options and investigations for the beneficial use. The rock, in particular, is a manageable, valuable resource of enough importance that beneficial uses must be incorporated into the dredging project scope from the outset.

In your letter you describe the concept of a Corps' proposal to deposit some of the rock and hard material at sites in Broad Sound and Massachusetts Bay in order to create new hard bottom habitat with a primary goal of lobster habitat enhancement. At this time, based on the information available to date, habitat creation/enhancement is a viable alternative for a beneficial use project type, but more in-depth analysis is required to determine the likelihood for success in meeting the stated goals as well as minimizing adverse effects on natural resources and uses. As feasibility investigations into the hard bottom habitat creation project proceed, input from CZM, the Division of Marine Fisheries (DMF), and the Department of Environmental Protection should be sought. Among others, there are questions as to the physical characteristics of the rock and hard material and the material's suitability for lobster larvae settlement. DMF has the fishery staff expertise to provide the important technical input and guidance on this type of beneficial use project. The state permitting authorizations that would be required (including Massachusetts Environmental Protection Act, Chapter 91 Waterways, 401 Water Quality Certification, and Federal Consistency Review) should be initiated early to allow for adequate review and issuance.



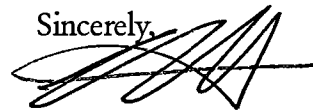
In addition to the hard bottom habitat creation project proposed by the Corps, there are two types of potential alternative projects that should be considered. It should be noted that these alternatives are not mutually exclusive, and that the potential exists to use the material to support several beneficial use projects.

Another beneficial use project type alternative that the Massachusetts State Dredging Team is currently examining is the use of the material for medium to large-scale shore protection efforts being considered within the Boston Harbor region. Some of the projects that could benefit from the rock removed during the deepening of the Boston Harbor navigation channel include: the runway safety improvements proposed for Logan Airport; the rehabilitation of Department of Conservation and Recreation revetments at Point Allerton, on George's Island, and on the Nahant Causeway; the rehabilitation of Central Artery/Tunnel revetments at Spectacle Island; and the creation of the terminal groin at Winthrop Beach. Each of these projects requires armoring rock (in the 5 to 8 ton range) and/or toe stone (in the 8 to 12 ton range) and would offer the advantage of less processing of the rock material. These projects are also in close proximity to the navigation channel work. The volume of material required for each project is still being determined as is the identification of a shore-side staging and storage site to be used prior to the final placement of the material. The required permitting for these shore protection projects would be the responsibility of the respective state agency landowner.

A third potential type of use for the material involves the construction industry. At the present time two companies—with both an interest in, and the ability to handle and process, the large volumes of rock involved—have expressed interest in obtaining the material. The Massachusetts State Dredging Team is having further discussions with these and any other interested parties regarding the logistical issues involved in accepting the material, including transfer scow availability, shoreside handling facilities and associated permits, and distribution systems.

I would encourage you to continue to work the Massachusetts State Dredging Team and the EOEEA agencies as the Corps further explores the feasibility of the beneficial use of rock and other hard material removed during the deepening of the Boston Harbor navigation channel.

Sincerely,



Bruce K. Carlisle
Acting Director

Cc:

Ian Bowles, EOEEA
Phil Griffiths, EOEEA
David Cash, EOEEA
Paul Diodati, DMF
Lealdon Langley, DEP
Ben Lynch, DEP
Karst Hoogeboom, DCR
Martha King, DCR
Michael Leone, MassPort
Robert Boeri, CZM

Habel, Mark L NAE

Subject: FW: Harbor Deepening Project Questions

From: Gregg Farmer [mailto:gfarmer@bostonpilots.com]
Sent: Saturday, June 30, 2007 9:36 PM
To: Habel, Mark L NAE
Cc: ahammond@bostonpilots.com
Subject: RE: Harbor Deepening Project Questions

Mark,

I have been out of pocket sorry for not replying sooner.

- 1) A) 10-18kts
B) 12-8 kts
C) 7-5 kts
- 2) 20-30 minutes
- 3) 1-1.5 hrs
- 4) 1.5-2 hrs By entrance buoy I am assuming Mystic River. Generally it is 1.5 hrs to Pier One East Boston another 30 minutes to Island End River.
- 5) Conoco 1.5-2hrs
- 6) 2-2.5 hrs Revere

Thanks for passing this along Mark and yes please address the letter to me.

Gregg

I think the purpose of life is to be useful, to be responsible, to be honorable, to be compassionate. It is, after all, to matter: to count, to stand for something, to have made some difference that you lived at all.
--Leo C. Rosten

-----Original Message-----

From: Habel, Mark L NAE [mailto:Mark.L.Habel@nae02.usace.army.mil]
Sent: Tuesday, June 26, 2007 11:16 AM
To: gfarmer@bostonpilots.com
Subject: Harbor Deepening Project Questions

Gregg: I have a couple of questions to help us in making the case for channel improvements that I hope you can help me out with.

(1) For the larger containerships - what speed (in knots) do the ships travel through:

- A - The North Channel
- B - The Roads
- C - The Main Ship Channel up to the Reserved Channel

(2) How long does it take to turn the large containerships in the Reserved Channel Turning Area (Notch)

(3) Overall - how long does it take on an inbound transit from the NC buoy to the berth at Conley

(4) For the cement ships travelling to the Mystic River - how long is a transit from the NC entrance buoy

(5) Same question for tankers inbound to Conoco-Philips

(6) Same question for tankers inbound to the upper Chelsea terminals

Mark L. Habel, Chief, Navigation Section Engineering-Planning Division US Army Corps of Engineers New England District 696 Virginia Road, Concord, MA 01742



THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
OFFICE OF COASTAL ZONE MANAGEMENT
251 Causeway Street, Suite 800, Boston, MA 02114-2136
(617) 626-1200 FAX: (617) 626-1240

June 28, 2007

John Kennelly
Chief of Planning
Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA 01742-2751

Dear ^{JOHN}Mr. Kennelly:

Secretary Bowles has asked that I respond directly to you in response to your inquiry of May 24, 2007 regarding the Commonwealth's position on the beneficial use of rock and other hard material removed during the deepening of the Boston Harbor navigation channel.

On behalf of the Executive Office of Energy and Environmental Affairs (EOEEA), I applaud the Army Corps of Engineers, New England District ("Corps") for its firm commitment to seek the beneficial use of material that would otherwise be discarded at the Massachusetts Bay Disposal Site, particularly in light of the potential added expense involved in incorporating beneficial use into the dredging project. Depending on the final channel depths, the estimates of material range from 6 to 15 million cubic yards of sands and clays and 600,000 to 1.4 million cubic yards of rock and hard materials. The Massachusetts State Dredging Team, which is chaired by the Office of Coastal Zone Management (CZM) and includes EOEEA agencies, has been working closely with the Corps to collaborate on options and investigations for the beneficial use. The rock, in particular, is a manageable, valuable resource of enough importance that beneficial uses must be incorporated into the dredging project scope from the outset.

In your letter you describe the concept of a Corps' proposal to deposit some of the rock and hard material at sites in Broad Sound and Massachusetts Bay in order to create new hard bottom habitat with a primary goal of lobster habitat enhancement. At this time, based on the information available to date, habitat creation/enhancement is a viable alternative for a beneficial use project type, but more in-depth analysis is required to determine the likelihood for success in meeting the stated goals as well as minimizing adverse effects on natural resources and uses. As feasibility investigations into the hard bottom habitat creation project proceed, input from CZM, the Division of Marine Fisheries (DMF), and the Department of Environmental Protection should be sought. Among others, there are questions as to the physical characteristics of the rock and hard material and the material's suitability for lobster larvae settlement. DMF has the fishery staff expertise to provide the important technical input and guidance on this type of beneficial use project. The state permitting authorizations that would be required (including Massachusetts Environmental Protection Act, Chapter 91 Waterways, 401 Water Quality Certification, and Federal Consistency Review) should be initiated early to allow for adequate review and issuance.



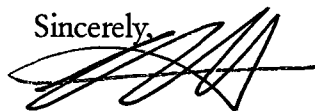
In addition to the hard bottom habitat creation project proposed by the Corps, there are two types of potential alternative projects that should be considered. It should be noted that these alternatives are not mutually exclusive, and that the potential exists to use the material to support several beneficial use projects.

Another beneficial use project type alternative that the Massachusetts State Dredging Team is currently examining is the use of the material for medium to large-scale shore protection efforts being considered within the Boston Harbor region. Some of the projects that could benefit from the rock removed during the deepening of the Boston Harbor navigation channel include: the runway safety improvements proposed for Logan Airport; the rehabilitation of Department of Conservation and Recreation revetments at Point Allerton, on George's Island, and on the Nahant Causeway; the rehabilitation of Central Artery/Tunnel revetments at Spectacle Island; and the creation of the terminal groin at Winthrop Beach. Each of these projects requires armoring rock (in the 5 to 8 ton range) and/or toe stone (in the 8 to 12 ton range) and would offer the advantage of less processing of the rock material. These projects are also in close proximity to the navigation channel work. The volume of material required for each project is still being determined as is the identification of a shore-side staging and storage site to be used prior to the final placement of the material. The required permitting for these shore protection projects would be the responsibility of the respective state agency landowner.

A third potential type of use for the material involves the construction industry. At the present time two companies—with both an interest in, and the ability to handle and process, the large volumes of rock involved—have expressed interest in obtaining the material. The Massachusetts State Dredging Team is having further discussions with these and any other interested parties regarding the logistical issues involved in accepting the material, including transfer scow availability, shoreside handling facilities and associated permits, and distribution systems.

I would encourage you to continue to work the Massachusetts State Dredging Team and the EOEEA agencies as the Corps further explores the feasibility of the beneficial use of rock and other hard material removed during the deepening of the Boston Harbor navigation channel.

Sincerely,



Bruce K. Carlisle
Acting Director

Cc:

Ian Bowles, EOEEA
Phil Griffiths, EOEEA
David Cash, EOEEA
Paul Diodati, DMF
Lealdon Langley, DEP
Ben Lynch, DEP
Karst Hoogeboom, DCR
Martha King, DCR
Michael Leone, MassPort
Robert Boeri, CZM



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

June 25, 2007

John R. Kennelly, Chief
U.S. Army Corps of Engineers
New England District
Engineering/Planning Division
Evaluation Branch
696 Virginia Road
Concord, MA 01742-2751

Dear Mr. Kennelly:

Thank you for your letter dated April 27, 2007, regarding the Boston Harbor Deep Draft Navigation Improvement Project and the proposal by the U.S. Army Corps of Engineers, New England District to use some of the dredged material to attempt to cover and isolate debris and potentially contaminated sediments in the former Industrial Waste Site (IWS). The U.S. Environmental Protection Agency, Region 1 supports this proposal in concept and is willing to work with your office to design this aspect of the project and prepare any necessary environmental assessments. EPA shares the Corps' desire to use this dredged material beneficially, if possible, rather than merely disposing of it at the nearby Massachusetts Bay Disposal Site (MBDS).

To assist you with the development of the necessary planning and environmental impact documentation, we already had provided copies of reports by NOAA and the International Wildlife Coalition on surveys of the IWS during the early 1990s. Since we received your letter, we have provided preliminary data from our July 2006 side-scan survey on the location of barrels, and will continue to work with you to refine that data to optimize its usefulness.

We also have had several discussions with your staff on the technical merits of the proposal and believe it warrants further evaluation. Regarding further assessments, we recommend addressing the potential for the re-suspension of sediments during disposal events, and whether the capping will sufficiently isolate the vast majority of barrels from surface activities, such as fish trawling. We encourage you to utilize modeling or pilot projects to test re-suspension and to evaluate the extent of debris in and around the IWS. We understand that a field test of a proposed disposal methodology that may address these issues will be carried-out next year as part of the Boston Harbor maintenance dredging project.

We also have discussed legal aspects of the proposal internally and with your staff and do not think there are any prohibitions against pursuing the proposal under the applicable laws. One option we are currently considering would involve modifying the boundaries of the MBDS to encompass the IWS, which would require EPA to conduct a rulemaking

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consistent with the requirements of the Marine Protection, Research, and Sanctuaries Act and the National Environmental Policy Act. We would be happy to work with you to develop a communications strategy to both inform – and get feedback from – Boston Harbor and Massachusetts Bay stakeholders about your proposal. We also are willing to support you in these public outreach activities.

Thank you again for bringing to our attention this proposal for a possible beneficial use project. We hope to help determine whether the project is advisable and, if so, we hope to help make it a success. If you have any questions or need additional information, don't hesitate to call me at (617) 918-1553 or Matt Liebman of my staff at (617) 918-1626.

Sincerely,



Melville P. Coté, Jr., Manager
Ocean and Coastal Protection Unit



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087



May 29, 2007

John R. Kennelly
Chief of Planning
New England District, Corps of Engineers
696 Virginia Road
Concord, Massachusetts 01742-2751

Dear Mr. Kennelly:

The U. S. Fish and Wildlife Service has reviewed the documents on the Boston Harbor Deep Draft Navigation Project in Boston, Massachusetts. The following comments constitute our Fish and Wildlife Coordination Act 2b report on the project (Fish and Wildlife Coordination Act 948 stat. 401, as amended; 16 U.S.C. 661 et seq.).

Our resources of concern have been adequately addressed in the documents and we support the project as proposed. We favor the creation of artificial reefs with the bedrock material. If you have any questions please contact me at 603-223-2541

Sincerely yours,

William J. Neidermyer
Assistant Supervisor, Federal Activities
New England Field Office



REPLY TO
ATTENTION OF

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

May 24, 2007

Engineering/Planning Division
Evaluation Branch

Mr. Ian A. Bowles, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, 9th Floor
Boston, Massachusetts 02114-2136

Dear Mr. Bowles:

As you know, the U.S. Army Corps of Engineers, New England District (Corps) is conducting a Feasibility Study to evaluate deepening of the navigation channels in Boston Harbor in partnership with Massport. This study is focusing on providing deeper vessel access to the Conley container terminal in South Boston by deepening the Broad Sound Entrance Channel, the President Roads Anchorage, the Main Ship Channel upstream to the Reserved Channel and the lower Reserved Channel, all to a depth of between 45 and 50 feet at Mean Lower Low Water (MLLW), with the entrance channel deepened an additional two feet. The project is also examining three other improvements to the harbor; (1) extending the deepening of the Main Ship Channel to a point below the Third Harbor Tunnel to access Massport's Marine Terminal in South Boston, (2) deepening a small section of the Mystic River Channel at Massport's Medford Street Terminal to 40 feet MLLW, and (3) deepening the Chelsea River Channel to 40 feet MLLW.

Depending on the final depth chosen through economic analysis of the container shipping needs of the port, construction of these channel improvements would generate between six and 15 million cubic yards of unconsolidated materials, primarily glacial and marine clays and sands, and between 600,000 cubic yards and 1.4 million cubic yards of blasted rock and other hard materials. The Corps and U.S. Environmental Protection Agency have determined that these materials are suitable for unconfined ocean placement at the Massachusetts Bay Disposal Site. This method of disposal is the Federal base plan for the project.

However, it is the Corps policy to use dredged material in a beneficial manner when practicable. To promote this effort, five areas were selected as potential recipients of the blasted rock and hard material for hard bottom habitat enhancement in a meeting attended by Boston Harbor lobstermen, members of the Massachusetts Lobstermen Association, and staff of the Massachusetts Division of Marine Fisheries. The locations of the potential habitat enhancement sites included Broad Sound, Nantasket Roads, Massachusetts Bay, Nahant Bay, and an area off Magnolia. We have conducted sidescan surveys, Sediment Profile Imaging (SPI), benthic surveys, and other investigations to determine which site(s) meet the criteria selected for habitat enhancement. Two of these sites, Broad Sound and Massachusetts Bay, have sufficient areas not presently covered by hard bottom materials as candidate sites for creation of such habitat with

the dredged rock and hard materials. In addition to the creation of hard bottom habitat for beneficial use from rock material, staff from the MA Office of Coastal Zone Management has been investigating the use of blasted rock and other hard material for upland construction purposes too.

The purpose of this letter is to obtain the Commonwealth of Massachusetts position on the beneficial use of rock and other hard material removed during the deepening of Boston Harbor for habitat enhancement purposes at the candidate sites. The State's views on this subject are needed prior to submittal of our internal draft reports for review within this agency, and prior to the expenditure of additional funds for investigative and other review purposes. We request a response to our letter by June 29, 2007 to meet our schedule deadlines. If you have comments or questions, please contact Ms. Catherine Rogers at 978-318-8231 at your earliest convenience.

Sincerely,


John R. Kennelly
Chief of Planning

Copy Furnished:

Mr. Robert Boeri, Dredging Coordinator
Massachusetts Office of Coastal Zone Management
251 Causeway Street, Suite 800
Boston, Massachusetts 02114-2136

Mr. Paul Diodati, Director
Massachusetts Division of Marine Fisheries
251 Causeway Street, Suite 400
Boston, Massachusetts 02114-2136

Mr. Michael Leone, Director of Maritime
Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, Massachusetts 02128-2909



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

REPLY TO
ATTENTION OF

April 27, 2007

Engineering/Planning Division
Evaluation Branch

Mr. Mel Cote
U.S. Environmental Protection Agency
One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Dear Mr. Cote:

As you know, the U.S. Army Corps of Engineers, New England District, and the Massachusetts Port Authority are preparing a joint Supplemental Environmental Impact Statement (SEIS) and Environmental Impact Report (EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. The purpose of the joint SEIS/EIR is to evaluate the feasibility of potential deep draft navigation channel improvements to the Boston Harbor, Massachusetts Federal Navigation Project.

A suitability determination, with which your office concurred, found that all improvement dredging materials were suitable for unconfined ocean disposal at the Massachusetts Bay Disposal Site. While a full range of disposal alternatives will be addressed in the SEIS, it is expected that disposal at the Massachusetts Bay Disposal Site will be the Federal base plan for the project. However, it has been brought to our attention that the Industrial Waste Site (IWS), located in Massachusetts Bay, may also provide a suitable site for the beneficial use of dredged material from Boston Harbor. This site is known to contain debris such as the disposal of barrels containing chemical and low level radioactive waste. The placement of dredged material at this site may cap and isolate the debris from contact with biological resources.

The purpose of this letter is to request your agency's response to and views on the proposed use of the IWS as a potential site for beneficial use of the dredged material from the Boston Harbor Deep Draft project. In addition, we are requesting that information collected by U.S. EPA on the IWS be forwarded to our office for review and analysis for citation in the Boston Harbor SEIS/EIR. Information of interest includes maps of the IWS showing the location of the debris, background information, side scan sonar, surveys, video observations, and summaries of the information.

Your office has already provided copies of the 1996 NOAA survey report on their 1992 survey of the IWS (NOAA Technical Memorandum NOS ORCA 99), and the International Wildlife Coalition's 1991-1992 report that was submitted to your agency. Of particular interest is any information developed since those reports, including the results of EPA's July 2006 field

survey, including side scan sonar surveys and locations and images of potential cultural resources located by that effort.

If this beneficial use proposal is to be pursued further, we will need your agency's assistance in making such evaluations as would enable prioritizing areas to be capped, developing a plan for disposal of the material, and conducting any pre and post disposal surveys for monitoring impacts and effectiveness of the operation. The Corps intends to publish its draft Feasibility Report and SEIS this coming fall, and contingent on Congressional action on project authorization, plans to conduct design phase activities during the 2008-2010 timeframe, with construction likely to commence in FY 2011. For purposes of the draft Feasibility Report, we would need your agency's views on the need, feasibility, potential impact and anticipated benefits of such beneficial use of the project's dredged material.

Please direct any questions or comments, and the above information to Ms. Catherine Rogers, U.S. Army Corps of Engineers at (978) 318-8231.

Sincerely,

John R. Kennelly
Chief of Planning

Copy Furnished:

Mr. Matt Liebman
U.S. Environmental Protection Agency
One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023



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

REPLY TO:
ATTENTION OF:

January 24, 2007

Engineering/Planning Division
Evaluation Branch

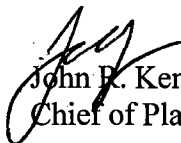
Mr. William Neidermyer, Federal Activities Coordinator
U.S. Fish and Wildlife Service
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087

Dear Mr. Neidermyer:

As you know, a letter was written to your office dated January 25, 2005, requesting your comments under the Fish and Wildlife Coordination Act, and a list of threatened and endangered species under the Endangered Species Act, for the Boston Harbor Deep Draft Navigation Improvement Feasibility Study. We received information on Federally threatened and endangered species in the project area, but no information under the Fish and Wildlife Coordination Act. It is our understanding that we need to provide your office with a Scope of Work (SOW) and funding to prepare a Planning Aid Letter and a Final Coordination Act Report. Please find enclosed the SOW and our estimate of the level of effort needed to provide this information. Our previous letter mentioned above, plus the enclosed SOW, has a project description for your convenience.

After you have had a chance to review the enclosed SOW and the estimated amount of effort, please contact Ms. Catherine Rogers at 978-318-8231 to finalize these two items.

Sincerely,


John R. Kennelly
Chief of Planning

Enclosure

Scope-of-Work
US Army Corps of Engineers and U.S Fish and Wildlife Service
Boston Harbor Deep Draft Navigation Improvement Study
Boston, Massachusetts

Purpose

The purpose of this Scope-of-Work (SOW) between the U.S. Army Corps of Engineers (Corps), New England District and the U.S. Fish and Wildlife Service (Service) is to provide a framework for preparing a Planning Aid Letter and a Final Coordination Act Report pursuant to the Fish and Wildlife Coordination Act (48 Stat. 401; 16 U.S.C. et seq.) for the Corps Boston Harbor Deep Draft Navigation Improvement Feasibility Study. Transfer funding between the Corps and the Service is authorized pursuant to the Economy Act (31 U.S.C. 1535). Recent coordination between the two agencies has covered the major maintenance dredging of the Port of Boston's outer harbor and inner harbor areas separately, and this coordination will cover the deepening of some of those same areas.

Point of Contacts

Corps District and Contacts: U.S. Army Corps of Engineers, New England District, 696 Virginia Road, Concord, Massachusetts, 01742-2751. The Environmental Team Member is Ms. Catherine Rogers (978) 318-8231 and the Study Manager is Mr. Mark Habel (978) 318-8871.

Service Regional Office and Contact: USFWS, NEFO-Ecological Services, 70 Commercial Street, Suite 300, Concord, NH, 03301. Project Leader: William Neidermyer (603-223-2541).

Description of the Study

The Corps is conducting a Feasibility Study to evaluate navigation improvement opportunities at Boston Harbor. This study is investigating deepening and widening the 40-foot MLLW lanes of the North Entrance Channel and Main Ship Channel up to the Reserved Channel, together with deepening the President Roads Anchorage and the lower Reserved Channel and expanding its turning area, to permit access by larger container ships.

Depending on which containership class design is optimized for, the recommended plan of improvement would be deepening the main navigation channels and anchorage to either 45 or 50 feet MLLW. Under all plans the Broad Sound North Entrance Channel would be deepened an additional two feet to compensate for higher seas. About 6.5 million cubic yards (cy) of dredged material plus 510,000 cy of rock would need to be removed to create a 45-foot MLLW channel. A 50-foot deep MLLW channel would require the removal of about 14.8 million cy of dredged material and 1.4 million cy of blasted ledge.

In response to a further request by Massport, the project sponsor, the study is also examining three other minor improvements to the Port's channels. These improvements include: 1) deepening the reach of the Main Ship Channel above the Reserved Channel up to the Ted Williams Tunnel to about 45 feet MLLW to access Massport's Marine Terminal, which they are developing for expanded bulk cargo shipment, 2) deepening a small area of the 35-foot MLLW portion of the Mystic River Channel to 40 feet MLLW to access Massport's Medford Street Terminal in Charlestown, which Massport has recently redeveloped to handle bulk cargo, and 3) deepening the 38-foot MLLW Chelsea River Channel to 40 feet MLLW, should the U.S. Coast Guard and the City of Boston proceed with replacement of the Chelsea Street Bridge and provided that Keyspan completes relocation of the natural gas siphon beneath the channel, as required for the previous 38-foot Boston Harbor navigation improvement project. These proposed improvements are shown in the attached Figures 2 and 3.

All improvement materials from all alternatives have been determined to be suitable for ocean disposal by the Corps and EPA at the EPA designated Massachusetts Bay Disposal Site. The rock and other hard material are suitable for beneficial use to create hard-bottom habitat for lobsters and other species. Figure 1 shows the location of five proposed hard-bottom habitat sites. These sites were selected based on State and local lobstermen input, and one or more of them could be used for the project.

Coordination and Scoping

Coordination between the Corps and the Service will occur periodically as necessary. Site visits and meetings are not expected to be necessary, as the Service has provided information on previous Boston Harbor navigation improvement and maintenance dredging projects. The Service has been invited to act as a cooperating agency in preparation of the SEIS, and has been invited to be a participant in the Technical Working Group of Federal, State and local agencies and port interests that meets several times each year to provide overview and input to the Corps and Massport on the maintenance and improvement activities.

Data and information needed from the Corps for the Service: 1) completed and signed transfer funding agreement, 2) description of proposed improvement alternatives, 3) draft Feasibility Study and Environmental Assessment (EA), for the Final Coordination Act Report, 4) other applicable maps, diagrams, reports, or documents available to the Corps, as requested by the Service.

Funds Expended to Date: none

Specific Work to be accomplished by the Service: 1) identify and review existing biological resource information in the Boston Harbor study area, 2) review previous EIS, SEIS and EA for the previous Boston Harbor navigation improvement and maintenance dredging projects, 3) review other reports prepared for the Boston Harbor area that may be relevant (i.e. MWRA reports) and the hard-bottom habitat sites, 4) prepare FWCA

Section 2(B) reports (Planning Aid Letter and Final Coordination Act Report) to address improvement alternatives and the hard-bottom habitat sites. The reports should include descriptions of biological resources in the study area. The Service will address potential adverse impacts on biological resources from the alternatives, and provide recommended types and amounts of mitigation for habitat losses, if required.

Corps and Service Submission Schedule

The Corps has provided the Service with the project description in our letter dated January 25, 2005 and in this SOW. The Service will submit a Planning Aid Letter to the Corps in February 2007. The agencies anticipate that this Planning Aid Letter will involve a minimal effort due to the extensive and recent coordination for the maintenance dredging activities for the same channel areas.

The Corps will provide the draft Feasibility Study and SEIS later in 2007. The Service will review Corps comments on the Planning Aid Letter, and the Corps draft Feasibility Study and SEIS, and prepare a Final Coordination Act Report within 45 days of receipt of the SEIS.

The Service will notify the Corps in writing of any anticipated changes in schedule. Notification will be submitted to the Corps point of contact as soon as possible, but not less than 15 days prior to the scheduled delivery date.

Estimated Level of Effort

Due to the amount of previous review and information available from the last three Boston Harbor projects (navigation improvement and maintenance dredging), a reduced level of effort is expected for this Deep Draft project. It is anticipated that three days would be needed to accomplish the above tasks (i.e. a Planning Aid Letter and a Final Coordination Act Report).

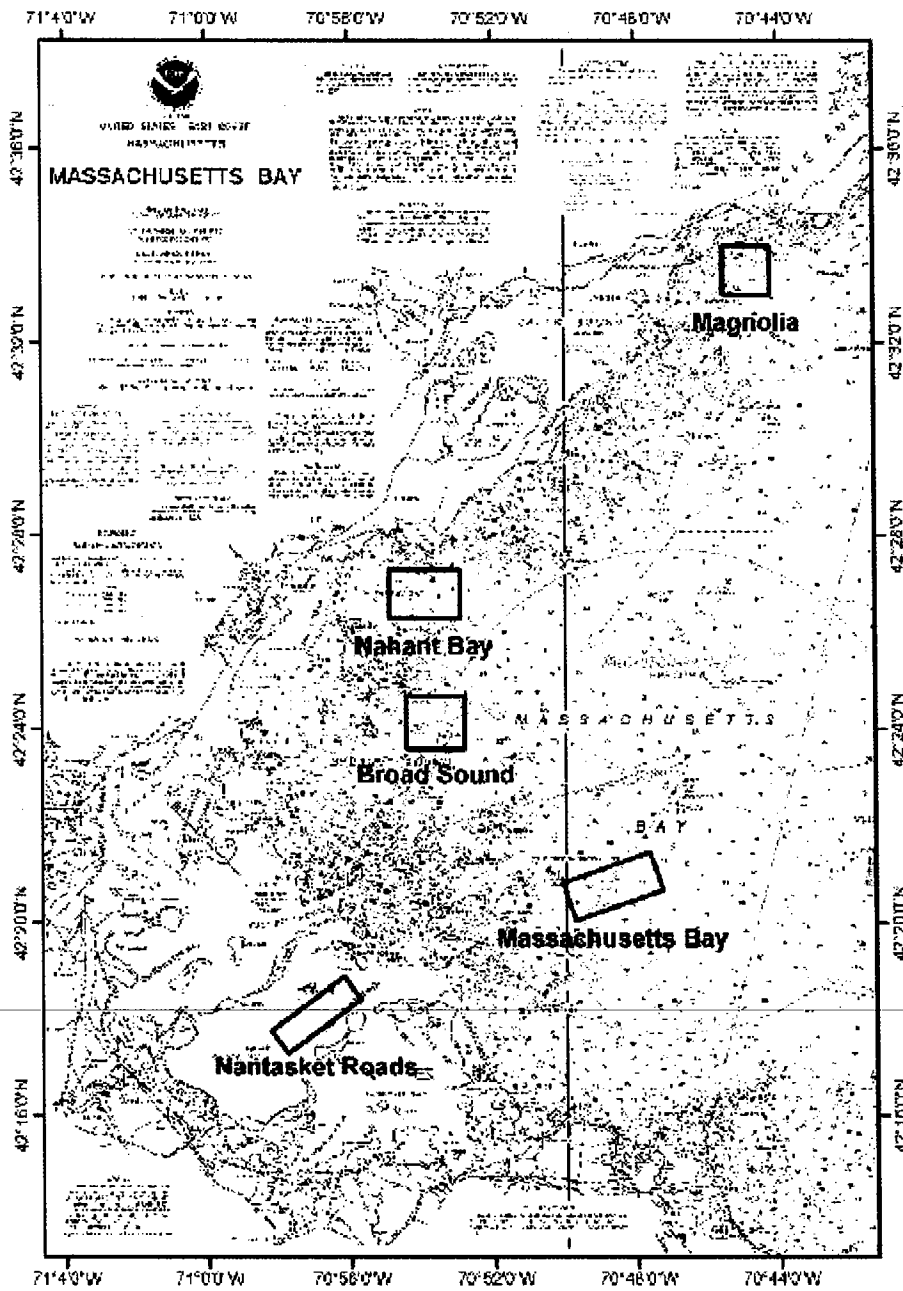
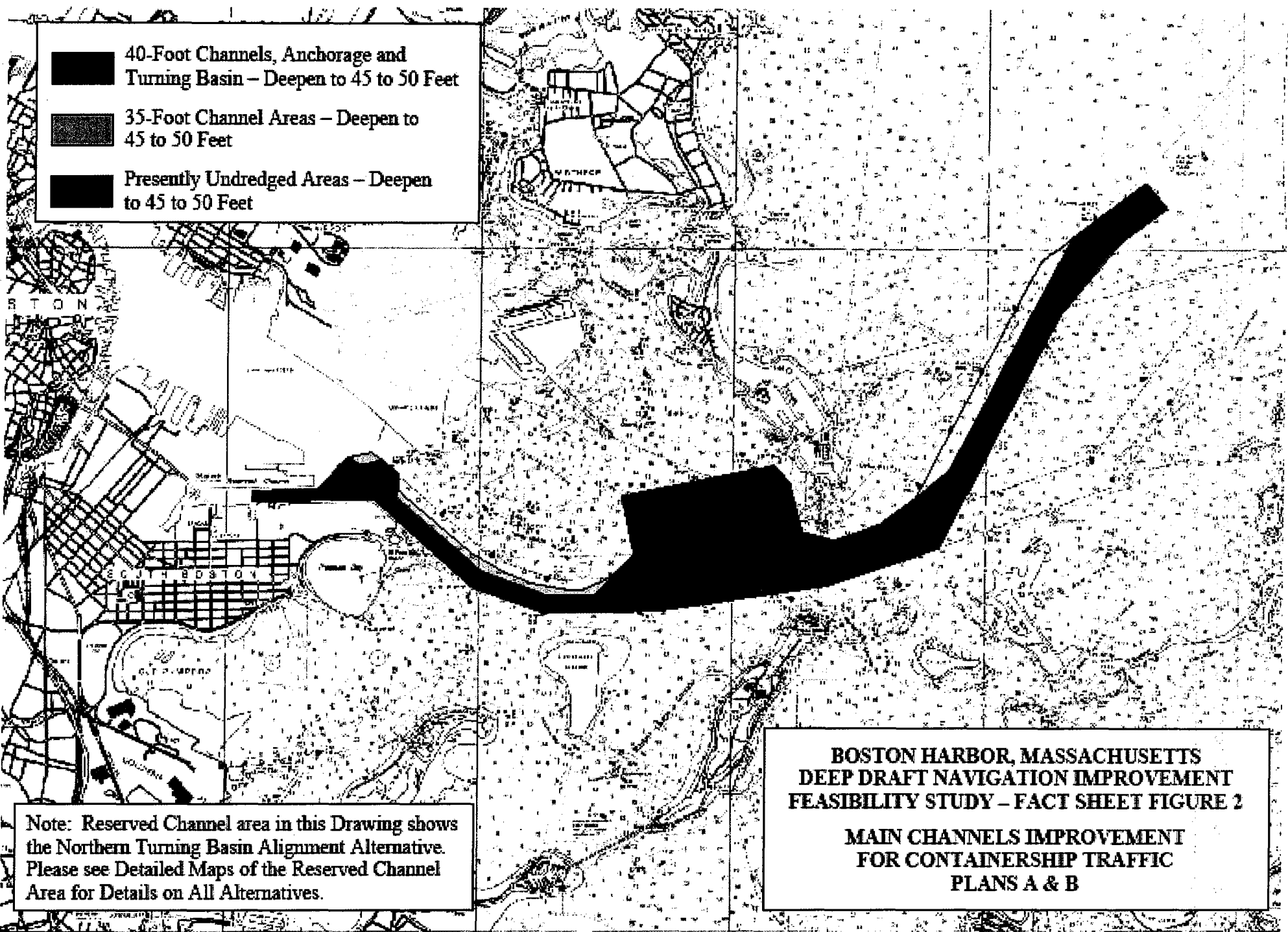





Figure 1. Area Site Map.



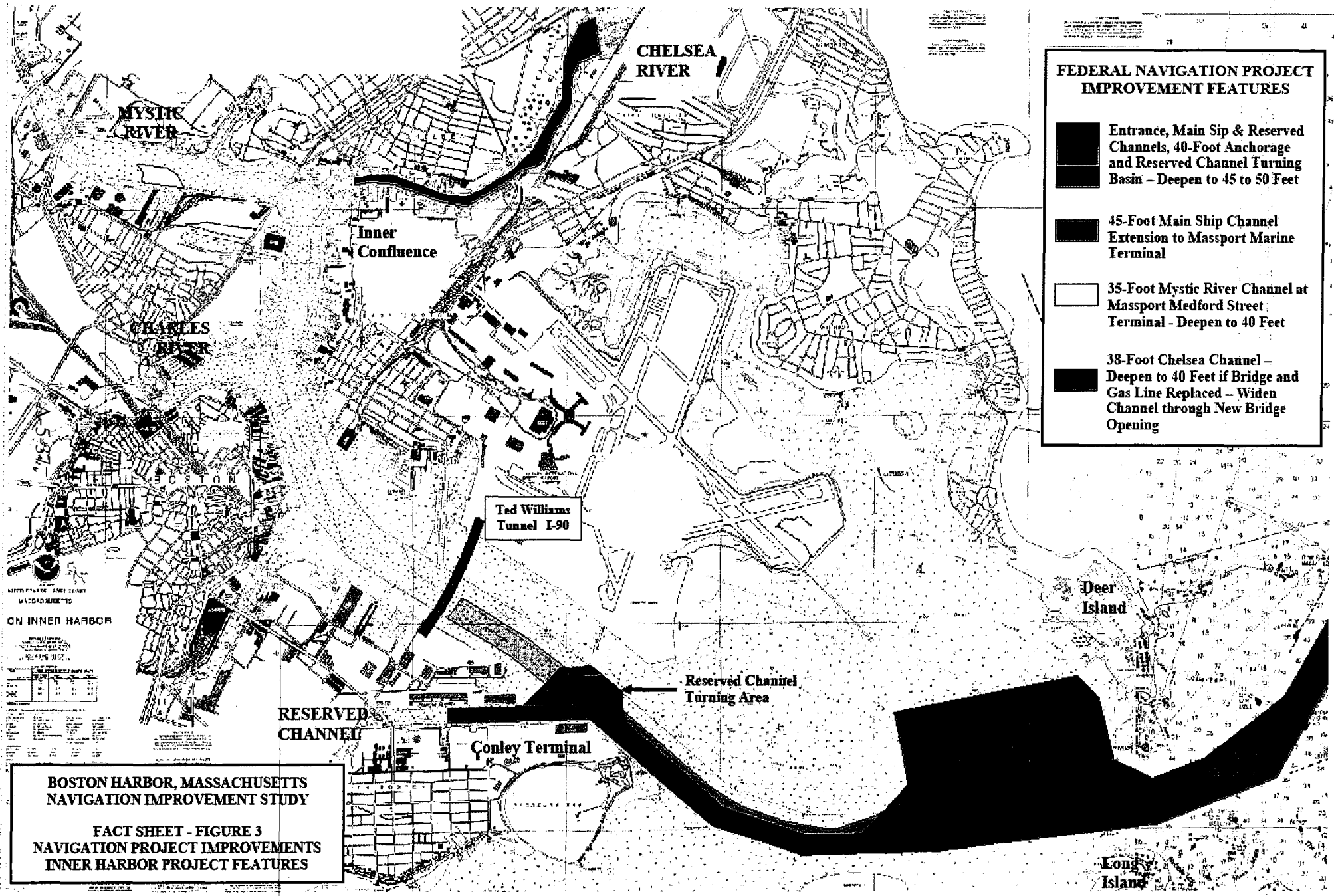
-  40-Foot Channels, Anchorage and Turning Basin – Deepen to 45 to 50 Feet
-  35-Foot Channel Areas – Deepen to 45 to 50 Feet
-  Presently Undredged Areas – Deepen to 45 to 50 Feet





Note: Reserved Channel area in this Drawing shows the Northern Turning Basin Alignment Alternative. Please see Detailed Maps of the Reserved Channel Area for Details on All Alternatives.

**BOSTON HARBOR, MASSACHUSETTS
DEEP DRAFT NAVIGATION IMPROVEMENT
FEASIBILITY STUDY – FACT SHEET FIGURE 2**

**MAIN CHANNELS IMPROVEMENT
FOR CONTAINERSHIP TRAFFIC
PLANS A & B**

5/16



- FEDERAL NAVIGATION PROJECT IMPROVEMENT FEATURES**
-  Entrance, Main Ship & Reserved Channels, 40-Foot Anchorage and Reserved Channel Turning Basin - Deepen to 45 to 50 Feet
 -  45-Foot Main Ship Channel Extension to Massport Marine Terminal
 -  35-Foot Mystic River Channel at Massport Medford Street Terminal - Deepen to 40 Feet
 -  38-Foot Chelsea Channel - Deepen to 40 Feet if Bridge and Gas Line Replaced - Widen Channel through New Bridge Opening

**BOSTON HARBOR, MASSACHUSETTS
NAVIGATION IMPROVEMENT STUDY**

**FACT SHEET - FIGURE 3
NAVIGATION PROJECT IMPROVEMENTS
INNER HARBOR PROJECT FEATURES**

Habel, Mark L NAE

Subject: FW: FW: SD for Boston Harbor Deep Draft Improvement (UNCLASSIFIED)

Attachments: 200102368 SD2.doc



200102368
SD2.doc (318 KB)

-----Original Message-----

From: Guza.Olga@epamail.epa.gov [mailto:Guza.Olga@epamail.epa.gov]
Sent: Friday, December 08, 2006 11:53 AM
To: Nimeskern, Phillip W NAE
Cc: Habel, Mark L NAE
Subject: Re: FW: SD for Boston Harbor Deep Draft Improvement (UNCLASSIFIED)

I concur with the SD for Boston Harbor Deep Draft Improvement Project as written. The project has gone through multiple reviews and meets the conditions as written in the SD.

Olga Guza
Environmental Scientist
USEPA Region 1
Boston, MA
Telephone - 617-918-1542
Fax 617-918-0542

-----"Nimeskern, Phillip W NAE" <Phillip.W.Nimeskern@nae02.usace.army.mil>
wrote: -----

To: Olga Guza/R1/USEPA/US@EPA
From: "Nimeskern, Phillip W NAE"
<Phillip.W.Nimeskern@nae02.usace.army.mil>
Date: 12/05/2006 05:43PM
cc: "Habel, Mark L NAE" <Mark.L.Habel@nae02.usace.army.mil>
Subject: FW: SD for Boston Harbor Deep Draft Improvement (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hello Olga,

I am forwarding another copy of the draft suitability determination (SD) for the Boston Harbor Deep Draft Improvement project. As you see, it is the same as was sent to you in October. Mark Habel has asked that we have EPA's concurrence in writing before I finalize the SD for this project, even though we can assume concurrence based on our MOA. Would you please refresh your memory on this document and send me a note that you concur?

Thank you,

Phillip W. Nimeskern
US Army, Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751
(978) 318-8660
FAX: (978) 318-8303

-----Original Message-----

From: Nimeskern, Phillip W NAE
Sent: Monday, October 02, 2006 3:53 PM
To: Olga Guza; William_Neidermyer@fws.gov; Peter.colosi@noaa.gov;
Ken Chin(Ken.Chin@State.MA.US)
Subject: SD for Boston Harbor Deep Draft Improvement

INTERAGENCY COORDINATION

DATE: 2 October 2006

PROPONENT: CENAE & Massport

APPLICATION NUMBER: 2001-02386

NOTIFICATION SENT TO:

EPA Olga Guza (617) 918-1505
Guza.Olga@epamail.epa.gov <mailto:Guza.Olga@epamail.epa.gov>

NMFS Peter Colosi (978) 281-9301
Peter.Colosi@noaa.gov <mailto:Peter.Colosi@noaa.gov>

F&WS William Neidermeyer (603) 223-0104
William_Neidermyer@fws.gov <mailto:William_Neidermyer@fws.gov>

cc: Ken Chin (617) 292-5696
Ken.Chin@state.ma.us <mailto:Ken.Chin@state.ma.us>

This draft is being transmitted in accordance with our agreement on interagency technical coordination procedures for projects involving open water disposal of dredged materials. The proponents are proposing to dredge between 5,460,000 and 15,323,000 CY of ordinary material and between 399,000 and 1,495,000 CY of rock from Boston Harbor in Boston, Massachusetts, and dispose of it at the MBDS.

Please respond to me within 10 working days of the above date at (978) 318-8871 if you have comments or concerns. If you have technical questions, you can contact Phillip Nimeskern at (978) 318-8660.

____Phill Nimeskern for_____

MARK HABEL
Project Manager

Classification: UNCLASSIFIED
Caveats: NONE

MEMORANDUM THRU:

RM Ruth M. Ladd, Chief, Policy Analysis and Technical Support Branch

FOR: Mark Habel, Project Manager, CENAE-EP-PN

SUBJECT: Suitability Determination for Boston Harbor Deep Draft Improvement, Boston, Massachusetts, Application Number 200102386.

1. Project Description:

The **CENAE** is proposing to deepen portions of the Boston Harbor Federal Navigation Project. The proposed disposal site is Massachusetts Bay Disposal Site (**MBDS**). This work will be done according to a base plan, Plan B, and three additional incremental improvements, Plans C, D and E. The base plan, the incremental plans, and their estimated volumes of dredged materials are as follows:

Plan B - Outer and Lower Harbor Improvements: The CENAE is proposing to deepen the follow project components:

- Broad Sound North Entrance Channel;
- President Roads Anchorage;
- Main Ship Channel, through President Roads and up to the Reserved Channel in South Boston;
- the Reserved Channel Turning Area; and
- the lower (currently 40-foot) reach of the Reserved Channel.

These would all be deepened to provide a channel depth of between -44 and -50 feet MLLW, with an additional two feet of depth in the entrance channel (-46 to -52 feet MLLW), and a further two feet (-48 to -54 feet MLLW) provided in areas of rock or hard bottom materials (cobble or glacial till).

In addition, the bend in the entrance channel opposite Finn's Ledge would be widened at its apex by approximately 300 feet, and the deep lane of the Main Ship Channel between President Roads and the Reserved Channel Turning Area would be widened to 800 feet, and up to 900 feet in sections, by incorporating a portion of the existing 35-foot channel lane into the deeper channel. The Reserved Channel Turning Area would also be widened within, and northwest of, the existing channel limits.

Deepening these project areas to between -44 and -46 feet or to between -50 and -52 feet would require removal of between 5,041,000 and 14,755,000

Subject: Suitability Determination for Boston Harbor Deep Draft Improvement, Boston, Massachusetts, Application Number 200102386.

CY of ordinary material and between 355,000 and 1,385,000 CY of rock. The distribution of this material by channel reach is shown below.

Plan B – At 44-46 Foot Depth

FNP Area	Volume of sediment	Volume of rock
North Entrance Channel (46 Feet)	1,597,000 cy	258,000 cy
Main Ship Channel (44 Feet)		
President Roads Reach	233,000 cy	0 cy
President Roads to Reserved Channel	1,157,000 cy	41,000 cy
Lower Reserved Channel (44 Feet)	371,000 cy	14,000 cy
Reserved Channel Turning Area (44 Feet)	202,000 cy	10,000 cy
Presidential Roads Anchorage (44 Feet)	<u>1,481,000 cy</u>	<u>32,000 cy</u>
Total	5,041,000 cy	355,000 cy

Plan B – At 50-52 Foot Depth

FNP Area	Volume of sediment	Volume of rock
North Entrance Channel (52 Feet)	3,924,000 cy	883,000 cy
Main Ship Channel (50 Feet)		
President Roads Reach	1,496,000 cy	1,000 cy
President Roads to Reserved Channel	2,947,000 cy	153,000 cy
Lower Reserved Channel (50 Feet)	572,000 cy	123,000 cy
Reserved Channel Turning Area (50 Feet)	906,000 cy	137,000 cy
Presidential Roads Anchorage (50 Feet)	<u>4,910,000 cy</u>	<u>88,000 cy</u>
Total	14,755,000 cy	1,385,000 cy

Plan C - Main Ship Channel Deepening Extension:

Extending the deepened portion of the Main Ship Channel above the Reserved Channel Turning Area to a point below the Ted Williams Tunnel (I-90) is also being examined, with channel depths of between -42 and -45 feet under consideration (with an additional two feet in rock or hard bottom areas). The deepened channel would include the entire width of the existing 40-foot channel lane in this area plus a 50- to 100-foot width of the existing 35-foot channel lane. Deepening the channel to between -42 and -45 feet MLLW would require the removal of between 119,000 and 268,000 CY of ordinary material and between 39,000 and 105,000 CY of rock.

Plan D - Mystic River Channel Improvements:

A small area of the 35-foot portion of the Mystic River Channel that was not deepened to -40 feet during the improvement project of 1998-2002 is now being considered for deepening to -40 feet MLLW. This improvement would allow deeper draft access to Massport's Medford Street Terminal for proposed bulk cargo operations. The area to be dredged will be an approximately 800' by 450' area in the 35' Channel along the Charlestown shore of the Mystic River. Deepening this small area of the 35-foot channel to -40 feet MLLW would require the removal of about 83,000 CY of ordinary material.

Subject: Suitability Determination for Boston Harbor Deep Draft Improvement, Boston, Massachusetts, Application Number 200102386.

Plan E - Chelsea River Channel Improvements:

The existing 38-foot Chelsea River Channel and Turning Basin would be deepened to -40 feet MLLW if other parties proceed with plans to replace the Chelsea Street Bridge. The channel would be widened to conform to the new bridge opening and would be widened slightly in its turns approaching the bridge. Deepening the channel to -40 feet MLLW would require the removal of about 217,000 CY of ordinary material and 5,000 CY of rock.

Summing up:

These improvements would involve removal of a total of **between 5,460,000 and 15,323,000 CY of ordinary material** and **between 399,000 and 1,495,000 CY of rock**, depending on the final channel depths supported by economic analysis in the feasibility and design phase investigations. The ordinary material removed under this project is proposed to be mechanically dredged and disposed of at the MBDS. Rock removed under this project is also proposed for disposal at MBDS, unless some suitable beneficial use, for habitat enhancement or other purposes, is identified and approved.

This improvement work will be performed after the proposed maintenance dredging of the existing Boston Harbor Project has been completed and has removed the overlying sediments. The Main Ship Channel above Spectacle Island and the small portion of the Mystic River at the Medford Street Terminal is intended to be accomplished in 2006-2008. In addition, the final improvement dredging of the Chelsea River Channel to -38 feet under the project of 1990, in the vicinity of the Chelsea Street Bridge, is intended to be accomplished at the same time.

A sampling plan was developed on 8 November 2001 for the analysis of physical, chemical and biological characteristics of the sediments proposed to be dredged for the improvement dredging. The federal agencies concurred with this plan. The project has since been modified by increasing the project depth and adding a new area, Chelsea River. Except for this new area, the project area remains the same. The sediment data report was dated September 30, 2006.

2. Summary:

This memorandum addresses compliance with the regulatory evaluation and testing requirements of 40 CFR 227.13 for unconfined open water disposal at an open ocean disposal site. This evaluation confirms that sufficient information was obtained to properly evaluate the suitability of this material for open water disposal under the guidelines and finds the sediments suitable for disposal at MBDS.

3. Ocean Dumping Act Regulatory Requirements:

The disposal of sediments below mean low water in Massachusetts Bay is

Subject: Suitability Determination for Boston Harbor Deep Draft Improvement, Boston, Massachusetts, Application Number 200102386.

regulated according to both Section 103 of the Ocean Disposal Act and Section 404 of the Clean Water Act.

§227.13 Dredged Materials.

(a) This paragraph defines dredged materials and does not give any criteria for the evaluation of sediments.

(b) This paragraph states that proposed dredged material which meets the criteria in one of the following three paragraphs is environmentally acceptable for ocean disposal without further testing.

(b)(1) Dredged material that is predominately sand, gravel, rock, or any other naturally occurring bottom material with particle size greater than silt and is found in areas of high current or wave energy can be disposed of in a 103 site without further testing. The material from the fourteen samples in the North Channel, Presidents Roads, and Reserved Channel Turning Basin (Samples A through M and Sample DD) had high proportions of gravel and sand. The fines in these samples ranged from 0.59% to 28.48%. The sediments from these areas meet this exclusion and are suitable for unconfined open water disposal at MBDS without further testing.

(b)(2) Dredged material that is proposed for beach nourishment and is predominantly sand, gravel or shell with grain sizes similar to the receiving beaches can be disposed of without further testing. As the material from this project is not proposed for beach disposal, it does not meet this exclusion.

(b)(3) When the dredged material is substantially the same as that at the disposal site and the dredged material is taken from a site far removed from known sources of pollution, it can be disposed of without further testing. This project's material does meet this exclusion. The sediment to be removed is parent material (mostly silts and clays) underlying the contaminated surficial material, which is being removed by the ongoing maintenance dredging. It is far removed from known sources of contamination, having been laid down by glaciers before the Industrial Revolution and insulated from industrial contaminants by soon-to-be-removed surficial material. It is the same type of material as at the disposal site, as the same glaciers laid sediments at both areas.

(c) This paragraph states that if the dredged material does not meet the criteria of paragraph b above, it must undergo further testing of the liquid, suspended particulate and solid phases before it can be considered acceptable for ocean disposal. This section does not apply to this project, as the dredge materials meet the criteria in paragraphs b(1) or b(3) above.

Subject: Suitability Determination for Boston Harbor Deep Draft Improvement, Boston, Massachusetts, Application Number 200102386.

(d) This subsection discusses the choice of the liquid phase analytes and does not give any criteria for the evaluation of sediments.

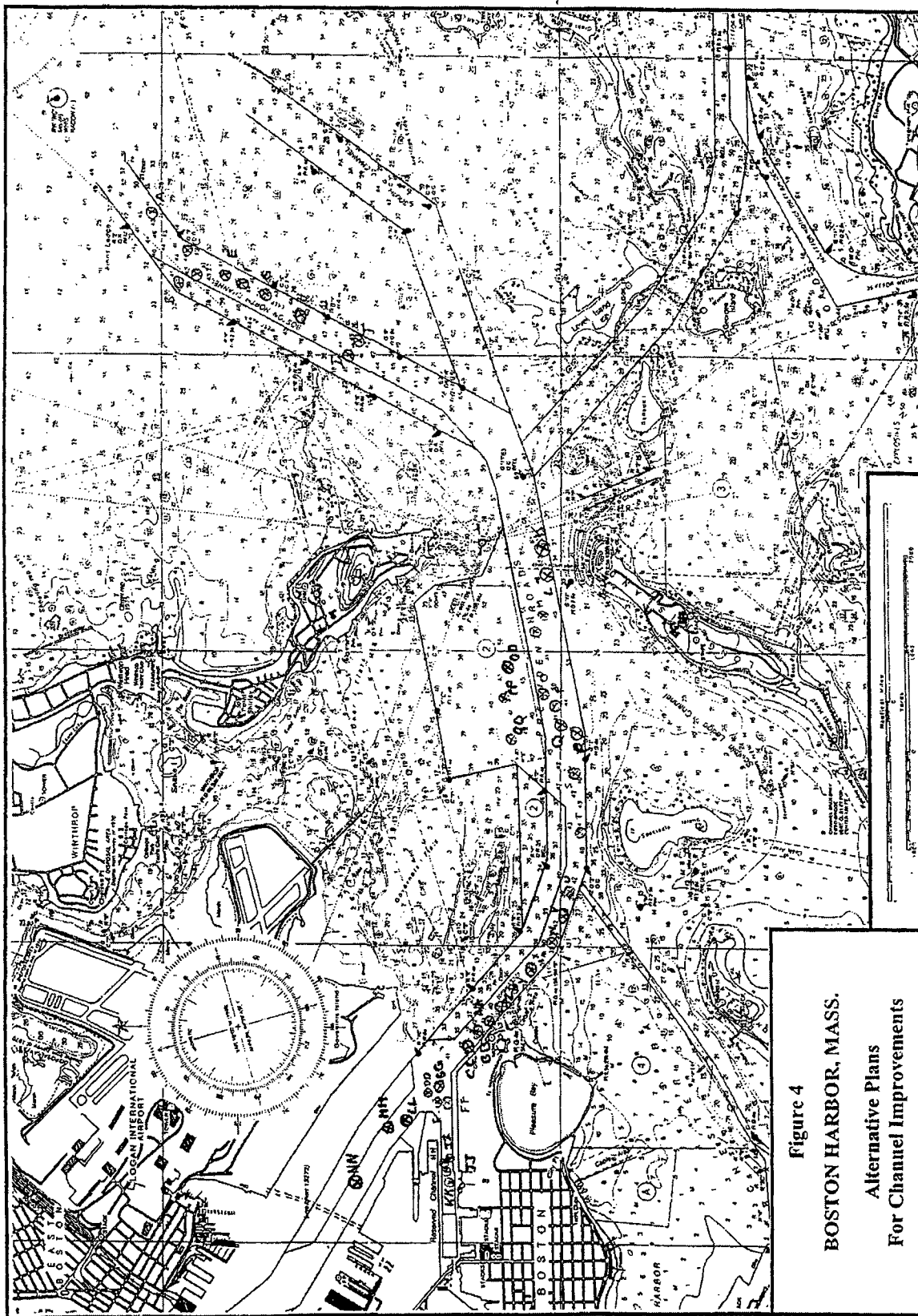
5. Copies of the above mentioned data and of the draft suitability determination were sent to the State DEP, US EPA, US F&WS and US NMFS for their review. The US EPA responded to say that they concur with the determination. No response was received from the other Federal agencies within the 10-day response period.

6. If you have any questions, please contact me at extension 660.



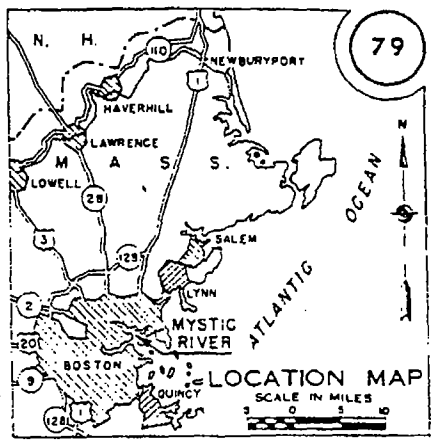
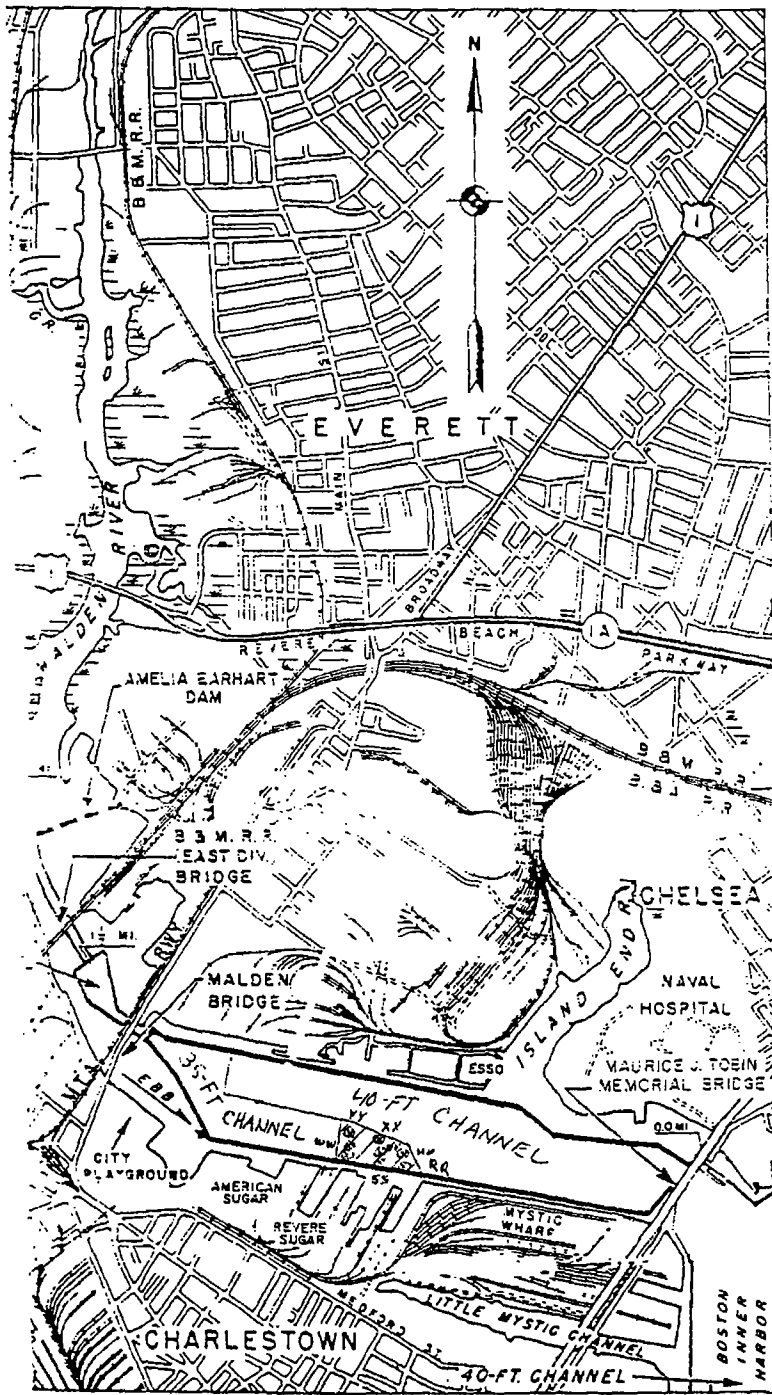
PHILLIP NIMESKERN
Project Manager,
Marine Analysis Section

Subject: Suitability Determination for Boston Harbor Deep Draft Improvement, Boston, Massachusetts, Application Number 200102386.



Subject: Suitability Determination for Boston Harbor Deep Draft Improvement, Boston, Massachusetts, Application Number 200102386.

U. S. ARMY



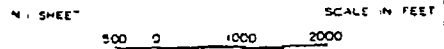
BRIDGE CLEARANCES

- MYSTIC RIVER BRIDGE (FIXED)
Hor 290 ft
Vert 135 ft M + W
- WALDEN BRIDGE (ALFORD ST) BASCULE
Hor 75 ft
Vert 5 ft M + W
- M. T. A. RAILWAY BRIDGE (BASCULE)
Hor 75 ft
Vert 28 ft M + W
- B. & M. R. R. BRIDGE EAST DIV. SWING
Hor 40 ft
Vert 13 ft M + W
- WELLINGTON STA BRIDGE (FIXED)
Hor 74 ft
Vert 20 ft
- MIDDLESEX AVE WELLINGTON BRIDGE BASCULE
Hor 50 ft
Vert 0 ft M + W
- MYSTIC VALLEY PARKWAY BRIDGE BASCULE
(OPPOSITE HARVARD ST)
Hor 50 ft
Vert 5 ft M + W
- ROUTE 93 BRIDGE
Hor 31 ft
Vert 13 ft M + W

Deepen from 35 to 40 FT
+ 2 FT overdepth

MYSTIC RIVER, MASS.

20 SEPTEMBER 1955



DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
WALTHAM, MASS.

M. Habel

Schmidt/jed/345

October 13, 2006

Engineering/Planning Division
HTRW/Geotechnical Engineering Branch

Mr. John S. Ramsey, P.E.
Applied Coastal Research and Engineering, Inc.
766 Falmouth Road, Suite A-1
Mashpee, Massachusetts 02649

Dear Mr. Ramsey:

The U.S. Army Corps of Engineers (USACE) is forwarding information concerning the nature of subsurface materials in the North Entrance Channel of Boston Harbor, for potential consideration as beachfill at Winthrop Beach. I am sending the information directly to you, at the request of our Regulatory Division and the permit applicant, Mr. Joe Orfant of the Department of Conservation and Recreation (DCR).

Please find the following documents enclosed:

- a. 3 original reports prepared under contract to the Corps which must be returned to the USACE within 30 days:
 - (1) "Geophysical Explorations: Remote Sensing Archaeological Survey and Geologic Interpretation, Boston Harbor Navigation Improvement Study, Boston, Massachusetts," Ocean Surveys, Inc. (OSI), 21 May 2003.
 - (2) "Remote Sensing Archaeological Survey and Geologic Interpretation, Boston Harbor Navigation Improvement Study, Boston Harbor, Boston, Massachusetts," UMASS Archaeological Services, 30 May 2003.
 - (3) "Geotechnical Explorations, Boston Harbor, Mystic River, and Chelsea River, Navigation Improvement - Feasibility Study, Boston, Massachusetts," GEI Consultants, Inc., June 2004.
- b. Probe logs for GEI's explorations in the North Channel. Also see Table 1 of the GEI report.
- c. PDF showing GEI probe locations and contouring of the acoustic basement (CD).

The information provided comes from geophysical investigations of the North Channel performed by OSI during the fall and winter of 2002-2003 and geotechnical explorations by GEI Consultants, Inc. Results from these surveys indicate the likely presence of sandy and gravelly material in areas on the Harbor Bottom in the North Entrance Channel. Side scan sonar imagery revealed areas of coarse sediments at the surface in the section of the North Channel from Finns Ledge to Deer Island Light, just east of President Roads. Sub-bottom profiles developed from CHIRP seismic surveys showed that almost the entire southern half of the channel between Finn's Ledge and east-northeast of the Great and Little Faun Shoals had poor signal penetration, which may be an indication of coarse granular material on the seafloor bottom. Based on drilling observations during probe explorations by GEI, the sediments at the nearby Faun ledges were also interpreted to be predominantly clayey sand and sandy gravel. No samples were collected in this area, however, as part of GEI's work.

If you are interested in accessing the raw geophysical data, please contact me, so that I can give OSI permission to provide you the data directly. Data consist of: CHIRP Seismic data in SEG-Y file format (16 CDs), Side Scan Sonar data in XTF file format (27 CDs), Magnetic Intensity Data and HYPACK files (1 CD).

Once you've reviewed this information, please return the three hard copy reports. It is also requested that you provide USACE a copy of any additional reports or data analysis generated using the information provided, and the results of any investigations or explorations you may perform in the channel areas. If you have any questions or need further information, please contact Rosemary Schmidt at (978) 318-8345. Ms. Schmidt is also available to meet with you on October 23rd, when you will be here in our Concord office for a related meeting.

Sincerely,

H. FARRELL MACMILLAN, P.E.
Chief, Engineering/Planning Division

Enclosures

Copy Furnish (without Enclosure):

Joseph R. Orfant
Boston Harbor Beaches Program Planner
Department of Conservation & Recreation
Division of Planning and Engineering
251 Causeway Street, 7th Floor
Boston, Massachusetts 02114

CF:
Reading File
Mr. Habel, E/P
Ms. Schmidt, E/P
Mr. Keegan, E/P
Mr. Kotell, Reg Div



Paul J. Diodati
Director

Commonwealth of Massachusetts

Division of Marine Fisheries

50A Portside Drive
Pocasset, MA 02559
(508) 563.1779
Fax (508) 563.5482



To: Catherine Rogers, US Army Corps of Engineers
From: Jeremy King, Resource Assessment Project Leader, Marine Fisheries
Subject: Trawl survey data request for the 'Boston Harbor Federal Navigation Project Inner Harbor Maintenance and Deep Draft Channel Improvements Project'
Date: October 25, 2005

The attached spreadsheet, (ACOE dredg request.xls), has been provided to fulfill your request for Massachusetts Division of Marine Fisheries trawl survey data in reference to the Boston Harbor Federal Navigation Project Inner Harbor Maintenance and Deep Draft Channel Improvements Project. The information provided represents spring 1978 – 2005 and fall 1978 – 2004 trawl survey data from within a box defined by the following coordinates:

South Latitude : 42 13.507

North Latitude : 42 25.636

West Longitude : 71 04.898

East Longitude : 70 47.134

as provided in your request letter.

To fulfill your request for 'A list of species collected from the MADMF research trawl surveys from the beginning of the sampling in 1978 to present on a seasonal basis' we have provided Spring species list and Fall species list. These tables include sums of the total weight and number of each recorded species for the survey timeseries within the defined area.

Spring catch per station and Fall catch per station provide the individual catch and station data, (including date and position) for each station completed within the defined area. All tows are standardized to a 20 minute tow length and require no further adjustment. Any tow with a shg code of 136 or less is considered a representative tow while any station with an shg greater than 136 represents a non-standard tow due to problems with the gear or tow duration.

Trends in abundance are neither provided nor recommended for the small defined area. The Massachusetts survey is stratified based on depth because we assume that variance of fish abundance and distribution is lower within a stratum than across depth strata. Four depth strata have been sampled within the defined box over the timeseries (see Spring tows per strata and Fall tows per strata). However, none of the four strata have been consistently sampled within the box each spring or fall, so no single stratum has sufficient coverage to generate an index. It is not recommended to combine data across strata in this case, since the many data gaps will result in the influence of any particular stratum varying according to the change in sampling effort by stratum. For example if yellowtail flounder are typically abundant in stratum 33, but scarce in stratum 31, a cruise which sampled no stations in stratum 33, but did sample in stratum 31 would likely have a much different result than a cruise which sampled stratum 33, but not stratum 31. For this reason, trends in abundance from our limited sampling within the defined box are not useful. The survey is designed to generate indices over broad geographic regions.

During the course of a phone conversation between Vincent Manfredi and Cathy Rogers on October 24, Cathy indicated that the request for annual reports was more particularly an interest in winter flounder data. In lieu of sending copies of dated annual reports, please refer to the report of the 2005 Groundfish Assessment Review Meeting, <http://www.nefsc.noaa.gov/nefsc/publications/crd/crd0513/>. Within this document you will find the

An Agency of the Department of Fish & Game
David M. Peters, *Commissioner*

updated Massachusetts survey indices for Cape Cod - Gulf of Maine yellowtail flounder (E), Gulf of Maine Cod (F), Gulf of Maine – Georges Bank American Plaice (H) and Gulf of Maine Winter Flounder (I).

If you have any further questions regarding Massachusetts Division of Marine Fisheries trawl survey data I can be contacted at: Jeremy.King@state.ma.us
(508) 563-1779 ext. 112



MassWildlife

Commonwealth of Massachusetts

Division of Fisheries & Wildlife

Wayne F. MacCallum, *Director*

September 16, 2005

Department of the Army
New England District, Corps of Engineers
Attn: John Kennelly
Engineering/Planning Division, Evaluation Branch
696 Virginia Road
Concord, MA 01742-2751

Re: SEIS Boston Harbor Inner Harbor Maintenance Dredging Project
Main ship channel
Boston, MA
NHESP Tracking Number: 05-18181

Dear Mr. Kennelly,

Thank you for contacting the Natural Heritage and Endangered Species Program ("NHESP") of the MA Division of Fisheries & Wildlife for information regarding state-protected rare species in the vicinity of the site identified above.

In regard to the newly revised Massachusetts Endangered Species Act (MESA) regulations (321 CMR 10.00), the NHESP is currently in the process of evaluating whether or not your agency is subject to the fee normally associated with a rare species information request. In the interim we would like to offer the following comments regarding the above project:

At this time we are not aware of any state-listed rare plants or animals or exemplary natural communities in the immediate vicinity of this site and do not have any rare species concerns with the work as currently proposed.

This evaluation is based on the most recent information available in the NHESP database, which is constantly being expanded and updated through ongoing research and inventory. Should your site plans change, or new rare species information become available, this evaluation may be reconsidered.

Please note that this determination addresses only the matter of rare wildlife habitat and does not pertain to other wildlife habitat issues that may be pertinent to the proposed project.

We appreciate the Army Corps efforts to address rare species concerns during your project planning process. If you have any questions regarding this review please call Jenna Garvey, Environmental Review Assistant, at (508) 792-7270, ext. 303.

Sincerely,

Thomas W. French, Ph.D.
Assistant Director

www.masswildlife.org



REPLY TO
ATTENTION OF

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

September 14, 2005

Habel

Engineering/Planning Division
Evaluation Branch

Mr. Stephen R. Pritchard, Secretary
Executive Office of Environmental Affairs
100 Cambridge Street, 9th Floor
Boston, Massachusetts 02114

Dear Mr. Pritchard:

The U.S. Army Corps of Engineers (Corps) is writing this letter to request your assistance in obtaining resource information from one of your Departments, the Division of Marine Fisheries (DMF). The Corps is currently preparing a Supplemental Environmental Impact Statement (SEIS) for the Boston Harbor Deep Draft Navigation Improvement Feasibility Study and another SEIS for the Boston Harbor Inner Harbor Maintenance Dredging Project. The State, including the DMF, have participated in the Technical Working Group (TWG) composed of various federal, state, and local agencies, as well as local universities and advocacy groups. The TWG discusses relevant issues and appropriate next steps for both Boston Harbor projects. One of the first items requested from the TWG was the accuracy of information gathered for the literature search of Boston Harbor and Massachusetts Bay. The TWG was invited to review the literature search database and provide additional information not captured.

Formal coordination included a letter dated December 16, 2004, requesting information under the Fish and Wildlife Coordination Act for the Boston Harbor Deep Draft Navigation Improvement Feasibility Study. In addition to the outstanding information we requested, we also requested information on finfish and shellfish resources in the harbor as well as the results of any biological studies or monitoring efforts undertaken by the MA Division of Marine Fisheries (MADMF) in another letter dated March 2, 2005. We received an email dated March 30, 2005, indicating that the requested information would be submitted to us shortly. The Corps also sent a coordination letter dated July 6, 2005, to your office with a copy to MADMF for the Boston Harbor Inner Harbor Maintenance Dredging Project. This letter requested comments under the Coastal Zone Management Act, the Clean Water Act Section 401, Fish and Wildlife Coordination Act and related jurisdiction. Since the two projects (the deep draft and inner harbor maintenance projects) are within Boston Harbor and involve many of the same channel areas, Ms. Catherine Rogers of my staff requested in June of this year that Mr. Vin Malkoski of MADMF send a letter addressing both projects when responding to the initial inner harbor maintenance dredging coordination letter. To date, we have not received a reply from MADMF to any of our letters. Copies of these letters are attached for your review.

In addition, as part of our investigation relative to the presence of biological resources within the harbor area(s), our contractor Battelle contacted Mr. Bob Glenn of your staff regarding lobster information. Battelle was informed that the State has been collecting lobster data from commercial lobstermen for about 20 years, as well as other lobster information from other sources. A meeting with Mr. Bob Glenn, Mr. Vin Malkoski, Ms. Lisa Lefkovitz from Battelle and Ms. Kari Lavalli, a subcontractor with Battelle, and Ms. Catherine Rogers was held on August 9, 2005, to discuss the lobster data collected by the State. We were informed by your staff that the subject data, in particular the Sea State program (commercial lobstermen data) was limited in its use and that the sample size would be too small to draw any meaningful conclusions for the purposes of our study. Also, the lobster data would need to be reformatted prior to release to the Corps and that MADMF staff would not be available to begin this effort until mid-October. Although we recognize the inherent limitations of this data, the Corps believes this data could be of use in determining the use of the harbor by lobsters and add to the weight of evidence in assessing potential impacts to the resource.

We are requesting data that the State has compiled from Region 4 (Boston Harbor area) under MADMF Sea State Lobster Program. This data, together with other information collected, may permit some level of characterization of the lobster resource within and in the vicinity of the harbor's shipping channels that will be dredged. We are also requesting information from the Inshore Bottom-Trawl Survey Program. This information may be useful in ranking the beneficial use sites for the proposed project and assessing resources for the project area. Details on the data we are requesting are included in the attached table.

Since there has been a significant delay in response to our initial letters referred to above, which is currently impacting project schedule, we are requesting a response from the MADMF relative to these inquiries (the previous three letters described above) as soon as possible, but no later than September 30, 2005, as well as the data requested above from the Sea State program and the Inshore Bottom Trawl Survey. If there is anything the Corps may be able to provide in order to assist the MADMF with this request or if there are any questions my staff could answer, please contact Ms. Catherine Rogers at 978-318-8231 or Mr. Mark Habel at 978-318-8871.

Sincerely,

Curtis L. Thalken
Colonel, Corps of Engineers
District Engineer

Enclosure

Copy Furnished:

Ms. Deborah Hadden
Deputy Port Director
Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, Massachusetts 02128-2909

Ms. Susan Snow-Cotter, Director
Massachusetts Office of Coastal Zone Management
251 Causeway Street, Suite 800
Boston, Massachusetts 02114

Mr. Deerin Babb-Brott, Acting Director
Massachusetts Environmental Policy Act Office
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Mr. David M. Peters, Commissioner
Massachusetts Department of Fish and Game
251 Causeway Street, Suite 400
Boston, Massachusetts 02114

Mr. Paul J. Diodati, Director
Massachusetts Division of Marine Fisheries
251 Causeway Street, Suite 400
Boston, Massachusetts 02114

CF:

Ms. Rogers
/Mr. Habel
Mr. Keegan
Reading File

**Detail on Data Requested by the Corps from the Commonwealth
for the Boston Harbor Federal Navigation Project Inner Harbor Maintenance
and Deep Draft Channel Improvements Projects**

We request the following data from Region 4 (Boston Harbor area) of the Sea State lobster program. To keep the database query concise, we have defined four regions of interest in and around Boston Harbor corresponding to north and south, inner and outer harbor areas. Each area is defined as a rectangle (see attached map) with the latitude and longitudes defining the outer boundaries as follows.

The latitude/longitudes of the defined regions are as follows:

- South Latitude (Latitude = 42° 13.507')
- Central Latitude (Latitude = 42° 19.642')
- Northern Latitude (Latitude = 42° 25.636')
- Western Longitude (Longitude = 71° 04.898')
- Eastern Longitude (Longitude = 70° 47.134')
- Central longitude (Longitude = 70° 57.209')

We request the following information and data for each of the regions defined above on a monthly basis for the year(s) in which data is available. If data were not available on a monthly basis, yearly would be acceptable.

- Total number, mean size, median size, mode of the size, standard deviation of size, minimum size, maximum size, of ovigerous lobsters for each month [or each year if monthly not available] for each region;
- Total number, mean size, median size, mode of the size, standard deviation of size, minimum size, maximum size, of sub-legal lobsters for each month [or each year if monthly not available] for each region;
- Total number, mean size, median size, mode of the size, standard deviation of size, minimum size, maximum size, of marketable lobsters for each month [or each year if monthly not available] for each region;
- Mean CPUE, median CPUE, mode of the CPUE, standard deviation of CPUE, minimum CPUE, maximum CPUE, of ovigerous lobsters for each month [or for each year if monthly not available] for each region;
- Mean CPUE, median CPUE, mode of the CPUE, standard deviation of CPUE, minimum CPUE, maximum CPUE, of sub-legal lobsters for each month [or for each year if monthly not available] for each region;
- Mean CPUE, median CPUE, mode of the CPUE, standard deviation of CPUE, minimum CPUE, maximum CPUE, of marketable lobsters for each month [or for each year if monthly not available] for each region.

We are also requesting information from the Inshore Bottom-Trawl Survey Program. This information may be useful in ranking the beneficial use sites for the proposed project and assessing resources for the project area. We are requesting data from Region 5 Massachusetts Bay from the Merrimack River to Scituate, using the same coordinate system as above for the lobsters, if possible, otherwise from Region 5. The following list of information is requested:

- A list of species collected from the MADMF research trawl surveys from the beginning of the sampling in 1978 to present on a seasonal basis (i.e., a fall species list and a spring species list).
- Provide the latitude/longitude coordinates for trawls located within the project area or Region 5).
- Provide the sampling dates along with the trawl coordinates.
- Summarize the trends in abundance for various age classes of several species (see list below) within the project area (or Region 5) on a seasonal basis. If this can't be done, please provide an explanation as to why (i.e., no information for this species in the project area, not particularly common in the region to allow for an analysis of trends, very low abundance in the region, no size class information available for the species, etc.)
- If unable to summarize the trends in abundance, then provide the necessary information to do so, with specific instructions on methods for summarizing the correct information. For example, if there is a field in the database that suggests the trawl was bad, let us know how to handle that information (whether to include it or not). Also include instructions on whether trawls should be standardized to time, area trawled etc.
- A copy of the annuals reports for the past 5 years.

Species to include:

1. All EFH Species:

- | | |
|-------------------------|------------------------|
| • Atlantic cod | • Atlantic halibut |
| • Haddock | • Atlantic sea herring |
| • Pollock | • Bluefish |
| • Whiting (silver hake) | • Long-finned squid |
| • Red hake | • Short-finned squid |
| • White hake | • Atlantic butterfish |
| • Winter flounder | • Atlantic mackerel |
| • Yellowtail flounder | • Summer flounder |
| • Windowpane flounder | • Scup |
| • American plaice | • Black sea bass |
| • Ocean pout | • Bluefin tuna |

2. Striped Bass (if caught in the trawls).

3. Non-EFH Species:

- | | |
|-----------------|---------------------|
| • Tautog | • Blueback herring |
| • Cunner | • Atlantic menhaden |
| • Skates | • American shad |
| • American eel | • Atlantic tomcod |
| • Alewife | • White perch |
| • Rainbow smelt | |

4. Ecologically Important Species:

- Northern searobin
- Longhorn sculpin
- Shortfin sculpin
- American sand lance
- Mummichog
- Silversides
- Fourspine stickleback
- Threespine stickleback
- Ninespine stickleback
- Northern pipefish
- Rock gunnel
- Grubby



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
One Blackburn Drive
Gloucester, MA 01930-2298

SEP - 6 2005

John R. Kennelly, Chief
Engineering/Planning Division, Evaluation Branch
Department of the Army
New England District, Corps of Engineers
696 Virginia Road
Concord, Massachusetts

Attn: Catherine Rogers

Dear Mr. Kennelly,

This is in response to your letter dated March 29, 2005 and phone conversations between Catherine Rogers of your staff and Julie Crocker of my staff on August 9, 2005 regarding section 7 consultation for two proposed dredging projects in Boston Harbor. The Army Corps of Engineers (ACOE) has made the preliminary determination that these dredging projects are not likely to adversely affect any threatened and/or endangered species listed under the jurisdiction of NOAA's National Marine Fisheries Service (NMFS).

Boston Harbor Deep Draft Navigation Improvement Project

As part of the Deep Draft Project, the ACOE proposes to make navigation improvements to portions of the Federal Navigation Project in the Port of Boston, which currently has a maximum authorized depth of -40 feet mean lower low water (MLLW). The port's entrance and main ship channels (up to the Ted Williams Tunnel), President Roads anchorage and lower Reserved Channel would be deepened to between 40 and 50 feet MLLW. Dredging would be conducted with a mechanical dredge. The project is expected to take approximately two to three years to complete and two to six million cubic yards (cy) of material will be removed. The majority of the dredged material would be suitable for ocean disposal at the Massachusetts Bay Disposal Site (MBDS). The material unsuitable for disposal at MBDS would be placed in the confined aquatic disposal (CAD) cells north of the Ted Williams Tunnel, most likely in the Mystic River, Chelsea River or Inner Confluence. Rock and/or cobble removed from the channels may be disposed for beneficial uses in one or more of the following nearshore areas: Nantasket Roads, Massachusetts Bay, Nahant Bay and an area off of the town of Magnolia.

Boston Harbor, Inner Harbor, Maintenance Dredging Project

The maintenance project involves the dredging of the -35 and -40 MLLW Main Ship Channel from a point approximately halfway between Spectacle and Castle Island inbound to the Inner Confluence. In addition, the upper portion of the Reserved Channel (-35 foot MLLW), the -40 foot MLLW deep approach channel to the Navy Dry Dock and the -35 foot MLLW deep Federal



channel to the Charles River will also be dredged to their authorized depths. Ledge within the Main Ship channel and ledge outcrops in the President Roads Anchorage will also be removed. In addition, the removal of a gas siphon in the Chelsea River near the Chelsea Street Bridge is being pursued which will allow additional dredging to be performed in the Chelsea River from immediately below, through and immediately upstream of the Chelsea Street Bridge which will restore the Chelsea River to its -38 foot MLLW authorized depth. Dredging would be conducted with a mechanical dredge. The total quantity of material expected to be dredged is approximately 1.9 million cy, of which 1.5 million cy is unsuitable for ocean disposal. Suitable material will be disposed of at the MBDS while the unsuitable material will be disposed of at CAD cells within the Federal channels of the project.

Three species of federally threatened or endangered sea turtles and three species of endangered whales may be found in Massachusetts waters. The sea turtles in Massachusetts nearshore waters are typically small juveniles with the most abundant being the federally threatened loggerhead (*Caretta caretta*) followed by the federally endangered Kemp's ridley (*Lepidochelys kempi*). Loggerheads and Kemp's ridleys have been documented in waters as cold as 11°C, but generally migrate northward when water temperatures exceed 16°C. These species are typically present in Massachusetts waters from June through November. Federally endangered leatherback sea turtles (*Dermochelys coriacea*) are located in New England waters during the warmer months as well. While leatherbacks are predominantly pelagic, they may occur close to shore, especially when pursuing their preferred jellyfish prey. Green sea turtles (*Chelonia mydas*) may also occur sporadically in New England waters, and any occurrence in Massachusetts waters is likely to be rare. Sea turtles are known to occur on Stellwagen Bank and in Massachusetts Bay. While no surveys for sea turtles have been conducted in Boston Harbor, suitable forage and habitat exists in this area and it is likely that sea turtles occasionally are present in Boston Harbor.

Federally endangered North Atlantic right whales (*Eubalaena glacialis*) and humpback whales (*Megaptera novaeangliae*) are also found seasonally in Massachusetts waters. North Atlantic right whales have been documented in the nearshore waters of Massachusetts from December through June. Humpback whales feed during the spring, summer, and fall over a range that encompasses the eastern coast of the United States, including Massachusetts Bay. While these whale species are not considered residents of the Boston Harbor area, transients occasionally enter the area as they complete seasonal migrations in nearby Massachusetts Bay. For example, in April 1996 a right whale was documented in Boston Harbor and in the fall of 2000, a humpback whale was documented in Boston Harbor. Fin (*Balaenoptera physalus*), Sei (*Balaenoptera borealis*) and Sperm (*Physeter macrocephalus*) whales are also seasonally present in New England waters but are typically found in deeper offshore waters and are not likely to occur in Boston Harbor.

Dredge operations have been documented to injure and kill sea turtles. However, all of these instances have occurred with hydraulic hopper dredge operations. If sea turtles were present during dredging operations, it is expected that they will be able to avoid the mechanical dredge to be used. As such, no direct effects to sea turtles are likely to occur during dredging operations. Dredge operations will destroy the existing benthic community in dredged areas and most sedentary organisms associated with the bottom sediments would be killed. Most motile

organisms, such as crabs and finfish, are expected to avoid the dredge. As sea turtles are highly mobile and suitable foraging areas occur elsewhere in the vicinity of the proposed project, the loss of potential sea turtle forage items will not affect sea turtles. Recolonization of the dredged area is expected to be rapid; studies have indicated that pre-dredging conditions in a channel can be reestablished in as little as one month after dredging ceases. In addition, Boston Harbor is not known to be a high use area for sea turtles and any effects on the forage base for sea turtles will be insignificant. As listed whales are not likely to occur in Boston Harbor, they are not likely to be affected by the proposed dredging activities.

Dredging projects in industrial ports have the potential to affect water quality in the surrounding waters. However, no water quality violations have been recorded during monitoring of previous navigation improvement projects in Boston Harbor and the ACOE has indicated that no water quality impacts are expected from these projects. As such, no impacts to listed species from alterations in water quality in Boston Harbor are likely as a result of dredging and disposal operations.

Sea turtles and/or whales may be encountered at the MBDS and/or on the way to/from the disposal area. Separate Section 7 consultation between the ACOE and NMFS was concluded on the use of the MBDS in a letter dated August 29, 1997. It is the understanding of NMFS that all restrictions outlined in that letter will be adhered to during disposal operations for these projects.

Based on the analysis above, NMFS concurs with the ACOE's determination that this project is not likely to adversely affect any listed species under the jurisdiction of NMFS. Therefore, no further consultation pursuant to Section 7 of the ESA is required. Should project plans change or new information become available that changes the basis for this determination, consultation should be reinitiated. Should you have any questions about these comments, please contact Julie Crocker at (978) 281-9300 ext. 6530.

Sincerely,



Patricia A. Kurkul
Regional Administrator

Cc: Collins, GCNE
Williams, GCNE
Boelke, F/NER4



REPLY TO
ATTENTION OF

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

July 6, 2005

Engineering/Planning Division
Evaluation Branch

Ms. Ellen Roy Herzfelder, Secretary
Massachusetts Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

Dear Ms. Herzfelder:

The U.S. Army Corps of Engineers, New England District, is preparing a Supplemental Environmental Impact Statement (SEIS) for the Boston Harbor Inner Harbor Maintenance Dredging Project. We are requesting comments from your agency on the proposed project under the Commonwealth's Coastal Zone Management Act, the Clean Water Act Section 401, the Fish and Wildlife Coordination Act and related jurisdictions.

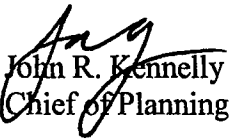
The proposed Boston Harbor Inner Harbor Maintenance Dredging Project involves the dredging of the -35 and -40 foot mean lower low water (MLLW) Main Ship Channel from a point approximately halfway between Spectacle and Castle Islands inbound to the Inner Confluence. In addition, the upper (-35 foot MLLW) portion of the Reserved Channel, the -40 foot MLLW approach channel to the Navy Dry Dock, and the -35 foot MLLW Federal channel to the Charles River will also be dredged to their authorized depths. Recent surveys have identified some areas of ledge within the Federal project that will also be removed as part of the next maintenance dredging effort. A section of ledge, located in the Main Ship Channel between the -35 and -40 foot MLLW channels, as well as six separate ledge outcrops in the President Roads Anchorage, will be also removed. In addition, Massport is pursuing the removal of a gas siphon in the Chelsea River near the Chelsea Street Bridge. If that line is removed as scheduled, additional dredging will be performed in the Chelsea River from immediately below, through, and immediately upstream of the Chelsea Street Bridge, which will restore the Chelsea River to its -38 foot MLLW authorized depth.

The total quantity of material estimated to be dredged is 1.9 million cubic yards, of which 1.5 million cubic yards are unsuitable for ocean disposal. A decision document is being prepared on how the unsuitable material will be managed, however, the likely plan will be the development and use of confined aquatic disposal (CAD) cells within the Federal channels of the project. While the full range of disposal alternatives will be

investigated, it is expected that the suitable material will be disposed at the Massachusetts Bay Disposal Site.

We would appreciate a response to our request within 30 days of the receipt of this letter. Any questions or comments can be directed to Ms. Catherine Rogers at (978) 318-8231 or Mr. Michael Keegan at (978) 318-8087.

Sincerely,

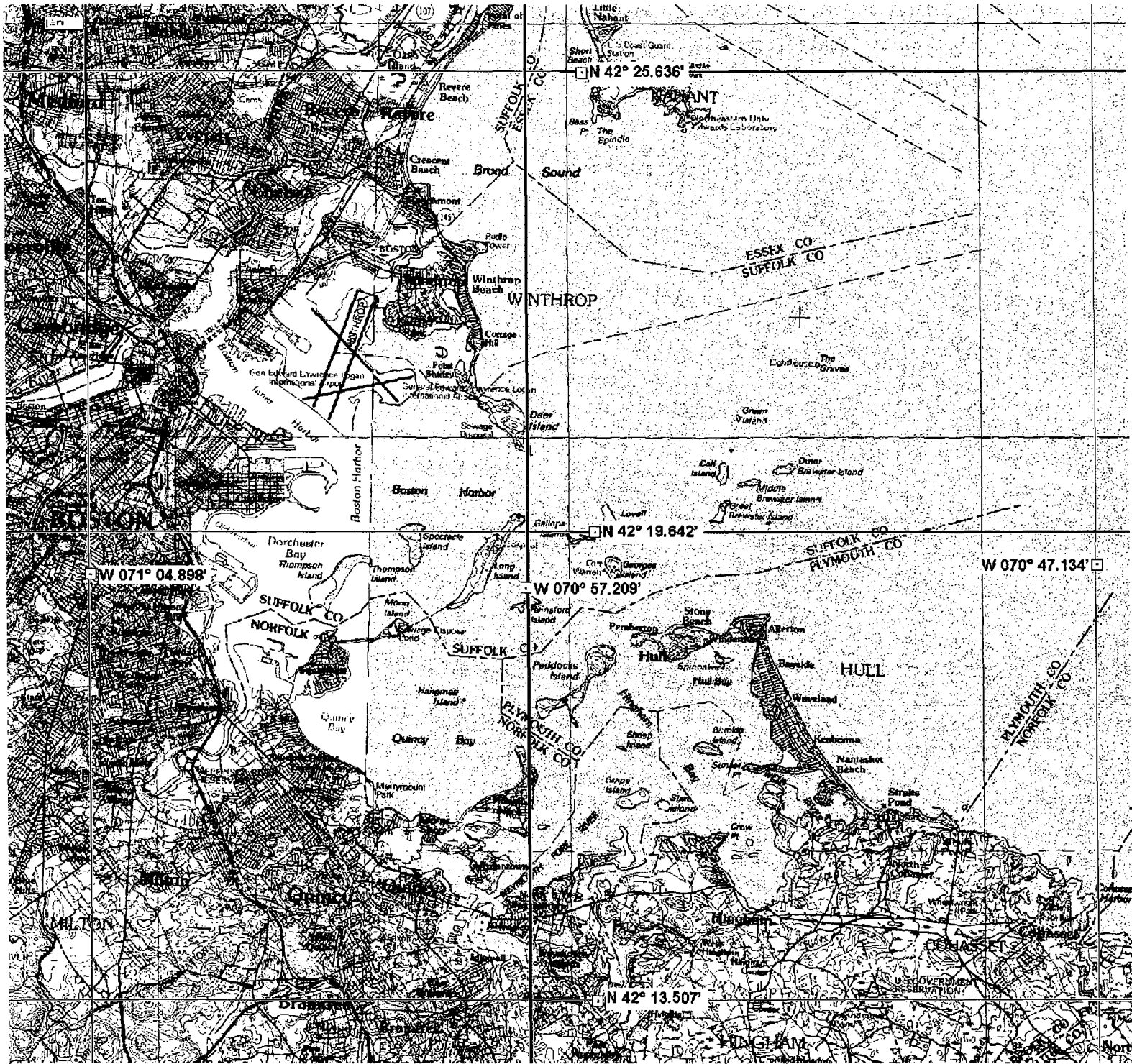

John R. Kennelly
Chief of Planning

Copy Furnished:

Ms. Susan Snow-Cotter, Director
Massachusetts Coastal Zone Management
251 Causeway Street, Suite 900
Boston, Massachusetts 02114

Mr. Edward Kunce, Acting Commissioner
Massachusetts Department of Environmental Protection
One Winter Street
Boston, Massachusetts 02108

Mr. Paul J. Diodati, Director
Massachusetts Division of Marine Fisheries
251 Causeway Street, Suite 400
Boston, Massachusetts 02114





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

OFFICE OF THE
REGIONAL ADMINISTRATOR

June 30, 2005

John Kennelly
Chief of Planning
United States Army Corps of Engineers
696 Virginia Road
Concord, Massachusetts 01742-2751

RE: Supplemental Environmental Impact Statement (SEIS) for the Boston Harbor Deep Draft Navigation Improvement Project

Dear Mr. Kennelly:

This letter responds to your request for the Environmental Protection Agency (EPA) to participate as a cooperating agency during the preparation of the Supplemental Environmental Impact Statement (SEIS) for the Boston Harbor Deep Draft Navigation Improvement Project. EPA New England agrees to participate as a cooperating agency during the preparation of a SEIS for the project.

EPA intends to work as a cooperating agency within the limit of our resources to help define the scope of analysis, identify sources of information and to offer input on how specific issues should be addressed in the SEIS. We encourage the Corps to continue to coordinate closely with local, state and federal agency representatives throughout the NEPA process.

If you have any questions about this letter or EPA's involvement in the SEIS process, please contact Timothy Timmermann at 617-918-1025.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert W. Varney", followed by a long horizontal flourish.

Robert W. Varney
Regional Administrator

A159651010

Internet Address (URL) • <http://www.epa.gov/region1>



MassWildlife

Commonwealth of Massachusetts

Division of Fisheries & Wildlife

Wayne F. MacCallum, *Director*

May 31, 2005

U.S. Army Corps of Engineers
Attn: Catherine Rogers
696 Virginia Road
Concord, MA 01742

Re: Boston Harbor Deep Draft Navigation Improvement Feasibility Study
Boston, MA
NHESP File: 05-17941

Dear Ms. Rogers:

Thank you for contacting the Natural Heritage and Endangered Species Program ("NHESP") of the MA Division of Fisheries & Wildlife for information regarding state-protected rare species in the vicinity of the site identified above.

At this time we do not have any rare species concerns with the work proposed in the vicinity of this site.

This evaluation is based on the most recent information available in the NHESP database, which is constantly being expanded and updated through ongoing research and inventory. Should your site plans change, or new rare species information become available, this evaluation may be reconsidered.

Please note that this determination addresses only the matter of rare wildlife habitat and does not pertain to other wildlife habitat issues that may be pertinent to the proposed project.

If you have any questions regarding this review please call Jenna Garvey, Environmental Review Assistant, at (508) 792-7270, ext. 303.

Sincerely,

Thomas W. French, Ph.D.
Assistant Director

cc: Boston Conservation Commission
DEP Northeastern Regional Office, Wetlands Program

www.masswildlife.org

Division of Fisheries and Wildlife

Field Headquarters, One Rabbit Hill Road, Westborough, MA 01581 (508) 792-7270 Fax (508) 792-7275

An Agency of the Department of Fisheries, Wildlife & Environmental Law Enforcement



THE COMMONWEALTH OF MASSACHUSETTS

EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

OFFICE OF COASTAL ZONE MANAGEMENT

251 Causeway Street, Suite 800, Boston, MA 02114-2136

(617) 626-1200 FAX: (617) 626-1240

John R. Kennelly
Chief of Planning
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742

May 24, 2005

Dear Mr. Kennelly,

This letter is in response to recent communication between the Massachusetts Office of Coastal Zone Management (CZM) and your office regarding the development of the Supplemental Environmental Impact Statement (SEIS) for the Boston Harbor Deep Draft Navigation Improvement Project. This communication has been in reference to April 11, 2003 correspondence from your office to CZM requesting that CZM participate in the preparation of the SEIS as a cooperating agency, pursuant to §1501.6 of the National Environmental Policy Act.

CZM agrees to participate in the development of the SEIS as a cooperating agency, reflecting our continued participation in the project Technical Working Group (TWG) that was implemented recognizing the need for agency coordination to address project planning and environmental issues. John Weber of our office has been involved in the recent TWG activities and will continue to serve as the main point of contact for the project. He can be reached at 617.626.1064 or by email at john.weber@state.ma.us.

CZM looks forward to working with the Corps, Massport, and other resource agencies as the planning for the project moves ahead. Please feel free to contact John if you have any questions.

Sincerely,

Susan Snow-Cotter
Director

SSC/jw

Cc: Catherine Rogers, USACOE
Mark Habel, USACOE
Deb Hadden, Massport

A-5-67





US Army Corps of Engineers®

New England District

Number of Pages (Including Header): 3

Environmental Resources Section

Date: May 19, 2005

Please Deliver To: Jenna Garvey

Organization: MA Div of Fisheries and Wildlife

Jenna,

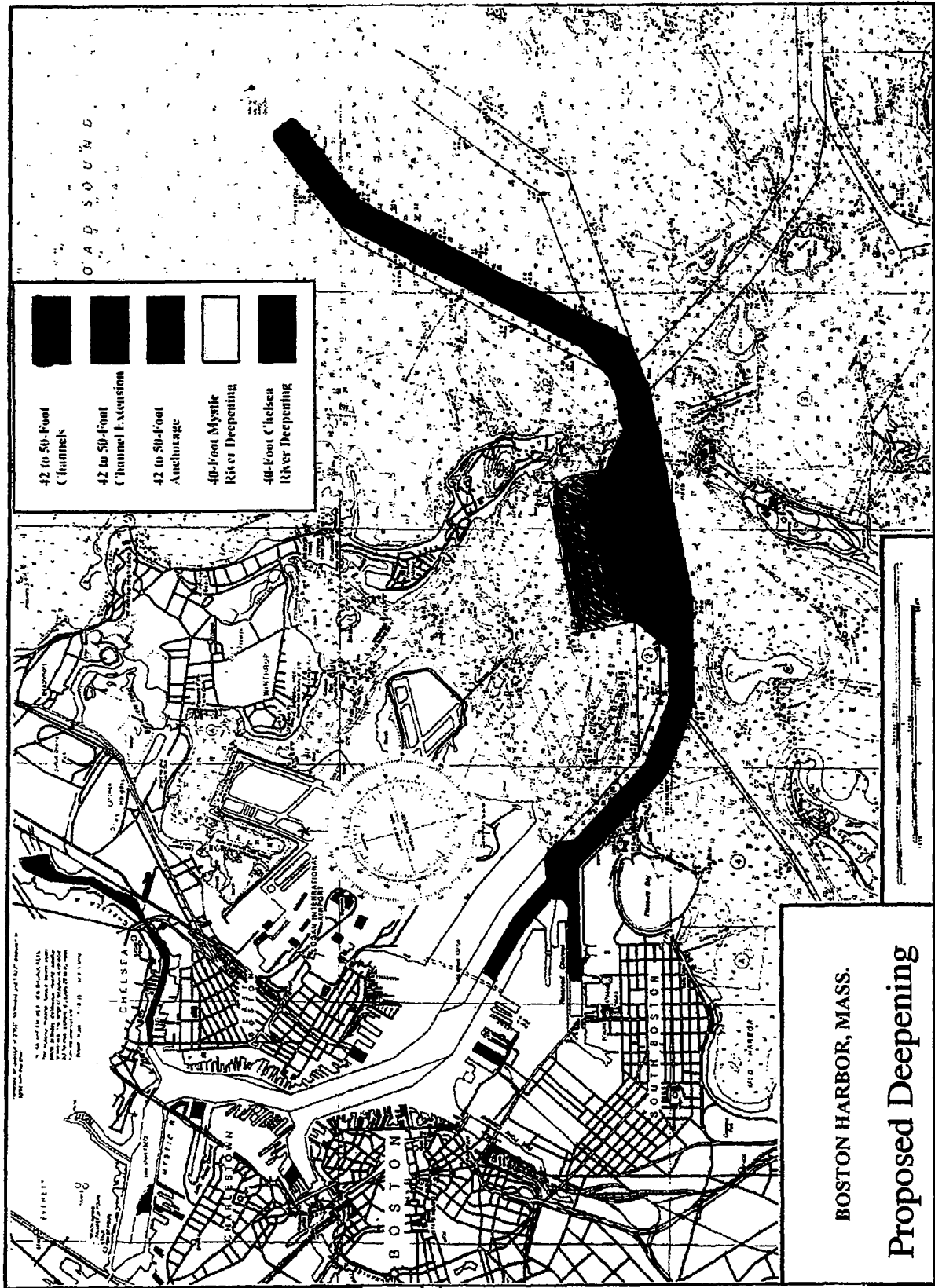
This responds to your letter dated Feb. 14, 2005 (I just received the letter, someone else in my office had it) requesting a locus map for the Boston Harbor deep draft navigation improvement feasibility study. Please complete your review of any state listed species. Please give me a call if you have any questions.

Thanks,
C.R.



From: Catherine J. Rogers
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742
Phone: (978) 318-8231
FAX: (978) 318-8560
E-Mail: Catherine.J.Rogers@usace.army.mil

Figure 2



The dark areas of the navigation channels are the proposed deepening areas.

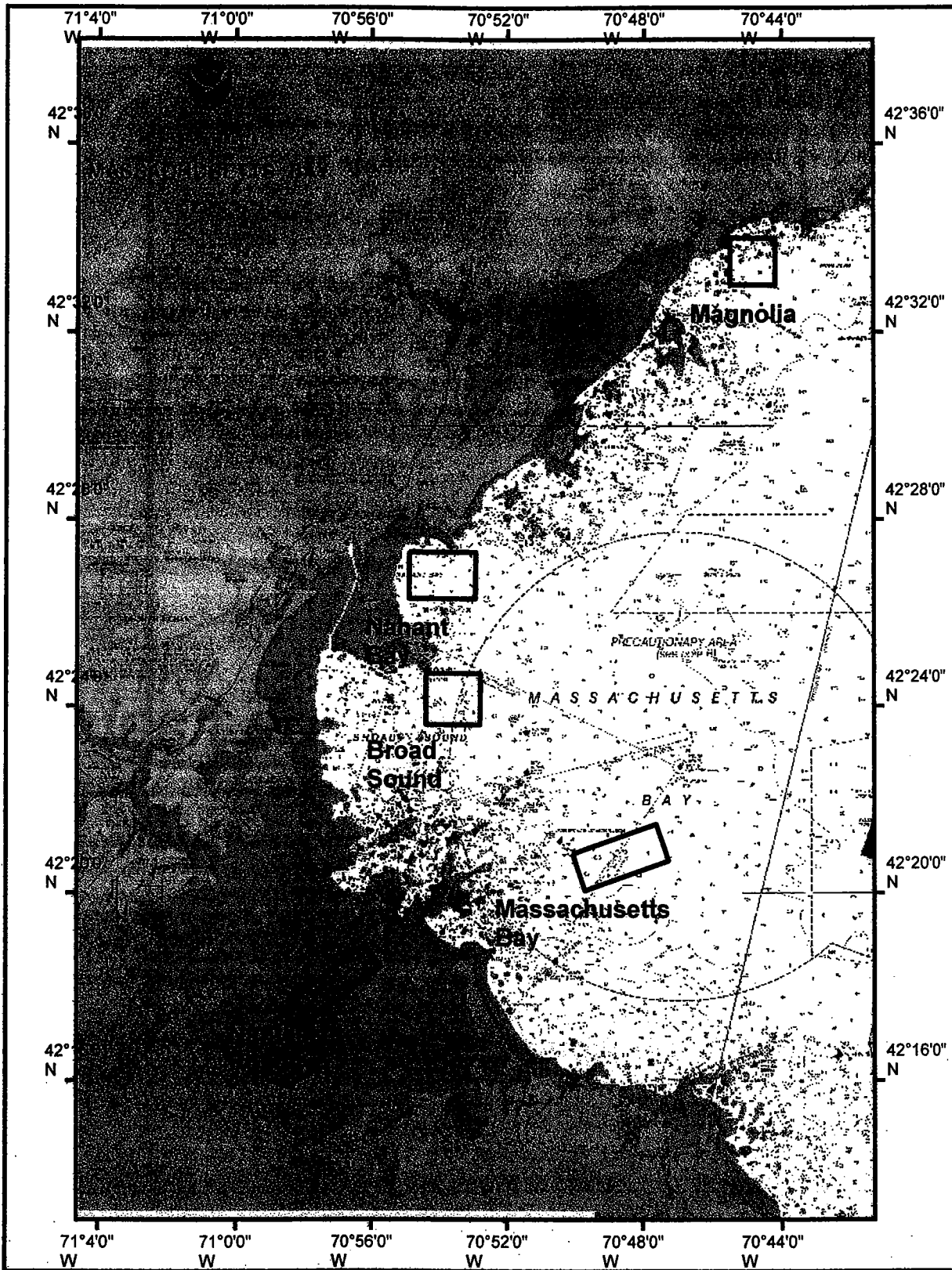


Figure 1. ~~Benthic Sampling Areas~~

*Nearshore Beneficial
Use Sites*



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
One Blackburn Drive
Gloucester, MA 01930-2298

APR 28 2005

Mr. John Kennelly
Chief of Planning
Engineering/Planning Division
Evaluation Branch
US Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA 01742

Re: Boston Harbor Deep Draft Navigation Improvement Project

Dear Mr. Kennelly:

This responds to your letter requesting the National Marine Fisheries Service (NMFS) to participate as a cooperating agency in the preparation of a joint Supplemental Environmental Impact Statement (SEIS) and Environmental Impact Report (EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. The purpose of the joint SEIS/EIR is to evaluate the feasibility of potential deep draft navigation channel improvements to the Boston Harbor Massachusetts Federal Navigation Project. NOAA Fisheries agrees to participate as a cooperating agency to help advance effective interagency coordination on the SEIS/EIR for this project in accordance with the Council of Environmental Quality (CEQ) regulations (40 CFR 1501.6).

Our involvement generally will be in the areas of scoping, identification of issues and topics that need consideration and evaluation in the SEIS/EIR, review of documents, and routine attendance at meetings. We are not in a position to undertake data collection, conduct analyses, or prepare sections of the draft or final SEIS/EIR, as staff and resources are fully tasked in other obligatory NMFS programs.

We have been involved with the Boston Harbor Deep Draft Navigation Improvement Project through participation on the Technical Working Group (TWG). To date, we have provided comments on site selection criteria for the beneficial use of material from the channel within Boston Harbor and have offered site-specific information regarding NMFS trust resources expected to be within the project area. As we continue to move through the project review process, NMFS will be in a position to provide an exposition of issues from the standpoint of our federal mandates and will work collegially with the federal partners.



I understand that the next steps will be the review of the Draft Supplemental Environmental Impact Statement/Environmental Impact Report to evaluate the potential impacts of the proposed project. We expect there to be increasing public attention directed to this project and we will make every reasonable effort to work with your staff to review and provide comments on this project. If you have any questions pertaining to this letter, please contact Chris Boelke of my staff at (978) 281-9131. We look forward to exploring the issues associated with the Boston Harbor Deep Draft Navigation Improvement Project as it moves through the public review process.

Sincerely,


for Patricia A. Kurkul
Regional Administrator

cc: Mike Bartlett, US FWS
Robert Varney, US EPA
Christine Godfrey, US ACOE
Peter Colosi, NMFS
Secretary Ellen Roy Herzfelder, EOE
Paul Diodati, MA DMF
Mary Colligan, PRD
George Darcy, SFD



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

REPLY TO:
ATTENTION OF:

March 29, 2005

Engineering/Planning Division
Evaluation Branch

Ms. Patricia A. Kurkul, Regional Administrator
National Marine Fisheries Service
One Blackburn Drive
Gloucester, Massachusetts 01930-2298

Dear Ms. Kurkul:

As requested in your letter dated February 14, 2005, the U.S. Army Corps of Engineers, New England District is writing this letter to continue the Endangered Species Act Section 7 consultation for the Boston Harbor Deep Draft Navigation Improvement Feasibility Study. In our earlier letter dated January 10, 2005, we stated that we are investigating the feasibility of navigation improvements to portions of the Federal Navigation Project in the Port of Boston, which currently has a maximum authorized depth of 40-foot mean lower low water. The port's entrance and main ship channels (up to the Ted William Tunnel), President Roads anchorage and lower Reserved Channel would be deepened to between 40 and 50 ft mean lower low water. A small portion of the Mystic River would be deepened to 40 ft and the Chelsea River to 40 ft mean lower low water. Dredging would be conducted with a mechanical or clamshell dredge. The project is expected to take approximately two to three years to complete and dredge approximately two to six million cubic yards of material, depending on the proposed navigation channel depth. The majority of the dredged material would be suitable for ocean disposal at the Massachusetts Bay Disposal Site (MBDS). A small amount of overlying shoal material that is unsuitable for ocean water disposal would be placed in confined aquatic disposal (CAD) cells north of the Ted Williams Tunnel, most likely in the Mystic River, Chelsea River and/or Inner Confluence. Rock and/or cobble removed from the navigation channels may be disposed for beneficial use in one or more of the following nearshore areas: Nantasket Roads, Broad Sound, Massachusetts Bay, Nahant Bay and an area off of the town of Magnolia. See the enclosed figure.

A Supplemental Environmental Impact Statement (SEIS) is being prepared for this proposed project. Information from the EIS and Biological Assessment prepared for the previous Boston Harbor Navigation Improvement Project (BHNIP) will be used in the preparation of this SEIS.

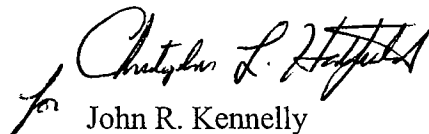
Conditions to protect threatened and endangered species are in place for dredged material disposal at the MBDS. The intent of the following conditions is to reduce the potential for vessel collisions with endangered species, including right whales. From February 1 through May 30 of any year, disposal vessels including tugs, barges, and scows transiting between the dredge site and the MBDS shall operate at speeds not to

exceed five knots after sunset, before sunrise, or in daylight conditions where visibility is less than one nautical mile. Disposal shall not be permitted if these requirements cannot be met due to weather or sea conditions. From February 1 through May 30 of any year, an approved marine mammal observer (meeting National Marine Fisheries Service criteria on observer qualifications, including the specified skill sets for sea turtles and whales) must be present aboard disposal vessels transiting between the dredge site and the Massachusetts Bay Disposal Site during daylight hours. To date, the marine mammal observation reports have not indicated any physical contact with whales while transiting to the MBDS.

Listed species under your jurisdiction in Massachusetts waters include three species of Federally threatened or endangered sea turtles (loggerhead sea turtles, Kemp's ridley sea turtles, and leatherback sea turtles) and three species of endangered whales (North Atlantic right whales, humpback whales, and fin whales). Conditions are in place to protect the rare right whale and other threatened and endangered species during transit and disposal at the MBDS. In addition, a mechanical dredge will be used for the proposed project, thereby minimizing any impacts to sea turtles. Based on these facts, we have determined that the proposed deep draft project for Boston Harbor is not likely to adversely impact threatened or endangered species listed under the jurisdiction of the National Marine Fisheries Service.

We request your concurrence with this determination. If the proposed project description changes significantly, we will reinitiate Section 7 consultation. Any questions or comments can be directed to Ms. Catherine Rogers at (978) 318-8231.

Sincerely,


John R. Kennelly
Chief of Planning

Enclosure



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087

March 2, 2005

Reference: Project
Deep Draft Navigation Improvement Feasibility Study

Location
Boston Harbor, MA

John R. Kennelly
Chief of Planning
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

Dear Mr. Kennelly:

This responds to your recent correspondence requesting information on the presence of federally-listed and/or proposed endangered or threatened species in relation to the proposed activity(ies) referenced above.

Based on information currently available to us, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

This concludes our review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your coordination. Please contact us at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Michael J. Amaral
Endangered Species Specialist
New England Field Office



REPLY TO
ATTENTION OF

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

March 2, 2005

Project Management Division
Programs and Civil Project Management Branch

Mr. Paul J. Diodati, Director
Division of Marine Fisheries
251 Causeway Street, Suite 400
Boston, Massachusetts 02114

Dear Mr. Diodati:

On December 16, 2004 I wrote to you to request your comments under the Fish and Wildlife Coordination Act for the Boston Harbor Deep Draft Navigation Improvement Feasibility Study. The letter explained that we are evaluating the feasibility of navigation improvements to portions of the Federal Navigation Project in the Port of Boston, which currently has a maximum authorized depth of 40-feet Mean Lower Low Water (MLLW) and outlined the alternatives under consideration.

In addition the letter indicated that in response to a prior request for information, your office provided data on the results of a sampling program for early benthic phase lobster in areas of Boston Harbor. Our letter of December 16, 2004 requested that you provide the sampling and evaluation methodology for this investigation and the bottom habitat/substrate types for the sampling locations. Our letter also requested that you provide any information you may have on finfish and other shellfish resources in the harbor so that we may assess the potential impacts of the proposed channel improvements on biological resources that have ecological, commercial or recreational significance. The location and description of known spawning, nursery, or feeding habitats for these species, and the results of any studies by the Division, including sampling locations, methodology and data was also requested as was any other information on biological resources considered relevant to this proposed project.

Our letter requested a response within 30 days so that we could include the information into our analysis efforts for the project. At this time we have received no response from your office. If you have any of the requested data I would appreciate if you would contact Ms. Catherine Rogers at 978-318-8231, Mr. Mark Habel at 978-318-8871, or me at 978-318-8087 and inform us as to the information you have and when we might be furnished that information. I have enclosed a copy of my December 16, 2004 letter for your information.

Sincerely,

A handwritten signature in cursive script that reads "Michael F. Keegan".

Michael F. Keegan, P.E.
Project Manager

Enclosure



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
One Blackburn Drive
Gloucester, MA 01930-2298

FEB 14 2005

Ms. Catherine Rodgers
US Army Corps of Engineers
New England District
Engineering/Planning Division
Evaluation Branch
696 Virginia Road
Concord, MA 01742-2751

Re: Request for Information regarding fishery resources and endangered species within Boston Harbor; Boston Harbor Deep Draft Navigation Improvement Feasibility Study

Dear Ms. Rodgers:

This letter is in response to your letter dated January 10, 2005, requesting information regarding the presence and distribution of Essential Fish Habitat (EFH), fishery resources, and protected resources within Boston Harbor. Specifically, this request is in reference to the Boston Harbor Deep Draft Navigation Improvement Feasibility Study. The National Marine Fisheries Service (NOAA Fisheries Service) provides the following comments in an attempt to identify and address potential adverse impacts on NOAA trust resources within the project area.

Essential Fish Habitat

EFH has been designated for a number of federally managed species within the proposed work area. A complete list of species and life stages that have been designated for the proposed project location can be found on the NOAA Fisheries Habitat Conservation Division website at <http://www.nero.noaa.gov/ro/doc/webintro.html>

Among those species listed, particular attention should be focused on winter flounder (*Pseudopleuronectes americanus*) habitat that may be adversely affected by this project. Adult winter flounder utilize this area for spawning and feeding, while eggs, larvae, and juveniles use the area for early life stage development. Suspended sediment deposition resulting from the proposed project can adversely affect winter flounder eggs and juvenile development. Winter flounder have been identified throughout the harbor as well as within the Mystic and Chelsea Rivers. Other EFH species that have been identified within the project footprint should be evaluated for adverse effects resulting from the proposed project.

EFH Assessment

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Fish and Wildlife Coordination Act require federal agencies to consult with one another on projects such as this. Insofar as a project involves essential fish habitat (EFH), as this project does, this process



guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in this consultation procedure.

The required contents of an EFH assessment include: 1) a description of the action; 2) an analysis of the potential adverse effects of the action on EFH and the managed species; 3) the ACOE's conclusions regarding the effects of the action on EFH; and 4) proposed mitigation, if applicable. Other information that should be contained in the EFH assessment, if appropriate, includes: 1) the results of on-site inspections to evaluate the habitat and site-specific effects; 2) the views of recognized experts on the habitat or the species that may be affected; 3) a review of pertinent literature and related information; and 4) an analysis of alternatives to the action that could avoid or minimize the adverse effects on EFH. Upon submittal of an EFH assessment, NOAA Fisheries Service will provide official conservation recommendations for the proposed project.

Finfish and shellfish resources under the Fish and Wildlife Coordination Act

The substrate found within the project area also serves as habitat for benthic organisms, such as shellfish and other invertebrates living within and on the surface of the sediment. These organisms contribute to the productivity of the federally managed species by acting as a food source for both juvenile and adult life stages of finfish. Shellfish resources of concern within the project area include soft-shelled clams, blue mussels, and surf clams. Surf clams are present within the vicinity of Broad Sound. Shellfish resources may be adversely affected by the proposed project through direct impact (i.e., dredge) or by elevated levels of suspended sediment that can interfere with spawning success and feeding.

In addition, the anadromous rainbow smelt, alewife, and blueback herring utilize Boston Harbor, the Mystic River, and the Chelsea River for passage to upstream spawning locations. Elevated levels of suspended sediment can serve as an impediment to passage if work is performed during upstream and/or downstream migrations. In order to avoid adverse impacts on the resource, dredge work should be timed accordingly. Finally, a variety of state-managed fishery resources are present within the project area, and further coordination with the Massachusetts Division of Marine Fisheries should occur. Pursuant to the Fish and Wildlife Coordination Act, conservation recommendations will be provided in order to avoid and minimize adverse effects to the above referenced NOAA trust resources.

Protected Resources

Three species of federally threatened or endangered sea turtles and three species of endangered whales may be found in Massachusetts waters. The sea turtles in northeastern nearshore waters are typically small juveniles with the most abundant being the federally threatened loggerhead (*Caretta caretta*) followed by the federally endangered Kemp's ridley (*Lepidochelys kempi*). Loggerhead turtles have been found to be relatively abundant off the Northeast coast (from near Nova Scotia, Canada to Cape Hatteras, North Carolina). Loggerheads and Kemp's ridleys have been documented in waters as cold as 11°C, but generally migrate northward when water temperatures exceed 16°C. These species are typically present in Massachusetts waters from June through October. Federally endangered leatherback sea turtles (*Dermochelys coriacea*) are located in New England waters

during the warmer months as well. While leatherbacks are predominantly pelagic, they may occur close to shore, especially when pursuing their preferred jellyfish prey. Green sea turtles (*Chelonia mydas*) may also occur sporadically in Massachusetts waters, but those instances would be rare.

Sea turtles are not likely to occur in the area to be dredged and any occurrence in the Weymouth area would be an unlikely event. In addition, as the dredging is to take place in the fall and winter, the likelihood of sea turtle presence is further reduced.

Federally endangered North Atlantic right whales (*Eubalaena glacialis*), humpback whales (*Megaptera novaeangliae*), and fin whales (*Balaenoptera physalus*) may also be found seasonally in Massachusetts waters. North Atlantic right whales have been documented in the nearshore waters of Massachusetts from December through June. Humpback whales feed during the spring, summer, and fall over a range that encompasses the eastern coast of the United States. Fin whales are common in waters of the United States Exclusive Economic Zone, principally offshore from Cape Hatteras northward. While these whale species are not considered residents of the Boston Harbor area, it is possible that transients may enter the area during seasonal migrations. While possible, it is unlikely that any of these whale species would be present in the area to be dredged.

Section 7(a)(2) of the Endangered Species Act (ESA) of 1973, as amended, states that each federal agency shall, in consultation with the Secretary, insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Because federally listed species may be present in the vicinity of the project area, any discretionary federal action that may affect these species must undergo Section 7 consultation. The federal action agency, in this case the ACOE, would be responsible for initiating Section 7 consultation, at which time the project details would be submitted to NOAA Fisheries Service, Northeast Regional Office, One Blackburn Drive, Gloucester, MA 01930. An assessment of the project's impacts on federally endangered species should be included with the project details. After reviewing this information, NOAA Fisheries Service would then be able to conduct a consultation under section 7 of the ESA.

Thank you for your coordination with NOAA Fisheries Service regarding this project. If you have questions regarding these comments, please contact Christopher Boelke at 978-281-9131 for EFH issues, or Sara McNulty at 978-281-9328, ext. 6520, for protected resources issues or the section 7 consultation process in general.

Sincerely,



Peter D. Colosi
Assistant Regional Administrator
for Habitat Conservation

cc: PRD - M. Colligan, S. McNulty



MassWildlife

Commonwealth of Massachusetts

Division of Fisheries & Wildlife

Wayne F. MacCallum, *Director*

February 14, 2005

Department of the Army
New England District, Corps of Engineers
Attn: Catherine Rogers
Engineering/Planning Division Evaluation Branch
696 Virginia Road
Concord, MA 01742-2751

RE: Boston Harbor Deep Draft Navigation Improvement Feasibility Study

Dear Ms. Rogers,

Thank you for contacting the Natural Heritage and Endangered Species Program ("NHESP") of the MA Division of Fisheries & Wildlife for information regarding state-protected rare species at the above referenced site.

In order to complete our review, the NHESP will need additional information, in particular, a clearly demarcated locus map showing the entire project area. Once this information is received, we can inform you of any rare species issues/concerns that could potentially be associated with this project.

If you have any questions, please contact Jenna Garvey, Environmental Review Assistant at: (508) 792-7270, ext. 303.

Sincerely,

Thomas W. French, Ph.D.
Assistant Director

www.masswildlife.org

Division of Fisheries and Wildlife

Field Headquarters, One Rabbit Hill Road, Westborough, MA 01581 (508) 792-7270 Fax (508) 792-7275
An Agency of the Department of Fisheries, Wildlife & Environmental Law Enforcement



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

REPLY TO:
ATTENTION OF:

January 25, 2005

Engineering/Planning Division
Evaluation Branch

Mr. William Neidermyer, Federal Activities Coordinator
U.S. Fish and Wildlife Service
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087

Dear Mr. Neidermyer:

This letter is written to request your comments under the Fish and Wildlife Coordination Act, and a list of threatened and endangered species under the Endangered Species Act, for the Boston Harbor Deep Draft Navigation Improvement Feasibility Study. This investigation is evaluating the feasibility of navigation improvements to portions of the Federal Navigation Project in the Port of Boston, which currently has a maximum authorized depth of 40-foot Mean Lower Low Water (MLLW). Various alternatives are being evaluated for the Broad Sound North Entrance Channel, the Main Ship Channel through the President Roads Channel and up to the Marine Terminal just seaward of the Ted Williams Tunnel, the President Roads Anchorage, and portions of the Reserved Channel, for channel depths up to -50 feet MLLW. Deepening a small area of the Mystic River Channel upstream of the Moran Terminal, from the current 35-foot depth to 40 feet, and deepening the Chelsea River from the current 38-foot depth to 40 feet, will also be evaluated.

Most of the disposal is expected to occur at the Massachusetts Bay Disposal Site, and at the previously permitted confined aquatic disposal (CAD) cells in the Inner Confluence, Mystic River or Chelsea River. Rock and/or cobble material removed from the navigation channels may be disposed for beneficial use in one or more of the following nearshore areas: Nantasket Roads, Broad Sound, Massachusetts Bay, Nahant Bay and off of Magnolia.

Other information on biological resources considered relevant to this proposed project would also be appreciated. Your response to this letter within the next 30 days would be appreciated. Any questions or comments can be addressed to Ms. Catherine Rogers at 978-318-8231.

Sincerely,

John R. Kennelly
A-5-81
Chief of Planning



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

REPLY TO:
ATTENTION OF:

January 25, 2005

Engineering/Planning Division
Evaluation Branch

Mr. Henry Woolsey, Program Manager
Natural Heritage and Endangered Species Program
Massachusetts Division of Fisheries and Wildlife
North Drive
Westborough, Massachusetts 01581

Dear Mr. Woolsey:

This letter is written to request a list of Threatened, Endangered, and Special Concern species for the Boston Harbor Deep Draft Navigation Improvement Feasibility Study. This investigation is evaluating the feasibility of navigation improvements to portions of the Federal Navigation Project in the Port of Boston, which currently has a maximum authorized depth of 40-foot Mean Lower Low Water (MLLW). Various alternatives are being evaluated for the Broad Sound North Entrance Channel, the Main Ship Channel through the President Roads Channel and up to the Marine Terminal just seaward of the Ted Williams Tunnel, the President Roads Anchorage, and portions of the Reserved Channel, for channel depths up to -50 feet MLLW. Deepening a small area of the Mystic River Channel upstream of the Moran Terminal, from the current 35-foot depth to 40 feet, and deepening the Chelsea River from the current 38-foot depth to 40 feet, will also be evaluated.

Disposal is expected to occur at the Massachusetts Bay Disposal Site, and at the previously permitted confined aquatic disposal (CAD) cells in the Inner Confluence, Mystic River or Chelsea River. Rock and/or cobble material removed from the navigation channels may be disposed for beneficial use in one or more of the following nearshore areas: Nantasket Roads, Broad Sound, Massachusetts Bay, Nahant Bay and off of Magnolia.

Your response to this letter within the next 30 days would be appreciated. Any questions or comments can be addressed to Ms. Catherine Rogers at 978-318-8231.

Sincerely,

John R. Kennelly
Chief of Planning

A-5-82



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

REPLY TO:
ATTENTION OF:

January 10, 2005

Engineering/Planning Division
Evaluation Branch

Mr. Peter Colosi, Assistant Regional Administrator
National Marine Fisheries Service
One Blackburn Drive
Gloucester, Massachusetts 01930-3097

Dear Mr. Colosi:

This letter is written to request your comments under the Fish and Wildlife Coordination Act, and a list of threatened and endangered species under the Endangered Species Act, for the Boston Harbor Deep Draft Navigation Improvement Feasibility Study. This investigation is evaluating the feasibility of navigation improvements to portions of the Federal Navigation Project in the Port of Boston, which currently has a maximum authorized depth of 40-foot Mean Lower Low Water (MLLW). Various alternatives are being evaluated for the Broad Sound North Entrance Channel, the Main Ship Channel through the President Roads Channel and up to the Marine Terminal just seaward of the Ted Williams Tunnel, the President Roads Anchorage, and portions of the Reserved Channel, for channel depths up to -50 feet MLLW. Deepening a small area of the Mystic River Channel upstream of the Moran Terminal, from the current 35-foot depth to 40 feet, and deepening the Chelsea River from the current 38-foot depth to 40 feet, will also be evaluated.

In particular, we request that you provide any information you may have on finfish and other shellfish resources in the harbor so that we may assess the potential impacts of the proposed channel improvements on biological resources that have ecological, commercial or recreational significance. The location and description of known spawning, nursery, or feeding habitats for these species, and the results of any studies by the National Marine Fisheries Service including sampling locations, methodology and dates are requested. We are also requesting your agency's input in determining which important finfish and shellfish species should be considered, and why they should be considered, for evaluation in the Feasibility Study.

Other information on biological resources considered relevant to this proposed project would also be appreciated. Your response to this letter within the next 30 days



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

REPLY TO:
ATTENTION OF:

December 16, 2004

Project Management Division
Programs and Civil Project Management Branch

Mr. Paul J. Diodati, Director
Division of Marine Fisheries
251 Causeway Street, Suite 400
Boston, Massachusetts 02114

Dear Mr. Diodati:

This letter is written to request your comments under the Fish and Wildlife Coordination Act for the Boston Harbor Deep Draft Navigation Improvement Feasibility Study. This investigation is evaluating the feasibility of navigation improvements to portions of the Federal Navigation Project in the Port of Boston, which currently has a maximum authorized depth of 40-foot Mean Lower Low Water (MLLW). Various alternatives are being evaluated for the Broad Sound North Entrance Channel, the Main Ship Channel through the President Roads Channel and up to the Marine Terminal just seaward of the Ted Williams Tunnel, the President Roads Anchorage, and portions of the Reserved Channel, for channel depths up to -50 feet MLLW. Deepening a small area of the Mystic River Channel upstream of the Moran Terminal, from the current 35-foot depth to 40 feet, and deepening the Chelsea River from the current 38-foot depth to 40 feet, will also be evaluated.

In response to a prior request for information, your office provided data on the results of a sampling program for early benthic phase lobster in areas of Boston Harbor. We request that you provide the sampling and evaluation methodology for this investigation and the bottom habitat/substrate types for the sampling locations.

In addition, we request that you provide any information you may have on finfish and other shellfish resources in the harbor so that we may assess the potential impacts of the proposed channel improvements on biological resources that have ecological, commercial or recreational significance. The location and description of known spawning, nursery, or feeding habitats for these species, and the results of any studies by the Division, including sampling locations, methodology and data are requested.

Other information on biological resources considered relevant to this proposed project is also requested. Your response to this letter within the next 30 days would be appreciated. Any questions or comments can be addressed to Ms. Catherine Rogers at 978-318-8231, Mr. Mark Habel at 978-318-8871, or Mr. Michael Keegan at 978-318-8087.

Sincerely,

Michael F. Keegan, P.E.
Project Manager

Cc:
Ms. Rogers
Mr. Habel

June 22, 2004

Engineering/Planning Division
Evaluation Branch

Paiva/arw/796

Mr. Victor Mastone, Director
Board of Underwater Archaeological Resources
241 Causeway Street, Suite 900
Boston, Massachusetts 02114-2136

Dear Mr. Mastone:

The U.S. Army Corps of Engineers, New England District, has recently completed an inspection of magnetic anomalies and archaeological subsurface testing as part of the Boston Harbor Deep Draft Navigation Improvement Project in Boston Harbor. Included for your review and approval, are copies of the subject archaeological survey reports entitled, Inspection of Magnetic Anomalies, Remote Sensing Archaeological Survey, Boston Harbor Deep Draft Navigation Improvement Study (Robinson and Ford 2003); and, Archaeological Subsurface Testing for the Boston Harbor Navigation Improvement Study, Boston Harbor, Boston, Massachusetts (Lynch et al. 2004).

We have previously provided to your office (by correspondence dated June 18, 2003) the final report of the original remote sensing archaeological survey entitled, Remote Sensing Archaeological Survey and Geologic Interpretation, Boston Harbor Navigation Improvement Study, Boston Harbor, Boston, Massachusetts (Mulholland et al. 2003). Additionally, we have consulted with you and the Naval Historical Center (NHC) concerning the evaluation of a modern-era steel barge within the footprint of the Boston Harbor channel (July-September 2003). Copies of formal responses regarding this project from your office, the NHC, and the Massachusetts Historical Commission are enclosed for your information. With all archaeological studies now complete, we would like your formal and final comments on the project as a whole.


As you may recall, three magnetic anomalies and portions of a sunken barge in two sections were identified during the initial remote sensing survey conducted by University of Massachusetts Archaeological Services (UMAS). A recommendation was made for a dive inspection of these anomalies to determine if they constituted significant cultural resources. Coordination on the sunken barge was conducted separately with your office and the NHC, and it was determined that this wreck was ineligible for the National Register of Historic Places. No further coordination is required concerning the barge. The remainder of this letter pertains to the original three anomalies and later subsurface testing in Boston Harbor.

The Public Archaeology Laboratory, Inc. (PAL) conducted the inspection of the three anomalies at the western edge of the channel off Castle Island in August 2003, utilizing a remote-operated vehicle. No pre-Contact Period archaeological or historic resources were identified as part of the survey. The magnetic anomalies were likely caused by lobster pots and/or magnetic rock outcrops or boulders. Most recently, UMAS conducted subsurface testing of the study area through the use of nine vibratory cores collected in September 2003. An analysis of these cores for stratigraphic integrity and evidence of inundated archaeological resources or buried soil horizons entailed both visual means and magnetic susceptibility studies. It was determined that any potentially preserved cultural resources in the Boston Harbor channel are well below the maximum depth of the proposed dredging and no further investigations were recommended.

Based upon these results detailed further in the enclosed reports, we conclude that the Boston Harbor Deep Draft Navigation Improvement Study will have no effect upon any structure or site of historic, architectural, or archaeological significance as defined by the National Historic Preservation Act of 1966, as amended, and implementing regulations 36 CFR 800. We would appreciate your concurrence with this determination.

If you have any questions, please contact Mr. Marc Paiva of the Evaluation Branch at 978-318-8796.

Sincerely,


~~David L. Dubong, P.E.~~
Chief, ~~Engineering/Planning~~ Division

Enclosures

Copies furnished (with enclosures):

Ms. Cara Metz, Executive Director and SHPO
Massachusetts Historical Commission
The Massachusetts State Archives Building
220 Morrissey Boulevard
Boston, Massachusetts 02125

Ms. Beverly Wright, Chairperson
Wampanoag Tribe of Gay Head (Aquinnah)
20 Black Brook Road
Aquinnah, Massachusetts 02535

CF:

Mr. Paiva

Mr. Ring

✓ Mr. Habel

Mr. Keegan

Reading File



Maritime Division
Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston MA 02128-2909
TEL (617) 946-4413 FAX (617) 946-4422
www.massport.com

17 June 2003

Colonel Thomas L. Koning
District Engineer
US Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

Dear Colonel Koning:

I am writing in regard to our ongoing cooperative feasibility study of potential deep-draft channel improvements to Boston Harbor. Massport has determined that it is in the overall interest of the Port of Boston to include examination of the deepening of the Chelsea River channel in the current feasibility study.

Chelsea River was deepened to 38 feet as part of the recently completed Boston Harbor improvement project. Deepening to 40 feet at that time was precluded by the limitation on vessel size due to the Chelsea Street Bridge and by the elevation of a natural gas siphon located immediately downstream of the bridge. Recent proposals by others to eliminate these obstructions may make further deepening of the Chelsea channel economic and Massport would like to investigate this possibility with the Corps. I understand from discussions with your staff at the monthly project team meetings that the cost of adding Chelsea to the study would be about \$400,000, increasing the total study cost to about \$4,434,000, and Massport's share to about \$2,217,000, including in-kind services as outlined in the Feasibility Cost Sharing Agreement executed last June.

Massport requests that the Corps prepare an amended Project Study Plan to include the Chelsea River in the feasibility study.

Sincerely,

MASSACHUSETTS PORT AUTHORITY

Michael A. Leone
Port Director

A-5-89



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

June 11, 2003

Janeen Hansen
Planning & Development
Massachusetts Port Authority
1 Harborside Drive, Suite 200S
East Boston, MA 02128-2909

Re: Scope of Work for Boston Harbor Deep Draft Navigation Improvement Project
Biological Resource Surveys

Dear Janeen,

Thank you for the opportunity to comment on this scope of studies. I look forward to continue to work with you in crafting a study design that will produce information useful in making decisions within the Environmental Impact Study (EIS) process.

General Comments

1. Sample design should be hypothesis driven. Once you know what questions to answer, your study design should evolve from there. Here are some questions you may consider:

1. What are the significant biological resources most at risk from the project?
2. Within the project impact area, are significant biological resources evenly distributed spatially and temporally?
3. Are there life stages/processes (i.e. eggs/spawning) of these significant biological resources occurring within the project impact area?

2. The first step in designing any study is having a complete knowledge of what comparable data exists and how it was collected. This will allow you to determine the level of sampling effort required and will assure that comparable methods are used to ensure data compatibility.

3. Sampling appears to be targeted to only summer and fall, but does not address resources in the winter or spring. There is no explanation as to the rationale for sampling only this time of the year. This is of concern, especially since the project proponent intends to dredge continual for 2.5 years straight.

4. There are several other major construction projects that are occurring within the same general vicinity of this proposed project. In considering sampling location and timing, you should be aware of the location and timelines of these projects.

Toll Free 1-800-372-7341

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Specific Comments

Benthic Sampling

1. There is no discussion or map provided on where the stations are in comparison to the project footprint. Twenty stations are selected, but no rationale is provided as to why 20 and not 25 or 30. It appears that one grab sample is to be taken per station, this limits your statistical analysis as you have no replication. Multiple sediment profile photographs are taken at each station to provide some replication.
2. There are no direct measurements of total organic carbon or grain size in the sediments, these are critical parameters that control benthic community composition. The REMOTS photographs give you a qualitative sense of grain size, but it is not quantitative. Additionally, the REMOTS photographs only give you a snapshot of the surface sediments and limited information on deep dwelling organisms.
3. It would be nice to take the samples for sediment suitability from the same locations as the biological samples. Thus, grain size and TOC can be obtained from those samples. It would also provide some context for the sediment chemistry and the toxicity testing results.
4. Ideally, the REMOTS survey would be done at a wide variety of stations to establish the relative heterogeneity of the sediments. Then, based on that information, the number and location of benthic community samples could be developed.

Lobster Survey

1. Limited sampling effort yields limited/meaningless information.
2. How are pot deployment locations selected? Is any consideration given to bottom type or other features? How are these going to be deployed in relation to commercial gear? Is the amount of commercial effort in the immediate vicinity going to be considered/quantified?

Finfish

1. For this level of effort, very limited benefits. Finfish numbers are highly variable and seasonal. This survey does not even cover the full array of seasons and cannot speak to interannual variability. The trawl survey and gill netting, as designed, will result in an incomplete species list, but no real information on the importance of these areas as habitat.
2. I assume that this is exclusively daytime sampling. Some sampling effort should be directed at the nocturnal fish community.
3. What are the dimensions of the gill nets? mesh size? Are they deployed in pairs?
4. Is the trawl survey done in a fashion that it is comparable in anyway to other trawl surveys

done in the area by other agencies?

5. Are gill nets and trawls done in a fashion to sample all substrate types and depths encountered within the project area?

Water Quality

1. The level of effort associated with the water quality sampling is not specified. The number of sampling days needs to be specified.
2. If the goal is to determine worst case stratification conditions, then sampling in the summer for thermal stratification is appropriate as well as the spring for salinity driven stratification. In the summer, HOBOS can be used to record continuous thermal data for up to 30 day periods. This will allow for much better quality information to be used in the model.
3. General weather and rainfall information should be collected in conjunction with the water quality data.

Physical Oceanography

1. How this work will be integrated with the water quality data collection is unclear, but it would be desirable to collect this data in conjunction with water quality.
2. How long are the arrays deployed for?

Feel free to contact me with any specific questions on these comments.

Sincerely,



Phil Colarusso, Marine Biologist
Office of Ecosystem Protection

cc: Vernon Lang, USFWS
Vinnie Malkoski, MA DMF
Stephanie Cunningham, MA DMF
Kathy Rogers, USACE
Judy Pederson, MIT
Mike Johnson, NMFS



REPLY TO
ATTENTION OF

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

May 19, 2003

Programs/Project Management Division
Programs & Civil Project Management Branch

Mr. Gene Gallagher
University of Massachusetts, Boston
100 Morrissey Blvd.
Boston, MA 02125

Dear Mr. Gallagher:

On May 14, 2003 I sent you a letter inviting you to the first meeting of the technical working group (TWG) for the Boston Harbor Deep Draft Navigation Improvement Project. Some of the topics to be discussed at the first meeting include field sampling, sediment sampling, disposal alternatives and other areas of concern. I had indicated that a copy of the draft scope of work for biological fieldwork to be conducted this summer and later in the fall of this year would be emailed to you shortly for review prior to the meeting. Since I did not have your email address, I am enclosing a copy of the scope of work for your review and comments. Please be ready to discuss your comments at the meeting on June 10, 2003 at the Black Falcon Terminal.

If you have any questions or additional information is needed, please contact me at 978-318-8087 or you can email me at michael.f.Keegan@usace.army.mil ..

Sincerely,

A handwritten signature in cursive script that reads "Michael F. Keegan".

Michael F. Keegan, P.E; L.C.S
Project Manager

Enclosure

Copy furnished:

Ms. Jacquelyn Wilkins
Aviation Planning & Development Dept
Massachusetts Port Authority
Logan Office Center
One Harborside Drive, Suite 200S
East Boston, MA 02128-2909



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
One Blackburn Drive
Gloucester, MA 01930-2298

MAY 19 2003

John R. Kennelly
Chief of Planning
U.S. Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA 01742-2751

Dear Mr. Kennelly:

This responds to your letter of April 11, 2003 requesting the National Marine Fisheries Service (NOAA Fisheries) to participate as a cooperating agency in the preparation of a Supplemental Environmental Impact Statement (SEIS) and Environmental Impact Report (EIR) for the Boston Harbor Deep Draft Navigation Improvement Project, in accordance with the Council of Environmental Quality (CEQ) regulations (40 CFR 1501.6). NOAA Fisheries agrees to participate as a cooperating agency to help advance effective interagency coordination on a SEIS/EIR for this project.

Our role and degree of involvement as a cooperator will be constrained by existing staff and fiscal resources capabilities. Our contributions generally will be limited to scoping, identification of issues and topics that need consideration and evaluation in the EIS, review of documents, and routine attendance at meetings. We are not in a position to undertake data collection, conduct EIS analyses, or prepare sections of the draft or final EIS as staff and resources are fully tasked in other obligatory NOAA Fisheries programs.

We appreciate the opportunity to participate in early coordination on this project with the Army Corps of Engineers and other agencies. Habitat Conservation Division staff have already attended public meetings and expect to be participating on the Technical Working Group for this project.

If you have any questions pertaining to this letter, please contact Jack Terrill at 978-281-9136. We look forward to exploring the issues associated with the Boston Harbor Deep Draft Navigation Improvement Project as it moves through the public review process.

Sincerely,

Patricia A. Kurkul
Regional Administrator





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

May 16, 2003

John R. Kennelly
Chief of Planning
Department of the Army
New England District, Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

RE: Boston Harbor Deep Draft Navigation Improvement Project Cooperating Agency Request

Dear Mr. Kennelly,

This letter responds to your request for the Environmental Protection Agency (EPA) to participate as a cooperating agency during the preparation of the Supplemental Environmental Impact Statement (SEIS) for the Boston Harbor Deep Draft Navigation Improvement Project. EPA New England is willing to participate as a cooperating agency during the preparation of the SEIS for this project.

Close interagency coordination throughout the preparation of the SEIS is critical. To that end, EPA intends to work as a cooperating agency within the limit of our resources to help define the scope of analysis, identify sources of information and to offer input on how specific issues should be addressed in the SEIS. We encourage the U.S. Army Corps to continue to foster an open dialogue with local, state and federal agency representatives throughout the NEPA process.

At this point we suggest that you consider Phil Colarusso of EPA New England's Office of Ecosystem Protection (617-918-1506) as the primary point of contact for marine resource and impact assessment issues and Timothy Timmermann of EPA's Office of Environmental Review (617-918-1025) as the point of contact for questions concerning the National Environmental Policy Act. Please feel free to contact either Phil or Tim with any questions you may have about EPA's involvement in the upcoming process.

Sincerely,

A handwritten signature in black ink, appearing to read "Elizabeth A. Higgins".

Elizabeth A. Higgins, Director
Office of Environmental Review

RECEIVED

MAY 19 2003

REGULATORY DIVISION

Toll Free 1-888-372-7341

Internet Address (URL) • <http://www.epa.gov/region1>

U.S. Department
of Transportation

United States
Coast Guard



Commander
First Coast Guard District

408 Atlantic Avenue
Boston, MA 02110-3350
Staff Symbol: m
Phone: (617)223-8480
Fax: (617)223-8115

5740

MAY 15 2003

Mr. John R. Kennelly
Chief of Planning
Department of The Army
New England District, Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

Dear Mr. Kennelly:

I would like to thank the New England District, Corps of Engineers for inviting the First Coast Guard District to participate as a cooperating agency in the preparation of a joint Supplemental Impact Statement (SEIS) and Environmental Impact Report (EIR) for the Boston Harbor Deep Draft Navigation Improvement Project.

I have selected Captain Brian Salerno, Commanding Officer of Coast Guard Marine Safety Office Boston, to act as our single point of contact for matters involving this project. As Captain of the Port, Captain Salerno routinely deals with issues concerning Waterways Management for the Port of Boston. Captain Salerno may be contacted at 617-223-3025.

Sincerely,

A handwritten signature in black ink that reads "Mark G. VanHaverbeke".

Mark G. VanHaverbeke
Captain, U.S. Coast Guard
Chief, Marine Safety Division
First Coast Guard District

Copy: Commanding Officer, Coast Guard Marine Safety Office



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087

May 14, 2003

John R. Kennelly
Chief of Planning
Engineering/Planning Division
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

Dear Mr. Kennelly:

This is in response to your April 11, 2003 letter wherein you request that we become a cooperating agency, subject to certain conditions, on the joint Supplemental Environmental Impact Statement (SEIS) and Environmental Impact Report (EIR) for the Boston Harbor Deep Draft Navigation Improvement Project.

The project would involve deepening the main ship channel from -40 feet up to -50 feet mean lower low water (MLLW), and the Mystic and Chelsea River Channels from -35 and -38 feet respectively to -40 feet MLLW. A typical deepening plan could generate approximately six million cubic yards of dredge material.

We acknowledge that the proposed project is extremely important. In fact we believe it would be precedent-setting in that every other coastal deep-draft port in New England will likely seek the same project depths and the perceived advantages that such project dimensions provide.

Your letter requests that we decline to participate as a cooperating agency if we cannot fully participate due to funding or personnel constraints. As you know, we are currently experiencing constraints in both areas, particularly with regard to personnel. On the other hand, the fish and wildlife resources at stake are too significant to allow me to simply decline the opportunity to become involved at this critical point in the process. I would prefer instead that we be involved to the extent that our personnel and funding constraints allow.

If you would like to discuss this further, please call me or Mr. Vern Lang of this office at 603-223-2541.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Michael J. Bartlett". The signature is fluid and cursive, with a long horizontal stroke at the end.

Michael J. Bartlett
Supervisor
New England Field Office



REPLY TO
ATTENTION OF

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

May 14, 2003

Programs/Project Management Division
Programs & Civil Project Management Branch

Mr. Timothy Famulare
Boston Conservation Commission
Executive Secretary
Boston City Hall, Room 805
Boston, MA 02201

Dear Mr. Famulare:

The U.S. Army Corps of Engineers (Corps) and the Massachusetts Port Authority (Massport) are preparing a joint Supplemental Environmental Impact Statement and Environmental Impact Report (SEIS/EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. To facilitate the preparation of this document, we have formed a technical working group (TWG) to discuss a variety of subjects during the course of our studies. Your agency/organization has indicated an interest in participating in the TWG and has nominated you to serve on the TWG. Some of the topics to be discussed include field sampling, sediment sampling, disposal alternatives and other topics of concern.

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Any questions or comments can be addressed to Ms. Jackie Wilkins (617) 358-3558 at Massport or Mr. Mark Habel at (978) 318-8871 or Ms. Catherine Rogers at (978) 318-8231 at the New England District.

Sincerely,

A handwritten signature in cursive script that reads "Michael F. Keegan".

Michael F. Keegan, P.E; L.C.S
Project Manager

Copy furnished: See Attached Page

Copy furnished:

Ms. Jacquelyn Wilkins
Aviation Planning & Development Dept
Massachusetts Port Authority
Logan Office Center
One Harborside Drive, Suite 200S
East Boston, MA 02128-2909



REPLY TO
ATTENTION OF

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

May 14, 2003

Programs/Project Management Division
Programs & Civil Project Management Branch

Mr. Vern Lang
U.S. Fish and Wildlife Service
70 Commercial Street, Suite 300
Concord, NH 03301-5087

Dear Mr. Lang:

The U.S. Army Corps of Engineers (Corps) and the Massachusetts Port Authority (Massport) are preparing a joint Supplemental Environmental Impact Statement and Environmental Impact Report (SEIS/EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. To facilitate the preparation of this document, we have formed a technical working group (TWG) to discuss a variety of subjects during the course of our studies. Your agency/organization has indicated an interest in participating in the TWG and has nominated you to serve on the TWG. Some of the topics to be discussed include field sampling, sediment sampling, disposal alternatives and other topics of concern.

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Sincerely,

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Michael F. Keegan, P.E.; L.C.S
Project Manager

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

May 14, 2003

Programs/Project Management Division
Programs & Civil Project Management Branch

Mr. Gene Gallagher
University of Massachusetts, Boston
100 Morrissey Blvd.
Boston, MA 02125

Dear Mr. Gallagher:

The U.S. Army Corps of Engineers (Corps) and the Massachusetts Port Authority (Massport) are preparing a joint Supplemental Environmental Impact Statement and Environmental Impact Report (SEIS/EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. To facilitate the preparation of this document, we have formed a technical working group (TWG) to discuss a variety of subjects during the course of our studies. Your agency/organization has indicated an interest in participating in the TWG and has nominated you to serve on the TWG. Some of the topics to be discussed include field sampling, sediment sampling, disposal alternatives and other topics of concern.

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Michael F. Keegan, P.E; L.C.S
Project Manager

Copy furnished: See Attached Page



REPLY TO
ATTENTION OF

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

May 14, 2003

Programs/Project Management Division
Programs & Civil Project Management Branch

Mr. Bruce Berman
Save the Harbor/Save the Bay
59 Temple Place, Suite 304
Boston, MA 02111

Dear Mr. Berman:

The U.S. Army Corps of Engineers (Corps) and the Massachusetts Port Authority (Massport) are preparing a joint Supplemental Environmental Impact Statement and Environmental Impact Report (SEIS/EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. To facilitate the preparation of this document, we have formed a technical working group (TWG) to discuss a variety of subjects during the course of our studies. Your agency/organization has indicated an interest in participating in the TWG and has nominated you to serve on the TWG. Some of the topics to be discussed include field sampling, sediment sampling, disposal alternatives and other topics of concern.

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Michael F. Keegan, P.E; L.C.S
Project Manager

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

May 14, 2003

Programs/Project Management Division
Programs & Civil Project Management Branch

Mr. David MacDuffee
National Marine Fisheries Service
1 Blackburn Drive
Gloucester, MA 01930

Dear Mr. MacDuffee:

The U.S. Army Corps of Engineers (Corps) and the Massachusetts Port Authority (Massport) are preparing a joint Supplemental Environmental Impact Statement and Environmental Impact Report (SEIS/EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. To facilitate the preparation of this document, we have formed a technical working group (TWG) to discuss a variety of subjects during the course of our studies. Your agency/organization has indicated an interest in participating in the TWG and has nominated you to serve on the TWG. Some of the topics to be discussed include field sampling, sediment sampling, disposal alternatives and other topics of concern.

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Michael F. Keegan, P.E; L.C.S
Project Manager

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

May 14, 2003

Programs/Project Management Division
Programs & Civil Project Management Branch

Mr. Eric Adams
MIT Sea Grant Program
MIT 48-325, 77 Massachusetts Avenue
Cambridge, MA 02139

Dear Mr. Adams:

The U.S. Army Corps of Engineers (Corps) and the Massachusetts Port Authority (Massport) are preparing a joint Supplemental Environmental Impact Statement and Environmental Impact Report (SEIS/EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. To facilitate the preparation of this document, we have formed a technical working group (TWG) to discuss a variety of subjects during the course of our studies. Your agency/organization has indicated an interest in participating in the TWG and has nominated you to serve on the TWG. Some of the topics to be discussed include field sampling, sediment sampling, disposal alternatives and other topics of concern.

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Michael F. Keegan, P.E; L.C.S
Project Manager

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

May 14, 2003

Programs/Project Management Division
Programs & Civil Project Management Branch

Ms. Judith Pederson
MIT Sea Grant Program
292 Main Street, E38-300
Cambridge, MA 02139

Dear Ms. Pederson:

The U.S. Army Corps of Engineers (Corps) and the Massachusetts Port Authority (Massport) are preparing a joint Supplemental Environmental Impact Statement and Environmental Impact Report (SEIS/EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. To facilitate the preparation of this document, we have formed a technical working group (TWG) to discuss a variety of subjects during the course of our studies. Your agency/organization has indicated an interest in participating in the TWG and has nominated you to serve on the TWG. Some of the topics to be discussed include field sampling, sediment sampling, disposal alternatives and other topics of concern.

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Michael F. Keegan, P.E.; L.C.S.
Project Manager

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

May 14, 2003

Programs/Project Management Division
Programs & Civil Project Management Branch

Mr. Deerin Babb-Brott
Massachusetts Coastal Zone Management
251 Causeway Street, Suite 900
Boston, MA 02114

Dear Mr. Babb-Brott:

The U.S. Army Corps of Engineers (Corps) and the Massachusetts Port Authority (Massport) are preparing a joint Supplemental Environmental Impact Statement and Environmental Impact Report (SEIS/EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. To facilitate the preparation of this document, we have formed a technical working group (TWG) to discuss a variety of subjects during the course of our studies. Your agency/organization has indicated an interest in participating in the TWG and has nominated you to serve on the TWG. Some of the topics to be discussed include field sampling, sediment sampling, disposal alternatives and other topics of concern.

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Michael F. Keegan, P.E; L.C.S
Project Manager

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

May 14, 2003

Programs/Project Management Division
Programs & Civil Project Management Branch

Ms. Yvonne Unger
Massachusetts Department of Environmental Protection
One Winter Street
Boston, MA 02108

Dear Ms. Unger:

The U.S. Army Corps of Engineers (Corps) and the Massachusetts Port Authority (Massport) are preparing a joint Supplemental Environmental Impact Statement and Environmental Impact Report (SEIS/EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. To facilitate the preparation of this document, we have formed a technical working group (TWG) to discuss a variety of subjects during the course of our studies. Your agency/organization has indicated an interest in participating in the TWG and has nominated you to serve on the TWG. Some of the topics to be discussed include field sampling, sediment sampling, disposal alternatives and other topics of concern.

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Project Manager

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

May 14, 2003

Programs/Project Management Division
Programs & Civil Project Management Branch

Ms. Olga Guza
Environmental Protection Agency
One Congress Street, Suite 1100
Mail Cd CWQ
Boston, MA 02114-2023

Dear Ms. Guza:

The U.S. Army Corps of Engineers (Corps) and the Massachusetts Port Authority (Massport) are preparing a joint Supplemental Environmental Impact Statement and Environmental Impact Report (SEIS/EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. To facilitate the preparation of this document, we have formed a technical working group (TWG) to discuss a variety of subjects during the course of our studies. Your agency/organization has indicated an interest in participating in the TWG and has nominated you to serve on the TWG. Some of the topics to be discussed include field sampling, sediment sampling, disposal alternatives and other topics of concern.

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

May 14, 2003

Programs/Project Management Division
Programs & Civil Project Management Branch

Mr. Matthew Liebman
Environmental Protection Agency
One Congress Street, Suite 1100
Mail Cd CWQ
Boston, MA 02114-2023

Dear Mr. Liebman:

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Michael F. Keegan, P.E; L.C.S
Project Manager

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

May 14, 2003

Programs/Project Management Division
Programs & Civil Project Management Branch

Ms. Vivien Li
The Boston Harbor Association
Executive Director
374 Congress Street, Suite 609
Boston, MA 02210

Dear Ms. Li:

The U.S. Army Corps of Engineers (Corps) and the Massachusetts Port Authority (Massport) are preparing a joint Supplemental Environmental Impact Statement and Environmental Impact Report (SEIS/EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. To facilitate the preparation of this document, we have formed a technical working group (TWG) to discuss a variety of subjects during the course of our studies. Your agency/organization has indicated an interest in participating in the TWG and has nominated you to serve on the TWG. Some of the topics to be discussed include field sampling, sediment sampling, disposal alternatives and other topics of concern.

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Michael F. Keegan, P.E.; L.C.S.
Project Manager

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

May 14, 2003

Programs/Project Management Division
Programs & Civil Project Management Branch

Mr. Vincent Malkowski
Massachusetts Division of Marine Fisheries
50A Portside Drive
Pocasset, Massachusetts 02559

Dear Mr. Malkowski:

The U.S. Army Corps of Engineers (Corps) and the Massachusetts Port Authority (Massport) are preparing a joint Supplemental Environmental Impact Statement and Environmental Impact Report (SEIS/EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. To facilitate the preparation of this document, we have formed a technical working group (TWG) to discuss a variety of subjects during the course of our studies. Your agency/organization has indicated an interest in participating in the TWG and has nominated you to serve on the TWG. Some of the topics to be discussed include field sampling, sediment sampling, disposal alternatives and other topics of concern.

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Michael F. Keegan, P.E.; L.C.S
Project Manager

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Ms. Jacquelyn Wilkins
Aviation Planning & Development Dept
Massachusetts Port Authority
Logan Office Center
One Harborside Drive, Suite 200S
East Boston, MA 02128-2909



REPLY TO
ATTENTION OF

Engineering/Planning Division
Evaluation Branch

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751
April 18, 2003

Ms. Laurie Perry
Interim Tribal Historic Preservation Officer
Wampanoag Tribe of Gay Head (Aquinnah)
20 Black Brook Road
Aquinnah, Massachusetts 02535

Dear Ms. Perry:

The U.S. Army Corps of Engineers, New England District, and the Massachusetts Port Authority are preparing a joint Supplemental Environmental Impact Statement (SEIS) and Environmental Impact Report (EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. The purpose of the joint SEIS/EIR is to evaluate the feasibility of potential deep draft navigation channel improvements to the Boston Harbor, Massachusetts Federal Navigation Project.

The project will explore alternatives for accommodating increased deep draft vessel traffic in Boston Harbor including a no action alternative. Alternatives will include incremental deepening schemes of the Broad Sound North entrance channel, President Roads anchorage area, and the main ship channel from -40 feet up to -50 feet mean lower low water (MLLW), a portion of the Mystic River channel from -35 feet to -40 feet MLLW, and the Chelsea River channel from -38 feet to -40 feet MLLW. Although the quantity of dredged material that could be generated varies depending on the alternative, we estimate that the typical plan would generate approximately six million cubic yards of dredged material.

While the full range of disposal alternatives will be investigated, it is expected that the majority of the material will be suitable for disposal at the Massachusetts Bay Disposal Site. The remaining unsuitable material may be disposed in one of the previously permitted confined aquatic disposal cells identified as part of the previous Boston Harbor navigation improvement project.

We are requesting that your agency consider participating in the preparation of the SEIS/EIR as a cooperating agency per section 1501.6 of the National Environmental Policy Act. We are making this request due to the Tribe's jurisdiction by law and special expertise under the National Historic Preservation Act. Actions anticipated by your agency to facilitate the preparation of an SEIS/EIR include: attending working group meetings, active participation in alternative analysis, active participation in discussion of field sampling results, disposal site selection and response to requests on the above regulations.

We request that if your agency cannot fully participate in the above activities due to funding or personnel constraints, that your agency decline participation as a cooperating agency. We would appreciate a response to our request, and identification of a single point of contact, within 30 days of the receipt of this letter. We are anticipating having our first working group meeting in June 2003. Any questions or comments can be directed to Ms. Catherine Rogers, Mr. Mark Habel, or Mr. Marc Paiva at the U.S. Army Corps of Engineers at (978) 318-8231, (978) 318-8871, and (978) 318-8796, respectively, or Ms. Deborah Hadden of the Massachusetts Port Authority at (617) 946-4435.

Sincerely,



John R. Kennelly
Chief of Planning

Copy Furnished:

Ms. Deborah Hadden, Manager
Maritime Environmental Affairs
Massport – Port Department, Suite 200 South
One Harborside Drive
Boston, Massachusetts 02128



REPLY TO
ATTENTION OF

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

April 11, 2003

Engineering/Planning
Evaluation Branch

Ms. Ellen Roy Herzfelder, Secretary
Massachusetts Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

Dear Ms. Herzfelder:


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We are requesting that your agency consider participating in the preparation of the EIS as a cooperating agency per section 1501.6 of the National Environmental Policy Act. We are making this request due to the Commonwealth of Massachusetts' jurisdiction by law and special expertise under the Clean Water Act, the Coastal Zone Management Act, and other Acts such as the Endangered Species Act and the National Historic Preservation Act. Actions anticipated by your agency to facilitate the preparation of an EIS include: attending working group meetings, active participation in alternative analysis, active participation in discussion of field sampling results, disposal site selection and response to requests on the above regulations.

We request that if your agency cannot fully participate in the above activities due to funding or personnel constraints, that your agency decline participation as a cooperating agency. We would appreciate a response to our request, and identification of a single point of contact, within 30 days of the receipt of this letter. We are anticipating having our first working group meeting in June 2003. Any questions or comments can be directed to Ms. Catherine Rogers or Mr. Mark Habel at the U.S. Army Corps of Engineers at (978) 318-8231 and (978) 318-8871, respectively or Ms. Deborah Hadden of the Massachusetts Port Authority at (617) 946-4435.



John R. Kennelly
Chief of Planning

CF:

Mr. Thomas Skinner, Director
Massachusetts Coastal Zone Management
251 Causeway Street, Suite 900
Boston, Massachusetts 02114

Mr. Edward Kunce, Acting Commissioner
Massachusetts Department of Environmental Protection
One Winter Street
Boston, Massachusetts 02108

Mr. Vincent Malkoski
Massachusetts Division of Marine Fisheries
50A Portside Drive
Pocasset, Massachusetts 02559

Ms. Deborah Hadden, Manager
Maritime Environmental Affairs
Massport – Port Department, Suite 200 South
One Harborside Drive
Boston, Massachusetts 02128

✓ M. HABEL



REPLY TO
ATTENTION OF

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

April 11, 2003

Engineering/Planning
Evaluation Branch

Rear Admiral Vivien S. Crea
Commander
First Coast Guard District
408 Atlantic Avenue
Boston, Massachusetts 02110-3350

Dear Admiral Crea:

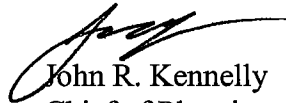
The U.S. Army Corps of Engineers, New England District, and the Massachusetts Port Authority are preparing a joint Supplemental Environmental Impact Statement (SEIS) and Environmental Impact Report (EIR) for the Boston Harbor Deep Draft Navigation Improvement Project. The purpose of the joint SEIS/EIR is to evaluate the feasibility of potential deep draft navigation channel improvements to the Boston Harbor, Massachusetts Federal Navigation Project.

The project will explore alternatives for accommodating increased deep draft vessel traffic in Boston Harbor including a no action alternative. Alternatives will include incremental deepening schemes of the Broad Sound North entrance channel, President Roads anchorage area, and the main ship channel from -40 feet up to -50 feet mean lower low water (MLLW), a portion of the Mystic River channel from -35 feet to -40 feet MLLW and the Chelsea River channel from -38 feet to -40 feet MLLW. Although the quantity of dredged material that could be generated varies depending on the alternative, we estimate that the typical plan would generate approximately six million cubic yards of dredged material.

While the full range of disposal alternatives will be investigated, it is expected that the majority of the material will be suitable for disposal at the Massachusetts Bay Disposal Site. The remaining unsuitable material may be disposed in one of the previously permitted confined aquatic disposal cells identified as part of the previous Boston Harbor navigation improvement project.

We are requesting that your agency consider participating in the preparation of the SEIS/EIR as a cooperating agency per section 1501.6 of the National Environmental Policy Act (NEPA). We are making this request due to the U.S. Coast Guard's jurisdiction and responsibility for aids to navigation, port security, and operations. Actions anticipated by your agency to facilitate the preparation of an SEIS/EIR include: attending working group meetings, active participation in alternative analysis, active participation in discussion of field sampling results, disposal site selection and response to requests on the above regulations.

We request that if your agency cannot fully participate in the above activities due to funding or personnel constraints, that your agency decline participation as a cooperating agency. We would appreciate a response to our request, and identification of a single point of contact, within 30 days of the receipt of this letter. We are anticipating having our first working group meeting in June 2003. Any questions or comments can be directed to Ms. Catherine Rogers or Mr. Mark Habel at the U.S. Army Corps of Engineers at (978) 318-8231 and (978) 318-8871, respectively or Ms. Deborah Hadden of the Massachusetts Port Authority at (617) 946-4435.



John R. Kennelly
Chief of Planning

CF:
Ms. Deborah Hadden, Manager
Maritime Environmental Affairs
Massport – Port Department, Suite 200 South
One Harborside Drive
Boston, Massachusetts 02128

(, M. HABEL



REPLY TO
ATTENTION OF

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

April 11, 2003

Engineering/Planning Division
Evaluation Branch

Mr. Robert Varney, Regional Administrator
U.S. Environmental Protection Agency
One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Dear Mr. Varney:

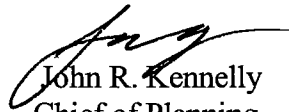
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We are requesting that your agency consider participating in the preparation of the SEIS/EIR as a cooperating agency per section 1501.6 of the National Environmental Policy Act (NEPA). We are making this request due to the U.S. Environmental Protection Agency's jurisdiction by law and special expertise under the Clean Water Act, the Marine Protection, Research and Sanctuaries Act, the Clean Air Act, and the NEPA. Actions anticipated by your agency to facilitate the preparation of an SEIS/EIR include: attending working group meetings, active participation in alternative analysis, active participation in discussion of field sampling results, disposal site selection and response to requests on the above regulations.

We request that if your agency cannot fully participate in the above activities due to funding or personnel constraints, that your agency decline participation as a cooperating agency. We would appreciate a response to our request, and identification of a single point of contact, within 30 days of the receipt of this letter. We are anticipating having our first working group meeting in June 2003. Any questions or comments can be directed to Ms. Catherine Rogers or Mr. Mark Habel at the U.S. Army Corps of Engineers at (978) 318-8231 and (978) 318-8871, respectively or Ms. Deborah Hadden of the Massachusetts Port Authority at (617) 946-4435.


John R. Kennelly
Chief of Planning

CF:

Mr. Mel Cote
U.S. Environmental Protection Agency
One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Ms. Deborah Hadden, Manager
Maritime Environmental Affairs
Massport – Port Department, Suite 200 South
One Harborside Drive
Boston, Massachusetts 02128

M. Habel



REPLY TO
ATTENTION OF

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

April 11, 2003

Engineering/Planning Division
Evaluation Branch

Mr. Michael Bartlett, Regional Administrator
U.S. Fish and Wildlife Service
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087

Dear Mr. Bartlett:

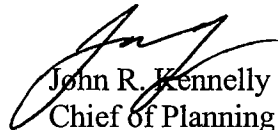
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We are requesting that your agency consider participating in the preparation of the SEIS/EIR as a cooperating agency per section 1501.6 of the National Environmental Policy Act. We are making this request due to the U.S. Fish and Wildlife Service's jurisdiction by law and special expertise under the Fish and Wildlife Coordination Act, and the Endangered Species Act. Actions anticipated by your agency to facilitate the preparation of an EIS include: attending working group meetings, active participation in alternative analysis, active participation in discussion of field sampling results, disposal site selection and response to requests on the above regulations.

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John R. Kennelly
Chief of Planning

CF:

Ms. Deborah Hadden, Manager
Maritime Environmental Affairs
Massport – Port Department, Suite 200 South
One Harborside Drive
Boston, Massachusetts 02128

✓ M. HABEL



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

REPLY TO
ATTENTION OF

April 11, 2003

Engineering/Planning Division
Evaluation Branch

Ms. Patricia Kurkul, Regional Administrator
National Marine Fisheries Service, Northeast Regional Office
One Blackburn Drive
Gloucester, Massachusetts 01930-2298

Dear Ms. Kurkul:

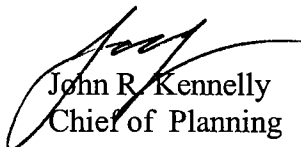
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We are requesting that your agency consider participating in the preparation of the SEIS/EIR as a cooperating agency per section 1501.6 of the National Environmental Policy Act. We are making this request due to the National Marine Fisheries Service's jurisdiction by law and special expertise under the Fish and Wildlife Coordination Act, the Endangered Species Act, and the Essential Fish Habitat provisions under the Magnuson-Stevens Fishery Conservation and Management Act. Actions anticipated by your agency to facilitate the preparation of an SEIS/EIR include: attending working group meetings, active participation in alternative analysis, active participation in discussion of field sampling results, disposal site selection and response to requests on the above regulations.

We request that if your agency cannot fully participate in the above activities due to funding or personnel constraints, that your agency decline participation as a cooperating agency. We would appreciate a response to our request, and identification of a single point of contact, within 30 days of the receipt of this letter. We are anticipating having our first working group meeting in June 2003. Any questions or comments can be directed to Ms. Catherine Rogers or Mr. Mark Habel at the U.S. Army Corps of Engineers at (978) 318-8231 and (978) 318-8871, respectively or Ms. Deborah Hadden of the Massachusetts Port Authority at (617) 946-4435.


John R. Kennelly
Chief of Planning

CF:
Ms. Deborah Hadden, Manager
Maritime Environmental Affairs
Massport – Port Department, Suite 200 South
One Harborside Drive
Boston, Massachusetts 02128

✓ M. HABEL



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

March 20, 2003

REPLY TO:
ATTENTION OF:

Regulatory Division
CENAE-R-198900530

Mr. Philip B. Andreas
Vice President, Electric Operations
NSTAR
One NSTAR Way
Westwood, Massachusetts 02090-9230

Ms. Marianne Connolly
Program Manager, Regulatory Compliance
Massachusetts Water Resources Authority
100 First Avenue, Charlestown Navy Yard
Boston, Massachusetts 02129

Dear Mr. Andreas and Ms. Connolly:

This concerns Department of the Army Permit No. 198900530, which authorized the installation of a power cable under Boston Harbor between South Boston and the Deer Island Wastewater Treatment Plant. Based on information in your February 28, 2003 letters to the Massachusetts Executive Office of Environmental Affairs, it appears that the cable may not have been installed in compliance with the terms and conditions of that permit.

Sheets 3 and 9 of the permit drawings indicate that under the Reserved Channel and the Main Ship Channel the three four-inch-diameter cables were to be installed such that their tops would be at least 25 feet below the mudline. This required that the top of the cables be 60 feet or more below the elevation of mean low water in the Reserved Channel and the 35-foot Main Ship Channel and 65 feet or more below the elevation of mean low water in the 40-foot Main Ship Channel. Your letters indicate that the cables are more shallow than these minimum depths.

Special Condition No. 4 required submittal of a drawing certifying the location and configuration of the cable after completion of construction. This had to be submitted both to the Corps Regulatory Branch (now Regulatory Division) and the National Ocean Service (NOS). We do not have a copy of this submittal in our file or a confirmation that it was sent to us.

Within 30 days of the date of this letter please outline to us in writing why the cables were apparently not installed in compliance with the Corps permit and what you plan to do to bring them into compliance. Please also send us a copy of the submittal Condition 4 required, which should include location information in both the horizontal and vertical planes.

We are furnishing a copy of this letter to those who were furnished copies of your letters.

We appreciate your cooperation in resolving this matter. If you have questions concerning this please contact Mr. Paul Howard of our Inspection Section at (978) 318-8674.

Sincerely,



Brian A. Green
Lieutenant Colonel, Corps of Engineers
Deputy District Engineer

Copies Furnished:

Massachusetts Department of Environmental Protection, Division of Wetlands and Waterways
Massachusetts Environmental Policy Act Unit, Massachusetts Executive Office of
Environmental Affairs
Boston Conservation Commission
Massachusetts Port Authority
Senator Robert Travaglini
Representative Robert A. DeLeo
Maggie Debbie, MWRA
David Finlay, MWRA
Jeff McLaughlin, MWRA

March 10, 2003

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : Boston Harbor Deep Draft Navigation
Improvement Project
PROJECT MUNICIPALITY : Boston, Chelsea and Revere
PROJECT WATERSHED : Boston Harbor
EOEA NUMBER : 12958
PROJECT PROPONENT : Massport
DATE NOTICED IN MONITOR : February 8, 2003

Pursuant to the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62H) and Section 11.03 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **requires** the preparation of an Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Form (ENF), the project consists of a feasibility study of potential deep-draft navigation channel improvements within Boston Harbor. The US Army Corps of Engineers (ACOE), in partnership with the Massachusetts Port Authority (Massport), is conducting the feasibility study. It will examine the Port of Boston's current and future role in maritime commerce and identify potential levels of future vessel traffic and commerce. The study will explore options for accommodating increased deep draft vessel traffic in Boston Harbor, including no action and channel

deepening at a range of depths. The study will explore deepening the Entrance Channel, Main Anchorage and Main Ship Channel from -40 feet up to -50 feet mean lower low water (MLLW), the Mystic River Channel from -35 feet up to -40 feet MLLW and the Chelsea River Channel from -38 up to -40 feet MLLW. Channel deepening will be conducted with a mechanical bucket dredge and could generate approximately 6 million cubic yards (cy) of dredged spoils. Resource areas affected by the project include approximately 1,140 acres of Land Under Ocean and Fish Runs located within a Designated Port Area (DPA).

While the full range of disposal options will be addressed in the EIR, Massport has indicated that the majority of the dredged material will be natural clay and till (and to a lesser extent ledge) that is suitable for disposal at the Massachusetts Bay Disposal Site (MBDS). The remaining material is likely to be disposed of in one of the previously permitted Confined Aquatic Disposal (CAD) Cells developed as part of the Boston Harbor Navigation Improvement Project (BHNIP).

Permits and Jurisdiction

The project is undergoing MEPA review and requires the preparation of an EIR pursuant to Section 11.03 (a)(1)(a) because it requires a state permit and will alter more than ten acres of wetlands. The project requires a 401 Water Quality Certification from the Department of Environmental Protection (DEP), an Order of Conditions from the Boston, Chelsea and Revere Conservation Commissions, and Coastal Zone Management (CZM) Federal Consistency review.

Also, the project requires an Environmental Impact Statement (EIS) pursuant to the requirements of the National Environmental Policy Act (NEPA). Both MEPA and NEPA regulations allow (and encourage) joint review documents. Massport has indicated that the federal EIS and state EIR will be submitted as a single document that addresses the requirements of both review processes. The EIS/EIR should fully address both the federal and state scopes although I will ultimately issue a determination of adequacy only for those portions of the document required in the state scope.

Because the proponent is a state agency and is funding half of the project costs, MEPA jurisdiction extends to all aspects of the project that may cause significant Damage to the

Environment including air quality, water quality, threatened and endangered species, marine habitat, and fisheries.

Boston Harbor Navigation Improvement and Berth Dredging Project
(#8695)

The planning and permitting process for the BHNIP addressed a number of issues that are directly relevant to the design and implementation of this project. The BHNIP was the first major dredging project in Boston Harbor in thirty years and was unique in terms of size, design, process and construction techniques. It included the maintenance and improvement dredging of the main shipping channels and berths within Boston's Inner Harbor. Over 784,850 cubic yards of dredged material deemed unsuitable for open-water disposal was placed within nine CAD cells constructed within the dredging footprint of navigation channels.

The overall size of the project and the amount of contaminated material (containing elevated levels of metals and organic compounds) raised a number of environmental issues and concerns related to dredging and the disposal of dredged materials. These issues and concerns were outlined in related environmental filings and addressed through project design and permitting. A Technical Advisory Committee (TAC), consisting of resource agencies, environmental advocates, scientists and others, was formed to help advise the proponent and was instrumental to the success of this project through the design, permitting and construction phases. The TAC helped evaluate a wide range of disposal alternatives, develop conditions for the Water Quality Certification, and modify construction and monitoring techniques as necessary.

The BHNIP, which was completed in late 2001, has provided a framework for creating an environmentally acceptable dredging and disposal plan. It furthered our understanding of dredging operations and techniques, provided valuable information about baseline conditions within Boston Harbor, and resulted in the development of guidelines for permitting and constructing CADs to minimize impacts. I expect that the recommendations included in the feasibility study for this proposed project will be informed by the experience developed during the BHNIP and I encourage the proponent to include a summary of lessons learned in the EIR to facilitate understanding of the proposed design and mitigation. In particular, an evaluation of the utility of water quality monitoring methodology, the geographical behavior

of the CAD cells and data related to marine habitat will be useful.

SCOPE

The EIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this scope. It should include a copy of this Certificate and of each comment received. The proponent should address the comments to the extent that they are within this scope. The proponent should circulate the EIR to those who commented on the ENF, and to any state agencies from which the proponent will potentially seek permits or approvals.

The draft scope provided by the proponent within the ENF addresses most of the issues that should be included in the EIR including a No Action scenario to establish a baseline and a number of additional alternatives including alternatives for disposal of the dredged material.

Project Description

The EIR should clearly identify where this project and its alternatives overlap with previous improvement and/or maintenance dredging. While Massport is the proponent of this project in terms of MEPA review, it is my understanding that the ACOE will conduct most of the actual dredging and related mitigation while Massport may implement discrete elements of it. The EIR should identify who is responsible for what elements of the project and its related mitigation and whether or not that responsibility shifts depending on the alternative selected.

Environmental Impacts

The EIR will include a section on environmental impacts of dredging and dredged material disposal including water quality, biological resources, threatened and endangered species, historic and archaeological resources, noise and odor. This section should indicate which impacts are temporary and which are permanent. The EIR should identify wetland resource areas present within the project boundaries on a reasonably scaled plan and it should indicate the significance of the resources.

The environmental impacts section should include the secondary impacts of the deepening project such as increased ship traffic and an increase in the size of ships entering the harbor. The EIR should examine the impact of these changes to fishing, marine mammals, water quality, air quality and harbor uses.

Cumulative Impacts

A number of comments have suggested that the EIR should address the cumulative impacts of a number of ongoing and planned projects within Boston Harbor and Massachusetts Bay. As noted, a number of small and large scale projects with potential short and long term impacts to marine resources are planned within these areas. These projects are set against a background of impacts to coastal resources from a range of human activities, including use of existing disposal sites, shipping, commercial and recreational fishing, and long term climate changes. I believe these comments emerge from a concern that planning for appropriate activities and uses within our ocean resources are being permitted in the absence of a proactive management and planning framework and highlight the relevance of such an approach. EOEAs agencies responsible for coastal planning permitting and decision-making can successfully address this issue over time in a comprehensive manner that could not be demanded of a single project proponent. *

However, to assist the permitting agencies in their evaluation of the potential impacts of this project, the EIR should describe ongoing and planned projects within Boston Harbor and Massachusetts Bay to include, at a minimum, the Hub Line gas pipeline project and the proposed Everett Extension, the ACOE maintenance dredging, and the use of an offshore borrow site (NOMES I) by the MDC as a sand source for the Winthrop Shores Reservation and Restoration Project. The description should include a summary of the projects' impacts, individually and cumulatively, including the size of the impacted area, the resources impacted by the projects, and the duration of the impacts. The description should also include a timeline that shows when the projects are planned to occur in relation to the dredging project. Coordination with agencies/organizations regarding existing infrastructure.

Alternatives

A number of project design alternatives will be included in the EIR that vary, incrementally, in the depth and areas of dredging. Dredged material disposal options and sites will be summarized. A preferred design and disposal alternative will be identified. This section should include a discussion of project phasing. Will dredging be conducted only in one area at one time or will multiple areas be dredged at once? What are the volumes of material that will be dredged and disposed of over what time period? It should explore the comparative impacts to the substrate and water column of several smaller deepening efforts as opposed to one larger one and this information should be incorporated into the ACOE cost/benefit analysis. Finally, it should include a discussion of the types of dredges that can be used for this project and compare the benefits and/or drawbacks of each.

The EIR should include a discussion of maintenance needs, indicate how often maintenance dredging will be required and how associated dredged materials will be disposed.

Coordination with Proposed Projects

As noted previously, a number of projects have been proposed within the general vicinity of this one. The DEIR should lay out a process for coordination with the agencies and organizations responsible for these projects to minimize conflicts and environmental damage.

The Massachusetts Water Resources Authority, NSTAR and the Central Artery/Tunnel Project have requested that the proponent address construction period impacts on existing harbor infrastructure such as utility crossings and the Ted Williams Tunnel, respectively. Impacts to one or more of the buried utilities, particularly the cross harbor electric power cable that is the primary source of power to the Deer Island Treatment plant, could result in very significant adverse effects. The cable construction, operation and maintenance and associated substations is borne entirely by the MWRA and its ratepayers.

The DEIR should lay out a clear process for coordination between parties, indicate who is responsible for identifying actual locations and depths of existing infrastructure that could be directly affected by the project's construction, who is responsible for related costs, and, should include a contingency

plan in the event that a problem occurs. Because the range of dredging depths being considered could result in little or no buffer between the utility cable and the ocean floor, the DEIR should explore the feasibility and cost of relocating the cable.

Technical Working Group (TWG)

As noted earlier, the ongoing participation of technical advisors for the BHNIP was critical to its success. I applaud the proponent's inclusion of a TWG for this project and expect the TWG will help refine the monitoring and mitigation requirements as the project is designed and developed.

Mitigation

The mitigation section should correspond with the areas of impact outlined in previous sections of the proponent's draft scope. Mitigation should address temporary, short-term and long-term impacts.

The proponent should indicate how it will minimize turbidity and migration of dredged sediments during dredging and disposal. The proponent should identify dredging windows and related monitoring activities to minimize and mitigate impacts to fishery resources in, and adjacent to, the dredging and disposal activities. In addition, the proponent should consider beneficial reuse of ledge material to provide benthic habitat and/or shore protection. The state Water Quality Certification, issued by DEP, will be the vehicle for solidifying most mitigation requirements.

The EIR should include a summary of all mitigation measures to which the proponent has committed, including mitigation for construction period impacts. The EIR should also include Proposed Section 61 Findings for use by the state permitting agencies.

March 10, 2003

Date

Ellen Roy Herzfelder

Comments received:

02/27/03 Department of Environmental Protection (DEP)
02/27/03 Division of Marine Fisheries (DMF)
02/27/03 Coastal Zone Management (CZM)
02/28/03 Massachusetts Water Resources Authority (MWRA)
02/27/03 Massachusetts Turnpike Authority (MTA)/CA/T Project
02/28/03 City of Boston/The Environment Department
02/28/03 The Boston Harbor Association (TBHA)
02/28/03 NSTAR

ERH/CDB/cdb



COMMONWEALTH OF MASSACHUSETTS
 EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

DB
 /

MITT ROMNEY
 Governor

KERRY HEALEY
 Lieutenant Governor

RECEIVED

FEB 28 2003

ELLEN ROY HERZFELDER
 Secretary

EDWARD P. KUNCE
 Acting Commissioner

MEPA

February 27, 2003

Ellen Roy Herzfelder, Secretary
 Executive Office of Environmental Affairs
 251 Causeway Street, 9th floor
 Boston, Massachusetts 02114

Re: EOE # 12958
 Environmental Notification Form
 Boston Harbor Deep Draft
 Navigation Improvement Project

Attention: Deirdre Buckley

Dear Ms. Herzfelder:

The Department of Environmental Protection (DEP) has reviewed the Environmental Notification Form (ENF) published in the February 8, 2003, *Environmental Monitor* for a Feasibility Study (Boston Harbor Deep Draft Navigation Improvement Project [BHDDNIP]) of potential navigation channel improvements to the Port of Boston and this correspondence includes DEP's consolidated comments.

Project Description

The U.S. Army Corps of Engineers (ACOE), in partnership with Massport as the non-federal sponsor, plans to conduct a Feasibility Study of potential deep draft navigation channel improvements to Boston Harbor. The study will examine the Port of Boston's current and likely future levels of future navigation traffic and commerce through the port. The study will specifically investigate alternatives for accommodating increased deep draft vessel traffic in Boston Harbor, including channel deepening, cargo diversion, and no action to identify whether improvements are warranted. Environmental documentation as required under the Massachusetts Environmental Policy Act (MEPA) and under the National Environmental Policy Act (NEPA) will be conducted as part of the Feasibility Study. DEP notes that this project is categorically required to prepare an EIR.

Background Information

As MEPA is aware, in addition to the BHDDNIP, two additional navigational dredging projects for the Port of Boston have either recently been completed or planned to be performed in the near future; (1) the now-completed Boston Harbor Navigation Improvement and Berth Dredging Project (BHNIP), and (2) a federal maintenance dredging project of the main shipping channel to be undertaken solely by ACOE, proposed to begin the summer of 2003. In late 2001, ACOE/Massport

This information is available in alternate format. Call April McCabe, ADA Coordinator at 1-617-556-1171. TDD Service - 1-800-298-2207.

completed the dredging and sediment management for the BHNIP (EOEA # 8695), which resulted in deepening of key tributaries and portions of the main shipping channel to 40 feet and related berths to depth ranging from 35 to 45 feet. The ACOE project will consist of maintenance dredging of the federal channels up to the CA/T Ted Williams Tunnel.

Comments

1. In addition to the above referenced navigation dredging projects, there are a number of ongoing and/or planned projects within the Boston Harbor environs which should be considered in the scoping of the BHDDNIP EIR. Those projects include, but are not limited to; (1) ongoing Maritimes and Northeast Pipeline/Algonquin Gas Transmission Company Hubline Project (EOEA # 12355); (2) proposed Everett Extension Pipeline Project (extension/modification to Hubline Project); (3) Massachusetts Water Resources Authority (MWRA) ongoing implementation of the Boston Harbor Cleanup; (4) MDC's Back-to-the-Beaches Program; (5) ongoing Central Artery/Tunnel Project, including opening of the Spectacle Island Park (EOEA # 4325); and the numerous shore-side development projects (including Portside @ Pier One/Boston Harbor Shipyard and Marina (EOEA # 12623), Pier 4 (EOEA # 12433), and Fan Pier (EOEA # 12083).

At the February 25th MEPA Scoping Session the issue of cumulative impacts and/or "overlapping" projects, was specifically raised as a significant concern. DEP agrees that this issue should be considered in the development of the EIR Scope.

2. DEP has agreed to actively participate in the BHDDNIP Technical Working Group (TWG). Yvonne Unger (Bureau of Resource Protection/Dredging Program) will be the DEP-designee on the TWG. DEP staff actively participated in the TWG for the previous BHNIP, an activity which was critical to getting consensus on that project. DEP expects that the discussions which will occur as part of the BHDDNIP TWG will be as successful.
3. According to the ENF, and as discussed at the Scoping Session, the overwhelming majority of the approximate 6 million of cubic yards of material to be dredged and/or removed will be natural clay and till (and to a lesser extent ledge) which are planned to be barged to the MBDS, but ACOE anticipates that there will be some volume of silt materials that will probably not be allowed to be placed at the MBDS. The Feasibility Study will consider options for the management of this material, including; placement into one or more In-Channel CAD Cells that were permitted as part of the BHNIP, and upland disposition. At the Scoping Session the ACOE spokesperson stated that there currently is extensive capacity in various permitted, but unused, CAD Cells and that ACOE and Massport are likely to propose to place the silts into one or more of these cells.

During the environmental review, permitting, implementation and post-dredging monitoring of the BHNIP, DEP staff have been directly involved in the consideration and assessment of the CAD Cell disposal activities. In this regard, DEP staff recently performed a review of the "One-Year Monitoring Plan for the Boston Harbor CAD Cells - Summary 2001" document prepared and submitted as a condition of the Water Quality Certification. Based on a review of this report and prior information, DEP is of the opinion that the CAD Cells are functioning properly and that DEP would therefore look favorably at a proposal by ACOE/Massport to

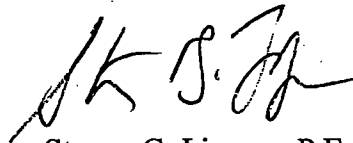
utilize one or more of the unused (or partially filled) cells for disposal of the silty sediment from the BHDDNIP.

DEP would like to also indicate that based on its experiences working on the BHNIDP, CA/T and Hubline Projects, that an upland management option for significant volumes of silty sediment from Boston Harbor will be problematic.

4. At the Scoping Session concerns were raised by representatives from NSTAR and MWRA regarding impacts to utilities (particularly buried power cables) located in areas of the Harbor which would overlap with the proposed dredging footprint. According to the NSTAR representative, there were significant problems during the BHNIDP. Impacts to one or more of the buried utilities, particularly the power cable running down Reserved Channel to Deer Island, could result in very significant adverse effects, therefore DEP strongly recommends that the EIR scope fully address this issue.
5. It will be important for the proponent to closely coordinate with relevant local, state and federal resource agencies relative to minimizing and mitigation impacts to fishery resources in, and adjacent to, the dredging and sediment disposal activities. A key element will be defining allowable "dredging windows" and monitoring activities. DEP staff will need to be involved in all such discussions in that the WQC will be the state-permitting vehicle for defining the monitoring requirements, contingency measures, allowable dredging periods, etc. ACOE and Massport should carefully review the WQCs that have been issued by DEP for the BHNIDP, CA/T Ted William Tunnel and Hubline Projects as guides to the activities and conditions that are likely to be included in the BHDDNIP.

Feel free to contact Yvonne Unger at 617-292-5893 or me at 617-292-5698 if you have any questions regarding this correspondence.

Very truly yours,



Steven G. Lipman, P.E.
Special Projects Coordinator
Commissioner's Office

Cc: Mike Keagan (ACOE)
Deb Hadden and Jacki Wilkins (Massport)
Deerin Babb-Brott (CZM)
Vin Malkoski (DMF)
Dave Shakespeare, Yvonne Unger, Jim Sprague, Eric Worrall, Lealdon Langley (DEP)



Paul J. Diodati
Director

Commonwealth of Massachusetts

Division of Marine Fisheries

251 Causeway Street • Suite 400

Boston, Massachusetts 02114

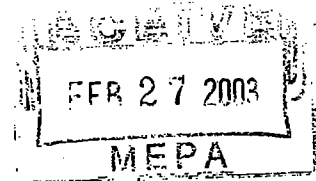
(617) 626-1520

fax (617) 626-1509



February 27, 2003

Ellen Roy Herzfelder, Secretary
EOEA, Attention: MEPA Office
Deirdre Buckley, EOEA No. 12958
251 Causeway Street, Suite 900
Boston, MA 02114-2150



Dear Secretary Roy Herzfelder:

The Division of Marine Fisheries has reviewed the Environmental Notification Form (EOEA #12958) for the Boston Harbor Deep Draft Navigation Improvement Project with respect to its effect on the marine fisheries resources of the Commonwealth. We offer the following comments for your consideration.

The proposed Scope of Work for the DEIR/DEIS prepared by the Army Corps of Engineers appears to have identified the major resource questions that must be addressed. It is our understanding that the specific data sets and techniques to be used in this evaluation will be identified and defined by the Technical Working Group. In addition, there are several issues not included in the DEIR Scope of Work that need to be addressed:

1. The Corps should identify opportunities for beneficial reuse of dredged materials such as rock and cobble. In some areas, there may be an environmental benefit to leaving the unconsolidated material in place to provide benthic habitat. Other uses would include shore protection or redeployment in another area to enhance benthic habitat.
2. The DEIR should include discussion of how this dredging project will contribute to the overall cumulative impact to marine resources and habitat caused by on-going projects in this portion of Massachusetts Bay. At this time, installation of the Hubline gas pipeline is altering nearly 30 square miles of bottom, the Corps is proposing to perform maintenance dredging that will remove approximately 250 acres of sand, cobble, and gravel from Broad Sound, and the MDC is proposing to remove 1 million cubic yards of cobble and gravel (approximately 100 acres) from nearby Massachusetts Bay. Alteration of these habitat areas will result in direct and indirect impacts to fisheries and the loss of habitat functions and value during recovery. For example, cobble and ledge habitat (critical habitat for juvenile cod and lobster) may take upwards of 10 years to recover from radical alterations and may never fully recover.
3. Relative to the direct loss of habitat and temporal loss of function, creation of a comprehensive recovery monitoring and mitigation plan will be needed to compensate for these losses. This effort should be guided by the Technical Working Group and the plan included as a condition of project permits.

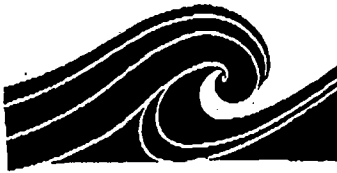
Thank you for the opportunity to comment on this proposal and we look forward to working with the Army Corps and Massport on this project as part of the Technical Working Group. If you have any questions about this review, please contact Vin Malkoski in our Pocasset office at (508) 563-1779, ext. 119.

Sincerely,



Paul J. Diodati
Director

Cc: Timothy Famulare, Boston Conservation Commission
Michael Keegan, ACOE
Mike Johnson & David MacDuffee, NMFS Gloucester
Timothy Timmerman, US EPA
Deerin Babb-Brott & Jane Mead, MCZM
Steve Lipman, MA DEP
Yvonne Unger, MA DEP
Cunningham, Estrella, Kennedy, & Pierce, MDMF



THE COMMONWEALTH OF MASSACHUSETTS
 EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
 OFFICE OF COASTAL ZONE MANAGEMENT
 251 Causeway Street, Suite 900, Boston, MA 02114-2136
 (617) 626-12100 fax: (617) 626-1240

MEMORANDUM

TO: Ellen Roy Herzfelder, Secretary, EOEA
 ATTN: Deirdre Buckley, MEPA Unit
 FROM: Tom Skinner, Director, CZM *[Signature]*
 DATE: February 27, 2003
 RE: EOEA #12958 – Boston Harbor Deep Draft Navigation Improvement Project

The Massachusetts Office of Coastal Zone Management (CZM) has completed its review of the above-referenced Environmental Notification Form (ENF) noticed in the Environmental Monitor dated February 8, 2003. CZM understands that this project categorically requires the preparation of an Environmental Impact Report (EIR).

Project Description

The US Army Corps of Engineers (Corps), in partnership with the Massachusetts Port Authority (Massport), has initiated a feasibility study of potential deep-draft navigation channel improvements to the Boston Harbor. The study will examine the Port of Boston's current and future role in the maritime commerce of the nation, and identify likely levels of future vessel traffic and commerce through the Port. In addition, the study will investigate options for accommodating increased deep draft vessel traffic at Boston Harbor, including channel deepening, cargo diversion, and no action. The costs of implementing alternative options will be measured against estimated benefits to improving commercial transportation costs in order to identify whether improvements are warranted consistent with Corps policies. Plans for channel improvements will result in the deepening of the entrance channel and main anchorage (from -40 feet to up to -50 feet mean lower-low water (MLLW)), the main ship channel (from -40 feet to up to -50 feet MLLW), the Mystic River Channel (from -35 feet to -40 feet MLLW), and the Chelsea River Channel (from -38 to -40 feet MLLW).

Comments

CZM participated in the technical working group for the recently completed Boston Harbor Navigation Improvement Project (BHNIP), which deepened the Harbor to -40 feet MLLW, and looks forward to participating in a similar process for the Boston Harbor Deep Draft Navigation Improvement Project (BHDDNIP).

Confined Aquatic Disposal, Water Quality, Fisheries Impacts

As part of the recently completed BHNIP project, the Corps used in-channel confined aquatic disposal (CAD) cells as a method of disposing of dredged sediment deemed unsuitable for disposal at the state approved ocean disposal site. At the MEPA scoping meeting, the Corps indicated its intention to consider use of the unused BHNIP CAD cells (approved under the



BHNIP) for the placement of contaminated dredged material from the currently proposed deepening effort. CZM supports the assessment of the previously approved CAD cells for this purpose. In the EIR, CZM requests that the Corps summarize the "lessons learned" from the recently completed BHNIP with regard to this method of sediment disposal, in addition to recommended changes for the upcoming dredging project based on that information. In particular, an evaluation of the utility of the water quality monitoring methodology, the geographical behavior of the CAD cells, and any other available data related to impacts to marine habitat will be useful for the evaluation of the proposed dredging project.

Cost/Benefit Analysis

CZM understands that the Corps must perform a cost/benefit analysis of any project it proposes to construct using federal funds. It is our understanding that this analysis will be performed incrementally for the BHDDNIP project, i.e., the cost/benefit model will be applied to a project that deepens to -42 feet MLLW, -44 feet MLLW, -46 MLLW, etc., up to -50 feet MLLW, and the depth selected will be that which provides the most benefit for the least cost, in accordance with Corps regulations.

The Corps' cost/benefit analysis often leads to the selection of a depth that most parties recognize will not be sufficient to meet even the mid-term needs of the shipping industry. As is often the case, the need for channel depths in excess of the BHNIP selected depth of -40 feet was recognized prior to the completion of that project. With this in mind, CZM requests that the Corps consider, as part of the cost/benefit analysis, the environmental impacts of disturbing the substrate and impacting the water column with several smaller deepening efforts as opposed to one larger one.] ↗

Coordination With Utility Providers, Other Projects

During the scoping session, concerns were raised by N-Star and the MWRA regarding the respective agencies cables and pipelines which run under Boston Harbor. CZM suggests that the EIR lay out a clear process for coordination between any parties with utilities in the area of the proposed dredging project. The EIR should discuss a similar process for coordination between the other multiple projects taking place in and around Boston Harbor during a similar timeframe.

Proposed Outline

The ENF contains a proposed outline for the BHDDNIP draft EIR/SEIS. Except as requested above, the outline appears to cover most of the relevant issues associated with the proposed deepening project. CZM looks forward to seeing the information referenced in the draft outline, and will comment in detail on its findings when the EIR/SEIS becomes available.

Additional Review

As stated in the ENF, this project will be subject to CZM federal consistency. The project must be found to be consistent with CZM's enforceable program policies. For further information on this process, please contact Jane W. Mead, Project Review Coordinator, at 617-626-1219 or visit the CZM web site at www.state.ma.us/czm/fcr.htm.

TWS/MG

Cc: Deerin Babb-Brott, Assistant Director
Massachusetts Office of Coastal Zone Management
James Sprague, Section Chief
Northeast Regional Office, MA DEP
Deb Hadden, Deputy Director of Maritime
Massport
Vin Malkoski, Fisheries Biologist
Division of Marine Fisheries



MASSACHUSETTS WATER RESOURCES AUTHORITY

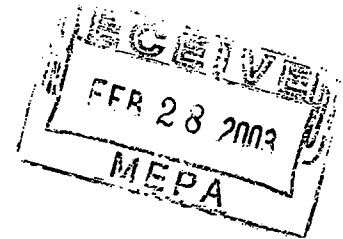
Charlestown Navy Yard
100 First Avenue
Boston, Massachusetts 02129

Telephone: (617) 242-6000
Facsimile: (617) 788-4899

Frederick A. Laskey
Executive Director

February 28, 2003

Ms. Ellen Roy Herzfelder, Secretary
Executive Office of Environmental Affairs
MEPA Unit
251 Causeway Street, Suite 900
Boston, MA 02114



Attn: Dierdre Buckley, EOE A No. 12958

Re: Massport's Boston Harbor Deep Draft Navigational Improvement Project -
EOEA #12958

Dear Secretary Roy Herzfelder:

Staff at the Massachusetts Water Resources Authority (MWRA) have reviewed the Environmental Notification Form (ENF) for Massport's Boston Harbor Deep Draft Navigational Improvement Project and attended the scoping session held on Tuesday, February 25, 2003 at the Black Falcon Terminal. Massport and the U.S Army Corps of Engineers (Corps) plan to conduct a feasibility study of potential deep draft navigation channel improvements in Boston Harbor. The study will examine the Port of Boston's current and likely future role in the maritime commerce of the nation and identify likely levels of future navigation traffic and commerce through the port. The costs of implementing alternative options will be measured against estimated benefits in reduced transportation costs in order to identify whether improvements are warranted consistent with Corps policies.

MWRA's comments and concerns are specifically related to the impacts to the existing cross-harbor electric cable that provides power to the Deer Island Treatment plant, the second largest treatment plant in the country. While the cable is owned by Harbor Electric Energy Corp. (a wholly owned subsidiary of Nstar), the cost of construction, operation and maintenance of the cable and associated substations is borne entirely by the MWRA and its ratepayers. The cable and substations were installed at a cost of approximately \$40 million as part of the \$3.5 billion Federal court mandated Boston Harbor Project.

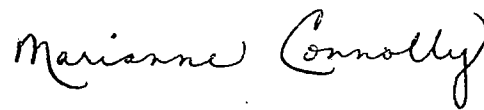
The proposed limit of this project partially coincides with the current location of Nstar's 115Kv Submarine Power Cable which feeds the MWRA's Treatment Plant. As indicated in the ENF, there appears to be an overlap in the proposed deep draft dredging of the Reserve Channel and adjacent entrance to the Reserve Channel and the "as-installed" location of the Submarine Cable. Nstar documents indicate that this cable was installed at -50 feet and that the new dredging project proposes to increase the cut from the existing depth of -40 to the new depth of -42 to -50. It should be noted that the dredging process might result in areas being deepened an additional two feet beyond what is actually proposed.

Therefore, the dredging in the immediate area of the 115Kv Submarine Cable to the new proposed depths may lead to possible damage to the cable, resulting in the release of the insulating oil in the cable to the waters of the harbor and the potential long term disruption of the primary source of power to the treatment plant servicing over 43 cities and towns in metropolitan Boston.

Staff at MWRA need to have serious discussions with the Project Proponents on identifying and examining alternatives to dredging at the Reserve Channel so that impacts to the submarine cable are avoided. In addition, MWRA requests that the EIR/S identify the cost/benefits of moving the cable, if necessary, determine who pays for this undertaking, and include a contingency plan in the event of damaging the cable (loss of power to the treatment plant as well as water quality impacts with the release of oil contained in the cable.) MWRA cannot over emphasize the importance of the electric cable in the daily operation of the treatment plant, which services over 2.5 million people. MWRA looks forward to working with the proponents to assure that MWRA's electric source is not jeopardized and to assure that any costs associated with the project are not passed on to MWRA ratepayers.

Thank you for the opportunity to comment.

Yours truly,



Marianne Connolly
Program Manager, Regulatory Compliance

cc: Senator Robert Travaglini
Representative Robert A. DeLeo
Maggie Debbie, MWRA
David Finlay, MWRA
Jeff McLaughlin, MWRA

C: MEPA12958BosHarDredging



Massachusetts Turnpike Authority
Central Artery/Tunnel Project

February 27, 2003

Secretary Ellen Roy Herzfelder
Executive Office of Environmental Affairs
Attention: MEPA Office
Ms. Deirdre Buckley, EOE #12958
251 Causeway Street, Suite 900
Boston, MA 02114

Subject: Boston Deep Draft Navigation Improvement Project
Environmental Notification Form (ENF)

Dear Secretary Roy Herzfelder:

The Central Artery/Tunnel (CA/T) Project staff has reviewed the subject document. The proposed Navigation Improvement Project is located adjacent to the CA/T Project's Ted Williams Tunnel and our Excavated Materials Handling Site at Subara Pier.

The ENF notes that the Ted Williams Tunnel limits channel depths above the Tunnel to the 40 feet now provided; however, our design allows for accommodation of an approximately 600-foot wide, 45-foot deep channel over the Tunnel. In the future, if the channel depth is proposed to be deepened over the Tunnel, these dimensions should be verified.

Our only concern with the proposed dredging project is the deepening next to the Tunnel, especially any blasting in the vicinity of the Tunnel. We request documentation and close coordination with our Project and the MTA to ensure that the channel deepening and any associated construction activities such as blasting will not effect the Ted Williams Tunnel.

Massport officials have maintained a cooperative relationship over the years with the CA/T Project and the Massachusetts Turnpike Authority. We anticipate this ongoing cooperative relationship effort will continue during the design review, permitting, and construction processes for the Navigation Improvement Project.

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Massachusetts Turnpike Authority
Central Artery/Tunnel Project

Secretary Ellen Roy Herzfelder
February 27, 2003
Page Two

If you have any questions, please contact Ronald Killian, Manager of Environmental Permits and Procedures, at (617) 556-2453.

Sincerely,

MASSACHUSETTS TURNPIKE AUTHORITY

Paul A. Stakutis
Director of Environmental Affairs

PAS/AR/mal

cc: Mr. Michael A. Leone, Massport
Mr. James F. Cashman, MTA

2003-256K
AD-2.1.2
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CITY OF BOSTON

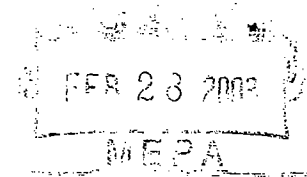
THE ENVIRONMENT DEPARTMENT

Boston City Hall, Room 805 • Boston, MA 02201 • 617/635-3850 • FAX: 617/635-3435

DB

February 28, 2002

Ellen Roy Herzfelder, Secretary
Executive Office of Environmental Affairs
251 Causeway Street, 9th Floor
Boston, MA 02114
Attention: Deirdre Buckley, MEPA Office



Re: Boston Harbor Deep Draft Navigation Improvement Project, Environmental Notification Form, EOE #12958

Dear Secretary Roy Herzfelder:

The City of Boston Environment Department has reviewed the Environmental Notification Form (ENF). We hereby submit the following comments to promote the use of proven environmental strategies and technologies in fulfilling environmental requirements.

PROJECT DESCRIPTION

The U.S. Army Corps of Engineers, and the Massachusetts Port Authority (Massport) propose to conduct a feasibility study of potential deep draft navigation channel improvements to Boston Harbor, known as the Boston Harbor Deep Draft Navigation Improvement Project ("BHDDNIP"). This study will include an examination of the current and likely future role of the Port of Boston in national maritime commerce and identify likely levels of maritime traffic. The study will also investigate alternatives for accommodating increased deep draft vessel traffic and a cost-benefit analysis of these alternatives to include channel deepening, cargo diversion, and no action.

RESPONSE

This Department supports the proposed study to assess the needs of the Port of Boston to accommodate increased maritime commerce. This project will require Orders of Conditions issued by the Boston Conservation Commission ("BCC") pursuant to the Massachusetts Wetlands Protection Act, M.G.L. Ch. 131, s. 40 ("the Act"). The involvement of BCC staff on the Technical Working Group ("TWG") for the recently completed Boston harbor Navigation Improvement Project proved very useful in designing the project to conform with performance

standards set by the Act and its regulations; the Executive Secretary of the BCC has accepted the proponent's invitation to join the TWG for the BHDDNIP.

Several utility crossings were damaged or destroyed during dredging operations of the BHNIP. Repair efforts sometimes involved alteration of wetlands resources protected by the Act. The applicants should work with all affected utility owners to identify the location and depth of utility crossings to prevent unnecessary damage to them during the BHDDNIP.

In the past decade, the land under Boston Harbor, which provides habitat to a diverse community of fish and marine invertebrates, some of which are commercially viable species, has been frequently disturbed by major projects, including the construction of the Ted Williams Tunnel crossing, the BHNIP, and the Algonquin Gas Hubline Project. The environmental documentation required under the Massachusetts Environmental Policy Act and the National Environmental Policy Act should carefully assess the cumulative effects of these disruptive projects and consider appropriate mitigation for destruction of marine species habitat that would occur as a result of the BHDDNIP.

Thank you for the opportunity to offer comment.

Sincerely,

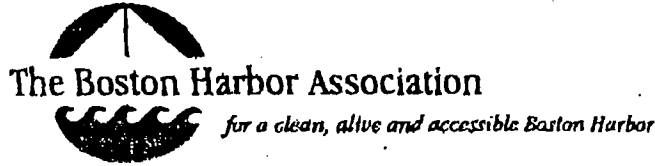


Bryan Glascock
Acting Director

BHDDNIP.doc.DBG:TJF.tjf/03.02.010

FROM : THE BOSTON HARBOR ASSOCIATION PHONE NO. : 6174829750

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28 February 2003

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MEPA

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Secretary Ellen Roy Herzfelder
Executive Office of Environmental Affairs
251 Causeway Street, Suite 900
Boston, MA 02114
Att: MEPA Office

12958

RE: Environmental Notification Form, Boston Harbor Deep Draft Navigation Improvement Project, Boston

Dear Secretary Herzfelder:

The Boston Harbor Association, a non-profit, public interest organization founded in 1973 by the League of Women Voters and the Boston Shipping Association, strongly supports the Massachusetts Port Authority and the U.S. Army Corps of Engineers' efforts to conduct a feasibility study of potential deep-draft navigation channel improvements to Boston Harbor.

The Boston Harbor Association was an active participant in the environmental oversight and planning for the Boston Harbor Navigation Improvement Project completed in 2001. That project deepened the main shipping channel to 40 feet and the associated berths to depths of 35 to 40 feet. Since completion of that project, however, the continued silting of the main shipping channel in other portions of the Harbor now require maintenance dredging to restore the shipping channel to a minimum 40 feet depth.

The economics and efficiencies of cargo transport currently and in the coming decade require the use of larger, state-of-the-art vessels. The Massachusetts Port Authority has done an excellent job of attracting new service to the Port of Boston, most recently, direct outbound ocean service to Asia. In order to be able to continue to attract and keep such cargo service coming to the Port of Boston, however, the shipping channel must be deepened to accommodate larger vessels.

The proposed feasibility study is a much-needed and welcomed step towards deepening of Boston Harbor. We have reviewed the Environmental

Notification Form, including the attached outline of the feasibility study, and offer the following comments:

Project schedule: The estimated commencement date for the deepening is 2009, with completion in 2011. While we understand that the study will require more than a year to complete, followed by the need for budget appropriations, it is our hope that commencement of the deepening can occur before 2009 if the study supports such action and if funding is available. Any delay beyond then will adversely impact the viability of the Port of Boston.

Study introduction: The outline for the feasibility study suggests a section on the "Historical Importance of the Port of Boston" within the chapter on "Project Purpose and Need". We believe that only minimal attention should be given the role of the Port in the 18th, 19th, or even early 20th centuries, and that this section on project purpose and need should focus on the future of the Port of Boston, and the measures that need to be taken to sustain it. A more crucial discussion is why the region needs to have a Port of Boston, and the economic impacts to the region as a whole without a viable Port. We believe that this section is important in helping to justify the need for funding of the project, and should be written with sufficient facts and details to support the project.

We would also suggest that "Discussion of Previous Dredging Projects in the Port of Boston" be moved from the section on Project Purpose and Need to the section on History or Summary of Major Changes from the 1995 EIR/S for the previous project.

Sediment Disposal: Regarding the disposal of dredged sediments, we assume that disposal methods used for the previous dredging projects will be considered, in addition to other ocean or land disposal sites.

Environmental Consequences: Regarding environmental consequences of dredging, we urge that short-term impacts from dredging be identified, as well as the longer-term impacts.

During the previous dredging project, a Technical Advisory Group (TAG) was convened to regularly review the monitoring data with the project's independent environmental observer. We have recently been asked to participate on a similar Advisory Group for this project, and would

FROM : THE BOSTON HARBOR ASSOCIATION PHONE NO. : 6174829750

MAR. 05 2003 02:26PM P4

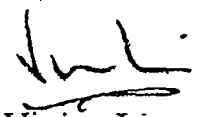
anticipate that such a group will meet regularly and be an active participant in the environmental oversight of this project, similar to the past TAG.

Coordination with other projects: We urge close coordination between the Algonquin HubLine Project- Everett Extension and this project, in the event that the timing of the projects should overlap. A Notice of Project Change for the Everett Extension of the HubLine Project was recently filed with the Massachusetts MEPA Program and a filing was submitted to the U.S. Federal Energy Regulatory Commission, and it is not clear how long the federal and state regulatory review processes will take before construction of the Extension Project could begin.

Coordination with other projects during the time of the project (currently estimated to be 2009 to 2011) should also occur, to minimize any adverse impacts.

Thank you for your consideration.

Sincerely,



Vivien Li
Executive Director

VL: pr



DB

Philip B. Andreas
Vice President Electric Operations

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MEPA

February 28, 2003

Ellen Roy Herzfelder, Secretary
Executive Office of Environmental Affairs
MEPA Office
251 Causeway Street, Suite 900
Boston, MA 02114

RE: Boston Harbor Deep Draft Navigation Improvement Project
EOEA No. 1295251
Deirdre Buckley, Analyst

Dear Secretary Roy Herzfelder:

Harbor Electric Energy Company ("HEEC"), a wholly-owned subsidiary of Boston Edison Company, an NSTAR Company, operates a 115 kV electric distribution cable within the Reserve Channel and the Main Ship Channel in Boston Harbor. The cable is the principal supply route for electricity to MWRA's Deer Island Wastewater Treatment Plant.

NSTAR inquired about future dredging plans by the US Army Corps of Engineers (Corps) and Massachusetts Port Authority (Massport) in 1988, prior to the installation of the cable. NSTAR was told the Main Ship channel could eventually be dredged from 45 to 50 ft. below mean low water. However, our records do not indicate that the Corps had any plans for additional dredging in the Reserve Channel. This information was used to determine an appropriate depth to place the 115kV Cable and to provide adequate cover after future dredging. This depth was approved through the permitting process, as well.

Our as-built drawings show that the cable is located approximately 53 feet below mean low water (MLW) in the Reserve Channel and 63 feet below MLW in the Main Ship channel. For the remaining portion of the route the cable is 15 ft below the seabed. These depths allow for approximately 15 ft of cover. If Massport and the Corps dredge the Reserve Channel below the 40 ft. MLW, there will be inadequate cover to protect the cable from cruise ship anchors, etc.

In addition, we are concerned about the dredging and anchoring process. During the 2001 dredging in the Reserve Channel, we were told by the Corp's contractor that something, possibly our 115 kV cable, was snagged by an anchor. If so, the cable may not still be located in the area indicated on the enclosed as-built drawings. We request that the Corps be required to fund the process of locating and documenting the precise location of the cable.

If the cable is severed during or after any additional dredging, several environmental impacts could occur including the release of some dielectric fluid from inside the cable and significantly increase air emissions resulting from the MWRA's use of on-site generators, until the cable is repaired or replaced. A repair would likely take over a month to complete and during that time, the waste treatment capability would be at heightened risk because of this reliance on a single source. Replacement of the cable would take several years.

Bedrock is located at approximately 53 ft below MLW in the Reserve Channel. That shallow depth to bedrock would make it easier for a moving anchor to snag the cable. Because of the degree to which the MWRA relies upon the cable, if it were proposed that a new cable be installed at greater depth that installation would have to precede the dredging. Licensing and installation could take up to 4 years and cost + \$35,000,000.

The Corps' 2001 dredging in the Chelsea River made it clear that the serious concerns we have regarding further dredging in the Reserve Channel are reasonable and could result in dire consequences. Two separate cable crossings existed in the river that provided the only electrical supply to East Boston and Massport's Logan International Airport. One crossing included a set of set of three 13.8kV submarine cables. These were snagged and destroyed. The second crossing included a bundled set of sixteen 5-inch ducts with nine 13.8kV cables. We believe the ducts were damaged by the Corp's dredging operation. Upon subsequent examination by divers, we found the conduits had been damaged just outside the shipping channel. The conduits were repaired and the three additional cables were added to replace the destroyed submarine cables. We have been working with our consultants and the regulatory authorities to evaluate the supply to East Boston and the Airport.

We request that MEPA not allow for additional dredging in the Reserve Channel. We also request that the In-Channel Disposal Cells be made available to private parties to minimize disposal cost of contaminated sediment that is now prohibitively expensive.

If you have any questions or would like more information please do not hesitate to contact Beverly Schultz, at (781) 441-3809.

Sincerely,



Phillip B. Andreas,
Vice President
Electric Operations

Cc: Massachusetts Port Authority
Massachusetts Water Resources Authority
US Army Corp of Engineers
Boston Conservation Commission



Aviation Division
Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, MA 02128-2909
TEL (617) 428-2800
www.massport.com

January 31, 2003

Ms. Ellen Roy Herzfelder, Secretary
Executive Office of Environmental Affairs
Attn: MEPA Office
251 Causeway Street, Suite 900
Boston, MA 02114

RE: Boston Harbor Deep Draft Navigation Improvement Project
Environmental Notification Form Submittal

Dear Secretary Roy Herzfelder:

On behalf of the Massachusetts Port Authority (Massport), I am pleased to submit two (2) complete copies of an Environmental Notification Form (ENF) for the Boston Harbor Deep Draft Navigation Improvement Project (BHDDNIP), and a third copy of the first three pages, for inclusion in the *Environmental Monitor* to be published on February 8, 2003. The project is needed to accommodate larger cargo vessels that currently utilize Massport's Conley Container Terminal and that are anticipated to call at the Port of Boston in the future.

Project Description

The U.S. Army Corps of Engineers (Corps), in partnership with Massport as the non-federal sponsor, plans to conduct a feasibility study of potential deep draft navigation channel improvements to the Boston Harbor. The study will examine the Port of Boston's current and likely future role in the maritime commerce of the nation, and identify likely levels of future navigation traffic and commerce through the port. In addition, the study will investigate alternatives for accommodating increased deep draft vessel traffic at Boston Harbor, including channel deepening, cargo diversion, and no action. The costs of implementing alternative options will be measured against estimated benefits to improving commercial transportation costs in order to identify whether improvements are warranted consistent with Corps policies. Environmental documentation as required under the Massachusetts Environmental Policy Act (MEPA) and under the National Environmental Policy Act (NEPA) will be conducted as part of the feasibility study.

Project Need

Cargo vessels frequenting the Port of Boston have grown larger such that many of the vessels that now call at Conley Terminal require more than 40 feet of water, the current authorized depth for the Main Shipping Channel. Although these vessels can "ride the tide" into the terminal since the berths were dredged to 45 feet as part of a prior dredging

project described below, the need to wait for a high tide to move to and from the terminal results in costly delays and in some cases vessels have ceased container loading operations in order to depart before the tide changed. In addition to the need for deeper water to Conley Terminal, the December 2002 Massport Marine Terminal (MMT) Development Issues and Alternatives Analysis indicates that bulk cargo vessels expected to call at MMT/North Jetty will benefit from 45-foot deep channels and berthing areas.

Background Information

In addition to the BHDDNIP which is the subject of this ENF, two additional dredging projects are worth noting for clarification: the now-completed Boston Harbor Navigation Improvement Project and Berth Dredging Project (BHNIP), and a federal maintenance dredging project of the main shipping channel to be undertaken solely by the Corps beginning this summer (2003). Massport has no role in the maintenance dredging project. A brief background discussion may provide useful context concerning the latter two projects.

In late 2001, the Corps completed dredging for the BHNIP. Massport was an active co-sponsor for this project (EOEA# 8695), which resulted in deepening of key tributaries and portions of the main shipping channel to 40 feet¹ and related berths to depths ranging from 35 to 45 feet.

While the planning, permitting, design and construction process for the BHNIP was underway, the main shipping channel into Boston Harbor continued to silt in such that it now needs maintenance dredging to restore it to 40 feet. The Corps is actively moving forward with the maintenance dredging of the federal channels up to the Ted Williams Tunnel Crossing and plans to begin construction in 2003. The proposed maintenance work is a fully federal activity with no associated dredging of berths or other local navigation features. Because all of the material to be removed has been found by the Corps and approved by the EPA to be suitable for ocean disposal, the proposed Boston Harbor maintenance dredging project will involve the disposal of dredged material into ocean waters outside the three-mile limit of the territorial sea. The Corps is currently preparing an Environmental Assessment (EA) for this project.

Coordinated Review Requested

The BHDDNIP is categorically included for the preparation of an Environmental Impact Report (EIR) under MEPA pursuant to Regulation 11.03(3)(a)b, in that it involves dredging greater than ten acres of non-vegetated wetlands. It also will be the subject of an Environmental Impact Statement (EIS) under NEPA. The Corps will be conducting the NEPA review as a Supplement (SEIS) to the EIS prepared for the BHNIP. It is our intent to satisfy both state and federal environmental impact review concurrently, as was done for

¹ Chelsea Creek was only deepened to 38 feet due to certain utility crossings that could not cost-effectively be relocated to a deeper elevation.

Secretary Roy Herzfelder

January 31, 2003

Page 3

the now-completed BHNIP. To that end, we have included a proposed scope and outline for the DEIR/DSEIS as an attachment to the ENF. Further, through early coordination with the MEPA Director and his staff, we were able to schedule a scoping meeting ahead of time as follows:

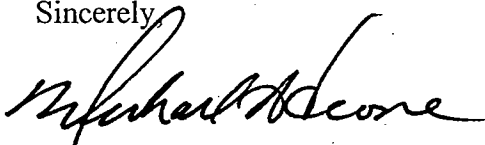
Date: Tuesday, February 25, 2003
Location: Massport Black Falcon Terminal
Time: 11 AM

Technical Working Group

As was done with the BHNIP, we intend to establish a Technical Working Group (TWG), comprised of representatives from the regulatory and Port-of-Boston stakeholders, to assist in the planning and review of the EIR/EIS for the BHDDNIP. A list of the organizations invited to participate on the TWG is enclosed.

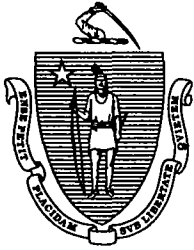
Please feel free to contact Deb Hadden (617) 946-4435, or Jacki Wilkins (617) 568-3558, if you have any questions regarding this filing. For copies of the ENF, please call Cheryl Washington at (617) 568-3525.

Sincerely



Michael A. Leone
Port Director

Enclosures
ENF Distribution List
TWG List



The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
251 Causeway Street, Suite 900
Boston, Massachusetts 02114-2119

BOARD OF
UNDERWATER
ARCHAEOLOGICAL
RESOURCES

Tel. (617) 626-1000
Fax (617) 626-1181

August 26, 2002

<http://www.magnet.state.ma.us/envir>

Mr. Marco Paiva
Engineering/Planning Division
U.S. Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA 01742-2751

RE: *Draft Scope of Work – Geophysical Explorations: Remote Sensing Archaeological Survey and Geologic Interpretation - Boston Harbor Navigation Improvement Study – Boston Harbor, Boston, Massachusetts*

Dear Mr. Paiva:

The Massachusetts Board of Underwater Archaeological Resources has reviewed the above referenced draft scope of work and finds the methodology for both the remote sensing archaeological survey and the literature review and assessment adequate for the archaeological objectives of the project (as stated on pg.1 of document):

- (1) To locate objects or magnetic anomalies representing historic period and/or prehistoric archaeological resources and evidence of sunken vessels.
- (2) Make recommendations for future archaeological studies based upon survey data and literature review to include inspection of identified anomalies at the intensive survey level and for the potential for submerged prehistoric resources.

Should you have any questions or comments regarding this correspondence, please do not hesitate to contact the Board at the address above, by telephone at (617) 626-1141 or my email at Victor.Mastone@state.ma.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Victor T. Mastone".

Victor T. Mastone
Director

VTM/dwt

Cc: Brona Simon, Massachusetts Historical Commission

A-5-158



Avenue, Suite 130, West Palm Beach, FL 33401.

(5) Palm Beach County Government Center, Front Lobby Information Desk, 215 North Olive Avenue, West Palm Beach, FL 33401.

After the public comment period ends, USACE will consider all comments received, revise the Draft SEIS as appropriate, and issue a Final Supplemental Environmental Impact Statement. As part of the public involvement process, notice is hereby given by the USACE-Jacksonville District of a public meeting to be held at Town Hall Council Chambers, 360 S. County Road, Town of Palm Beach, Florida, beginning at 7 p.m. on September 12, 2002. The public meeting will allow participants the opportunity to comment on the Draft SEIS.

John A. Hall,

Alternate Federal Register Liaison Officer.

[FR Doc. 02-21481 Filed 8-22-02; 8:45 am]

BILLING CODE 3710-AJ-M

DEPARTMENT OF DEFENSE

Department of the Army; Corps of Engineers

Intent To Prepare a Draft Supplemental Environmental Impact Statement for the Boston Harbor Navigation Improvement Project

AGENCY: Department of the Army, U.S. Army Corps of Engineers, DOD.

ACTION: Notice of intent.

SUMMARY: The U.S. Army Corps of Engineers (Corps), New England District is conducting a feasibility study and Supplemental Environmental Impact Statement (SEIS) to determine the navigation-related needs of the harbor, port facilities, and harbor users of Boston Harbor. This study will analyze deepening various shipping channels in Boston Harbor, Massachusetts. These include the entrance channel, main ship channel, Presidents Roads anchorage area, and the lower Reserved Channel, all from -40 feet mean lower low water (MLLW) up to -50 feet MLLW, the Chelsea River from -38 feet to -40 feet MLLW, and a portion of the Mystic River channel from -35 to -40 feet MLLW. Without deepening portions of Boston Harbor, the ships and port of Boston will be affected in three ways. (1) Existing shippers and their vessels will continue to experience tidal related inefficiencies with the current channel depths, including negating the full advantage of Massport's deeper 45-foot berths at the Conley Terminal. (2) The port will be unable to accommodate the

very large container vessels now beginning to serve the east coast of the United States from southern Asia via the Suez Canal. These vessels will not be able to use Boston efficiently with the current -40-foot channel depth. (3) As larger container and bulk vessels continue to come into service to replace existing vessels, Boston's lack of channel depth will erode its share of tonnage as New England cargo is redirected to the ports of New York-New Jersey and Halifax, Nova Scotia, and transported to New England by other means. Deepening the navigation channels in Boston Harbor would allow Boston to maintain a safe and efficient port.

DATES: September 5, 2002 from 1 to 4 p.m. at the Black Falcon Cruise Ship Terminal in South Boston, MA.

ADDRESSES: If you wish to be placed on the mailing list for this project, contact Mr. Michael Keegan, Project Manager, U.S. Army Corps of Engineers, New England District, Navigation Section, 696 Virginia Road, Concord, MA 01742.

FOR FURTHER INFORMATION CONTACT: If you have questions about the proposed action and the Draft SEIS, contact Mr. Keegan at (978) 318-8087.

SUPPLEMENTARY INFORMATION: The Corps participation in this study is authorized by a resolution of the Senate Subcommittee on Public Works dated September 12, 1969. This study was initiated at the request of the Massachusetts Port Authority (Massport), the study sponsor, using funds provided in the Fiscal Year 2000 Energy and Water Development Appropriations Bill.

Major navigation channel improvements (deepening) were made in 1999 through 2002 in the Reserved Channel, the Mystic River, Inner Confluence and the Chelsea River. A final Environmental Impact Statement (EIS) was prepared for the previous navigation improvement project in June of 1995. The current study would investigate the feasibility of deepening the main shipping channels in the port of Boston to a depth greater than the current authorized depths. This study, which will include the preparation of SEIS to the 1995 Record of Decision, will examine the engineering feasibility, economic justification, social and cultural resource impacts, and environmental acceptability of the proposed channel deepening. The existing -40-foot MLLW main harbor entrance channel from Broad Sound, through President Roads, and up to the Marine Terminal just seaward of the Ted Williams Tunnel will be examined for depths up to -50 feet MLLW, as

will the Reserved Channel. Deepening of a small area of the Mystic River Channel upstream of the Moran Terminal, from the current -35-foot depth to -40 feet will also be examined, as will deepening the Chelsea River Channel from the current -38-foot depth to -40 feet.

Alternatives: Dredging alternatives would examine the incremental depths from -40-feet to -50-feet MLLW (-38 feet in Chelsea River, and -35 feet in portions of the Mystic River) to determine the optimum economic plan. In addition, disposal alternatives would be determined based on the suitability of the material for open water disposal. Material suitable for ocean disposal would likely be disposed at the Massachusetts Bay Disposal Site. Material unsuitable for ocean disposal would most likely be disposed within a confined aquatic disposal (CAD) cell within the federal navigation channels above the Ted Williams Tunnel. The draft and final EIS for the previous Boston Harbor navigation improvement project investigated other alternative disposal sites for the disposal of dredged material.

The study will take about three years to complete and Massport and the Corps will share the study cost.

Scoping: Full public participation by interested federal, state, and local agencies as well as other interested organizations and the general public is invited. All interested parties are encouraged to submit their names and addresses (see ADDRESSES), to be placed on the mailing list for reviewing any fact sheets, newsletters, and related public notices. Massport will host a public meeting on the study on September 5, 2002 (see DATES). The public is invited to attend and further identify issues that should be addressed in the SEIS.

Dated: August 12, 2002.

Thomas L. Koning,

Colonel, Corps of Engineers, New England District.

[FR Doc. 02-21308 Filed 8-22-02; 8:45 am]

BILLING CODE 3710-24-M

DEPARTMENT OF ENERGY

National Energy Technology Laboratory; Notice of Availability of a Financial Assistance Solicitation

AGENCY: National Energy Technology Laboratory, Department of Energy (DOE).

ACTION: Notice of availability of a Financial Assistance Solicitation.

SUMMARY: Notice is hereby given of the intent to issue Financial Assistance



REPLY TO
ATTENTION OF

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

August 20, 2002

Engineering/Planning Division
Evaluation Branch

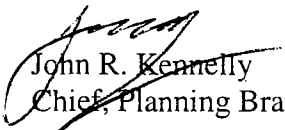
Mr. Victor Mastone, Director
Board of Underwater Archaeological Resources
241 Causeway Street, Suite 900
Boston, Massachusetts 02114-2136

Dear Mr. Mastone:

The U.S. Army Corps of Engineers, New England District, has prepared a draft Statement of Work (SOW) for a proposed remote sensing archaeological survey of portions of Boston Harbor that may be subject to modifications from a navigation improvement study. A copy of this SOW is enclosed for your review and comment.

Please direct any comments or questions, directly to Mr. Marc Paiva, project archaeologist of the Evaluation Branch, at (978) 318-8796. We look forward to your participation in this important study.

Sincerely,


John R. Kennelly
Chief, Planning Branch

Enclosure

Copy Furnished (with enclosure):
Ms. Cara Metz, Executive Director and SHPO
Massachusetts Historical Commission
The Massachusetts State Archives Building
220 Morrissey Boulevard
Boston, Massachusetts 02125



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

News release

Date: Aug. 7, 2002
For Immediate Release
Release No. MA 2002-99
Contact Tim Dugan 978-318-8264
timothy.j.dugan@usace.army.mil
696 Virginia Road, Concord, Massachusetts 01742-2751

Public meeting on Sept. 5

Massport, Corps of Engineers to conduct study of deepening of Boston Harbor

CONCORD, Mass. -- The New England District, U.S. Army Corps of Engineers, in partnership with the Massachusetts Port Authority (Massport), will begin studies this summer to investigate the feasibility of deepening the main shipping channels in the port of Boston to a depth greater than the current authorized 40-foot depth. Massport views channel deepening as necessary to safely and efficiently accommodate the larger containerships and other vessels now calling at the Conley and Marine Terminals in South Boston.

The study, which will include preparation of a Supplemental Environmental Impact Statement, will examine the engineering feasibility, economic justification, social and cultural resource impacts, and environmental acceptability of the proposed channel deepening. The main harbor entrance channel from Broad Sound, through President Roads, and up to the Marine Terminal just seaward of the Ted Williams Tunnel will be examined for deepening to about 45 feet, as will the Reserved Channel.

Deepening of a small area of the Mystic River Channel upstream of the Moran Terminal, from the current 35-foot depth to 40 feet will also be examined. The study will take about three years to complete, and the study cost, estimated at approximately \$4 million, will be shared by Massport and the Corps.

Massport will host a public meeting on the study at the Black Falcon Cruise Ship Terminal in South Boston on September 5, 2002, from 1-4 p.m. (*Directions to the Black Falcon Terminal are attached*).

Directions to the Black Falcon Cruise Terminal for Parking during the Meeting

Parking generally available at the EDIC (Economic Development Industrial Corporation) garage, a five-story, indoor parking facility owned by the City of Boston and operated by EDIC. It is located across from the Black Falcon Cruise Terminal

From the North (coming south on I93):

From the Expressway downtown, take exit marked "South Station". At the top of the exit ramp, turn left onto Summer Street. Continue on Summer Street as it merges with Congress Street. Continue on Congress to "D" Street, turn right onto "D" then left at the next light onto Summer Street (again). At the next light on Summer Street is a left turn into the Boston Marine Industrial Park. This is Dry Dock Ave. Continue down Dry Dock Ave take the garage is on the left, directly across from the entrance to Design Center Way.

From the South:

Traveling on Interstate 95 North, Interstate 93 North, or the Southeast Expressway, pass through the South Station tunnel underneath downtown Boston/Chinatown. In the tunnel's right lane will be an off-ramp for Atlantic Avenue/Northern Avenue. Take this ramp, staying to the right and at the top of the ramp travel through the light onto the new Northern Avenue bridge. Follow Northern Avenue into the Boston Marine Industrial Park. At the second right on Northern Avenue after the entrance to the park, **turn right**. This is the entrance into the garage.

From Ted Williams Tunnel:

When you exit the Ted Williams Tunnel take a right onto "D" Street. At the end of "D" Street take a right onto Northern Avenue. Follow Northern Avenue into the Boston Marine Industrial Park. Follow Northern Avenue into the Boston Marine Industrial Park. At the second right on Northern Avenue after the entrance to the park, **turn right**. This is the entrance into the garage.

Public Transportation

Public transportation is available via the #7 MBTA bus from South Station to the entrance of the Boston Marine Industrial Park at 660 Summer Street, entailing a walk of approximately 4.5 blocks. There is a #6 MBTA bus from South Station to the Boston Design Center, which is adjacent to the Black Falcon Cruise Terminal. For more information on fares and schedules, call 1 (800) 392-6100 or check the MBTA website (www.mbta.com).

#

PART 6

CORRESPONDENCE RECEIVED DURING APPROVAL OF THE RECONNAISSANCE REPORT AND FEASIBILITY COST-SHARING AGREEMENT



REPLY TO
ATTENTION OF

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

April 30, 2002

Engineering/Planning Division
Planning Branch

Mr. Michael A. Leone, Port Director
Massachusetts Port Authority
Logan Office Center
One Harborside Drive, Suite 200S
East Boston, Massachusetts 02128-2909

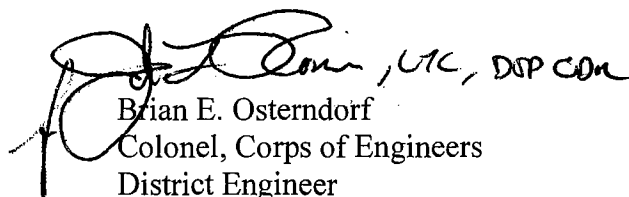
Dear Mr. Leone:

Both Massport and the New England District have worked diligently in developing the Feasibility Cost Sharing Agreement (FCSA) and Project Study Plan (PSP) that will be used in moving forward with the feasibility investigation of navigation improvements to Boston Harbor. We are pleased to inform you that we have received approval to execute the FCSA and initiate our feasibility investigation. Enclosed are four original copies of the FCSA for the cost-shared feasibility study which require signature by Massport. The study will be cost-shared equally by Massport and the Federal government, with credit to Massport for in-kind services as outlined in the PSP attached to the FCSA. Please execute the four originals and return all four to the New England District where they will be signed. A completed, signed FCSA will then be furnished to your office.

As shown in Table 3 of the PSP, Massport's cash contribution towards the work scheduled for Federal fiscal year 2002 is estimated at \$207,560. Our schedule for the feasibility study calls on us to begin work before the end of May 2002. These funds must be available to the Corps prior to initiating work on the study. Please provide a check in the amount of \$207,560, in accordance with paragraph III.B.2 of the FCSA, for Massport's share of this fiscal year's study activities.

If there are any questions or further information is required, please contact me at (978) 318-8220, or Mark Habel, the study manager, at (978) 318-8871.

Sincerely,


Brian E. Osterndorf
Colonel, Corps of Engineers
District Engineer

Enclosures



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
WASHINGTON, D.C. 20314-1000

REPLY TO
ATTENTION OF:

17 APR 2002

CECW-PM

MEMORANDUM FOR Commander, North Atlantic Division (CENAD-ET-P)

SUBJECT: Boston Harbor, Massachusetts, Navigation Improvement Study

1. Reference is made to the following:

- a. CENAE-EP-P memorandum, dated 28 July 2000, transmitting the Section 905(b) analysis for the subject study to Headquarters for review and approval;
- b. CECW-PM memorandum, dated 11 August 2000, approving the Section 905(b) analysis and requesting supplemental information on the feasibility scope, cost and schedule; and
- c. CENAE-EP-PN e-mail, dated 29 March 2002, providing the supplemental information.

2. The Boston Harbor, Massachusetts, Navigation Improvement Study is approved for proceeding into the feasibility phase of planning. The district should plan to convene an in-progress-review meeting early in the study to ensure the study is focused and tailored to meet the specific study objectives. Based on results of the in-progress-review, the project management plan may need to be revised to better define the depth of analysis required and/or refine study constraints.

3. Submission of the model feasibility cost sharing agreement is not required, provided no deviations are requested.

FOR THE COMMANDER:

A handwritten signature in black ink that reads "James F. Johnson".

JAMES F. JOHNSON
Chief, Planning and Policy Division
Directorate of Civil Works



Maritime Division
Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston MA 02128-2909
TEL (617) 946-4413 FAX (617) 946-4422 (617) 946-4466
www.massport.com

March 1, 2002

Colonel Brian E. Osterndorf
District Engineer
U.S. Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA 01742-2751

Dear Colonel Osterndorf:

I and my staff have received and reviewed the New England District's Project Study Plan, Feasibility Phase regarding our request to deepen the Boston Harbor navigation channels between the harbor entrance and our South Boston terminals to 45 feet. In addition, Massport has reviewed the draft model Feasibility Cost Sharing Agreement (FCSA) that has been developed and furnished to my office. We greatly appreciate the efforts of you and your staff in preparing this report. On February 21, 2002 the Board authorized Massport to execute the agreement for this project. On behalf of the Massachusetts Port Authority (Massport) and other Port of Boston beneficiaries, I am writing to request that you proceed immediately with the feasibility study and to reiterate Massport's intent to execute the feasibility Study Cost Sharing Agreement and fund 50 percent (estimated at \$2 million) of the study.

I am pleased to inform you that the Mediterranean Shipping Company (MSC) announced on December 12, 2001, that they would begin a second weekly call at the Port of Boston. In addition to MSC's weekly inbound service to Boston, MSC has added a direct weekly outbound service which started in January 2002. The direct service, with Boston as the last port outbound, calls at the Ports of Antwerp, Bremerhaven/Hamburg, Felixstowe, and LeHavre. This new service will benefit the Port of Boston and the region.

We have also completed negotiations with China Ocean Shipping Company (COSCO), Kawasaki Kien Kaisha, Ltd. (K-Line), and Yangming Maritime Transport Corporation (Yangming) for a weekly vessel call as part of their U.S. East Coast Pendulum Service. This service will bring Asian cargo directly to the U.S. East Coast. After transiting the Panama Canal, the vessels will be stopping at Charleston, Norfolk, New York and Boston. From Boston, the vessels will proceed to ports in the Mediterranean and then return to Asian ports via the Panama Canal after stopping in New York. There will be twelve 3,800 TEU vessels in this service. The first Boston call will be on March 21, 2002. It is an expression of the confidence by MSC, COSCO, K-Line and Yangming, that New England shippers will recognize the benefits and value of their services. It is important to note that these carriers have numerous vessels in service that draw more than 40 feet (some of which already call Boston regularly).

A-6-3

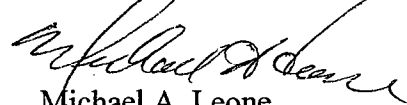
Further, we have launched several strategic marketing initiatives to attract other direct call vessels. In addition, we will be leasing a portion of the North Jetty for salt imports and are pursuing several other bulk cargo opportunities for the North Jetty/Massport Marine Terminal that would benefit from channels deeper than 40 feet. We will continue to keep your staff apprised of the status of these efforts as we know they will affect the feasibility study conclusions and recommendations.

Of great importance, as we pursue these and other port initiatives, is the current depth of the harbor entrance channels. While I am extremely happy that the Boston Harbor Navigation Improvement Project (BHNIP) is completed, I was very disappointed to learn that shoaling in the entrance channels and the channel off Castle Island could not be removed as part of this project. As I have stated before, this effectively limits the navigable draft to 36 feet below mean sea level. In essence, this means that we have gained only one foot of additional navigable water from BHNIP in exchange for the years of hard work and significant public expense from both of our agencies and many others. This draft limitation is causing significant economic and schedule impacts. MSC, COSCO, K-Line, and Yangming expect their vessels to arrive and depart Boston at drafts of 42'. To do so at this time means they will restrict their ships to tidal sailings. I trust you can see the importance of conducting the maintenance dredging as quickly as possible. Failure to do so could seriously jeopardize our ability to retain these new services and the Port of Boston's future in general. The recent meeting to phase this project into two parts was a first step in resolving this depth issue. Massport is more than willing to assist your office in getting the necessary funding for this project. I hope that our agencies can work together to expedite the maintenance dredging project so that we can fully realize the benefits of the BHNIP before it is too late.

Thank you very much.

Sincerely,

MASSACHUSETTS PORT AUTHORITY



Michael A. Leone
Port Director

cc: M. Hable, Army Corps
D. Hadden, Massport
M. Keegan, Army Corps



Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston MA 02128-2909
Telephone (617) 428-2800
www.massport.com

Mark E. Robinson **Virginia Buckingham**
Chairman Executive Director and CEO

October 12, 2000

Colonel Brian E. Osterndorf
District Engineer
U.S. Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA 01742-2751

Dear Colonel Osterndorf:

I and my staff have received and reviewed the New England District's July 2000 Expedited Reconnaissance Report regarding our request to deepen the Boston Harbor navigation channels between the harbor entrance and our South Boston terminals to 45 feet. This is an informative and high quality document, and we greatly appreciate the efforts of you and your staff in preparing this report. On behalf of the Massachusetts Port Authority (Massport) and other Port of Boston beneficiaries, I am writing to request that you proceed immediately with the feasibility study and to reiterate Massport's intent to fund 50 percent (estimated at \$1 million) of the study.

As you are undoubtedly aware, the container business in the Port of Boston is currently in a state of flux. With the expiration of the Vessel Sharing Agreement last summer, and the consolidation of many of the major steamship lines over the past few years, many questions remain as to how the North Atlantic trade lanes will be served. Based on the recently completed Marine Transportation System report, the amount of cargo shipped by vessel is predicted to double over the next 20 years. Presently, Boston is served by two vessels per week from northern Europe via the Mediterranean Shipping Company (MSC) and Maersk-Sealand. However, Maersk-Sealand has expressed uncertainty regarding their long-term intention to provide direct all water service to the Port of Boston. We continue to work with them to secure a long-term commitment, and at the same time have launched several strategic marketing initiatives to attract other direct call vessels on this and other trade lanes. We are confident that these efforts will be successful. In addition, we are pursuing several bulk cargo opportunities for the North Jetty/Massport Marine Terminal that would benefit from channels deeper than 40 feet. We will continue to keep your staff apprised of the status of these efforts as we know they will affect the feasibility study conclusions and recommendations.

Of great importance as we pursue these and other port initiatives is the current depth of the harbor entrance channels. While I am extremely happy that the Boston Harbor Navigation Improvement Project (BHNIP) is virtually completed, I was very disappointed to learn from the Boston Harbor Pilots last week that shoaling in the entrance channels effectively limits the navigable draft to 36 feet below mean sea level. In essence, this means that we have gained only



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

REPLY TO
ATTENTION OF

September 20, 2000

Engineering/Planning Division
Planning Branch

Mr. Michael A. Leone, Port Director
Massachusetts Port Authority
Logan Office Center
One Harborside Drive, Suite 200S
East Boston, Massachusetts 02128-2909

Dear Mr. Leone:

I am writing concerning the ongoing study of your proposal to deepen the principal entrance and lower main shipping channels of Boston Harbor to 45 feet. Enclosed are five copies of the Reconnaissance Report recently approved by the North Atlantic Division. The report examined further deepening of the harbor's main channels below the new Ted Williams (I-90) Tunnel, including the Reserved Channel. The report concludes, based on a preliminary examination of costs and anticipated benefits, that the project would be economically justified, and that Corps participation in further feasibility level investigation is in the Federal interest.

The next steps in the process are as follows:

- The Corps will prepare a draft Project Management Plan (PMP) for the Feasibility Study, including a scope, timeline, and cost estimate for the study effort. The Corps and Massport will review and concur in the draft PMP, then seek further input from other Federal and State agencies before jointly preparing the final PMP.
- The Corps will prepare a draft Feasibility Cost Sharing Agreement (FCSA) for review by Massport and Corps Headquarters.
- Corps Headquarters and North Atlantic Division approval of the PMP and FCSA will be secured.
- Execution of the FCSA by the Corps and Massport.
- Secure Corps and Massport funds to begin feasibility investigations.

Prior to initiating preparation of the PMP next month, I request that Massport provide a letter stating its intent to proceed with the cost-shared feasibility study and to provide the required 50 percent study cost-share. I anticipate initiating feasibility investigations in early 2001. If there are any questions or further information is required, please contact me at (978) 318-8220.

Sincerely,

Brian E. Osterndorf
Colonel, Corps of Engineers
District Engineer

Enclosures

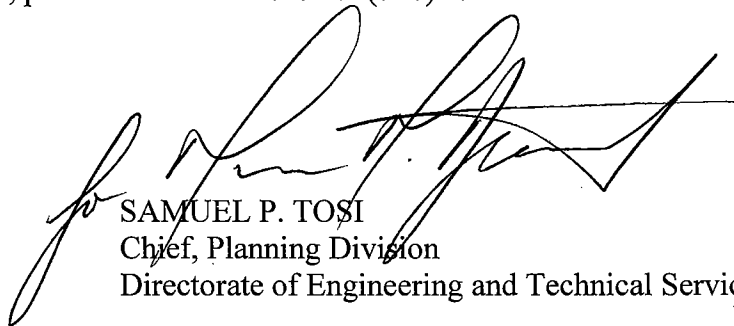
A-6-6

CENAD-ET-P (CECW-PM/11 Aug 2000) 1st End Dr. Groh/ (718) 491-8724
SUBJECT: Boston Harbor, Massachusetts, Section 905(b) Analysis Fact Sheet

Commander, North Atlantic Division, Corps of Engineers, ATTN: CENAD-ET-P, FT.
Hamilton Military Community, 301 General Lee Avenue 301, Brooklyn, New York
11252
18 August 2000

FOR Commander New England District, ATTN: CENAE-EP-P, 696 Virginia Road,
Concord Massachusetts 01742-2751

1. The Section 905(b) Analysis for the Boston Harbor, Massachusetts has been approved. The Reconnaissance Phase will be certified upon HQUSACE review and approval of supplemental information which includes; the major feasibility phase assumptions, discussion of alternatives that will be considered, and estimate of the feasibility study cost and schedule. Please provide this supplemental data to HQUSACE with copy furnished NAD.
2. If you have any questions, please contact Dr. Groh at (718) 491-8724.



SAMUEL P. TOSI
Chief, Planning Division
Directorate of Engineering and Technical Services

**DEPARTMENT OF THE ARMY**U.S. Army Corps of Engineers
WASHINGTON, D.C. 20314-1000REPLY TO
ATTENTION OF:

CECW-PM

11 AUG 2000

MEMORANDUM FOR COMMANDER, NORTH ATLANTIC DIVISION,
ATTN: CENAD-ET-P

SUBJECT: Boston Harbor, Massachusetts, Section 905(b) Analysis Fact Sheet

1. Reference CENAE-EP-P memorandum dated 28 July 2000, subject: Boston Harbor, Massachusetts, Navigation Improvement Study Expedited Reconnaissance Report, transmitting the Boston Harbor Section 905(b) Analysis Fact Sheet.
2. The Section 905(b) Analysis for Boston Harbor, Massachusetts is approved.
3. Pursuant to Planning Guidance Memorandum 99-01 -- Reconnaissance Phase Guidance, dated 3 March 1999, please provide supplemental information to HQUSACE describing the major feasibility phase assumptions that will provide the basis for the study, discussion of alternatives that will be considered, and estimate of the feasibility study cost and schedule. The reconnaissance phase will be certified upon receipt of HQUSACE review and approval of the supplemental information.

FOR THE COMMANDER:

A handwritten signature in black ink, appearing to read "James F. Johnson".

JAMES F. JOHNSON
Chief, Planning and Policy Division
Office of Deputy Commanding General
for Civil Works