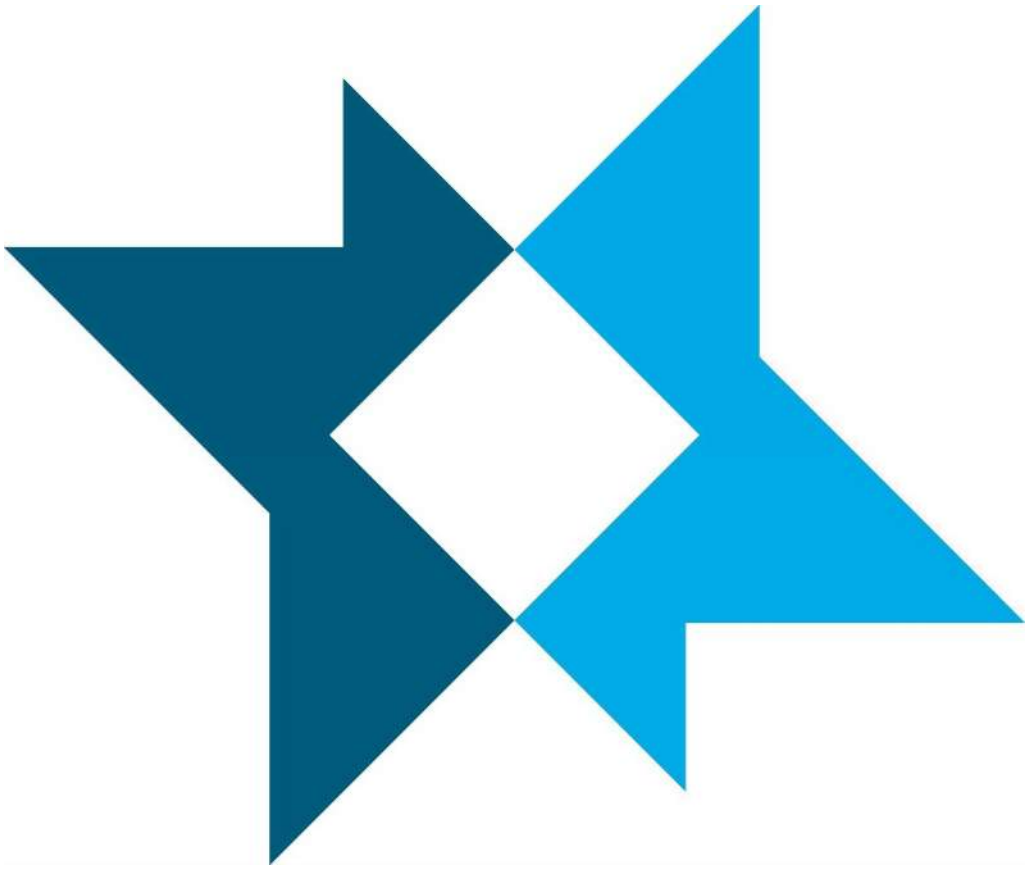
Notice of Intent Application

Nantasket Pier Maintenance Dredging Project
Hull, MA



Town of Hull
Hull, MA

December 2023

Project ID: 0022H009.00

Solving our clients' toughest science and engineering challenges.

15 Creek Road
Marion, MA 02738
(508) 748-0937
foth.com

December 13, 2023

Town of Hull Conservation Commission
Hull Town Hall
253 Atlantic Avenue
Hull, MA 02045

Re: Notice of Intent Application
Nantasket Pier Maintenance Dredging Project
Town of Hull, MA

Dear Members of the Conservation Commission:

On behalf of the Town of Hull, MA (Town), Foth Infrastructure & Environment, LLC (Foth) is pleased to provide you with the enclosed Notice of Intent Application and supporting information for the above referenced project in Hull, MA.

The docking areas around the Nantasket Pier (Pier) are subject to siltation and periodically require dredging in order to maintain routine operations (every 10 years +/-). The previous dredging event was conducted during the 2012-2013 dredge season and the site is due for another maintenance event based on the recent 2022 hydrographic survey results. To restore navigational safety and vessel access to/from the North Docks, West End Docks, South Docks, and Transient Docking at the Pier, the project is proposing the mechanical dredging of approximately 16,000 CY of sediments for disposal at the Massachusetts Bay Disposal Site.

We appreciate your time and attention to this application and look forward to discussing the project with the Commission at the December 26th public hearing. If you have any questions, or should you require additional information, please contact me at (857) 939-4436.

Sincerely,
Foth Infrastructure & Environment, LLC

Paul Marsala
Project Manager, Ports & Harbors

Nantasket Pier Maintenance Dredging Project

Project ID: 0022H009.00

Prepared for

Town of Hull

253 Atlantic Avenue
Hull, MA 02045

Prepared by

Foth Infrastructure & Environment, LLC

December 2023

15 Creek Road • Marion, MA 02738 • (508) 748-0937
foth.com

Nantasket Pier Maintenance Dredging Project

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WPA FORM

WPA FEE TRANSMTITAL FORM

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Attachments

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

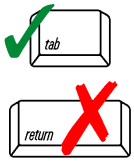
Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Note: Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

a. Street Address	b. City/Town	c. Zip Code
48 George Washington Boulevard	Hull	02045

Latitude and Longitude:

d. Latitude	e. Longitude
42.269421	-70.859343

f. Assessors Map/Plat Number	g. Parcel /Lot Number
37	007

2. Applicant:

a. First Name	b. Last Name
Kurt	Bornheim

c. Organization: Town of Hull, Massachusetts

d. Street Address: 253 Atlantic Avenue

e. City/Town	f. State	g. Zip Code
Hull	MA	02045

h. Phone Number	i. Fax Number	j. Email Address
781-925-3595		kbornheim@town.hull.ma.us

3. Property owner (required if different from applicant): ☐ Check if more than one owner

a. First Name	b. Last Name

c. Organization

d. Street Address

e. City/Town	f. State	g. Zip Code

h. Phone Number	i. Fax Number	j. Email address

4. Representative (if any):

a. First Name	b. Last Name
Paul	Marsala

c. Company: Foth Infrastructure & Environment, LLC (Foth)

d. Street Address: 15 Creek Road

e. City/Town	f. State	g. Zip Code
Marion	MA	02738

h. Phone Number	i. Fax Number	j. Email address
857-939-4436		paul.marsala@foth.com

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

a. Total Fee Paid	b. State Fee Paid	c. City/Town Fee Paid
MUNICIPAL EXEMPT	N/A	MUNICIPAL EXEMPT

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A. General Information (continued)

6. General Project Description:

The proposed project consists of the routine maintenance dredging of approx. 16,000 cubic yards of material from shoaled areas totaling 3.7 acres at the Nantasket Pier to a depth of -6.0 feet MLLW and -9.0 feet MLLW. All areas will include an allowable 1-foot overdredge with 3H:1V side slopes. The dredged material is proposed to be disposed of offshore at the Massachusetts Bay Disposal Site (MBDS).

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

1. ☐ Single Family Home
2. ☐ Residential Subdivision
3. ☐ Commercial/Industrial
4. ☐ Dock/Pier
5. ☐ Utilities
6. ☐ Coastal engineering Structure
7. ☐ Agriculture (e.g., cranberries, forestry)
8. ☐ Transportation
9. ☒ Other

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. ☐ Yes ☒ No

If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

a. County	b. Certificate # (if registered land)
Plymouth	
c. Book	d. Page Number
1806	181

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

1. ☐ Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
2. ☐ Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Bank	1. linear feet	2. linear feet
b. ☐ Bordering Vegetated Wetland	1. square feet	2. square feet
c. ☐ Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. ☐ Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced
f. ☐ Riverfront Area	1. Name of Waterway (if available) - **specify coastal or inland**	

2. Width of Riverfront Area (check one):

☐ 25 ft. - Designated Densely Developed Areas only

☐ 100 ft. - New agricultural projects only

☐ 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: _____ square feet

4. Proposed alteration of the Riverfront Area:

a. total square feet _____ b. square feet within 100 ft. _____ c. square feet between 100 ft. and 200 ft. _____

5. Has an alternatives analysis been done and is it attached to this NOI? ☐ Yes ☐ No

6. Was the lot where the activity is proposed created prior to August 1, 1996? ☐ Yes ☐ No

3. ■ Coastal Resource Areas: (See 310 CMR 10.25-10.35)

Note: for coastal riverfront areas, please complete **Section B.2.f**. above.

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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users: Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ■ Land Under the Ocean	177,992 1. square feet 15,221 2. cubic yards dredged	
c. ☐ Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. ■ Coastal Beaches	779 1. square feet	2. cubic yards beach nourishment
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet 2. cubic yards dredged	
j. ■ Land Containing Shellfish	33,831 1. square feet	
k. ☐ Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	1. cubic yards dredged	
l. ☐ Land Subject to Coastal Storm Flowage	1. square feet	

4. ☐ Restoration/Enhancement
If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.

a. square feet of BVW

b. square feet of Salt Marsh

5. ☐ Project Involves Stream Crossings

a. number of new stream crossings

b. number of replacement stream crossings

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C. Other Applicable Standards and Requirements

☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

a. ☐ Yes ■ No

If yes, include proof of mailing or hand delivery of NOI to:

Natural Heritage and Endangered Species Program
Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581

b. Date of map

If *yes*, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); *OR* complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

c. Submit Supplemental Information for Endangered Species Review*

1. ☐ Percentage/acreage of property to be altered:

(a) within wetland Resource Area _____ percentage/acreage

(b) outside Resource Area _____ percentage/acreage

2. ☐ Assessor's Map or right-of-way plan of site

2. ☐ Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

(a) ☐ Project description (including description of impacts outside of wetland resource area & buffer zone)

(b) ☐ Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see https://www.mass.gov/ma-endangered-species-act-mesa-regulatory-review).
Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.
** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.

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C. Other Applicable Standards and Requirements (cont'd)

(c) ☐ MESA filing fee (fee information available at https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review).
Make check payable to "Commonwealth of Massachusetts - NHESP" and ***mail to NHESP*** at above address

*Projects altering **10 or more acres** of land, also submit:*

(d) ☐ Vegetation cover type map of site

(e) ☐ Project plans showing Priority & Estimated Habitat boundaries

(f) OR Check One of the Following

1. ☐ Project is exempt from MESA review.
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. ☐ Separate MESA review ongoing. a. NHESP Tracking # b. Date submitted to NHESP

3. ☐ Separate MESA review completed.
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

a. ☐ Not applicable – project is in inland resource area only b. ■ Yes ☐ No

If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

South Shore - Bourne to Rhode Island border, and the Cape & Islands:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: dmf.envreview-south@mass.gov

North Shore - Plymouth to New Hampshire border:

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: dmf.envreview-north@mass.gov

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.

c. ☐ Is this an aquaculture project? d. ☐ Yes ■ No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).

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Provided by MassDEP:

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C. Other Applicable Standards and Requirements (cont'd)

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

a. ☐ Yes ■ No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.

b. ACEC

Online Users: Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?

a. ☐ Yes ■ No

6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?

a. ☐ Yes ■ No

7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?

a. ☐ Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:

1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)

2. ☐ A portion of the site constitutes redevelopment

3. ☐ Proprietary BMPs are included in the Stormwater Management System.

b. ■ No. Check why the project is exempt:

1. ☐ Single-family house

2. ☐ Emergency road repair

3. ☐ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

1. ☐ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)

2. ■ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.

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D. Additional Information (cont'd)

3. ☐ Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4. ■ List the titles and dates for all plans and other materials submitted with this NOI.

Nantasket Pier Maintenance Dredging - Notice of Intent	
a. Plan Title	
Foth Infrastructure	Carlos Pena, P.E.
b. Prepared By	c. Signed and Stamped by
December 12, 2023	1"=60'
d. Final Revision Date	e. Scale

f. Additional Plan or Document Title	g. Date

5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. ■ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. ■ Attach NOI Wetland Fee Transmittal Form

9. ☐ Attach Stormwater Report, if needed.

E. Fees

1. ■ Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

2. Municipal Check Number	3. Check date
4. State Check Number	5. Check date
6. Payor name on check: First Name	7. Payor name on check: Last Name

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

1. Signature of Applicant — 2. Date: 12/12/23

3. Signature of Property Owner (if different) — 4. Date

5. Signature of Representative (if any) — 6. Date: 12/12/23

For Conservation Commission:
Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:
One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:
If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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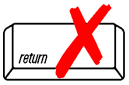

A. Applicant Information

1. Location of Project:

48 George Washington Boulevard	Hull
a. Street Address	b. City/Town
MUNICIPAL EXEMPT	N/A
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Kurt		Bornheim
a. First Name		b. Last Name
Town of Hull		
c. Organization		
253 Atlantic Avenue		
d. Mailing Address		
Hull	MA	02045
e. City/Town	f. State	g. Zip Code
781-925-3595		kbornheim@town.hull.ma.us
h. Phone Number	i. Fax Number	j. Email Address

3. Property Owner (if different):

a. First Name		b. Last Name
c. Organization		
d. Mailing Address		
e. City/Town	f. State	g. Zip Code
h. Phone Number	i. Fax Number	j. Email Address

B. Fees

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).

Fee should be calculated using the following process & worksheet. ***Please see Instructions before filling out worksheet.***

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract $12.50. To calculate the city/town share of the fee, divide the total fee in half and add $12.50.

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Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 4(h) - dredging		EXEMPT	EXEMPT

Step 5/Total Project Fee:

Step 6/Fee Payments:

Total Project Fee: a. Total Fee from Step 5

State share of filing Fee: b. 1/2 Total Fee **less $**12.50

City/Town share of filling Fee: c. 1/2 Total Fee **plus** $12.50

C. Submittal Requirements

a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection
Box 4062
Boston, MA 02211

b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

Attachment A

Project Narrative

1. General Overview

The Town of Hull, MA (Town) is proposing to conduct maintenance dredging in the vicinity of Nantasket Pier Facility (Pier) within the Weir River in Hull, MA (see Figure 1 below). Maintenance dredging around the Pier was last conducted by the Town in 2013. Dredge sediments associated with the last maintenance event (approximately 8,000 cubic yards (CY)) were authorized for unconfined offshore disposal at the Massachusetts Bay Disposal Site (MBDS). The proposed project includes the maintenance dredging of the North, West, South, and Transient Docks to -6.0 feet MLLW and -9.0 feet MLLW. All areas will include an allowable one-foot overdredge with 3H:1V side slopes. Collectively, the proposed project is anticipated to consist of the mechanical dredging of approximately 16,000 CY of sediments for disposal at the MBDS.

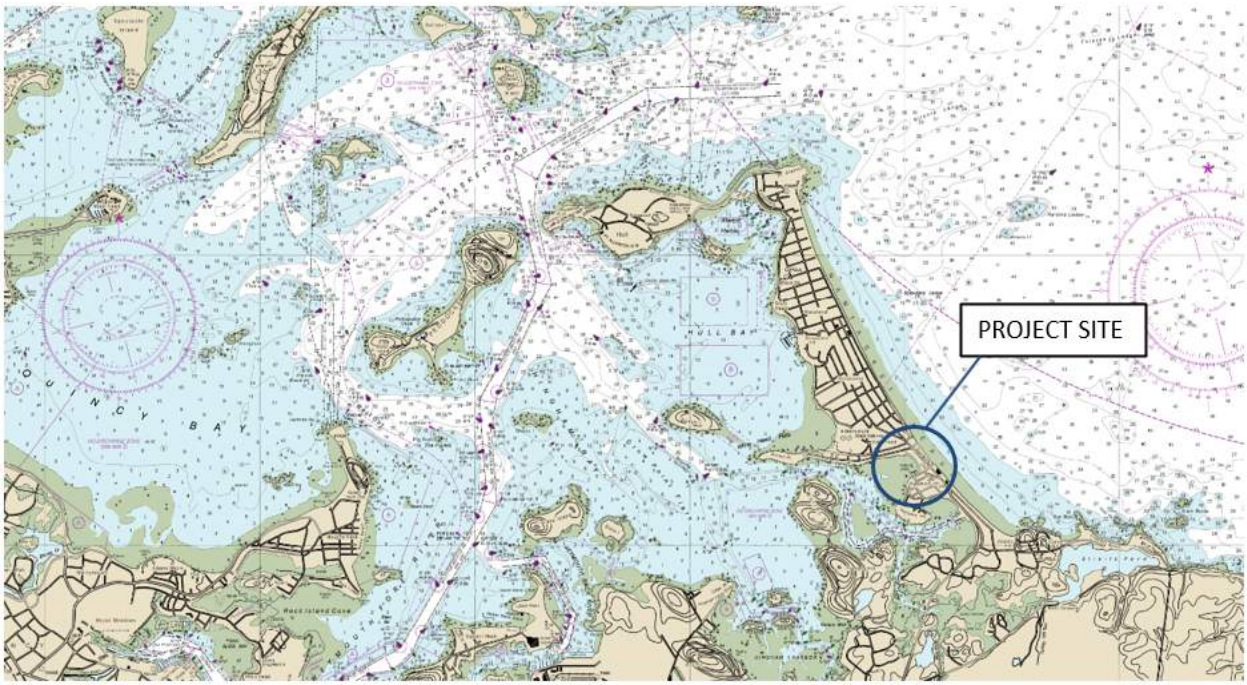


Figure 1: Site Overview

1.1 Site Description

The project area is the Nantasket Pier Facility, located within the Weir River in Hull, MA. Hull is located approximately 10 miles south of Boston, surrounded by Hingham Bay to the west, and Massachusetts Bay to the north and east. Nantasket Beach is located across the road to the northeast. The World's End nature reserve is located about a mile from the project area, in Hingham, MA. The project site abuts the Hampton Hill section of the Weir River Federal Navigational Project (FNP) -12-foot MLLW channel, which leads to Hingham Bay and Greater Boston Harbor and terminates at the Nantasket Pier maintenance dredging footprint. The Weir River FNP has not received regular maintenance dredging and is largely shoaled, according to an NAE conditions survey conducted in 2018. The Weymouth Fore and Town Rivers FNP is about three miles to the west of the project area, running through Hingham Bay, and the Hingham Harbor FNP is about a mile to the south of the project area.

Water quality in the Weir River in the Weir River is dictated by tidal exchange with Hingham Bay, with freshwater input from the Weir River and Straits River, and overland runoff. In addition, there are four outfalls in close proximity to the project area: two just south of the North dock area and tow south of the South dock along the shoreline. The Commonwealth of Massachusetts classifies the waters of the Weir

River as SB.[1] Class SB waters are designated as habitat for fish, other aquatic life, and wildlife, and for primary and secondary contact recreation.[2] Shellfish harvesting is prohibited in the immediate project area, though, in the areas directly surrounding the project area, shellfishing is conditionally restricted.[3]

The project site is mapped as FEMA AE zone with a flood elevation of 10 feet NAVD88 respectively on FEMA Map 25023C0038J effective date 07/17/2012 (included in Attachment C).

The project site is not located in Estimated Habitats of Rare Wildlife/Priority Habitats of Rare Species as most recently mapped by the MA Natural Endangered Species Program (NHESP) on August 1, 2021 (see Attachment D).

The project site is surrounded by the Weir River ACEC, as shown on the permit plan in Attachment E. The ACEC boundary is taken from MA DEP Ch 91 Permit #13368 (included in Attachment G), and as defined by the Weir River ACEC Designation Document provided by the Massachusetts Department of Conservation and Recreation (DCR) that excludes the project site from the ACEC. The Weir River ACEC was formally reviewed and delineated in accordance with the regulations of the Coastal Zone Management Program (301 CMR 20.00) and the Massachusetts Environmental Policy Act (310 CMR 10.00) in December 1986.[4]

1.2 Project Need & Purpose

The purpose of the proposed Town dredging project is to restore navigational safety and vessel access to/from the North Docks, West End Docks, South Docks, and Transient Docking by the removal of existing accretion that has accumulated since the last maintenance dredging activities. Restored accessibility to these areas will benefit the recreational and commercial users of the harbor. The docking areas around the Nantasket Pier are subject to siltation and periodically require dredging in order to maintain routine operations (every 10 years +/-). The previous dredging event was conducted during the 2012-2013 dredge season and the site is due for another maintenance event based on the recent 2022 hydrographic survey results.

1.3 Scope of Work

As previously mentioned, a total of approximately ±16,000 cubic yards (CY) of sediments will be mechanically dredged and disposed at the Massachusetts Bay Disposal Site (MBDS). Table 1 includes the summary of the proposed maintenance dredging. All areas will include an allowable one-foot overdredge with 3H:1V side slopes.

[1] MassDEP, 2013. Water Quality Classifications Hull, MA. Massachusetts Department of Environmental Protection, Boston, MA. Http://arcgisserver.digital.mass.gov/MassDEPWaterQuality.

[2] Ibid.

[3] MassDMF, 2021. Shellfish Classifications Hingham and Hull Bays. Massachusetts Department of Marine Fisheries, Boston, MA. Http://www.marinefisheries.net/shellfish/dsga/GBH1.pdf.

[4]Weir River ACEC Designation Document (December 1986). https://www.mass.gov/files/documents/2016/08/pj/wr-des.pdf. Retrieved December 7, 2023.

Table 1: Proposed Maintenance Dredging

Total Footprint Area (Acres or SF)	*Dredge Area (SF)*	*Dredge Volume to Design Depth (MLLW) (CY)*	*1' Allowable Overdredge Volume (CY)*	*Total Dredge Volume (CY)*
3.7 acres	145,341	8,824	6,755	15,579 CY

2. Site Usage and History

The Nantasket Pier has historically provided and continues to provide a gateway for both recreational and commercial vessels to/from Weir River. The proposed dredging is required to support Town-owned and maintained infrastructure and public use/access to navigable waters that benefit the local commercial and recreational users of the waterway.

The Weir River is an active waterway that supports both recreational and commercial vessels and is the hub of the local Harbormaster's operations. The Steamboat Wharf Marina is located at the Pier and offers dockage, winter storage, boat maintenance, including hauling and mechanical services, as well as a restaurant. In addition to the year-round services provided to support the local marine industry, the area is a well-known tourist destination and becomes increasingly active in the summer months. The North, West, and South docks, as shown on the plan in Attachment E, are primarily used for recreational vessel dockage. A commercial fishing float is located on the west side of the South docks and is utilized for offloading of commercial fishing catch and loading of gear with a davit system which is located on the deck of the Pier. There are currently seven (7) commercial fishing moorings located within the Weir River that rely on access to this float for loading and offloading year-round. At the west end of the Nantasket Pier, a transient float system provides temporary docking space for vessels, managed by the town Harbormaster. A private kayak rental facility is located on the northeast shoreline and is accessed by the maintenance dredge area. Lastly, an existing town boat ramp is located to the east of the South Docks.

2.1 Due Diligence Assessment

The project site supports of water-dependent uses and authorized stormwater outfall discharges also drain into the harbor. Accordingly, there is the potential that contaminants from the aforementioned discharges may be present in sediments removed by the proposed dredging. Contaminants have the potential to enter the waterbody via existing outfalls and discharges and/or from accidental spills or releases. Below is a summary of the due diligence that has been performed in an effort to help identify the potential for contaminant source(s) to exist within the vicinity of the project site.

2.2 Existing Outfalls/Discharges

There are a total of four (4) outfalls that discharge into the project vicinity that were located during the Foth field survey. All nearby outfall locations are shown on the plan provided in Attachment E.

2.3 Spill History or Remediation

To assess the spill and release history relative to the proposed project area, an on-line database search of available federal and state records was conducted by Foth through the MA DEP Waste Site & Reportable Release database. This search included identifying reportable spills and/or releases of oil and chemicals at/in the vicinity of the Nantasket Pier and Weir River from 1986 to present. The results of this search indicate that there seventeen (17) incidents documented by the MA DEP within one mile of the proposed work. A summary of reported incidents and a Spill & Discharge Location Map showing the location of incidents within the proximity of the project site are included in Attachment F. Foth reached out to the Town of Hull – Harbormaster Department for additional information for spill history within the project

area. The Hull Harbormaster stated that there have been no observed oil or hazardous material spills nor has the public reported any fuel spills within the project area since the last maintenance dredging event in 2012-2013. The Hull Harbormaster's letter is included in Attachment F.

3. Dredge History

Table 2 below presents a historical summary of past dredging that has been authorized/conducted within Weir River based upon review of record plan and permit information found to be available through record requests made by Foth to the MA Department of Conservation & Recreation Office of Waterway, MADEP Chapter 91 Waterways Program and the USACE New England District. MADEP Waterways records show that a Chapter 91 dredging permit was issued for the Nantasket Pier site on September 6, 2000. While an issuance date was provided, they were unable to locate it in their records. A final record of decision from the Executive Office of Environmental Affairs (EEA) granted a waiver from requirements of filing an EIR on the basis of it being maintenance dredging of a previously authorized dredge template. Copies of record documents obtained are provided in Attachment G.

Table 2: Record Dredge Document Summary

TOWN OF HULL: NANTASKET PIER DREDGING				
Authorization	**Date**	**Location**	**Dredge Depth**	**Description of Work/Comments**
Waterways Permit #30	1916	Nantasket Pier	-6.0' MLW	Extend and enlarge the pier which would include dredging
Waterways Permit #38	1917	Nantasket Pier	-6.0' MLW	Extend and enlarge the pier which would include dredging
USACE Suitability Determination	1998	Nantasket Pier		
MADEP 401 WQC Trans# X120128	2000	Nantasket Pier	-10.0' MLW	Dredging of 83,000 CY of sediment from Weir River estuary in the vicinity of Nantasket Pier
USACE NAE-1999-02220	2000	Nantasket Pier	-6.0' MLW and -10.0' MLW	Dredging of 83,900 CY of sediment

MEPA EEA #11982	2000	Nantasket Pier	-6.0’ MLW	Dredging of 83,900 CY of sediment
USACE NAE-1999-02220	2012	Nantasket Pier	-6.0 + 1.0 O.D. MLW and -9.0 +1.0’ O.D.	Dredging of 8,000 CY of sediment

3.1 Dredge Site Disposal Alternatives Analysis

The most recent dredging event authorized the initial dredged material to be disposed of offshore at MBDS. This project is expected to be similar in nature, as there have been no significant changes to the site’s usage since the last dredging event in 2013.

3.1.1 No Dredge Alternative

Under the “No Dredge” alternative, the project’s objectives of restoring and improving access to the harbor would not be realized; commercial and recreational vessels would have impeded access, limiting their overall experience and potential economic opportunities. Although a “No Dredge” alternative would result in no environmental impacts, there is a potential for environmental impacts resulting from vessel grounding/spills or release of other hazardous materials into the harbor, they result in an increase of turbidity within the water column from the resuspension of sediments. Furthermore, a “No Dredge” alternative presents a public safety concern and diminishes navigable access to the waters around Nantasket Pier.

3.1.2 Beach Nourishment

The previous dredging events consisted of sediment suitable for offshore disposal at MBDS, as referenced on the permit authorizations. In 2012-13, approximately 8,000 cubic yards CY of material from the Nantasket Pier Facility and Weir River was disposed of in Massachusetts Bay. Based on the record documents reviewed, it is presumed that existing material grain size will contain fine-grained sediments with greater than 10 percent passing the #200 sieve, which is unsuitable for beneficial re-use as beach nourishment. Therefore, this alternative was not chosen, and it was determined that unconfined offshore disposal at MBDS following sampling operations based on the USACE approved SAP, is likely most feasible for the proposed ±16,000 CY of dredge material.

3.1.3 Upland Disposal

The upland disposal of dredge sediments at a permitted landfill facility has been considered for the proposed project and will require the transferring of dredge sediments from water to land, dewatering, reloading of dried sediments into trucks and transportation and disposal of sediments at a landfill facility, which in turn will result in considerable additional time and costs to the project. Other potential additional costs associated with this option may include tipping fees and/or any additional permitting and/or analytical testing that would be required for disposal of dredge sediments at a landfill. Typically, tipping fees range between $25 and $100 per CY. Depending upon the proximity of the landfill, trucking costs could range between $15 and $25 per CY. Furthermore, the hauling of sediments to a landfill facility

would create a significant burden on local traffic. The project site is located near fully developed areas of Town, and within an area of town that is densely populated with both residential and commercial properties. Assuming a typical truck load capacity of 20 CY, the hauling of ±16,000 CY of sediment would generate approximately 800 truck trips from the site. This anticipated volume of traffic would be extremely disruptive. Other impacts may include nuisance odors generated from the dewatering of dredge sediments along with the amount of time that sediments would need to remain on-site to sufficiently dry out prior to hauling off-site to a landfill. Based upon the anticipated impacts and costs associated with upland disposal at a landfill facility and the lack of a suitable land area located in close proximity to the waterfront for the purposes of dewatering, this alternative is not the preferred alternative.

3.1.4 Unconfined Ocean Disposal

Offshore ocean disposal alternatives have been considered for the proposed project. Alternatively, nearshore disposal involves the placement of dredge material in nearshore area(s) from which it can be moved by littoral processes onto beach areas. Since the dredge material associated with this project has historically been characterized predominantly as fines, it is not considered suitable material for nearshore disposal.

Upland disposal options have been demonstrated not to be feasible and/or economical, and sediments are not considered suitable for the purposes of beneficial re-use or nearshore disposal, unconfined offshore disposal at the MBDS is the preferred disposal alternative for the proposed project. Sediments will be mechanically dredged using an excavator or crane and placed into a dump scow for offshore disposal. This option is the most economical as sediments will not need to be dewatered and re-handled multiple times as required with upland/beneficial re-use options. Offshore disposal of dredge sediments at CCBDS and MBDS is contingent upon receiving suitability authorization from the USACE and USEPA.

3.2 Available Bathymetric and Topographic Information

A hydrographic survey of existing dredge area bottom conditions was performed by Foth on August 29, 2022 at the project site. This information has been utilized to establish existing bathymetric conditions and estimate dredge quantities for the proposed project. Bathymetric data is presented on the enclosed permit plan provided in Attachment E.

4. Sampling & Analysis Plan (SAP)

4.1 Existing Sampling and Anaylsis Data

The chemical, biological, and grain size results from the previous dredging event in 2012-13 have been reviewed as part of the permit and site history research for the proposed project. A Suitability Determination (SD) was issued by the USACE on April 20, 2012 under NAE-2007-02344. A copy of the previous SD is included in Attachment H. The dredging and disposal options evaluated under this SD consisted of dredging the Nantasket Pier Facility and Weir River to -6.0’ MLW with a one-foot overdredge and -9.0’ MLW with one-foot overdredge.

Review of the SD indicated that sediment sampling took place in 2011 and consisted of 12 discrete samples which were later composited into three (3) composite samples following USACE compositing guidance. Some of the composited chemical results were determined to be not suitable for Cape Cod Bay Disposal Site (CCBDS), so the Town pursued further chemical and biological testing for Massachusetts Bay Disposal Site (MBDS). The USACE confirmed in the SD that MBDS would be the preferred disposal alternative with the least adverse environmental impact.

4.2 Proposed Sampling and Analysis

In May 2023, the Town submitted a proposal to conduct a Sampling and Analysis Plan (SAP) to the USACE that will allow for the evaluation of sediment to be dredged from the Nantasket Pier Facility for offshore disposal at MBDS, concurrent with the Regional Implementation Manual (RIM).

Sampling and analysis will be conducted in accordance with the requirements of the USACE approved SAP and Foth's Standard Operating Procedures (SOP) that have been developed specifically for the collection and processing of dredge sediment using vibrocore techniques. A copy of Foth's SOP is provided in Attachment I. The proposed sample collection and processing that will be performed is described in detail in the SOP and summarized below.

Individual core samples are proposed to be collected within the project dredge areas at the locations specified by the USACE Environmental Resources & Marine Operations Section (ERS) upon the issuance of an approved SAP. All cores will be advanced to the proposed 1-foot overdredge depth of -7.0' MLLW at the North Docks, and to -10.0' MLLW at the South and West Docks. Sampling will be conducted using a vibrocore system mounted on a work barge. Sample locations (latitude and longitude) will be field located using Differential Global Positioning System (DGPS). An experienced Foth Engineer who has been trained in dredge sediment collection will be on-site to oversee sampling operations and ensure that all samples are collected at the required locations, to the required depths and recovery is equal to a minimum of 75% of the penetration depth after each core has been allowed to settle for a minimum of 15 minutes in an upright position. The Foth field engineer will visually inspect each core sample for stratification, and if present, create sub-samples of each layer. All core samples will be visually inspected and characterized in accordance with ASTM standards, measured, photographed, logged and stored in the appropriate container(s) as required for laboratory testing. Sample collection and transfer of samples to the laboratory for analytical testing will be conducted in accordance with USACE testing and chain of custody protocols.

Laboratory Analyses

Dredge sediment analyses will be conducted by a USACE qualified laboratory and quality assurance/quality control (QA/QC) will be adhered to throughout the testing program. Dredge sediment samples will be analyzed for grain size distribution and bulk chemistries in accordance with the required parameters, analytical methods and detection limits as specified in the April 2004 USEPA Regional Implementation Manual for the Evaluation of Dredge Material Proposed for Disposal in New England Waters" (RIM) and policies as they relate to offshore disposal. All individual core samples (and sub-samples) collected in the field will first be analyzed for grain size distribution, with results being forwarded to USACE and MA DEP to determine the appropriate compositing scheme(s) for cores. Individual and/or composited samples will then be analyzed for bulk chemistries followed by biological analysis as required.

5. Dredging & Disposal Operation

For the proposed dredging, the removal of material via mechanical means is the most economically viable and least environmentally impactful method. This method of dredging includes the use of a barge mounted crane/excavator with disposal into a 1,000 CY to 1,500 CY capacity dump scow. The loaded scows will then be transported to the MBDS via tug where the material will be properly disposed of offshore. It is anticipated that dredging operations will be underway for 24 hours a day for the duration of the project or as weather allows for the safe transit of support tugs bringing loaded scows offshore to the MBDS.

6. Regulatory Approvals

As previously mentioned, a final record of decision from the EEA granted a waiver (EEA #11982) from requirements of filing an EIR on the basis of it being maintenance dredging of a previously authorized dredge template. A copy of the certificate is included in Attachment G. In addition to seeking a local Order of Conditions, Table 3 presents a summary of the regulatory authorizations anticipated to be required for the proposed project.

Table 3: Summary of Regulatory Authorizations Required for the Nantasket Pier Maintenance Dredging Project

Agency	***Authorization Required***
USACE	Individual Permit Including USACE Section 408 Review
MA Dept. of Environmental Protection (MA DEP)	401 Water Quality Certification
MADEP Waterways Program	Chapter 91 Dredge Permit
MA Coastal Zone Management (MACZM)	Federal Consistency

7. Performance Standards to Avoid, Minimize and Mitigation Impacts to Coastal Resource Areas & Habitat

The proposed project is a water-dependent project that has been designed, and will be performed, using the best available measures to minimize adverse impacts to coastal resource areas. The following coastal wetland resource areas have been identified within the vicinity of the project area as defined under the Massachusetts Wetland Protection Act (MA WPA) and per M.G.L. c. 131 sec 40 and Regulations 310 CMR 10.00: Land Under Ocean (LUO), Coastal Beach, and Land Containing Shellfish (LCS). Coastal resource areas are delineated on the permit plan included in Attachment E. As previously noted, the project site is not located in Estimated Habitats of Rare Wildlife/Priority Habitats of Rare Species as most recently mapped by the NHESP (Attachment D). As defined in the Weir River ACEC Designation Document provided by the DCR, the designated ACEC boundary excludes the area surrounding the Nantasket Pier.[5] The ACEC boundary for the project is taken from MA DEP Ch 91 Permit #13368 (included in Attachment G).

Pursuant to 310 CMR 10.00, the above listed coastal resource areas are to be regulated in order to contribute to the following public interests:

- Flood control;
- Storm damage prevention; and/or
- Protection of marine fisheries and wildlife habitat.

[5] Weir River ACEC Designation Document (December 1986). https://www.mass.gov/files/documents/2016/08/pj/wr-des.pdf. Retrieved December 7, 2023.

The proposed project will restore and enhance safe public use and navigable access within the harbor as required to continue to support commercial and recreational uses. All work will be performed when marine activity is least active and within the established TOY restrictions for all species of concern.

❖ **LAND UNDER THE OCEAN (310 CMR 10.25)**

Land Under the Ocean (LUO) is defined as "land extending from the mean low water line seaward to the boundary of the municipality's jurisdiction and includes land under estuaries". LUO, particularly the nearshore area, is presumed significant to the protection of marine fisheries, protection of wildlife habitat, storm damage prevention and flood control (310 CMR 10.25). Table 4 presents a summary of volumes removed and areas impacted from dredging within LUO. The limits of LUO located within the project site are shown on the permit plan provided in Attachment E.

Table 4: Summary of Impacts to Land Under Ocean (LUO) from Proposed Dredging by the Town of Hull at Nantasket Pier

LOCATION	TYPE OF DREDGING	PROP. DREDGE DEPTH (FT MLLW)	TOTAL VOLUME REMOVED FROM LUO* (CY)	TOTAL LUO AREA IMPACTED** (SF)
Nantasket Pier Dredge Area	Maintenance	--6.0 feet and -9.0 feet MLLW	14,708	177,855
TOTALS			**14,708 CY**	**177,855 SF**

**Dredge volumes includes 3H:1V sideslopes and a 1-ft allowable O.D.*
***Dredge Area includes 3H:1V sideslopes.*

Maintenance Dredging 10.25(4): Maintenance dredging will be conducted to restore the navigable conditions within the authorized limits of the harbor so that public access to/from existing infrastructure and use of the waterway is safe. According to 310 CMR 10.25(4), "maintenance dredging for navigational purposes affecting land under the ocean shall be designed and carried out using the best available measures so as to minimize adverse effects on such interests caused by changes in productivity which will result from the suspension or transport of pollutants, increase in turbidity, the smothering of bottom organisms, the accumulation of pollutants by organisms, or the destruction of marine fisheries habitat or wildlife habitat". Marine productivity will not be adversely impacted by the proposed maintenance dredging since operations will be conducted during the time of year when biological activity is least active and in accordance with the TOY restrictions established by MA DMF. Short-term/minimal increases in turbidity and suspended solids are expected to occur during the time of active dredging due to the physical make up of sediments which is anticipated to consist of fine-grained material. Given the limited duration that it will take for the dredging to be completed, it is expected that the increases in turbidity and suspended solids will be short induration and temporary. Accordingly, turbidity levels/impacts are expected to be limited and minimal. Dredging will also help reduce turbidity over the long-term by minimizing the potential for vessel groundings and propeller wash (or scouring).

❖ **COASTAL BEACH (310 CMR 10.27)**

Coastal Beach is unconsolidated sediment subject to wave, tidal and coastal storm action that forms the gently sloping shore of a body of salt water and includes tidal flats (310 CMR 10.27). Coastal Beaches extend from the MLW line landward to the dune line, coastal bank line or the seaward edge of existing man-made structures, when these structures replace one of the above lines, whichever is closest to the ocean. Coastal Beaches may play an important role in storm damage prevention, flood control and the protection of marine fisheries similar to LUO. They may also be significant to the protection of Land

Containing Shellfish when shellfish are present. Coastal Beaches may reduce wave energy, and natural beaches provide sediment to LUO, which serves as a buffer to storm waves.

Table 5 below presents a summary of volumes removed and areas impacted from dredging within Coastal Beach. The limits of Coastal Beach located within the project site are shown on the permit plan provided in Attachment E.

Table 5: Summary of Impacts to Coastal Beach from Proposed Dredging by the Town of Hull at Nantasket Pier

LOCATION	TYPE OF DREDGING	PROP. DREDGE DEPTH (FT MLLW)	TOTAL VOLUME REMOVED FROM CB* (CY)	TOTAL CB AREA IMPACTED** (SF)
Nantasket Pier Dredge Area	Maintenance	--6.0 feet and -9.0 feet MLLW	99	779
TOTALS			**99 CY**	**779 SF**

**Dredge volumes includes 3H:1V sideslopes and a 1-ft allowable O.D.*
***Dredge Area includes 3H:1V sideslopes.*

The Coastal Beach areas affected by the proposed dredging will not significantly alter the resource area's ability to provide storm damage prevention/protection, flood control or to protect marine fisheries or wildlife habitat as follows:

Storm Damage/Flood Control

Volume (Quantity of Sediments) and Form: The proposed dredging will not impact storm damage protection/flood storage capacity.

Ability to Respond to Wave Action: The project site is located within a fairly protected area of the harbor which is not subjected to significant wave action/velocities due to the limited fetch. Dredging will not result in a change in wave heights/velocities impacting the shoreline or compromise the ability of the resource area to respond to wave action.

Protection of Marine Fisheries or Wildlife Habitat

Distribution of Grain Size: The dredging proposed will not significantly alter the sediment quality in the project area. The sediments that will be removed by the proposed dredging consist of accumulated silts/sands that have occurred predominately through land-side runoff, storm events and/or currents within the harbor.

Water Circulation: The proposed dredging will not impact water circulation, resulting in an adverse change in flushing rate, temperature, or turbidity levels. The water circulation within the project area is primarily a result of tidal flushing. The proposed dredging will not affect flushing rates or temperature. Short-term increases in turbidity and suspended solids are expected to occur during the time of active dredging. However, given the limited duration of the work window, it is expected that the increases in turbidity and suspended solids will be short in duration and temporary.

Water Quality: Short term increases in turbidity and suspended solids are expected to occur during the time of active dredging. However, given the limited duration of the project, it is expected that the increases in turbidity and suspended solids will be short in duration and temporary. Water quality is anticipated to improve following the completion of dredging since there will be a reduction in turbidity resulting from vessel/float groundings and vessel propeller wash.

Relief and Elevation: The proposed dredging will result in minor modifications within the harbor.

Storm Damage Prevention, Flood Control or Protection of Wildlife Habitat

Increasing Erosion: The project site is located within a protected area of the harbor, which is not subjected to significant wave action/velocities due to the limited fetch. The proposed dredging will restore the existing harbor areas at the Pier to similar/same depths that have been previously authorized. As such, no change is anticipated to existing wave heights/velocities which would, in turn, contribute to an increase in erosion.

Decreasing Volume: Dredging will not result in a significant volume loss within Coastal Beach. The impacted areas of Coastal Beach include those that have been similarly/previously impacted. These areas need to be periodically dredged in order to maintain previously authorized depth/limits within the harbor for public safety and accessibility. Accordingly, the ability for Coastal Beach to provide storm damage, flood control or protection to wildlife will virtually remain unaffected.

Changing Form of Any Coastal Beach or an Adjacent or Downdrift Beach: The record plans obtained from the research performed for the proposed project show that similar areas of Coastal Beach will, once again, need to be dredged in order to restore areas of the harbor to previously authorized limits and depths. Maintenance is periodically required on a ±10 year basis. There have been no observable short-term or long-term changes to the overall form of Coastal Beach or downdrift beach area(s).

❖ LAND CONTAINING SHELLFISH (310 CMR 10.34)

Land Containing Shellfish (LCS) is defined as "land under the ocean…when any such land contains shellfish". Land Containing Shellfish shall be found significant when it has been identified and mapped as follows: by the Conservation Commission or the Department in consultation with MA DMF and based upon maps and designations of MA DMF; or by the Conservation Commission or the Department based on maps and written documentation of the shellfish constable or the Department. In making such identification and maps, the following factors shall be taken into account and documented: the density of shellfish, the size of the area and the historical and current importance of the area to recreational or commercial shellfishing. Table 6 below presents a summary of volumes removed and areas impacted from dredging within LCS. LCS mapped limits are shown on the permit plan provided in Attachment E.

According to the most currently available MA GIS data pertaining to MA DMF mapped suitable shellfish habitat, the proposed project is located within areas that may be suitable for, but may not currently support soft-shell clam and/or blue mussel habitat.

Table 6: Summary of Impacts to Land Containing Shellfish (LCS) from Proposed Dredging by the Town of Hull at Nantasket Pier

LOCATION	TYPE OF DREDGING	PROP. DREDGE DEPTH (FT MLLW)	TOTAL VOLUME REMOVED FROM LCS* (CY)	TOTAL LCS AREA IMPACTED** (SF)
Nantasket Pier Dredge Area	Maintenance	--6.0 feet and -9.0 feet MLLW	3,132	33,831
TOTALS			**3,132 CY**	33,831 sf

**Dredge volumes includes 3H:1V sideslopes and a 1-ft allowable O.D.*
***Dredge Area includes 3H:1V sideslopes.*

❖ **100-foot BUFFER ZONE AND RESOURCE AREA SETBACKS**

All proposed dredging and disposal will be conducted in-water, thus within Coastal Resources only. There is no work proposed within the 100-foot Buffer Zone or 75, 50, & 25-foot resource area setbacks, as described in the Wetlands Protection Act.

7.1 Minimization of Impacts

The proposed dredging will consist of the total removal of up to an estimated ±16,000 CY of sediments from routinely maintained and new areas within the harbor. Dredging will be performed via mechanical means utilizing a barge-mounted excavator or crane and excavated sediments will be placed into a dump scow(s) that will then be towed via tug to the MBDS for offshore disposal. The Contractor shall minimize impacts to coastal resource areas at all times during construction. Anticipated impacts during construction are further assessed below.

- *Effects on Marine/Wildlife Habitat*: All dredging and disposal activities will be performed during the TOY established by permits.
- *Effects on Essential Fish Habitat*: The proposed dredging operations are not expected to have any significant long-term negative effects on finfish inhabiting the vicinity of the navigable waters around Nantasket Pier. No eelgrass has been located within the vicinity of the project. Short-term and temporary increases in turbidity/suspended solids are anticipated to be minimal and only occur during the time of active dredging.
- *Biological Impacts*: The proposed dredging is not expected to have significant cumulative impacts to the biological resources in the vicinity.
- *Archeological and Historic Resources*: No historical or archeological resources are expected to be found within the proposed dredging areas. Both the MA Historical Commission (MHC) and MA Board of Underwater Archaeological Resources (MA BUAR) will be notified of the project as part of the USACE permit review process.
- *Air Quality*: No direct or indirect increases or other changes in local or regional air quality are likely to occur with construction of the proposed project. All equipment used by the Contractor will be operated/maintained in accordance with all applicable local, State and Federal emission regulations; equipment will not be idled without an operator in the cab.

7.2 Mitigation Measures

The proposed dredging project has been designated to minimize the impacts to the adjacent coastal resource areas to the greatest extent possible. The proposed dredge area around Nantasket Pier do not contain any eel grass or other submerged aquatic vegetation, and construction will be performed during the time of year established in the permits. Although a "No Dredge" alternative would result in no environmental impacts, there is a potential for environmental impacts resulting from vessel grounding/spills or release of other hazardous materials into the harbor, they result in an increase of turbidity within the water column from the resuspension of sediments. Furthermore, a "No Dredge" alternative presents a public safety concern and diminishes navigable access to the waters around Nantasket Pier.

8. Summary

The Town of Hull, MA (Town) is proposing to perform maintenance dredging within the Weir River. Dredging is required to address shoaling, restore, and improve navigation for recreational, commercial and transient users as well as to provide economic sustainability to working waterfront that is supported by the harbor. The Town is seeking to obtain all regulatory approvals in time for dredging to be performed. The proposed project has been designed so that all impacts have been avoided/minimized to the greatest extent feasible.

The proposed project includes the maintenance dredging of the North, West, and South Docks to -6.0 feet MLLW and -9.0 feet MLLW, as well as maintenance dredging of the Transient Vessel Docking area to -9.0 feet MLLW. All areas will include an allowable 1-foot overdredge with 3H:1V side slopes. Collectively, the proposed project is anticipated to consist of the mechanical dredging of approximately ±145,341 SF and unconfined offshore disposal of an approximate ±16,000 CY of sediments at the MBDS.

Dredging and disposal is anticipated to be completed within four (4) weeks considering potential delays resulting from poor weather conditions and/or equipment issues. Dredging will require that the Contractor work tides, and therefore, operations are proposed to be performed on a 24 hours per day, 7 days a week basis. Work is anticipated to commence in Fall 2024 to provide sufficient time to complete the project.

Attachment B

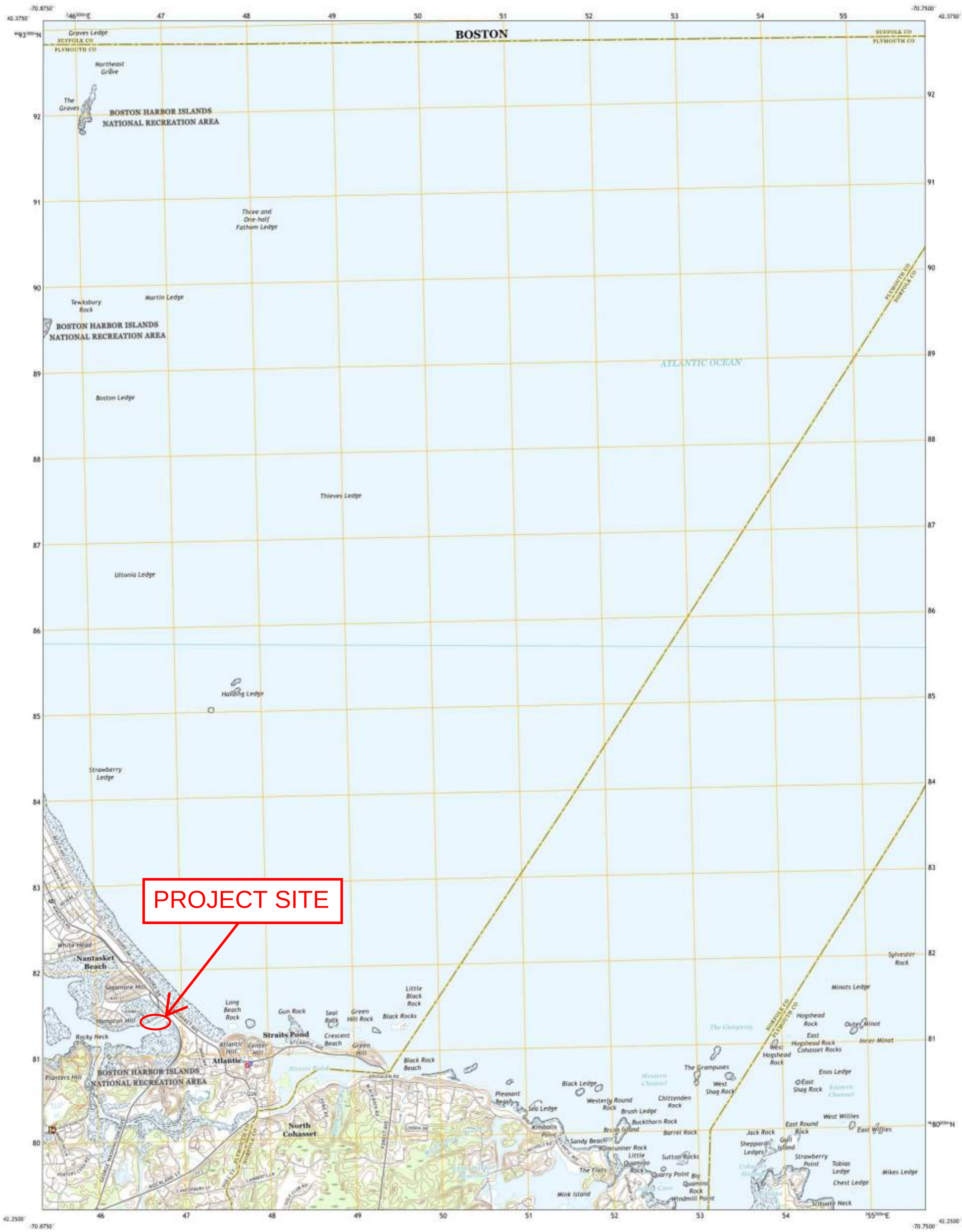
USGS Locus Map

USGS
science for a changing world

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map
US Topo

NANTASKET BEACH QUADRANGLE
MASSACHUSETTS
7.5-MINUTE SERIES



PROJECT SITE
BOSTON
SUFFOLK CO
PLYMOUTH CO
Graves Ledge
Northeast Grave
The Graves
BOSTON HARBOR ISLANDS NATIONAL RECREATION AREA
Three and One-half Fathom Ledge
Tewksbury Rock
Martin Ledge
ATLANTIC OCEAN
Boston Ledge
Thieves Ledge
Ultonia Ledge
Harding Ledge
Strawberry Ledge
White Head
Nantasket Beach
Sagamore Hill
Hampton Hill
Rocky Neck
Planters Hill
Long Beach Rock
Gun Rock
Seal Rock
Green Hill Rock
Little Black Rock
Black Rocks
Straits Pond
Crescent Beach
Atlantic Hill
Atlantic
Black Rock Beach
North Cohasset
Pleasant Beach
Sea Ledge
Black Ledge
Westerly Round Rock
Brush Ledge
Buckthorn Rock
Chittenden Rock
The Grampuses
West Shag Rock
Western Channel
Kimballs Point
Sandy Beach
Brush Island
Barrel Rock
Little Quamino Rock
Sutton Rocks
Quarry Point
Big Quamino Rock
Windmill Point
Mink Island
The Gangway
West Hogshead Rock
Hogshead Rock
East Hogshead Rock
Cohasset Rocks
Outer Minot
Inner Minot
Minots Ledge
Sylvester Rock
Enos Ledge
East Shag Rock
Eastern Channel
West Willies
East Willies
Jack Rock
East Round Rock
Shepparts Ledges
Gull Island
Strawberry Point
Tobias Ledge
Mikes Ledge
Chest Ledge
Scituate Neck
NORFOLK CO
PLYMOUTH CO

Produced by the United States Geological Survey

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard.

ROAD CLASSIFICATION

NANTASKET BEACH, MA
2021

Attachment C

FEMA Map

FEMA


Zone VE
(EL 19 Feet)
LOMR 17-01-0559P
eff. 12/13/2017
LOMR 18-01-0249P
eff. 1/24/2018
Zone VE
(EL 18 Feet)
Zone AO
(DEPTH 3 Feet)
Town of Hull
250269
25023C0038J
eff. 7/17/2012
Zone AE
(EL 10 Feet)
Zone AO
(DEPTH 3 Feet)
PROJECT
LOCATION

Attachment D

NHESP Map

NHESP MAP

NHESP Estimated Habitats of Rare Wildlife

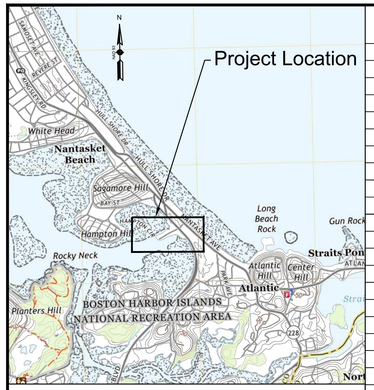
NHESP Certified Vernal Pools

NHESP Priority Habitats of Rare Species

Property Tax Parcels

Attachment E

Permit Plan



LOCUS
NOT TO SCALE

MAINTENANCE DREDGE AREA LIMITS		
	Northing (ft)	Easting (ft)
1	2923841.7	830011.8
2	2923924.6	829963.7
3	2923923.75	829962.2
4	2923947.7	829948.4
5	2923820.7	829682.7
6	2923806.7	829691.8
7	2923780.6	829634.7
8	2923822.2	829499.5
9	2923882.8	829518.2
10	2923915.3	829559.4
11	2923909.1	829565.1
12	2923925.4	829584.4
13	2923949.1	829611.5
14	2924062.2	829847.9
15	2924084.6	829835.8
16	2924087.7	829842.4
17	2924186.7	829803.5
18	2924079.6	829549.5
19	2924046.7	829504.3
20	2923966.9	829394.5
21	2923728.3	829320.9
22	2923642.8	829599.7

*FROM MASSDEP CHP. 91 PERMIT #13368 OCT 17, 2012

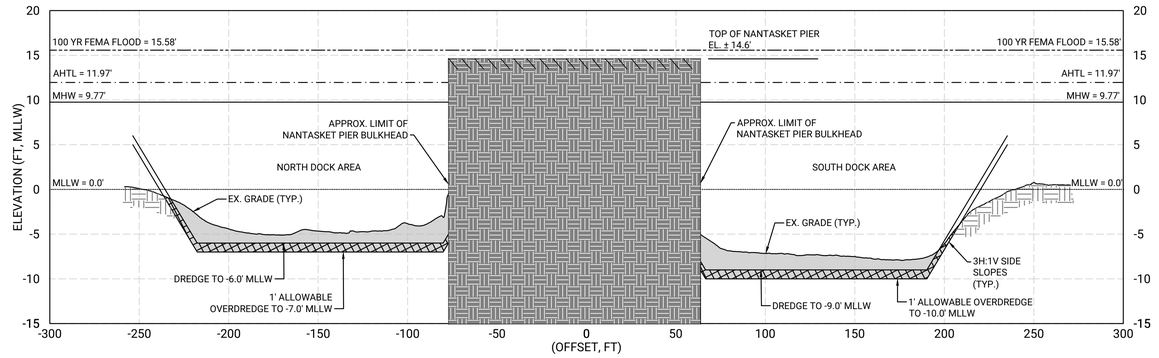
LEGEND
- PROPERTY LINE (MA GIS)
- HISTORIC MEAN HIGH WATER (HMHW)
- FEMA FLOOD ZONE (MA GIS)
- MEAN LOW WATER (MLW)
- MEAN HIGH WATER (MHW)
- ANNUAL HIGH TIDE LINE (AHTL)
- LIMIT OF NAVIGATIONAL CHANNEL
- 100 FT RESOURCE AREA BUFFER ZONE
- DREDGE TO -9.0' MLLW
- DREDGE TO -6.0' MLLW
- SHELLFISH SUITABILITY AREA (MA GIS)
- DREDGE TEMPLATE LIMITS
- AREA OF CRITICAL ENVIRONMENTAL CONCERN BOUNDARY (ACEC)
- SEDIMENT SAMPLING LOCATION
- DREDGE TEMPLATE COORDINATE

DATUM OFFSETS (MLLW PROJECT DATUM)

11.97	6.39	AHTL
10.22	4.64	MHHW
9.77	4.19	MHW
5.58	0.00	NAVD 88
0.34	-5.24	MLW
0.00	-5.58	MLLW

OFFSETS TAKEN FROM VDATUM ONLINE ON 09/22/2022 FOR 42.274275N, -70.878574W

2022 Volume Computations					
Location	Type of Dredging	Depth	Base Volume (CY)	1' O.D. (CY)	Total (CY)
Nantasket Pier	Maintenance	6' MLLW	3,099	1,875	4,974
		9' MLLW	5,725	4,880	10,605
	TOTAL		8,824	6,755	15,579
					*Includes 3H:1V Sideslopes



TYPICAL SECTION A

HORIZONTAL SCALE = 1" = 50"
VERTICAL SCALE = 1" =10'

HORIZONTAL SCALE
0 25 50 100
(IN FEET)
1 INCH = 50 FEET

VERTICAL SCALE
0 5 10 20
(IN FEET)
1 INCH = 10 FEET

GRAPHIC SCALE
0 30 60 120
(IN FEET)
1 INCH = 60 FEET

SURVEY NOTES:
1. PROJECT NAME: TOWN OF HULL, MA NANTASKET PIER
2. PROJECT NUMBER: 0022H009.00
3. PLOT SCALE: 1"=40'
4. SURVEY DATE: 8/29/2022
5. SURVEYOR: M.COUNT, J. HILL
6. VESSEL: OSCAR
7. TRANS./PATH.: RESON T–50, POS MV MOTION SENSOR
8. WEATHER COND: CLEAR, 85 DEGREES, WIND SW 5–10 KTS, SEAS CALM
9. PROJECT DATUM: MLLW
10. COOR. SYSTEM: NAD–83, MASSACHUSETTS MAINLAND
11. DATA REDUCTION: MINIMUM VALUE 3 FOOT RADIUS (SOUNDINGS & CONTOURS)
12. SITE BENCHMARK: USGS DISK 1 1940 SET IN GRANITE BLOCK WALL NORTH OF NANTASKET PIER, EL. +8.52' NAVD88 (+14.11' MLLW) MEASURE DOWN IS X SET IN TIMBER WALE EL. +7.56' NAVD88 (+13.15 MLLW)

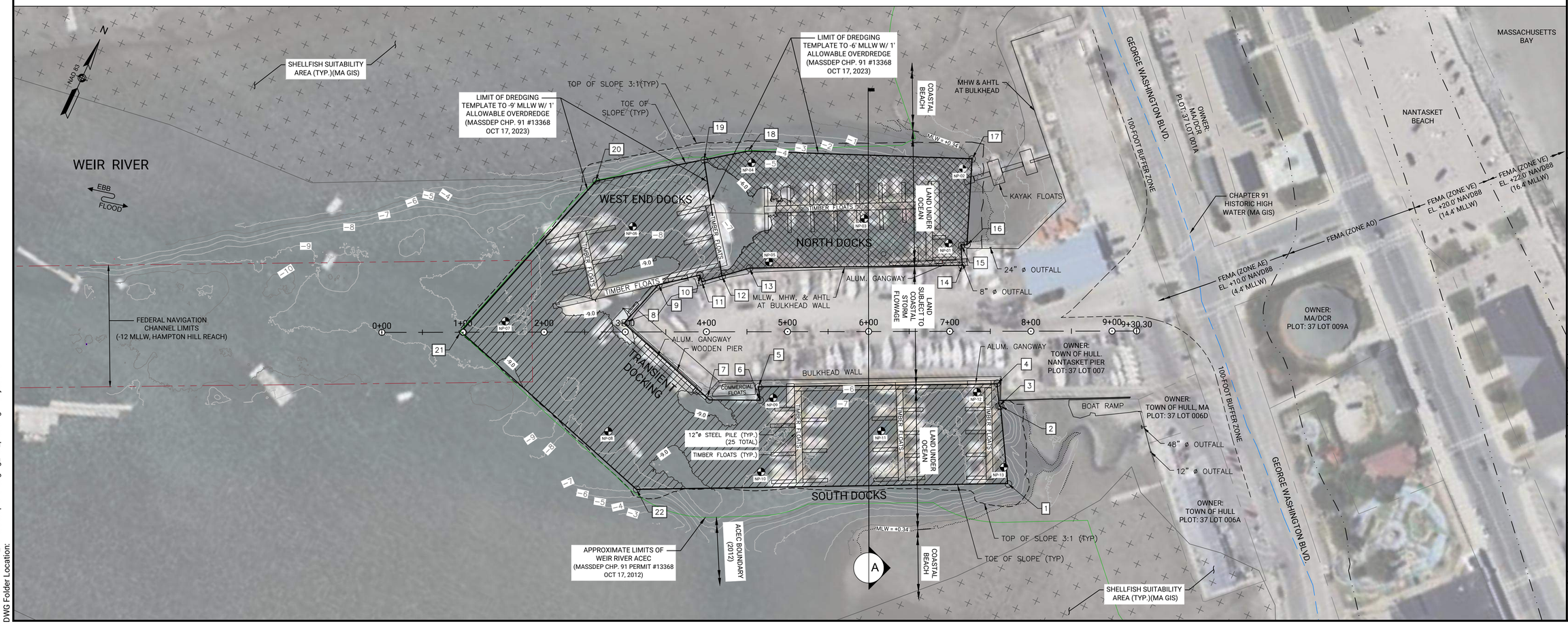
NOTES:

1. RESULTS OF HYDROGRAPHY FROM FOTH INFRASTRUCTURE AND ENVIRONMENT, LLC. (FOTH) SURVEY DATED 8/29/2022. LOCATION OF EXISTING STRUCTURES TAKEN FROM TOPOGRAPHIC SURVEY BY FOTH DATED 9/16/2022.
2. ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO MLLW. COORDINATES ARE BASED ON NAD83 MA-MAINLAND STATE PLANE GRID SYSTEM.
3. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES SHOWN, AND CAN ONLY BE CONSIDERED AS CONDITIONS AT THAT TIME.
4. THE BOUNDARIES OF THE PROPOSED DREDGE FOOTPRINT ARE REFLECTIVE OF THE FOOTPRINT IN MASSACHUSETTS DEP CHP. 91 PERMIT #13368 (OCT 17, 2012).
5. LIMITS OF HISTORIC HIGH WATER, SHELLFISH SUITABILITY AREA, FEMA FLOOD ZONE LINE, AND AREA OF CRITICAL ENVIRONMENTAL CONCERN AS SHOWN, ARE BASED ON AVAILABLE INFORMATION ON THE MASSGIS DATABASE.
6. THIS PROJECT IS LOCATED WITHIN FEMA FLOOD ZONE AE EL. 10' NAVD88 (15.58' MLLW) AS DELINEATED ON FIRM COMMUNITY MAP NUMBERS 25023C0038J, EFFECTIVE DATE 7/7/2012.
7. DREDGED MATERIAL IS TO BE DISPOSED OF OFFSHORE WITHIN THE MASSACHUSETTS BAY DISPOSAL SITE (MBDS).
8. SEDIMENT SAMPLES SHOWN IN THIS PLAN WERE COLLECTED ON 7/18/23 & 7/19/2023.
9. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF HYDROGRAPHIC AND TOPOGRAPHIC SURVEYS PERFORMED ON THE DATES SHOWN, AND CAN ONLY BE CONSIDERED AS INDICATING THE SEABED CONDITIONS AT THAT TIME. INTERPOLATED INFORMATION FROM BETWEEN SOUNDING RUNS IS NOT GUARANTEED. SHOALS, OBSTRUCTIONS OR OTHER DIFFERING CONDITIONS MAY EXIST BETWEEN THESE RUNS. NO SURVEYS WERE CONDUCTED TO LOCATE PROPERTY LINES, CHANNEL LIMITS, EASEMENTS, UTILITIES, GEOTECHNICAL FEATURES, SHORELINES, STRUCTURES, HABITATS OR ANY OTHER PHYSICAL FEATURES RELATING TO THE PROJECT SITE, NOR DOES FOTH WARRANT THE EXISTENCE OR LOCATION OF SAID PHYSICAL FEATURES.
10. POSSESSION AND USE OF THE MATERIAL CONTAINED ON THESE DRAWINGS IS GRANTED ONLY IN CONNECTION WITH ITS USE AS IT RELATES TO THE TITLED PROJECT, ANY OTHER USE, REPRODUCTION OR DISCLOSURE OF THE INFORMATION CONTAINED HEREON IS EXPRESSLY PROHIBITED WITHOUT THE WRITTEN CONSENT OF FOTH INFRASTRUCTURE & ENVIRONMENT, LLC.

COMMONWEALTH OF MASSACHUSETTS
CARLOS G. PEÑA
CIVIL
No. 36206
REGISTERED PROFESSIONAL ENGINEER
12/12/23

COORDINATE TABLE		
NAD83, MA MAINLAND, US FOOT		
SAMPLE ID	NORTHING	EASTING
NP-01	2924080	829821
NP-02	2924171	829798
NP-03	2924064	829714
NP-04	2924068	829559
NP-05	2923966	829630
NP-06	2923935	829459
NP-07	2923763	829366
NP-08	2923693	829538
NP-09	2923816	829705
NP-10	2923727	829730
NP-11	2923835	829843
NP-12	2923928	829930
NP-13	2923858	829999

SAMPLED 7/18/2023 & 7/19/2023



Foth

TOWN OF HULL, MA
253 ATLANTIC AVE. HULL, MA 02045

NANTASKET PIER
MAINTENANCE DREDGING
NOTICE OF INTENT

REVISIONS			
NO	BY	DATE	DESCRIPTION

DATE OF PREPARATION

	BY	DATE
SURVEYED	M. COUNT	8/29/2022
DRAWN	E. BOWE	12/09/2023
DESIGNED		
CHECKED	C. PENA	12/12/2023

SHEET TITLE:

DREDGE PLAN

ISSUANCE:

NOTICE OF INTENT

PROJECT NO: 22H009

SHEET NUMBER
1

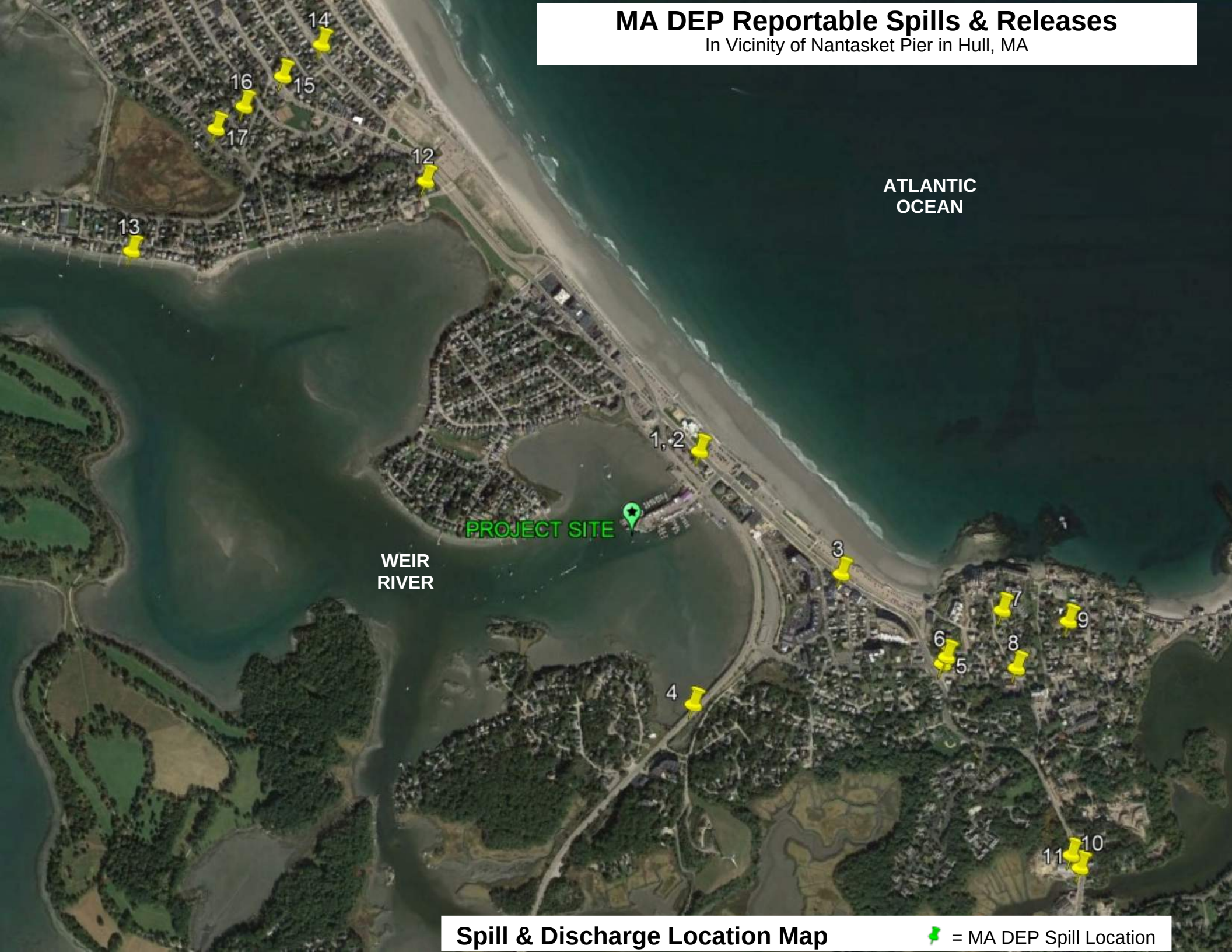
Tuesday, December 12, 2023 3:57:29 PM
DWG Filename: hull_nantasket pier dredging_noi_plot.dwg Layout: noi
DWG Folder Location:

Attachment F

Outfall Discharge & Spill Location Map

MA DEP Reportable Spills & Releases

In Vicinity of Nantasket Pier in Hull, MA



Spill & Discharge Location Map

= MA DEP Spill Location

Summary of MA DEP Spill Reports
from MA EEA Data Portal Search 8/16/2022
(Approx. within 1 mile of Proposed Project Area)
Maintenance Dredging at Nantasket Pier
Hull, MA

MAP ID NO.	Approx. Dist. to Eel Pond Dredge Site (mi)	RTN	Release Address	Site Name/Location Aid	Notification Date	Chemical Type (Amount)	Location Type	Source
1	0.17	4-3010137	215 NANTASKET AVE	MDC NANTASKET GARAGE	11/2/1993	Gasoline (1500ppm); BTEX (24300 ppb)	STATE	UST
2	0.17	4-3015258	215 NANTASKET AVE	GEORGE WASHINGTON BLVD	6/27/1997	TPH (7900 mg/kg); Naphthalene (38 mg/kg)	-	-
3	0.37	4-3021486	163 NANTASKET AVE	ADJACENT TO PARK AVE	2/13/2002	asoline (163 ppmv); Total Organic Vapor (100 pp	COMMERCIAL	UST
4	0.33	4-3000497	GEORGE WASHINGTON BLVD	SERVICE STATION FMR	1/15/1990	Unknown	-	-
5	0.58	4-3000661	288A ATLANTIC AVE	NEALS SERVICE	10/15/1988	Unknown	-	-
6	0.59	4-3017016	RTE 228 NANTASKET AVE	NO LOCATION AID	7/8/1998	Petroleum	-	-
7	0.64	4-0026081	ATLANTIC AVE & SIDE STREETS	ROADWAY	5/3/2016	Unknown	ROADWAY, RESIDENTIAL, COMM.	VEHICLE
8	0.70	4-3024268	25 ATLANTIC HOUSE RD	NO LOCATION AID	9/23/2004	Gasoline (180 ppm); C9-C10 Hydrocarbons	-	-
9	0.76	4-3021474	9A MAPLE LN	SITE PLAN ATTACHED	2/11/2002	Fuel Oil #2 (150 Gal & 250 Gal)	RESIDENTIAL	AST
10	0.94	4-3003025	7-13 1/2 NANTASKET AVE	COMMERCIAL PROPERTY	4/8/1994	Petroleum	COMMERCIAL	UNKNOWN
11	0.96	4-3015368	5 NANTASKET AVE	HULL DPW FACILITY	7/31/1997	Gasoline (101 ppmv & 2500 ppmv)	COMMERCIAL	UST
12	0.69	4-3000337	16 EDGEWATER AVE	HULL MUNICIPAL LIGHTING PL	12/12/1986	Unknown	MUNICIPAL	UST
13	0.98	4-3011578	113 EDGEWATER ST	MARINE DOCK OF, ON WARE RIVER @ BUOY #4	9/9/1994	Diesel Fuel (30 Gal)	WATERBODY	DRUMS/BOAT/AST
14	0.98	4-3010604	47 SAMOSET AVE	NO LOCATION AID	2/19/1994	Fuel Oil #2 (200 Gal)	RESIDENTIAL	AST
15	0.98	4-0022147	437 NANTASKET AVE	KENBERMA FOOD MART	8/29/2009	Gasoline (12 Gal)	ROADWAY,MUN,COMM,PRIVPROP	TANKER, UNKOWN
16	0.98	4-3025235	18 FAIR ST	NO LOCATION AID	9/15/2005	Fuel Oil #2 (70 Gal)	RESIDENTIAL	AST
17	0.99	4-3004591	45 NEWPORT RD	EMERGENCY BROADCASTING TOWER	7/13/1992	PCBS	RADIOTOWER	AST

RTN = MA DEP Release Tracking No.
UST= Underground Storage Tank
AST= Aboveground Storage Tank

TOWN OF HULL
HARBORMASTER DEPARTMENT

Kurt P. Bornheim
(781) 925-0316
kbornheim@town.hull.ma.us

253 Atlantic Avenue
Hull, MA 02045

October 25, 2022

Mike Count
Foth Engineering
15 Creek Road
Marion, MA 02738

Mr. Count:
This letter is in response to your question about spills in the area of Nantasket Pier and Steamboat Wharf Marina. The Harbormasters Office is located on the pier and we have not observed any oil spills nor has the public reported any fuel spills or hazardous material spills in the area around Nantasket Pier since the area was lasted dredge in 2012-2013.

Please contact me if you have any further questions.

Respectfully,

Kurt Bornheim
Harbormaster

Attachment G

Record Permit Authorizations

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

REPLY TO
ATTENTION OF

September 13, 2012

Regulatory Division
CENAE-R-PEA
File Number: NAE-2007-02344

Phillip Lemnios
Town of Hull
253 Atlantic Avenue
Hull, Massachusetts 02045

Dear Mr. Lemnios:

We have reviewed your application to dredge 8,000 cubic yards of material out of a 155,609 square foot area. The dredge depth will be to -9 feet mean lower low water and -6 feet mean lower low water with a 1 foot over dredge. The dredge material will be disposed of at the Mass Bay Disposal Site. This project is located in the Weir River at Mc Duffs Landing/Nantasket Pier in Hull, Massachusetts. The work is shown on the attached plans entitled "AT: NANTASKET PIER HULL, MA COUNTY OF: PLYMOUTH", on 10 sheets, and dated "4-21-12".

Based on the information you have provided, we have determined that the proposed activity, which includes a discharge of dredged or fill material into waters or wetlands, will have only minimal individual or cumulative environmental impacts on waters of the United States, including wetlands. Therefore, this work is authorized as a Category 2 activity under the attached Federal permit known as the Massachusetts General Permit (GP). This work must be performed in accordance with the terms and conditions of the GP and also in compliance with the following special conditions:

1. Periodic maintenance dredging to the area and depth limits described herein is authorized for ten years from the date of issuance of this permit, **provided disposal of the dredged material is at an upland site**. However, the permittee must notify this office, in writing, 60 days before the intended date of any such dredging and shall not begin such dredging until written authorization has been obtained. This 60-day notification is not required for the initial new and/or maintenance dredging authorized by this permit. A separate authorization shall be required for such dredging if the material to be dredged is to be deposited in open or ocean waters and/or wetlands.

2. At least ten working days in advance of the start date, the permittee or their agent shall notify the First Coast Guard District, Local Notice to Mariners Office, (617) 223-8356, and Aids to Navigation Office, (617) 223-8358, of the location and estimated during of the dredging and disposal operations.

3. Except when directed otherwise by the Corps for site management purposes, all disposal of dredged material shall adhere to the following:

a. The permittee shall release the dredged material at a specified set of coordinates within the disposal site with the scow at a complete halt.

b. When a disposal buoy is present at the specified coordinates, disposal shall occur with the side of the scow at least 100 feet and no greater than 200 feet from the buoy to minimize collisions with the buoy.

These requirements must be followed except when doing so will create unsafe conditions because of weather or sea state, in which case disposal with the scow moving only fast enough to maintain safe control (generally less than one knot) is permitted. Disposal is not permitted if these requirements cannot be met due to weather or sea conditions. In that regard, special attention needs to be given to predicted conditions prior to departing for the disposal site.

4. Silent Inspector System Requirements

a. Every discharge of dredged material at the disposal site requires monitoring by the contractor. This disposal monitoring of dredging projects must be performed using the Dredging Quality Management (DQM) system software and hardware system [formerly Silent Inspector (SI)] developed by the Corps. The DQM system must have been certified by the Corps within a year of the disposal activity. See the National DQM Support Center site https://si.usace.army.mil for additional DQM information. Questions regarding certification should be addressed to the DQM Point of Contact at the Corps New England District [Norm Farris, (978) 318-8336].

b. The permittee is responsible for ensuring that the system is operational throughout the project and that project data are submitted to the National SI Support Center in accordance with the specifications provided at the aforementioned website. If any component of the system is inoperable, disposal may not take place unless otherwise authorized by the Corps New England District DQM Point of Contact.

c. The DQM system used by the permittee must be capable of providing the information necessary for the Scow Monitoring Profile Specification. The permittee is also responsible to provide the Corps (see below for submittal information) with a record of estimated barge volume for each trip. If barge volume information is not provided through the SI system utilized, the permittee must submit a weekly report to Corps that provides estimated volume (cubic yards), date and disposal time for each trip. The data collected by the DQM system shall, upon request, be made available to the Corps.

d. For the initiation of disposal activity and any time disposal operations resume after having ceased for one month or more, the permittee or the permittee's representative must notify the Corps at least ten working days before the date disposal operations are expected to begin or resume. See below for contact information. The information to be provided in this notification is: permit number, permittee name, address and phone number, phone number of the dredging contractor, name, address and phone number of towing contractor, estimated dates dredging is expected to begin and end, name of all disposal vessels to be employed in the work and copies of their certification documents, name of the disposal site, and estimated volume of

material to be dredged. **Disposal operations shall not begin or resume until the Corps issues a letter authorizing the initiation or continuation of open-water disposal.** The letter will include disposal point coordinates to use for this specific project at that time. These coordinates may differ from those specified for other projects using the same disposal site or even from those specified earlier for this project. It is not necessary to wait ten days before starting disposal operations. They may start as soon as this letter is issued.

5. If any material is released beyond the limits specified in this permit, the Captain or the permittee must notify the Corps immediately by phone (see below for contact information). Information provided shall include disposal coordinates, permit number, volume disposed, date and time of disposal, circumstances of incident, disposal vessel name, name of caller, and phone number of caller. If no person is reached at the number above, a voice message with the relevant information should be provided. In addition, a detailed written report must be provided to the Corps within 48 hours following any such incident.

6. Unless otherwise stated, all submittals and coordination related to these special conditions shall be submitted via: a) MAIL: PATS Branch - Regulatory Division, Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742-2751, b) EMAIL: charles.n.farris@usace.army.mil; or c) FAX: (978) 318-8303. Direct dredge related questions to (978) 318-8336 or (978) 318-8338. Documents which are not addressed in this manner may not reach their intended destination and do not comply with the requirements of this permit.

7. The U.S. Coast Guard, Sector Boston, Waterways Management Division, (617) 223-5750, shall be notified prior to the start of this project.

8. From February 1 through May 30 of any year, a marine mammal observer [i.e. meeting the National Marine Fisheries Service (NMFS) criteria on observer qualifications, including the specified skill sets for sea turtles and whales, ***and in receipt of written approval from NMFS***] must be present aboard disposal vessels transiting between the dredge site and the Massachusetts Bay Disposal Site during daylight hours. The permittee shall submit to the Corps of Engineers for approval a statement of qualifications for each observer. The observer(s) shall be contracted and paid for by the permittee.

9. Observers may contact NMFS (Mike Asaro as of May 2011) at (978) 282-8469 and check www.1istenforwhales.org or www.nefsc.noaa.gov/psb/surveys in advance of a survey to determine the potential presence of marine mammals in the area.

10. From February 1 through May 30 of any year, disposal vessels including tugs, barges, and scows transiting between the dredge site and the Massachusetts Bay Disposal Site shall operate at speeds not to exceed 5 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. In that regard, the permittee and contractor should be aware of predicted conditions before departing for the disposal site. The intent of this condition is to reduce the potential for vessel collisions with endangered species, including right whales.

11. When threatened or endangered species are observed to be present, the vessel captain shall, except when precluded by safety considerations, avoid harassment of or direct impact to individual animals in consultation with the marine mammal observer.

12. The permittee (or designee) shall report whale sightings to the NMFS, Habitat and Protected Resources Division, (978) 281-9328. Reports of right whales sightings should be provided to NMFS pager at (978) 585-8473.

13. The permittee (or designee) shall report any interactions with listed species within 24-hours to NMFS at (866) 755-NOAA or USCG via CH-16 and immediately report any injured or dead marine mammals or sea turtles to NMFS at (866) 755-NOAA.

14. The permittee (or designee) shall ensure that a separate NMFS Marine Mammal Observation Report is fully completed by the observer for every sighting and that this report is received by the Corps, (978) 318-8303 fax, within one week of the trip date. The permittee shall require the observer to maintain contact with NMFS, Habitat and Protected Resources Division, (978) 281-9328 and other recognized experts to provide and receive information regarding the presence and distribution of threatened and endangered species in Massachusetts Bay. The intent of this condition is to reduce the potential for vessel collisions with threatened and endangered species, including right whales, and to minimize potential impacts of dredged material disposal on threatened and endangered species.

15. Marine mammal observers shall use the following guidelines to minimize conflicts with threatened or endangered species:

a. A marine mammal observer shall be posted on lookout at all times during daylight hours when disposal vessels have left the harbor and are traveling to, at or returning from the disposal site.

b. Disposal vessels shall not approach threatened or endangered species closer than 100 feet (see additional condition below for approaching right whales).

c. Disposal vessels shall adhere to the attached NMFS regulations for approaching right whales, 50 CFR 222.32, which restrict approaches within 500 yards of a right whale and specify avoidance measures for vessels that encounter right whales.

d. If threatened or endangered species are sighted within 500 feet from the disposal point, dredged material shall not be released. In this case, the vessel captain may elect to wait until the animals move away from the disposal point prior to disposal, or subject to consultation with the observer, may dispose at a Corps-authorized alternative disposal location under the same restrictions noted herein for disposal at the primary disposal location.

e. If threatened or endangered species are sighted between 500 feet and 1500 feet from the disposal point, the observer shall note the animals' behavior, relative position, and direction and speed of movement to assess if release of dredged material is likely to harass or endanger the animals. For example, whales actively feeding at or near the disposal point are more likely than resting whales to interact with released sediments. If the observer assesses that disposal is likely to harass or endanger the animals, the observer shall consult with the vessel

captain and disposal shall be delayed until the animals change their behavior or move away such that the observer assesses that no danger to the animals will likely result from disposal.

16. There shall be no dredging or disposal from February 15 to September 30, inclusive, in order to minimize adverse impact to spawning winter flounder and eggs as well as shellfish larvae.

The National Marine Fisheries Service has not provided conservation recommendations regarding the effects of your project on Essential Fish Habitat (EFH) as designated under the Magnuson-Stevens Fishery Conservation and Management Act.

You are responsible for complying with all of the GP's requirements. Please review the attached GP carefully, in particular the GP conditions beginning on Page 6, to familiarize yourself with its contents. You should ensure that whoever does the work fully understands the requirements and that a copy of the permit document and this authorization letter are at the project site throughout the time the work is underway.

Your project is located within, or may affect resources within the coastal zone. The Massachusetts Office of Coastal Zone Management (CZM) has already determined that no further Federal Consistency Review is required.

The time limit for completion of the open-water disposal authorized by this GP is three years from the date of this letter. There shall be no open-water disposal after that completion date without further authorization in writing from the Corps. The time limit for completing other authorized work (if any) is given in the following paragraph.

This GP expires on January 21, 2015. Activities authorized under this GP that have commenced (i.e., are under construction) or are under contact to commence before this GP expires will have until January 21, 2016 to complete the activity under the terms and general conditions of the current GP. For work within Corps jurisdiction that is not completed by January 21, 2016, you will need to reference any reissued GP to see if your project is still authorized under Category 1 (no application required), or Category 2 (application required). If it is no longer authorized you must submit an application and receive written authorization before you can continue work within our jurisdiction. Please contact us immediately if you change the plans or construction methods for work within our jurisdiction. This office must approve any changes before you undertake them.

This authorization requires you to complete and return the attached Work Start Notification Form to this office at least two weeks before the anticipated starting date. You must also complete and return the enclosed Compliance Certification Form within one month following the completion of the authorized work.

This authorization presumes that the work as described above and as shown on your plans noted above is in waters of the U.S. Should you desire to appeal our jurisdiction, submit a request for an approved jurisdictional determination in writing to this office.

This permit does not obviate the need to obtain other federal, state, or local authorizations required by law, as listed on Page 2 of the GP. Performing work not specifically authorized by this determination or failing to comply with any special conditions provided above or all the terms and conditions of the GP may subject you to the enforcement provisions of our regulations.

We continually strive to improve our customer service. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at http://per2.nwp.usace.army.mil/survey.html

Please contact Richard Kristoff, of my staff at 978-318-8171 if you have any questions.

Sincerely,

Karen K. Adams
Chief, Permits & Enforcement Branch
Regulatory Division

Attachments

Copies Furnished:

Ed Reiner, U.S. EPA, Region 1, Boston, Massachusetts, reiner.ed@epa.gov

Elizabeth F. Kouloheras, DEP SERO, Wetlands and Waterways, Lakeville, Massachusetts, c/o lisa.ramos@state.ma.us

Robert Boeri, Coastal Zone Management, Boston, Massachusetts, Robert.Boeri@state.ma.us

Steve Pothier, First Coast Guard District (dpw-2), Boston, Massachusetts, steven.r.pothier@uscg.mil

Anne Herbst, Conservation Commission, Hull, Massachusetts, conservationemail@town.hull.ma.us

Christopher Morris, Apex Companies, LLC, Boston, Massachusetts, cmorris@apexcos.com

US Army Corps
of Engineers ®
New England District

GENERAL PERMIT
WORK-START NOTIFICATION FORM
(Minimum Notice: Two weeks before work begins)

****
* MAIL TO: U.S. Army Corps of Engineers, New England District *
* Permits and Enforcement Branch *
* Regulatory Division *
* 696 Virginia Road *
* Concord, Massachusetts 01742-2751 *
****

Corps of Engineers Permit No. NAE-2007-02344 was issued to Phillip Lemnios/Town of Hull, on September 13, 2012. This work is located in the Weir River at Mc Duffs Landing/Nantasket Pier, Hull, Massachusetts. The permit authorized the permittee to dredge 8,000 cubic yards of material out of a 155,609 square foot area. The dredge depth will be to -9 mean lower low water and -6 mean lower low water with a 1 foot over dredge. The dredge material will be disposed off at the Mass Bay Disposal Site.

The people (e.g., contractor) listed below will do the work, and they understand the permit's conditions and limitations.

PLEASE PRINT OR TYPE

Name of Person/Firm: _____

Business Address: _____

_____

_____

_____

Telephone Numbers: (___) _____ (___) _____

Proposed Work Dates: **Start:** _____ **Finish:** _____

Permittee/Agent Signature: _____ **Date:** _____

Printed Name: _____ **Title:** _____

Date Permit Issued: _____ **Date Permit Expires:** _____

****

FOR USE BY THE CORPS OF ENGINEERS

PM: Richard Kristoff **Submittals Required:** _____

Inspection Recommendation: _____

_____

_____

US Army Corps
of Engineers ®
New England District

(Minimum Notice: Permittee must sign and return notification within one month of the completion of work.)

COMPLIANCE CERTIFICATION FORM

Permit Number: NAE-2007-02344

Project Manager Richard Kristoff

Name of Permittee: Phillip Lemnios/Town of Hull

Permit Issuance Date: September 13, 2012

Please sign this certification and return it to the following address upon completion of the activity and any mitigation required by the permit. You must submit this after the mitigation is complete, but not the mitigation monitoring, which requires separate submittals.

****
* MAIL TO: U.S. Army Corps of Engineers, New England District *
* Permits and Enforcement Branch A *
* Regulatory Division *
* 696 Virginia Road *
* Concord, Massachusetts 01742-2751 *
****

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit was completed in accordance with the terms and conditions of the above referenced permit, and any required mitigation was completed in accordance with the permit conditions.

_____ _____
Signature of Permittee Date

_____ _____
Printed Name Date of Work Completion

(____) _____ (____) _____
Telephone Number Telephone Number

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

RICHARD K. SULLIVAN JR.
Secretary

KENNETH L. KIMMELL
Commissioner

PERMIT NO. 13368

Name and Address of Permittee:

Town of Hull
Attn: Philip Lemnios
253 Atlantic Avenue
Hull, MA 02045

ISSUED: October 17, 2012
EXPIRES: October 17, 2022

Permission is hereby given by the Department of Environmental Protection to: maintenance dredge approximately 8,000 cubic yards of sediment from the vessel berthing area adjacent to Nantasket Pier, Weir River, Hull. Dredge material shall be disposed offshore at the Massachusetts Bay Disposal Site.

All work authorized herein shall be in the location shown and to the dimensions and depths indicated in the permit plan titled: "Proposed Dredging In: Weir River, At: Nantasket Pier, Hull, MA, County of Plymouth", Apex Companies, LLC, dated April 21, 2012, (10 sheets).

STANDARD WATERWAYS PERMIT CONDITIONS

1. Acceptance of this Waterways Permit shall constitute an agreement by the Permittee to conform to all terms and conditions stated herein.

2. This Waterways Permit is issued upon the express condition that any and all other applicable authorizations necessitated due to the provisions hereof shall be secured by the Permittee prior to the commencement of any activity authorized pursuant to this Permit.

3. This Waterways Permit shall be revocable by the Department for noncompliance with the terms and conditions set forth herein. This Permit may be revoked after the Department has given written notice of the alleged noncompliance to the Permittee, or his/her agent, and those persons who have filed a written request, with the Department, for such notice and has afforded the Permittee a reasonable opportunity to correct said noncompliance. Failure to correct said noncompliance after the issuance of a written notice by the Department shall render this Waterways Permit void.

4. This Waterways Permit is issued subject to all applicable federal, state, county, and municipal laws, ordinances, by-laws, and regulations, including but not limited to, a valid Order of Conditions issued pursuant to the Wetlands Protection Act, M.G.L. Chapter 131, s.40. In particular, this issuance is subject to the provisions of Sections 52 to 56, inclusive of Chapter 91 of the General Law and its Regulations 310 CMR 9.40(5), which provides, in part, that the transportation and dumping of dredge material shall be done under the supervision of the Department, and, when required, the Permittee shall provide at his/her expense a dredge inspector approved by the Department.

5. This Waterways Permit is issued upon the express condition that dredging and transportation and disposal of dredge material shall be in strict conformance with the Water Quality Certification issued by the Department of Environmental Protection.

6. All subsequent maintenance dredging and transportation and disposal of this dredge material, during the term of this Permit, shall conform to all standards and conditions applied to the original dredging operation performed under this Permit.

7. After completion of the work authorized, the Permittee shall furnish to the Department a suitable plan showing the depths at mean low water over the area dredged. Dredging under this Permit shall be conducted so as to cause no unnecessary obstruction of the free passage of vessels, and care shall be taken to cause no shoaling. If, however, any shoaling is caused, the Permittee shall, at his/her expense, remove the shoal areas. The Permittee shall pay all costs of supervision, and if at any time the Department deems necessary a survey or surveys of the area dredged, the Permittee shall pay all costs associated with such work. Nothing in this Permit shall be construed to impair the legal rights of any persons, or to authorize dredging on land not owned by the Permittee without consent of the owner(s) of such property.

8. The Permittee shall assume and pay all claims and demands arising in any manner from the work authorized herein, and shall save harmless and indemnify the Commonwealth of Massachusetts, its officers, employees, and agents from all claims, audits, damages, costs and expenses incurred by reason thereof.

9. The Permittee shall, at least three days prior to the commencement of any dredging in tide water, give written notice to the Department of the time, location and amount of the proposed work.

10. Whosoever violates any provisions of this Permit shall be subject to a fine of $25,000 per day for each day such violation occurs or continues, or by imprisonment for not more than one year, or both such fine and imprisonment; or shall be subject to civil penalty not to exceed $25,000 per day for each day such violation occurs or continues.

SPECIAL WATERWAYS PERMIT CONDITIONS

1. Dredging shall be performed by mechanical methods.

2. Dredging shall be to a maximum of 6.0 feet below the mean low water (MLW) datum within Area #1, as shown on Permit Plan No. 13368, and 9.0 feet below the mean low water (MLW) datum in Area #2, with an allowable 1-foot overdredge in both areas.

3. No dredging shall occur from February 15th to September 30th of any year.

4. Dredge material shall be disposed offshore at the Massachusetts Bay Disposal Site.

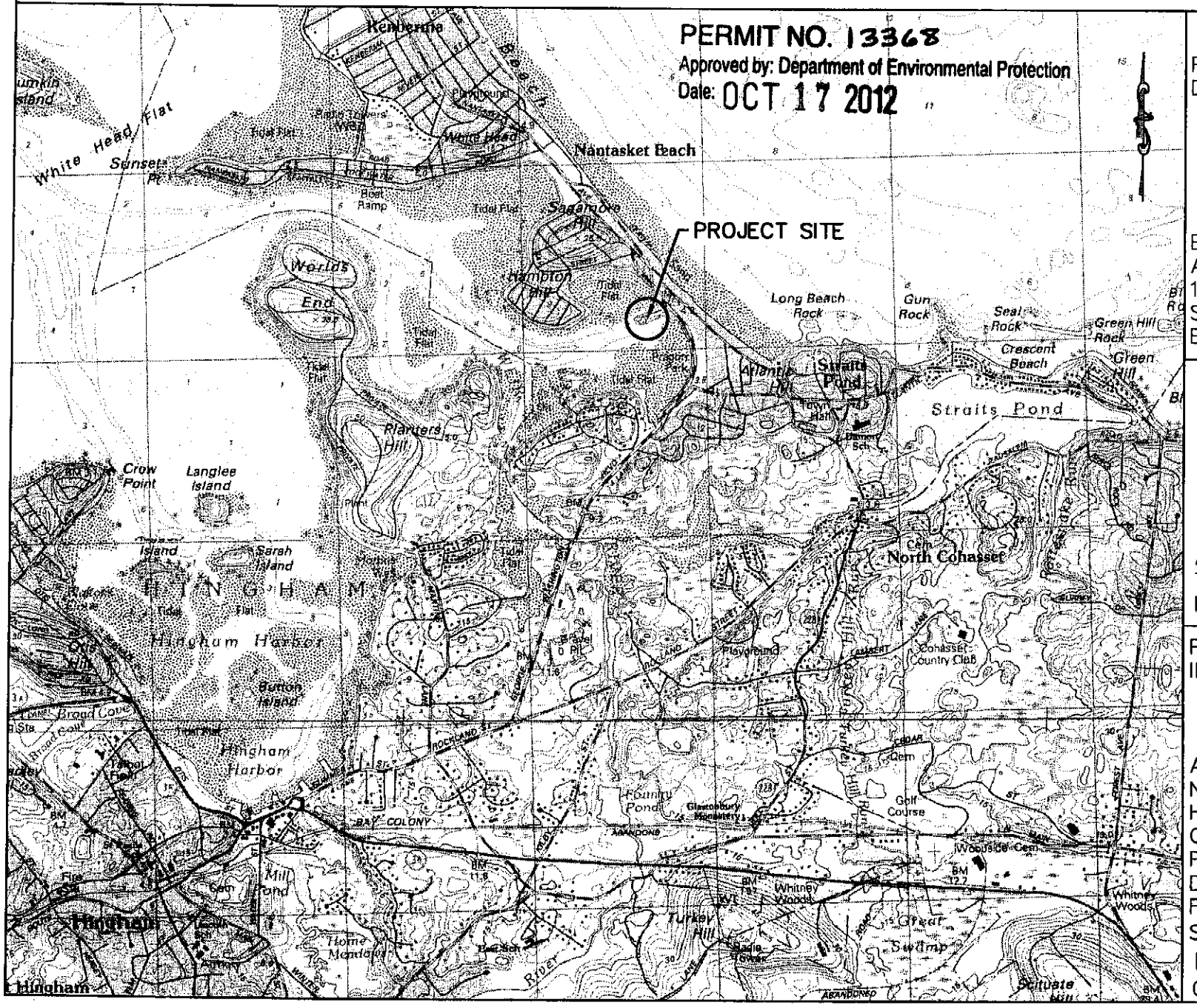
5. Maintenance dredging may be performed for a period of ten (10) years subsequent to the date of issuance of this permit.

6. Within ninety (90) days of completion of dredging authorized under this Permit, the Permittee shall furnish to the Department a suitable plan showing the depths at MLW datum within the dredge footprint.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

David E. Hill

for Program Chief, Wetlands and Waterways



PURPOSE: TO PERMIT DREDGING

DATUM: MLW = 0.0
NAVD88 = 5.56
MHW = 9.5

ENGINEER:
APEX COMPANIES LLC.
184 HIGH STREET
SUITE 502
BOSTON, MA. 02110

SITE LOCUS PLAN

APPLICANT:
THE TOWN OF HULL
MASSACHUSETTS

PROPOSED DREDGEING IN:

WEIR RIVER

AT:
NANTASKET PIER
HULL, MA
COUNTY OF:
PLYMOUTH
DATE: 4-21-12
FIGURE: 1 OF 10
SCALE: 1"=2500'

0 1250 2500 3750

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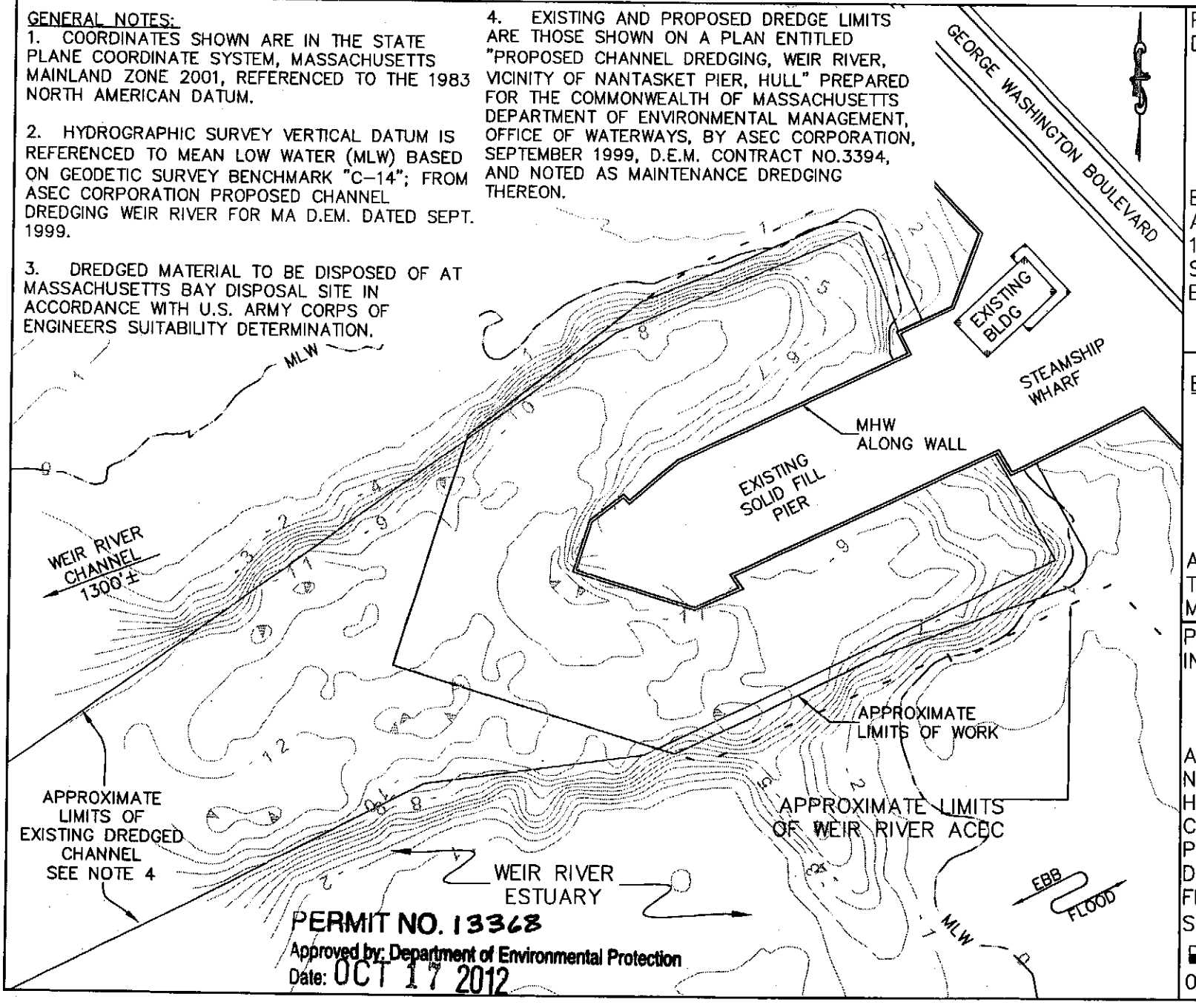
GENERAL NOTES:

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY VERTICAL DATUM IS REFERENCED TO MEAN LOW WATER (MLW) BASED ON GEODETIC SURVEY BENCHMARK "C-14"; FROM ASEC CORPORATION PROPOSED CHANNEL DREDGING WEIR RIVER FOR MA D.EM. DATED SEPT. 1999.

3. DREDGED MATERIAL TO BE DISPOSED OF AT MASSACHUSETTS BAY DISPOSAL SITE IN ACCORDANCE WITH U.S. ARMY CORPS OF ENGINEERS SUITABILITY DETERMINATION.

4. EXISTING AND PROPOSED DREDGE LIMITS ARE THOSE SHOWN ON A PLAN ENTITLED "PROPOSED CHANNEL DREDGING, WEIR RIVER, VICINITY OF NANTASKET PIER, HULL" PREPARED FOR THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, OFFICE OF WATERWAYS, BY ASEC CORPORATION, SEPTEMBER 1999, D.E.M. CONTRACT NO.3394, AND NOTED AS MAINTENANCE DREDGING THEREON.



PERMIT NO. 13368
Approved by: Department of Environmental Protection
Date: OCT 17 2012

PURPOSE: TO PERMIT DREDGING

DATUM: MLW = 0.0
NAVD88 = 5.56
MHW = 9.5

ENGINEER:
APEX COMPANIES LLC.
184 HIGH STREET
SUITE 502
BOSTON, MA. 02110

EXISTING CONDITIONS PLAN

EXISTING CHAPTER 91 LICENSE NUMBERS: 33, 38, 1083, 1213, 4914, 12037

APPLICANT:
THE TOWN OF HULL
MASSACHUSETTS

PROPOSED DREDGEING IN:

WEIR RIVER

AT:
NANTASKET PIER
HULL, MA
COUNTY OF:
PLYMOUTH
DATE: 4-21-12
FIGURE: 2 OF 10
SCALE: 1"=150'

0 75 150 225

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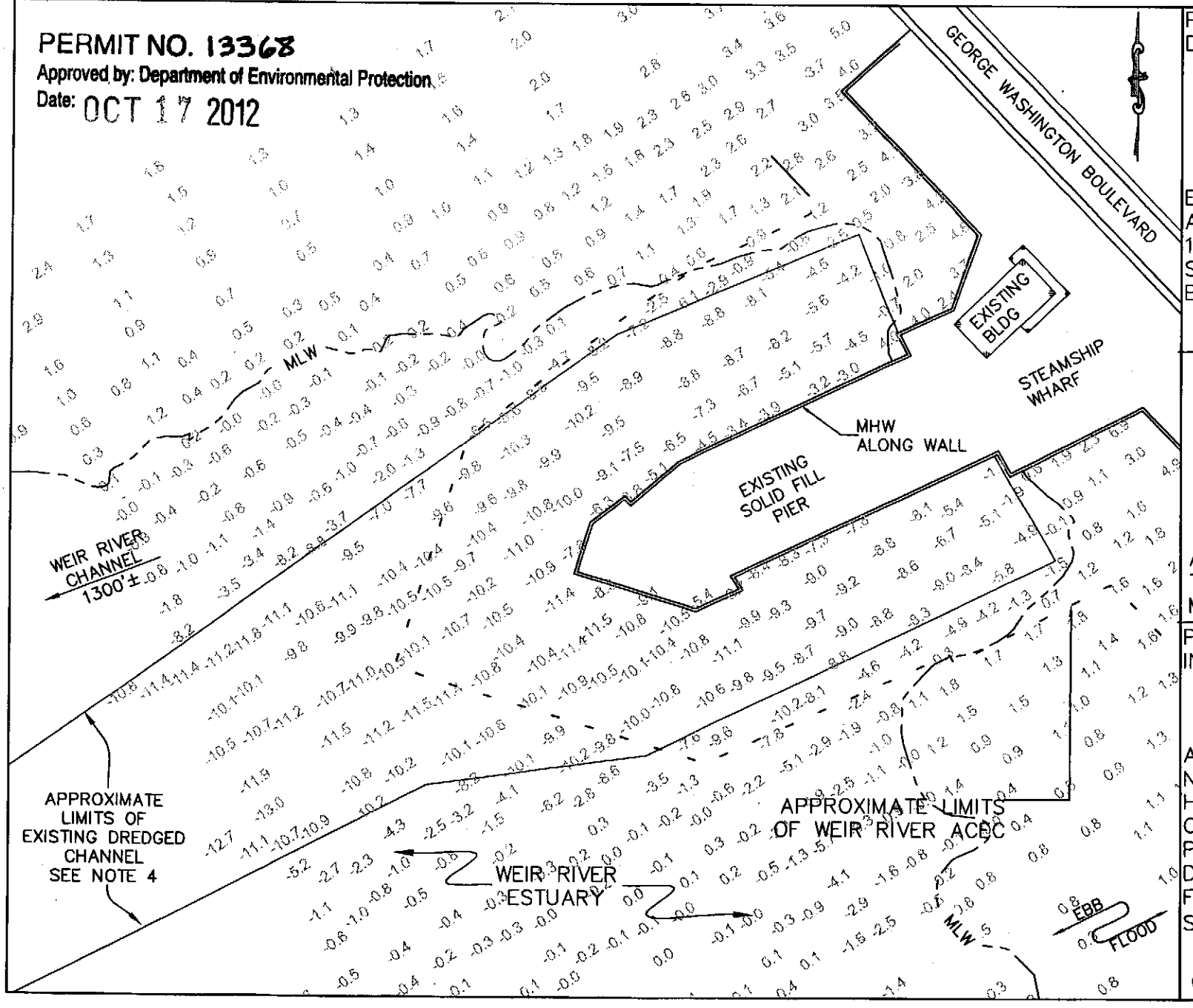
PERMIT NO. 13368
Approved by: Department of Environmental Protection
Date: OCT 17 2012



PURPOSE: TO PERMIT DREDGING

DATUM: MLW = 0.0
NAVD88 = 5.56
MHW = 9.5

ENGINEER:
APEX COMPANIES LLC.
184 HIGH STREET
SUITE 502
BOSTON, MA. 02110

POSTINGS PLAN

APPLICANT:
THE TOWN OF HULL
MASSACHUSETTS

PROPOSED DREDGING IN:

WEIR RIVER

AT:
NANTASKET PIER
HULL, MA
COUNTY OF:
PLYMOUTH
DATE: 4-21-12
FIGURE: 3 OF 10
SCALE: 1"=150'

0 75 150 225

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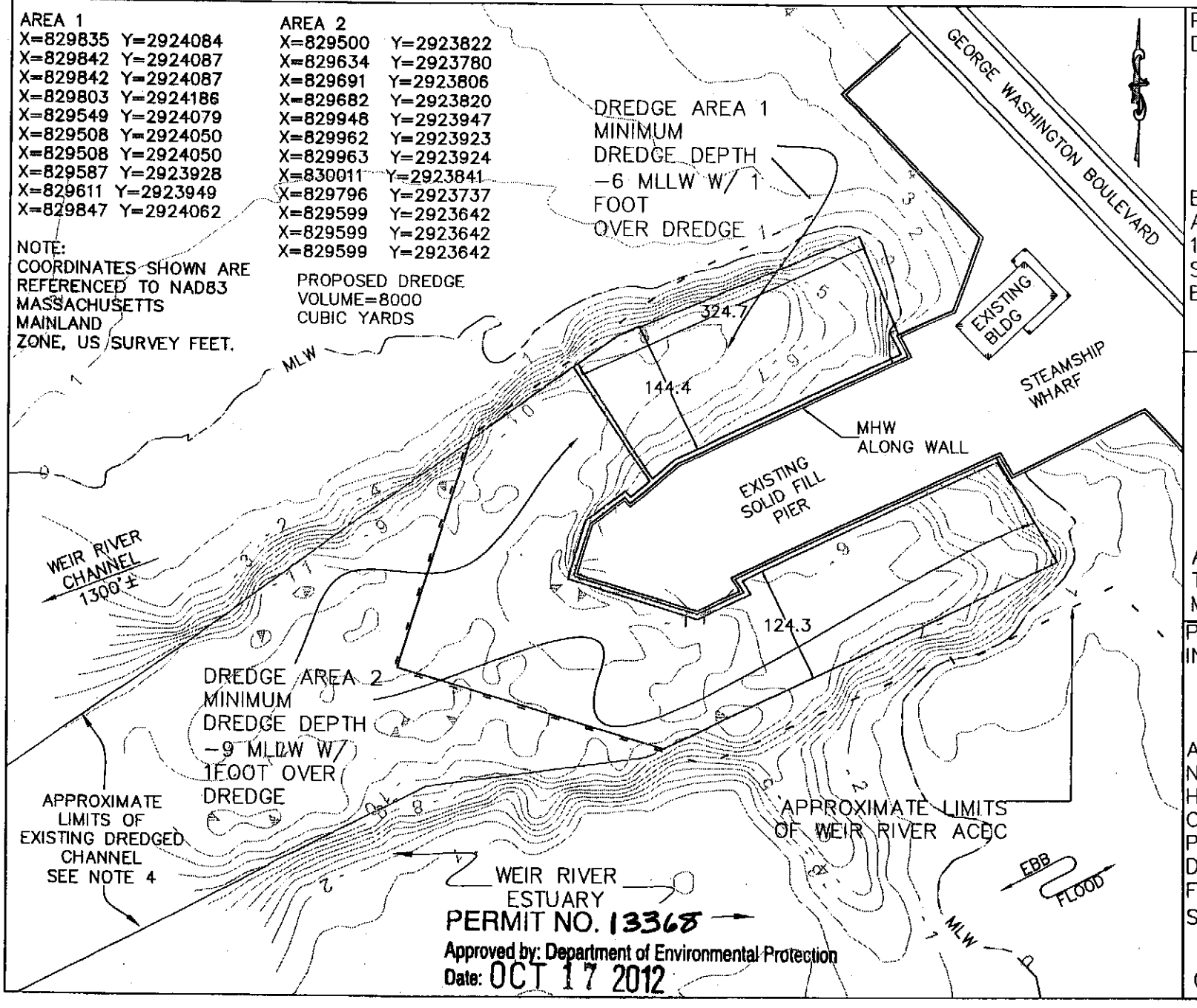

PURPOSE: TO PERMIT DREDGING

DATUM: MLW = 0.0
NAVD88 = 5.56
MHW = 9.5

ENGINEER:
APEX COMPANIES LLC.
184 HIGH STREET
SUITE 502
BOSTON, MA. 02110

PROPOSED DREDGE PLAN

APPLICANT:
THE TOWN OF HULL
MASSACHUSETTS

PROPOSED DREDGING IN:

WEIR RIVER

AT:
NANTASKET PIER
HULL, MA
COUNTY OF:
PLYMOUTH
DATE: 4-21-12
FIGURE: 4 OF 10
SCALE: 1"=150'

0 75 150 225

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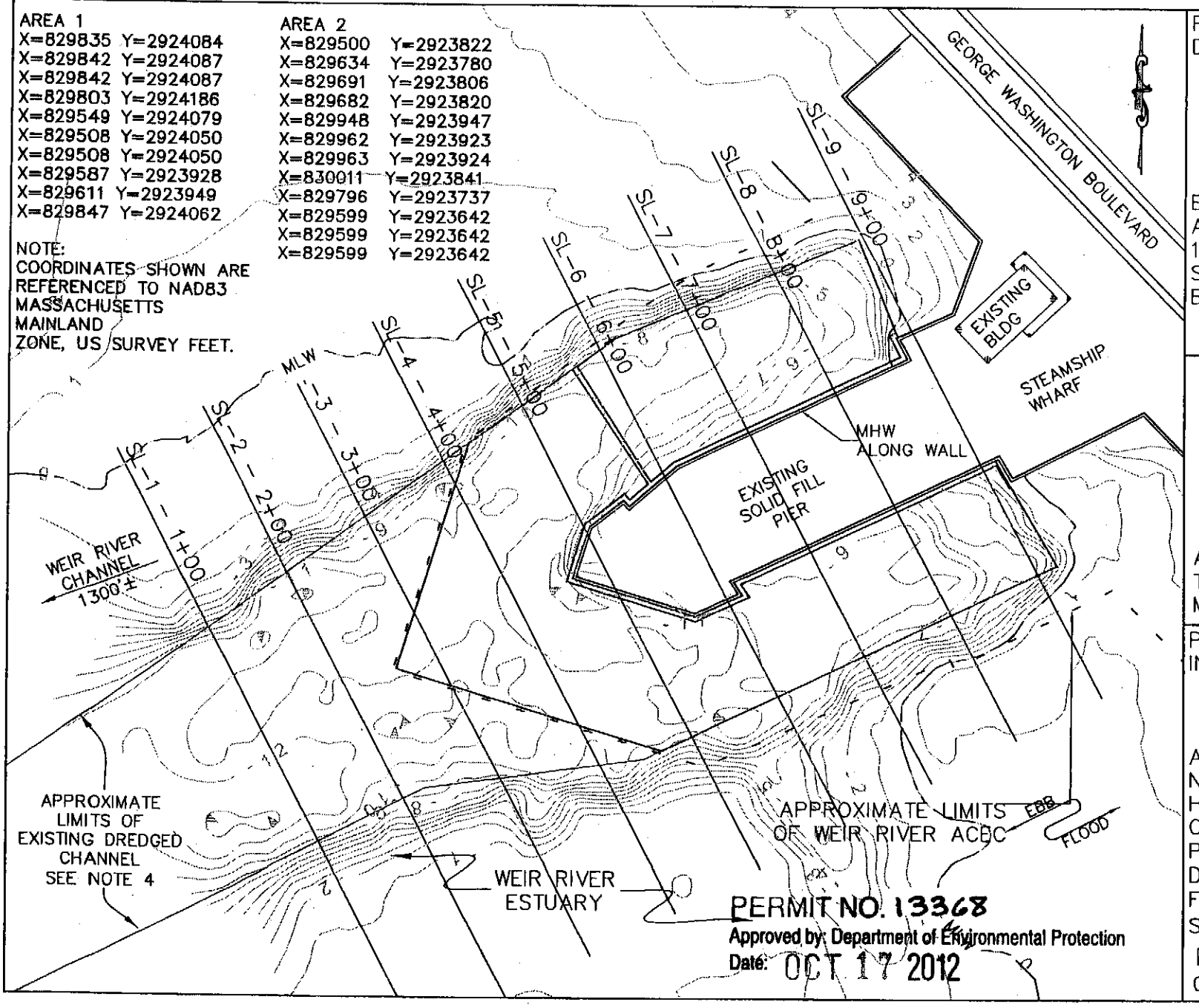

PURPOSE: TO PERMIT DREDGING

DATUM: MLW = 0.0
NAVD88 = 5.56
MHW = 9.5

ENGINEER:
APEX COMPANIES LLC.
184 HIGH STREET
SUITE 502
BOSTON, MA. 02110

CROSS SECTIONS PLAN

APPLICANT:
THE TOWN OF HULL
MASSACHUSETTS

PROPOSED DREDGING IN:

WEIR RIVER

AT:
NANTASKET PIER
HULL, MA
COUNTY OF:
PLYMOUTH
DATE: 4-21-12
FIGURE: 5 OF 10
SCALE: 1"=150'

0 75 150 225

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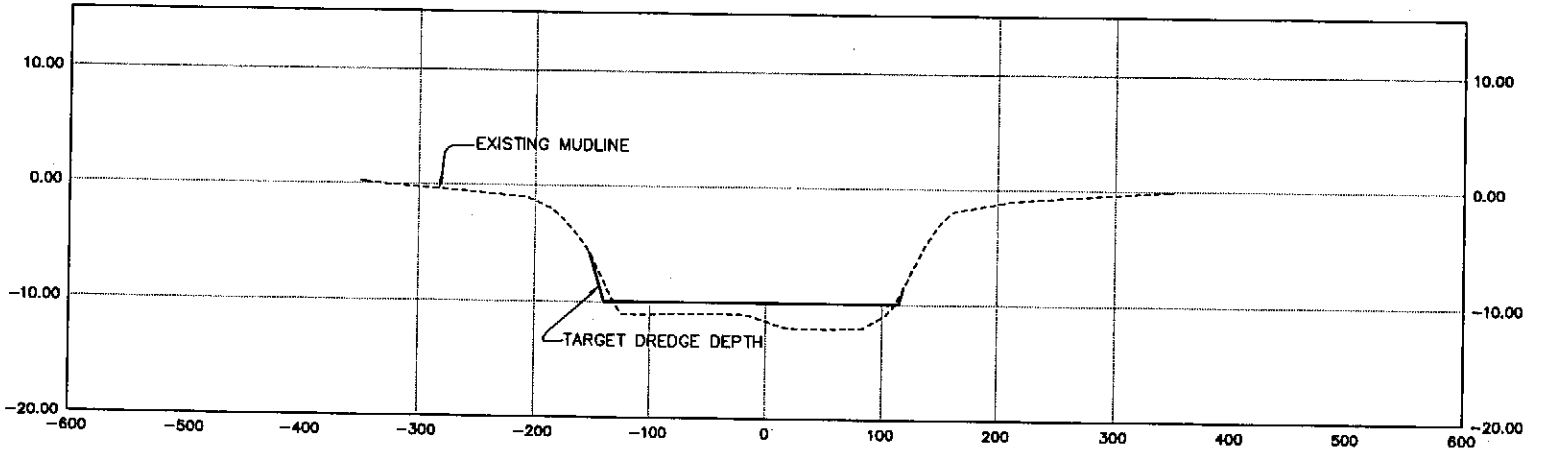

PERMIT NO. 13368
Approved by: Department of Environmental Protection
Date: OCT 17 2012

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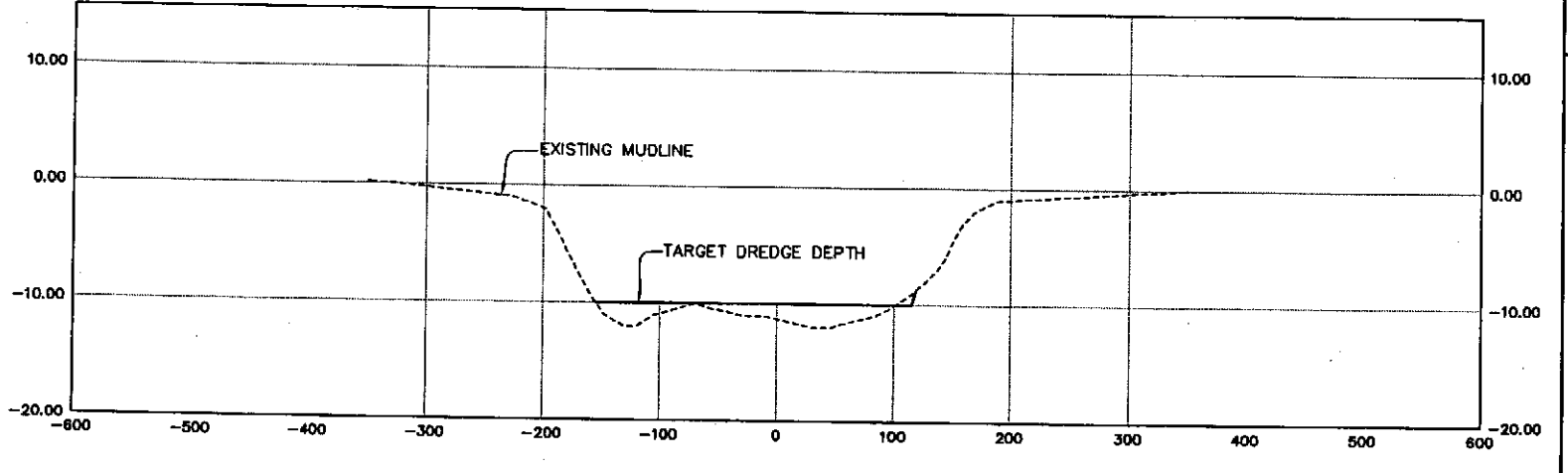

PURPOSE: TO PERMIT DREDGING

DATUM: MLW = 0.0
NAVD88 = 5.56
MHW = 9.5

ENGINEER:
APEX COMPANIES LLC.
184 HIGH STREET
SUITE 502
BOSTON, MA. 02110

CROSS SECTIONS

APPLICANT:
THE TOWN OF HULL
MASSACHUSETTS

PROPOSED DREDGING IN:

WEIR RIVER

AT:
NANTASKET PIER
HULL, MA
COUNTY OF:
PLYMOUTH
DATE: 4-21-12
FIGURE: 6 OF 10
SCALE: NTS

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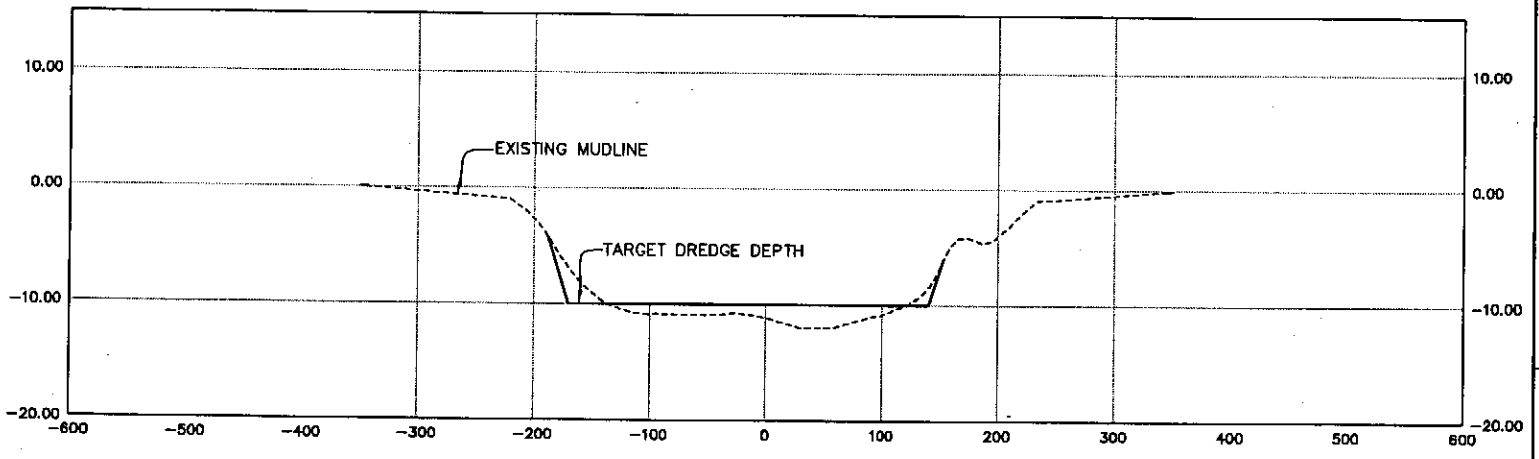
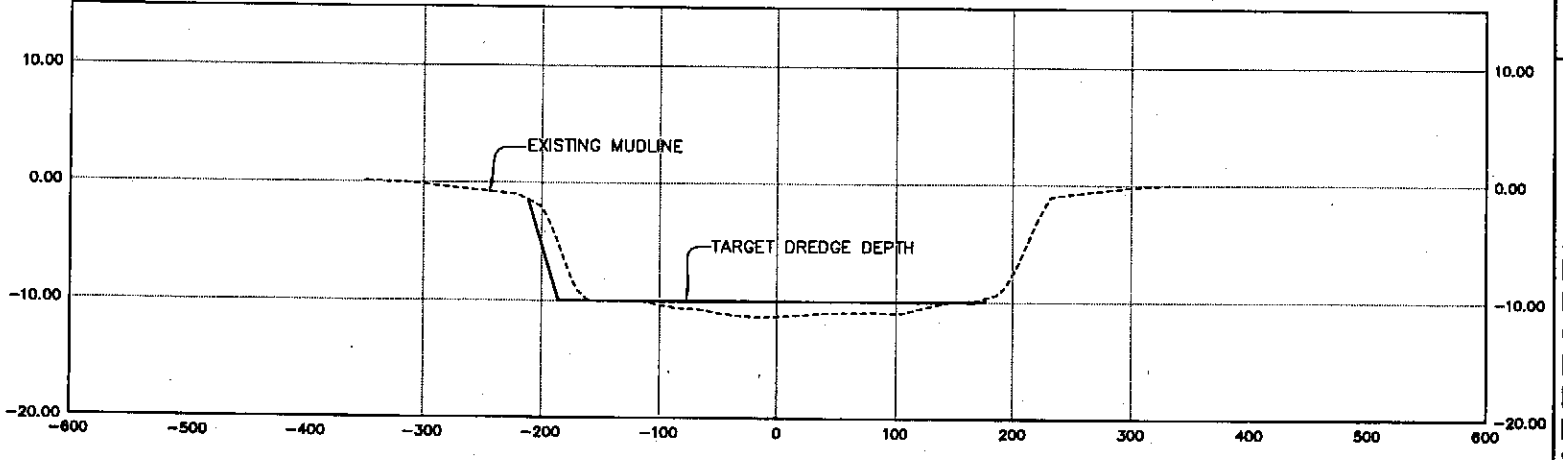


PERMIT NO. 13368
Approved by: Department of Environmental Protection
Date: OCT 17 2012

4+00.00



PURPOSE: TO PERMIT DREDGING

DATUM: MLW = 0.0
NAVD88 = 5.56
MHW = 9.5

ENGINEER:
APEX COMPANIES LLC.
184 HIGH STREET
SUITE 502
BOSTON, MA. 02110

CROSS SECTIONS

APPLICANT:
THE TOWN OF HULL
MASSACHUSETTS

PROPOSED DREDGING IN:

WEIR RIVER

AT:
NANTASKET PIER
HULL, MA
COUNTY OF:
PLYMOUTH
DATE: 4-21-12
FIGURE: 7 OF 10
SCALE: NTS

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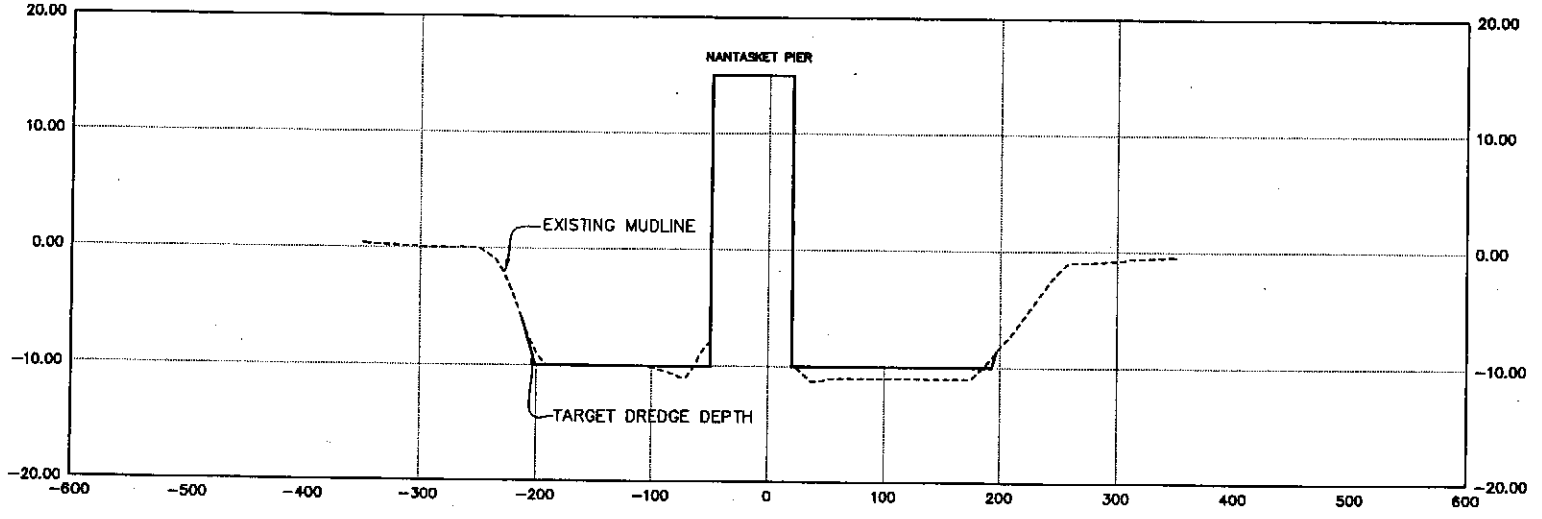
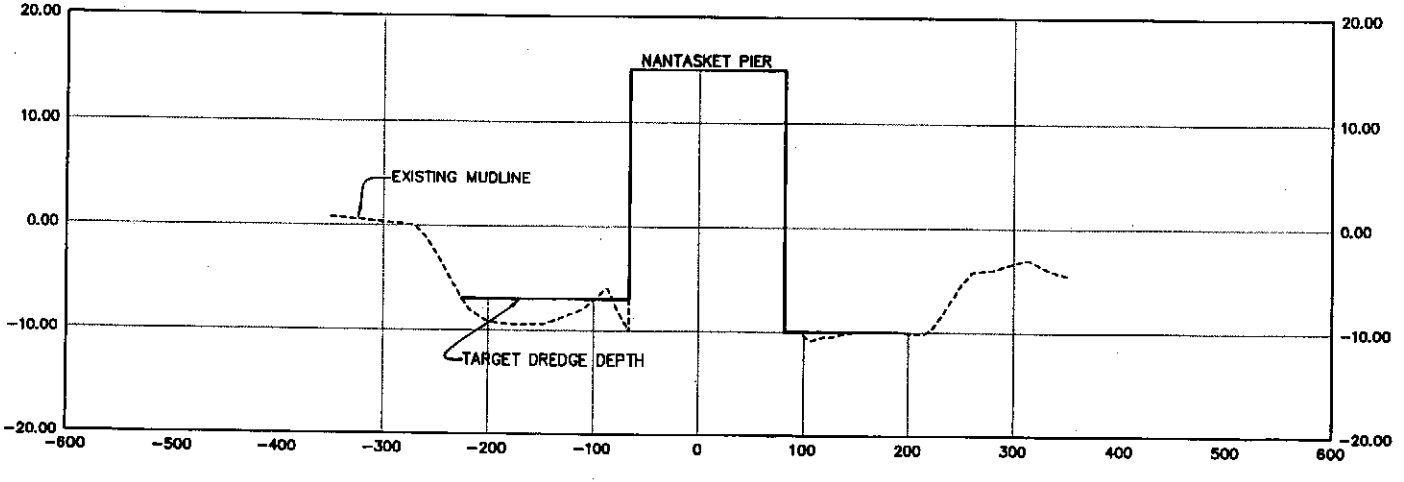


PERMIT NO. 13368
Approved by: Department of Environmental Protection
Date: OCT 17 2012

6+00.00



PURPOSE: TO PERMIT DREDGING

DATUM: MLW = 0.0
NAVD88 = 5.56
MHW = 9.5

ENGINEER:
APEX COMPANIES LLC.
184 HIGH STREET
SUITE 502
BOSTON, MA. 02110

CROSS SECTIONS

APPLICANT:
THE TOWN OF HULL
MASSACHUSETTS

PROPOSED DREDGING IN:

WEIR RIVER

AT:
NANTASKET PIER
HULL, MA
COUNTY OF:
PLYMOUTH
DATE: 4-21-12
FIGURE: 8 OF 10
SCALE: NTS

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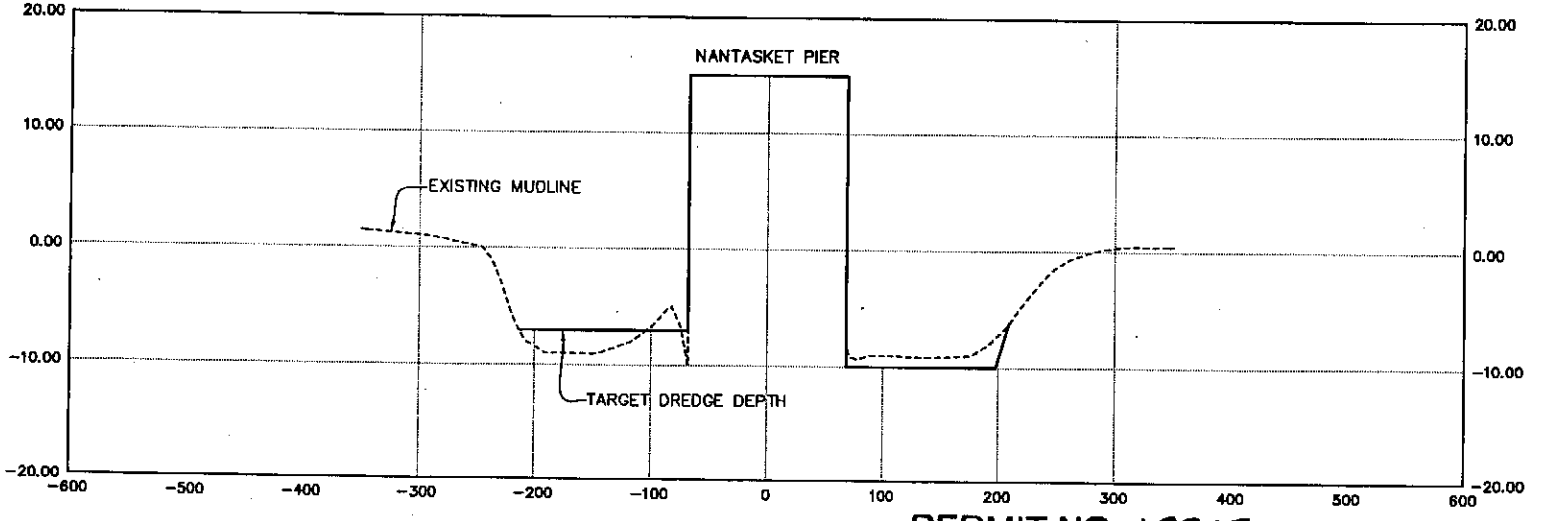

PERMIT NO. 13368
Approved by: Department of Environmental Protection
Date: OCT 17 2012

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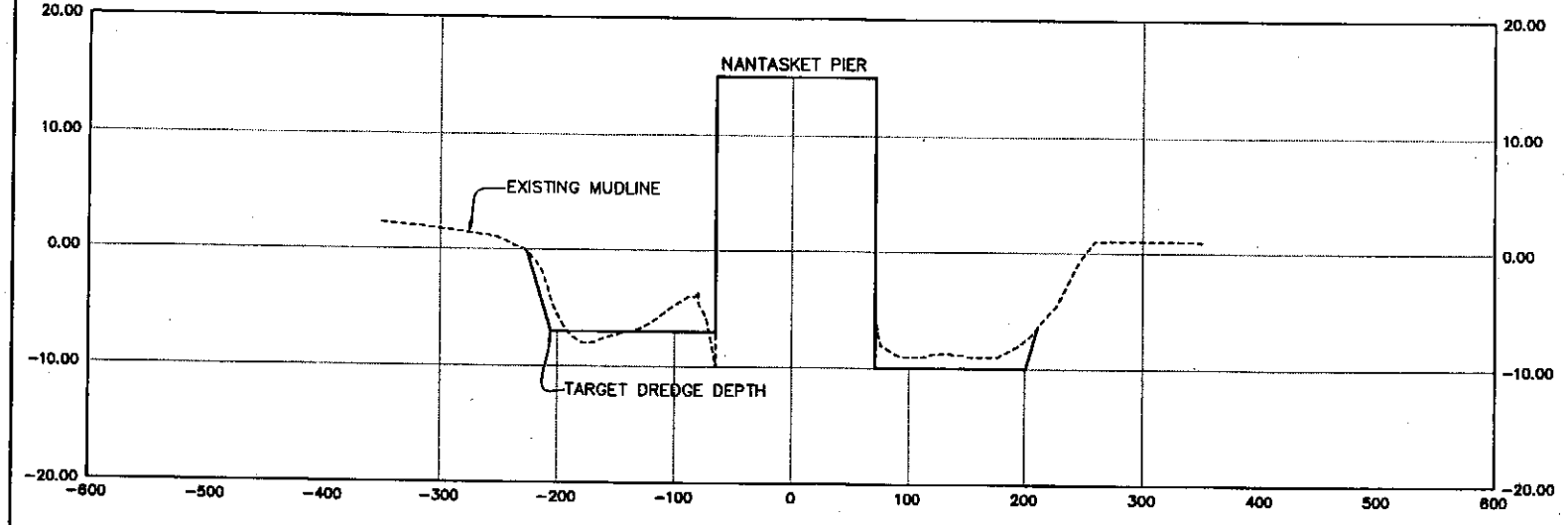

PURPOSE: TO PERMIT DREDGING

DATUM: MLW = 0.0
NAVD88 = 5.56
MHW = 9.5

ENGINEER:
APEX COMPANIES LLC.
184 HIGH STREET
SUITE 502
BOSTON, MA. 02110

CROSS SECTIONS

APPLICANT:
THE TOWN OF HULL
MASSACHUSETTS

PROPOSED DREDGING IN:

WEIR RIVER

AT:
NANTASKET PIER
HULL, MA
COUNTY OF:
PLYMOUTH
DATE: 4-21-12
FIGURE: 9 OF 10
SCALE: NTS

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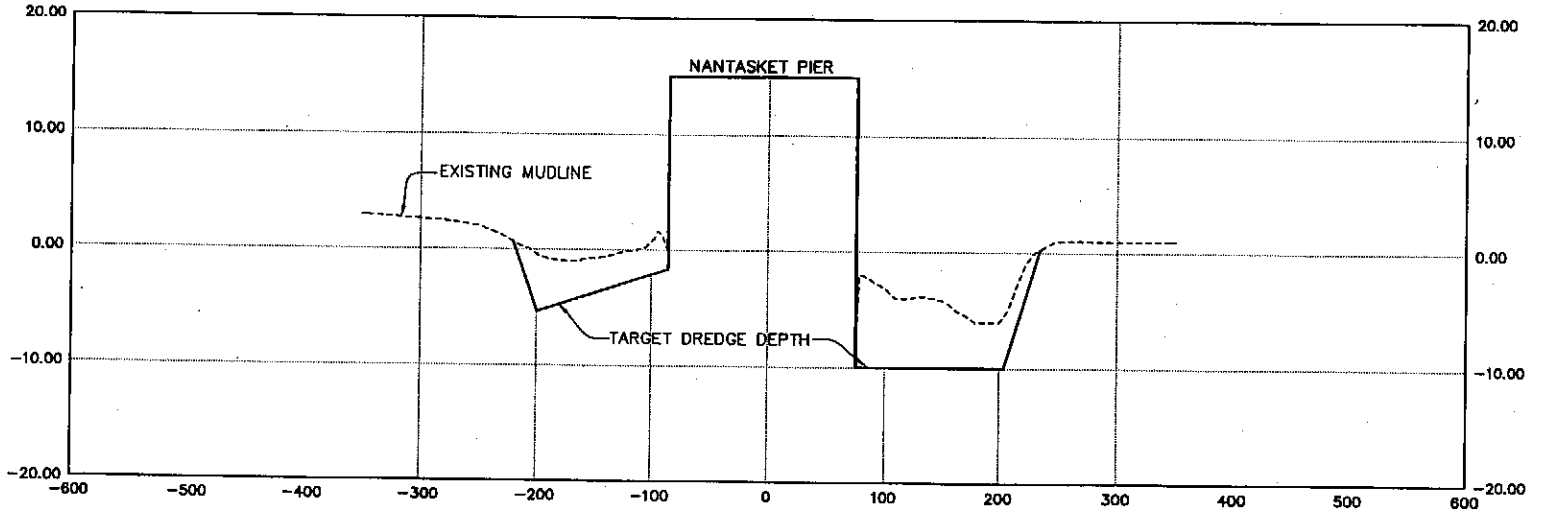
9+00.00



PURPOSE: TO PERMIT DREDGING

DATUM: MLW = 0.0
NAVD88 = 5.56
MHW = 9.5

ENGINEER:
APEX COMPANIES LLC.
184 HIGH STREET
SUITE 502
BOSTON, MA. 02110

CROSS SECTIONS

APPLICANT:
THE TOWN OF HULL
MASSACHUSETTS

PROPOSED DREDGING IN:

WEIR RIVER

AT:
NANTASKET PIER
HULL, MA
COUNTY OF:
PLYMOUTH
DATE: 4-21-12
FIGURE: 10 OF 10
SCALE: NTS

PERMIT NO. 13368
Approved by: Department of Environmental Protection
Date: OCT 17 2012

P:\Jobs\6598_Hull_Dredging_Steamship_Wharf\Plans\STEAMSHIP_WHARF_REDESIGN_ACOE.dwg

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

RICHARD K. SULLIVAN JR.
Secretary

KENNETH L. KIMMELL
Commissioner

August 30, 2012

Philip Lemnios
Town of Hull
253 Atlantic Ave
Hull, MA 02045

Re: **401 WATER QUALITY CERTIFICATION**
Application for BRP WW 07, Major project dredging

At: Weir River, HULL

401 WQC Transmittal №: X251700
Wetlands File №:
ACoE Application №:

Dear Mr. Lemnois:

The Department has reviewed your application for Water Quality Certification (WQC) referenced above. In accordance with the provisions of Section 401 of the Federal Clean Water Act as amended (33 U.S.C. §1251 et seq.), MGL c.21, §§ 26-53, and 314 CMR 9.00, the Department has determined there is reasonable assurance the project or activity will be conducted in a manner which will not violate applicable water quality standards (314 CMR 4.00) and other applicable requirements of state law.

The waters of the Weir River are designated in the Massachusetts Surface Water Quality Standards as Class SA. The estuary is also classified as an Outstanding Resource Water (ORW) with open shellfishing. Such waters are intended "as excellent habitat for fish, other aquatic life and wildlife and for primary and secondary contact recreation." Anti-degradation provisions of these Standards require that "existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected."

Background: In 1916 and 1917, the Commission on Waterways and Public Lands issued License No. 33 and 38 to extend and enlarge the "Nantasket Pier" which included dredging the channel and docks.

On July 17, 2000, the Department issued a 401 Water Quality Certification (WQC) to the Town of Hull to dredge 63,000 yd^3 of sediment from the Weir River estuary in the vicinity of Nantasket Pier. The 401 WQC was amended on August 31, 2000 to increase the dredge volume to 83,000 yd^3.

Proposed project: The scope of work entails conducting maintenance dredging in accordance with 314 CMR 9.07(k)3 at Nantasket Pier off George Washington Boulevard. The proposed dredge volume is approximately 8,000 yd^3. The proposed dredge depth is -6 Mean Low Water (MLW) with one foot overdredge at the northern side of the pier (area 1) and -9 MLW with one foot overdredge for the remaining area (area 2).

Dredging will be conducted using conventional mechanical equipment such as a clamshell bucket and the dredged material will be placed onto a split hull scow to be transported to the Massachusetts Bay Disposal Site for unconfined ocean disposal.

Sediment sampling data: Sampling was conducted following the Army Corps of Engineers (ACoE) and the US Environmental Protection Agency (EPA) protocol.

Dredged Material Disposal : Material will be placed through unconfined ocean disposal at the Massachusetts Bay Disposal Site (MBDS) according to the Massachusetts General Permit (MGP) II permit issued by the ACoE.

Rare Species and Rare Wildlife Habitat: The site is not located within the Priority Habitats of Rare Species, Estimated Habitats of Rare Wildlife, and Certified Vernal Pool in accordance with the Massachusetts Natural Heritage Atlas, 13th Edition.

Public Notice: The 401 WQC application public notice was published in the Patriot Ledger on August 9, 2012 and the Department received no comment during the 21-day public comment period, which ended on August 30, 2012.

Therefore, based on information currently in the record, the Department grants a 401 Water Quality Certification for this project subject to the following conditions to maintain water quality, to minimize impact on waters and wetlands, and to ensure compliance with appropriate state law. The Department further certifies in accordance with 314 CMR 9.00 that there is reasonable assurance the project or activity will be conducted in a manner which will not violate applicable water quality standards (314 CMR 4.00) and other applicable requirements of state law. Finally, the Department has determined that upon satisfying the conditions and mitigation requirements of this approval, the project provides a level of water quality necessary to protect existing uses and accordingly finds that the project to be implemented satisfies the Surface Water Quality Standards at 314 CMR 4.00.

1. The Contractor shall take all steps necessary to assure that the proposed activities will be conducted in a manner that will avoid violations of the anti-degradation provisions of the Massachusetts Surface Water Quality Standards that protect all waters, including wetlands.

2. Prior to the start of work or any portion of the work thereafter, the Department shall be notified of any change(s) in the proposed project or plans that may affect waters or wetlands. The Department will determine whether the change(s) require a revision to this Certification.

3. Dredging in accord with this Certification may begin following the 21-day appeal period and once all other permits have been received.

4. Work in waters and wetlands shall conform to the Description of Proposed Dredging Site and plans, figures submitted in this application to the Department, 10 sheets prepared by Appex Companies, Inc., dated April 21, 2012, unsigned and unstamped. The Department shall be notified if there are modifications and or deletions of work as specified in the plans. Depending on the nature and the scope of any change, approval by the Department may be required.

5. The Department shall be notified, attention Ken Chin 617-292-5893, one week prior to the start of in-water work so that Department staff may inspect the work for compliance with the terms and conditions of this Certification.

6. The Certification remains in effect for the same duration as the federal permit that requires it or five years from the date of issuance of this Certification whichever comes first.

7. Future maintenance dredging may be conducted as necessary for the duration of this Certification, provided that:

    a. the initial project and any subsequent dredging has been conducted satisfactorily with no violations of the terms and conditions of this Certification,
    b. information has been submitted to the Department regarding chemical characteristics and final end use/disposal of the dredged material for review and approval and no future maintenance dredging has commenced without obtaining end use/disposal approval from the Department;
    c. an updated Suitability Determination from the Army Corps of Engineers is obtained for unconfined ocean disposal at MBDS;
    d. Coordinates of the maintenance dredge footprint are the same as the authorized dredge footprint;
    e. a due-diligence evaluation is done to determine that no known spills of oil or other toxic substances have occurred which could have contaminated the sediment in the dredge area and submit the evaluation to the Department;
    f. a bathymetric survey has been submitted to the Department in compliance with condition no. 11;
    g. the volume of future maintenance dredging does not exceed 8,000 cubic yards; and
    h. the Department is notified prior to commencement of maintenance dredging.

8. Best Management Practices (BMPs) shall be deployed to minimize turbidity. At a minimum, a bottom-weighted silt curtain shall be used to surround the dredging area and placed at a location that would not bottom out during low tide. The silt curtain shall be of suitable material/grade appropriate with the velocity of the current at the site. Dredging shall be carried out using a closed, environmental bucket if the sediment does not consist solely of densely compacted silt/clay.

9. Dump scow overflow within the water of the Commonwealth is prohibited.

10. Disposal of any volume of dredged material at any location in tidal waters is subject to approval by this Department and the Massachusetts Coastal Zone Management office.

11. Within 30 days of the completion of the dredging, a bathymetric survey of the Weir River depicting post-dredge conditions shall be conducted. At a minimum, the survey shall include an overlay of the dredge footprint (i.e. top of slope) with sufficient coordinates in the

Massachusetts State Plane (e.g. longitude and latitude) that clearly delineates the dredge footprint. The survey shall be sent within five working days after its completion to the Department and a copy shall be sent to the Massachusetts Coastal Zone Management office, attention: Robert Boeri.

12. In order to protect spawning, larval and juvenile development of winter flounder and shellfish larvae, no dredging shall occur between February 15th and September 30th.

13. The applicant, or its contractor, shall make every feasible effort to complete the project within the permitted timeframe. Should the applicant, or their contractor, fail to complete the project and wish to request an amendment to the Certification for incursion into the no-dredge period, the written request shall be received by the Department by February 1st. The following information shall be included in the request:

    a. project location and transmittal number,
    b. the date on which dredging started,
    c. the number of days and hours per day the dredge operated,
    d. expected daily average production rate and the actual daily average production rate,
    e. an explanation of why the project failed to remain on schedule,
    f. an account of efforts made to get the project back on schedule,
    g. a plan depicting the areas that remain to be dredged,
    h. the number of cubic yards that remain to be dredged,
    i. an accurate estimate of the number of days required to complete the project,
    j. an evaluation of the impact of continued dredging on the species of concern,
    k. a description of any efforts that will be made to minimize the impacts of the project on the species of concern, and a realistic assessment of any societal/financial effects of a denial of permission to continue dredging.

    The Department will share the information with other resource agencies and a decision to grant or deny the amendment shall be made by February15th. Requests for amendment received after February 1st will be considered at the Department's discretion.

14. No later than four weeks after issuance of the Permit, the applicant shall submit a notification procedure outlining the reporting process to the Department for incidents, relating to the dredging activities, impacting surrounding resource areas and habitats such as, but not limited to, observed dead or distressed fish, or other aquatic organisms, observed oily sheen on surface water, sediment spill, turbidity plume beyond the deployed BMP's, and barging or equipment accident/spill. If at any time during implementation of the project, all site related activities impacting the water shall cease until the source of the problem is identified and adequate mitigating measures employed to the satisfaction of the Department.

This certification does not relieve the applicant of the obligation to comply with other applicable state or federal statutes or regulations. Any changes made to the project as described in the previously submitted Notice of Intent, 401 Water Quality Certification application, or supplemental documents will require further notification to the Department.

Certain persons shall have a right to request an adjudicatory hearing concerning certifications by the Department when an application is required:

a. the applicant or property owner;
b. any person aggrieved by the decision who has submitted written comments during the public comment period;
c. any ten (10) persons of the Commonwealth pursuant to M.G.L. c.30A where a group member has submitted written comments during the public comment period; or
d. any governmental body or private organization with a mandate to protect the environment, which has submitted written comments during the public comment period.

Any person aggrieved, any ten (10) persons of the Commonwealth, or a governmental body or private organization with a mandate to protect the environment may appeal without having submitted written comments during the public comment period only when the claim is based on new substantive issues arising from material changes to the scope or impact of the activity and not apparent at the time of public notice. To request an adjudicatory hearing pursuant to M.G.L. c.30A, § 10, a Notice of Claim must be made in writing, provided that the request is made by certified mail or hand delivery to the Department, with the appropriate filing fee specified within 310 CMR 4.10 along with a DEP Fee Transmittal Form within twenty-one (21) days from the date of issuance of this Certificate, and addressed to:

Case Administrator
Department of Environmental Protection
One Winter Street, 2nd Floor
Boston, MA 02108.

A copy of the request shall at the same time be sent by certified mail or hand delivery to the issuing office of the Wetlands and Waterways Program at:

Department of Environmental Protection
One Winter Street, 5th Floor
Boston, MA 02108.

A Notice of Claim for Adjudicatory Hearing shall comply with the Department's Rules for Adjudicatory Proceedings, 310 CMR 1.01(6), and shall contain the following information pursuant to 314 CMR 9.10(3):

a. the 401 Certification Transmittal Number and DEP Wetlands Protection Act File Number;
b. the complete name of the applicant and address of the project;
c. the complete name, address, and fax and telephone numbers of the party filing the request, and, if represented by counsel or other representative, the name, fax and telephone numbers, and address of the attorney;
d. if claiming to be a party aggrieved, the specific facts that demonstrate that the party satisfies the definition of "aggrieved person" found at 314 CMR 9.02;
e. a clear and concise statement that an adjudicatory hearing is being requested;
f. a clear and concise statement of (1) the facts which are grounds for the proceedings, (2) the objections to this Certificate, including specifically the manner in which it is alleged to be inconsistent with the Department's Water Quality Regulations, 314 CMR 9.00, and (3) the relief sought through the adjudicatory hearing, including specifically the changes desired in the final written Certification; and
g. a statement that a copy of the request has been sent by certified mail or hand delivery to the applicant, the owner (if different from the applicant), the conservation commission of

the city or town where the activity will occur, the Department of Environmental Management (when the certificate concerns projects in Areas of Critical Environmental Concern), the public or private water supplier where the project is located (when the certificate concerns projects in Outstanding Resource Waters), and any other entity with responsibility for the resource where the project is located.

The hearing request along with a DEP Fee Transmittal Form and a valid check or money order payable to the Commonwealth of Massachusetts in the amount of one hundred dollars ($100) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
Commonwealth Master Lockbox
P.O. Box 4062
Boston, MA 02211

The request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority. The Department may waive the adjudicatory-hearing filing fee pursuant to 310 CMR 4.06(2) for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file an affidavit setting forth the facts believed to support the claim of undue financial hardship together with the hearing request as provided above.

Failure to comply with this certification is grounds for enforcement, including civil and criminal penalties, under MGL c.21 §42, 314 CMR 9.00, MGL c. 21A §16, 310 CMR 5.00, or other possible actions/penalties as authorized by the General Laws of the Commonwealth.

If you have questions about this decision, please contact Ken Chin at 617-292-5893.

Sincerely,

Beth Card
Assistant Commissioner
Bureau of Resource Protection

enclosure: Departmental Action Fee Transmittal Form
Material Shipment Record (MSR)

cc:
Karen Adams, Regulatory/Enforcement Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751
Robert Boeri, CZM, 251 Causeway Street, Suite 800, Boston, MA 02114
John Logan, DMF, 1213 Purchase St., 3rd floor, New Bedford, MA 02740-6694
David Hill, Liz Kouloheras, DEP SERO
Hull Conservation Commission, 253 Atlantic Ave., Hull, MA 02045
Christopher Morris, Apex Companies, Inc., 184 High Street, Suite 502, Boston, Ma 02110

KC/X251700

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

REPLY TO
ATTENTION OF

October 16, 2000

Regulatory Branch
CENAE-CO-R-199902220

Philip E. Lemnios
Town Manager
253 Atlantic Avenue
Hull, MA 02045

Dear Mr. Lemnios:

Enclosed are two copies of a Department of the Army permit authorizing the work described therein. Your signature is necessary to execute this permit. If the conditions are acceptable, sign both copies and return one signed copy to us.

Please post the enclosed ENG form 4336 (i.e., Notice of Authorization) in a conspicuous location at the job site whenever work is ongoing. This permit requires you to notify us before beginning work so that we may inspect the project. Therefore, please complete and return the attached Work Start Notification Form to this office no later than two weeks before the anticipated starting date.

This permit is a limited authorization containing a specific set of conditions. Please read the permit thoroughly to familiarize yourself with those conditions, including any conditions contained on the attached state water quality certification. If a contractor does the work for you, both you and the contractor are responsible for ensuring that the work is done in compliance with the permit's terms and conditions, as any violations could result in civil or criminal penalties.

If the plans or construction methods (i.e., for work in our jurisdiction) need to be changed, please contact us immediately to discuss modification of your permit prior to undertaking these changes.

The Corps of Engineers has consulted with the National Marine Fisheries Service (NMFS) regarding the effects of your project on Essential Fish Habitat (EFH) designated under the Magnuson-Stevens Fishery Conservation and Management Act. NMFS provided EFH conservation recommendations, which we included in the attached special conditions. The conditions provide for time of year restriction to prevent adverse impacts to winter flounder.

Every discharge of dredged material must be witnessed by an onboard, Corps-certified inspector. The dredged material must be released at a specified buoy or set of coordinates within the disposal site. Please notify the Marine Analysis Unit, Regulatory Branch by phone at (978) 318-8292 at least ten working days in advance of the time that disposal operations will begin so that specific coordinates for your project can be sent to you. This phone notification requirement is in addition to the requirement for submission of the Work Start Notification Form as previously stated in this letter.

Finally, please note that the Department of the Army permit process does not supersede any other agency's jurisdiction. Hence, if other federal, state, and/or local agencies have jurisdiction over your project, you must receive all applicable permits before you may begin work.

The Corps of Engineers recently issued final regulations regarding an administrative appeals process for permit denials or proffered permits that you object to the terms and conditions of. A flow chart and Notification of Applicant Options (NAO) form are enclosed with this letter which explain the appeals process and your options. All accepted appeals will be heard by the Division Office starting in August, 1999. However, in order to retain your right to appeal, should you intend to, you must respond to the attached NAO form within 60 days of the date of this letter. Your response should be sent to the attention of Christine Godfrey at the New England District at the address above. Please contact Ms. Christine Godfrey of the Policy and Technical Support Section at (978) 318-8673 if you have any questions regarding the Corps of Engineers appeals process.

If you have any questions regarding this correspondence, please contact Ted Lento at (978) 318-8863, or use (800) 363-4367 within Massachusetts.

Sincerely,

William F. Lawless, P.E.
Chief, Regulatory Branch
Construction/Operations Division

Copies furnished:

John J. Hannon, P.E.
ASEC Corp
300 Congress Street
Suite 303
Quincy, MA 02169

Kevin K. Mooney
Department of Environmental Management
349 Lincoln Street
Building 45
Hingham, MA 02043

Enclosures

DEPARTMENT OF THE ARMY PERMIT

Permittee Town of Hull, Massachusetts

Permit No. 199902220

Issuing Office New England District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

to perform maintenance and new dredging within 13.8 acres of the Weir River in Hull, Massachusetts as depicted on the attached drawings labeled "PLAN TO ACCOMPANY PETITION OF DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, TOWN OF HULL FOR WEIR RIVER MAINTENANCE DREDGING" on 2 sheets dated June 23, 1999. The specific area to be dredged is within the channel leading to Nantasket Pier and on both sides of the pier. The depth of dredging will be –6' MLW within a 100 linear foot area on both sides of the pier and–10' MLW for the remainder of the project with an estimated 83,900 cubic yards of silty sediment mechanically dredged and disposed of at the Massachusetts Bay Disposal Site (MBDS).

Project Location:

Weir River, Hull, Massachusetts

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on October 16, 2003 **. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.**

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

(1) The permittee shall ensure that a complete copy of this permit is at the work site whenever work is being performed and that all personnel performing work at the site of the work authorized by this permit are fully aware of the terms and conditions of the permit. This permit, including its drawings and any appendices and other attachments, shall be made part of any and all contracts and sub-contracts for work which affects areas of Corps of Engineers' jurisdiction at the site of the work authorized by this permit. This shall be done by including the entire permit in the specifications for the work.

SPECIAL CONDITIONS CONTINUED ON PAGE 4

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

( ) Section 404 of the Clean Water Act (33 U.S.C. 1344).

(X) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

(PERMITTEE) *(DATE)*

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

(DISTRICT ENGINEER) 1/16/08 *(DATE)*

Brian E. Osterndorf, Colonel
Corps of Engineers

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE) *(DATE)*

☆U.S. GOVERNMENT PRINTING OFFICE: 1986 — 717-425

SPECIAL CONDITIONS CONTINUED FROM PAGE 2

(1 continued) If the permit is issued after the construction specifications but before receipt of bids or quotes, the entire permit shall be included as an addendum to the specifications. If the permit is issued after receipt of bids or quotes, the entire permit shall be included in the contract or sub–contract as a change order. The term "entire permit" includes permit amendments. Although the permittee may assign various aspects of the work to different contractors or sub–contractors, all contractors and sub–contractors shall be obligated by contract to comply with all environmental protection provisions of the entire permit, and no contract or sub–contract shall require or allow unauthorized work in areas of Corps of Engineers' jurisdiction.

2. Periodic maintenance dredging to the area and depth limits described herein is authorized for ten years from the date of issuance of this permit, provided disposal of the dredged material is at an upland site. However, the permittee must notify this office, in writing, 60 days before the intended date of any such dredging and shall not begin such dredging until written authorization has been obtained. A separate authorization shall be required for such dredging if the material to be dredged is to be deposited in open or ocean waters and/or wetlands.

3. At least ten working days in advance of the start date, the First Coast Guard District, Aids to Navigation Office, 617-223-8338, shall be notified of the location and estimated duration of the dredging and disposal operations.

4. The Coast Guard Marine Safety Office, Boston, 617-223-3000, shall be notified prior to the start of this project.

5. Every discharge of dredged material at the disposal site must be witnessed by an onboard inspector who has been trained by, and who holds a current certification from, the New England District of the Corps of Engineers. Failure to adhere to this requirement will be considered a violation of this permit and cause for invoking its enforcement provisions, which carry substantial penalties. The inspector shall be contracted and paid for by the permittee.

6. For the initiation of disposal activity, and anytime disposal operations resume after one month or more has elapsed, the Corps must receive notification from the permittee or the permittee's representative **at least ten working days in advance** of the time that disposal operations will begin. Disposal operations must not begin until you receive an Authorization to Dredge letter from our Marine Analysis Unit, which will include disposal-point coordinates for this specific project (which may differ from coordinates specified for other projects using the same disposal site). Contact the Marine Analysis Unit, Regulatory Branch by phone at 978-318-8292. The Corps will review the permit to insure compliance to that point with all permit conditions, will specify disposal-point coordinates, and will provide, on request, a list of currently certified inspectors. The permittee must assure that a separate Corps of Engineers disposal inspection report is fully completed by the inspector for every trip to the disposal site, and that this report is received by the Corps' New England District (ATTN: Marine Analysis Unit, Regulatory Branch) within one week of the trip date. The Regulatory Branch telefax number is 978-318-8303. For each dredging season during which work is performed, the permittee must notify the Corps upon completion of dredging for the season by completing and submitting the form that will be supplied by the Corps for this purpose when disposal-point coordinates are specified.

SPECIAL CONDITIONS CONTINUED FROM PAGE 4

7. Except when directed otherwise by the Corps' DAMOS Program Manager for site management purposes, all disposal of dredged material shall adhere to the following: The permittee shall be required to release the dredged material at a specified buoy or set of coordinates within the disposal site. All disposal is to occur at the buoy with the scow at a complete halt. This requirement must be followed except when doing so will create unsafe conditions because of weather or sea state, in which case disposal within **200** feet of the buoy with the scow moving only fast enough to maintain safe control (generally less than one knot) will be permitted. Disposal shall not be permitted if these requirements cannot be met due to weather or sea conditions. In that regard, special attention needs to be given to predicted conditions prior to departing for the disposal site.

8. Dredging shall not occur from February 1 to June 1 in order to minimize adverse impacts to spawning and larval stage winter flounder.

9. From February 1 through May 30 of any year, disposal vessels including tugs, barges, and scows transiting between the dredge site and the Massachusetts Bay Disposal Site shall operate at speeds not to exceed 5 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. In that regard, the permittee and contractor should be aware of predicted conditions before departing for the disposal site. The intent of this condition is to reduce the potential for vessel collisions with endangered species, including right whales.

From February 1 through May 30 of any year, an approved marine mammal observer (i.e. meeting the attached National Marine Fisheries Service (NMFS) 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. The permittee shall submit to the Corps of Engineers for approval a statement of qualifications for each observer.

When threatened or endangered species are observed to be present, the vessel captain shall, except when precluded by safety considerations, follow the advice of the marine mammal observer to avoid harassment of or direct impact to individual animals. The observer shall be contracted and paid for by the permittee.

The permittee shall assure that a separate Corps of Engineers marine mammal observation report is fully completed by the observer for every sighting and that this report is received by the Corps' New England Division, Inspection Unit (fax number is (978) 318-8303) within one week of the trip date. The permittee shall require the observer to maintain contact with NMFS (Habitat and Protected Resources Division, phone number 508-281-9328) and other recognized experts to provide and receive information regarding the presence and distribution of threatened and endangered species in Massachusetts Bay. The intent of this condition is to reduce the potential for vessel collisions with threatened and endangered species, including right whales, and to minimize potential impacts of dredged material disposal on threatened and endangered species.

SPECIAL CONDITIONS CONTINUED FROM PAGE 5

Marine mammal observers shall use the following guidelines to minimize conflicts with threatened or endangered species:

(a) A marine mammal observer shall be posted on lookout at all times during daylight hours when disposal vessels have left the harbor and are underway or at the disposal site.

(b) Disposal vessels shall not approach threatened or endangered species closer than 100 feet (see additional condition below for approaching right whales).

(c) Disposal vessels shall adhere to the attached NMFS regulations for approaching right whales, 50 CFR Part 222.32, which restrict approaches within 500 yards of a right whale and specify avoidance measures for vessels that encounter right whales.

(d) If threatened or endangered species are sighted within 500 feet from the disposal point, dredged material shall not be released. In this case, the vessel captain may elect to wait until the animals move away from the disposal point prior to disposal, or, subject to the judgment of the observer, may dispose at an authorized alternative disposal location under the same restrictions noted herein for disposal at the primary disposal location.

(e) If threatened or endangered species are sighted between 500 feet and 1500 feet from the disposal point, the observer shall note the animals' behavior, relative position, and direction and speed of movement to determine if release of dredged material is likely to harass or endanger the animals. For example, whales actively feeding at or near the disposal point are more likely than resting whales to interact with released sediments. If the observer judges that disposal is likely to harass or endanger the animals, the observer shall inform the vessel captain and disposal shall be delayed until the animals change their behavior or move away such that the observer judges that no danger to the animals will result from disposal.

Guidelines for Approval of Endangered Species Observers for ACOE Dredge Projects
National Marine Fisheries Service, Northeast Region

Skill Sets

I. If sea turtles are likely to be present, observers must be able to:

- *A) identify sea turtle species and recognize the morphological differences between sea turtle species.*
- *B) handle live sea turtles and be knowledgeable of holding and release procedures.*
- *C) take standard field measurements of samples.*
- *D) observe and advise dredge operators on the appropriate screening of the dredge's overflow, skimmer funnels and dragheads for turtles (if hopper dredges might be employed).*

II. If shortnose sturgeon are likely to be present, observers must be able to:

- *A) identify shortnose sturgeon and understand the morphological difference between shortnose and Atlantic sturgeon.*
- *B) handle live shortnose sturgeon and be knowledgeable of holding and release procedures.*
- *C) take standard field measurements of samples (total length and fork length).*
- *D) observe and advise dredge operators on the appropriate screening of the dredge's overflow, skimmer funnels and dragheads for sturgeon (if hopper dredges might be employed).*

III. If whales are likely to be present, observers must be able to:

- *A) identify endangered whale species that may be encountered during project operations.*
- *B) discern whale behaviors, such as milling, traveling, and feeding.*
- *C) demonstrate knowledge of individually distinctive markings on humpback and right whales for identification purposes.*

Observer Credentials

Certain credentials and experience might indicate an observer has the skills listed above. Ideally, the applicant will have educational background in marine biology, general experience aboard dredges, and hands on field experience with the species of concern. A person who does not have a college degree in marine biology or a related field may be qualified as an observer if she/he has successfully completed an approved endangered species dredge observer training program (item 3a), and has twice the experience identified as necessary in items (3c) and (3d).

1. *EDUCATION: *College degree (BS or higher) in marine biology or a related field, and*

2. *DREDGE/AFLOAT EXPERIENCE:*

a) *For shortnose sturgeon or sea turtle observers: Work for a minimum of one week in any capacity aboard dredges of the same type as those to be used in the proposed project, or*

b) *For large whale observers: Work for a minimum of two months as a naturalist or wildlife guide aboard an active whale watch vessel or other vessel primarily engaged in the observation of large whales in the wild, and*

3. *FIELD EXPERIENCE AND EQUIVALENTS*

a) *Successful completion of an approved endangered species dredge observer training course, or*

b) *Documented field research focused on the species or its habitat, or*

c) *Work for a minimum of four months as an endangered species observer-in-training aboard dredges that have interacted with the species in question, or*

d) *Active involvement for a minimum of one year in organized responses to protected species stranding events where sea turtles and marine mammals are identified and handled.*

***Note:** If dredge operations are likely to interact with more than one group of protected species, the observer must demonstrate that he/she has all of the respective skill sets. For example, if channel maintenance dredging is conducted in turtle habitat and the dredged material is dumped in the offshore habitat of whales, the observer should meet the criteria listed in section I AND III above.*

Vardy, Fiona C

From: Waterways, DEP (DEP) <dep.waterways@mass.gov>
Sent: Thursday, August 24, 2023 5:20 PM
To: Vardy, Fiona C
Subject: Re: [External] Re: Chapter 91 License/Permit Requests - Hull MA

Categories: Nantasket (Hull) Dredging

That appears to be an application for a dredge permit. Although there is an issuance date listed, we did not locate it in our electronic files. You may want to check with the Town of Hull to see if they have anything in their records.

Chapter 91 Waterways Program
Massachusetts Department of Environmental Protection 100 Cambridge Street, 9th Floor | Boston, MA 02114 • 617-292-5929 | Email - DEP.Waterways@mass.gov

Visit Chapter 91/MassDEP on the Web and Apply Online: https://www.mass.gov/guides/chapter-91-the-massachusetts-public-waterfront-act

Review Current Applications: Search EEA Projects (state.ma.us)

From: Vardy, Fiona C <Fiona.Vardy@foth.com>
Sent: Thursday, August 24, 2023 1:15 PM
To: Waterways, DEP (DEP) <dep.waterways@mass.gov>
Subject: RE: [External] Re: Chapter 91 License/Permit Requests - Hull MA

Good afternoon,
Can you please clarify if a Chapter 91 license exists for the project below since it does not include a license number? If this column is blank in the spreadsheet, is it possibly not on file, or was never issued? Please let me know your thoughts, thank you!

App Type	Permit	File No	License No	Transmittal	Site	Issuance Date	Recording Date	Applicant	Street Addre
D	WW01A	99-9446		P20131	NANTASKET PIER	06-Sep-00		HULL TOWN OF	WEIR RIV

Best,
Fiona

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

ARGEO PAUL CELLUCCI
Governor

JANE SWIFT
Lieutenant Governor

BOB DURAND
Secretary

LAUREN A. LISS
Commissioner

August 31, 2000

Town Manger
Hull Town Hall
Hull, MA 02045

Re: **AMENDED 401 WATER QUALITY CERTIFICATION**
Application for BRP WW 07
Major project dredging, Disposal at MBDS

At: Nantasket Pier at the Weir River, HULL
George Washington Boulevard

ACoE File No: 199501656
DEP Wetlands File No: 35-704
DEP Transmittal No: 120128

Dear Town Manager:

The Department has reviewed your application for an Amended Water Quality Certification, as referenced above. We understand the volume of sediment to be dredged has increased from 63,000 to 83,000 cubic yards as a result of the correction of an error made in the calculation of the sediment volumes, and that the footprint of the dredging remains unchanged. The changes to the Certification are indicated below in bold type.

In accordance with the provisions of Section 401 of the Federal Clean Water Act as amended (33 U.S.C. §1251 et seq.), MGL c.21, §§ 26-53, and 314 CMR 9.00, it has been determined there is reasonable assurance the project or activity will be conducted in a manner which will not violate applicable water quality standards (314 CMR 4.00) and other applicable requirements of state law.

The waters of Weir River estuary, surrounding Nantasket Pier, are designated in the Massachusetts Surface Water Quality Standards as Class SA Waters. The estuary is also classified as an Outstanding Resource Water with open shellfishing. Such waters are intended "as excellent habitat for fish, other aquatic life and wildlife and for primary and secondary contact recreation." Anti-degradation provisions of these Standards require that "existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected."

Proposed project: The proposed project involves the dredging of **83,000** cubic yards of sediment from the Weir River estuary in the vicinity of Nantasket Pier. Dredging to ten feet below mean low water is intended in order to improve navigation. The project is expected to take three months. According to the referenced application, a clamshell, or comparable, dredge will be used. The sediments will be placed into a tight-closing bottom-dump scow, then transported to the Massachusetts Bay Disposal Site (MBDS) for disposal. The U.S. Army Corps of Engineers has determined that the sediment is suitable for disposal at this site, which is outside Massachusetts' waters.

Frequency of maintenance dredging is expected to be ten years, although it was noted that more frequent dredging would allow a smaller footprint and lesser quantities of sediments to be removed; thereby minimizing environmental impacts.

Sediment sample data: The sediment has undergone chemical, physical and biological testing to determine if it is appropriate for disposal at the MBDS, and in a memorandum dated December 15, 1998 the Army Corps of Engineers declared the materials to be suitable.

Four separate chemical sampling and analysis programs have been carried out for this project. The table below summarizes:

1. the minimum and maximum results for ten samples collected in 1995, performed by Toxikon Corp.,
2. the minimum and maximum results for nine samples collected in 1996, performed by Toxikon Corp.,
3. the results of analysis of two samples (surface to -8 feet MLW) collected in June of 1998, and
4. the results of analysis of two samples (-8 to -11 feet MLW) collected in December of 1998, both performed by Scilab Boston, Inc.

Contaminant	1995 Results mg/kg (dry wt.)		1996 Results mg/kg (dry wt.)		June 1998 Results mg/kg (dry wt.)		Dec. 1998 Results mg/kg (dry wt.)	
	minimum	maximum	minimum	maximum	sample #1	sample #2	sample #1	sample #2
Arsenic	4.03	10.70	ND**	25.0	ND	ND	ND	ND
Cadmium	19.60	14.30	ND	11.4	4.19	4.37	0.51	ND
Chromium	89.30	152.00	10.3	130	106.82	105.82	37.2	28.1
Lead	136.00	98.20	13.0	140	41.27	61.19	28.6	24.8
Mercury	1.03	2.09	0.640	1.60	0.4	0.55	ND	0.11
Total Polycyclic Aromatic Hydrocarbons	3.63	162.90	ND	3.11	ND	ND	0.464	0.659
Polychlorinated Biphenyls	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons	341.00	770.00	102	445	NA	NA	NA	NA

* NA means Not Analyzed, **ND means Not Detected

The results sampling programs vary, markedly in some instances. No explanation was offered for these variations.

Physical testing of the ten samples collected in 1995 determined that the sediment has clayey silt texture with 90% or greater passing the No. 200 sieve. The results of grain-sized analysis for the nine samples collected in 1996 were not submitted. The two samples collected in 1998 had 79.2% and 91% passing the No. 200, while the two samples collected in 1998 had 49.4% and 45.7% passing.

Biological testing was performed using sediment samples collected in June 1998. The following information was obtained from a Scilab Boston, Inc. report entitled, "Final Report on the Proposed Dredging of the Weir River Hull, MA DEM Project No. 3349-D," dated October 5, 1998. The amphipod bioassay, performed using *Ampelisca abdita,* detected no statistically significant differences in the survival rate for amphipods exposed to sample 1, sample 2 or reference sediments. Similarly, the bivalve and polychaetes bioassay/biological accumulation tests, performed using *Macoma nasuta* and *Nereis virens* detected no statistically significant differences in the survival rates for the organisms exposed to sample 1, sample 2 or reference sediments. Analysis of bivalve and polychaetes tissue revealed no statistically significant differences in the tissue concentrations of cadmium, mercury, lead and polycyclic aromatic hydrocarbons between organisms exposed to sediment samples 1 and 2, and those exposed to reference sediments. Similar results were reported for the same tests conduction on the sediments collected in December 1998, summarized in the Scilab Boston, Inc. report entitled, "Final Report on the Proposed Dredging of the Weir River Hull, MA DEM Project No. 3349-AD," dated February 27, 1999.

Potential impacts to waters and water-dependent natural resources and mitigation: These waters provide migratory and/or spawning habitat to winter flounder (*Pseudopleuronectes americanus)* and anadromous fish such as rainbow smelt (*Osmerus mordax*). The fine-textured nature of these sediments is a potential threat to flounder eggs and early life stages of the fishery, as well as successful migration of anadromous fish through the area; therefore as recommend by Massachusetts Division of Marine Fisheries, no dredging will be allowed during the spawning and developmental periods for fisheries resources (see condition #5). No time restrictions were recommended for shellfish resources.

The Town of Hull Harbormaster/Shellfish Constable identified two shellfish beds in the vicinity of the project. Neither would be directly, physically disturbed by the dredging, as there is anywhere from 100 to 400 feet from the beds to the dredge footprint.

The Department received no comments by during the 21-day public comment period for this application, which began on December 11, 1999.

Section 61 Findings: Pursuant to M.G. L. Chapter 30, Sections 61 to 62H including (M.E.P.A.) this project was reviewed as EOEA # 11982 and the Secretary's Certificate, issued July 24, 1999, indicated that preparation of an Environmental Impact Report was not required.

Therefore, based on information currently in the record, the Department grants a 401 Water Quality Certification for this project subject to the following conditions to maintain water quality, to minimize impact on waters and wetlands, and to ensure compliance with appropriate state law:

1. All waters including wetlands are protected by anti-degradation provisions of the Massachusetts Surface Water Quality Standards. The Contractor shall take all steps necessary to assure that the proposed activities will be conducted in a manner which will avoid violations of said standards.

2. Prior to construction, the Department shall be notified of any proposed change(s) in plans that may affect waters or wetlands. The Department will determine whether the change(s) require a revision to this Certification.

3. Work in waters and wetlands shall conform substantially to the plans submitted in application to this Department: two sheets dated June 23, 1999, signed and stamped by John J. Hanon, P.E., entitled "Plan to Accompany Petition of Dept. of Environmental Management, Town of Hull for Weir River Maintenance Dredging."

4. The Department, attention Yvonne Unger 617-292-5893, shall be notified one week prior to the start of construction so that Department staff may inspect the work for compliance with the terms and conditions of this Certification.

5. In order to protect anadromous fish and spawning habitat of winter flounder no dredging shall occur between the 15th of February and the 15th of June.

6. No future maintenance dredging is authorized by this Certification because of the need to obtain new approvals for dredged material disposal. Work shall be completed within three years from the date of this Certification.

7. Dredging in accord with this Certification may begin following the 21-day appeal period and once all other permits have been received.

This certification does not relieve the applicant of the obligation to comply with other applicable state or federal statutes or regulations. Any changes made to the project as described in the previously submitted Notice of Intent, 401 Water Quality Certification application, or supplemental documents will require further notification to the Department.

The applicant or property owner; or any person aggrieved by this certification, any group of ten persons, or any governmental body or private organization with a mandate to protect the environment who has submitted written comments during the public comment period have a right to appeal this certification. A notice of claim to an Adjudicatory Hearing must be accompanied by the filing fee specified in 310 CMR 4.00, and the enclosed Departmental Action Fee Transmittal Form submitted to: the Office of Administrative Appeals, DEP, P.O. Box 4062, One Winter Street, Boston, MA 02108, by hand delivery or certified mail postmarked within twenty-one days of the date of this certification. A copy must also be sent to the DEP Division of Wetlands and Waterways in Boston. The notice of claim must comply with the requirements of 314 CMR 9.10(3). Failure to submit comments before the end of the public comment period may result in the loss of the right to an adjudicatory hearing.

Failure to comply with this certification is grounds for enforcement, including civil and criminal penalties, under MGL c.21 §42, 314 CMR 9.00, MGL c. 21A §16, 310 CMR 5.00, or other possible actions/penalties as authorized by the General Laws of the Commonwealth.

If you have questions on this decision, please contact Yvonne Unger at 617-292-5893.

Sincerely,

Lois Bruinooge, Director
Wetlands and Waterways Program

enclosure: Departmental Action Fee Transmittal Form

cc: Kevin Mooney, Kevin Maguire, DEM – Office of Waterways, 349 Lincoln St., Building #45, Hingham 02043
Karen Adams, Regulatory/Enforcement Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751
Deerin Babb-Brott, CZM -Boston
Vince Malkoski, Division of Marine Fisheries, Southeast Marine Fisheries Station, 50A Portside Drive, Pocasset, MA 02559
Conservation Commission, Hull Town Hall, Hull, MA 02045
Richard Chretien, Margaret Finn, DEP NERO

Yu/Cert120128a

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

ARGEO PAUL CELLUCCI
Governor

JANE SWIFT
Lieutenant Governor

BOB DURAND
Secretary

LAUREN A. LISS
Commissioner

July 17, 2000

Town Manger
Hull Town Hall
Hull, MA 02045

Re: **401 WATER QUALITY CERTIFICATION**
Application for BRP WW 07
Major project dredging, Disposal at MBDS

At: Nantasket Pier at the Weir River, HULL
George Washington Boulevard

ACoE File No: 199501656
DEP Wetlands File No: 35-704
DEP Transmittal No: 120128

Dear Town Manager:

The Department has reviewed your application for Water Quality Certification, as referenced above. In accordance with the provisions of Section 401 of the Federal Clean Water Act as amended (33 U.S.C. §1251 et seq.), MGL c.21, §§ 26-53, and 314 CMR 9.00, it has been determined there is reasonable assurance the project or activity will be conducted in a manner which will not violate applicable water quality standards (314 CMR 4.00) and other applicable requirements of state law.

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Proposed project: The proposed project involves the dredging of 63,000 cubic yards of sediment from the Weir River estuary in the vicinity of Nantasket Pier. Dredging to ten feet below mean low water is intended in order to improve navigation. The project is expected to take three months. According to the referenced application, a clamshell, or comparable, dredge will be used. The sediments will be placed into a tight-closing bottom-dump scow, then transported to the Massachusetts Bay Disposal Site (MBDS) for disposal. The U.S. Army Corps of Engineers

has determined that the sediment is suitable for disposal at this site, which is outside Massachusetts' waters.

Frequency of maintenance dredging is expected to be ten years, although it was noted that more frequent dredging would allow a smaller footprint and lesser quantities of sediments to be removed; thereby minimizing environmental impacts.

Sediment sample data: The sediment has undergone chemical, physical and biological testing to determine if it is appropriate for disposal at the MBDS, and in a memorandum dated December 15, 1998 the Army Corps of Engineers declared the materials to be suitable.

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Polychlorinated Biphenyls	ND	ND	ND	ND	ND	ND	ND	ND
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tests, performed using *Macoma nasuta* and *Nereis virens* detected no statistically significant differences in the survival rates for the organisms exposed to sample 1, sample 2 or reference sediments. Analysis of bivalve and polychaetes tissue revealed no statistically significant differences in the tissue concentrations of cadmium, mercury, lead and polycyclic aromatic hydrocarbons between organisms exposed to sediment samples 1 and 2, and those exposed to reference sediments. Similar results were reported for the same tests conduction on the sediments collected in December 1998, summarized in the Scilab Boston, Inc. report entitled, "Final Report on the Proposed Dredging of the Weir River Hull, MA DEM Project No. 3349-AD," dated February 27, 1999.

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The Town of Hull Harbormaster/Shellfish Constable identified two shellfish beds in the vicinity of the project. Neither would be directly, physically disturbed by the dredging, as there is anywhere from 100 to 400 feet from the beds to the dredge footprint.

The Department received no comments by during the 21-day public comment period for this application, which began on December 11, 1999.

Section 61 Findings: Pursuant to M.G. L. Chapter 30, Sections 61 to 62H including (M.E.P.A.) this project was reviewed as EOEA # 11982 and the Secretary's Certificate, issued July 24, 1999, indicated that preparation of an Environmental Impact Report was not required.

Therefore, based on information currently in the record, the Department grants a 401 Water Quality Certification for this project subject to the following conditions to maintain water quality, to minimize impact on waters and wetlands, and to ensure compliance with appropriate state law:

1. All waters including wetlands are protected by anti-degradation provisions of the Massachusetts Surface Water Quality Standards. The Contractor shall take all steps necessary to assure that the proposed activities will be conducted in a manner which will avoid violations of said standards.

2. Prior to construction, the Department shall be notified of any proposed change(s) in plans that may affect waters or wetlands. The Department will determine whether the change(s) require a revision to this Certification.

3. Work in waters and wetlands shall conform substantially to the plans submitted in application to this Department: two sheets dated June 23, 1999, signed and stamped by John J. Hanon, P.E., entitled "Plan to Accompany Petition of Dept. of Environmental Management, Town of Hull for Weir River Maintenance Dredging."

4. The Department, attention Yvonne Unger 617-292-5893, shall be notified one week prior to the start of construction so that Department staff may inspect the work for compliance with the terms and conditions of this Certification.
5. In order to protect anadromous fish and spawning habitat of winter flounder no dredging shall occur between the 15th of February and the 15th of June.

6. No future maintenance dredging is authorized by this Certification because of the need to obtain new approvals for dredged material disposal. Work shall be completed within three years from the date of this Certification.

7. Dredging in accord with this Certification may begin following the 21-day appeal period and once all other permits have been received.

This certification does not relieve the applicant of the obligation to comply with other applicable state or federal statutes or regulations. Any changes made to the project as described in the previously submitted Notice of Intent, 401 Water Quality Certification application, or supplemental documents will require further notification to the Department.

The applicant or property owner; or any person aggrieved by this certification, any group of ten persons, or any governmental body or private organization with a mandate to protect the environment who has submitted written comments during the public comment period have a right to appeal this certification. A notice of claim to an Adjudicatory Hearing must be accompanied by the filing fee specified in 310 CMR 4.00, and the enclosed Departmental Action Fee Transmittal Form submitted to: the Office of Administrative Appeals, DEP, P.O. Box 4062, One Winter Street, Boston, MA 02108, by hand delivery or certified mail postmarked within twenty-one days of the date of this certification. A copy must also be sent to the DEP Division of Wetlands and Waterways in Boston. The notice of claim must comply with the requirements of 314 CMR 9.10(3). Failure to submit comments before the end of the public comment period may result in the loss of the right to an adjudicatory hearing.

Failure to comply with this certification is grounds for enforcement, including civil and criminal penalties, under MGL c.21 §42, 314 CMR 9.00, MGL c. 21A §16, 310 CMR 5.00, or other possible actions/penalties as authorized by the General Laws of the Commonwealth.

If you have questions on this decision, please contact Yvonne Unger at 617-292-5893.

Sincerely,

Glenn Haas, Director
Division of Watershed Management

enclosure: Departmental Action Fee Transmittal Form

cc: Kevin Mooney, Kevin Maguire, DEM – Office of Waterways, 349 Lincoln St., Building #45, Hingham 02043
Karen Adams, Regulatory/Enforcement Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751
Deerin Babb-Brott, CZM -Boston
Vince Malkoski, Division of Marine Fisheries, Southeast Marine Fisheries Station, 50A Portside Drive, Pocasset, MA 02559
John Hanon, 64 Joan Drive, Quincy, MA, 02169
Conservation Commission, Hull Town Hall, Hull, MA 02045
Richard Chretien, Margaret Finn, DEP NERO

Yu/Cert120128

11982

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street, Boston, MA 02202

9/24/99 FILE COPY

ARGEO PAUL CELLUCCI
GOVERNOR

JANE SWIFT
LIEUTENANT GOVERNOR

BOB DURAND
SECRETARY

September 23, 1999

Tel. (617) 727-9800
Fax (617) 727-2754
http://www.magnet.state.ma.us/envir

FINAL RECORD OF DECISION

PROJECT NAME :Weir River Dredging project
PROJECT MUNICIPALITY :Hull
PROJECT WATERSHED :Boston Harbor
EOEA NUMBER :11982
PROJECT PROPONENT :Town of Hull/ Department of Environmental Management
DATE NOTICED IN MONITOR :July 24, 1999

Pursuant to the Massachusetts Environmental Policy Act (M.G.L. c. 30, ss. 61-62H) and Section 11.11 of the MEPA Regulations (301 CMR 11.00), I have reviewed this project and hereby **grant a waiver** from the categorical requirement to prepare an Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Form (ENF), the project involves the dredging of a 13.8 acre area of the Weir River in the vicinity of Nantasket Pier.

Mandatory EIR Requirement

The project automatically requires the preparation of an EIR pursuant to section 11.03 (3)(a)(1)(b), because the project will require a Water Quality Certificate from the Department of Environmental Protection (DEP) and the project alters over ten acres of land subject to the Wetlands Protection Act.

Jurisdiction

One of the proponents is a state agency, and the project involves state financial assistance. MEPA jurisdiction therefore extends to all aspects of the project that are likely to directly or indirectly cause Damage to the Environment.

Waiver Request

The proponent has requested a waiver from the mandatory EIR requirement, claiming that the preparation of an EIR would represent an undue hardship and would not serve to minimize Damage to the Environment. The mandatory EIR requirement and waiver request received full discussion at the MEPA site visit held on July 30, 1999.

Criteria for Waiver

Section 11.11 of the MEPA Regulations provide that I may grant a waiver upon a finding that strict compliance with the regulations will result in undue hardship and will not serve to minimize or avoid damage to the environment. I must base these findings on one or more of the following circumstances: 1) the project is likely to cause no Damage to the Environment; and 2) ample and unconstrained infrastructure facilities and services exist to support the project.

Findings

1) The project is not likely to cause Damage to the Environment. The dredged materials are suitable for unconfined ocean disposal. The area proposed for dredging does not contain significant shellfish beds, eelgrass stands, rare species habitat, or other resources.

2) The project technically constitutes maintenance dredging, because the area within the proposed dredging footprint has been dredged previously. I note, however, that the last dredging operation in this area occurred over 40 years ago. I have thus not given much weight to the maintenance dredging status when determining the appropriateness of the waiver.

3) The ENF has provided enough information to understand project impacts and mitigation, and the proponent can resolve the remaining details (such as the exact dredging method) during the permitting process.

4) Because the environmental impacts of the project are minimal, the preparation of an EIR would not be likely to add significant value to the environmental review process, and would serve only to delay the implementation of the project. Under these

circumstances, I accept the proponent's claim that the preparation of an EIR would constitute an undue hardship.

5) The project meets the standards contained in the draft EOEA policy on granting MEPA waivers for dredging projects.

6) The review of the ENF did not generate any written comments. The review of the Draft Record of Decision did not generate any written comments. At the site visit, staff from several state environmental agencies expressed verbal support for the waiver.

Based on these findings, it is my judgment that the waiver request has merit, meets the tests established in Section 11.11 of the MEPA Regulations, and will serve to advance the interests of the Massachusetts Environmental Policy Act. Therefore, I hereby grant the waiver for the Weir River dredging project.

September 23, 1999
DATE

Bob Durand

Comments received on the ENF:

none

Comments received on the DROD:

none

BAD/ASP/asp

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street, Boston, MA 02202

ARGEO PAUL CELLUCCI
GOVERNOR

JANE SWIFT
LIEUTENANT GOVERNOR

BOB DURAND
SECRETARY

August 30, 1999

Tel. (617) 727-9800
Fax (617) 727-2754
http://www.magnet.state.ma.us/envir

DRAFT RECORD OF DECISION

PROJECT NAME	:Weir River Dredging project
PROJECT MUNICIPALITY	:Hull
PROJECT WATERSHED	:Boston Harbor
EOEA NUMBER	:11982
PROJECT PROPONENT	:Town of Hull/ Department of Environmental Management
DATE NOTICED IN MONITOR	:July 24, 1999

Pursuant to the Massachusetts Environmental Policy Act (M.G.L. c. 30, ss. 61-62H) and Section 11.11 of the MEPA Regulations (301 CMR 11.00), I have reviewed this project and hereby **propose to grant a waiver** from the categorical requirement to prepare an Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Form (ENF), the project involves the dredging of a 13.8 acre area of the Weir River in the vicinity of Nantasket Pier.

Mandatory EIR Requirement

The project automatically requires the preparation of an EIR pursuant to section 11.03 (3)(a)(1)(b), because the project will require a Water Quality Certificate from the Department of Environmental Protection (DEP) and the project alters over ten acres of land subject to the Wetlands Protection Act.

Jurisdiction

One of the proponents is a state agency, and the project involves state financial assistance. MEPA jurisdiction therefore extends to all aspects of the project that are likely to directly or indirectly cause Damage to the Environment.

Waiver Request

The proponent has requested a waiver from the mandatory EIR requirement, claiming that the preparation of an EIR would represent an undue hardship and would not serve to minimize Damage to the Environment. The mandatory EIR requirement and waiver request received full discussion at the MEPA site visit held on July 30, 1999.

Criteria for Waiver

Section 11.18 of the MEPA Regulations provide that I may grant a waiver upon a finding that strict compliance with the regulations will result in undue hardship and will not serve to minimize or avoid damage to the environment. I must base these findings on one or more of the following circumstances: 1) the project is likely to cause no Damage to the Environment; and 2) ample and unconstrained infrastructure facilities and services exist to support the project.

Findings

1) The project is not likely to cause Damage to the Environment. The dredged materials are suitable for unconfined ocean disposal. The area proposed for dredging does not contain significant shellfish beds, eelgrass stands, rare species habitat, or other resources.

2) The project technically constitutes maintenance dredging, because the area within the proposed dredging footprint has been dredged previously. I note, however, that the last dredging operation in this area occurred over 40 years ago. I have thus not given much weight to the maintenance dredging status when determining the appropriateness of the waiver.

3) The ENF has provided enough information to understand project impacts and mitigation, and the proponent can resolve the remaining details (such as the exact dredging method) during the permitting process.

4) Because the environmental impacts of the project are minimal, the preparation of an EIR would not be likely to add significant

value to the environmental review process, and would serve only to delay the implementation of the project. Under these circumstances, I accept the proponent's claim that the preparation of an EIR would constitute an undue hardship.

5) The project meets the standards contained in the draft EOEA policy on granting MEPA waivers for dredging projects.

6) The review of the ENF did not generate any written comments. At the site visit, staff from several state environmental agencies expressed verbal support for the waiver.

Based on these findings, it is my judgment that the waiver request has merit, meets the tests established in Section 11.18 of the MEPA Regulations, and will serve to advance the interests of the Massachusetts Environmental Policy Act. Therefore, I propose to grant the waiver for the Weir River dredging project. I shall publish this Draft record of Decision in the next issue of the *Environmental Monitor* for a fourteen day comment period, after which I shall reconsider, modify, or confirm the waiver.

August 30, 1999
DATE

Bob Durand

Comments received:

none

BAD/ASP/asp

ENVIRONMENTAL NOTIFICATION FORM

in accordance with the Massachusetts Environmental Policy Act

EOEA No.: 11982
MEPA Analyst: Arthur Pugsley
Phone: 617-727-5830 ext. 341

Project: Proposed Dredging at the Weir River
Street: George Washington Blvd. in the vicinity of the Nantasket Pier in Hull, Mass
Municipality: Hull
Watershed: Weir River
Latitude and longitude: N2923701 E829262

Proponent: Town of Hull, Mass. DEM Office of Waterways
Street: 349 Lincoln St. Bldg. 45
Municipality/State/Zip Code: Hingham MA 02043

Estimated commencement date: Fall 1999 Estimated completion date: Fall 1999
Approximate cost: $400,000.00
Status of project design: 60 % complete

Copies of this Environmental Notification Form may be obtained from:
Name: John J. Hannon, P.E.
Firm/Agency: ASEC Corporation Phone: 617-376-2560
Street: 300 Congress Street, Suite 303 Fax: 617-376-2565
Municipality/State/Zip Code Quincy, MA 02169 E-mail:

Description of the Project and its alternatives (attached additional pages if necessary):

The Town of Hull and Mass. DEM Office of Waterways are dredging 63,000 CY of sediment over 13.8 acres by mechanical method with unconfined open sea disposal at Massachusetts Bay Disposal Site (MBDS).

Project was originally proposed for two depths -6 MLW plus a 1 foot overdredge allowance -10 MLW plus a 1 foot overdredge.

US Army Corps of Engineers (COE) will issue a positive Suitability Determination for the upper level of sediment. The Suitability Determination for the lower is being processed at this time.

Project is located within the Weir River A.C.E.C. Maintenance Dredging of the channels has been excluded from the A.C.E.C.

Required Waiver for EIR will be submitted.

Schedules attached to this Environmental Notification Form:

Subject Matter of Schedule	Review Threshold(s) met or exceeded (see 301 CMR 11.03)	Related Permit(s) required from an Agency of the Commonwealth (attach a copy of each completed application)	Impact(s) not meeting or exceeding a Review Threshold or requiring a Permit from an Agency of the Commonwealth
(1) Land	-		
(2) Rare Species			
(3) Wetlands, Waterways & Tidelands	301CMR11.03(3)	x Chap. 91 Water Qual. Cert	
(4) Water			
(5) Wastewater			
(6) Transportation			
(7) Energy			
(8) Air			
(9) Solid & Hazardous Waste			
(10) Historical/Archaeological Resources			
(11) ACECs			

Is this an Expanded ENF requesting:

a Single EIR? __ Yes x No (see 301 CMR 11.06(8))

a Special Review Procedure? __ Yes x No (see 301 CMR 11.09)

a Waiver? x Yes __ No (see 301 CMR 11.11)

List of any Financial Assistance or Land Transfer from an Agency of the Commonwealth:

75% funding Dept. of Environmental Management

25% Town of Hull

Description of the Project's consistency with state, municipal, county, regional and Federal growth and infrastructure plans and policies and of its ability to facilitate sustainable economic development:

List of any permits, licenses, certificates, variances or approvals required from any municipal, county, regional or Federal governmental entity:

DEP water quality cert. COE
DEP waterways Dredging permit
Town of Hull Order of Conditions from Conservation Commission.
MCZM For Consistency

Attachments:

1. Appropriate schedule(s) as indicated on Page 2 of this form
2. Site plan(s)
3. Original U.S.G.S. map or good quality color copy (8-½ x 11 inches or larger) indicating the Project location and boundaries
4. GIS Coordinates, if available

Certifications:

1. The Public Notice of Environmental Review has been/will be published in the following newspapers in accordance with 301 CMR 11.15(1):

(Name)	(Date)
Quincy Patriot Ledger	July 15, 1999

2. This form has been circulated to Agencies and Persons in accordance with 301 CMR 11.16(2).

7-8-99
Date

Kevin D. Maguire
Acting Director of Waterways
Mass DEM

7-8-99		7-8-99	
Date	Signature of Responsible Officer or Proponent	Date	Signature of person preparing ENF (if different from above)
	Philip Lemnios, Town Manager		Abdulkader C. Hamadeh, P.E.
	Name (print or type)		Name (print or type)
Firm/Agency	Town of Hull	Firm/Agency	ASEC Corporation
Street	Town Hall, Atlantic Ave	Street	300 Congress St/Ste 303
Municipality/State/Zip	Hull, MA 02045	Municipality/State/Zip	Quincy, MA 02169
Phone (781)	925-2000	Phone (617)	376-2560

None

Schedule 3 -- Wetlands, Waterways and Tidelands (attach additional pages if necessary)

1. Description and assessment of the Project's impacts on wetlands, waterways and tidelands, including (as applicable):

A. alteration of any resource area subject to protection under the Wetlands Protection Act

B. alteration of any other wetlands protected under Federal or State law

C. alteration of a wetland resource area requiring a variance under the Wetlands Protection Act

D. construction or alteration of a dam

E. non-water dependent use of or structure in waterways or tidelands

F. fill or structure in a velocity zone or regulatory floodway

G. roadway, bridge or utility line to a barrier beach

H. dredging or disposal of dredged material

I. solid fill, pile-supported or bottom-anchored structure in flowed tidelands or other waterways

Temporary noise and sediment turbulence during construction period of dredging operations. However, completed work will produce a larger tidal prism, present a cleaner river channel & basin and will further enhance tidal flushing.

Reestablish safer NAV. channel access.

2. Description and assessment of the Project's other impacts on wetlands, waterways and tidelands:

None required.

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize impacts on wetlands, waterways and tidelands:

None required.

4. Description and assessment of proposed measures that would mitigate impacts on wetlands, waterways and tidelands:

None required.

Schedule 8 -- Air (attach additional pages if necessary)

1. Description and assessment of the Project's impacts on air resources and quality, including (as applicable):

A. construction or modification of a major stationary source

B. new or increased emissions of particulate matter, carbon monoxide, sulfur dioxide, volatile organic compounds, oxides of nitrogen, lead, any other criteria or hazardous air pollutant, or carbon dioxide

Dredging equipment typically employs diesel operating equipment in the form of a crane, tugs, etc. During the construction period air emissions from this equipment will in some minor manner, adversely impact upon air quality. However, impact should be minor and temporary and readily dissipated.

2. Description and assessment of the Project's other impacts on air resources and quality:

None

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize impacts on air resources and quality:

None

4. Description and assessment of proposed measures that would mitigate impacts on air resources and quality:

None

Schedule 11 -- Areas of Critical Environmental Concern (attach additional pages if necessary)

1. Description and assessment of the Project's impacts on environmental resources or quality or infrastructure facilities and services within an Area of Critical Environmental Concern that are conceptually or physically related to the subject matter of any Permit required for the Project:

Proposed project is adjacent to an ACEC. However, no adverse impact is anticipated.

2. Description and assessment of the Project's other impacts on environmental resources or quality or infrastructure facilities and services within an Area of Critical Environmental Concern:

None

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize impacts on environmental resources or quality or infrastructure facilities and services within an Area of Critical Environmental Concern:

None

4. Description and assessment of proposed measures that would mitigate impacts on environmental resources or quality or infrastructure facilities and services within an Area of Critical Environmental Concern:

None


LOCUS
HULL
Hull
Allerton
Bayside
Waveland
Kenberma
Nantasket Beach
Straits Pond
Stony Beach
Pemberton
Windemere
Spinnaker I
Hull Bay
Fort Warren
Georges Island
Thompson Island
Long Island
Moon Island
Rainsford Island
Sewage Disposal Pond
SUFFOLK CO
PLYMOUTH CO
NORFOLK CO
Peddocks Island
Hangman Island
Quincy Bay
Hingham Bay
Sheep Island
Bumkin Island
Sunset Pt
Grape Island
Slate Island
Crow Pt
WEIR RIVER
FORE RIVER
WEYMOUTH
Merrymount Park
Germantown
Quincy
Hingham
West Hingham
Hingham Center
Cole Corner
Lincoln Heights
HINGHAM
Crooked Meadow River
Turtleville
North Cohasset
Wheelwright Park
Cohasset Harbor
Cohasset
COHASSET
Minot
U.S. GOVERNMENT RESERVATION
North Scituate
Mann Hill Beach
Egypt Beach
Shore Acres
Hatherly Beach
Sand Hills
Egypt
Scituate Center
Scituate Harbor
Scituate
Scituate Station
SCITUATE
Beechwood
Clapps Corner
Mann Corner
Mungo Corner
Sherman Corner
Greenbush
CUSHING MEMORIAL STATE PARK
WOMPATUCK STATE PARK
George Washington Town Forest
Liberty Plain
Accord
Accord Pond
NORWELL
Norwell
Assinippi
Braintree
BRAINTREE
South Braintree
WEYMOUTH
East Weymouth
Weymouth
Idlewell
Lovell Corners
South Weymouth
Weymouth Great Pond
HOLBROOK
SOUTH WEYMOUTH NAVAL AIR STATION
ROCKLAND
North Abington
North Hanover
Mercer Square
Marshfield Hills
North Marshfield
475
450
425
15'

Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands and Waterways

Transmittal #

BRP WW 07, 08 Dredging

401 Water Quality Certification - Projects Proposing More Than 100 Cubic Yards Dredging or Disposal of Dredged Material

A Applicant Information

1. Which permit category are you applying for?
   X BRP WW 07 | BRP WW 08

2. Applicant:
   Town of Hull/Mass. DEM, Office of Waterways
   Name
   349 Lincoln Street
   Address
   Hingham, MA 02043
   City/Town *State*
   Contact Person
   Kevin D. Maguire
   Telephone (home) *(work)*
   (781)740-1600

3. Authorized agent:
   ASEC Corporation
   Name
   300 Congress Street
   Address
   Quincy, MA
   City/Town *State*
   Contact Person
   John J. Hannon, P.E.
   Telephone (home) *(work)*
   (617)376-2560

B Project Information

1. Project Location:
   Weir River, vicinity of Nantasket Pier
   Street Address
   City/Town
   Hull
   Nearest or Adjacent Waterbody
   Weir River

2. Project Name (if any):
   Weir River Navigational Access Project

3. Will the proposed project occur in any wetlands or waters designated as "Outstanding Resource Waters"?
   ☐ yes ☒ no
   If yes has public notice been published in the Environmental Monitor?
   ☐ yes ☐ no
   Date of Publication

4. Identify the loss in square feet of each type of resource area (see Application Instructions for additional information.):
   a. Land under water
   Footprint of work is 13.8 Acres total -10MLW
   square feet
   0.6 Acres in Intertidal
   b. Other Resources:
   Intertidal
   square feet

5. Does this project require a license from the Federal Energy Regulatory Commission?
   ☐ yes ☒ no
   If yes, see Application Instructions for additional information needed.

6. Is the project categorically subject to MEPA?
   ☒ yes ☐ no
   If yes, has final action been taken?
   ☐ yes ☒ no
   If yes, please include copy of MEPA certificate.

7. Is any of your proposed work exempt from the Massachusetts Wetlands Protection Act or taking place in a federal non-state wetland?
   | yes X | no
   If yes, see Application Instructions for additional information needed.

BRP WW 07, 08 Dredging

401 Water Quality Certification - Projects Proposing More Than 100 Cubic Yards Dredging or Disposal of Dredged Material

C Description of Proposed Dredging Site

1. a. Describe in general the proposed project or activity, including the purpose and intended use of the project, and the duration of the work within any waterbody:

Proposed project involves the maintenance dredging of the Weir River at the vicinity of the Nantasket Pier. A depth elevation is proposed of -10MLW. Unconfined disposal at the MBDS. Duration of work is approximately three months.

b. Date activity to commence:

Fall 1999

c. What is the expected frequency of maintenance dredging of this project? Explain:

10 Years, more frequent dredging will allow small quantities of footprint and lesser environmental impact.

2. Attach plan(s) of the proposed project as follows:

XX Include a copy of the appropriate portion from the USGS quadrangle map for this project site. Include the identification number and name of the USGS quad map.

Plan View.
The plan view of the proposed activity should show the following:

- ☐ Existing shorelines.
- ☐ Ebb and flood in tidal waters and direction of flow in rivers.
- ☐ North arrow.
- ☐ Graphic and numerical scale.
- ☐ Mean high and low water lines if the proposed activity is located in tidal areas.
- ☐ Ordinary high water line for inland water.
- ☐ Water depths around the project.
- ☐ Principal dimensions of the structure or work and extent of encroachment beyond the applicable high water line.
- ☐ Seaward distance from an existing permanent fixed structure or object
- ☐ Distance between proposed activity and navigation channel, where applicable.
- ☐ Harbor lines, if established and if known.
- ☐ Location of structures, if any, in navigable waters immediately adjacent to the proposed activity.
- ☐ Location of any vegetated wetlands or wetland resource area.
- ☐ Proximity to any designated Areas of Critical Environmental Concern.

Elevation and/or Section View.
The elevation and/or section view of the proposed project should show the following:

- ☐ Same water elevations as in the plan view.
- ☐ Depth at waterward face of proposed work. Show dredging grade.
- ☐ Graph and numerical scale.
- ☐ Cross-section of excavation including approximate side slopes.

3. a. What is the length, width, depth and volume of the proposed project?

length: 1060 ft *Feet* width: 220 ft and variable *Feet*

Depth: -10 MLW *Feet* Volume: 63,000 *cubic yards*

b. Is the proposed project considered

i. a new project, ☐ yes ☒ no or

ii. maintenance of an existing project? ☒ yes ☐ no

iii. when was the project area last dredged?

1957 *Date*

DPW Contract NO. 1783 *Permit/License Name and Number*

BRP WW 07, 08 Dredging

401 Water Quality Certification - Projects Proposing More Than 100 Cubic Yards Dredging or Disposal of Dredged Material

C Description of Proposed Dredging Site *(cont.)*

3. c. Describe in complete detail the physical dredging operation including descriptions of the type of dredge equipment, i.e., hopper dredge, hydraulic dredge, etc., the type of transportation to be used from the dredge site to the disposal site, the method of release of the dredged material into the disposal site, and the name of the contractor if other than the applicant.

Dredge by Clamshell or other Comprable mechanical method and placed into tight closing bottom dump scows at the approved MBDS location.

d. Describe all measures designed to avoid and minimize adverse impacts of the project on aquatic life and the aquatic ecosystem. Where impacts cannot be avoided or minimized, what mitigation measures are proposed? (See Application Instructions.)

Fall/Winter dredging is outside of the spawing season for finfish and shellfish.

4. Historical Parameters

To the best of your knowledge, does the proposed project area have any past history of:

a. chemical or oil spills or discharge?

☐ Yes ☒ No

b. upstream or on-site industrial or municipal discharge within 1,000 feet of the proposed project?

☐ Yes ☒ No

c. chronic pollutant loading from port or harbor use and/or other sources of pollutants? (eg. CSO or POTW discharges)

☐ Yes ☒ No

If yes to any questions in Item C-4, provide as much historical information as you have, including dates, amounts, concentrations, etc. of such spills or discharge. Attach additional sheets if necessary.

BRP WW 07, 08 Dredging

401 Water Quality Certification - Projects Proposing More Than 100 Cubic Yards Dredging or Disposal of Dredged Material

D Description of Material to be Dredged

1. Grain Size Analysis

See application instructions for sampling and analysis requirements

See attached report by SCILAB Boston, Inc. dated October 5, 1998 & CORPS Of Engineers, suitability determination for.

Size Fraction % of total by weight

coarse gravel 64 mm	
fine gravel 2-64 mm	
sand .063-2 mm	
silt .004-063 mm	
clay .004 mm	

2. Chemical Analysis of Sediment

See application instructions for sampling and analysis requirements. List constituents in mg/kg (ppm) dry weight unless otherwise indicated.

See attached report by SCILAB Boston, Inc. dated October 5, 1998 & CORPS Of Engineers, suitability determination for.

arsenic	
cadmium	
chromium	
copper	
lead	
mercury	
nickel	
zinc	
PCBs (polychlorinated biphenyls)	
PAHs (polynuclear aromatic hydrocarbons)	
TPH (total petroleum hydrocarbons)	
TOC (total organic carbon)	%
volatile solids	%
water	%

BRP WW 07, 08 Dredging

401 Water Quality Certification - Projects Proposing More Than 100 Cubic Yards Dredging or Disposal of Dredged Material

E Description of the Disposal Site for Dredged Material

1. For ocean disposal sites

a. Location of proposed disposal site and its physical boundaries.

See attached report by SCILAB Boston, Inc., dated October 5, 1998

b. Has the site been designated by the state or E.P.A. as a dredge disposal site? ☐ Yes ☐ No

If no, give a description of the characteristics of the proposed disposal site and an explanation as to why no currently designated site is feasible for this project.

See attached report by SCILAB Boston, Inc., dated October 5, 1998

c. Is the anticipated disposal site located within a designated ocean sanctuary as established by federal law or G.L.c. 132A, sec. 13? ☐ Yes ☐ No

If yes, which sanctuary?

2. For disposal sites or dewatering sites on land (landward of mean high water, see instructions):

a. Location of proposed disposal and dewatering sites and physical boundaries.

b. Indicate drainage characteristics of dewatering and disposal sites from the results of test pits, borings, percolation tests as applicable.

c. How long are the dewatering and disposal sites estimated to be in use from this project? from future projects?

d. Include plans for effluent control at the dewatering and disposal sites.

3. For proposed dewatering of dredged sediment on a barge, provide plans for adequate containment and effluent control.

F Certification

Application is hereby made for Water Quality Certification concerning the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities.

July 7, 1999
Date

Signature of Applicant or Authorized Agent

The application must be signed by the applicant; however, it may be signed by a duly authorized agent (named in Item 2) if this form is accompanied by a statement by the applicant designating the agent and agreeing to furnish upon request, supplemental information in support of the application.

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street, Boston, MA 02202

ARGEO PAUL CELLUCCI
GOVERNOR

JANE SWIFT
LIEUTENANT GOVERNOR

BOB DURAND
SECRETARY

Tel. (617) 727-9800
Fax (617) 727-2754
http://www.magnet.state.ma.us/envir

MEETING NOTICE

TO: Distribution
FROM: Arthur Pugsley, MEPA Unit
DATE: July 22, 1999
SUBJECT: Dredging at the Weir River, Hull
EOEA # 11982

An Environmental Notification Form has been submitted for this project. The project is sufficiently large that an Environmental Impact Report (EIR) will be required. The proponent is asking for a waiver of the EIR requirement. Pursuant to M. G. L. Chapter 30, Section 62, and 301 C.M.R. 11.00, the Secretary of Environmental Affairs must issue a determination regarding the significance of the potential environmental impacts of this project. The Secretary must also determine whether the waiver request has merit.

Therefore, a consultation meeting will be held to receive advice and comment from agencies, officials, and citizens regarding which environmental issues are significant for this project.

The meeting is scheduled as follows:

DATE: July 30, 1999

TIME: 10:00 AM

LOCATION: meet at Nantasket Pier in Hull

The meeting will include a brief presentation of the MEPA process by the staff, a brief presentation of the project by the proponent, followed by a period for open comments on environmental issues. Additional comments will be welcome in writing until August 23, 1999.

Questions on the meeting may be answered by contacting Arthur Pugsley of the MEPA staff at (617) 727-5830 ext. 301.

Pursuant to the requirements of the Americans With Disabilities Act this Meeting Notice is available in alternative formats upon request.

Arthur Pugsley	MEPA	617 727 5830 x 301
Peter Williams	Nucci Vine	781-749-2530
Kevin P. Mooney	DEM - Waterways	781 740-1600 X103
Mike Nicholson	Hull Harbormaster	(781) 925-0316
Norm Rogers	"	"
John J. Hennon	ASEC	617 376-7560
Jay Szklut	Hull CD Director	781-925-3595
Phil Lemnios	Town Manager	781-925-2000

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

DIVISION OF RESOURCE CONSERVATION
100 CAMBRIDGE STREET, BOSTON, MA 02202
PHONE 617-727-3160 FAX 617-727-2630
www.state.ma.us/dem/

July 30, 1999

Bob Durand, Secretary
Executive Office of Environmental Affairs
The MEPA Unit
100 Cambridge Street, 20th Floor
Boston, MA 02202

Attn: Arthur Pugsley, Environmental Reviewer

RE: EOEA No. 11982 Proposed Dredging of the Weir River in the Vicinity of the Nantasket Pier, Hull

Dear Mr. Durand;

Please consider this letter and the attached documentation supplementary information for EOEA No. 11982 Hull. The proposed project is 100% maintenance dredging, any reference made in the prior submission to improvement dredging should be disregarded.

The Town of Hull and DEM Office if Waterways is still requesting a waiver from the categorically inclusion for an EIR, as allowed under 301 CMR 11.11. The categorical inclusion for an EIR is as required under 301 CMR 11.03 (3) (a) 1. B. alteration of ten or more acres of any other wetlands. This project meets this category for it is dredging a total of 13.8 acres of land under the water and intertidal lands. The following is a discussion of how the proposed project meets the criteria of 310 CMR 11.11 (1) though (4):

(1) (a) The proposed project has been included in the FY'00 funding by the Department of Environmental Management and by the Town of Hull. Delay of this project may jeopardize the funding. The Town of Hull is negotiating with companies to operate the pier, this is based on the dredging of the channels in FY'00, delay of the dredging shall reduce the income to the Town of Hull. This shall cause hardship to the Town and to the project.

(1) (b) The project, as proposed, shall not adversely effect the environment. If during the permit process, environmental windows for no dredging as assessed, the project shall abide to these windows.

(2) The project is maintenance dredging of an existing permitted channel. The impacts to the ecosystem shall be minimal and temporary. Based on information from Natural Heritage and Endangered Species Program and the Hull Shellfish Constable, there are not any significant natural resources within the project area or that will be adversely effected by dredging.

(3) (a) The project, as stated above, shall not cause any adverse effect to the environment. Past dredging project have shown an increase in shellfish resources and other water-based species, for the dredging increases (marginally) the flushing action of the area being dredged. Therefore, the dredging may actually increase the ecosystem for these species. In accordance with the U.S. Army Corps of Engineers (COE), the materials to be dredged is suitable for unconfined open sea disposal at the Massachusetts Bay Disposal Site (MBDS). The disposal shall not adversely effect the species at MBDS.

(3) (b) The Nantasket Pier shall support the proposed activities that will be benefited from the dredging. No other facilities of services shall be required

(4) (a) The proposed project has been developed in two (2) phases, by dredge design depth. Phase I is to –6' MLW, phase II is to –10 MLW, both will have an one (1) foot over-dredge allowance. Phasing of this project shall be assessed on the determination of the COE suitability of unconfined open sea disposal. Currently, the first phase has been approved in writing, the second phase is being drafted at this time. Separating this project into phases for construction shall only extend the time of disturbance to the ecosystem.

(4) (b) This will not change.

(4) (c) The project will still be serviceable if phase I is completed, only the extent of the proposed plans for the area will be reduced. Currently, the water ferry services are operating within channels that have at least 10 of water at MLW.

(4) (d) The Town of Hull and the Department shall abide by all conditions and restrictions assessed by all agencies during the review of the project.

We anticipate that this additional information and documentation will assist in the review of the project. Whereas, the information is being submitted at this time it is understandable that a full review may not be may by all interested parties, therefore, the Department respectfully request an extension of 10 days for the submission of comments and the issuance of the Secretary's Decision. In doing so, we request that expeditious treatment be given to the issuance of the decision in order to keep this project on schedule for dredging in the fall of 1999. If you have any questions or concerns on this submission, please submit these to me at the above address or you me call me at (781)740-1600 X 103. Thank you in advance for you consideration of these requests.

Very truly yours,

Kevin P. Mooney
Civil Engineer V
Office of Waterways

KPM/kpm
Enclosures

SCILAB
FULL SERVICE ENVIRONMENTAL LABORATORIES

SCILAB BOSTON, INC.
8 School Street
Weymouth, MA 02189-8951
Tel: (781) 337-9334
Fax: (781) 337-7642

Final Report on the Proposed Dredging of the Weir River Hull, MA DEM Project No. 3349-AD

Prepared for:

Department of Environmental Management
Office of Waterways
349 Lincoln Street, Building 45
Hingham, MA 02043

Prepared By:

SCILAB BOSTON, INC
8 School Street
Weymouth, MA 02189

February 27, 1999

SCILAB BOSTON, INC, (**SCILAB**) was contracted to provide sampling, bioassay, and analytical services in support of the proposed dredging of the Weir River in Hull, Massachusetts, DEM Project No. 3349-AD. Samples were collected from locations A, B, C, D, E, F, and G as specified on the map located in the appendix. Core samples were collected to an approximate depth of 7-10 feet. Sample collection was completed over the course of three days, December 27-29, 1998.

Two gallons of sediment were collected from each location and labeled accordingly. Upon completion the samples were then transported to our Weymouth, Massachusetts laboratory for compositing and analysis. Upon arrival the samples were given a chain of custody number and the required tests were logged into our LIMS system. The individual samples were homogenized and composited on a volume to volume basis with locations A, B, C, and D forming SCILAB sample number 9901-00043.1 and locations E, F, and G forming sample number 9901-00043.2

Samples were analyzed for the following parameters: PAHs, Metals, Pesticides, PCBs, TOC, Grain Size, 10 day Bioassay, and 28 day Bioassay/Bioaccumulation studies. Bioassay analysis performed by ESI, Inc. Upon completion of the 28 day Bioassay testing the test organisms were harvested and analyzed for PAHs, Cadmium, Mercury, and Lead. Survivability and bioaccumulation statistics were recorded and performed upon the test organisms. Data for all analyses are presented within subsequent sections within this report.

The data as generated from the acute toxicological study indicates that the proposed dredged materials had no significant adverse impact on survival of the amphipod *A. abdita.* The 28 day bioaccumulation study indicates that the test sediments had no significant impact on the polychaete worm, *N. virens* or the bivalve clam, *M. nasuta.* Additionally the tissue body burden data showed that there was no significant bioaccumulation of cadmium, lead, mercury, or PAHs in either the worms or clams exposed to the proposed dredged materials.

Section 3.0
Analytical Data Summary
Sediment Samples

Table 1

Analytical Data for Sediment Samples, Weir River Hull, Massachusetts

Parameter	Composite #1	Composite #2	MDL & Units
Arsenic	ND	ND	15 mg/Kg
Barium	21.7	ND	20 mg/Kg
Cadmium	0.51	ND	0.5 mg/Kg
Chromium	37.2	28.1	1.0 mg/Kg
Lead	28.6	24.8	10 mg/Kg
Mercury	ND	0.11	0.1 mg/Kg
Selenium	ND	ND	50 mg/Kg
Silver	ND	ND	1 mg/Kg
4,4'-DDD	ND	ND	0.000055 mg/Kg
4,4'-DDE	ND	ND	0.00002 mg/Kg
4,4'-DDT	ND	ND	0.00006 mg/Kg
Aldrin	ND	ND	0.00002 mg/Kg
Chlordane	ND	ND	0.00035 mg/Kg
Dieldrin	ND	ND	0.00001 mg/Kg
Endosulfan I	ND	ND	0.00007 mg/Kg
Endosulfan II	ND	ND	0.00002 mg/Kg
Endosulfan Sulfate	ND	ND	0.00033 mg/Kg
Endrin	ND	ND	0.00003 mg/Kg
Endrin Aldehyde	ND	ND	0.000115 mg/Kg
Heptachlor	ND	ND	0.000015 mg/Kg
Heptachlor Epoxide	ND	ND	0.000415 mg/Kg
Methoxychlor	ND	ND	0.00006 mg/Kg
PCB-1016	ND	ND	0.1 mg/Kg
PCB-1221	ND	ND	0.00125 mg/Kg
PCB-1232	ND	ND	0.00125 mg/Kg
PCB-1242	ND	ND	0.00125 mg/Kg
PCB-1248	ND	ND	0.00125 mg/Kg
PCB-1254	ND	ND	0.00125 mg/Kg
PCB-1260	ND	ND	0.00125 mg/Kg
PCB-1268	ND	ND	0.1 mg/Kg
Toxaphene	ND	ND	0.0012 mg/Kg
alpha- BHC	ND	ND	0.000015 mg/Kg
beta-BHC	ND	ND	0.00003 mg/Kg
delta-BHC	ND	ND	0.000045 mg/Kg
gamma-BHC	ND	ND	0.00002 mg/Kg

Table 1

Analytical Data for Sediment Samples, Weir River Hull, Massachusetts

Parameter	Composite #1	Composite #2	MDL & Units
Naphthalene	ND	ND	0.020 mg/Kg
Acenaphthylene	ND	ND	0.020 mg/Kg
Acenapthene	ND	ND	0.020 mg/Kg
Fluorene	ND	ND	0.030 mg/Kg
Phenanthrene	0.044	0.08	0.010 mg/Kg
Anthracene	ND	ND	0.020 mg/Kg
Fluoranthene	0.083	0.112	0.010 mg/Kg
Pyrene	0.105	0.129	0.030 mg/Kg
Benzo (a) anthracene	0.043	0.054	0.010 mg/Kg
Chrysene	0.055	0.073	0.010 mg/Kg
Benzo (b) Fluoranthene	ND	0.051	0.050 mg/Kg
Benzo (k) Fluoranthene	0.05	0.058	0.050 mg/Kg
Benzo (a) pyrene	0.041	0.055	0.010 mg/Kg
Indeno (1,2,3-cd) pyrene	0.021	0.025	0.010 mg/Kg
Dibenzo (a,h) anthracene	ND	ND	0.010 mg/Kg
Benzo (g,h,i) perylene	0.022	0.022	0.010 mg/Kg
Total Organic Carbon	10800	11800	5.0 mg/Kg
Total Organic Carbon (duplicate)	8410	12800	5.0 mg/Kg
% Moisture	49.0 B	40.7 B	%
Grain Size 1" Sieve	100	100	%
Grain Size 0.75" Sieve	100	100	%
Grain Size 0.5" Sieve	100	100	%
Grain Size 0.375" Sieve	100	100	%
Grain Size #4 Sieve	100	100	%
Grain Size # 10 Sieve	100	100	%
Grain Size # 20 Sieve	99.0	97.3	%
Grain Size # 40 Sieve	91.3	88.2	%
Grain Size # 50 Sieve	80.9	79.0	%
Grain Size # 80 Sieve	60.7	59.6 A	%
Grain Size # 200 Sieve	49.4	45.7	%

Section 4.0
Analytical Data Summary
Bioassay Samples

Table 2
Survival Data for *Ampelisca abdita* Weir River Sediments, Hull, Massachusetts

PROJECT SITE	Survival at the End of 10 Days Exposure 20 Organisms per Replicate at the Start of Assay					Mean	Significant Difference From Reference Site
Laboratory Control	18	18	19	17	19	91.0%	No
Reference Site	17	18	17	18	13	83.0%	
Composite Site 1	19	17	11	17	13	77.0%	No
Composite Site 2	14	17	15	19	13	78.0%	No

Table 3
Survival Data for *Nereis virens* Weir River Sediments, Hull, Massachusetts

PROJECT SITE	Survival at the End of 28 Days Exposure 20 Organisms per Replicate at the Start of Assay					Mean	Significant Difference From Reference Site
Laboratory Control	20	20	19	16	17	92.0%	No
Reference Site	19	17	18	18	18	90.0%	
Composite Site 1	17	20	18	16	17	88.0%	No
Composite Site 2	17	16	19	14	15	81.0%	No

Table 4
Survival Data for *Macoma nasuta* Weir River Sediments, Hull, Massachusetts

PROJECT SITE	Survival at the End of 28 Days Exposure 20 Organisms per Replicate at the Start of Assay					Mean	Significant Difference From Reference Site
Laboratory Control	19	14	18	18	16	85.0%	No
Reference Site	14	15	17	15	17	78.0%	
Composite Site 1	13	17	16	18	13	77.0%	No
Composite Site 2	15	14	15	15	17	76.0%	No

Section 5.0
Analytical Data Summary
Bioaccumulation Samples

Table 5
Cadmium Body Burdens after 28 Day Exposure for *Nereis virens*

PROJECT SITE	Cadmium Body Burdens after 28 Day Exposure					Mean	Significant Difference From Reference Site
Laboratory Control	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	No
Reference Site	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Composite Site 1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	No
Composite Site 2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	No

Table 6
Cadmium Body Burdens after 28 Day Exposure for *Macona nasuta*

PROJECT SITE	Cadmium Body Burdens after 28 Day Exposure					Mean	Significant Difference From Reference Site
Laboratory Control	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	No
Reference Site	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Composite Site 1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	No
Composite Site 2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	No

Table 7
Mercury Body Burdens After 28 Day Exposure for *Nereis virens*

PROJECT SITE	Mercury Body Burdens After 28 Day Exposure					Mean	Significant Difference From Reference Site
Laboratory Control	0.02	0.01	0.01	0.01	0.01	0.01	No
Reference Site	0.02	<0.01	0.01	0.02	0.01	0.01	
Composite Site 1	0.01	<0.01	0.01	<0.01	<0.01	0.01	No
Composite Site 2	<0.01	<0.01	0.01	<0.01	<0.01	0.01	No

Table 8

Mercury Body Burdens After 28 Day Exposure for *Macoma nasuta*

PROJECT SITE	Mercury Body Burdens After 28 Day Exposure					Mean	Significant Difference From Reference Site
Laboratory Control	<0.01	0.01	<0.01	<0.01	<0.01	0.01	No
Reference Site	<0.01	<0.01	0.01	0.01	0.01	0.01	
Composite Site 1	0.01	0.01	0.01	0.01	0.02	0.01	No
Composite Site 2	0.01	0.01	0.01	0.01	0.01	0.01	No

Table 9

Lead Body Burdens After 28 Day Exposure for *Nereis virens*

PROJECT SITE	Lead Body Burdens After 28 Day Exposure					Mean	Significant Difference From Reference Site
Laboratory Control	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	No
Reference Site	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Composite Site 1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	No
Composite Site 2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	No

Table 10

Lead Body Burdens After 28 Day Exposure for *Macoma nasuta*

PROJECT SITE	Lead Body Burdens After 28 Day Exposure					Mean	Significant Difference From Reference Site
Laboratory Control	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	No
Reference Site	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Composite Site 1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	No
Composite Site 2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	No

Table 11

PAH Body Burdens After 28 Day Exposure for *Nereis virens*

PROJECT SITE	PAH Body Burdens After 28 Day Exposure					Mean	Significant Difference From Reference Site
Laboratory Control	ND	ND	ND	ND	ND	ND	No
Reference Site	ND	ND	ND	ND	ND	ND	
Composite Site 1	ND	ND	ND	ND	ND	ND	No
Composite Site 2	ND	ND	ND	ND	ND	ND	No

Table 12

PAH Body Burdens After 28 Day Exposure for *Macoma nasuta*

PROJECT SITE	PAH Body Burdens After 28 Day Exposure					Mean	Significant Difference From Reference Site
Laboratory Control	ND	ND	ND	ND	ND	ND	No
Reference Site	ND	ND	ND	ND	ND	ND	
Composite Site 1	ND	ND	ND	ND	ND	ND	No
Composite Site 2	ND	ND	ND	ND	ND	ND	No

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

REPLY TO
ATTENTION OF

December 16, 1998

CENED-OD-R-199501656
Regulatory Branch

Eugene F. Cavanaugh
Director of Waterways
349 Lincoln Street, Bldg #45
Hingham, MA 02043

Dear Mr. Cavanaugh:

As you requested by letter dated October 14, 1998 we have prepared the attached suitability determination for the Nantasket Pier dredge project in Hull, MA.

No work may be started until you have received all of the required Federal, State and local approvals. If you have any questions or would like to discuss the permit evaluation process, please contact me at 978 318-8863.

Sincerely,

Ted Lento

Ted Lento
Project Manager
Regulatory Branch

CENAE-CO-R (1145-2-303B) December 15, 1998

MEMORANDUM THRU

Chief, Policy Analysis and Technical Support Section

Chief, Permits Section A

FOR: Ted Lento

SUBJECT: Review of Biological Testing Results and Suitability Determination for the Massachusetts Department of Environmental Management and Town of Hull, Nantasket Pier, Application #199501656, Weir River, Hull, MA.

1. The applicant is proposing to dredge approximately 30,000 cubic yards of material from the Weir River at the Nantasket Pier. This material is proposed to be mechanically dredged and disposed of at Massachusetts Bay Disposal Site (MBDS).

2. This area was tested for bulk sediment chemistry in 1995 according to a plan developed by the applicant without any input from the federal agencies. Six samples were taken from the area to be dredged and analyzed for the usual contaminants, although the detection limits for many contaminants were higher than what is required in the regional protocol. I reviewed the data in my November 30, 1995 Suitability Determination and determined that, based upon this data, the material was unsuitable for unconfined open water disposal. I concluded that the contaminants of concern were cadmium, mercury, lead and PAH's.

Of the options open to the applicant, they chose to do biological testing to show that the material is truly suitable for unconfined disposal. A biological testing plan was developed, approved by the federal agencies, and forwarded to the Permits project manager on April 28, 1998. We received final copies of the test results on October 19, 1998.

3. The results of the bulk sediment chemistry analysis of sediment samples are tabulated on the attached spreadsheet. From the usual list of metals, the lab tested only for arsenic, cadmium, chromium, lead and mercury. They tested for barium, selenium and silver on their own initiative. They did not analyze the Reference Site sediment.

The previous sediment testing effort showed high concentrations of

PAH's. The present effort, despite using values of one half of very high detection limits, showed low concentrations of PAH's. No explanation was given for this discrepancy.

I do not think that the sampling crew took sediment from an area outside of the area to be dredged. The area to be dredged is small and contains a large landmark, namely the pier. It would be difficult to sample far outside the area to be dredged. I believe that the first testing effort was erroneous and the second is more accurate. If the concentrations of PAH's were as high as indicated by the first test, I would expect greater bioaccumulation of PAH's in the test animals than what was found in the bioaccumulation test.

4. The amphipod bioassay test used *Ampelisca abdita* as the test animals. The average survivorship for the amphipods exposed to sediment from the control site was 92%. As the mortality in the control was less than 10%, this test was valid. The average survivorship for the amphipods exposed to sediment from the reference site was 83%. The average survivorship for the amphipods exposed to sediment from the proposed project site in Composite 1 was 95% and was 97% in Composite 2. Statistical analysis indicates that there is no significant difference between the survivorships of the amphipods exposed to the reference sediments and the amphipods exposed to the project site sediments. Therefore, the material proposed to be dredged meets the limiting permissible concentration for benthic toxicity and complies with the benthic bioassay criteria of CFR 227.13(c)(3).

5. The bioassay/biological accumulation test used *Macoma nasuta* as the bivalve test species and *Nereis virens* as the polychaete test species. The average survivorship for the bivalves exposed to sediment from the control site was 94%. The average survivorship for the bivalves exposed to sediment from the reference site was 87%. The average survivorships for the bivalves exposed to sediments from the proposed project site was 92% for Composite 1 and 91% for Composite 2. Statistical analysis indicates that there is no significant difference between the survival rates of the bivalves exposed to the reference sediments and the bivalves exposed to the project site sediments.

The average survivorship for the polychaetes exposed to sediment from the control site was 94%. The average survivorship for the polychaetes exposed to sediment from the reference site was 87%. The average survivorship for the polychaetes exposed to sediment from the proposed project site was 92% for Composite 1 and 91% for Composite 2. Statistical analysis indicates that there is no significant difference between the survival rates of the polychaetes exposed to the reference sediments and the polychaetes exposed to the project site sediments. As the mortality in the control was less than 10%, these tests were valid.

6. The tissues of the surviving bivalves and polychaetes were tested for bioaccumulated cadmium, mercury, lead and PAH's. Review of the summary data shows no statistically significant differences between the tissue concentrations of these chemicals in the test animals exposed to the reference sediments and the test animals exposed to the project site sediments.

The concentrations of all the PAH's were below the detection limit. The detection limit was higher than that required, 50 ppb versus 10 to 20 ppb, but was close enough to indicate that there was no accumulation of PAH's.

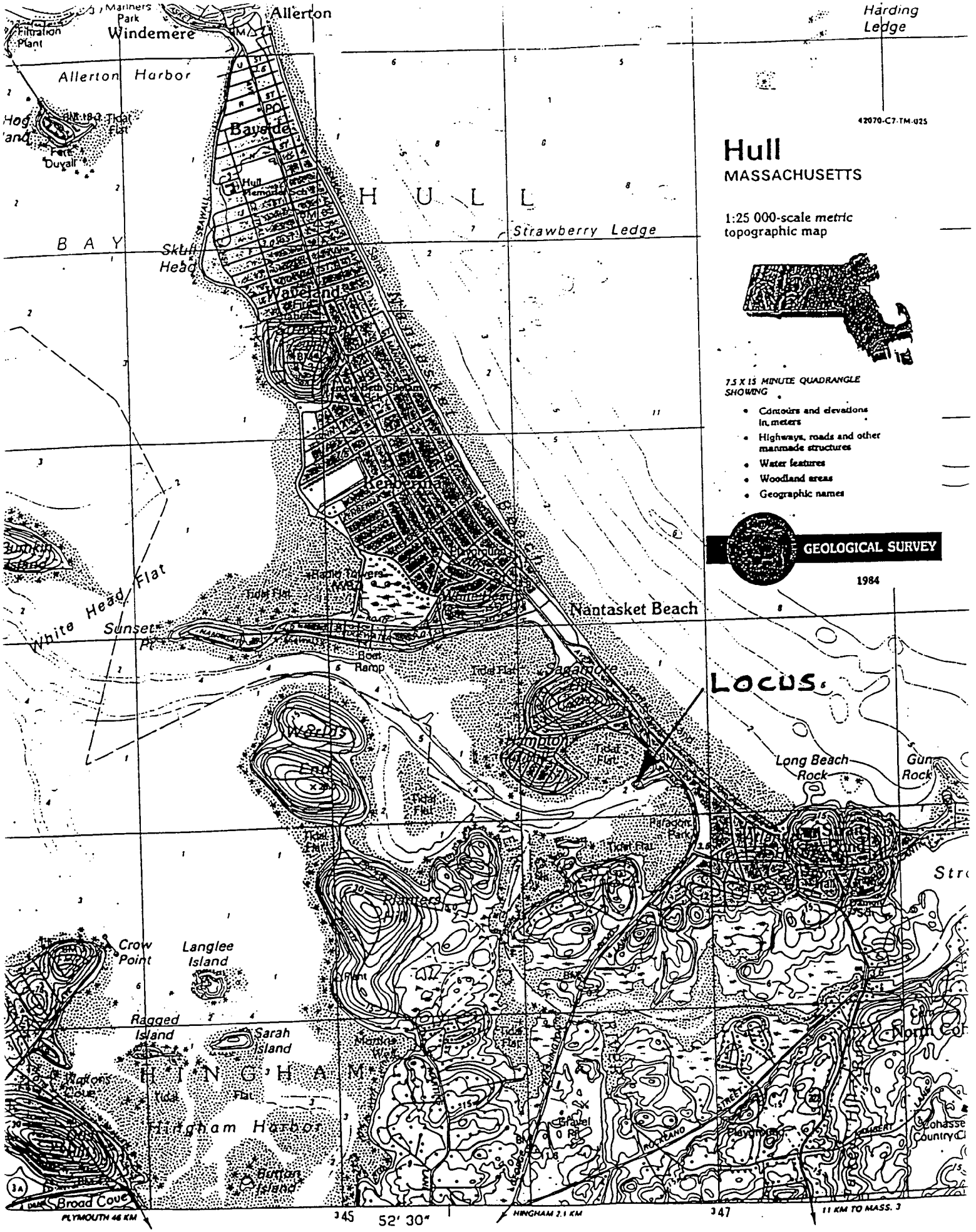
7. Copies of the above mentioned data and of the draft suitability determination were sent to the State DEP, US EPA, US F&WS and US NMFS for their review. The EPA and the F&WS each responded to say that they concur with the determination. No response was received from the NMFS within the 10 day response period.

8. Based upon the above information, we find the material to be suitable for unconfined disposal at MBDS.

9. If you have any questions, please contact me at 78660.

Phillip W. Nimeskern, Jr.
PHILLIP W. NIMESKERN, JR.
Senior Project Manager
Marine Analysis Unit

	A	B	C	D	E	F	G	H	I	J
1	Normalized pollutant concentrations									
2	MADEM & Hull, MA - Nantasket Pier									
3	#199501656									
4										
5	Sample Site		MBDS		Composite #1			Composite #2		
6	Metals (ppm)		mean + 2sd		Raw Data	Normalized		Raw Data	Normalized	
7	Arsenic		28.7		0.25		ok	0.25		ok
8	Cadmium		2.74		4.15		*	4.37		*
9	Chromium		151.6		106.82		ok	105.82		ok
10	Copper		31.7				ok			ok
11	Mercury		0.277		0.4		*	0.55		*
12	Nickel		40.5				ok			ok
13	Lead		66.3		41.27		ok	61.19		ok
14	Zinc		146				ok			ok
15										
16	% fines				79.2			91		
17										
18	PAH's (ppb)									
19	Fluorene		22		150	81.52	*	150	83.33	*
20	Phenanthrene		108		50	27.17	ok	50	27.78	ok
21	Anthracene		59		100	54.35	ok	100	55.56	ok
22	Naphthalene				100	54.35		100	55.56	
23	Acenaphthylene				100	54.35		100	55.56	
24	Acenaphthene				100	54.35		100	55.56	
25										
26	Fluoranthene		207		50	27.17	ok	50	27.78	ok
27	Pyrene		202		150	81.52	ok	150	83.33	ok
28	Benzo(a)anthracene		123		50	27.17	ok	50	27.78	ok
29	Chrysene		120		50	27.17	ok	50	27.78	ok
30	Total Benzofluoranthenes				500	271.74		500	277.78	
31	Benzo(a)pyrene		147		50	27.17	ok	50	27.78	ok
32	Dibenzo(a,h)anthracene		17		50	27.17	*	50	27.78	*
33	Benzo(g,h,i)perylene		98		50	27.17	ok	50	27.78	ok
34	Ideno(123-cd)pyrene		122		50	27.17	ok	50	27.78	ok
35										
36	TOC				1.84			1.8		
37										
38	Sum of PAH's				1600			1600		
39	* = > mean + 2sd									
40	ok = <mean + 2sd									



42070-C7-TM-025

Hull

MASSACHUSETTS

1:25 000-scale metric topographic map

7.5 X 15 MINUTE QUADRANGLE SHOWING

- Contours and elevations in meters
- Highways, roads and other manmade structures
- Water features
- Woodland areas
- Geographic names

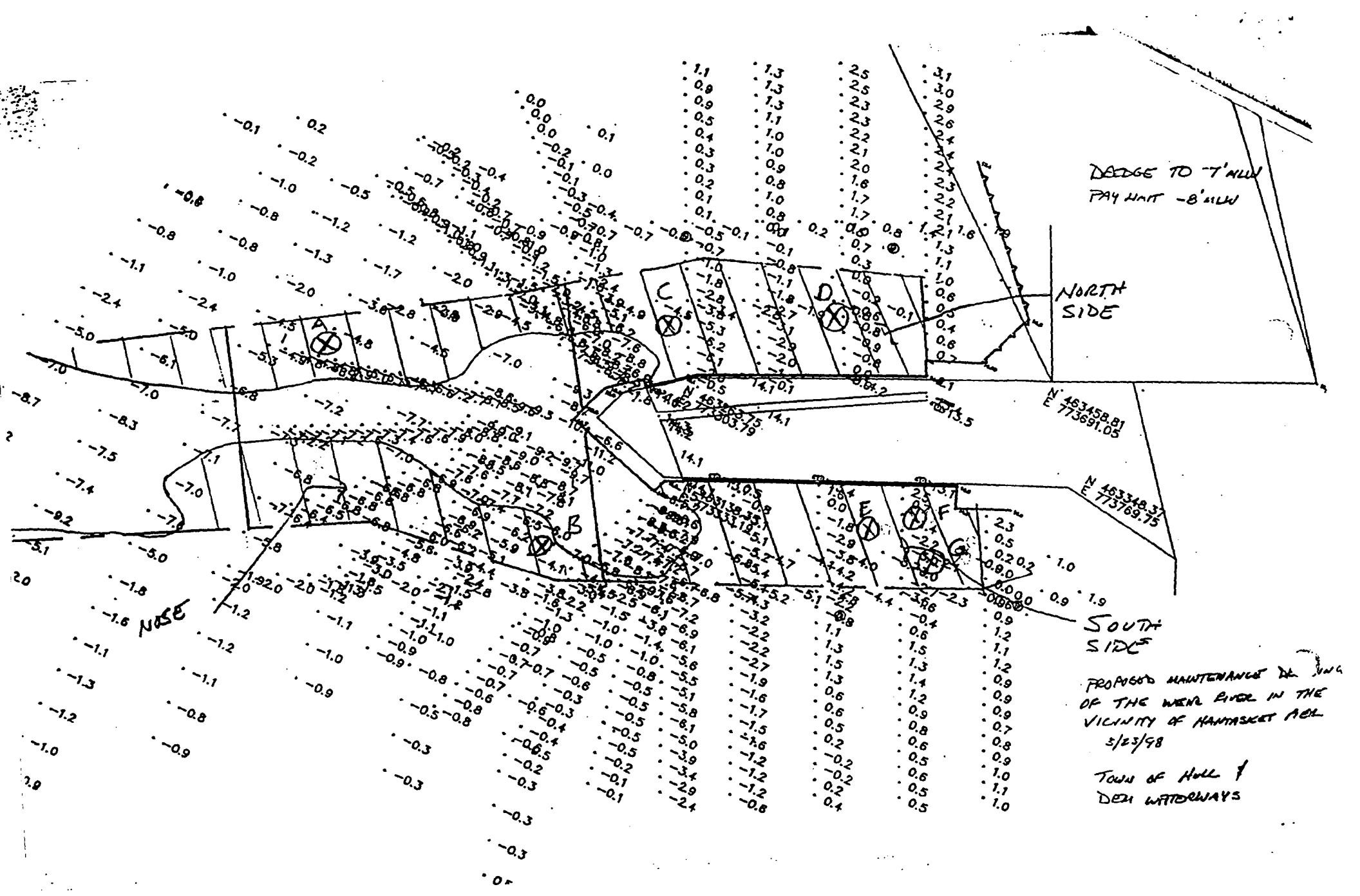
GEOLOGICAL SURVEY

1984

SCALE 1:25 000

1 CENTIMETER ON THE MAP REPRESENTS 250 METERS ON THE GROUND

CONTOUR INTERVAL 3 METERS


DREDGE TO -7' MLW
PAY HAFT -8' MLW
NORTH SIDE
SOUTH SIDE
A
B
C
D
E
F
G
N 463458.81
E 773691.05
N 463348.37
E 773769.75
NOSE
PROPOSED MAINTENANCE DREDGING
OF THE WEIR RIVER IN THE
VICINITY OF HANTASKET AREA
5/23/98
TOWN OF HULL /
DEM WATERWAYS

SCILAB
FULL SERVICE ENVIRONMENTAL LABORATORIES

SCILAB BOSTON, INC.
8 School Street
Weymouth, MA 02189-8951
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Fax: (781) 337-7642

Final Report on the Proposed Dredging of the Weir River Hull, MA DEM Project No. 3349-D

Prepared for:

Department of Environmental Management
Office of Waterways
349 Lincoln Street, Building 45
Hingham, MA 02043

Prepared By:

SCILAB BOSTON, INC
8 School Street
Weymouth, MA 02189

October 5, 1998

Section 1.0
Table of Contents

Table of Contents

Section 2.0
Introduction

SCILAB BOSTON, INC, (SCILAB) was contracted to provide sampling, bioassay, and analytical services in support of the proposed dredging of the Weir River in Hull, Massachusetts, DEM Project No. 3349-D. Samples were collected from locations A, B, C, D, E, F, and G as specified on the map located in the appendix. Core samples were collected to an approximate depth of 6-7 feet. Sample collection was completed in one day, June 15, 1998.

Two gallons of sediment were collected from each location and labeled accordingly. Upon completion the samples were then transported to our Weymouth, Massachusetts laboratory for compositing and analysis. Upon arrival the samples were given a chain of custody number and the required tests were logged into our LIMS system. The samples were composited on a volume to volume basis with locations A, B, C, and D forming SCILAB sample number 9806-00253.1 and locations E, F, and G forming sample number 9806-00253.2

Samples were analyzed for the following parameters: PAHs, Metals, Pesticides, PCBs, TOC, Grain Size, 10 day Bioassay, and 28 day Bioassay/Bioaccumulation studies. Upon completion of the 28 day Bioassay testing the test organisms were harvested and analyzed for PAHs, Cadmium, Mercury, and Lead. Survivability and bioaccumulation statistics were recorded and performed upon the test organisms. Data for all analyses are presented within subsequent sections within this report.

Section 3.0
Analytical Data Summary
Sediment Samples

Table 1
Analytical Data for Sediment Samples, Weir River Hull, Massachusetts

Parameter	Composite #1	Composite #2	MDL & Units
Arsenic	ND	ND	0.5 mg/Kg
Barium	59.73	59.32	20 mg/Kg
Cadmium	4.15	4.37	0.1 mg/Kg
Chromium	106.82	105.82	1.0 mg/Kg
Lead	41.27	61.19	1.0 mg/Kg
Mercury	0.4	0.55	0.02 mg/Kg
Selenium	ND	ND	50 mg/Kg
Silver	2.68	2.03	1 mg/Kg
4,4'-DDD	ND	ND	0.055 ug/Kg
4,4'-DDE	ND	ND	0.02 ug/Kg
4,4'-DDT	ND	ND	0.06 ug/Kg
Aldrin	ND	ND	0.02 ug/Kg
Chlordane	ND	ND	0.32 ug/Kg
Dieldrin	ND	ND	0.01 ug/Kg
Endosulfan I	ND	ND	0.07 ug/Kg
Endosulfan II	ND	ND	0.02 ug/Kg
Endosulfan Sulfate	ND	ND	0.33 ug/Kg
Endrin	ND	ND	0.03 ug/Kg
Endrin Aldehyde	ND	ND	0.115 ug/Kg
Heptachlor	ND	ND	0.015 ug/Kg
Heptachlor Epoxide	ND	ND	0.415 ug/Kg
Methoxychlor	ND	ND	0.06 ug/Kg
PCB-1016	ND	ND	100 ug/Kg
PCB-1221	ND	ND	1.25 ug/Kg
PCB-1232	ND	ND	1.25 ug/Kg
PCB-1242	ND	ND	1.25 ug/Kg
PCB-1248	ND	ND	1.25 ug/Kg
PCB-1254	ND	ND	1.25 ug/Kg
PCB-1260	ND	ND	1.25 ug/Kg
PCB-1268	ND	ND	100 ug/Kg
Toxaphene	ND	ND	1.2 ug/Kg
alpha- BHC	ND	ND	0.015 ug/Kg
beta-BHC	ND	ND	0.03 ug/Kg
delta-BHC	ND	ND	0.045 ug/Kg
gamma-BHC	ND	ND	0.02 ug/Kg

Table 1
Analytical Data for Sediment Samples, Weir River Hull, Massachusetts

Parameter	Composite #1	Composite #2	MDL & Units
Naphthalene	ND.	ND	200 ug/Kg
Acenaphthylene	ND	ND	200 ug/Kg
Acenapthene	ND	ND	200 ug/Kg
Fluorene	ND	ND	300 ug/Kg
Phenanthrene	ND	ND	100 ug/Kg
Anthracene	ND	ND	200 ug/Kg
Fluoranthene	ND	ND	100 ug/Kg
Pyrene	ND	ND	300 ug/Kg
Benzo (a) anthracene	ND	ND	100 ug/Kg
Chrysene	ND	ND	100 ug/Kg
Benzo (b) Fluoranthene	ND	ND	500 ug/Kg
Benzo (k) Fluoranthene	ND	ND	500 ug/Kg
Benzo (a) pyrene	ND	ND	100 ug/Kg
Indeno (1,2,3-cd) pyrene	ND	ND	100 ug/Kg
Dibenzo (a,h) anthracene	ND	ND	100 ug/Kg
Benzo (g,h,i) perylene	ND	ND	100 ug/Kg
Total Organic Carbon	18400	18000	5.0 mg/Kg
Total Organic Carbon (duplicate)	11000	15900	5.0 mg/Kg
% Moisture	70.1	68.9	%
Grain Size # 10 Sieve	100	100	%
Grain Size # 20 Sieve	88.3	98.0	%
Grain Size # 40 Sieve	84.0	96.4	%
Grain Size # 50 Sieve	82.7	95.7	%
Grain Size # 80 Sieve	81.4	94.3	%
Grain Size # 200 Sieve	79.2	91.0	%

Section 4.0
Analytical Data Summary
Bioassay Samples

Table 2
Survival Data for *Ampelisca abdita* Weir River Sediments, Hull, Massachusetts

PROJECT SITE	Survival at the End of 10 Days Exposure 20 Organisms per Replicate at the Start of Assay					Mean	Significant Difference From Reference Site
Laboratory Control	18	19	17	18	20	92%	No
Reference Site	17	17	18	15	16	83%	
Composite Site 1	19	20	17	19	20	95%	No
Composite Site 2	20	20	18	19	20	97%	No

Table 3
Survival Data for *Nereis virens* Weir River Sediments, Hull, Massachusetts

PROJECT SITE	Survival at the End of 28 Days Exposure 20 Organisms per Replicate at the Start of Assay					Mean	Significant Difference From Reference Site
Laboratory Control	20	20	18	18	18	94%	No
Reference Site	15	18	18	18	18	87%	
Composite Site 1	18	18	19	20	17	92%	No
Composite Site 2	19	17	16	19	20	91%	No

Table 4
Survival Data for *Macoma nasuta* Weir River Sediments, Hull, Massachusetts

PROJECT SITE	Survival at the End of 28 Days Exposure 20 Organisms per Replicate at the Start of Assay					Mean	Significant Difference From Reference Site
Laboratory Control	18	14	18	18	19	87%	No
Reference Site	17	20	18	17	19	91%	
Composite Site 1	19	20	20	18	17	94%	No
Composite Site 2	20	17	18	15	19	89%	No

Section 5.0
Analytical Data Summary
Bioaccumulation Samples

Table 5
Cadmium Body Burdens after 28 Day Exposure for *Nereis virens*

PROJECT SITE	Cadmium Body Burdens after 28 Day Exposure					Mean	Significant Difference From Reference Site
Laboratory Control	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	No
Reference Site	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	
Composite Site 1	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	No
Composite Site 2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	No

Table 6
Cadmium Body Burdens after 28 Day Exposure for *Macona nasuta*

PROJECT SITE	Cadmium Body Burdens after 28 Day Exposure					Mean	Significant Difference From Reference Site
Laboratory Control	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	No
Reference Site	<0.25	<0.25	<0.25	0.45	<0.25	<0.29	
Composite Site 1	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	No
Composite Site 2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	No

Table 7
Mercury Body Burdens After 28 Day Exposure for *Nereis virens*

PROJECT SITE	Mercury Body Burdens After 28 Day Exposure					Mean	Significant Difference From Reference Site
Laboratory Control	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	No
Reference Site	<0.02	<0.04	<0.02	<0.02	<0.02	<0.02	
Composite Site 1	<0.02	<0.02	<0.02	<0.02	<0.03	<0.022	No
Composite Site 2	0.03	0.03	0.04	0.03	0.03	0.032	No

Table 8
Mercury Body Burdens After 28 Day Exposure for *Macoma nasuta*

PROJECT SITE	Mercury Body Burdens After 28 Day Exposure					Mean	Significant Difference From Reference Site
Laboratory Control	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	No
Reference Site	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
Composite Site 1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	No
Composite Site 2	<0.02	<0.02	<0.02	<0.02	0.04	<0.024	No

Table 9
Lead Body Burdens After 28 Day Exposure for *Nereis virens*

PROJECT SITE	Lead Body Burdens After 28 Day Exposure					Mean	Significant Difference From Reference Site
Laboratory Control	<1.6	<1.6	<1.6	2.40	3.10	<2.06	No
Reference Site	4.00	5.00	<1.6	<1.6	<1.6	<2.76	
Composite Site 1	3.40	2.70	<1.6	2.70	2.70	<2.62	No
Composite Site 2	2.70	3.20	2.50	7.80	3.50	3.94	No

Table 10
Lead Body Burdens After 28 Day Exposure for *Macoma nasuta*

PROJECT SITE	Lead Body Burdens After 28 Day Exposure					Mean	Significant Difference From Reference Site
Laboratory Control	<1.6	2.00	<1.6	<1.6	<1.6	<1.68	No
Reference Site	3.80	2.50	3.80	5.20	4.30	3.92	
Composite Site 1	2.50	2.40	3.70	2.50	2.60	2.74	No
Composite Site 2	4.50	2.60	5.50	2.90	3.30	3.76	No

Table 11
PAH Body Burdens After 28 Day Exposure for *Nereis virens*

PROJECT SITE	PAH Body Burdens After 28 Day Exposure					Mean	Significant Difference From Reference Site
Laboratory Control	ND	ND	ND	ND	ND	ND	No
Reference Site	ND	ND	ND	ND	ND	ND	
Composite Site 1	ND	ND	ND	ND	ND	ND	No
Composite Site 2	ND	ND	ND	ND	ND	ND	No

Table 12
PAH Body Burdens After 28 Day Exposure for *Macoma nasuta*

PROJECT SITE	PAH Body Burdens After 28 Day Exposure					Mean	Significant Difference From Reference Site
Laboratory Control	ND	ND	ND	ND	ND	ND	No
Reference Site	ND	ND	ND	ND	ND	ND	
Composite Site 1	ND	ND	ND	ND	ND	ND	No
Composite Site 2	ND	ND	ND	ND	ND	ND	No

AP

ASEC CORPORATION

July 7, 1999

Mr. Bob Durand
Secretary
Executive Office of Environmental Affairs
MEPA Unit
100 Cambridge Street
Boston, MA 02202

RECEIVED
JUL 16 1999
MEPA

RE: Weir River
Dredge Project
EIR Waiver Request

Dear Secretary Durand:

On behalf of the Town of Hull, we are hereby submitting an Environmental Notification Form (ENF) and a request for a waiver from the requirement for preparation of an Environmental Impact Report (EIR) for the Weir River Dredge Project. This project is categorically included for preparation of an EIR pursuant to 301 CMR 11.25 (2), as it will alter, through dredging, ten or more acres of resource area protected under the Wetlands Protection Regulations (310 CMR 10.00).

The project is the maintenance dredging of approximately 13.8 acres (approximately 63,000 cubic yards of sediment) including the mooring basin, transition area, and the entrance channel to the Nantasket Pier. The dredging will improve access and navigation safety to the Nantasket Pier, which is located off of George Washington Blvd. Further descriptions of the dredge areas and project benefits are outlined in the Attachment B- Project Narrative, contained within this ENF submittal. Disposal of the dredge material will be at the Massaschusetts Bay Disposal Site (MBDA).

The MEPA Regulations (301 CMR 11.18) provide that a waiver from any provision of the regulations would result in undue hardship and would not serve to minimize or avoid damage to the environment. It is out contention that the preparation of an EIR for this project would result in undue hardship due to delays that could lead to continues boat groundings and limited recreational and commercial vessel access to Nantasket Pier at the Weir River, as the project area is already dangerously shallow. Delays in receiving permit approvals, contingent on completing the EIR process, would result in missing the upcoming Fall 1999 dredging window, thus jeopardizing funding and allowing further degradation of an already precarious situation. In addition, it is our belief that in this case, the preparation of an EIR would not serve to minimize or avoid damage to the environment as this area has been dredged in the past.

ENGINEERS • ARCHITECTS • LAND SURVEYORS
Crown Colony Office Park, 300 Congress Street, Suite 303, Quincy, MA 02169
TEL (617) 376-2560 FAX (617) 376-2565

A presumption for Categorically Included projects is that the EIR is necessary to fully investigate and document resources, alternatives, and measures associated with the project work. This report includes descriptions of the project site, findings of sediment analyses, resource evaluations in conjunction with state, local, and federal agencies, bathymetric surveys, and alternate analyses for dredging and disposal methods. Investigation into contamination and spills in the area have also been conducted and documentation has been provided in this report.

The presumption for Categorically Included projects is that there will be a significant impact as a result of these projects on the environment. Review of the specific impacts for this 100 percent maintenance project have concluded that no significant damage to the local environment is likely to occur. To ensure that adverse impact are minimal, mitigation plans have been incorporated into the project.

Following is a summary of the field investigations performed to date and the mitigation measures proposed to minimize adverse impacts from the dredging of Weir River.

Resuspension of Sediments

SCILAB BOSTON, INC. (SCILAB) was contracted to provide sampling, bioassay, and analytical services in support of the proposed dredging of the Weir River in Hull, Massachusetts, DEM Project No. 3349-D. Samples were collected from locations A, B, C, D, E, F, and G as specified on the map located in the appendix. Core samples were collected to an approximate depth of 6-7 feet. Sample collection was completed in one day, June 15, 1998.

Two gallons of sediment were collected from each location and labeled accordingly. Upon completion the samples were then transported to our Weymouth, Massachusetts laboratory for compositing and analysis. Upon arrival the samples were given a chain of custody number and the required tests were logged into our LIMS system. The samples were composited on a volume to volume basis with locations A, B, C, and D forming SCILAB sample number 9806-00253.1 and locations E, F and G forming sample number 9806-00253.2.

Samples were analyzed for the following parameters: PAHs, Metals, Pesticides, PCBs, TOC, Grain Size, 10 day Bioassay, and 28 day Bioassay/Bioaccumulation studies. Upon completion of the 28 day Bioassay testing the test organisms were harvested and analyzed for PAHs, Cadmium, Mercury, and Lead. Survivability and bioaccumulation statistics were recorded and performed upon the test organisms. Data for all analyses are presented within subsequent sections within this report.

Research on shellfish and fish resources in the proposed dredge areas indicates that the Weir river has been closed to shellfishing since 1962 due to contamination from the outfall pipes located along Weir River. In coordination with National Marine Fisheries and the Massachusetts Division of Marine Fisheries, no mitigation has

been established for shellfish because the project involves maintenance dredging; has a substantial footprint; and low clam densities.

Various species of fish can be found in the harbor, including flounder, striped bass, bluefish, skate, mackerel, and herring. A boat-over eelgrass survey revealed no significant locations of eelgrass beds within the project area. This is consistent with Town Shellfish Constable observations and therefore mitigation for its protection will not be necessary.

In order to minimize impacts from resuspension of sediments on these marine resources, all dredging activities will be conducted from barge-mounted cranes and will be scheduled to occur October 1 through January 15 to avoid the spawning of winter flounder. A mechanical bucket dredge will be used, and the scow used for transporting dredged material to the ocean site will be required to have watertight pocket doors to eliminate the possibility of seepage back into the harbor or into coastal waters.

Summary

In summary, the Applicants feel that the planning, investigative and procedural reviews undertaken in the presentation of ENF document represent an extensive and thorough investigation of resources, and that the resulting measures for the dredging and disposal of sediments will minimize impact on the resources. Further, the entire project represents much needed maintenance dredging which, if delayed, could cause hardships to the area's recreational and commercial users. In addition, the dredging activities will increase tidal flushing of the project area therefore improving water quality and having a positive impact on recreational activities and marine environment. Therefore, the Applicants respectfully request that this categorical requirement be waived.

If you have any questions regarding this request, please call me at (617)376-2560.

Very truly yours,
ASEC Corporation

Abdulkader Hamadeh

Attachments:
Environmental Notification Form
Attachment A- Water Quality Application
Attachment B- Project Narrative
Attachment C- Sediment Test Results
Attachment D- Relevant Documents

cc: Kevin D. Maguire, Department of Environmental Management

Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands and Waterways

120181
Transmittal #

BRP WW 07, 08 Dredging

401 Water Quality Certification - Projects Proposing More Than 100 Cubic Yards Dredging or Disposal of Dredged Material

A Applicant Information

1. Which permit category are you applying for?
   X BRP WW 07 | BRP WW 08

2. Applicant:
   Town of Hull/Mass. DEM, Office of Waterways
   Name
   349 Lincoln Street
   Address
   Hingham, MA 02043
   City/Town *State*
   Contact Person
   Kevin D. Maguire
   Telephone (home) *(work)*
   (781)740-1600

3. Authorized agent:
   ASEC Corporation
   Name
   300 Congress Street
   Address
   Quincy, MA
   City/Town *State*
   Contact Person
   John J. Hannon, P.E.
   Telephone (home) *(work)*
   (617)376-2560

B Project Information

1. Project Location:
   Weir River, vicinity of Nantasket Pier
   Street Address
   City/Town
   Hull
   Nearest or Adjacent Waterbody
   Weir River

2. Project Name (if any):
   Weir River Navigational Access Project

3. Will the proposed project occur in any wetlands or waters designated as "Outstanding Resource Waters"?
   ☐ yes ☒ no
   If yes has public notice been published in the Environmental Monitor?
   ☐ yes ☐ no
   Date of Publication

4. Identify the loss in square feet of each type of resource area (see Application Instructions for additional information.):
   a. Land under water
   Footprint of work is 13.8 Acres total -10MLW
   square feet
   0.6 Acres in Intertidal

   b. Other Resources:
   Intertidal
   square feet

5. Does this project require a license from the Federal Energy Regulatory Commission?
   ☐ yes ☒ no
   If yes, see Application Instructions for additional information needed.

6. Is the project categorically subject to MEPA?
   ☒ yes ☐ no
   If yes, has final action been taken?
   ☐ yes ☒ no
   If yes, please include copy of MEPA certificate.

7. Is any of your proposed work exempt from the Massachusetts Wetlands Protection Act or taking place in a federal non-state wetland?
   ☐ yes ☒ no
   If yes, see Application Instructions for additional information needed.

BRP WW 07, 08 Dredging

401 Water Quality Certification - Projects Proposing More Than 100 Cubic Yards Dredging or Disposal of Dredged Material

C Description of Proposed Dredging Site

1. a. Describe in general the proposed project or activity, including the purpose and intended use of the project, and the duration of the work within any waterbody:

Proposed project involves the maintenance dredging of the Weir River at the vicinity of the Nantasket Pier. A depth elevation is proposed of -10MLW. Unconfined disposal at the MBDS. Duration of work is approximately three months.

b. Date activity to commence:

Fall 1999

c. What is the expected frequency of maintenance dredging of this project? Explain:

10 Years, more frequent dredging will allow small quantities of footprint and lesser environmental

2. Attach plan(s) of the proposed project as follows:impact.

XX Include a copy of the appropriate portion from the USGS quadrangle map for this project site. Include the identification number and name of the USGS quad map.

Plan View.
The plan view of the proposed activity should show the following:

- ☐ Existing shorelines.
- ☐ Ebb and flood in tidal waters and direction of flow in rivers.
- ☐ North arrow.
- ☐ Graphic and numerical scale.
- ☐ Mean high and low water lines if the proposed activity is located in tidal areas.
- ☐ Ordinary high water line for inland water.
- ☐ Water depths around the project.
- ☐ Principal dimensions of the structure or work and extent of encroachment beyond the applicable high water line.
- ☐ Seaward distance from an existing permanent fixed structure or object
- ☐ Distance between proposed activity and navigation channel, where applicable.
- ☐ Harbor lines, if established and if known.
- ☐ Location of structures, if any, in navigable waters immediately adjacent to the proposed activity.
- ☐ Location of any vegetated wetlands or wetland resource area.
- ☐ Proximity to any designated Areas of Critical Environmental Concern.

Elevation and/or Section View.
The elevation and/or section view of the proposed project should show the following:

- ☐ Same water elevations as in the plan view.
- ☐ Depth at waterward face of proposed work. Show dredging grade.
- ☐ Graph and numerical scale.
- ☐ Cross-section of excavation including approximate side slopes.

3. a. What is the length, width, depth and volume of the proposed project?

length: 1060 ft *Feet* width: 220 ft and variable *Feet*

Depth: -10 MLW *Feet* Volume: 63,000 *cubic yards*

b. Is the proposed project considered

i. a new project, ☐ yes ☒ no or

ii. maintenance of an existing project? ☒ yes ☐ no

iii. when was the project area last dredged?

1957
Date

DPW Contract NO. 1783
Permit/License Name and Number

BRP WW 07, 08 Dredging

401 Water Quality Certification - Projects Proposing More Than 100 Cubic Yards Dredging or Disposal of Dredged Material

C Description of Proposed Dredging Site (cont.)

3. c. Describe in complete detail the physical dredging operation including descriptions of the type of dredge equipment, i.e., hopper dredge, hydraulic dredge, etc., the type of transportation to be used from the dredge site to the disposal site, the method of release of the dredged material into the disposal site, and the name of the contractor if other than the applicant.

Dredge by Clamshell or other Comprable mechanical method and placed into tight closing bottom dump scows at the approved MBDS location.

d. Describe all measures designed to avoid and minimize adverse impacts of the project on aquatic life and the aquatic ecosystem. Where impacts cannot be avoided or minimized, what mitigation measures are proposed? (See Application Instructions.)

Fall/Winter dredging is outside of the spawing season for finfish and shellfish.

4. Historical Parameters

To the best of your knowledge, does the proposed project area have any past history of:

a. chemical or oil spills or discharge?

☐ Yes ☒ No

b. upstream or on-site industrial or municipal discharge within 1,000 feet of the proposed project?

☐ Yes X ☐ No

c. chronic pollutant loading from port or harbor use and/ or other sources of pollutants? (eg. CSO or POTW discharges)

☐ Yes X ☐ No

If yes to any questions in Item C-4, provide as much historical information as you have, including dates, amounts, concentrations, etc. of such spills or discharge. Attach additional sheets if necessary.

BRP WW 07, 08 Dredging

401 Water Quality Certification - Projects Proposing More Than 100 Cubic Yards Dredging or Disposal of Dredged Material

D Description of Material to be Dredged

1. Grain Size Analysis

See application instructions for sampling and analysis requirements

See attached report by SCILAB Boston, Inc. dated October 5, 1998 & CORPS Of Engineers, suitability determination for.

Size Fraction % of total by weight

coarse gravel 64 mm	
fine gravel 2-64 mm	
sand .063-2 mm	
silt .004-063 mm	
clay .004 mm	

2. Chemical Analysis of Sediment

See application instructions for sampling and analysis requirements. List constituents in mg/kg (ppm) dry weight unless otherwise indicated.

See attached report by SCILAB Boston, Inc. dated October 5, 1998 & CORPS Of Engineers, suitability determination for.

arsenic	
cadmium	
chromium	
copper	
lead	
mercury	
nickel	
zinc	
PCBs (polychlorinated biphenyls)	
PAHs (polynuclear aromatic hydrocarbons)	
TPH (total petroleum hydrocarbons)	
TOC (total organic carbon)	%
volatile solids	%
water	%

BRP WW 07, 08 Dredging

401 Water Quality Certification - Projects Proposing More Than 100 Cubic Yards Dredging or Disposal of Dredged Material

E Description of the Disposal Site for Dredged Material

1. For ocean disposal sites

a. Location of proposed disposal site and its physical boundaries.

See attached report by SCILAB Boston, Inc., dated October 5, 1998

b. Has the site been designated by the state or E.P.A. as a dredge disposal site? ☐ Yes ☐ No

If no, give a description of the characteristics of the proposed disposal site and an explanation as to why no currently designated site is feasible for this project.

See attached report by SCILAB Boston, Inc., dated October 5, 1998

c. Is the anticipated disposal site located within a designated ocean sanctuary as established by federal law or G.L.c. 132A, sec. 13? ☐ Yes ☐ No

If yes, which sanctuary?

2. For disposal sites or dewatering sites on land (landward of mean high water, see instructions):

a. Location of proposed disposal and dewatering sites and physical boundaries.

b. Indicate drainage characteristics of dewatering and disposal sites from the results of test pits, borings, percolation tests as applicable.

c. How long are the dewatering and disposal sites estimated to be in use from this project? from future projects?

d. Include plans for effluent control at the dewatering and disposal sites.

3. For proposed dewatering of dredged sediment on a barge, provide plans for adequate containment and effluent control.

F Certification

Application is hereby made for Water Quality Certification concerning the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities.

July 7, 1999
Date

Signature of Applicant or Authorized Agent

The application must be signed by the applicant; however, it may be signed by a duly authorized agent (named in Item 2) if this form is accompanied by a statement by the applicant designating the agent and agreeing to furnish upon request, supplemental information in support of the application.

The Town of Hull and Mass. DEM Office of Waterways are dredging 63,000 CY of sediment over 13.8 acres by mechanical method with unconfined open sea disposal at Massachusetts Bay Disposal Site (MBDS).

Project was originally proposed for two depths -6 MLW plus a 1 foot overdredge allowance -10 MLW plus a 1 foot overdredge.

US Army Corps of Engineers (COE) will issue a positive Suitability Determination for the upper level of sediment. The Suitability Determination for the lower is being processed at this time.

Project is located within the Weir River A.C.E.C. Maintenance Dredging of the channels has been excluded from the A.C.E.C.

SCILAB
FULL SERVICE ENVIRONMENTAL LABORATORIES

SCILAB BOSTON, INC.
8 School Street
Weymouth, MA 02189-8951
Tel: (781) 337-9334
Fax: (781) 337-7642

Final Report on the Proposed Dredging of the Weir River Hull, MA DEM Project No. 3349-D

Prepared for:

Department of Environmental Management
Office of Waterways
349 Lincoln Street, Building 45
Hingham, MA 02043

Prepared By:

SCILAB BOSTON, INC
8 School Street
Weymouth, MA 02189

October 5, 1998

Table 1
Analytical Data for Sediment Samples, Weir River Hull, Massachusetts

Parameter	Composite #1	Composite #2	MDL & Units
Arsenic	ND	ND	0.5 mg/Kg
Barium	59.73	59.32	20 mg/Kg
Cadmium	4.15	4.37	0.1 mg/Kg
Chromium	106.82	105.82	1.0 mg/Kg
Lead	41.27	61.19	1.0 mg/Kg
Mercury	0.4	0.55	0.02 mg/Kg
Selenium	ND	ND	50 mg/Kg
Silver	2.68	2.03	1 mg/Kg
4,4'-DDD	ND	ND	0.055 ug/Kg
4,4'-DDE	ND	ND	0.02 ug/Kg
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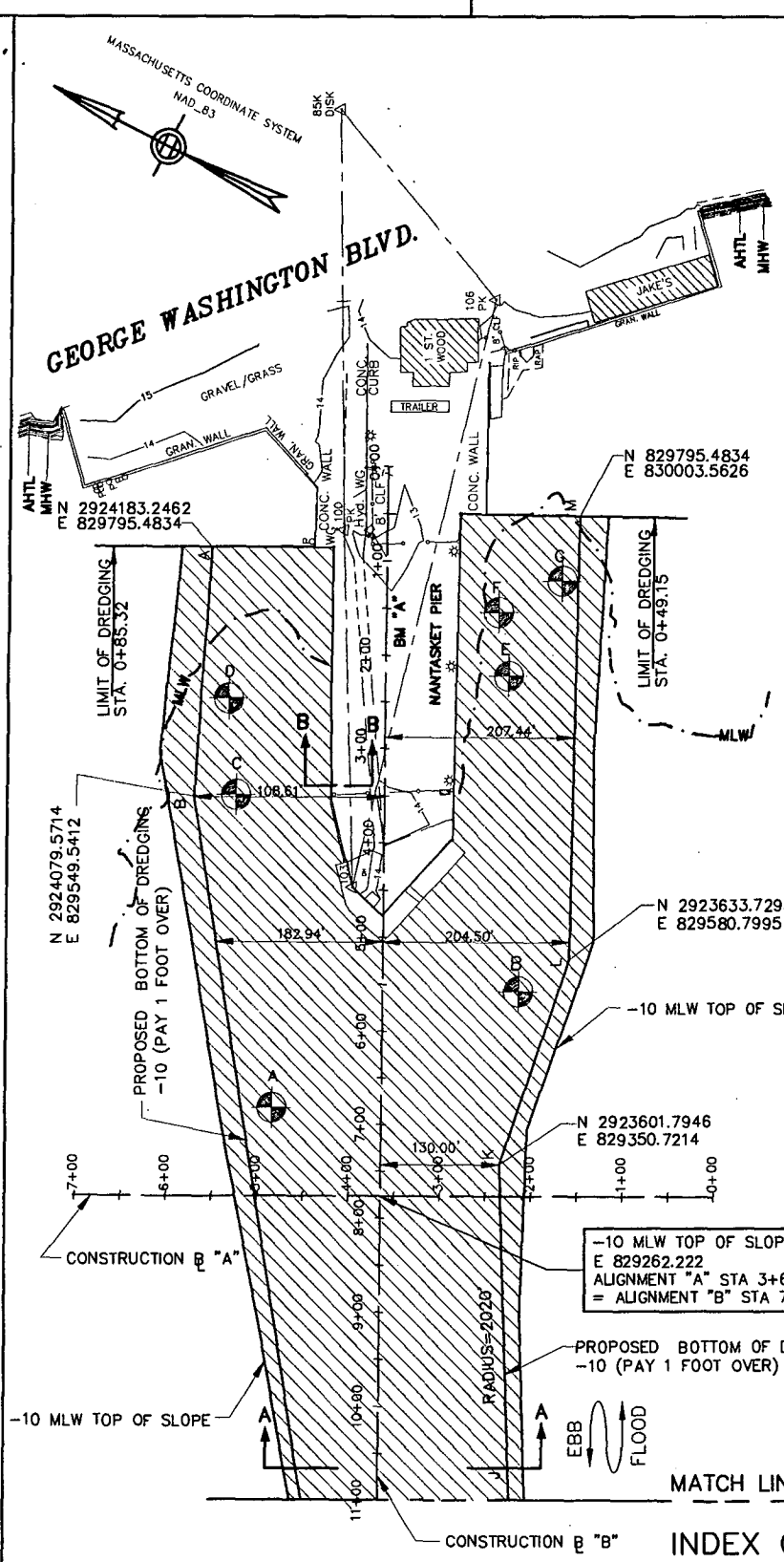
PCB-1232	ND	ND	1.25 ug/Kg
PCB-1242	ND	ND	1.25 ug/Kg
PCB-1248	ND	ND	1.25 ug/Kg
PCB-1254	ND	ND	1.25 ug/Kg
PCB-1260	ND	ND	1.25 ug/Kg
PCB-1268	ND	ND	100 ug/Kg
Toxaphene	ND	ND	1.2 ug/Kg
alpha- BHC	ND	ND	0.015 ug/Kg
beta-BHC	ND	ND	0.03 ug/Kg
delta-BHC	ND	ND	0.045 ug/Kg
gamma-BHC	ND	ND	0.02 ug/Kg

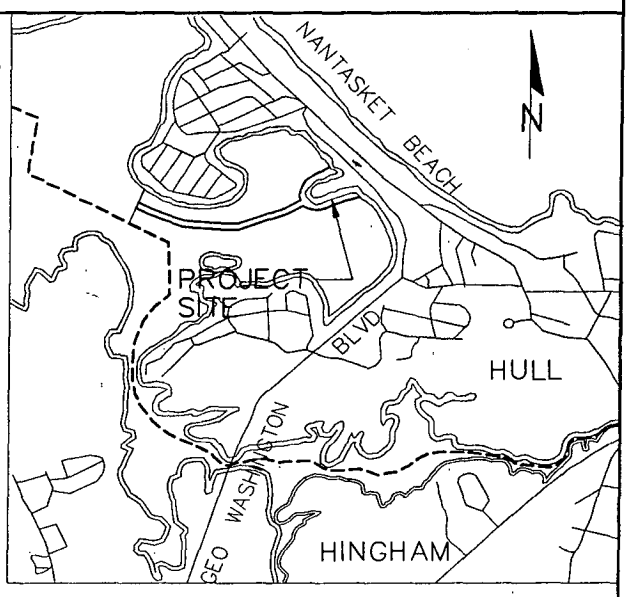
Table 1
Analytical Data for Sediment Samples, Weir River Hull, Massachusetts

Parameter	Composite #1	Composite #2	MDL & Units
Naphthalene	ND	ND	200 ug/Kg
Acenaphthylene	ND	ND	200 ug/Kg
Acenapthene	ND	ND	200 ug/Kg
Fluorene	ND	ND	300 ug/Kg
Phenanthrene	ND	ND	100 ug/Kg
Anthracene	ND	ND	200 ug/Kg
Fluoranthene	ND	ND	100 ug/Kg
Pyrene	ND	ND	300 ug/Kg
Benzo (a) anthracene	ND	ND	100 ug/Kg
Chrysene	ND	ND	100 ug/Kg
Benzo (b) Fluoranthene	ND	ND	500 ug/Kg
Benzo (k) Fluoranthene	ND	ND	500 ug/Kg
Benzo (a) pyrene	ND	ND	100 ug/Kg
Indeno (1,2,3-cd) pyrene	ND	ND	100 ug/Kg
Dibenzo (a,h) anthracene	ND	ND	100 ug/Kg
Benzo (g,h,i) perylene	ND	ND	100 ug/Kg
Total Organic Carbon	18400	18000	5.0 mg/Kg
Total Organic Carbon (duplicate)	11000	15900	5.0 mg/Kg
% Moisture	70.1	68.9	%
Grain Size # 10 Sieve	100	100	%
Grain Size # 20 Sieve	88.3	98.0	%
Grain Size # 40 Sieve	84.0	96.4	%
Grain Size # 50 Sieve	82.7	95.7	%
Grain Size # 80 Sieve	81.4	94.3	%
Grain Size # 200 Sieve	79.2	91.0	%

I HEREBY CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

_____ _____
DATE





LOCUS MAP
SCALE: 1" = 5000'

PT	NORTHING	EASTING
A	2924183.27	829795.43
B	2924079.57	829549.50
C	2923604.17	828894.58
D	2923545.48	828765.80
E	2923442.31	828500.79
F	2923387.32	827936.12
G	2923167.24	827922.88
H	2923242.57	828600.57
I	2923344.96	828856.64
J	2923439.11	829053.32
K	2923601.77	829350.72
L	2923633.73	829580.80
M	2923837.74	830003.54

NOTE:

SEE SHEET 3 FOR LEGEND NOTES AND OTHER DETAILS.

0 80 200 400 FEET
1" = 200'

INDEX OF SHEETS

1. SHEET 1 – BASE PLAN STA.0+00 TO STA.11+00
2. SHEET 2 – BASE PLAN STA.11+00 TO STA.22+02.50
3. SHEET 3 – PROPOSED CONDITIONS

SHEET 1 OF 3
TITLE SHEET

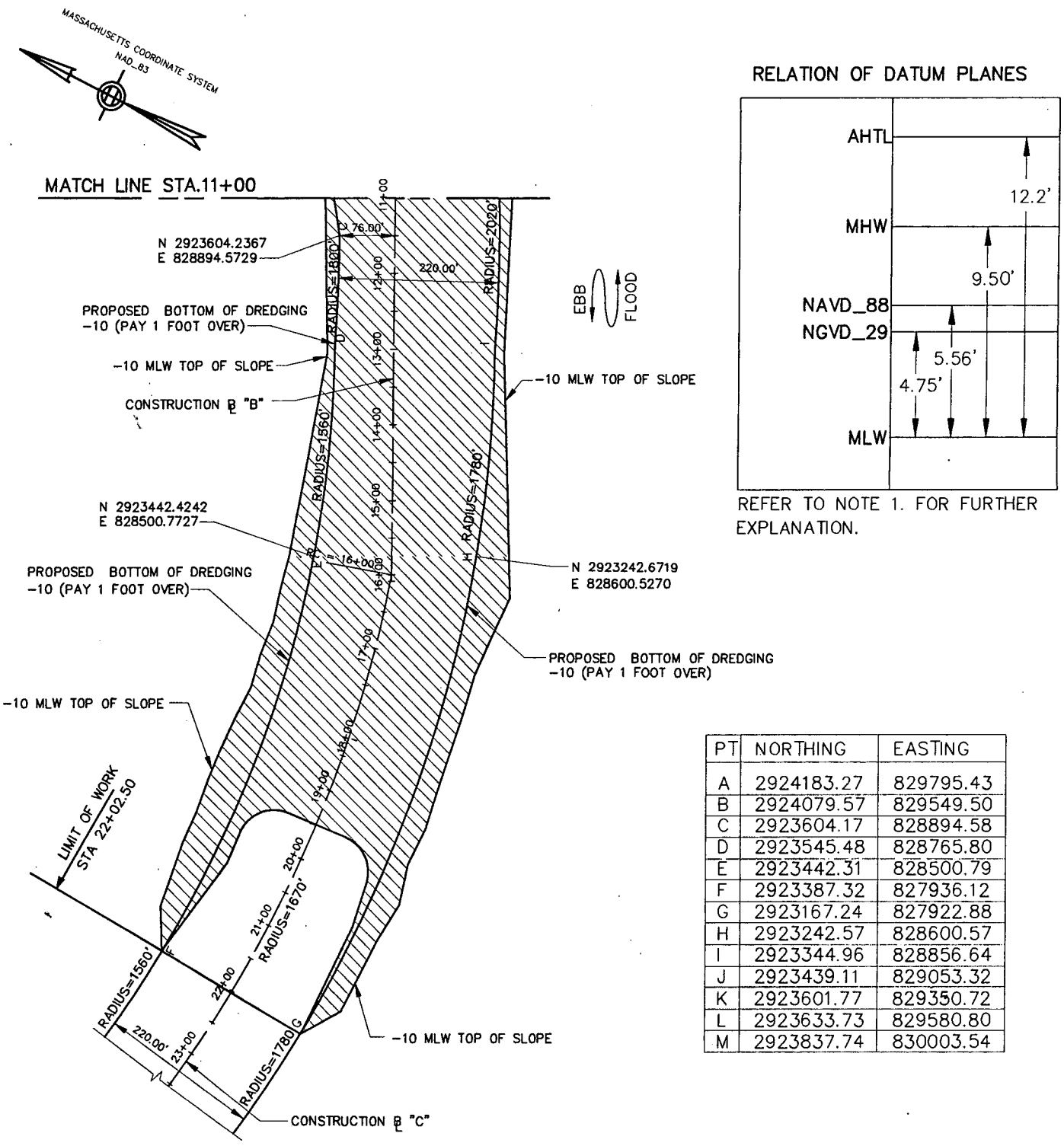
JUNE 23, 1999 SCALE: AS NOTED
PLAN TO ACCOMPANY PETITION OF DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, TOWN OF HULL FOR WEIR RIVER IMPROVEMENT DREDGING –10 FOOT CHANNEL AND ANCHORAGES VICINITY OF NANTASKET PIER HULL, MASSACHUSETTS

DWG = H:\961\CIVIL\PROPOSAL\SH-1.dwg UNITS = Dec.
PLOT SCALE: 1" =200' DATE 6/23/99 TIME 13:46 BY: ikatsman

I HEREBY CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

_____ _____

DATE



RELATION OF DATUM PLANES

REFER TO NOTE 1. FOR FURTHER EXPLANATION.

PT	NORTHING	EASTING
A	2924183.27	829795.43
B	2924079.57	829549.50
C	2923604.17	828894.58
D	2923545.48	828765.80
E	2923442.31	828500.79
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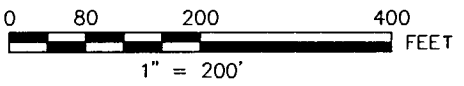


DWG = H:\961\CIVIL\PROPOSAL\SH-1.dwg UNITS = Dec.
PLOT SCALE: 1" =200' DATE 6/23/99 TIME 13:46 BY:ikatsman

SHEET 2 OF 3

BASE PLAN STA.11+00 TO STA.22+02.50

JUNE 23, 1999 SCALE: AS NOTED

PLAN TO ACCOMPANY PETITION OF DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, TOWN OF HULL FOR WEIR RIVER IMPROVEMENT DREDGING -10 FOOT CHANNEL AND ANCHORAGES VICINITY OF NANTASKET PIER HULL, MASSACHUSETTS

I HEREBY CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

_____ DATE

LEGEND

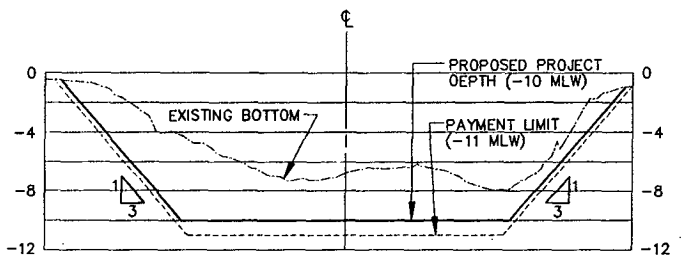
Ⓓ	DOLPHIN (WOOD PILE CLUSTER)
	WOOD PILE
Ⓑ	BUOY
EPLP	ESCHELON PIN IN LEAD PLUG
DH	DRILL HOLE
○ MH	MAN HOLE
○ TMH	TELEPHONE MAN HOLE
	CATCH BASIN
	LIGHT POLE
WG	WATER GATE
	HYDRANT
INV.	INVERT
DIP	DUCTILE IRON PIPE
R=	RIM ELEVATION
MLW	— · — · — · — · — · — · —
MHW	- - - - - - - - - - - - - - - - -
AHTL	— · · — · · — · · — · · —
−10' CONTOUR	———————
	BORING
	−10' DREDGING

NOTES:

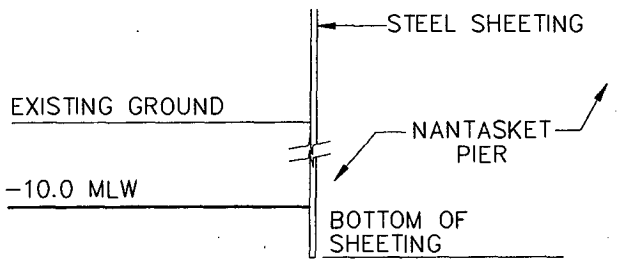
1. ELEVATIONS ON THIS PLAN ARE DERIVED FROM MASSACHUSETTS GEODETIC SURVEY BENCHMARK "C−14"; A CHISEL SQUARE SET AT THE NORTHEAST CORNER OF THE GRANITE STEP AT THE SOUTHEAST ENTRANCE TO THE MDC MAINTENANCE FACILITY AT THE INTERSECTION OF WHARF AND NANTASKET AVE'S, ELEVATION 18.50 MLW. ELEVATIONS ON THIS PLAN ARE BASED ON THE MLW DATUM. PLEASE REFER TO THE "RELATION OF DATUM PLANES" DIAGRAM. FOR THE PURPOSES OF THIS PLAN IT IS ASSUMED THAT NGVD_29 AND MEAN SEA LEVEL COINCIDE. MEAN SEA LEVEL VARIES OVER TIME AND WITH LOCATION. THE ACTUAL DIFFERENCE BETWEEN MSL AND NGVD_29 MAY BE AS MUCH AS 0.3' ASSUMED TO BE HALFWAY BETWEEN MLW AND MHW. VALUES FOR MHW AND MLW WERE OBTAINED FROM NOAA CHART #13270, 56TH EDITION, FEBRUARY 7, 1998. THE DIFFERENCE BETWEEN NAVD_88 AND NGVD_29 WAS COMPUTED USING CORPSCON V. 4.11 (VERTCON).

   THE AHTL WAS DETERMINED TO OCCUR ON MAY 17 WITH A HEIGHT OF 12.5' ABOVE MLLW OR 12.2' ABOVE MLW.

2. THE COORDINATE SYSTEM IS THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM MAINLAND ZONE. THE DATUM IS NAD_83. CONVENTIONAL TERRESTRIAL OBSERVATIONS WERE OBTAINED
3. UTILIZING A TOPCON GTS 300 TOTAL STATION. BATHYMETRIC DATA WAS OBTAINED UTILIZING A TRIMBLE NAVIGATION PROXR DGPS RECEIVER FOR POSITIONING AND AN INNER SPACE TECHNOLOGY MODEL 448 SINGLE FREQUENCY DIGITAL DEPTH SOUNDER.
4. THE DREDGING FOOTPRINT AT MAINTENANCE AREAS WAS COMPILED FROM THE POST PRE AND PAST DREDGING PLANS.
5. SEE SPECIFICATIONS FOR BORING LOGS AND CHEMICAL ANALYSES OF SOIL SEDIMENT.



SECTION A−A
PROPOSED TRANSVERSE TYPICAL SECTION
AT CONSTRUCTION BASE LINE "B"
PROPOSED PROJECT DEPTH −10
(NOT TO SCALE)



SECTION B−B
TYPICAL CROSS SECTION AT SHEETING
(NOT TO SCALE)

TRAVERSE TABLE

PT#	NORTHING	EASTING	EL.(MLW)	BEARING	DISTANCE
85K	2924269.02	830270.38	18.37		
100	2924062.68	829876.38	13.37	S62−21−30W	444.76
103	2923881.11	829542.90	14.87	S61−26−00W	379.71
106	2924024.96	830166.78	14.08	N77−00−56E	640.26

DWG = H:\961\CIVIL\PROPOSAL\SH−1.dwg UNITS = Dec.
PLOT SCALE: 1" = 200' DATE 6/23/99 TIME 13:46 BY: ikatsman

SHEET 3 OF 3
PROPOSED CONDITIONS

JUNE 23, 1999 SCALE: AS NOTED

PLAN TO ACCOMPANY PETITION OF DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, TOWN OF HULL FOR WEIR RIVER IMPROVEMENT DREDGING −10 FOOT CHANNEL AND ANCHORAGES VICINITY OF NANTASKET PIER HULL, MASSACHUSETTS

EXECUTIVE OFFICE of ENVIRONMENTAL AFFAIRS

ENVIRONMENTAL NOTIFICATION FORM

in accordance with the Massachusetts Environmental Policy Act

EOEA No.: 11982
MEPA Analyst: Arthur Pugsley
Phone: 617-727-5830 ext. 301

Project: Proposed Dredging in the Weir River in the vicinity of the Nantasket Pier
Street: Adjacent to George Washington Boulevard
Municipality: Hull
Watershed: Weir River
Latitude and longitude: N2923702 E829262

Proponent: Town of Hull & Mass. D.E.M. Office of Waterways
Street: 349 Lincoln Street, Building #45
Municipality/State/Zip Code: Hingham, MA 02043

Estimated commencement date: October 1999 Estimated completion date: March 2000
Approximate cost: $650,000.00
Status of project design: 85 % complete

Copies of this Environmental Notification Form may be obtained from:
Name: John J, Hannon, and P.E.
Firm/Agency: ASEC Corporation
Street: 300 Congress Street
Municipality/State/Zip Code Quincy, MA 02169 E-mail:

Description of the Project and its alternatives (attached additional pages if necessary):

The Town of Hull and DEM Office of Waterways are proposing the maintenance dredging of approximately 63,300 C.Y. of sediment from an area of 13.8 acres, by mechanical method with disposal as unconfined open sea disposal at the Massachusetts Bay Disposal Site (MBDS).

The project was initially developed for two (2) phases, the first was to a dredge depth of -6' MLW plus a one (1) foot over-dredge allowance, the second phase was to a dredge depth of 10' MLW plus a one (1) foot over-dredge allowance.. The U.S. Army Corps of Engineers (COE) has issued a suitability determination allowing the material from the first phase to be disposed of as unconfined open sea disposal at the MBDS. The testing for the second phase is complete and is under review by the COE. Their verbal review indicates the second phase is similar to the first phase and will be allowed the same disposal. The COE anticipates the written determination to be issued momentarily.

(Continued)

Description of the Project and its alternatives (continued from front page):

The project is surrounded by the Weir River ACEC (Area of Critical Environmental Concern). The innermost portion of the access channel, around the pier itself, is not included in the ACEC designation. The entrance channel is within the ACEC, whereas, the proposed work in maintenance dredging it is allowed by M.G.L. Chapter 91 in an ACEC.

The dredging footprint indicated on the plans is the historic permitted dredging footprint, though depths have been dredged to -15' MLW, the current project is seeking only -10' MLW plus a one (1) foot over-dredge allowance. Past dredging was to accommodate the old Nantasket Steamship and paddleboat services to Boston and other ports; the current pier shall be used for several differing commercial and recreational activities including the possible restoration of commuter boat ferry services.

The Nantasket Pier was originally built and its channels dredged in the 19th century by the Boston-Nantasket Steamship Co. In the early 20th century the pier was turned over to the Town of Hull, who has owned and operated the site since. The Commonwealth has performed four (4) dredging projects and three (3) wharf repair project for this area since 1920. The latest dredging was in 1957 under Contract No. 1783 with the Department of Public Works, Division of Waterways.

After the initial testing in 1995 it was advised, that upland disposal should be the focus for the project's final disposal. After over three (3) years of searching, no suitable site was found and a request was made for biological testing. As stated above, these test passed for unconfined open sea disposal and MBDS was given as the disposal site by the COE.

Schedules attached to this Environmental Notification Form:

Subject Matter of Schedule	Review Threshold(s) met or exceeded (see 301 CMR 11.03)	Related Permit(s) required from an Agency of the Commonwealth (attach a copy of each completed application)	Impact(s) not meeting or exceeding a Review Threshold or requiring a Permit from an Agency of the Commonwealth
(1) Land			
(2) Rare Species			
(3) Wetlands, Waterways & Tidelands	X	DEP Water Quality	
(4) Water			
(5) Wastewater			
(6) Transportation			
(7) Energy			
(8) Air			
(9) Solid & Hazardous Waste			
(10) Historical/Archaeological Resources			
(11) ACECs	X		

Is this an Expanded ENF requesting:

a Single EIR? ___ Yes _X_ No (see 301 CMR 11.06(8))

a Special Review Procedure? ___ Yes _X_ No (see 301 CMR 11.09)

a Waiver? _X_ Yes ___ No (see 301 CMR 11.11)

List of any Financial Assistance or Land Transfer from an Agency of the Commonwealth:

Department of Environmental Management

Description of the Project's consistency with state, municipal, county, regional and Federal growth and infrastructure plans and policies and of its ability to facilitate sustainable economic development:

The proposed dredging is an intricate part o the Town of Hulls Harbor Development Plan and the Town's economic development plan for the re-generation of the Nantasket Pier and surrounding areas. Maintenance dredging is also re3conised by local, state and federal agencies as necessary to promote and re-establish safe navigable ways.

List of any permits, licenses, certificates, variances or approvals required from any municipal, county, regional or Federal governmental entity:

Town of Hull - Order of Conditions
DEP - Water Quality certificate
DEP - Waterways Dredging Permit
MCZM - Federal Consistency Statement
U.S. Army Corps o Engineers - Federal Dredging Permit

Attachments:

1. Appropriate schedule(s) as indicated on Page 2 of this form
2. Site plan(s)
3. Original U.S.G.S. map or good quality color copy (8-½ x 11 inches or larger) indicating the Project location and boundaries
4. GIS Coordinates, if available

Certifications:

1. The Public Notice of Environmental Review has been/will be published in the following newspapers in accordance with 301 CMR 11.15(1):

(Name)	(Date)
Quincy Patriot Ledger	July 15, 1999

2. This form has been circulated to Agencies and Persons in accordance with 301 CMR 11.16(2).

7/29/99			
Date	Signature of Responsible Officer or Proponent	Date	Signature of person preparing ENF (if different from above)
	Kevin P. Mooney		
	Name (print or type)		Name (print or type)
Firm/Agency	DEM Office of Waterways	Firm/Agency	
Street	349 Lincoln Street, Bld. #45	Street	
Municipality/State/Zip	Hingham, Ma 02043	Municipality/State/Zip	
Phone	(781) 740-1600 x 103	Phone	(____)

Schedule 1 -- Land (attach additional pages if necessary)

1. Description and assessment of the Project's impacts on land, including (as applicable):

   A. acres of land to be altered directly

   B. acres of new impervious area to be created

   C. acres of public natural resources land to be converted to other purposes

   D. acres of land in agricultural use (with agricultural soils) to be converted to nonagricultural use

   E. release of a conservation restriction, preservation restriction, agricultural preservation restriction or watershed preservation restriction

   F. required approval of a new urban redevelopment project or a fundamental change in an existing urban redevelopment project

   G. required approval of a new urban renewal plan or a major modification of an existing urban renewal plan

The proposed project will not effect the land. All work is within the water.

2. Description and assessment of the Project's other impacts on land:

N/A

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize impacts on land:

N/A

4. Description and assessment of proposed measures that would mitigate impacts on land:

N/A

Schedule 2 -- Rare Species (attach additional pages if necessary)

1. Description and assessment of the Project's impacts on rare species, including (as applicable):

   A. alteration of "significant habitat" designated by the Natural Heritage and Endangered Species Program in accordance with General Laws Chapter 131A

   B. taking of an endangered or threatened species or species of special concern

   C. alteration of a Priority Site of Rare Species Habitat and Exemplary Natural Communities alteration of Estimated Habitat of Rare Wildlife or a Certified Vernal Pool

   The project is not within or next to any area identified by Natural Heritage and Endangered Species Program as falling into these categories.

2. Description and assessment of the Project's other impacts on rare species:

   N/A

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize impacts on rare species:

   N/A

3. Description and assessment of proposed measures that would mitigate impacts on rare species:

   N/A

Schedule 3 -- Wetlands, Waterways and Tidelands (attach additional pages if necessary)

1. Description and assessment of the Project's impacts on wetlands, waterways and tidelands, including (as applicable):

A. alteration of any resource area subject to protection under the Wetlands Protection Act

B. alteration of any other wetlands protected under Federal or State law

C. alteration of a wetland resource area requiring a variance under the Wetlands Protection Act

D. construction or alteration of a dam

E. non-water dependent use of or structure in waterways or tidelands

F. fill or structure in a velocity zone or regulatory floodway

G. roadway, bridge or utility line to a barrier beach

H. dredging or disposal of dredged material

I. solid fill, pile-supported or bottom-anchored structure in flowed tidelands or other waterways

The project consists of dredging approximately 63,300 C.Y. from 13.2 acres of Land Under the Ocean and 0.6 acres of Intertidal Lands. All dredging shall be confined to the previously permitted and dredged footprint and sideslope.

2. Description and assessment of the Project's other impacts on wetlands, waterways and tidelands:

The disturbance to these areas is temporary during the dredging operations.

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize impacts on wetlands, waterways and tidelands:

N/A

4. Description and assessment of proposed measures that would mitigate impacts on wetlands, waterways and tidelands:

N/A

Schedule 4 -- Water (attach additional pages if necessary)

1. Description and assessment of the Project's impacts on water resources, quality, facilities and services, including (as applicable):

   A. new or expanded withdrawal from a groundwater or surface water source

   B. new interbasin transfer of water

   C. new water mains

   D. new water service by an Agency of the Commonwealth to a municipality or water district

   E. new or expanded drinking water treatment plant

   F. alteration requiring a variance under the Watershed Protection Act

   G. non-bridged stream crossing 1,000 or less feet upstream of a public surface drinking water

   H. supply for purpose of forest harvesting activities

   The project is within tidal waters; no drinking water shall be effected.

2. Description and assessment of the Project's other impacts on water resources, quality, facilities and services:

   N/A

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize impacts on water resources, quality, facilities and services:

   N/A

4. Description and assessment of proposed measures that would mitigate impacts on water resources, quality, facilities and services:

   N/A

Schedule 5 -- Wastewater (attach additional pages if necessary)

1. Description and assessment of the Project's wastewater impacts, including (as applicable):

   A. new or expanded wastewater treatment and/or disposal facility

   B. new interbasin transfer of wastewater

   C. new sewer mains

   D. new sewer service by an Agency of the Commonwealth to a municipality or sewer district

   E. new or expanded discharge of sewage, industrial waste water, or untreated stormwater to an outstanding resource water, a sewer system, surface water, or groundwater

   F. new or expanded capacity for storage, treatment, processing, combustion or disposal of sewage sludge, sludge ash, grit, screenings, or other sewage sludge residual materials

   The proposed project shall have no impact on these issues.

2. Description and assessment of the Project's other wastewater impacts:

   N/A

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize wastewater impacts:

   N/A

4. Description and assessment of proposed measures that would mitigate wastewater impacts:

   N/A

Schedule 6 -- Transportation (attach additional pages if necessary)

1. Description and assessment of the Project's impacts on traffic, transit, pedestrian and bicycle transportation facilities and services, including (as applicable):

   A. new or widened roadway

   B. new interchange on a completed limited access highway

   C. new airport

   D. new or expanded runway, terminal, taxiway, or air cargo building at an airport

   E. new rail or rapid transit line for transportation of passengers or freight

   F. new generation of vehicle trips (average daily trips)

   G. new parking spaces

   H. construction, widening or maintenance of a roadway or its right-of-way that will alter the bank or terrain, cut living public shade trees, or eliminate stone wall

   I. conversion of a military airport to a non-military airport

   J. discontinuation of passenger or freight service along a rail or rapid transit line

   K. abandonment of a substantially intact rail or rapid transit right-of-way

   The proposed project may enable the Town of Hull to re-establish water ferry service to the pier, as identified in their Harbor management Plan.

2. Description and assessment of the Project's other impacts on traffic, transit, pedestrian and bicycle transportation facilities and services:

   The proposed project shall not change or impact these areas.

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize impacts on traffic, transit, pedestrian and bicycle transportation facilities and services:

   N/A

4. Description and assessment of proposed measures that would mitigate impacts on traffic, transit, pedestrian and bicycle transportation facilities and services:

   N/A

Schedule 7 -- Energy (attach additional pages if necessary)

1. Description and assessment of the Project's impacts on energy facilities and services, including (as applicable):

   A. new or expanded electric generating facility

   B. new fuel pipeline

   C. new electric transmission lines

The proposed project shall have no impact on these items.

2. Description and assessment of the Project's other impacts on energy facilities and services:

N/A

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize impacts on energy facilities and services:

N/A

5. Description and assessment of proposed measures that would mitigate impacts on energy facilities and services:

N/A

Schedule 8 -- Air (attach additional pages if necessary)

1. Description and assessment of the Project's impacts on air resources and quality, including (as applicable):

A. construction or modification of a major stationary source

B. new or increased emissions of particulate matter, carbon monoxide, sulfur dioxide, volatile organic compounds, oxides of nitrogen, lead, any other criteria or hazardous air pollutant, or carbon dioxide

The proposed project shall temporarily increase exhaust during the actual dredging operations. The exhaust shall be from the dredge plant, tugboats and workboats. The impact will be minimal.

2. Description and assessment of the Project's other impacts on air resources and quality:

N/A

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize impacts on air resources and quality:

N/A

4. Description and assessment of proposed measures that would mitigate impacts on air resources and quality:

N/A

Schedule 9 -- Solid and Hazardous Waste (attach additional pages if necessary)

1. Description and assessment of the Project's solid and hazardous waste impacts, including (as applicable):

   A. new or increased capacity for the storage, treatment, processing, combustion or disposal of solid waste

   B. new or increased capacity for the storage, recycling, treatment or disposal of hazardous waste

   The proposed project shall have no impact on these issues.

2. Description and assessment of the Project's other solid and hazardous waste impacts:

   N/A

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize solid and hazardous waste impacts:

   N/A

4. Description and assessment of proposed measures that would mitigate solid and hazardous waste impacts:

   N/A

Schedule 10 -- Historical and Archaeological Resources (attach additional pages if necessary)

1. Description and assessment of the Project's impacts on historical and archaeological resources, including (as applicable):

   A. demolition of all or any exterior part of any Historic Structure listed in or located in any Historic District listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth

   B. destruction of all or any part of any Archaeological Site listed in State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth

   The proposed project shall have no impact on these issues.

2. Description and assessment of the Project's other impacts on historical and archaeological resources:

   N/A

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize impacts on historical and archaeological resources:

   N/A

4. Description and assessment of proposed measures that would mitigate impacts on historical and archaeological resources:

   N/A

Schedule 11 -- Areas of Critical Environmental Concern (attach additional pages if necessary)

1. Description and assessment of the Project's impacts on environmental resources or quality or infrastructure facilities and services within an Area of Critical Environmental Concern that are conceptually or physically related to the subject matter of any Permit required for the Project:

The Weir River ACEC surrounds the proposed project. The access channels around the pier itself are excluded from the ACEC designation. The entrance channel is situated within the ACEC. Maintenance dredging is an allowable construction activity in an ACEC and is allowed under Chapter 91. All dredging shall be within the previously established, permitted and dredged footprint, which allows maintenance dredging.

2. Description and assessment of the Project's other impacts on environmental resources or quality or infrastructure facilities and services within an Area of Critical Environmental Concern:

The project shall not disturb any other resources or quality within the ACEC. According to the Hull Shellfish Constable, the dredging will not effect any resource.

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize impacts on environmental resources or quality or infrastructure facilities and services within an Area of Critical Environmental Concern:

N/A

4. Description and assessment of proposed measures that would mitigate impacts on environmental resources or quality or infrastructure facilities and services within an Area of Critical Environmental Concern:

N/A

Town of Hull

HARBORMASTER

Michael L. Nicholson
TEL: 781.925-0316
FAX: 781.925-2898

253 Atlantic Avenue
Hull, MA 02045

July 15, 1999

Mr. Kevin P. Mooney
Project Manager
Office of Waterways
Building 45
349 Lincoln Street
Hingham, MA 02043

Dear Mr. Mooney;

I am writing you in response to your inquiry regarding the proposed dredging project for the area surrounding Nantasket Pier.

Please be advised that I function in the capacities of both the Harbormaster and Shellfish Constable for the Town of Hull.

I know of no hazardous materials being present within the project area. Nor, have there been any spills, or other introductions of hazardous materials, for the past three years. Further, the proposed dredging project will not have any adverse impact on finfish, shellfish or other marine life located in the area.

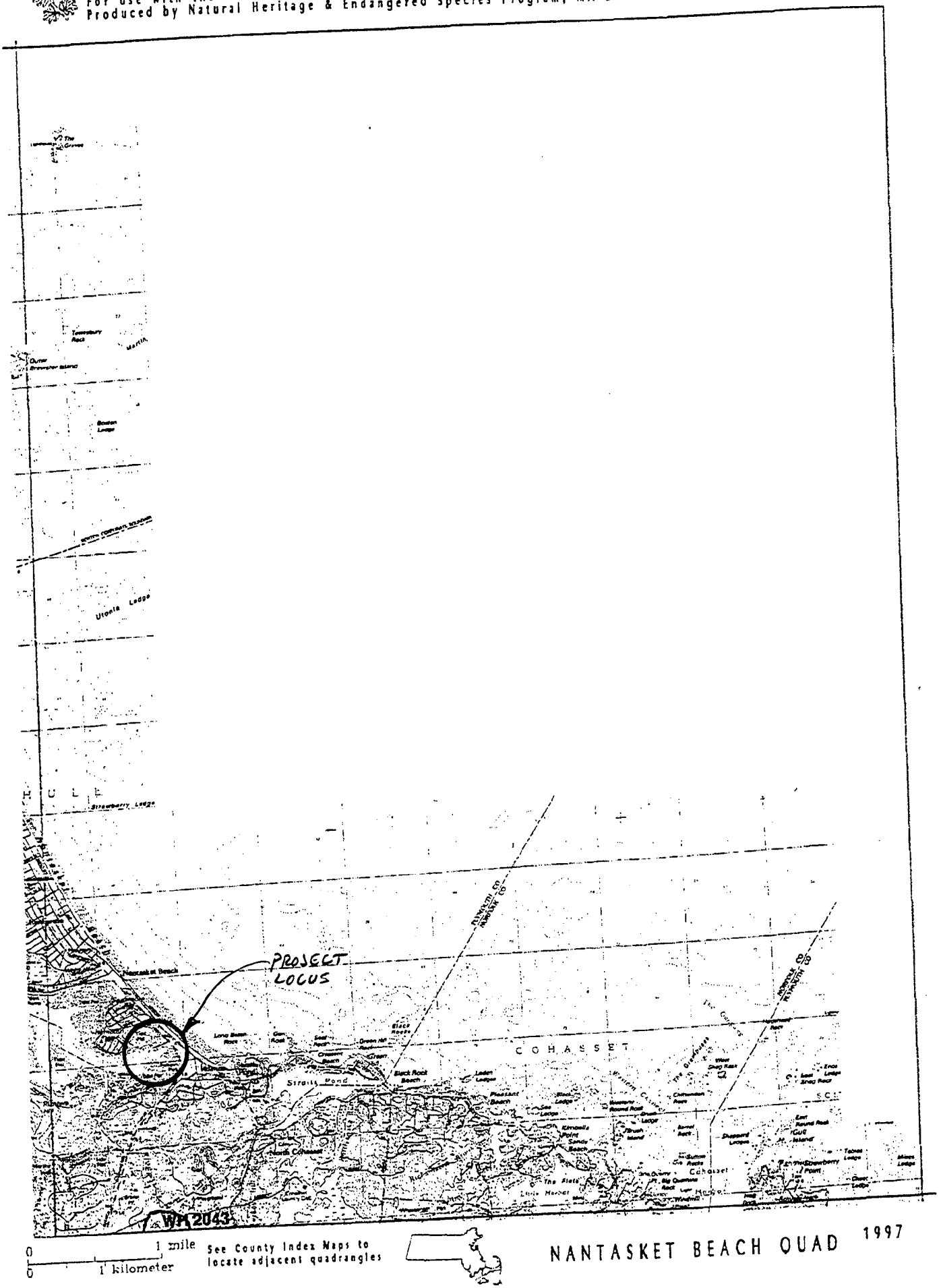
I trust that this information is satisfactory for your agency's needs.

Sincerely,

Michael L. Nicholson
Harbormaster, Shellfish Constable

ESTIMATED HABITATS OF RARE WILDLIFE AND CERTIFIED VERNAL POOLS

For use with the MA Wetlands Protection Act regulations (310 CMR 10).
Produced by Natural Heritage & Endangered Species Program, MA Division of Fisheries & Wildlife



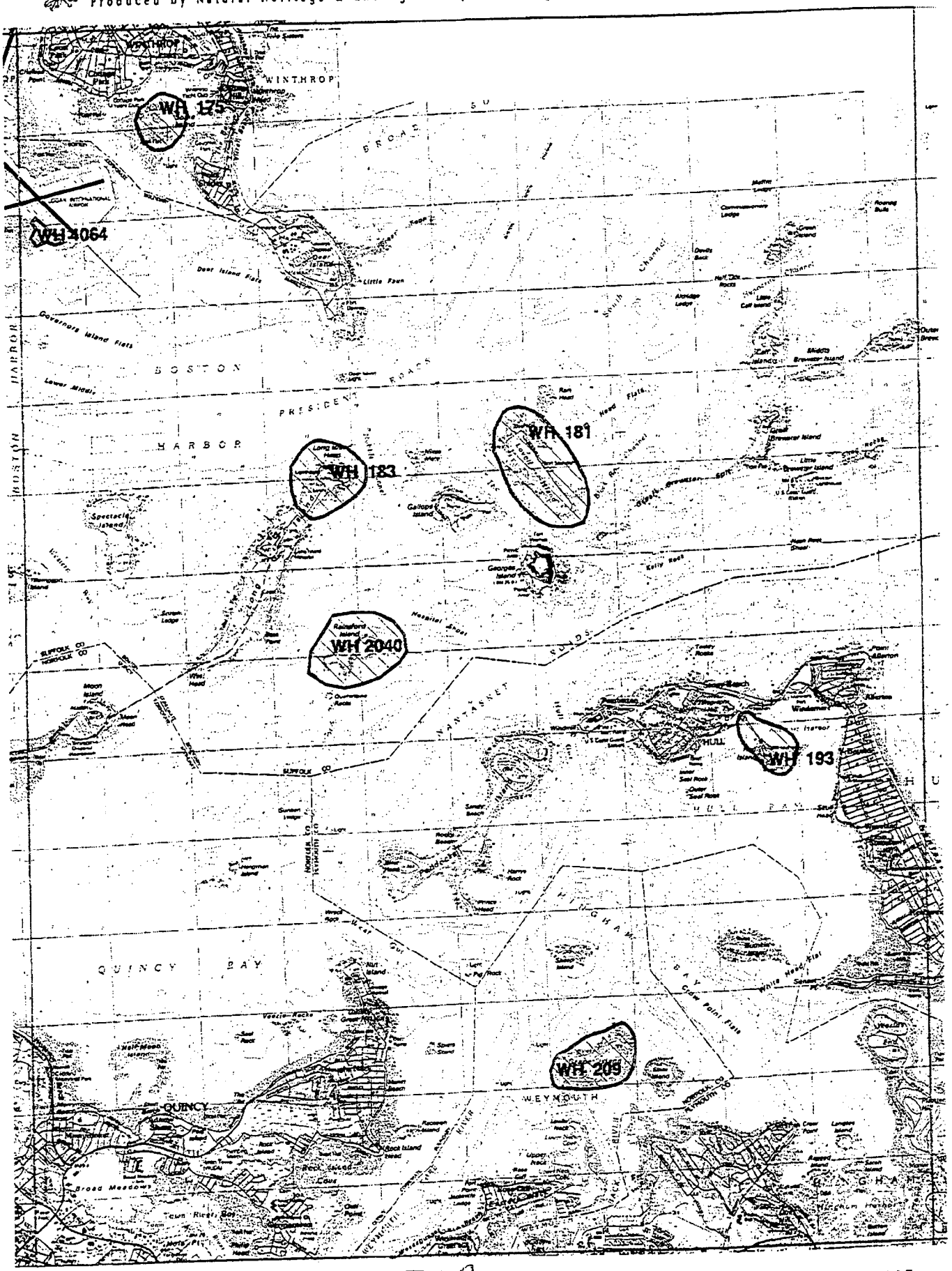
0 1 mile
0 1 kilometer

See County Index Maps to locate adjacent quadrangles

NANTASKET BEACH QUAD 1997

ESTIMATED HABITATS OF RARE WILDLIFE AND CERTIFIED VERNAL POOLS

For use with the MA Wetlands Protection Act regulations (310 CMR 10).
Produced by Natural Heritage & Endangered Species Program, MA Division of Fisheries & Wildlife



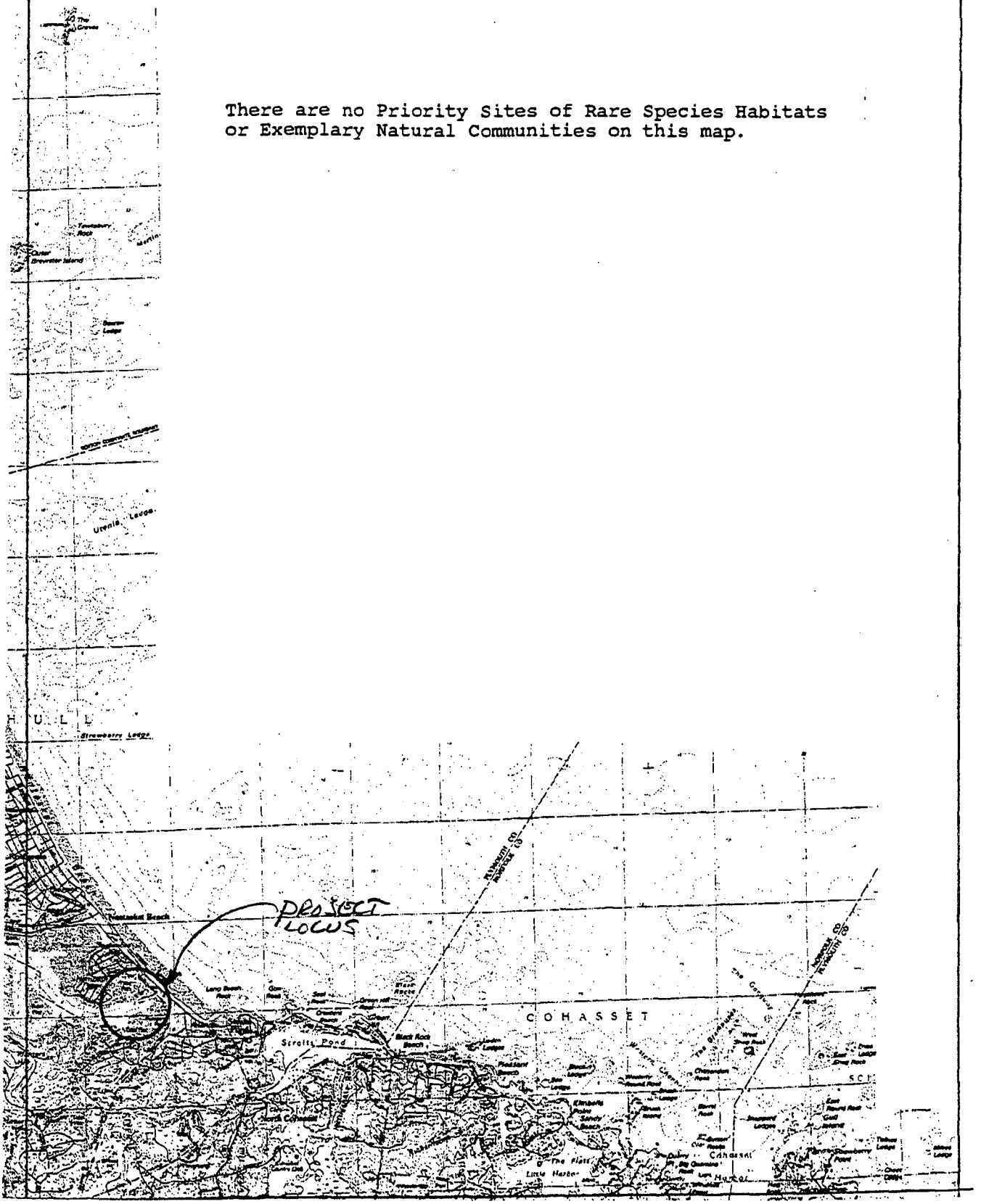
0 1 mile
0 1 kilometer

See County Index Maps to locate adjacent quadrangles

HULL QUAD 1997

PRIORITY SITES OF RARE SPECIES HABITATS AND EXEMPLARY NATURAL COMMUNITIES
Note: NOT equivalent to SIGNIFICANT HABITATS as designated under MA Endangered Species Act
NOT for use with MA Wetlands Protection Act regulations.
Produced by Natural Heritage & Endangered Species Program, MA Division of Fisheries & Wildlife

There are no Priority Sites of Rare Species Habitats or Exemplary Natural Communities on this map.



0 1 mile
0 1 kilometer

See County Index Maps to locate adjacent quadrangles

NANTASKET BEACH QUAD 1997

PRIORITY SITES OF RARE SPECIES HABITATS AND EXEMPLARY NATURAL COMMUNITIES
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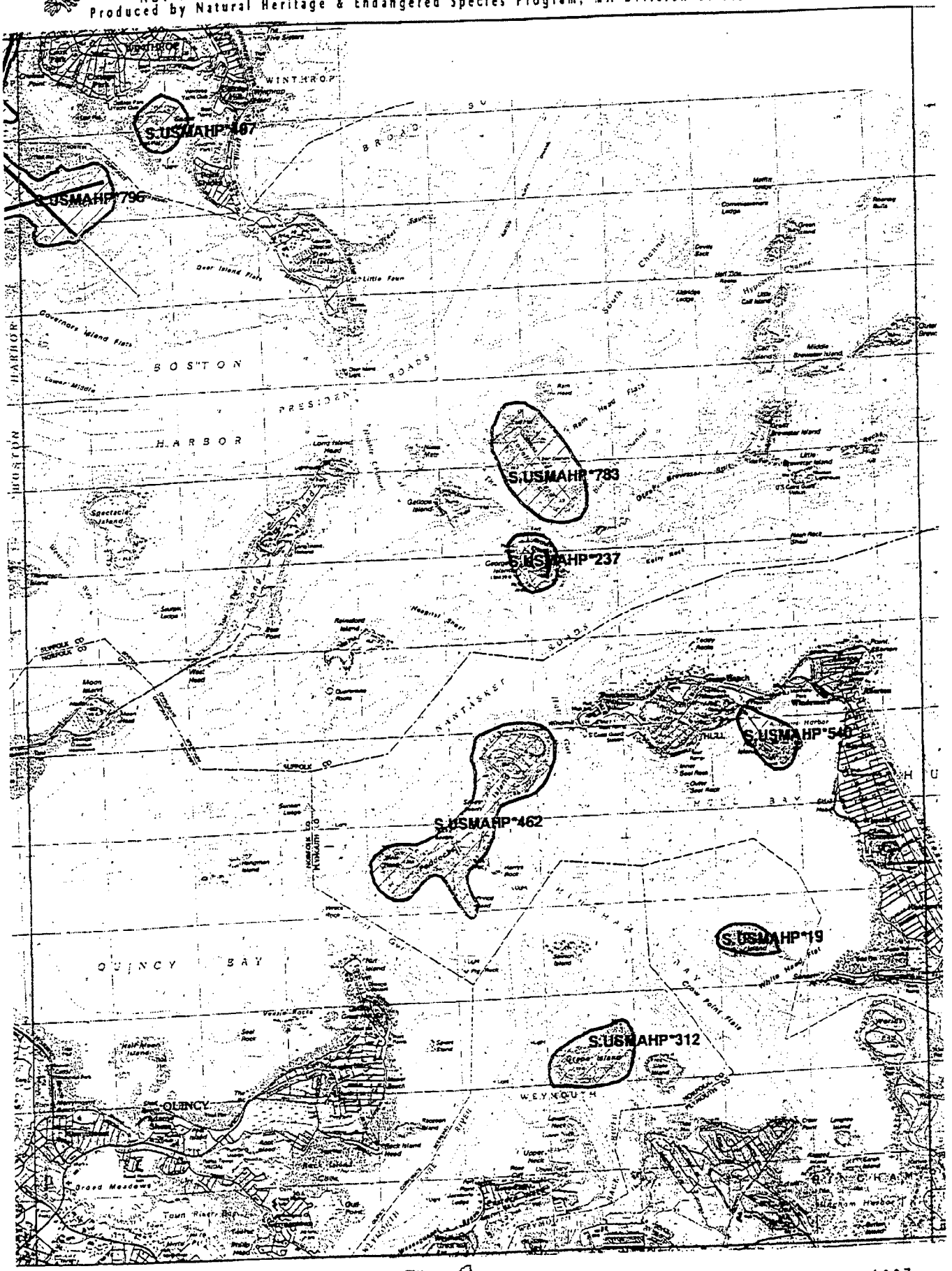
NOT for use with MA Wetlands Protection Act regulations.
Produced by Natural Heritage & Endangered Species Program, MA Division of Fisheries & Wildlife



0 1 mile
0 1 kilometer

See County Index Maps to locate adjacent quadrangles

HULL QUAD 1997

1198

FORMS OF NOTICE

(1) PUBLIC NOTICE OF ENVIRONMENTAL REVIEW

PROJECT: Maintenance Dredging of Weir River, Vicinity of Nantasket Pier

LOCATION: Hull, Massachusetts

PROPONENT: Town ofHull, Mass. Dept. Envir. Mgmt. Office of Waterways

The undersigned is submitting an Environmental Notification Form ("ENF") to the Secretary of Environmental Affairs on or before July 15, 1999 (Date)

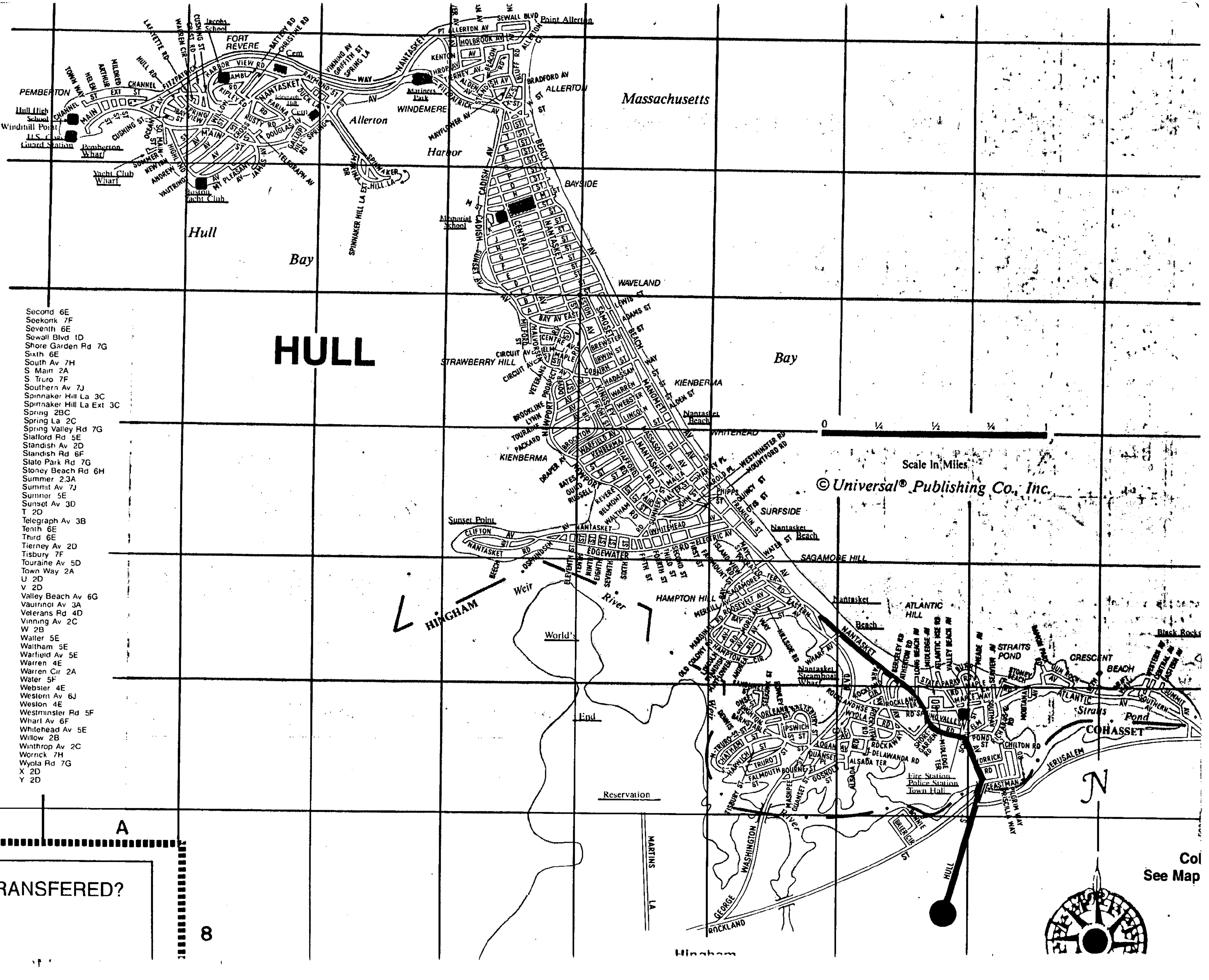
This will initiate review of the above project pursuant to the Massachusetts Environmental Policy Act ("MEPA", M.G.L. c. 30, secs. 61, 62-62H). Copies of the ENF may be obtained from:

John J. Hannon, P.E., ASEC Corp. 300 Congress St. Quincy, MA 02169 (617)376-2560
(Name, mailing address, telephone number of proponent or proponent's agent)

Copies of the ENF are also being sent to the Conservation Commission and Planning Board of Town of Hull (Municipality) where they may be inspected.

The Secretary of Environmental Affairs will publish notice of the ENF in the Environmental Monitor, will receive public comments on the project for twenty days, and will then decide, within ten days, if an Environmental Impact Report is needed. A site visit and consultation session on the project may also be scheduled. All persons wishing to comment on the project, or to be notified of a site visit or consultation session, should write to the Secretary of Environmental Affairs, 100 Cambridge Street, Boston, Massachusetts 02202, Attention, MEPA Office, referencing the above project.

By Kevin D. Maguire (Proponent)
Kevin D. Maguire
Acting Director



Second 6E
Seekonk 7F
Seventh 6E
Sewall Blvd 1D
Shore Garden Rd 7G
Sixth 6E
South Av 7H
S Main 2A
S Truro 7F
Southern Av 7J
Spinnaker Hill La 3C
Spinnaker Hill La Ext 3C
Spring 2BC
Spring La 2C
Spring Valley Rd 7G
Stafford Rd 5E
Standish Av 2D
Standish Rd 6F
State Park Rd 7G
Stoney Beach Rd 6H
Summer 2,3A
Summit Av 7J
Sumner 5E
Sunset Av 3D
T 2D
Telegraph Av 3B
Tenth 6E
Third 6E
Tierney Av 2D
Tisbury 7F
Touraine Av 5D
Town Way 2A
U 2D
V 2D
Valley Beach Av 6G
Vautrinot Av 3A
Veterans Rd 4D
Vinning Av 2C
W 2B
Waller 5E
Waltham 5E
Warfield Av 5E
Warren 4E
Warren Cir 2A
Water 5F
Webster 4E
Western Av 6J
Weston 4E
Westminster Rd 5F
Wharf Av 6F
Whitehead Av 5E
Willow 2B
Winthrop Av 2C
Worrick 7H
Wyola Rd 7G
X 2D
Y 2D

ENVIRONMENTAL NOTIFICATION FORM

in accordance with the Massachusetts Environmental Policy Act

EOEA No.: 11982
MEPA Analyst: Arthur Pugsley
Phone: 617-727-5830 ext. 301

Project: Proposed Dredging at the Weir River
Street: George Washington Blvd. in the vicinity of the Nantasket Pier in Hull, Mass
Municipality: Hull
Watershed: Weir River
Latitude and longitude: N2923701 E829262

meet at Nantasket Pier

Proponent: Town of Hull, Mass. DEM Office of Waterways
Street: 349 Lincoln St. Bldg. 45
Municipality/State/Zip Code: Hingham MA 02043
Estimated commencement date: Fall 1999 Estimated completion date: Fall 1999
Approximate cost: $400,000.00
Status of project design: 60 % complete

Copies of this Environmental Notification Form may be obtained from:
Name: John J. Hannon, P.E.
Firm/Agency: ASEC Corporation Phone: 617-376-2560
Street: 300 Congress Street, Suite 303 Fax: 617-376-2565
Municipality/State/Zip Code Quincy, MA 02169 E-mail:

Description of the Project and its alternatives (attached additional pages if necessary):

The Town of Hull and Mass. DEM Office of Waterways are dredging 63,000 CY of sediment over 13.8 acres by mechanical method with unconfined open sea disposal at Massachusetts Bay Disposal Site (MBDS).

Project was originally proposed for two depths -6 MLW plus a 1 foot overdredge allowance -10 MLW plus a 1 foot overdredge.

US Army Corps of Engineers (COE) will issue a positive Suitability Determination for the upper level of sediment. The Suitability Determination for the lower is being processed at this time.

Project is located within the Weir River A.C.E.C. Maintenance Dredging of the channels has been excluded from the A.C.E.C.

Required Waiver for EIR will be submitted.

Schedules attached to this Environmental Notification Form:

Subject Matter of Schedule	Review Threshold(s) met or exceeded (see 301 CMR 11.03)	Related Permit(s) required from an Agency of the Commonwealth (attach a copy of each completed application)	Impact(s) not meeting or exceeding a Review Threshold or requiring a Permit from an Agency of the Commonwealth
(1) Land	-		
(2) Rare Species			
(3) Wetlands, Waterways & Tidelands	301CMR11.03(5)	x Chap. 91 Water Qual. Cert	
(4) Water			
(5) Wastewater			
(6) Transportation			
(7) Energy			
(8) Air			
(9) Solid & Hazardous Waste			
(10) Historical/Archaeological Resources			
(11) ACECs			

Is this an Expanded ENF requesting:

a Single EIR? __ Yes _x_ No (see 301 CMR 11.06(8))

a Special Review Procedure? __ Yes _x_ No (see 301 CMR 11.09)

a Waiver? X Yes __ No (see 301 CMR 11.11)

List of any Financial Assistance or Land Transfer from an Agency of the Commonwealth:

75% funding Dept. of Environmental Management

25% Town of Hull

Description of the Project's consistency with state, municipal, county, regional and Federal growth and infrastructure plans and policies and of its ability to facilitate sustainable economic development:

List of any permits, licenses, certificates, variances or approvals required from any municipal, county, regional or Federal governmental entity:

DEP water quality cert. COE
DEP waterways Dredging permit
Town of Hull Order of Conditions from Conservation Commission.
MCZM For Consistency

Attachments:

1. Appropriate schedule(s) as indicated on Page 2 of this form
2. Site plan(s)
3. Original U.S.G.S. map or good quality color copy (8-½ x 11 inches or larger) indicating the Project location and boundaries
4. GIS Coordinates, if available

Certifications:

1. The Public Notice of Environmental Review has been/will be published in the following newspapers in accordance with 301 CMR 11.15(1):

(Name)	(Date)
Quincy Patriot Ledger	July 15, 1999

2. This form has been circulated to Agencies and Persons in accordance with 301 CMR 11.16(2).

7-8-99
Date

Kevin D. Maguire
Acting Director of Waterways
Mass DEM

7-8-99		7-8-99	
Date	Signature of Responsible Officer or Proponent	Date	Signature of person preparing ENF (if different from above)
	Philip Lemnios, Town Manager		Abdulkader C. Hamadeh, P.E.
	Name (print or type)		Name (print or type)
Firm/Agency	Town of Hull	Firm/Agency	ASEC Corporation
Street	Town Hall, Atlantic Ave	Street	300 Congress St/Ste 303
Municipality/State/Zip	Hull, MA 02045	Municipality/State/Zip	Quincy, MA 02169
Phone	(781) 925-2000	Phone	(617) 376-2560

None

Schedule 3 – Wetlands, Waterways and Tidelands (attach additional pages if necessary)

1. Description and assessment of the Project's impacts on wetlands, waterways and tidelands, including (as applicable):

A. alteration of any resource area subject to protection under the Wetlands Protection Act

B. alteration of any other wetlands protected under Federal or State law

C. alteration of a wetland resource area requiring a variance under the Wetlands Protection Act

D. construction or alteration of a dam

E. non-water dependent use of or structure in waterways or tidelands

F. fill or structure in a velocity zone or regulatory floodway

G. roadway, bridge or utility line to a barrier beach

H. dredging or disposal of dredged material

I. solid fill, pile-supported or bottom-anchored structure in flowed tidelands or other waterways

Temporary noise and sediment turbulence during construction period of dredging operations. However, completed work will produce a larger tidal prism, present a cleaner river channel & basin and will further enhance tidal flushing.

Reestablish safer NAV. channel access.

2. Description and assessment of the Project's other impacts on wetlands, waterways and tidelands:

None required.

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize impacts on wetlands, waterways and tidelands:

None required.

4. Description and assessment of proposed measures that would mitigate impacts on wetlands, waterways and tidelands:

None required.

Schedule 8 -- Air (attach additional pages if necessary)

1. Description and assessment of the Project's impacts on air resources and quality, including (as applicable):

A. construction or modification of a major stationary source

B. new or increased emissions of particulate matter, carbon monoxide, sulfur dioxide, volatile organic compounds, oxides of nitrogen, lead, any other criteria or hazardous air pollutant, or carbon dioxide

Dredging equipment typically employs diesel operating equipment in the form of a crane, tugs, etc. During the construction period air emissions from this equipment will in some minor manner, adversely impact upon air quality. However, impact should be minor and temporary and readily dissipated.

2. Description and assessment of the Project's other impacts on air resources and quality:

None

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize impacts on air resources and quality:

None

4. Description and assessment of proposed measures that would mitigate impacts on air resources and quality:

None

Schedule 11 -- Areas of Critical Environmental Concern (attach additional pages if necessary)

1. Description and assessment of the Project's impacts on environmental resources or quality or infrastructure facilities and services within an Area of Critical Environmental Concern that are conceptually or physically related to the subject matter of any Permit required for the Project:

Proposed project is adjacent to an ACEC. However, no adverse impact is anticipated.

2. Description and assessment of the Project's other impacts on environmental resources or quality or infrastructure facilities and services within an Area of Critical Environmental Concern:

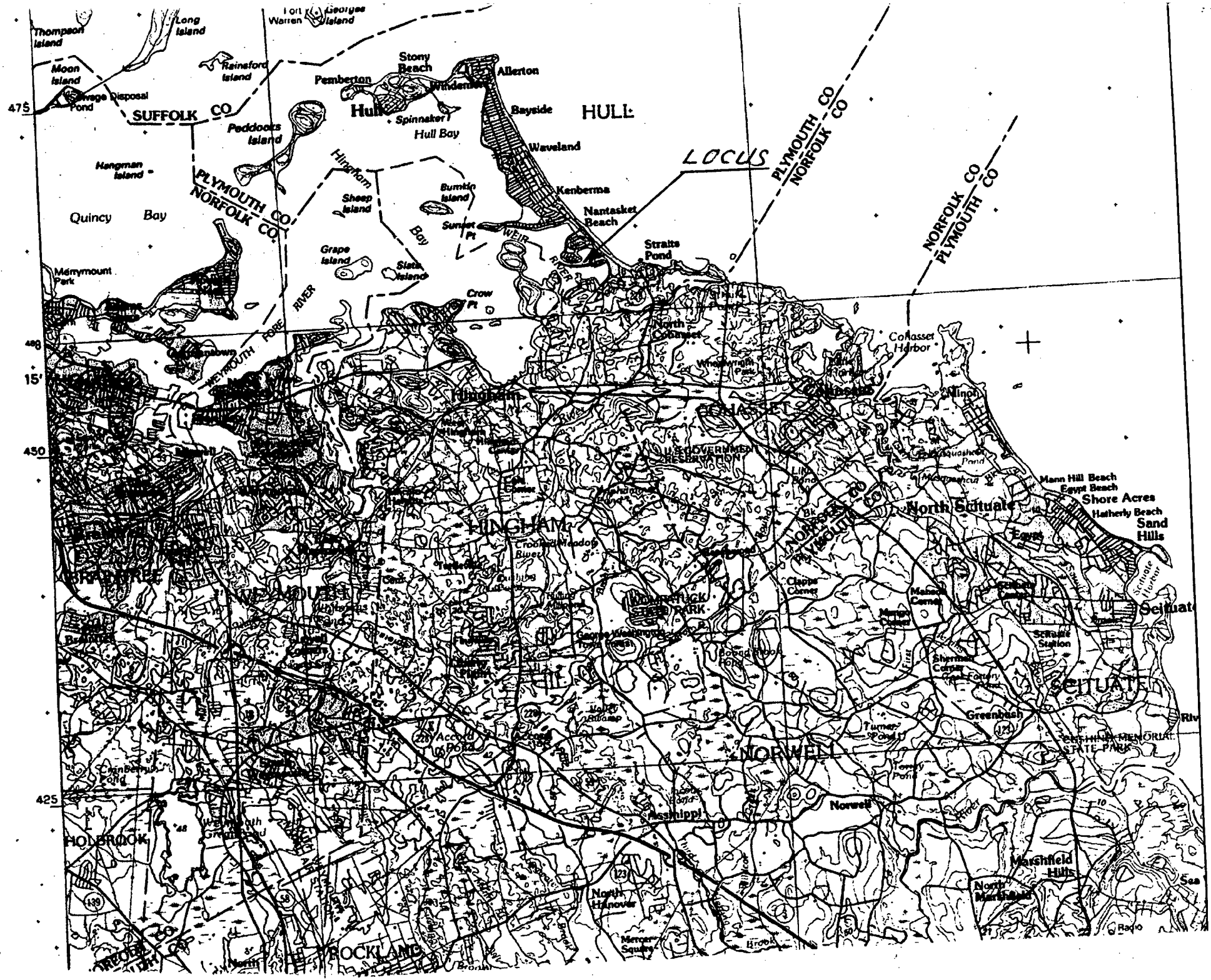
None

3. Description and analysis of alternative plans or designs for the Project or aspects thereof that would avoid or minimize impacts on environmental resources or quality or infrastructure facilities and services within an Area of Critical Environmental Concern:

None

4. Description and assessment of proposed measures that would mitigate impacts on environmental resources or quality or infrastructure facilities and services within an Area of Critical Environmental Concern:

None


Thompson Island
Long Island
Fort Warren
Georges Island
Moon Island
Rainsford Island
Pemberton
Stony Beach
Allerton
Sewage Disposal Pond
SUFFOLK CO
Hull
Spinnaker I
Bayside
HULL
Peddocks Island
Hull Bay
Waveland
LOCUS
PLYMOUTH CO
NORFOLK CO
Hangman Island
Hingham
Bumkin Island
Kenberma
Sheep Island
Nantasket Beach
Quincy Bay
Sunset Pt
WEIR RIVER
Straits Pond
Grape Island
Slate Island
Crow Pt
Mirymount Park
WEYMOUTH FORE RIVER
Cohasset Harbor
HINGHAM
COHASSET
North Scituate
Mann Hill Beach
Egypt Beach
Shore Acres
Hatherly Beach
Sand Hills
BRAINTREE
WEYMOUTH
Scituate
SCITUATE
Greenbush
NORWELL
Norwell
HOLBROOK
Marshfield Hills
North Marshfield
North Hanover
ROCKLAND
475
450
425

Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands and Waterways

Transmittal #

BRP WW 07, 08 Dredging

401 Water Quality Certification - Projects Proposing More Than 100 Cubic Yards Dredging or Disposal of Dredged Material

A Applicant Information

1. Which permit category are you applying for?
   X BRP WW 07 | BRP WW 08

2. Applicant:
   Town of Hull/Mass. DEM, Office of Waterways
   Name
   349 Lincoln Street
   Address
   Hingham, MA 02043
   City/Town *State*

   Contact Person
   Kevin D. Maguire
   Telephone (home) *(work)*
   (781)740-1600

3. Authorized agent:
   ASEC Corporation
   Name
   300 Congress Street
   Address
   Quincy, MA
   City/Town *State*

   Contact Person
   John J. Hannon, P.E.
   Telephone (home) *(work)*
   (617)376-2560

B Project Information

1. Project Location:
   Weir River, vicinity of Nantasket Pier
   Street Address

   City/Town
   Hull

   Nearest or Adjacent Waterbody
   Weir River

2. Project Name (if any):
   Weir River Navigational Access Project

3. Will the proposed project occur in any wetlands or waters designated as "Outstanding Resource Waters"?
   ☐ yes ☒ no

   If yes has public notice been published in the Environmental Monitor?
   ☐ yes ☐ no

   Date of Publication

4. Identify the loss in square feet of each type of resource area (see Application Instructions for additional information.):
   a. Land under water
   Footprint of work is 13.8 Acres total -10MLW
   square feet
   0.6 Acres in Intertidal

   b. Other Resources:
   Intertidal
   square feet

5. Does this project require a license from the Federal Energy Regulatory Commission?
   ☐ yes ☒ no

   If yes, see Application Instructions for additional information needed.

6. Is the project categorically subject to MEPA?
   ☒ yes ☐ no

   If yes, has final action been taken?
   ☐ yes ☒ no

   If yes, please include copy of MEPA certificate.

7. Is any of your proposed work exempt from the Massachusetts Wetlands Protection Act or taking place in a federal non-state wetland?
   | yes ☒ no

   If yes, see Application Instructions for additional information needed.

BRP WW 07, 08 Dredging

401 Water Quality Certification - Projects Proposing More Than 100 Cubic Yards Dredging or Disposal of Dredged Material

C Description of Proposed Dredging Site

1. a. Describe in general the proposed project or activity, including the purpose and intended use of the project, and the duration of the work within any waterbody:

Proposed project involves the maintenance dredging of the Weir River at the vicinity of the Nantasket Pier. A depth elevation is proposed of -10MLW. Unconfined disposal at the MBDS. Duration of work is approximately three months.

b. Date activity to commence:

Fall 1999

c. What is the expected frequency of maintenance dredging of this project? Explain:

10 Years, more frequent dredging will allow small quantities of footprint and lesser environmental impact.

2. Attach plan(s) of the proposed project as follows:

XX Include a copy of the appropriate portion from the USGS quadrangle map for this project site. Include the identification number and name of the USGS quad map.

Plan View.
The plan view of the proposed activity should show the following:

- ☐ Existing shorelines.
- ☐ Ebb and flood in tidal waters and direction of flow in rivers.
- ☐ North arrow.
- ☐ Graphic and numerical scale.
- ☐ Mean high and low water lines if the proposed activity is located in tidal areas.
- ☐ Ordinary high water line for inland water.
- ☐ Water depths around the project.
- ☐ Principal dimensions of the structure or work and extent of encroachment beyond the applicable high water line.
- ☐ Seaward distance from an existing permanent fixed structure or object
- ☐ Distance between proposed activity and navigation channel, where applicable.
- ☐ Harbor lines, if established and if known.
- ☐ Location of structures, if any, in navigable waters immediately adjacent to the proposed activity.
- ☐ Location of any vegetated wetlands or wetland resource area.
- ☐ Proximity to any designated Areas of Critical Environmental Concern.

Elevation and/or Section View.
The elevation and/or section view of the proposed project should show the following:

- ☐ Same water elevations as in the plan view.
- ☐ Depth at waterward face of proposed work. Show dredging grade.
- ☐ Graph and numerical scale.
- ☐ Cross-section of excavation including approximate side slopes.

3. a. What is the length, width, depth and volume of the proposed project?

length: 1060 ft *Feet* width: 220 ft and variable *Feet*

Depth: -10 MLW *Feet* Volume: 63,000 *cubic yards*

b. Is the proposed project considered

i. a new project, ☐ yes ☒ no or

ii. maintenance of an existing project? ☒ yes ☐ no

iii. when was the project area last dredged?

1957 *Date*

DPW Contract NO. 1783 *Permit/License Name and Number*

BRP WW 07, 08 Dredging

401 Water Quality Certification - Projects Proposing More Than 100 Cubic Yards Dredging or Disposal of Dredged Material

C Description of Proposed Dredging Site (cont.)

3. c. Describe in complete detail the physical dredging operation including descriptions of the type of dredge equipment, i.e., hopper dredge, hydraulic dredge, etc., the type of transportation to be used from the dredge site to the disposal site, the method of release of the dredged material into the disposal site, and the name of the contractor if other than the applicant.

Dredge by Clamshell or other Comprable mechanical method and placed into tight closing bottom dump scows at the approved MBDS location.

d. Describe all measures designed to avoid and minimize adverse impacts of the project on aquatic life and the aquatic ecosystem. Where impacts cannot be avoided or minimized, what mitigation measures are proposed? (See Application Instructions.)

Fall/Winter dredging is outside of the spawing season for finfish and shellfish.

4. Historical Parameters

To the best of your knowledge, does the proposed project area have any past history of:

a. chemical or oil spills or discharge?

☐ Yes ☒ No

b. upstream or on-site industrial or municipal discharge within 1,000 feet of the proposed project?

☐ Yes X ☐ No

c. chronic pollutant loading from port or harbor use and/or other sources of pollutants? (eg. CSO or POTW discharges)

☐ Yes X ☐ No

If yes to any questions in Item C-4, provide as much historical information as you have, including dates, amounts, concentrations, etc. of such spills or discharge. Attach additional sheets if necessary.

BRP WW 07, 08 Dredging

401 Water Quality Certification - Projects Proposing More Than 100 Cubic Yards Dredging or Disposal of Dredged Material

D Description of Material to be Dredged

1. Grain Size Analysis

See application instructions for sampling and analysis requirements

See attached report by SCILAB Boston, Inc. dated October 5, 1998 & CORPS Of Engineers, suitability determination for.

Size Fraction % of total by weight

coarse gravel 64 mm	
fine gravel 2-64 mm	
sand .063-2 mm	
silt .004-063 mm	
clay .004 mm	

2. Chemical Analysis of Sediment

See application instructions for sampling and analysis requirements. List constituents in mg/kg (ppm) dry weight unless otherwise indicated.

See attached report by SCILAB Boston, Inc. dated October 5, 1998 & CORPS Of Engineers, suitability determination for.

arsenic	
cadmium	
chromium	
copper	
lead	
mercury	
nickel	
zinc	
PCBs (polychlorinated biphenyls)	
PAHs (polynuclear aromatic hydrocarbons)	
TPH (total petroleum hydrocarbons)	
TOC (total organic carbon)	%
volatile solids	%
water	%

BRP WW 07, 08 Dredging

401 Water Quality Certification - Projects Proposing More Than 100 Cubic Yards Dredging or Disposal of Dredged Material

E Description of the Disposal Site for Dredged Material

1. For ocean disposal sites

a. Location of proposed disposal site and its physical boundaries.

See attached report by SCILAB Boston, Inc., dated October 5, 1998

b. Has the site been designated by the state or E.P.A. as a dredge disposal site? ☐ Yes ☐ No

If no, give a description of the characteristics of the proposed disposal site and an explanation as to why no currently designated site is feasible for this project.

See attached report by SCILAB Boston, Inc., dated October 5, 1998

c. Is the anticipated disposal site located within a designated ocean sanctuary as established by federal law or G.L.c. 132A, sec. 13? ☐ Yes ☐ No

If yes, which sanctuary?

2. For disposal sites or dewatering sites on land (landward of mean high water, see instructions):

a. Location of proposed disposal and dewatering sites and physical boundaries.

b. Indicate drainage characteristics of dewatering and disposal sites from the results of test pits, borings, percolation tests as applicable.

c. How long are the dewatering and disposal sites estimated to be in use from this project? from future projects?

d. Include plans for effluent control at the dewatering and disposal sites.

3. For proposed dewatering of dredged sediment on a barge, provide plans for adequate containment and effluent control.

F Certification

Application is hereby made for Water Quality Certification concerning the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities.

July 7, 1999
Date

Signature of Applicant or Authorized Agent

The application must be signed by the applicant; however, it may be signed by a duly authorized agent (named in Item 2) if this form is accompanied by a statement by the applicant designating the agent and agreeing to furnish upon request, supplemental information in support of the application.

EOEA # 11982 Project Proposed Dredging at the Weir River

Location Hull

Summary: _____

Proponent _____ Consultant _____

COMMENTS DUE: _____ DECISION DUE: _____

DATE OF SITE MEETING: _____ LOCATION OF SITE MEETING: _____

SITE MEETING NOTICES SENT BY E-MAIL:

___ DEP/Commissioner (David Murphy)
___ DEP/Boston
___ DEP/NERO (David Shakespeare)
___ DEP/SERO (Sharon Stone/Robert Fagon)
___ DEP/CERO (Robert Bois)
___ DEP/WERO (Craig Givens)
___ MCZM (Jane Mead)
___ DEM _____
___ ACECs (Leslie Luchonok)
___ Fish and Wildlife NHP (Hanni Dinkeloo)
___ Food and Agriculture (Marcia Starkey)
___ MHD Public/Private Development (Rick Bourre)
___ Watershed Team Coordinator
___ MOBD _____
___ Other _____
___ Other _____

MEETING NOTICES SENT BY MAIL:

___ MHD District #1
270 Pittsfield Road, Lenox 01240
___ MHD District #2
811 N. King Highway, Northampton 01060
___ MHD District #3
403 Belmont Street, Worcester 01604
___ MHD District #4
519 Appleton Street, Arlington 02174
___ MHD District #5
1000 County Street, Taunton 02780
___ MHC
220 Morrissey Boulevard, Boston 02125
___ BRA (Dick Mertens)
___ BED (Mora Zlody)
One City Hall Plaza, Boston 02201
___ BTD
One City Hall Plaza, Boston 02201
___ MWRA (Maryann Connolly)
Charlestown Navy Yard, Boston
___ Regional Planning Agency _____
___ Conservation Commission _____
___ Planning Board _____
___ Board of Selectmen/City Council _____
___ Watershed Association _____
___ MBTA
10 Park Plaza
___ Other _____
One City Hall Plaza, Boston 022011
___ Other _____

Attachment H

Suitability Determination (2012-2013)

DRAFT

CENAE-R-PT-MAS 23 March 2012

MEMORANDUM THRU:

Ruth M. Ladd, Chief, Policy Analysis and Technical Support Branch

FOR: Richard C. Kristoff, Project Manager, CENAE-R-PEA

SUBJECT: DRAFT Suitability Determination for Town of Hull, Massachusetts, Nantasket Pier, Weir River, Application Number 2007-2344.

1. **References Cited**

a. US EPA Region 1/USACE-NAE. 2007. Reference Memorandum for Evaluating Testing and Non-Testing Requirements of 40 C.F.R 227.6 and 227.27 Federal Navigation Dredging or Non-federal Dredging Projects, for Open Ocean Disposal at the Massachusetts Bay Disposal Site (MBDS).

b. USEPA Region 1/USACE-NAE. 2004. Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters. Environmental Protection Agency, Region 1, Boston, MA/US Army Corps of Engineers, New England District, Concord, MA. 54 pp.

c. USACE-NAE. 2012. Environmental Assessment/Finding of No Significant Impact for Town of Hull, Massachusetts, Nantasket Pier, Weir River, Application Number 2007-2344. US Army Corps of Engineers (USACE), New England District, Concord, MA.

2. **Summary**

This memorandum addresses compliance with the regulatory evaluation and testing requirements of the Marine Protection, Research, and Sanctuaries Act (MPRSA, or Ocean Dumping Act) regulations at 40 CFR 227 as well as the issues outlined in the Massachusetts Bay Disposal Site (MBDS) Reference Memo (USEPA Region 1/USACE-NAE 2007) for unconfined open water disposal at an ocean disposal site. Based upon this review, the proposed dredged material from this project is suitable for unrestricted ocean disposal at MBDS. Detailed information pertaining to the regulatory issues associated with the evaluation of this project as well as the technical background of the analytical tests summarized herein is found in the MBDS Reference Memo (USEPA Region 1/USACE-NAE 2007). A copy of this memo can be obtained upon request from the EPA or USACE.

3. **Project Description**

The applicant is proposing to maintenance dredge an area of approximately **13.8 acres** at the Steamship (or Nantasket) Pier in the Weir River, which will produce a volume of approximately **10,000 cu. yds**. of silty material. This material is proposed to be mechanically dredged and disposed of at the Massachusetts Bay Disposal Site (**MBDS**). This area was last dredged 7 years ago.

I prepared a Suitability Determination for this project on 21 April 2011 based upon chemical data from the 10 November 2010 SAP. In it, I found some of the sediments, from the vicinities of Sample AP-2-S1 and of Composite 3, suitable for disposal at Cape Cod Bay Disposal Site (CCBDS) as proposed. The remaining sediments, from the vicinity of AP-CSO-S1, Composite 1 and Composite 3, I found not suitable for disposal at CCBDS at that tier of testing. I could not determine if the sediments in the northeast portion of the project were or were not suitable, as they are located between suitable and unsuitable sediments and were not directly sampled. Of the options open to them, the applicants have decided to pursue biological testing for disposal at MBDS.

4. **Sampling Plan**

a. Sampling plan

A sampling plan was developed on 30 September 2011 for the analysis of biological characteristics of the sediment proposed to be dredged. This sampling plan was written in accordance with the USEPA Region 1/USACE-NAE Regional Implementation Manual guidelines (USEPA Region 1/USACE-NAE 2004). The federal agencies concurred with this plan.

b. Compositing plan

After a review of the previous data, a compositing plan was developed on in the SAP. The plan called for 3 composited samples for use in a bioassay with amphipods and mysids; a suspended particulate bioassay with fish, mysid shrimp, and pelagic larvae; and a bioaccumulation assay using bivalves and polychaetes. The cores were composited as follows: AP-1-S1, AP-1-S2, & AP-1-S3; AP-CSO-S1, AP-2-S2, & AP-2-S3; and AP-3-S1, AP-3-S2, AP-3-S3, AP-2-S4, & AP-2-S5. The federal agencies concurred with this plan.

c. Toxicity tests

The 10-day bioassay tests were conducted on the composite samples. As the results indicated no toxic response, the suspended particulate and the bioaccumulations tests were conducted to completion.

d. Determining contaminants of concern

As a result of the bulk chemistry analyses, we determined in the SAP which contaminants would be tested for in the bioaccumulation test. The contaminants of concern for the bioaccumulation test were all the metals, the PCBs and the PAHs.

5. **Testing Results**

a. 10-day bioassay

In the *Leptocheirus plumulosus* (amphipod) bioassay test, the mean survivorship for the amphipods exposed to sediment from the control site was 92% with a mortality of 8%. As the mortality in the control was less than 10%, this test was valid. The mean survivorship for the amphipods exposed to sediment from the reference site was 81%. The mean survivorship for the amphipods exposed to sediment from Composite 1 was 97%. The mean survivorship for the amphipods exposed to sediment from Composite 2 was 91%. The mean survivorship for the amphipods exposed to sediment from Composite 3 was 90%. Statistical analysis indicates that there is no significant difference between the survivorships of the amphipods exposed to the reference sediment and the amphipods exposed to the sediments represented by Composites 1, 2, or 3. Therefore, the materials proposed to be dredged are not considered acutely toxic to the amphipods used in the testing.

In the *Americamysis bahia* (mysid) bioassay test, the mean survivorship for the mysids exposed to sediment from the control site was 91%, with a mortality of 9%. As the mortality in the control was less than 10%, this test was valid. The mean survivorship for the mysids exposed to sediment from the reference site was 90%. The mean survivorship for the mysids exposed to sediment from Composite 1 was 94%. The mean survivorship for the amphipods exposed to sediment from Composite 2 was 80%. The mean survivorship for the amphipods exposed to sediment from Composite 3 was 91%.

Statistical analysis indicates that there is no significant difference between the survivorships of the mysids exposed to the reference sediment and the mysids exposed to the Composite 1 or 3 sediments. Therefore, the materials proposed to be dredged are not considered acutely toxic to the mysids used in the testing.

There was a statistically significant difference between the survivorships of the mysids exposed to the reference sediment and the mysids exposed to the

Composite 2 sediments. However, the difference between the mean survivorship of the mysids exposed to the reference and the Composite 2 sediments is 10%, less than the 20% threshold allowed in the testing protocol. Therefore, the materials proposed to be dredged are not considered acutely toxic to the mysids used in the testing.

Therefore, based on the results of tests on these two species, the materials proposed to be dredged are not likely to be acutely toxic to benthic organisms.

b. Water Column Toxicity Tests

In the Suspended Phase Acute Toxicity Tests, the mysid shrimp (*Americamysis bahia*) showed a LC_{50} of >100% when exposed to elutriate from each of the composite samples. The inland silverside minnow (*Menidia beryllina*) showed a LC_{50} of >100% when exposed to elutriate from Composite samples 1 and 3 and a LC_{50} of 86.6% when exposed to Composite 2. The c(*Arbacia punctulata*) showed a LC_{50} of 82.3% when exposed to elutriate from Composite Sample 1, 26.1% when exposed to Composite 2 and 32.1% when exposed to Composite 3.

c. STFATE Water Quality Evaluation

The ADDAMS model was run using 1% of the lowest LC_{50} value, 26.1% for *Arbacia punctulata* at Composite 2. The results show that there is rapid dilution of the water fraction such that the lowest LC_{50} found for this project is diluted to below the 1/100th value (0.261%) within four hours following sediment disposal. This rapid dilution supports that conclusion that there should not be unacceptable adverse effects from the disposal of these sediments at the MBDS. The model was run using a 4000 cu. yds. disposal volume and, based on prior experience with the model, disposal volumes larger than this (e.g., 5000 or 6000 cu. yds.) should also be acceptable.

d. Bioaccumulation results

In the bioaccumulation tests, both the bent-nosed clam (*Macoma nasuta*) and the clam worm (*Nereis virens*) significantly accumulated contaminants. The clam worm showed significant accumulation of copper in Composite 1 and phenanthrene, PCB52, PCB10, PCB118, PCB138, PCB153 and PCB187 in Composites 1, 2 and 3. The bent-nosed clam showed significant accumulation of copper in Composites 1 and 2, fluoranthene in Composites 1, 2 and 3, naphthalene in Composite 2, pyrene in Composites 1 and 2, and PCB101, PCB118, PCB138, PCB153 and PCB187 in Composites 1, 2 and 3.

In total, there were eleven contaminants of concern which were bioaccumulated at levels greater than in the reference animals. Because of the presence of significant bioaccumulation, the EPA ran a risk-assessment model of the bioaccumulation results. For these compounds, the toxicological significance of bioaccumulation from the sediment into benthic organisms was evaluated. It was determined that the disposal of the material as proposed will not cause any significant undesirable effects (see Tables 1 and 2).

6. **Disposal Alternatives Analysis**

According to Subsection C, 40 CFR 227.14, 227.15 and 227.16, the need for ocean disposal of the dredged material from this project has to be demonstrated and alternatives to the disposal have to be evaluated. Factors considered in determining need will include: evaluation of the degree of treatment that is useful and feasible; whether the material could be reduced or eliminated by using other processes; the relative environmental risks, impact and cost for other alternatives; and any irreversible consequences of the use of alternatives. In addition, the CENAE and/or EPA Region 1 must determine that there are no practical improvements in processing or treatment to reduce the impacts of the sediment, and that there are no practical alternatives with less adverse environmental impact.

See the Environmental Assessment/Statement of Findings for this project for the discussion of the disposal analyses (USACE-NAE, 2012).

7. If you have any questions or want further details on the procedures of project evaluation, please contact the MAS Project Manager at (978) 318- 8660 or Phillip.w.nimeskern@usace.army.mil.

PHILLIP NIMESKERN
Project Manager,
Regulatory Division

Melville P. Coté, Jr., Manager
Ocean and Coastal Protection Unit
EPA Region 1 – New England

Jennifer L. McCarthy
Chief, Regulatory Division
New England District
U.S. Army Corps of Engineers

CENAE-R-PT
SUBJECT: DRAFT Suitability Determination for Town of Hull, Massachusetts, Nantasket Pier, Weir River, Application Number 2007-2344.

Concur	Concur
Do not concur	Do not concur
Date	Date

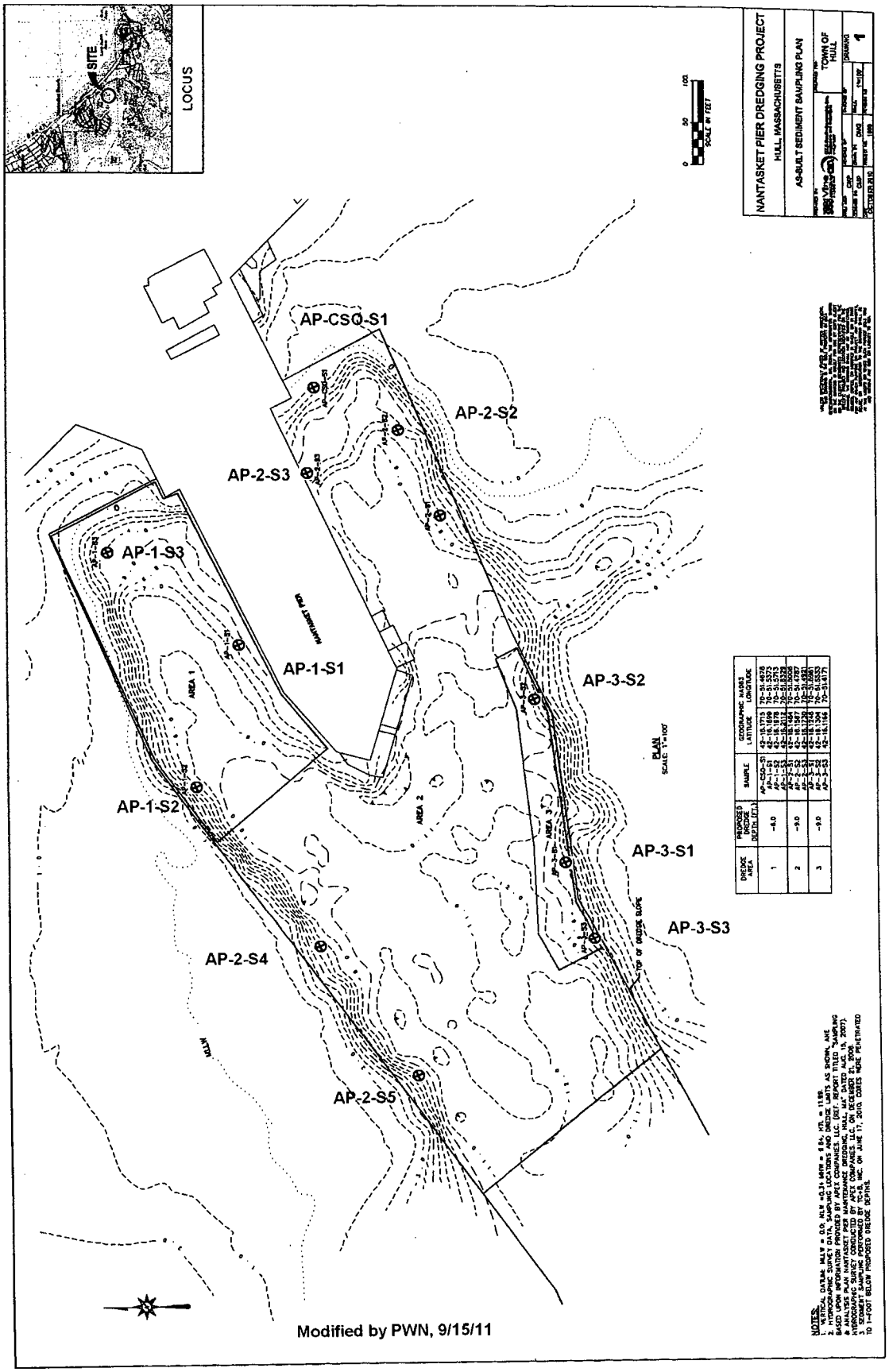

LOCUS
SITE
NANTASKET PIER DREDGING PROJECT
HULL, MASSACHUSETTS
AS-BUILT SEDIMENT SAMPLING PLAN
TOWN OF HULL
AP-CSO-S1
AP-2-S2
AP-2-S3
AP-1-S3
AP-1-S1
AP-3-S2
AP-1-S2
AP-3-S1
AP-3-S3
AP-2-S4
AP-2-S5
NANTASKET PIER
AREA 1
AREA 2
AREA 3
PLAN
SCALE 1"=100'
Modified by PWN, 9/15/11

Table X-a Risk Summary of all Composites
Project Site: Nantasket Pier, Weir River, Hull, MA
Project Number: 2007-2344
Organism: Macoma nasuta

	Column A	Column B	Column C	Column D	Column E	Column F
	CARCINOGENIC RISK			NON-CARCINOGENIC RISK		
Sampling Point	Total Estimated Lobster Risk	Total Estimated Fish Risk	Total Estimated Mollusean Shellfish Risk	Total Estimated Lobster Risk	Total Estimated Fish Risk	Total Estimated Mollusean Shellfish Risk
Composite 1 Reference (MBDS Reference)	2.21E-05 7.98E-06	4.27E-06 1.55E-06	6.98E-06 2.36E-06	4.69E-01 1.40E-01	9.08E-02 2.70E-02	1.58E-01 4.69E-02
Composite 2 Reference (MBDS Reference)	1.61E-05 5.56E-06	3.12E-06 1.08E-06	5.42E-06 1.87E-06	4.05E-01 1.40E-01	7.84E-02 2.71E-02	1.36E-01 4.70E-02
Composite 3 Reference (MBDS Reference)	2.07E-05 5.56E-06	4.00E-06 1.08E-06	6.96E-06 1.87E-06	5.17E-01 1.39E-01	1.00E-01 2.70E-02	1.74E-01 4.69E-02

Page No.: 1

Table 1

Table X-b Risk Summary of all Composites
Project Site: Nantasket Pier, Weir River, Hull, MA
Project Number: 2007-2344
Organism: Nereis virens

	Column A	Column B	Column C	Column D	Column E	Column F
	CARCINOGENIC RISK			NON-CARCINOGENIC RISK		
Sampling Point	Total Estimated Lobster Risk	Total Estimated Fish Risk	Total Estimated Molluscan Shellfish Risk	Total Estimated Lobster Risk	Total Estimated Fish Risk	Total Estimated Molluscan Shellfish Risk
Composite 1	1.64E-05	3.18E-06	6.51E-06	4.11E-01	7.96E-02	1.63E-01
Reference (MBDS Reference)	8.39E-06	1.63E-06	3.33E-06	2.10E-01	4.07E-02	8.32E-02
Composite 2	1.51E-05	2.93E-06	5.99E-06	3.78E-01	7.33E-02	1.50E-01
Reference (MBDS Reference)	8.39E-06	1.63E-06	3.33E-06	2.10E-01	4.07E-02	8.32E-02
Composite 3	1.68E-05	3.25E-06	6.64E-06	4.19E-01	8.12E-02	1.66E-01
Reference (MBDS Reference)	8.39E-06	1.63E-06	3.33E-06	2.10E-01	4.06E-02	8.32E-02

Page No.: 1

Table 2

Kristoff, Richard C NAE

From: Nimeskern, Phillip W NAE
Sent: Tuesday, March 27, 2012 2:44 PM
To: Kristoff, Richard C NAE
Subject: Draft SD for 2007-2344 Hull, MA, Nantasket Pier (UNCLASSIFIED)
Attachments: 2007-2344 Hull MA Nantasket Pier SD.docx; 2007-2344 INTERAGENCY COORD.docx

attachments are in the electronic file

Classification: UNCLASSIFIED
Caveats: NONE

Hello Rick,

Attached please find the draft SD and coversheet for your project. Please review them and let me know if you have any comments or corrections. If you do not, please forward the draft to the agency contacts and let me know when you have.

Phill Nimeskern
US Army, Corps of Engineers
(978) 318-8660

Classification: UNCLASSIFIED
Caveats: NONE

Kristoff, Richard C NAE

From: Christopher Morris [CMorris@apexcos.com]
Sent: Thursday, March 01, 2012 2:45 PM
To: Kristoff, Richard C NAE
Cc: Nimeskern, Phillip W NAE
Subject: NAE 2007-2344 Weir River, Hull, MA

Gentlemen,

I have transmitted the electronic data for the biological testing from the aforementioned project to you today. If you have any question please do not hesitated to contact me.

Thank you

Chris

<http://www.apexcos.com/>

Christopher Morris

Apex Companies, LLC

184 High Street, Suite 502

Boston, MA 02210

O) 617-728-0070 M) 617-840-0145

Kristoff, Richard C NAE

From: Kristoff, Richard C NAE
Sent: Monday, October 03, 2011 9:28 AM
To: 'Christopher Morris'
Subject: RE: Nantasket Pier (UNCLASSIFIED)
Attachments: document2011-10-03-092522.pdf

Classification: UNCLASSIFIED
Caveats: NONE

Hello Chris,
Here is the sample plan.
Thanks,
Rick

-----Original Message-----
From: Christopher Morris [mailto:CMorris@apexcos.com]
Sent: Monday, August 15, 2011 1:57 PM
To: Kristoff, Richard C NAE
Subject: RE: Nantasket Pier (UNCLASSIFIED)

Thank you, could you please have Phillip prepare a site specific sampling plan for biological sampling at the site.

Thank you,

Christopher Morris
Apex Companies, LLC
O) 617-728-0070 M) 617-840-0145

-----Original Message-----
From: Kristoff, Richard C NAE [mailto:Richard.C.Kristoff@usace.army.mil]
Sent: Monday, August 15, 2011 1:51 PM
To: Christopher Morris
Subject: FW: Nantasket Pier (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hello Chris,
Here is the email that I sent you on June 24 with the requested info. Looks like you will need to do biological testing as well.
Thanks,
Rick

-----Original Message-----
From: Kristoff, Richard C NAE
Sent: Friday, June 24, 2011 10:40 AM
To: 'cmorris@apexcos.com'
Subject: Nantasket Pier (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hello Chris,

I have been working on the Nantasket Pier permit with Geoffrey May. I understand he no longer works there and you are taking over the project. I wanted to send you a copy of the Suitability Determination for this project to make sure you have it. I look forward working with you on this project.
Thanks,
Rick

-----Original Message-----
From: Richard.C.Kristoff@usace.army.mil
[mailto:Richard.C.Kristoff@usace.army.mil]
Sent: Friday, June 24, 2011 10:33 AM
To: Kristoff, Richard C NAE
Subject: Scanned Document

Please see the attached document.

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

CENAE-R-PT 30 September 2011

MEMORANDUM FOR: Richard C. Kristoff, Project Manager, CENAE-R-PEA

SUBJECT: Sampling and Analysis Plan for Town of Hull, Massachusetts, Nantasket Pier, Weir River, Application Number 2007-2344.

1. In response to your request, I have developed a biological sampling plan for the above project. The NMFS has given blanket concurrence to these sampling plans. The applicant is proposing to maintenance dredge an area of approximately **13.8 acres** at the Steamship (or Nantasket) Pier in the Weir River, which will produce a volume of approximately **10,000 cu. yds**. of silty material. This material is proposed to be mechanically dredged and disposed of at the Massachusetts Bay Disposal Site (**MBDS**). This area was last dredged 7 years ago.

I prepared a Suitability Determination for this project on 21 April 2011 based upon chemical data from the 10 November 2010 SAP. In it, I found some of the sediments, from the vicinities of Sample AP-2-S1 and of Composite 3, suitable for disposal at Cape Cod Bay Disposal Site (CCBDS) as proposed. The remaining sediments, from the vicinity of AP-CSO-S1, Composite 1 and Composite 3, I found not suitable for disposal at CCBDS at that tier of testing. I could not determine if the sediments in the northeast portion of the project were or were not suitable, as they are located between suitable and unsuitable sediments and were not directly sampled. Of the options open to them, the applicants have decided to pursue biological testing for disposal at MBDS.

2. The "Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters" (RIM) is now final and took effect on 6 May 2004. The RIM, as well as requirements for electronic submission of data, may be downloaded from the website http://www.nae.usace.army.mil/reg/rim.htm.

Additionally, the deadline for all laboratories to submit Laboratory Quality Assurance Plans (LQAPs) was 6 May 2006. **After this deadline, any data reports from labs that DO NOT have an approved LQAP on record at the Army Corps of Engineers WILL NOT be accepted.** Applicants and their agents should verify that their laboratory and any sub-contracting laboratory has, or is working towards, a valid LQAP before retaining their services.

3. No information on recent spills was given. There is a Combined Sewer Outfall (CSO) at the landward side of the south basin. The basin is at a nineteenth century pier in a tidal marsh area and so may have old sources of contamination.

4. **Eleven** cores should be taken from the areas to be dredged according to the attached plan. Core samples should be taken to the proposed dredge depth plus the overdredge amount. The cores should be inspected in the field for stratification. If the cores show significant stratification, in the opinion of the sampling crew, subsamples should be made of each layer. Sufficient material should be taken for the following required tests: a bulk sediment chemistry analysis, a 10-day bioassay, a 28-day bioaccumulation test and a suspended particulate assay. Chemical analysis should be performed on the elutriates and water used in the suspended particulate assay. All sediments being held for testing should be stored in accordance with the requirements of Table 8-2 in Evaluation of Dredged Material Proposed for Ocean Disposal, Testing Manual, 1991.

5. The cores should be composited as follows:
AP-1-S1, AP-1-S2, & AP-1-S3;
AP-CSO-S1, AP-2-S2, & AP-2-S3; and
AP-3-S1, AP-3-S2, AP-3-S3, AP-2-S4, & AP-2-S5.

6. Applicants should provide coordinates for each core location in latitude and longitude, NAD 83 decimal minutes. The horizontal accuracy of each sample location should be 3 meters or less. This accuracy can be achieved with a WAAS-enabled standard boat-mounted or hand-held GPS unit. The accuracy at each sample location shall be reported along with the coordinates. Accuracy can be improved by collecting data at a sampling location for a longer period of time.

7. The reference site sediment should be collected from the MBDS Reference Site located at latitude 42° 22.7' N and longitude 70° 30.30' W.

8. The 10-day bioassay test should performed in accordance with the requirements of the following three documents: "Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters" (April 2004); Evaluation of Dredged Material Proposed for Ocean Disposal, Testing Manual, 1991; and Methods for Assessing the Toxicity of Sediment-Associated Contaminants with Estuarine and Marine Amphipods, 1994. The bioassay test should use two species of test animals, the amphipod *Ampelisca abdita* and the mysid shrimp *Americamysis bahia.*

The results of the 10-day bioassay test should be reported to me, or, if I am not available, to the Marine Analysis Section (MAS), as soon as possible after its completion. If this test shows a statistically significant mortality, in accordance with the above documents, we may decide to cancel the rest of the tests. It is important that the results of this test be reported to me promptly,

as the sediments have short holding times. In addition, we may decide to further composite the sediments for the bulk sediment chemistry analyses, the suspended particulate bioassay test and the bioaccumulation test based upon the results of the bioassay test.

9. Since bulk sediment chemistry analyses were performed in 2011 on sediments from this project area, they do not need to be repeated. The contaminants of concern for the bioaccumulation test are all the metals, the PCBs and the PAHs.

10. The 28-day bioaccumulation test can be started at the same time as the bulk sediment chemistry tests but should not be started before those tests. This test should be performed in accordance with the requirements of the following two documents: "Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters" (April 2004) and Evaluation of Dredged Material Proposed for Ocean Disposal, Testing Manual, 1991. The bioaccumulation test should use a bivalve, either *Macoma nasuta* or *Macoma balthica*, and the polychaete *Nereis virens* as test animals. At the end of the 28–day test, the tissues of the survivors should be tested for the contaminants of concern according to Table 9 of the "Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters" (April 2004). The contaminants of concern for the bioaccumulation test are all the metals, the PCBs and the PAHs.

11. The suspended particulate bioassay test should be in accordance with the requirements of the following two documents: "Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters" (April 2004) and Evaluation of Dredged Material Proposed for Ocean Disposal, Testing Manual, 1991. This test can be started at the same time as the 28-day bioaccumulation and bulk sediment chemistry tests. Three test species shall be used: a crustacean; a fish; and the planktonic larvae of a third species. We recommend *Mysidopsis bahia*; *Menidia menidia* or *Menidia beryllina*; and larvae of either *Mytilus edulis* or *Arbacia punctulata.*

The chemical analysis of elutriate and dredging site waters is discussed in section 9.4 of Evaluation of Dredged Material Proposed for Ocean Disposal, Testing Manual, 1991. The test parameters should include all of the items on the attached sheet. The reporting limits should be those indicated on the attached sheet. The listed analytical methods are recommended but can be replaced by other methods that will give the required reporting limits.

12. Any analytes not detected shall be reported as the reporting limit and qualified with a "U". Non-detects should not be reported as the method detection limit (MDL).

13. All sediment data are required to be submitted electronically in the electronic data deliverable (EDD) format available on the RIM website. EDDs may be sent to us attached to an e-mail or mailed on a CD. Hard copy data submission is still required, along with the electronic data submission. Electronic files in a printer-friendly, easy-to-read format (e.g., PDF, MS Word) may be substituted for hard copy submission.

14. Quality Control Summary Tables must be completed and included with each data submission. These tables are found in Appendix II of the RIM and are also available on the RIM website http://www.nae.usace.army.mil/reg/rim.htm.

15. Copies of the draft of this sampling plan were sent to the State DEP, US EPA and US F&WS for their review. The EPA responded to say that they concur. No response was received from the F&WS within the 10-day response period so their concurrence may be assumed.

16. If you, the applicant or the testing laboratory have any questions, feel free to call me at 978-318-8660.

Phillip Nimeskern

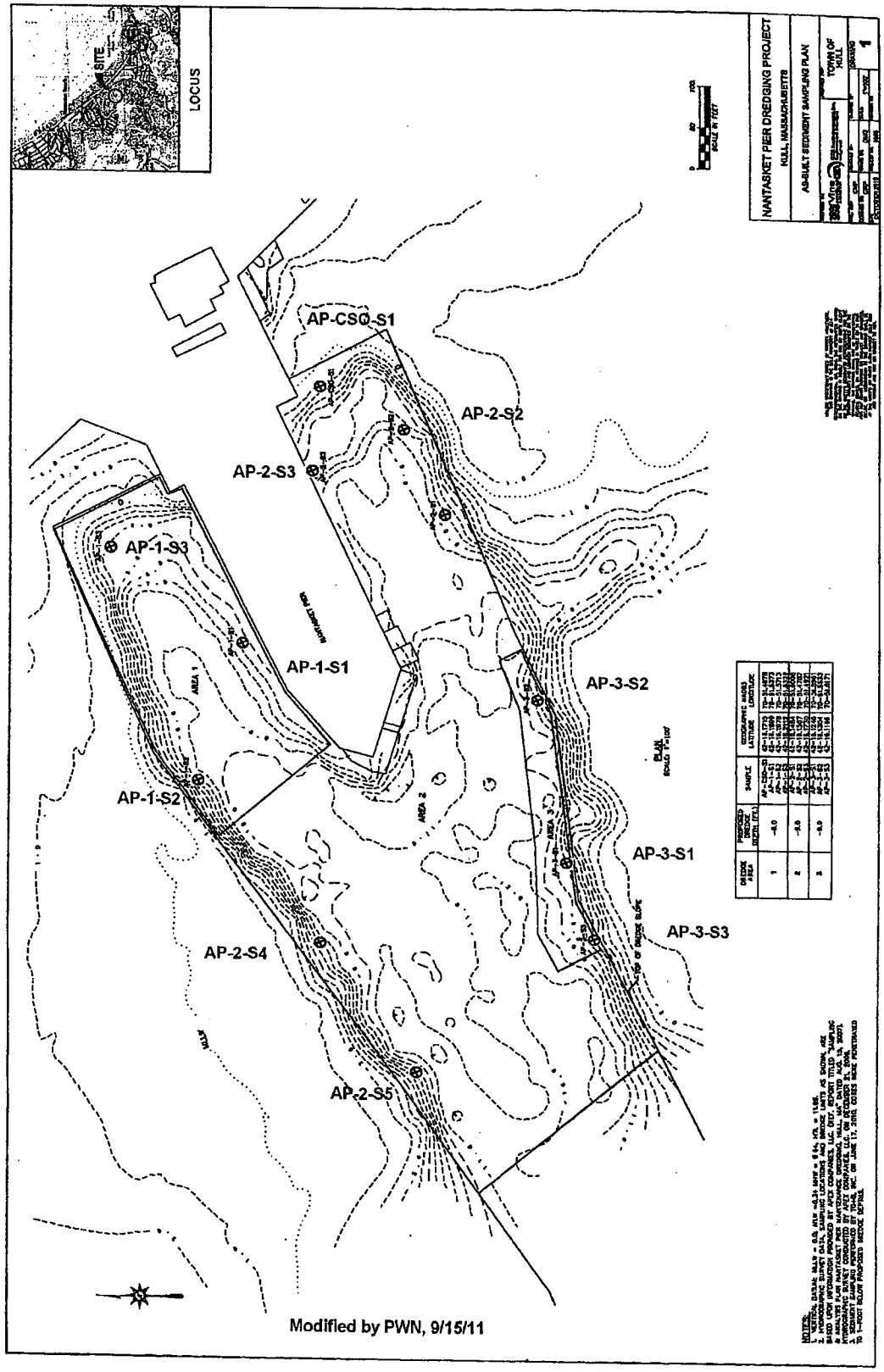
PHILLIP NIMESKERN
Project Manager,
Marine Analysis Section

ELUTRIATE TESTING PARAMETERS

Parameter	Recommended Analytical Method	Reporting Limit (µg/L)
Metals		
Arsenic	200.9, 1632	1.0
Cadmium	200.9, 1637	1.0
Chromium (VI)	218.6, 1636	1.0
Copper	200.9, 1639, 1640	0.6
Lead	200.9, 1639, 1640	1.0
Mercury	245.7, 1631	0.4
Nickel	200.9, 1639, 1640	1.0
Selenium	200.9, 1639	1.0
Silver	200.9	0.5
Zinc	200.9, 1639	1.0
PCBs (total, by either of these methods)	3510B, 8080A, NYSDEC	0.006
Pentachlorophenol	3501B, 8270C	2.60
Pesticides	3510B, 8080A	
Aldrin		0.26
Chlordane		0.02
Chloropyrifos		0.002
Dieldrin		0.14
4, 4'-DDT		0.03
α & β Endosulfan		0.007
Endrin		0.007
Heptachlor		0.01
Heptachlor epoxide		0.01
Lindane		0.26
Toxaphene		0.04

Reference:

NYSDEC. 1991. Analytical Method for the Determination of PCB Congeners by Fused Silica Capillary Column Gas Chromatography with Electron Capture Detector. NYSDEC #91-11.


AP-CSO-S1
AP-2-S2
AP-2-S3
AP-1-S3
AP-1-S1
AP-3-S2
AP-1-S2
AP-3-S1
AP-3-S3
AP-2-S4
AP-2-S5
Modified by PWN, 9/15/11

Kristoff, Richard C NAE

From: Nimeskern, Phillip W NAE
Sent: Friday, September 16, 2011 3:35 PM
To: 'Guza-Pabst.Olga@epamail.epa.gov'; Kristoff, Richard C NAE
Cc: Ken (DEP) Chin; Maria_Tur@fws.gov; Robert (ENV) Boeri
Subject: RE: Nantasket Pier SAP (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hello Olga,

Thank you, you've found two mistakes that I need to correct. The 21 April SD was based on CHEMICAL data from the 10 November 2010 SAP. They did not say why they now want to go to MBDS; it was the disposal site last dredged ~2004 and it is closer to the project site than CCBDS.

Phill Nimeskern
US Army, Corps of Engineers
(978) 318-8660

-----Original Message-----
From: Guza-Pabst.Olga@epamail.epa.gov [mailto:Guza-Pabst.Olga@epamail.epa.gov]
Sent: Friday, September 16, 2011 1:43 PM
To: Kristoff, Richard C NAE
Cc: Ken (DEP) Chin; Maria_Tur@fws.gov; Nimeskern, Phillip W NAE; Robert (ENV) Boeri
Subject: Re: Nantasket Pier SAP (UNCLASSIFIED)

Hi Phil, I'm a little confused - in the SAP you indicated that you prepared a SD in April 2011 based on biological data from Nov 2011 (see bolded below). I'm pretty sure we haven't seen Nov 2011 as of yet :)

Why have they decided to go to Mass Bay? After all that testing for CCDS?

I prepared a Suitability Determination for this project on 21 April 2011 based upon biological data from the 10 November 2011 SAP. In it, I found some of the sediments, from the vicinities of Sample AP-2-S1 and of Composite 3, suitable for disposal at Cape Cod Bay Disposal Site (CCBDS) as proposed. The remaining sediments, from the vicinity of AP-CSO-S1, Composite 1 and Composite 3, I found not suitable for disposal at CCBDS at that tier of testing. I could not determine if the sediments in the northeast portion of the project were or were not suitable, as they are located between suitable and unsuitable sediments and were not directly sampled. Of the options open to them, the applicants have decided to pursue biological testing for disposal at MBDS.

Olga Guza
Environmental Scientist
USEPA Region 1

Boston, MA
Telephone - 617-918-1542
Fax 617-918-0542

-----"Kristoff, Richard C NAE" <Richard.C.Kristoff@usace.army.mil>
<mailto:Richard.C.Kristoff@usace.army.mil> wrote: -----

To: Olga Guza-Pabst/R1/USEPA/US@EPA, <Maria_Tur@fws.gov> <mailto:Maria_Tur@fws.gov> ,
<Robert.Boeri@state.ma.us> <mailto:Robert.Boeri@state.ma.us> , <Ken.Chin@state.ma.us>
<mailto:Ken.Chin@state.ma.us>
From: "Kristoff, Richard C NAE" <Richard.C.Kristoff@usace.army.mil>
<mailto:Richard.C.Kristoff@usace.army.mil>
Date: 09/16/2011 07:35AM
Cc: "Nimeskern, Phillip W NAE" <Phillip.W.Nimeskern@usace.army.mil>
<mailto:Phillip.W.Nimeskern@usace.army.mil>
Subject: Nantasket Pier SAP (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hello All,
Please review the attached documents.
Thanks,
Rick

Richard Kristoff
Regulatory Division
U.S. Army Corps of Engineers, New England District
696 Virginia Road
Concord, MA 01742-2751
(978) 318-8171

Classification: UNCLASSIFIED
Caveats: NONE

[attachment "NAE-2007-02344NantasketPier SAP.pdf" removed by Olga Guza-Pabst/R1/USEPA/US]

Classification: UNCLASSIFIED
Caveats: NONE

Kristoff, Richard C NAE

From: Kristoff, Richard C NAE
Sent: Friday, September 16, 2011 7:37 AM
To: 'Christopher Morris'
Subject: RE: Nantasket Pier (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hello Christopher,
Phil has drafted the SAP. It now is out to the other agencies for their review. They have 10 business days to make comments.
Thanks,
Rick

-----Original Message-----
From: Christopher Morris [mailto:CMorris@apexcos.com]
Sent: Monday, August 15, 2011 1:57 PM
To: Kristoff, Richard C NAE
Subject: RE: Nantasket Pier (UNCLASSIFIED)

Thank you, could you please have Phillip prepare a site specific sampling plan for biological sampling at the site.

Thank you,

Christopher Morris
Apex Companies, LLC
O) 617-728-0070 M) 617-840-0145

-----Original Message-----
From: Kristoff, Richard C NAE [mailto:Richard.C.Kristoff@usace.army.mil]
Sent: Monday, August 15, 2011 1:51 PM
To: Christopher Morris
Subject: FW: Nantasket Pier (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hello Chris,
Here is the email that I sent you on June 24 with the requested info. Looks like you will need to do biological testing as well.
Thanks,
Rick

-----Original Message-----
From: Kristoff, Richard C NAE
Sent: Friday, June 24, 2011 10:40 AM
To: 'cmorris@apexcos.com'
Subject: Nantasket Pier (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hello Chris,

I have been working on the Nantasket Pier permit with Geoffrey May. I understand he no longer works there and you are taking over the project. I wanted to send you a copy of the Suitability Determination for this project to make sure you have it. I look forward working with you on this project.
Thanks,
Rick

-----Original Message-----
From: Richard.C.Kristoff@usace.army.mil
[mailto:Richard.C.Kristoff@usace.army.mil]
Sent: Friday, June 24, 2011 10:33 AM
To: Kristoff, Richard C NAE
Subject: Scanned Document

Please see the attached document.

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Kristoff, Richard C NAE

From: Kristoff, Richard C NAE
Sent: Friday, September 16, 2011 7:35 AM
To: 'Guza-Pabst.Olga@epamail.epa.gov'; 'Maria_Tur@fws.gov'; 'Robert.Boeri@state.ma.us'; 'Ken.Chin@state.ma.us'
Cc: Nimeskern, Phillip W NAE
Subject: Nantasket Pier SAP (UNCLASSIFIED)
Attachments: NAE-2007-02344NantasketPier SAP.pdf

Classification: UNCLASSIFIED
Caveats: NONE

Hello All,
Please review the attached documents.
Thanks,
Rick

Richard Kristoff
Regulatory Division
U.S. Army Corps of Engineers, New England District
696 Virginia Road
Concord, MA 01742-2751
(978) 318-8171

Classification: UNCLASSIFIED
Caveats: NONE

INTERAGENCY COORDINATION

DATE: September 16, 2011
APPLICANT: Town of Hull, Massachusetts
APPLICATION NUMBER: 2007-2344

NOTIFICATION SENT TO:

EPA Olga Guza (617) 918-1505
Guza-Pabst.Olga@epamail.epa.gov

F&WS Maria Tur (603) 223-0104
Maria_Tur@fws.gov

Cc: Robert Boeri
Robert.Boeri@state.ma.us

Cc: Ken Chin (617) 292-5696
Ken.Chin@state.ma.us

This **draft sampling plan** is being transmitted in accordance with our agreement on interagency technical coordination procedures for projects involving open water disposal of dredged materials. The applicant is proposing to dredge approximately 10,000 cu. yds. of material from the Weir River at Nantasket Pier in Hull, Massachusetts and dispose of it at the MBDS.

Please respond to me within 10 working days of the above date at (978) 318-8171 if you have comments or concerns. If you have technical questions, you can contact Phillip Nimeskern at (978) 318-8660.

Richard C. Kristoff Sr.
RICHARD C. KRISTOFF
Project Manager

DRAFT

CENAE–R-PT

9 September 2011

MEMORANDUM FOR: Richard C. Kristoff, Project Manager, CENAE-R-PEA

SUBJECT: DRAFT Sampling and Analysis Plan for Town of Hull, Massachusetts, Nantasket Pier, Weir River, Application Number 2007-2344.

1. In response to your request, I have developed a biological sampling plan for the above project. The NMFS has given blanket concurrence to these sampling plans. The applicant is proposing to maintenance dredge an area of approximately **13.8 acres** at the Steamship (or Nantasket) Pier in the Weir River, which will produce a volume of approximately **10,000 cu. yds**. of silty material. This material is proposed to be mechanically dredged and disposed of at the Massachusetts Bay Disposal Site (**MBDS**). This area was last dredged 7 years ago.

I prepared a Suitability Determination for this project on 21 April 2011 based upon biological data from the 10 November 2011 SAP. In it, I found some of the sediments, from the vicinities of Sample AP-2-S1 and of Composite 3, suitable for disposal at Cape Cod Bay Disposal Site (CCBDS) as proposed. The remaining sediments, from the vicinity of AP-CSO-S1, Composite 1 and Composite 3, I found not suitable for disposal at CCBDS at that tier of testing. I could not determine if the sediments in the northeast portion of the project were or were not suitable, as they are located between suitable and unsuitable sediments and were not directly sampled. Of the options open to them, the applicants have decided to pursue biological testing for disposal at MBDS.

2. The "Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters" (RIM) is now final and took effect on 6 May 2004. The RIM, as well as requirements for electronic submission of data, may be downloaded from the website http://www.nae.usace.army.mil/reg/rim.htm.

Additionally, the deadline for all laboratories to submit Laboratory Quality Assurance Plans (LQAPs) was 6 May 2006. **After this deadline, any data reports from labs that DO NOT have an approved LQAP on record at the Army Corps of Engineers WILL NOT be accepted.** Applicants and their agents should verify that their laboratory and any sub-contracting laboratory has, or is working towards, a valid LQAP before retaining their services.

3. No information on recent spills was given. There is a Combined Sewer Outfall (CSO) at the landward side of the south basin. The basin is at a nineteenth century pier in a tidal marsh area and so may have old sources of contamination.

4. **Eleven** cores should be taken from the areas to be dredged according to the attached plan. Core samples should be taken to the proposed dredge depth plus the overdredge amount. The cores should be inspected in the field for stratification. If the cores show significant stratification, in the opinion of the sampling crew, subsamples should be made of each layer. Sufficient material should be taken for the following required tests: a bulk sediment chemistry analysis, a 10-day bioassay, a 28-day bioaccumulation test and a suspended particulate assay. Chemical analysis should be performed on the elutriates and water used in the suspended particulate assay. All sediments being held for testing should be stored in accordance with the requirements of Table 8-2 in Evaluation of Dredged Material Proposed for Ocean Disposal, Testing Manual, 1991.

5. The cores should be composited as follows:
AP-1-S1, AP-1-S2, & AP-1-S3;
AP-CSO-S1, AP-2-S2, & AP-2-S3; and
AP-3-S1, AP-3-S2, AP-3-S3, AP-2-S4, & AP-2-S5.

6. Applicants should provide coordinates for each core location in latitude and longitude, NAD 83 decimal minutes. The horizontal accuracy of each sample location should be 3 meters or less. This accuracy can be achieved with a WAAS-enabled standard boat-mounted or hand-held GPS unit. The accuracy at each sample location shall be reported along with the coordinates. Accuracy can be improved by collecting data at a sampling location for a longer period of time.

7. The reference site sediment should be collected from the MBDS Reference Site located at latitude 42° 22.7' N and longitude 70° 30.30' W.

8. The 10-day bioassay test should performed in accordance with the requirements of the following three documents: "Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters" (April 2004); Evaluation of Dredged Material Proposed for Ocean Disposal, Testing Manual, 1991; and Methods for Assessing the Toxicity of Sediment-Associated Contaminants with Estuarine and Marine Amphipods, 1994. The bioassay test should use two species of test animals, the amphipod *Ampelisca abdita* and the mysid shrimp *Americamysis bahia.*

The results of the 10-day bioassay test should be reported to me, or, if I am not available, to the Marine Analysis Section (MAS), as soon as possible after its completion. If this test shows a statistically significant mortality, in accordance with the above documents, we may decide to cancel the rest of the tests. It is important that the results of this test be reported to me promptly,

as the sediments have short holding times. In addition, we may decide to further composite the sediments for the bulk sediment chemistry analyses, the suspended particulate bioassay test and the bioaccumulation test based upon the results of the bioassay test.

9. Since bulk sediment chemistry analyses were performed in 2011 on sediments from this project area, they do not need to be repeated. The contaminants of concern for the bioaccumulation test are all the metals, the PCBs and the PAHs.

10. The 28-day bioaccumulation test can be started at the same time as the bulk sediment chemistry tests but should not be started before those tests. This test should be performed in accordance with the requirements of the following two documents: "Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters" (April 2004) and Evaluation of Dredged Material Proposed for Ocean Disposal, Testing Manual, 1991. The bioaccumulation test should use a bivalve, either *Macoma nasuta* or *Macoma balthica*, and the polychaete *Nereis virens* as test animals. At the end of the 28–day test, the tissues of the survivors should be tested for the contaminants of concern according to Table 9 of the "Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters" (April 2004). The contaminants of concern for the bioaccumulation test are all the metals, the PCBs and the PAHs.

11. The suspended particulate bioassay test should be in accordance with the requirements of the following two documents: "Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters" (April 2004) and Evaluation of Dredged Material Proposed for Ocean Disposal, Testing Manual, 1991. This test can be started at the same time as the 28-day bioaccumulation and bulk sediment chemistry tests. Three test species shall be used: a crustacean; a fish; and the planktonic larvae of a third species. We recommend *Mysidopsis bahia*; *Menidia menidia* or *Menidia beryllina*; and larvae of either *Mytilus edulis* or *Arbacia punctulata*.

The chemical analysis of elutriate and dredging site waters is discussed in section 9.4 of Evaluation of Dredged Material Proposed for Ocean Disposal, Testing Manual, 1991. The test parameters should include all of the items on the attached sheet. The reporting limits should be those indicated on the attached sheet. The listed analytical methods are recommended but can be replaced by other methods that will give the required reporting limits.

12. Any analytes not detected shall be reported as the reporting limit and qualified with a "U". Non-detects should not be reported as the method detection limit (MDL).

13. All sediment data are required to be submitted electronically in the electronic data deliverable (EDD) format available on the RIM website. EDDs may be sent to us attached to an e-mail or mailed on a CD. Hard copy data submission is still required, along with the electronic data submission. Electronic files in a printer-friendly, easy-to-read format (e.g., PDF, MS Word) may be substituted for hard copy submission.

14. Quality Control Summary Tables must be completed and included with each data submission. These tables are found in Appendix II of the RIM and are also available on the RIM website http://www.nae.usace.army.mil/reg/rim.htm.

16. If you, the applicant or the testing laboratory have any questions, feel free to call me at 978-318-8660.

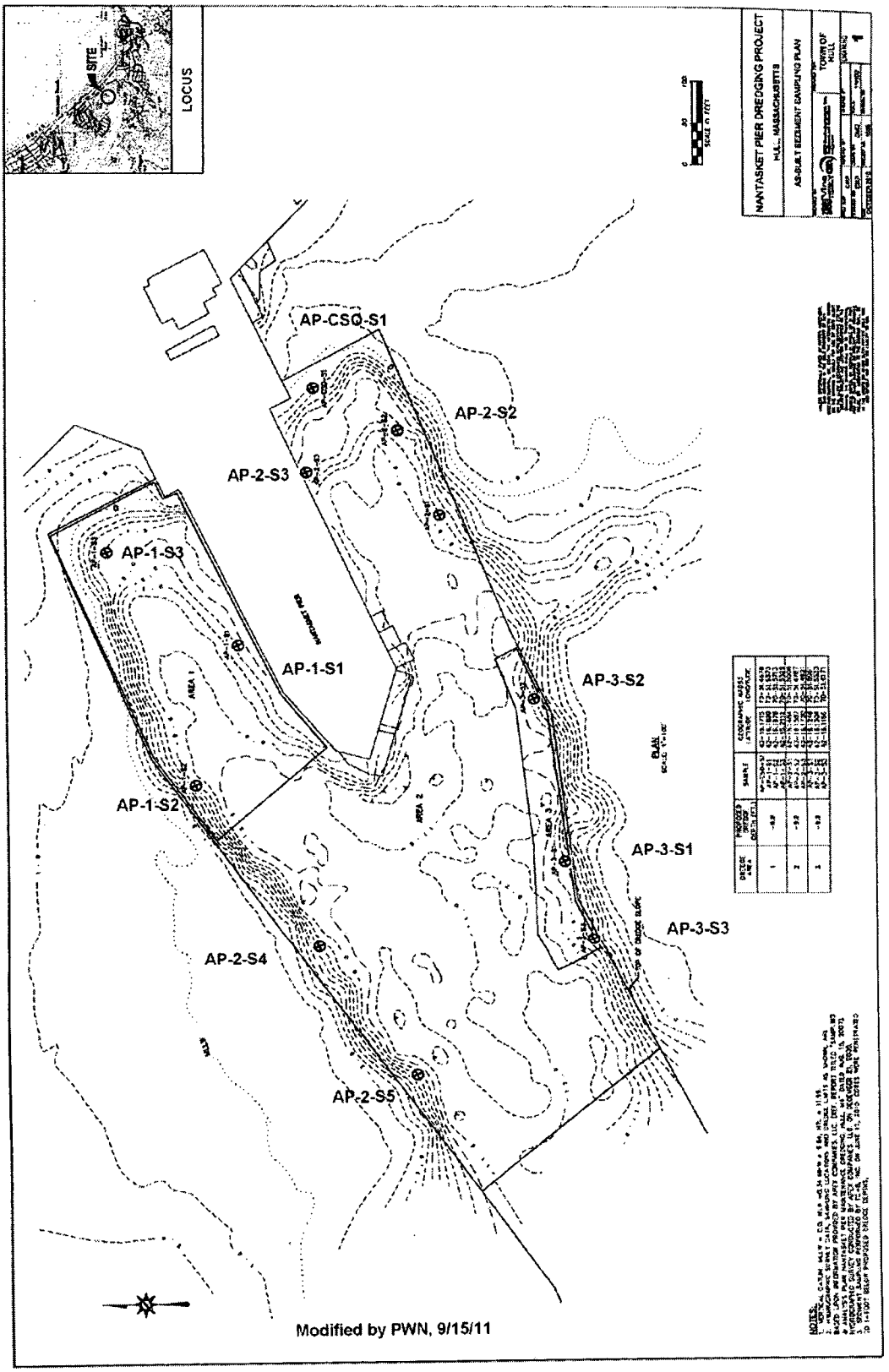
PHILLIP NIMESKERN
Project Manager,
Marine Analysis Section

ELUTRIATE TESTING PARAMETERS

Parameter	Recommended Analytical Method	Reporting Limit (µg/L)
Metals		
Arsenic	200.9, 1632	1.0
Cadmium	200.9, 1637	1.0
Chromium (VI)	218.6, 1636	1.0
Copper	200.9, 1639, 1640	0.6
Lead	200.9, 1639, 1640	1.0
Mercury	245.7, 1631	0.4
Nickel	200.9, 1639, 1640	1.0
Selenium	200.9, 1639	1.0
Silver	200.9	0.5
Zinc	200.9, 1639	1.0
PCBs (total, by either of these methods)	3510B, 8080A, NYSDEC	0.006
Pentachlorophenol	3501B, 8270C	2.60
Pesticides	3510B, 8080A	
Aldrin		0.26
Chlordane		0.02
Chloropyrifos		0.002
Dieldrin		0.14
4, 4'-DDT		0.03
α & β Endosulfan		0.007
Endrin		0.007
Heptachlor		0.01
Heptachlor epoxide		0.01
Lindane		0.26
Toxaphene		0.04

Reference:

NYSDEC. 1991. Analytical Method for the Determination of PCB Congeners by Fused Silica Capillary Column Gas Chromatography with Electron Capture Detector. NYSDEC #91-11.


LOCUS
SITE
NANTASKET PIER DREDGING PROJECT
HULL, MASSACHUSETTS
AS-BUILT SEDIMENT SAMPLING PLAN
TOWN OF HULL
AP-CSQ-S1
AP-2-S2
AP-2-S3
AP-1-S3
AP-1-S1
AP-3-S2
AP-1-S2
AP-3-S1
AP-3-S3
AP-2-S4
AP-2-S5
Modified by PWN, 9/15/11

Kristoff, Richard C NAE

From: Nimeskern, Phillip W NAE
Sent: Thursday, September 15, 2011 4:49 PM
To: Kristoff, Richard C NAE
Subject: draft SAP for Town of Hull, Nantasket Pier, 2007-2344 (UNCLASSIFIED)
Attachments: 2007-2344 Hull MA Nantasket pier SAP.docx; 2007-2344 Hull, MA Nantasket Pier INTERAGENCY COORD.docx

Classification: UNCLASSIFIED
Caveats: NONE

Hello Rick,

Attached please find the draft SAP and coversheet for your project. Please review them and let me know if you have any comments or corrections. If you do not, please forward the draft to the agency contacts and let me know when you have.

Phill Nimeskern
US Army, Corps of Engineers
(978) 318-8660

Classification: UNCLASSIFIED
Caveats: NONE

DRAFT

CENAE-R-PT 9 September 2011

MEMORANDUM FOR: Richard C. Kristoff, Project Manager, CENAE-R-PEA

SUBJECT: DRAFT Sampling and Analysis Plan for Town of Hull, Massachusetts, Nantasket Pier, Weir River, Application Number 2007-2344.

1. In response to your request, I have developed a biological sampling plan for the above project. The NMFS has given blanket concurrence to these sampling plans. The applicant is proposing to maintenance dredge an area of approximately **13.8 acres** at the Steamship (or Nantasket) Pier in the Weir River, which will produce a volume of approximately **10,000 cu. yds**. of silty material. This material is proposed to be mechanically dredged and disposed of at the Massachusetts Bay Disposal Site (**MBDS**). This area was last dredged 7 years ago.

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2. The "Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters" (RIM) is now final and took effect on 6 May 2004. The RIM, as well as requirements for electronic submission of data, may be downloaded from the website http://www.nae.usace.army.mil/reg/rim.htm.

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PHILLIP NIMESKERN
Project Manager,
Marine Analysis Section

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Parameter	Recommended Analytical Method	Reporting Limit (µg/L)
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Nickel	200.9, 1639, 1640	1.0
Selenium	200.9, 1639	1.0
Silver	200.9	0.5
Zinc	200.9, 1639	1.0
PCBs (total, by either of these methods)	3510B, 8080A, NYSDEC	0.006
Pentachlorophenol	3501B, 8270C	2.60
Pesticides	3510B, 8080A	
Aldrin		0.26
Chlordane		0.02
Chloropyrifos		0.002
Dieldrin		0.14
4, 4'-DDT		0.03
α & β Endosulfan		0.007
Endrin		0.007
Heptachlor		0.01
Heptachlor epoxide		0.01
Lindane		0.26
Toxaphene		0.04

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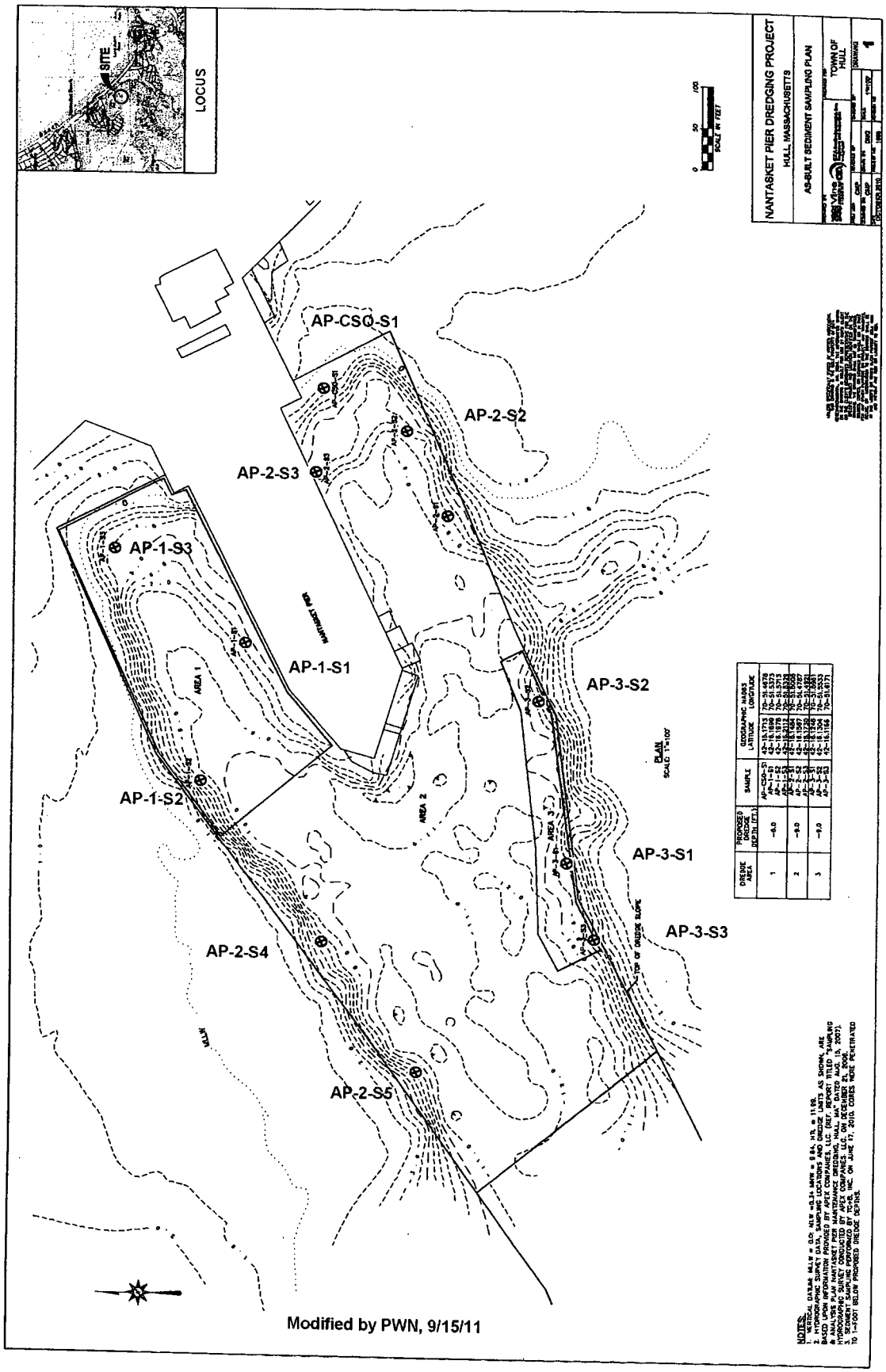
LOCUS
SITE
NANTASKET PIER DREDGING PROJECT
HULL, MASSACHUSETTS
AS-BUILT SEDIMENT SAMPLING PLAN
TOWN OF HULL
AP-CSO-S1
AP-2-S2
AP-2-S3
AP-1-S3
AP-1-S1
AP-3-S2
AP-1-S2
AP-3-S1
AP-3-S3
AP-2-S4
AP-2-S5
NANTASKET PIER
AREA 1
AREA 2
AREA 3
PLAN
SCALE: 1"=100'
Modified by PWN, 9/15/11

INTERAGENCY COORDINATION

DATE:
APPLICANT: Town of Hull, Massachusetts
APPLICATION NUMBER: 2007-2344

NOTIFICATION SENT TO:

EPA Olga Guza (617) 918-1505
Guza-Pabst.Olga@epamail.epa.gov

F&WS Maria Tur (603) 223-0104
Maria_Tur@fws.gov

Cc: Robert Boeri
Robert.Boeri@state.ma.us

Cc: Ken Chin (617) 292-5696
Ken.Chin@state.ma.us

This **draft sampling plan** is being transmitted in accordance with our agreement on interagency technical coordination procedures for projects involving open water disposal of dredged materials. The applicant is proposing to dredge approximately 10,000 cu. yds. of material from the Weir River at Nantasket Pier in Hull, Massachusetts and dispose of it at the MBDS.

Please respond to me within 10 working days of the above date at (978) 318-8171 if you have comments or concerns. If you have technical questions, you can contact Phillip Nimeskern at (978) 318-8660.

RICHARD C. KRISTOFF
Project Manager

Kristoff, Richard C NAE

From: Christopher Morris [CMorris@apexcos.com]
Sent: Monday, August 15, 2011 1:57 PM
To: Kristoff, Richard C NAE
Subject: RE: Nantasket Pier (UNCLASSIFIED)

Thank you, could you please have Phillip prepare a site specific sampling plan for biological sampling at the site.

Thank you,

Christopher Morris
Apex Companies, LLC
O) 617-728-0070 M) 617-840-0145

-----Original Message-----
From: Kristoff, Richard C NAE [mailto:Richard.C.Kristoff@usace.army.mil]
Sent: Monday, August 15, 2011 1:51 PM
To: Christopher Morris
Subject: FW: Nantasket Pier (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hello Chris,
Here is the email that I sent you on June 24 with the requested info. Looks like you will need to do biological testing as well.
Thanks,
Rick

-----Original Message-----
From: Kristoff, Richard C NAE
Sent: Friday, June 24, 2011 10:40 AM
To: 'cmorris@apexcos.com'
Subject: Nantasket Pier (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hello Chris,
I have been working on the Nantasket Pier permit with Geoffrey May. I understand he no longer works there and you are taking over the project. I wanted to send you a copy of the Suitability Determination for this project to make sure you have it. I look forward working with you on this project.
Thanks,
Rick

-----Original Message-----
From: Richard.C.Kristoff@usace.army.mil
[mailto:Richard.C.Kristoff@usace.army.mil]
Sent: Friday, June 24, 2011 10:33 AM
To: Kristoff, Richard C NAE
Subject: Scanned Document

Please see the attached document.

Classification: UNCLASSIFIED
Caveats: NONE

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Caveats: NONE

Kristoff, Richard C NAE

From: Kristoff, Richard C NAE
Sent: Monday, August 15, 2011 1:51 PM
To: 'Christopher Morris'
Subject: FW: Nantasket Pier (UNCLASSIFIED)
Attachments: document2011-06-24-103250.pdf

Classification: UNCLASSIFIED
Caveats: NONE

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Please see the attached document.

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CENAE-R-PT

21 April 2011

MEMORANDUM THRU

Ruth M. Ladd, Chief, Policy Analysis and Technical Support Branch

FOR: Richard C. Kristoff, Project Manager, CENAE-R-PEA

SUBJECT: Suitability Determination for Town of Hull, Massachusetts, Weir River, Application Number 2007-2344.

1. **Project Description:**

The applicant is proposing to maintenance dredge an area of approximately 13.8 acres at the Steamship (or Nantasket) Pier in the Weir River, which will produce a volume of approximately 10,000 cu. yds. of silty material. This material is proposed to be mechanically dredged and disposed of at the Cape Cod Bay Disposal Site (CCBDS), a yet undetermined upland area or the Massachusetts Bay Disposal Site (MBDS). This area was last dredged 7 years ago.

A sampling plan for this project was prepared on 17 December 2007. The plan called for eight cores to be taken from the project area. As the applicants were also considering upland disposal, we included two additional sampling points to fulfill the state's requirements. On 24 June 2010, I developed a compositing scheme that called for 3 composite samples and 2 non-composited samples. Composite Sample 1 was made from samples AP-1-S1, AP-1-S2, and AP-1-S3 from Area 1, Composite 2 was made from AP-2-S2 and AP-2-S3 from Area 2, and Composite 3 was made from AP-3-S1, AP-3-S2 and AP-3-S3 from Area 3. The single samples were AP-CSO-S1 and AP-2-S1 from Area 2.

2. **Summary:**

This memorandum addresses compliance with the regulatory evaluation and testing requirements of 40 CFR Section 230.60 and 230.61, subpart G under the Clean Water Act 404(b)(1) guidelines. 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 some of the sediments, from the vicinity of sample AP-2-S1 and Composite 3, suitable for disposal at CCBDS as proposed. The remaining sediments, from the vicinity of AP-CSO-S1, Composite 1 and Composite 3 are not suitable for disposal at CCBDS at this tier of testing. I cannot determine if the sediments in the northeast portion of the project are or are not suitable as they are located between suitable and unsuitable sediments and were not directly sampled. I cannot determine at this tier if the material is suitable for disposal at MBDS as biological testing is required for determining suitability at MBDS.

Some options for the applicants are to dispose of the unsuitable sediments in an upland area, place them in a confined disposal site or to prove they are suitable for unconfined open water disposal by subjecting them to further, biological testing.

3. **Clean Water Act Regulatory Requirements:**

The disposal of sediments waterward of the high tide line in **Cape Cod Bay** is regulated under Section 404 of the Clean Water Act. Subpart G of the Section 404(b)(1) guidelines describes the procedures for conducting this evaluation, including any relevant testing that may be required.

§230.60 General Evaluation of Dredged or Fill Material

(a) Further testing was necessary as it could not be determined with the existing information that the sediment was not a carrier of contaminants. The materials to be dredged were not predominately sands and gravel (with the exception of AP-2-S1) and are not located in an area of high current velocity.

(b) No information on spills was given. The basin is at a nineteenth century pier in a tidal marsh area and so may have old sources of contamination. There is a Combined Sewer Outfall (CSO) at the landward side of the south basin. Therefore I cannot determine if these sediments are sufficiently removed from sources of pollution and that they are not carriers of contaminants. This subsection therefore does not apply and further testing was necessary.

(c) The material to be dredged and the material at the disposal site are not adjacent, composed of the same materials or subject to the same sources of contaminants. Further testing was therefore required.

(d) This subsection states that further testing may not be necessary if the material to be dredged is constrained to reduce contamination within the disposal site and to prevent transport of contaminants beyond the boundaries of the disposal site. As such constraints in handling are not proposed, this subsection does not apply.

§230.61 Chemical, Biological and Physical Evaluation and Testing

(a) This subsection describes the purpose of §230.61 and does not give any criteria for the evaluation of sediments.

(b) Water column and benthic bioassay testing will be needed to dispose of the sediments from the vicinity of AP-CSO-S1, Composite 1 and Composite 3 at CSDS as I determined, on the basis of evaluation of §230.61(c), that the

likelihood of contamination is high.

(c) An inventory of the total concentration of contaminants is of value in comparing sediment at the disposal and dredging sites. See the attached spreadsheets for details.

The majority of the concentrations of the contaminants of concern in Sample AP-2-S1 are below the detection limits. When these concentrations are compared to either the single value of the 1994 CCBDS Reference area data or the mean value of the 1986 CCBDS Reference area data, most are less. The majority of the concentrations of metals, PCBs or pesticides in Composite 3 are below the detection limits or slightly higher. When the Composite 3 concentrations are compared to either the single value of the 1994 CCBDS Reference area data or the mean value of the 1986 CCBDS Reference area data, most are less or slightly higher, with the exception of the PAHs, which were several times higher. However, the absolute values of the PAHs in this sample were not greatly elevated, so I do not think they are a concern. The concentrations of metals and PAHs in Sample AP-CSO-S1, Composite 1 and Composite 2 were very elevated and many times the single value of the 1994 CCBDS Reference area data or the mean value of the 1986 CCBDS Reference area data. I have concerns about the sediments from these areas and find them unsuitable for disposal at CCBDS at this tier of testing.

CENAE and the federal agencies did not think an analysis of biological community structure was needed for this project at this point.

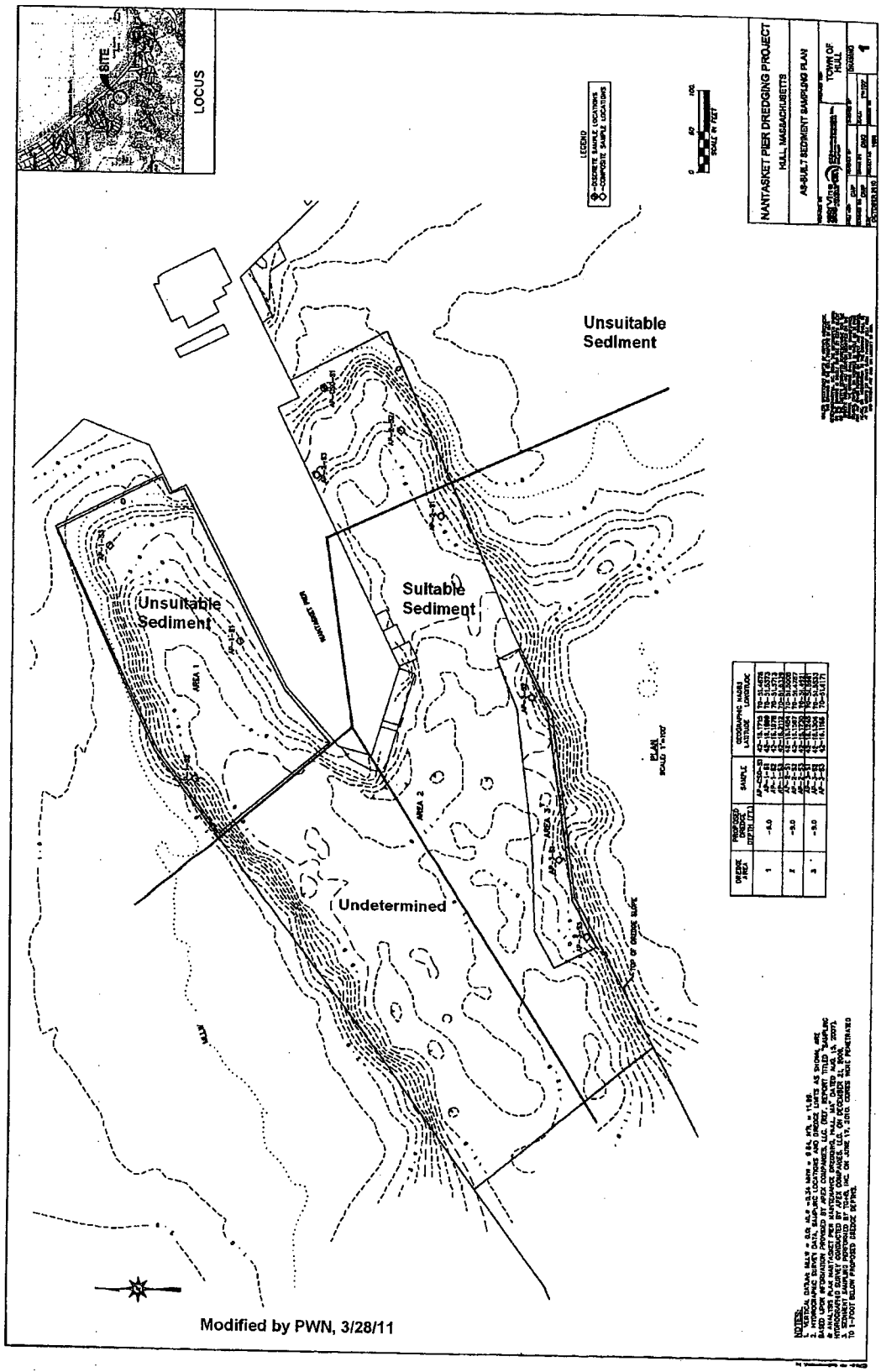
(d) The physical effects of the disposal of the dredged material at the disposal site should be minimal. Although some benthic marine organisms will be buried by the disposal, the disposal site should be rapidly re-colonized.

4. Copies of the above mentioned data and of the draft suitability determination were sent to the State DEP, US EPA, and US F&WS for their review. Olga Guza-Pabst gave EPA's concurrence during a telephone call on 21 April 2011. No responses were received from the other Federal agencies within the 10-day response period so their concurrences may be assumed.

5. If you have any questions, please contact me at (978) 318-8660.

Phillip Nimeskern

PHILLIP NIMESKERN
Project Manager,
Marine Analysis Section


LOCUS
SITE
Unsuitable Sediment
Suitable Sediment
Unsuitable Sediment
Undetermined
AREA 1
AREA 2
AREA 3
PLAN
Modified by PWN, 3/28/11

Non Normalized Pollutant Concentrations
Project: NANTASKET PIER DREDGING
USACE Permit Number: 2007-2344

Analyte	CCBDS94	AP-2-S1			AP-CSO-S1		
Metals (ppm)	raw data	Raw Data	Qualifier	Comparison	Raw Data	Quelifier	Comparison
Arsenic	11.18	1.6		OK	12		1.07
Cadmium	-999	1.29		*No REF*	1.1		*No REF*
Chromium	85	8.88		OK	128		1.51
Copper	23	14.3		OK	109		4.74
Lead	31.3	3.53		OK	136		4.36
Mercury	-999	0.014	U	*No REF*	0.894		*No REF*
Nickel	53	8.32		OK	27.3		OK
Zinc	104	30.7		OK	215		2.07
% fines		48			79		
PAH's (ppb)							
Anthracene	4.1	11.7	U	2.85	1940		
Fluorene	2	11.7	U	5.85	3160		
Phenenthrene	20.2	11.7	U	OK	6260		
Benzo(a)anthracene	17	11.7	U	OK	1250		
Benzo(a)pyrene	20	11.7	U	OK	558		
Benzo(g,h,l)perylene	5	11.7	U	2.34	367		
Chrysene	16	11.7	U	OK	947		
Dibenzo(a,h)anthracene	2	11.7	U	5.85	148		
Fluoranthene	33	11.7	U	OK	9410		
Indeno(1,2,3-cd)pyrene	16	11.7	U	OK	350		
Pyrene	29	11.7	U	OK	8340		
Total Benzofluoranthenes	35	23.4	U,U	OK	1022		
TOC		0.066			2.57		
Pesticides (ppb)							
4,4'-DDD	-999	1.17	U	*No Ref*	10.7		*No Ref*
4,4'-DDE	-999	1.17	U	*No Ref*	12.7	I	*No Ref*
4,4'-DDT	-999	1.17	U	*No Ref*	5.48	IP	*No Ref*
Aldrin	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Cis-Chlordene	-999	1.17	U	*No Ref*	2.08		*No Ref*
Delte-BHC	-999						
Dieldrin	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Endosulfan I	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Endosulfen II	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Endrin	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Heptechlor	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Heptechlor epoxide	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Hexachlorobenzene	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Lindene	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Methoxychlor	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Oxychlordane	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Toxephene	-999	29.3	U	*No Ref*	47.3	U	*No Ref*
Trans-chlordene	-999	1.17	U	*No Ref*	3.54	IP	*No Ref*
cis-Nonechlor	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
trans-Nonachlor	-999	1.17	U	*No Ref*	2.61		*No Ref*
PCBs (ppb)							
PCB 101	-999	1.17	U	*No Ref*	10.4		*No Ref*
PCB 105	-999	1.17	U	*No Ref*	5.43		*No Ref*
PCB 118	-999	1.17	U	*No Ref*	10.6		*No Ref*
PCB 128	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 138	-999	1.17	U	*No Ref*	22.2		*No Ref*
PCB 153	-999	1.17	U	*No Ref*	15		*No Ref*
PCB 170	-999	1.17	U	*No Ref*	3.82		*No Ref*
PCB 18	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 180	-999	1.17	U	*No Ref*	6.16		*No Ref*
PCB 183	-999	1.17	U	*No Ref*	2.01		*No Ref*
PCB 184	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 187	-999	1.17	U	*No Ref*	6.67		*No Ref*
PCB 195	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 206	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 209	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 28	-999	1.17	U	*No Ref*	5.66		*No Ref*
PCB 44	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 49	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 52	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 66	-999	1.17	U	*No Ref*	4.83		*No Ref*
PCB 8	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 87	-999	1.17	U	*No Ref*	2.78		*No Ref*
Total PCBs		42.12			218.58		

Total PCBs is 2 x [sum of Congeners 8, 18, 28, 44, 52, 66, 101, 105, 118, 128, 138, 153, 170, 180, 187, 195, 206, 209]
Cells in Orange are greater than 10X above reference value
Cells in Yellow are 5-10X above reference value

COMPOSITE 1		
Raw Data	Qualifier	Comparison
16.8		1.5
1.01		*No REF*
119		1.4
76.3		3.4
90.9		2.9
0.866		*No REF*
27.3		OK
178		1.71
95.8		
58.2		
53.7		
328		
412		
304		
244		
337		
90		
949		
226		
881		
840		
2.46		
16.3		*No Ref*
20.1	IP	*No Ref*
6.78	IP	*No Ref*
2.32	U	*No Ref*
3.32		*No Ref*
9.6	P	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
58.1	U	*No Ref*
6.55	IP	*No Ref*
2.32	U	*No Ref*
4.08	P	*No Ref*
25.7		*No Ref*
9.2		*No Ref*
23		*No Ref*
10.3		*No Ref*
46.7		*No Ref*
21.8		*No Ref*
7.32		*No Ref*
2.58		*No Ref*
7.06		*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
6.39		*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
6.5		*No Ref*
8.34		*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
8.74		*No Ref*
2.32	U	*No Ref*
5.34		*No Ref*

382.4601

COMPOSITE 2		
Raw Data	Qualifier	Comparison
13.2		1.18
0.844		*No REF*
102		1.2
72.4		3.15
78.7		2.51
0.638		*No REF*
26.4		OK
160		1.54
90.3		
51.3		
58		
301		
390		
312		
248		
352		
91.8		
839		
236		
788		
922		
1.74		
5.53		*No Ref*
6.25	I	*No Ref*
3.46	IP	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
61.4	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
4.62		*No Ref*
2.46	U	*No Ref*
7.42		*No Ref*
2.46	U	*No Ref*
9.14		*No Ref*
6.17		*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
3.05		*No Ref*
2.48	U	*No Ref*
2.48	U	*No Ref*
3.46		*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.48	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*

128.78

COMPOSITE 3		
Raw Data	Qualifier	Comparison
10.3		OK
0.726		*No REF*
82.9		OK
57.1		2.48
69.2		2.21
0.656		*No REF*
22.9		OK
144		1.38
81.0		
50.3		
50.9		
262		
293		
234		
203		
222		
73		
535		
187		
625		
480		
2.18		
5.37		*No Ref*
7.68	I	*No Ref*
2.29	IP	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
41.8	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
5.37		*No Ref*
1.67	U	*No Ref*
4.17		*No Ref*
1.67	U	*No Ref*
9.32		*No Ref*
5.91		*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
2.84		*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
2.44		*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*

100.18

Non Normalized Pollutant Concentrations
Project: NANTASKET PIER DREDGING
USACE Permit Number: 2007-2344

Analyte	CCBDS86	AP-2-S1			AP-CSD-S1		
Metals (ppm)	mean	Raw Data	Qualifier	Comparison	Raw Data	Qualifier	Comparison
Arsenic	16	1.6		OK	12		OK
Cadmium	0.9	1.29		1.43	1.1		1.22
Chromium	48	8.88		DK	128		2.67
Copper	20	14.3		DK	109		5.45
Lead	38	3.53		DK	136		3.78
Mercury	0.4	0.014	U	OK	0.894		2.24
Nickel	27	8.32		DK	27.3		1.01
Zinc	88	30.7		OK	215		2.44
% fines		48			79		
PAH's (ppb)							
Anthracene	75	11.7	U	OK	1940		25.87
Fluorene	75	11.7	U	OK	3160		42.13
Phenanthrene	75	11.7	U	OK	8280		110.4
Benzo(a)anthracene	75	11.7	U	DK	1250		16.67
Benzo(a)pyrene	75	11.7	U	OK	556		7.41
Benzo(g,h,i)perylene	75	11.7	U	OK	367		4.89
Chrysene	75	11.7	U	DK	947		12.63
Dibenzo(e,h)anthracene	75	11.7	U	OK	148		1.97
Fluoranthene	75	11.7	U	DK	9410		125.47
Indeno(1,2,3-cd)pyrene	75	11.7	U	DK	350		4.67
Pyrene	75	11.7	U	DK	6340		84.53
Total Benzofluoranthenes	150	23.4	U,U	DK	1022		6.81
TDC		0.07			2.57		
Pesticides (ppb)							
4,4'-DDD	-999	1.17	U	*No Ref*	10.7		*No Ref*
4,4'-DDE	-999	1.17	U	*No Ref*	12.7	I	*No Ref*
4,4'-DDT	-999	1.17	U	*No Ref*	5.48	IP	*No Ref*
Aldrin	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Cis-Chlordane	-999	1.17	U	*No Ref*	2.06		*No Ref*
Delta-BHC	-999						
Dieldrin	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Endosulfan I	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Endosulfan II	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Endrin	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Heptachlor	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Heptachlor epoxide	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Hexachlorobenzene	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Lindane	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Methoxychlor	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Oxychlordane	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Toxaphene	-999	29.3	U	*No Ref*	47.3	U	*No Ref*
Trans-chlordane	-999	1.17	U	*No Ref*	3.54	IP	*No Ref*
cis-Nonachlor	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
trans-Nonachlor	-999	1.17	U	*No Ref*	2.61		*No Ref*
PCBs (ppb)							
PCB 101	-999	1.17	U	*No Ref*	10.4		*No Ref*
PCB 105	-999	1.17	U	*No Ref*	5.43		*No Ref*
PCB 118	-999	1.17	U	*No Ref*	10.8		*No Ref*
PCB 128	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 138	-999	1.17	U	*No Ref*	22.2		*No Ref*
PCB 153	-999	1.17	U	*No Ref*	15		*No Ref*
PCB 170	-999	1.17	U	*No Ref*	3.82		*No Ref*
PCB 18	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 180	-999	1.17	U	*No Ref*	8.16		*No Ref*
PCB 183	-999	1.17	U	*No Ref*	2.01		*No Ref*
PCB 184	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 187	-999	1.17	U	*No Ref*	8.87		*No Ref*
PCB 195	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 208	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 209	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 28	-999	1.17	U	*No Ref*	5.88		*No Ref*
PCB 44	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 49	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 52	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 66	-999	1.17	U	*No Ref*	4.83		*No Ref*
PCB 8	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 87	-999	1.17	U	*No Ref*	2.78		*No Ref*
Total PCBs		42.12			216.58		

Total PCBs is 2 x [sum of Congeners 8, 18, 28, 44, 52, 66, 101, 105, 118, 128, 138, 153, 170, 180, 187, 195, 208, 209]
Cells in Orange are greater than 10X above reference value
Cells in Yellow are 3-10X above reference value

COMPOSITE 1		
Raw Data	Qualifier	Comparison
16.6		1.05
1.01		1.12
119		2.46
76.3		3.92
90.9		2.53
0.666		2.17
27.3		1.01
176		2.02
95.63		
56.2		OK
53.7		OK
326		4.87
412		5.49
304		4.05
244		3.25
337		4.49
90		1.2
949		12.65
226		3.01
661		8.81
840		5.6
2.46		
16.3		*No Ref*
20.1	IP	*No Ref*
6.78	IP	*No Ref*
2.32	U	*No Ref*
3.32		*No Ref*
9.6	P	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
56.1	U	*No Ref*
6.55	IP	*No Ref*
2.32	U	*No Ref*
4.06	P	*No Ref*
25.7		*No Ref*
9.2		*No Ref*
23		*No Ref*
10.3		*No Ref*
46.7		*No Ref*
21.6		*No Ref*
7.32		*No Ref*
2.56		*No Ref*
7.06		*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
6.39		*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
6.5		*No Ref*
6.34		*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
6.74		*No Ref*
2.32	U	*No Ref*
5.34		*No Ref*

362.4601

COMPOSITE 2		
Raw Data	Qualifier	Comparison
13.2		OK
0.644		OK
102		2.13
72.4		3.62
76.7		2.19
0.636		1.6
26.4		OK
160		1.62
90.3		
51.3		OK
56		OK
301		4.01
390		5.2
312		4.16
246		3.31
352		4.69
91.6		1.22
639		8.52
236		3.15
766		10.21
922		12.29
1.74		
5.53		*No Ref*
6.25	I	*No Ref*
3.46	IP	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
61.4	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
4.62		*No Ref*
2.46	U	*No Ref*
7.42		*No Ref*
2.46	U	*No Ref*
9.14		*No Ref*
6.17		*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
3.05		*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
3.46		*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*

126.76

COMPOSITE 3		
Raw Data	Qualifier	Comparison
10.3		OK
0.726		OK
62.9		1.73
57.1		2.66
69.2		1.92
0.656		1.64
22.9		OK
144		1.64
60.97		
50.3		OK
50.9		OK
262		3.49
293		3.91
234		3.12
203		2.71
222		2.96
73		OK
535		7.13
187		2.49
525		7
460		3.07
2.16		
5.37		*No Ref*
7.66	I	*No Ref*
2.29	IP	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
41.6	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
5.37		*No Ref*
1.67	U	*No Ref*
4.17		*No Ref*
1.67	U	*No Ref*
9.32		*No Ref*
5.91		*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
2.84		*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
2.44		*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*

100.16

Kristoff, Richard C NAE

From: Christopher Morris [CMorris@apexcos.com]
Sent: Wednesday, August 10, 2011 3:00 PM
To: Kristoff, Richard C NAE
Subject: RE: Nantasket Pier Dredging Project (UNCLASSIFIED)

I still need a copy.

Christopher Morris
Apex Companies, LLC
O) 617-728-0070 M) 617-840-0145

-----Original Message-----
From: Kristoff, Richard C NAE [mailto:Richard.C.Kristoff@usace.army.mil]
Sent: Wednesday, August 10, 2011 2:58 PM
To: Christopher Morris
Subject: RE: Nantasket Pier Dredging Project (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hello Christopher,
Did Phil supply you with this or do you still need me to send a copy over?
Thanks,
Rick

-----Original Message-----
From: Christopher Morris [mailto:CMorris@apexcos.com]
Sent: Monday, August 08, 2011 4:23 PM
To: Kristoff, Richard C NAE
Subject: Nantasket Pier Dredging Project

Richard,

I would like a copy of the suitability determination for the aforementioned site. Additionally I would like to determine what samples would need to be collected for offshore disposal at Cape Cod and Mass Bay.

Chris

Christopher Morris, P.E.

Apex Companies, LLC

184 High Street, Suite 502

Boston, MA 02210

O) 617-728-0070 M) 617-840-0145

Classification: UNCLASSIFIED
Caveats: NONE

Kristoff, Richard C NAE

From: Kristoff, Richard C NAE
Sent: Friday, June 24, 2011 10:40 AM
To: 'cmorris@apexcos.com'
Subject: Nantasket Pier (UNCLASSIFIED)
Attachments: document2011-06-24-103250.pdf

Classification: UNCLASSIFIED
Caveats: NONE

Hello Chris,
I have been working on the Nantasket Pier permit with Geoffrey May. I understand he no longer works there and you are taking over the project. I wanted to send you a copy of the Suitability Determination for this project to make sure you have it. I look forward working with you on this project.
Thanks,
Rick

-----Original Message-----
From: Richard.C.Kristoff@usace.army.mil [mailto:Richard.C.Kristoff@usace.army.mil]
Sent: Friday, June 24, 2011 10:33 AM
To: Kristoff, Richard C NAE
Subject: Scanned Document

Please see the attached document.

Classification: UNCLASSIFIED
Caveats: NONE

CENAE-R-PT

21 April 2011

MEMORANDUM THRU

Ruth M. Ladd, Chief, Policy Analysis and Technical Support Branch

FOR: Richard C. Kristoff, Project Manager, CENAE-R-PEA

SUBJECT: Suitability Determination for Town of Hull, Massachusetts, Weir River, Application Number 2007-2344.

1. **Project Description:**

The applicant is proposing to maintenance dredge an area of approximately 13.8 acres at the Steamship (or Nantasket) Pier in the Weir River, which will produce a volume of approximately 10,000 cu. yds. of silty material. This material is proposed to be mechanically dredged and disposed of at the Cape Cod Bay Disposal Site (CCBDS), a yet undetermined upland area or the Massachusetts Bay Disposal Site (MBDS). This area was last dredged 7 years ago.

A sampling plan for this project was prepared on 17 December 2007. The plan called for eight cores to be taken from the project area. As the applicants were also considering upland disposal, we included two additional sampling points to fulfill the state's requirements. On 24 June 2010, I developed a compositing scheme that called for 3 composite samples and 2 non-composited samples. Composite Sample 1 was made from samples AP-1-S1, AP-1-S2, and AP-1-S3 from Area 1, Composite 2 was made from AP-2-S2 and AP-2-S3 from Area 2, and Composite 3 was made from AP-3-S1, AP-3-S2 and AP-3-S3 from Area 3. The single samples were AP-CSO-S1 and AP-2-S1 from Area 2.

2. **Summary:**

This memorandum addresses compliance with the regulatory evaluation and testing requirements of 40 CFR Section 230.60 and 230.61, subpart G under the Clean Water Act 404(b)(1) guidelines. 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 some of the sediments, from the vicinity of sample AP-2-S1 and Composite 3, suitable for disposal at CCBDS as proposed. The remaining sediments, from the vicinity of AP-CSO-S1, Composite 1 and Composite 3 are not suitable for disposal at CCBDS at this tier of testing. I cannot determine if the sediments in the northeast portion of the project are or are not suitable as they are located between suitable and unsuitable sediments and were not directly sampled. I cannot determine at this tier if the material is suitable for disposal at MBDS as biological testing is required for determining suitability at MBDS.

Some options for the applicants are to dispose of the unsuitable sediments in an upland area, place them in a confined disposal site or to prove they are suitable for unconfined open water disposal by subjecting them to further, biological testing.

3. **Clean Water Act Regulatory Requirements:**

The disposal of sediments waterward of the high tide line in **Cape Cod Bay** is regulated under Section 404 of the Clean Water Act. Subpart G of the Section 404(b)(1) guidelines describes the procedures for conducting this evaluation, including any relevant testing that may be required.

§230.60 General Evaluation of Dredged or Fill Material

(a) Further testing was necessary as it could not be determined with the existing information that the sediment was not a carrier of contaminants. The materials to be dredged were not predominately sands and gravel (with the exception of AP-2-S1) and are not located in an area of high current velocity.

(b) No information on spills was given. The basin is at a nineteenth century pier in a tidal marsh area and so may have old sources of contamination. There is a Combined Sewer Outfall (CSO) at the landward side of the south basin. Therefore I cannot determine if these sediments are sufficiently removed from sources of pollution and that they are not carriers of contaminants. This subsection therefore does not apply and further testing was necessary.

(c) The material to be dredged and the material at the disposal site are not adjacent, composed of the same materials or subject to the same sources of contaminants. Further testing was therefore required.

(d) This subsection states that further testing may not be necessary if the material to be dredged is constrained to reduce contamination within the disposal site and to prevent transport of contaminants beyond the boundaries of the disposal site. As such constraints in handling are not proposed, this subsection does not apply.

§230.61 Chemical, Biological and Physical Evaluation and Testing

(a) This subsection describes the purpose of §230.61 and does not give any criteria for the evaluation of sediments.

(b) Water column and benthic bioassay testing will be needed to dispose of the sediments from the vicinity of AP-CSO-S1, Composite 1 and Composite 3 at CSDS as I determined, on the basis of evaluation of §230.61(c), that the

likelihood of contamination is high.

(c) An inventory of the total concentration of contaminants is of value in comparing sediment at the disposal and dredging sites. See the attached spreadsheets for details.

The majority of the concentrations of the contaminants of concern in Sample AP-2-S1 are below the detection limits. When these concentrations are compared to either the single value of the 1994 CCBDS Reference area data or the mean value of the 1986 CCBDS Reference area data, most are less. The majority of the concentrations of metals, PCBs or pesticides in Composite 3 are below the detection limits or slightly higher. When the Composite 3 concentrations are compared to either the single value of the 1994 CCBDS Reference area data or the mean value of the 1986 CCBDS Reference area data, most are less or slightly higher, with the exception of the PAHs, which were several times higher. However, the absolute values of the PAHs in this sample were not greatly elevated, so I do not think they are a concern. The concentrations of metals and PAHs in Sample AP-CSO-S1, Composite 1 and Composite 2 were very elevated and many times the single value of the 1994 CCBDS Reference area data or the mean value of the 1986 CCBDS Reference area data. I have concerns about the sediments from these areas and find them unsuitable for disposal at CCBDS at this tier of testing.

CENAE and the federal agencies did not think an analysis of biological community structure was needed for this project at this point.

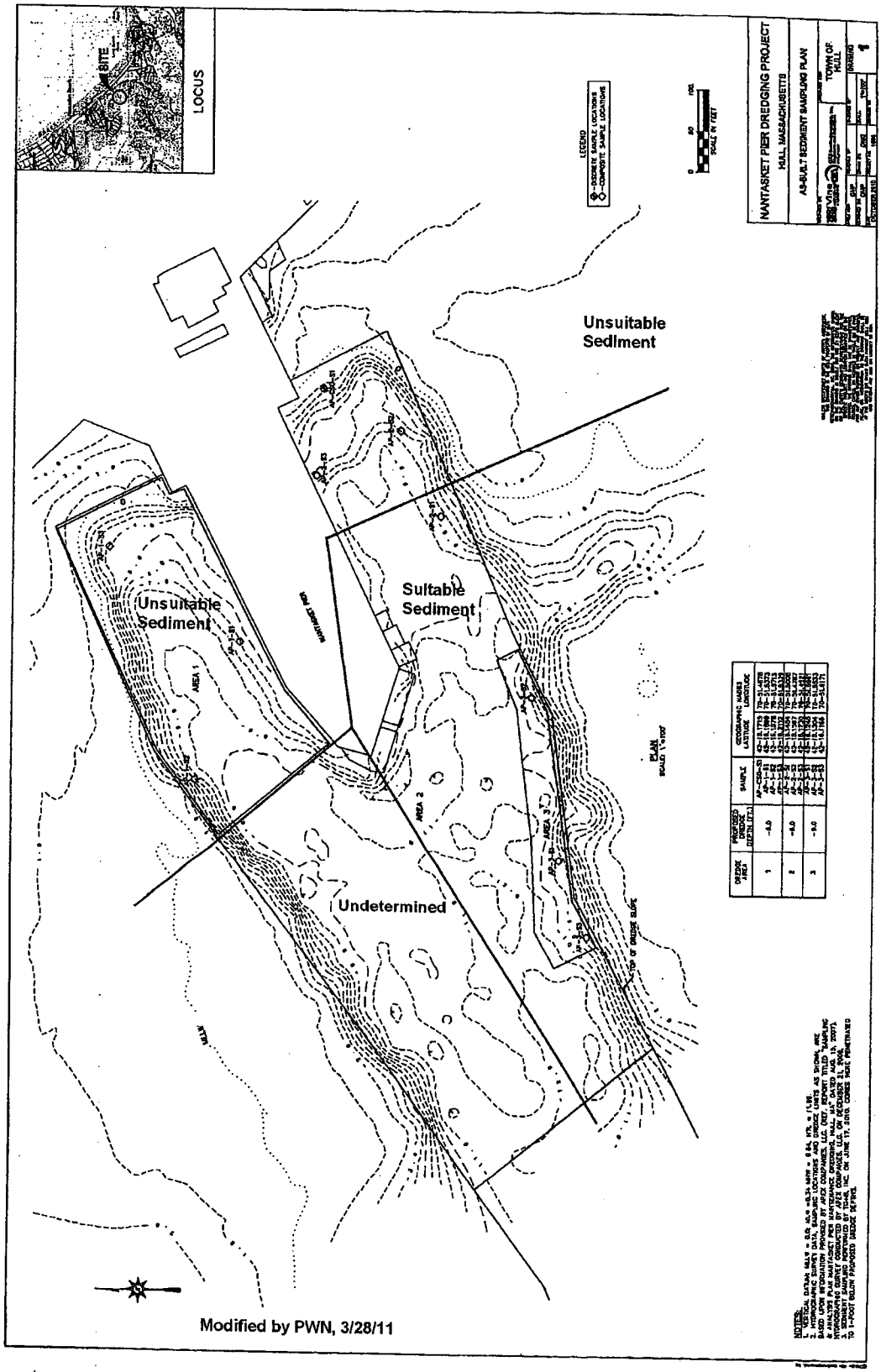
(d) The physical effects of the disposal of the dredged material at the disposal site should be minimal. Although some benthic marine organisms will be buried by the disposal, the disposal site should be rapidly re-colonized.

4. Copies of the above mentioned data and of the draft suitability determination were sent to the State DEP, US EPA, and US F&WS for their review. Olga Guza-Pabst gave EPA's concurrence during a telephone call on 21 April 2011. No responses were received from the other Federal agencies within the 10-day response period so their concurrences may be assumed.

5. If you have any questions, please contact me at (978) 318-8660.

Phillip Nimeskern

PHILLIP NIMESKERN
Project Manager,
Marine Analysis Section


LOCUS
SITE
Unsuitable Sediment
Suitable Sediment
Unsuitable Sediment
Undetermined
Modified by PWN, 3/28/11

Non Normalized Pollutant Concentrations
Project: NANTASKET PIER DREDGING
USACE Permit Number: 2007-2344

Analyte	CCBDS94	AP-2-S1			AP-CSO-S1		
Metals (ppm)	raw data	Raw Data	Qualifier	Comparison	Raw Data	Qualifier	Comparison
Arsenic	11.18	1.6		OK	12		1.07
Cadmium	-999	1.29		*No REF*	1.1		*No REF*
Chromium	85	8.88		OK	128		1.51
Copper	23	14.3		OK	109		4.74
Lead	31.3	3.53		OK	136		4.35
Mercury	-999	0.014	U	*No REF*	0.894		*No REF*
Nickel	53	8.32		OK	27.3		OK
Zinc	104	30.7		OK	215		2.07
% fines		48			79		
PAH's (ppb)							
Anthracene	4.1	11.7	U	2.85	1940		
Fluorene	2	11.7	U	5.85	3160		
Phenanthrene	20.2	11.7	U	OK	6260		
Benzo(a)anthracene	17	11.7	U	OK	1250		
Benzo(a)pyrene	20	11.7	U	OK	558		
Benzo(g,h,i)perylene	5	11.7	U	2.34	367		
Chrysene	16	11.7	U	OK	947		
Dibenzo(a,h)anthracene	2	11.7	U	5.85	148		
Fluoranthene	33	11.7	U	OK	9410		
Indeno(1,2,3-cd)pyrene	18	11.7	U	OK	350		
Pyrene	29	11.7	U	OK	6340		
Total Benzofluoranthenes	35	23.4	U,U	OK	1022		
TOC		0.066			2.57		
Pesticides (ppb)							
4,4'-DDD	-999	1.17	U	*No Ref*	10.7		*No Ref*
4,4'-DDE	-999	1.17	U	*No Ref*	12.7	I	*No Ref*
4,4'-DDT	-999	1.17	U	*No Ref*	5.48	IP	*No Ref*
Aldrin	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Cis-Chlordane	-999	1.17	U	*No Ref*	2.06		*No Ref*
Delta-BHC	-999						
Dieldrin	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Endosulfan I	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Endosulfan II	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Endrin	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Heptechlor	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Heptachlor epoxide	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Hexachlorobenzene	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Lindane	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Methoxychlor	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Oxychlordane	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Toxaphene	-999	29.3	U	*No Ref*	47.3	U	*No Ref*
Trans-chlordane	-999	1.17	U	*No Ref*	3.54	IP	*No Ref*
cis-Nonachlor	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
trans-Nonachlor	-999	1.17	U	*No Ref*	2.61		*No Ref*
PCBs (ppb)							
PCB 101	-999	1.17	U	*No Ref*	10.4		*No Ref*
PCB 105	-999	1.17	U	*No Ref*	5.43		*No Ref*
PCB 118	-999	1.17	U	*No Ref*	10.8		*No Ref*
PCB 128	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 138	-999	1.17	U	*No Ref*	22.2		*No Ref*
PCB 153	-999	1.17	U	*No Ref*	15		*No Ref*
PCB 170	-999	1.17	U	*No Ref*	3.82		*No Ref*
PCB 18	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 180	-999	1.17	U	*No Ref*	8.16		*No Ref*
PCB 183	-999	1.17	U	*No Ref*	2.01		*No Ref*
PCB 184	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 187	-999	1.17	U	*No Ref*	8.87		*No Ref*
PCB 195	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 206	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 209	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 28	-999	1.17	U	*No Ref*	5.66		*No Ref*
PCB 44	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 49	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 52	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 66	-999	1.17	U	*No Ref*	4.83		*No Ref*
PCB 8	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 87	-999	1.17	U	*No Ref*	2.78		*No Ref*
Total PCBs		42.12			218.58		

Total PCBs is 2 x [sum of Congeners 8, 18, 28, 44, 52, 66, 101, 105, 118, 128, 138, 153, 170, 180, 187, 195, 206, 209]
Cells in Orange are greater than 10X above reference value
Cells in Yellow are 3-10X above reference value

COMPOSITE 1		
Raw Data	Qualifier	Comparison
18.8		1.5
1.01		*No REF*
119		1.4
78.3		3.4
90.9		2.9
0.866		*No REF*
27.3		OK
178		1.71
95.8		
58.2		
53.7		
326		
412		
304		
244		
337		
90		
949		
228		
661		
840		
2.48		
16.3		*No Ref*
20.1	IP	*No Ref*
6.78	IP	*No Ref*
2.32	U	*No Ref*
3.32		*No Ref*
9.6	P	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
58.1	U	*No Ref*
6.55	IP	*No Ref*
2.32	U	*No Ref*
4.08	P	*No Ref*
25.7		*No Ref*
9.2		*No Ref*
23		*No Ref*
10.3		*No Ref*
46.7		*No Ref*
21.8		*No Ref*
7.32		*No Ref*
2.58		*No Ref*
7.06		*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
6.39		*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
6.5		*No Ref*
6.34		*No Ref*
2.32	U	*No Ref*
2.32	U	*No Ref*
6.74		*No Ref*
2.32	U	*No Ref*
5.34		*No Ref*

382.4601

COMPOSITE 2		
Raw Data	Qualifier	Comparison
13.2		1.18
0.844		*No REF*
102		1.2
72.4		3.15
78.7		2.51
0.638		*No REF*
26.4		OK
160		1.54
90.3		
51.3		
58		
301		
390		
312		
248		
352		
91.8		
639		
238		
766		
922		
1.74		
5.53		*No Ref*
6.25	I	*No Ref*
3.46	IP	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.48	U	*No Ref*
2.48	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
61.4	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
4.62		*No Ref*
2.46	U	*No Ref*
7.42		*No Ref*
2.46	U	*No Ref*
9.14		*No Ref*
6.17		*No Ref*
2.46	U	*No Ref*
2.48	U	*No Ref*
3.05		*No Ref*
2.46	U	*No Ref*
2.48	U	*No Ref*
3.48		*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.48	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*
2.46	U	*No Ref*

126.76

COMPOSITE 3		
Raw Data	Qualifier	Comparison
10.3		OK
0.726		*No REF*
82.9		OK
57.1		2.48
69.2		2.21
0.656		*No REF*
22.9		OK
144		1.38
81.0		
50.3		
50.9		
262		
293		
234		
203		
222		
73		
535		
187		
525		
460		
2.16		
5.37		*No Ref*
7.66	I	*No Ref*
2.29	IP	*No Ref*
1.87	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.87	U	*No Ref*
1.67	U	*No Ref*
1.87	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
41.8	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.87	U	*No Ref*
5.37		*No Ref*
1.67	U	*No Ref*
4.17		*No Ref*
1.67	U	*No Ref*
9.32		*No Ref*
5.91		*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
2.64		*No Ref*
1.87	U	*No Ref*
1.87	U	*No Ref*
2.44		*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.87	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.87	U	*No Ref*
1.67	U	*No Ref*
1.67	U	*No Ref*
1.87	U	*No Ref*
1.67	U	*No Ref*

100.18

Non Normalized Pollutant Concentrations
Project: NANTASKET PIER DREDGING
USACE Permit Number: 2007-2344

Analyte	CCBDS86	AP-2-S1			AP-CSO-S1		
Metals (ppm)	mean	Raw Data	Qualifier	Comparison	Raw Data	Qualifier	Comparison
Arsenic	16	1.6		OK	12		OK
Cadmium	0.9	1.29		1.43	1.1		1.22
Chromium	48	8.88		OK	128		2.67
Copper	20	14.3		OK	109		5.45
Lead	36	3.53		OK	138		3.83
Mercury	0.4	0.014	U	OK	0.894		2.24
Nickel	27	8.32		OK	27.3		1.01
Zinc	88	30.7		OK	215		2.44
% fines		48			79		
PAH's (ppb)							
Anthracene	75	11.7	U	OK	1940		25.87
Fluorene	75	11.7	U	OK	3160		42.13
Phenanthrene	75	11.7	U	OK	8280		110.4
Benzo(a)anthracene	75	11.7	U	DK	1250		16.67
Benzo(a)pyrene	75	11.7	U	OK	558		7.44
Benzo(g,h,I)perylene	75	11.7	U	OK	367		4.89
Chrysene	75	11.7	U	OK	947		12.63
Dibenzo(a,h)anthracene	75	11.7	U	OK	148		1.97
Fluoranthene	75	11.7	U	OK	9410		125.47
Indeno(1,2,3-cd)pyrene	75	11.7	U	OK	350		4.67
Pyrene	75	11.7	U	OK	8340		111.2
Total Benzofluoranthenes	150	23.4	U,U	OK	1022		6.81
TOC		0.07			2.57		
Pesticides (ppb)							
4,4'-DDD	-999	1.17	U	*No Ref*	10.7		*No Ref*
4,4'-DDE	-999	1.17	U	*No Ref*	12.7	I	*No Ref*
4,4'-DDT	-999	1.17	U	*No Ref*	5.48	IP	*No Ref*
Aldrin	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Cis-Chlordane	-999	1.17	U	*No Ref*	2.08		*No Ref*
Delta-BHC	-999						
Dieldrin	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Endosulfan I	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Endosulfan II	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Endrin	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Heptachlor	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Heptachlor epoxide	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Hexachlorobenzene	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Lindane	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Methoxychlor	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Oxychlordane	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
Toxaphene	-999	29.3	U	*No Ref*	47.3	U	*No Ref*
Trans-chlordane	-999	1.17	U	*No Ref*	3.54	IP	*No Ref*
cis-Nonachlor	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
trans-Nonachlor	-999	1.17	U	*No Ref*	2.61		*No Ref*
PCBs (ppb)							
PCB 101	-999	1.17	U	*No Ref*	10.4		*No Ref*
PCB 105	-999	1.17	U	*No Ref*	5.43		*No Ref*
PCB 118	-999	1.17	U	*No Ref*	10.8		*No Ref*
PCB 128	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 138	-999	1.17	U	*No Ref*	22.2		*No Ref*
PCB 153	-999	1.17	U	*No Ref*	15		*No Ref*
PCB 170	-999	1.17	U	*No Ref*	3.82		*No Ref*
PCB 18	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 180	-999	1.17	U	*No Ref*	8.16		*No Ref*
PCB 183	-999	1.17	U	*No Ref*	2.01		*No Ref*
PCB 184	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 187	-999	1.17	U	*No Ref*	8.87		*No Ref*
PCB 195	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 206	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 209	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 28	-999	1.17	U	*No Ref*	5.88		*No Ref*
PCB 44	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 49	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 52	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 66	-999	1.17	U	*No Ref*	4.83		*No Ref*
PCB 8	-999	1.17	U	*No Ref*	1.89	U	*No Ref*
PCB 87	-999	1.17	U	*No Ref*	2.78		*No Ref*
Total PCBs		42.12			216.58		

Total PCBs is 2 x [sum of Congeners 8, 18, 28, 44, 52, 66, 101, 105, 118, 128, 138, 153, 170, 180, 187, 195, 208, 209]
Cells in Orange are greater than 10X above reference value
Cells in Yellow are 3-10X above reference value

COMPOSITE 1			COMPOSITE 2			COMPOSITE 3		
Raw Data	Qualifier	Comparison	Raw Data	Qualifier	Comparison	Raw Data	Qualifier	Comparison
16.8		1.05	13.2		OK	10.3		OK
1.01		1.12	0.644		OK	0.726		OK
119		2.48	102		2.13	82.9		1.73
78.3		3.92	72.4		3.62	57.1		2.86
90.9		2.53	78.7		2.19	69.2		1.92
0.868		2.17	0.638		1.6	0.658		1.64
27.3		1.01	28.4		OK	22.9		OK
178		2.02	160		1.82	144		1.64
95.83			90.3			80.97		
56.2		OK	51.3		OK	50.3		OK
53.7		OK	56		OK	50.9		OK
326		4.37	301		4.01	262		3.49
412		5.49	390		5.2	293		3.91
304		4.05	312		4.16	234		3.12
244		3.25	248		3.31	203		2.71
337		4.49	352		4.69	222		2.96
90		1.2	91.8		1.22	73		OK
949		12.65	639		8.52	535		7.13
226		3.01	236		3.15	187		2.49
861		11.48	768		10.24	525		7
840		5.6	922		6.15	460		3.07
2.46			1.74			2.16		
16.3		No Ref	5.53		No Ref	5.37		No Ref
20.1	IP	No Ref	6.25	I	No Ref	7.68	I	No Ref
6.78	IP	No Ref	3.48	IP	No Ref	2.29	IP	No Ref
2.32	U	No Ref	2.46	U	No Ref	1.87	U	No Ref
3.32		No Ref	2.46	U	No Ref	1.67	U	No Ref
9.6	P	No Ref	2.46	U	No Ref	1.67	U	No Ref
2.32	U	No Ref	2.46	U	No Ref	1.67	U	No Ref
2.32	U	No Ref	2.46	U	No Ref	1.67	U	No Ref
2.32	U	No Ref	2.48	U	No Ref	1.67	U	No Ref
2.32	U	No Ref	2.46	U	No Ref	1.67	U	No Ref
2.32	U	No Ref	2.46	U	No Ref	1.87	U	No Ref
2.32	U	No Ref	2.46	U	No Ref	1.67	U	No Ref
2.32	U	No Ref	2.46	U	No Ref	1.67	U	No Ref
2.32	U	No Ref	2.46	U	No Ref	1.67	U	No Ref
2.32	U	No Ref	2.46	U	No Ref	1.67	U	No Ref
58.1	U	No Ref	2.46	U	No Ref	1.67	U	No Ref
8.55	IP	No Ref	61.4	U	No Ref	41.8	U	No Ref
2.32	U	No Ref	2.46	U	No Ref	1.67	U	No Ref
4.08	P	No Ref	2.48	U	No Ref	1.87	U	No Ref
			2.48	U	No Ref	1.87	U	No Ref
25.7		No Ref	4.82		No Ref	5.37		No Ref
9.2		No Ref	2.46	U	No Ref	1.67	U	No Ref
23		No Ref	7.42		No Ref	4.17		No Ref
10.3		No Ref	2.46	U	No Ref	1.67	U	No Ref
46.7		No Ref	9.14		No Ref	9.32		No Ref
21.8		No Ref	6.17		No Ref	5.91		No Ref
7.32		No Ref	2.46	U	No Ref	1.67	U	No Ref
2.58		No Ref	2.46	U	No Ref	1.67	U	No Ref
7.06		No Ref	3.05		No Ref	2.84		No Ref
2.32	U	No Ref	2.48	U	No Ref	1.67	U	No Ref
2.32	U	No Ref	2.46	U	No Ref	1.87	U	No Ref
8.39		No Ref	3.46		No Ref	2.44		No Ref
2.32	U	No Ref	2.46	U	No Ref	1.67	U	No Ref
2.32	U	No Ref	2.46	U	No Ref	1.67	U	No Ref
2.32	U	No Ref	2.46	U	No Ref	1.67	U	No Ref
8.5		No Ref	2.46	U	No Ref	1.67	U	No Ref
6.34		No Ref	2.48	U	No Ref	1.67	U	No Ref
2.32	U	No Ref	2.46	U	No Ref	1.67	U	No Ref
2.32	U	No Ref	2.46	U	No Ref	1.87	U	No Ref
6.74		No Ref	2.46	U	No Ref	1.87	U	No Ref
2.32	U	No Ref	2.46	U	No Ref	1.67	U	No Ref
5.34		No Ref	2.46	U	No Ref	1.87	U	No Ref
362.4601			126.76			100.16		

Kristoff, Richard C NAE

From: Geoffrey May [GMay@apexcos.com]
Sent: Wednesday, June 08, 2011 2:17 PM
To: Kristoff, Richard C NAE
Cc: Christopher Morris
Subject: RE: Steamship wharf (UNCLASSIFIED)

Thank you.

The last time I spoke with Phil, he indicated that some of the material could go to CCDS. When will the Determination of Suitability be available for review?

Also, Chris Morris of our office will be taking over this project. Please contact Chris with any questions

Geoff May

-----Original Message-----
From: Kristoff, Richard C NAE [mailto:Richard.C.Kristoff@usace.army.mil]
Sent: Monday, June 06, 2011 11:03 AM
To: Geoffrey May
Subject: RE: Steamship wharf (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hello Geoff,
Phil got back to me and he will not be changing his response. He offered this comment:

When I wrote "Concentrations of arsenic, cadmium, mercury and lead are two times or more times higher in 2010. The concentrations of all PAHs in Sample AP-CSO-S1 are 3 to 20 times higher in 2010 and several PAHs in Composites 1 and 2 are 3 to 20 times higher in 2010.", I meant that I compared the results for the 2010 Composite 1 to the results for 1998 Composite 1 and found them dissimilar. Four of five metals analyzed in 1998 were higher in 2010. Ten of twelve PAHs analyzed in 1998 were higher in 2010. (In 1998, they did not measure any PAHs below the relatively high detection limits, so we compared to half of the detection limit.)

Thanks,
Rick

-----Original Message-----
From: Geoffrey May [mailto:GMay@apexcos.com]
Sent: Thursday, May 19, 2011 3:49 PM
To: Kristoff, Richard C NAE
Cc: kbornheim@comcast.net
Subject: RE: Steamship wharf (UNCLASSIFIED)

Dear Rick,

In reviewing Phil response, it appears that there may be some confusion.

In my previous emails, I was requesting that only Area 1 be compared to the previous data (see April 5/6, 2011 emails). I know that the area around the CSO (a section of Area 2) is screaming with PAHs. This area may not be suitable for open ocean disposal and maybe problematic. I was hoping that a review of the data from the sample labeled Composite #1 from the 1998 data set to the current set from Area 1 could be compared. I'll give you a call to discuss. Regards.

Geoff May

-----Original Message-----
From: Kristoff, Richard C NAE [mailto:Richard.C.Kristoff@usace.army.mil]
Sent: Thursday, May 19, 2011 6:33 AM
To: Geoffrey May
Subject: RE: Steamship wharf (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hello Geoffrey,
Here is Phil's response/recommendation:

In response to the 21 April 2011 Suitability Determination for maintenance dredging at Nantasket Pier, Hull, Massachusetts, Geoffrey May of Apex Companies requested that I compare the recent bulk sediment chemistry data to the chemistry data from the biological data performed on this project's sediment in 1998. In a SD dated 15 December 1998, I found the sediments from this project to be suitable for unconfined open water disposal at MBDS. The sediments in the 1998 study were analyzed for only a few of the required metals and the PAH analyses did not reach the required Detection Limits. The values for PAHs listed in the spreadsheet in the 1998 SD are ½ of the detection limits. These sediments were dredged and disposed of seven years ago.

When I compare the 2010 bulk sediment chemistry data in those samples found unsuitable for open water disposal to that of 1998, many of the contaminant concentrations in 2010 are many times greater than those in 1998. Concentrations of arsenic, cadmium, mercury and lead are two times or more times higher in 2010. The concentrations of all PAHs in Sample AP-CSO-S1 are 3 to 20 times higher in 2010 and several PAHs in Composites 1 and 2 are 3 to 20 times higher in 2010.

Because these values are so different, I cannot agree that the sediments are similar or that test animals will react to them in the same way. I will not modify the decisions expressed in the 21 April 2011 SD.

Thanks,
Rick
-----Original Message-----
From: Geoffrey May [mailto:GMay@apexcos.com]
Sent: Wednesday, April 13, 2011 3:09 PM
To: Kristoff, Richard C NAE
Cc: kbornheim@comcast.net

Subject: Steamship wharf

Richard,

Has Philip had a chance to look at the old data set yet and compare the old chemical/biological with the new chemical data set for Steamship Wharf? Thanks.

Geoffrey R. May, PG, LSP

Apex Companies, LLC

184 High Street

Suite 504, Boston, MA 02110

617-728-0070 ext.114

FAX 617-728-0080

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Kristoff, Richard C NAE

From: Nimeskern, Phillip W NAE
Sent: Friday, June 03, 2011 2:45 PM
To: Kristoff, Richard C NAE
Subject: RE: Nantasket Pier (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hello Rick,

Yes, I won't be changing what I wrote earlier, the sediments analyzed in 2010 are more contaminated than those in 1998 and they are not similar.

When I wrote "Concentrations of arsenic, cadmium, mercury and lead are two times or more times higher in 2010. The concentrations of all PAHs in Sample AP-CSO-S1 are 3 to 20 times higher in 2010 and several PAHs in Composites 1 and 2 are 3 to 20 times higher in 2010.", I meant that I compared the results for the 2010 Composite 1 to the results for 1998 Composite 1 and found them dissimilar. Four of five metals analyzed in 1998 were higher in 2010. Ten of twelve PAHs analyzed in 1998 were higher in 2010. (In 1998, they did not measure any PAHs below the relatively high detection limits, so we compared to half of the detection limit.)

Phill Nimeskern
US Army, Corps of Engineers
(978) 318-8660

-----Original Message-----
From: Kristoff, Richard C NAE
Sent: Thursday, June 02, 2011 11:32 AM
To: Nimeskern, Phillip W NAE
Subject: Nantasket Pier (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hey Phil,
I don't think we will want to change our response, but I received this from Geoffrey May:

In reviewing Phil response, it appears that there may be some confusion.

In my previous emails, I was requesting that only Area 1 be compared to the previous data (see April 5/6, 2011 emails). I know that the area around the CSO (a section of Area 2) is screaming with PAHs. This area may not be suitable for open ocean disposal and maybe problematic. I was hoping that a review of the data from the sample labeled Composite #1 from the 1998 data set to the current set from Area 1 could be compared. I'll give you a call to discuss. Regards.

Should I just tell him we are sticking with what we said earlier?
Thanks,
Rick

Richard Kristoff

Regulatory Division
U.S. Army Corps of Engineers, New England District
696 Virginia Road
Concord, MA 01742-2751
(978) 318-8171

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Kristoff, Richard C NAE

From: Nimeskern, Phillip W NAE
Sent: Wednesday, May 18, 2011 5:07 PM
To: Kristoff, Richard C NAE
Cc: Guza-Pabst.Olga@epamail.epa.gov
Subject: Nantasket Pier, Town of Hull, MA, 2007-2344 (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

In response to the 21 April 2011 Suitability Determination for maintenance dredging at Nantasket Pier, Hull, Massachusetts, Geoffrey May of Apex Companies requested that I compare the recent bulk sediment chemistry data to the chemistry data from the biological data performed on this project's sediment in 1998. In a SD dated 15 December 1998, I found the sediments from this project to be suitable for unconfined open water disposal at MBDS. The sediments in the 1998 study were analyzed for only a few of the required metals and the PAH analyses did not reach the required Detection Limits. The values for PAHs listed in the spreadsheet in the 1998 SD are ½ of the detection limits. These sediments were dredged and disposed of seven years ago.

When I compare the 2010 bulk sediment chemistry data in those samples found unsuitable for open water disposal to that of 1998, many of the contaminant concentrations in 2010 are many times greater than those in 1998. Concentrations of arsenic, cadmium, mercury and lead are two times or more times higher in 2010. The concentrations of all PAHs in Sample AP-CSO-S1 are 3 to 20 times higher in 2010 and several PAHs in Composites 1 and 2 are 3 to 20 times higher in 2010.

Because these values are so different, I cannot agree that the sediments are similar or that test animals will react to them in the same way. I will not modify the decisions expressed in the 21 April 2011 SD.

Phillip W. Nimeskern
US Army, Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751
(978) 318-8660
FAX: (978) 318-8303

Classification: UNCLASSIFIED
Caveats: NONE

Kristoff, Richard C NAE

From: Kristoff, Richard C NAE
Sent: Monday, May 16, 2011 9:53 AM
To: 'Geoffrey May'
Subject: RE: Steamship Wharf Hull MA (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hello Geoffery,
I am planning on meeting with Phil on this today. After we meet I will get back to you.
Thanks,
Rick

-----Original Message-----
From: Geoffrey May [mailto:GMay@apexcos.com]
Sent: Wednesday, May 11, 2011 1:48 PM
To: Kristoff, Richard C NAE
Cc: kbornheim@comcast.net
Subject: Steamship Wharf Hull MA

Richard,

Any word from Philip regarding his comparison of old bio and chemical data to new chemical data for Area 1 at Steamship Wharf in Hull Massachusetts?

Also Has Philip finalized the Determination for the rest of the project?

Regards

Geoffrey R. May, PG, LSP

Apex Companies, LLC

184 High Street

Suite 504, Boston, MA 02110

617-728-0070 ext.114

FAX 617-728-0080

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Classification: UNCLASSIFIED
Caveats: NONE

Kristoff, Richard C NAE

From: Geoffrey May [GMay@apexcos.com]
Sent: Wednesday, April 13, 2011 3:09 PM
To: Kristoff, Richard C NAE
Cc: kbornheim@comcast.net
Subject: Steamship wharf

Richard,

Has Philip had a chance to look at the old data set yet and compare the old chemical/biological with the new chemical data set for Steamship Wharf? Thanks.

Geoffrey R. May, PG, LSP

Apex Companies, LLC

184 High Street

Suite 504, Boston, MA 02110

617-728-0070 ext.114

FAX 617-728-0080

Kristoff, Richard C NAE

From: Geoffrey May [GMay@apexcos.com]
Sent: Wednesday, April 06, 2011 11:04 AM
To: Kristoff, Richard C NAE
Subject: RE: Nantasket Pier Dredging (UNCLASSIFIED)

Thank you.

The site drawing showing the sample locations is tough to read, but locations A, B, C, and D comprise the composite sample that is most reflect of our Area 1.

Geoff May

-----Original Message-----
From: Kristoff, Richard C NAE [mailto:Richard.C.Kristoff@usace.army.mil]
Sent: Wednesday, April 06, 2011 6:28 AM
To: Geoffrey May
Subject: RE: Nantasket Pier Dredging (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Thanks I will forward this over to Phil.
Take care,
Rick

-----Original Message-----
From: Geoffrey May [mailto:GMay@apexcos.com]
Sent: Tuesday, April 05, 2011 3:46 PM
To: Kristoff, Richard C NAE
Cc: kbornheim@comcast.net
Subject: Nantasket Pier Dredging

Dear Richard,

Attached are the previous test results for your consideration.

Apex requests a comparison of the 1988 data to the 2010 data. If Phil does not see a significant deference between the data sets for Area 1, we request that the previous biological testing together with the current chemical testing will be sufficient to allow the material from Area 1 go to the MBDS.

Please call with any questions. Regards.

Geoffrey R. May, PG, LSP

Apex Companies, LLC

184 High Street

Suite 504, Boston, MA 02110

617-728-0070 ext.114

FAX 617-728-0080

Classification: UNCLASSIFIED
Caveats: NONE

Kristoff, Richard C NAE

From: Geoffrey May [GMay@apexcos.com]
Sent: Tuesday, April 05, 2011 3:46 PM
To: Kristoff, Richard C NAE
Cc: kbornheim@comcast.net
Subject: Nantasket Pier Dredging
Attachments: Biological_Testing_2-27-1999.pdf; USACE_Permit_12_16_1998.pdf

attachment is in electronic file

Dear Richard,

Attached are the previous test results for your consideration.

Apex requests a comparison of the 1988 data to the 2010 data. If Phil does not see a significant deference between the data sets for Area 1, we request that the previous biological testing together with the current chemical testing will be sufficient to allow the material from Area 1 go to the MBDS.

Please call with any questions. Regards.

Geoffrey R. May, PG, LSP

Apex Companies, LLC

184 High Street

Suite 504, Boston, MA 02110

617-728-0070 ext.114

FAX 617-728-0080

Kristoff, Richard C NAE

From: Nimeskern, Phillip W NAE
Sent: Tuesday, March 29, 2011 10:11 AM
To: Kristoff, Richard C NAE
Subject: draft SD for Nantasket Pier, Town of Hull, 2007-2344 (UNCLASSIFIED)
Attachments: 2007-2344 Hull-Nantasket Pier Compare to CCBDS86.xlsx; 2007-2344 Hull-Nantasket Pier Compare to CCBDS94.xlsx; 2007-2344 INTERAGENCY COORD.docx; 2007-2344 SD Nantasket Pier.docx Attachments are in electronic file

Classification: UNCLASSIFIED
Caveats: NONE

Hello Rick,

Attached please find the draft SD SAP and coversheet for your project. Please review them and let me know if you have any comments or corrections. If you do not, please forward the draft to the agency contacts and let me know when you have.

Phill Nimeskern
US Army, Corps of Engineers
(978) 318-8660

Classification: UNCLASSIFIED
Caveats: NONE

Kristoff, Richard C NAE

From: Peter Williams [peter.williams@gza.com]
Sent: Friday, March 18, 2011 1:57 PM
To: Kristoff, Richard C NAE
Cc: Geoffrey May
Subject: FW: Nantasket Pier Dredging
Attachments: Nantasket_Pier_L009585(1)PJW_2-11-11(1) eddMA401deleted-1.xls

attachments are in electronic file

Richard

I am just touching base to make sure that you haven't had any problems with the revised EDD for the Nantasket Pier Project.

Regards

Peter

Vine -GZA

From: Peter Williams
Sent: Thursday, March 10, 2011 3:17 PM
To: 'Kristoff, Richard C NAE'
Subject: Nantasket Pier Dredging

Richard

Attached is the revised EDD for Nantasket Pier in Hull. We have taken out the State Testing results as requested. Please get back to me if you have any questions.

Regards

Peter J. Williams, P.E.

Vine Associates

A Division of GZA GeoEnvironmental Inc.

190 Old Derby Street

Suite 311

Hingham, MA 02043

Telephone 781-749-2530 x201

Fax 781-749-2751

Kristoff, Richard C NAE

From: Kristoff, Richard C NAE
Sent: Friday, March 11, 2011 11:58 AM
To: Nimeskern, Phillip W NAE
Subject: FW: Nantasket Pier Dredging
Attachments: Nantasket_Pier_L009585(1)PJW_2-11-11(1) eddMA401deleted-1.xls
attachments are in electronic file

Hey Phil,
Peter sent the EDD to me. Please find it attached. Hopefully it is what you need. If not please let me know and I will get back with Peter. Thanks for your help on all this.
Take care,
Rick

-----Original Message-----
From: Peter Williams [mailto:peter.williams@gza.com]
Sent: Thursday, March 10, 2011 3:17 PM
To: Kristoff, Richard C NAE
Subject: Nantasket Pier Dredging

Richard

Attached is the revised EDD for Nantasket Pier in Hull. We have taken out the State Testing results as requested. Please get back to me if you have any questions.

Regards

Peter J. Williams, P.E.

Vine Associates

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Suite 311

Hingham, MA 02043

Telephone 781-749-2530 x201

Fax 781-749-2751

Kristoff, Richard C NAE

From: Peter Williams [peter.williams@gza.com]
Sent: Monday, February 28, 2011 11:15 AM
To: Kristoff, Richard C NAE
Subject: RE: Nantasket Pier dredging

Rick

10AM works for me.

Peter

-----Original Message-----
From: Kristoff, Richard C NAE [mailto:Richard.C.Kristoff@usace.army.mil]
Sent: Monday, February 28, 2011 11:10 AM
To: Peter Williams
Subject: RE: Nantasket Pier dredging

Hello Peter,
Will 10 Am work? I have a line for you to call in on. The number is 978 318 8023.
Thanks,
Rick

-----Original Message-----
From: Peter Williams [mailto:peter.williams@gza.com]
Sent: Friday, February 25, 2011 4:56 PM
To: Adams, Karen K NAE
Cc: Kristoff, Richard C NAE
Subject: RE: Nantasket Pier dredging

Karen

Next Monday is a bad day for me. Can we conference on Tuesday?

Peter

-----Original Message-----
From: Adams, Karen K NAE [mailto:Karen.K.Adams@usace.army.mil]
Sent: Friday, February 25, 2011 11:45 AM
To: Peter Williams
Cc: Kristoff, Richard C NAE
Subject: RE: Nantasket Pier dredging

I think to get us all on the same page and help Rick do catch up, a conference call me be good. Phillip does have concerns about the EDD however I don't know the specifics yet.

Should we try for Monday afternoon?

Thanks
Karen

-----Original Message-----
From: Peter Williams [mailto:peter.williams@gza.com]

Sent: Friday, February 25, 2011 9:05 AM
To: Adams, Karen K NAE
Cc: Kristoff, Richard C NAE
Subject: RE: Nantasket Pier dredging

Karen/Richard

Sorry for the confusion, I have taken over this project and didn't realize that it had not been submitted the David. In the future if there are any question on the EDD they should be directed to me. Any other questions should be directed to Geoffrey May. If you are uncertain please send to both of us.

Please get back to me if you have any questions on the revised EDD.

Regards

Peter

-----Original Message-----
From: Adams, Karen K NAE [mailto:Karen.K.Adams@usace.army.mil]
Sent: Wednesday, February 23, 2011 3:57 PM
To: Peter Williams
Cc: Keddell, David M NAE; Kristoff, Richard C NAE; Nimeskern, Phillip W NAE
Subject: Nantasket Pier dredging

Hi Peter,

We are trying to evaluate the sediment analysis for the dredging proposed by Hull. I was not aware that the October 2010 report had been submitted. Apparently as it was sent directly to Phillip, it was not logged in and was not being tracked. This is now assigned to Richard Kristoff as our Permits project manager. Please send all future correspondence to Richard.

Dave Keddell is out of the office this week but apparently was our project manager on it previously under file number 2007-2344. Phillip has been attempting to do the suitability determination but is having some problems with the way the data is presented in the electronic format. I'm confused about who we should be contacting to follow up on this. Phillip Nimeskern says he has been in contact with you however the cover letter is from Geoffrey May at Apex. Please let us know who we should be in touch with to get clarification on the EDD submittal.

Thank you
Karen

visit our website at www.gza.com<http://www.gza.com/>.

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For information about GZA GeoEnvironmental, Inc. and its services, please visit our website at www.gza.com<http://www.gza.com/>.

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

REPLY TO
ATTENTION OF

June 21, 2012

Regulatory Division
CENAE-R-NAE-2007-02344

Ramona Peters
Mashpee Wampanoag Tribe
483 Great Neck Road South
Mashpee, Massachusetts 02649

Dear Ms. Peters:

We would like to inform you that the Town of Hull/Phillip Lemnios has applied to the New England District, U. S. Army Corps of Engineers for a permit retain dredge 8,000 cubic yard of material from around Nantasket Pier/Weir River located off of George Washington Boulevard in Hull, Massachusetts. The dredge area will be dredged to -9 MLLW and -6 MLLW with a 1 foot over dredge. A copy of the applicant's plans and Project Notification Form is attached. This project is being reviewed in accordance with our Massachusetts General Permit (GP).

The Historic Preservation Officer at the Wampanoag Tribe in Aquinnah and the State Historic Preservation Officer have also been notified.

No historic or archaeological resources have been previously identified.

If this project may have the potential to affect historic or cultural resources important to your tribe, please contact me or Karen K. Adams, Chief of our Permits & Enforcement Branch at (978) 318-8338 promptly to ensure that we can address these concerns in our evaluation of this permit application.

Sincerely,

Richard C. Kristoff Jr.

Richard C. Kristoff, Jr.
Project Manager
Regulatory Division

Attachments

Attachment I

Standard Operating Procedure, Vibrocore Sampling

Foth Infrastructure & Environment, LLC

Standard Operating Procedure

Vibrocore Sampling: USACE New England District

SOP Owner:	Kaitlyn Cross	Kaitlyn Cross	B.S.	8/12/2022
	Print	Signature	Quals (i.e., P.E., P.G.)	Date
Technical Practice Leader:	Erin Hughes	Erin Caswell Hughes	P.G., M.S.	8/12/2022
	Print	Signature	Quals (i.e., P.E., P.G.)	Date

Annual Review

An Annual Review of this SOP has been performed and still reflects current practice.

SOP Owner:				
	Print	Signature	Quals (i.e., P.E., P.G.)	Date
Technical Practice Leader:				
	Print	Signature	Quals (i.e., P.E., P.G.)	Date
SOP Owner:				
	Print	Signature	Quals (i.e., P.E., P.G.)	Date
Technical Practice Leader:				
	Print	Signature	Quals (i.e., P.E., P.G.)	Date

*Effective Date upon Final Signature

Revision History

Revision Number	Date of Revision	Section	Revision Made
0	8/12/2022	All	Original Document

Foth Infrastructure & Environment, LLC

Standard Operating Procedure

Vibrocore Sampling: USACE New England District

Introduction

The purpose of this Standard Operating Procedure (SOP) is to establish a standard procedure for the collection of sediment samples using a vibrocore device and inert core liner in a manner consistent with the United States Army Corps of Engineers (USACE) New England District, Environmental Resources and Marine Operations Sections requirements. Additionally, procedures are provided for the assessment and processing of sediment samples. Procedures are described for the collection of soft sediment/sand. This SOP should be consulted during the preparation of any Sampling and Analysis Plans (SAPs) or Field Sampling Plan (FSPs) involving sediment collection, but it does not contain all of the information required for an FSP (e.g., sample size, sample location, sample preservation, sample processing and statistical evaluation approach). All sampling elevations shall be referenced to mean lower low water (MLLW) datum.

Collection of continuous undisturbed samples up to 30 feet (ft) in length in water depths from 2 ft to over 40 ft can be readily accomplished using a vibrocore. Water depths in excess of 30 ft will require additional attention to vibrocore orientation. Samples collected in excess of 20 ft can be obtained with attention to appropriate sampling vessel.

All sampling techniques should be confirmed with the project specific SAP, once issued. This SOP outlines standard sediment sampling practice and is to be adapted as needed to fit specific project requirements in accordance with the USACE SAP, or other agency, requests. Consideration should also be given to coordinate with the laboratory as necessary regarding collection method and quantities prior to each sampling event.

The USACE New England District, Environmental Resources and Marine Operations Section should be notified prior to sampling. USACE contact shall be established based on the project specific SAP and shall be known prior to beginning the sampling event.

References

American Public Health Association (APHA), 1989. *Standard Methods for the Examination of Wastewater.* 17th ed. APHA, Washington, D.C.

ASTM International (ASTM), 1990. *ASTM Annual Book of Standards.* Volume 11.04 Water and Environmental Technology.

Guy, H.P. and V.W. Norman, 1969. *Field Measurements for the Measurement of Fluvial Sediments. In Techniques of Water Resources Investigations*, Book 3, Chap. C2. U.S. Geological Survey (USGS), Reston, VA.

USACE, 2013. *Engineering and Design, Hydrographic Surveying. Manual Number EM 1110-2-1003*. Washington D.C.

U.S. Environmental Protection Agency (USEPA) New England and USACE New England District, 2004. Regional Implementation Manual - Evaluation of Dredged Material Proposed For Disposal In New England Waters.

In addition, all project-specific local and state agency guideline references should be reviewed prior to sampling.

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Personnel Qualifications

Field personnel executing these procedures will have read, and will be familiar with, and comply with the requirements of the project planning documents (e.g., work plans, field sampling plans, and health and safety plan), and applicable SOPs. Subcontractors executing this sampling event should be experienced in the use of the vibrocore apparatus. At least one person present on the Foth Infrastructure & Environment, LLC (Foth) field crew should consist of a pre-approved member of the Foth sediment sampling team and have adequate training and prior experience in the collection and processing of sediment samples. At least one person on the field crew shall have knowledge and prior experience using the vibrocore and a minimum of two years of sediment sampling field experience. All field personnel, including subcontractors, must have satisfied Occupational Safety and Health Administration (OSHA) training requirements (40 Code of Federal Regulations [CFR] 1910.120) if hazardous materials are expected. The Captain of the sampling vessel, which may be a Foth employee or a sub-contractor, shall have successfully completed a certified boater's safety course, or equivalent course offered by the U.S. Coast Guard (USCG)

Equipment and Supplies

Contractor Supplies

- Contractor workboat or vessel (work platform) with adequate anchoring or spuds to accurately remain on sample station.
- Contractor is responsible for vessel and non-Foth crew safety.
- Personal protective equipment (PPE) as required.
- On-board 12-volt pump, hose, and nozzle.
- Vibrocore apparatus, including mast, generator, electric winch, and hand winches.
- Core liners (3- or 4-inch outer diameter [OD]) (lengths depending on the length of core required) with core catchers.
- Core tube caps (two per core tube).
- Extra core catchers and rivets to attach catchers to core tubes.
- Core tube stand, or similar. Longer tubes may be strapped securely to barge/equipment/framing in vertical orientation while awaiting transport.
- Sediment probing rod of sufficient length to penetrate expected soft sediment thickness.
- Global Positioning System (GPS) capable of sub-centimeter or sub-meter accuracy.
- Lead Line apparatus or method of measuring depth from the deck.

Foth Supplies

- PPE as required by the Job Safety Analysis (JSA) and SOP, as applicable.
- Approved project documents, including SAP, work plan, SOPs, and JSA's.
- Decontamination/cleaning equipment (Alconox or similar), 5-gallon buckets as required for cleaning, scrub brush, deionized (DI) water.
- Hand tools, including cordless drill with quarter-inch drill bits, reciprocating saw, cordless electric shears, hammer, required wrenches, screwdrivers, and other miscellaneous tools.

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- A lead line consisting of a surveyor's tape attached to an anchor will be used as an equivalent in deep water (water exceeding 20 to 25 ft) and high-flow areas.
- Duct tape, clear gorilla tape, and electrical tape (several rolls).
- Steel tape measure with maximum 0.1-ft graduations.
- Stadia Rod with adequate length for maximum sediment core (maximum 0.1-ft graduations).
- Permanent markers and pen with waterproof ink.
- Dry erase board and markers or similar.
- Sand/Sediment Core Collection Processing Log, Field Log Book, and Unified Soil Classification System (USCS) Geotechnical Gauge.
- EQuIS® database system (if applicable).
- Waders (hip or chest waders) (if necessary).
- Digital camera or cell phone.
- Disposal aluminum pans or decontaminated stainless-steel bowls.
- Decontaminated stainless steel spoons.
- Paper towels.
- Disposable nitrile or powderless latex gloves.
- Dedicated processing utensils (i.e., tongue depressors, spoons, or putty knives).
- Bucket for excess/waste material.
- Plastic bags or sheeting and tarp.
- Table.
- Ice.
- Laboratory sampling jars/buckets with lab supplied coolers.

Procedures

Preparation Prior to Sampling

1. Compile all appropriate project documents (SAP, JSA, Sampling Logs, etc.).
2. Ensure all laboratory coordination is in place and courier pick-up times are known prior to launch.
3. Field personnel shall be equipped with real time tide observations via a verified National Oceanic and Atmospheric Administration (NOAA) Tide and Water Level Station. The closest available tide station to the project location shall be used (with confirmation from Foth survey team). If no station is available, or the nearest station does not offer real time observations, real-time kinematic positioning (RTK) GPS or project tide gauge shall be required by the subcontractor to obtain real-time deck elevations.

4. Contact the assigned USACE Environmental Resources and Marine Operations Section, per the SAP. USACE notification should be made as soon as the sampling event is scheduled to provide notification of anticipated field work schedule. A follow-up conformation should be sent 24 hours prior to the sampling event. USACE project contact shall be established per the SAP and prior to arrival on site.

5. Conduct a pre-launch "toolbox" safety talk and inventory supplies.

Obtaining Samples – General Considerations and Limitations

Subcontractor Core Retrieval Responsibility

1. The subcontractor is responsible for ensuring that all Digsafe/Call Before You Dig, or appropriate state specific agency, notification is complete prior to the sampling event.

2. The subcontractor is responsible for ensuring the sampling platform is anchored or spudded in-place adequately in order to accurately remain on the sampling station.

3. Vessel positioning shall be achieved using a GPS that has been calibrated on site using a known reference point. The required horizontal accuracy at each sample location shall be 10 ft or less. All coordinate data shall be reported in geographic North American Datum (NAD) 83 in both Easting and Northing and decimal degree format. The coordinates of the actual field sample location and the water surface elevation are obtained using GPS with a minimum of sub-meter horizontal accuracy and sub-centimeter vertical accuracy. The project specific SAP should be consulted to ensure accuracy requirements are met. Final sample locations should be recorded by the subcontractor.

4. The coring device shall be assembled with a new or decontaminated core tube length sized to the appropriate length based on sand or sediment thickness or the targeted core depth verified on site by Foth personnel. No sampling shall occur until the targeted core depth has been verified by Foth based on existing site conditions. It is prudent to prepare more core tubes (approximately 10 percent [%] to 20% more core tubes) than are required prior to the sampling event. If difficult sampling conditions are anticipated (e.g., presence of firm sand, gravel, cobbles, riprap, woody debris, etc.) additional core tubes shall be prepared prior to the sampling event to accommodate for possible damages incurred during the sampling effort. Subcontractors shall be aware of USACE refusal requirements prior to sampling. Per typical USACE standards, it shall be assumed that 75% recovery will be required and/or 6 attempts be made to achieve recovery. In the event recovery is not achieved, the highest percent recovery will be used, and a call shall be made to the USACE to confirm protocol. All attempts shall be stored on board the vessel until USACE direction is provided.

5. Prior to lowing the coring apparatus, the contractor shall perform a lead line (LL) measurement in order to confirm the mudline elevation. Foth shall perform an additional lead line consisting of a surveyor's tape attached to an anchor for quality assurance/quality control (QA/QC). The LL measurement shall produce the depth of water above the mudline. In order to translate this to mudline elevation, Foth shall subtract the tide reading, in MLLW, at the time of LL measurement (LL – Tide = Mudline Elevation in MLLW).

6. The length of the tube and vibrocore head shall be measured to the winch line. Physical measurements may be completed by the subcontractor and verified (observed) by Foth field personnel. A survey tape shall be attached to the top of the vibrocore head. Add the known LL reading to the distance of the working deck above the water (LL + Top of Deck = Length to Lower Vibrocore Apparatus). This distance shall be marked on the winch line/rod. All manual measurements should be verified and agreed to by Foth and the subcontractor prior to proceeding with additional sampling procedures.

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7. When the vibrocore is lowered with the winch, the mark shall be even with the floor. This should be the top of the sediment (mudline). An additional mark will be placed at the estimated core length prior to proceeding with sampling.

8. During coring/vibrating, the vibrocore tube shall be vertical in the water column and allowed to penetrate under the weight of the hammer by carefully reversing the winch. When the mark indicating the estimated core length is even with the floor, the bottom of the vibrocore tube will be at target depth, and the vibrocore can be raised using the winch. If recovery is encountered prior to attaining the target depth, the actual penetration depth should be marked and communicated to Foth for the record.

9. Once the core is brought near the floor of the working deck (or near the water surface), quickly inspect the bottom of the core tube to ensure material is not running out of the tube. If the material is beginning to escape, a cap shall be placed on the bottom of the core tube as soon as possible. The subcontractor shall be responsible for ensuring that there is minimal loss of sediment.

10. After removal of the core tube liner from the steel core tube barrel, caps shall be placed on the bottom (if not already in place) and top of the core tube liner. All caps shall be labeled with the time, tide, sample date, sample identification (ID), section ID, attempt number, sample penetration and recovery, and indication of top or bottom. Electrical tape, or similar, shall be placed around the caps to prevent leakage.

11. All core tubes shall be placed and secured in an upright position for a minimum of 15 minutes. Initial recovery and recovery after 15 minutes will be recorded by Foth personnel.

12. The subcontractor is responsible for adequate recovery of cores. Recovery of cores shall be determined by Foth while on the sampling vessel by measuring the sediment length in the recovered core after 15 minutes and comparing that value to the distance the core was advanced (i.e., the target core depth in Step 4 above, or the depth at which refusal was encountered, as communicated in Step 8 above). The recovery must meet guidelines established in the SAP. Unless otherwise specified in the SAP, recovery should be equal to 75% of the penetration after a minimum of 15 minutes. If the required recovery is not reached on the first attempt, save the first core, relocate the vessel (if necessary) and resample the location following the above listed procedures. Cores shall be taken until recovery is achieved or the number of attempts specified within the SAP (typically assume 6 attempts) are made. If recovery is not achieved, it is assumed the highest percent recovery shall be used. However, a call shall be made to the USACE to confirm acceptance. All additional cores shall be stored on the vessel until direction is provided by the USACE. After direction is given additional cores shall be disposed of properly.

13. If biological sampling is required, the above sampling procedures shall be performed along with the following additional measures:

    a. Samples shall be repeated within approximately 5 ft of the original location until an adequate volume of material is retained from the station to fulfill laboratory requirements. Full sampling procedure shall be followed for each sample and each penetration shall be completed using a new core liner.

    b. Sediment cores from each station shall be collected using inert core liners and may be transferred directly into food grade polyethylene pails after core recovery has been measured.

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c. All water samples shall be collected from the middle of the water column (or as specified in the project SAP) using either a non-contaminating pump or a discrete water sampler at the location(s) specified within the SAP.

Foth Core Retrieval Responsibilities

1. Upon arrival on station, the field sample location and GPS accuracy should be recorded in the Sediment Core Collection and Processing Log or field book. The recorded GPS accuracy should be the accuracy of the coordinates at each station as indicated by the subcontractor's positioning system. This can vary based on satellite constellation, age/source of corrections, etc. Accuracy should be recorded as the following values:

   a. Type of GPS unit (RTK, differential GPS [DGPS], etc.)
   b. Number of Satellites
   c. Horizontal Dilution
   d. Mode

2. Measure the depth to the mudline from the sampling deck platform using an LL, or similar device with no larger than 0.1-ft measurement graduations. In all cases when wave action is encountered, the midpoint of the fluctuating depth will be recorded as the mudline depth from the deck. Physical measurements may be completed by the subcontractor and verified (observed) by Foth field personnel. All manual measurements should be verified and agreed to by all sampling personnel prior to proceeding with additional sampling procedures.

3. The mudline depth will then be converted to elevation using the NOAA real-time water level observations from the nearest Tide Station. If no Tide Station is available, RTK GPS shall be used to obtain deck elevation at the time of LL measurement. The mudline elevation in feet MLLW will be calculated by taking the LL depth reading in feet, and subtracting the observed tide elevation in feet (*LL Depth [ft below water level] – Tide Elevation [ft MLLW] = Mudline Elevation [ft MLLW]*).

4. Once the mudline elevation is calculated, the estimated core length can be calculated by subtracting the existing mudline elevation from the design dredge elevation, including overdredge (OD) (*[Dredge Elevation + OD] – Mudline elevation = Estimated Core Length*). This measurement shall then be verified with the project SAP. In the event that the estimated mudline or core length varies significantly from the project SAP, the USACE shall be contacted to confirm. Factors such as date of survey, project site use, and site history shall be considered.

5. Foth personnel shall decontaminate the vibrocore catcher and shoe prior to assembly. Decontamination shall be achieved by mixing DI water and Alconox in a pump sprayer and washing down equipment. In the event that excess core liners are to be reused, decontamination or the core liner shall occur by Foth personnel prior to assembly.

6. The length of the tube and vibrocore head shall be measured to the winch line. Physical measurements may be completed by the subcontractor and verified (observed) by Foth field personnel. This length shall be recorded by Foth. A survey tape shall be attached to the top of the vibrocore head by the subcontractor.

7. Foth shall add the known depth to top of the sediment to the distance the working deck is above the water ([*LL + Top of Deck] – Vibrocore Apparatus Length = Depth to Lower Vibrocore Apparatus*). This distance shall be recorded by Foth and marked on the winch line/rod. All manual measurements should be verified and agreed to by Foth and the subcontractor prior to proceeding with additional sampling procedures.

8. Measure and record depth of core penetration and ease or difficulty of how the core barrel penetrated. All manual measurements should be verified and agreed to by all prior to pulling the vibrocore with the winch.

9. All core tubes shall be placed and secured by the subcontractor in an upright position for a minimum of 15 minutes. Initial recovery, and recovery after 15 minutes will be recorded by Foth personnel.

10. Once a distinguishable line is observed between the water column and sediment, drill one 0.75-inch hole into the side of the core liner approximately 1 to 2 inches above the sediment surface and allow the water to drain out. The 15-minute length of the sediment recovered in the core tube shall be measured and recorded by the Foth.

11. Determine the recovery while on the sampling vessel by measuring the sediment length in the recovered core after 15 minutes and comparing that value to the distance the core was advanced. The recovery must meet guidelines established in the SAP. Unless otherwise specified in the SAP, recovery should be equal to 75% of the penetration after a minimum of 15 minutes. If the required recovery is not reached on the first attempt, save the first core, relocate the vessel (if necessary) and resample the location following the listed procedures. Cores shall be taken until recovery is achieved or the number of attempts specified with the SAP (typically assume six attempts) are made. If recovery is not achieved, it is assumed the highest percent recovery shall be used. However, a call shall be made to the USACE to confirm procedure. All additional cores shall store on the vessel until direction is provided by the USACE. After direction is given, additional cores shall be disposed of properly.

12. Core tubes being processed on-site but not on board the vessel will be stored for no more than four hours (approximately one-half of the day) and placed vertically on the vessel unless cores are placed on ice. Cores will be brought to the designated processing center on site and processed before returning to collect the reminder of the cores for the day. The same process will be repeated for the afternoon cores. Cores in excess of 6 ft will be cut into two segments, with each segment labeled with depth and top/bottom indicators, to allow for storage prior to processing.

13. All components of the core retrieval equipment which come into contact with sediment shall be decontaminated between each core retrieval.

Processing Samples

Phase 1: Grain Size and Bulk Chemisty

1. All working surfaces and instruments (if not dedicated) will be thoroughly cleaned, decontaminated, and covered with plastic bags or sheeting, if possible, to minimize outside contamination between sampling events.

2. Disposable gloves will be discarded after processing each core interval and replaced prior to handling decontaminated instruments, next interval, or work surfaces.

3. Prior to processing, the top core cap will be removed, and any residual overlying water drained.

4. Following removal of any water, the core will be placed horizontal on a flat surface in a trough. A block, or similar, shall be placed under the top end of the core box to elevate the sample and prevent material running. Each side of the core barrel will be cut longitudinally using a cutting tool. Care will be taken not to penetrate the material while cutting.

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5. The core tube will be split to expose the material for sampling and a stadia rod will be placed with the zero at the top of the sediment surface and extended to the full recovery depth. The top layer of material which was in direct contact with the core tube shall be removed. Tongue depressors will be placed along any stratification points along the core.

6. If questionable stratification is observed by the Foth field engineer, the USACE New England District, Environmental Resources and Marine Operations Section should be notified prior to laboratory analysis shall be contacted for further guidance. USACE contact shall be established based on the project specific SAP and shall be known prior to beginning the sampling event. If a USACE staff representative is unavailable, then sub-samples shall be collected and provided to the lab for archive until USACE guidance can be obtained.

7. Prior to the start of sampling, the sampling crew shall be sure to confirm all volatile organic compound (VOC) collection requirements in the event of stratification with local and federal agencies. If VOC testing is required, samples should be taken immediately after exposing the sediment to air. VOC samples shall be collected from the location of greatest visual contamination (e.g., if there is a darker or oily looking area, collect the VOCs from there). However, if there are no signs of visual contamination, the sample should be taken from the area adjacent to the bottom of the core. If a core requires subsampling due to stratification, VOCs should be taken from the bottom layer within the core unless otherwise directed within the SAP. Should the USACE require VOCs, one VOC sample per sub-sampled interval may be required. VOCs in sub-sampled layers should be taken from the location with the most signs of visual contamination or if there is no visual contamination in the layer then it should be taken from the bottom of that layer (deepest elevation in that core layer). Depth of VOC sample collection should be recorded both in field book and as part of the Sample ID.

8. VOC samples shall be collected in in accordance with lab specified volumes utilizing the collection method provided by the lab and then placed in the vials provided by the lab that contain preservatives as soon as possible. All vials shall be wiped clean prior to sealing to ensure a tight seal on the container. VOC's shall be placed in the lab provided cooler on ice. Prior to sampling, VOC jar quantity and volumes shall be confirmed with the laboratory. Sampling crew to confirm if additional Total Suspended Solids (TSS) jars are required for analysis.

9. Prior to filling the remaining laboratory jars, digital color photographs of each core with an 8-megapixel (MP) (or greater) camera to document the undisturbed structure. Photographs will include the stadia rod and a white board or butcher paper with the core identification information (i.e., station ID, depth interval being represented, and date of core collection). Photographs should be taken in adequate lighting. Cores in excess of 3 ft should be photographed as a whole and then as zoomed-in shots to focus with overlapping sections no greater than 1 ft long throughout the length of the core. Photos will need to be taken in adequate lighting and angle so the entirety of the core is visible.

10. Once photographed, sediment within the core will be visually characterized and logged in ambient daylight conditions; and if lighting is inadequate to readily distinguish core constituent detail, supplemental lighting will be added if possible. A description of the core will be recorded on the Sediment Core Processing Log or field book for the following parameters, as appropriate:

    a. Date and time of core collection.

    b. Sample recovery (depth in feet of penetration compared to recovery).

    c. Physical material description along the entire length of the core, as described by ASTM procedures (ASTM D2488—*Standard Practice for Description and Identification of Soils*

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[Visual-Manual Procedure]) will be recorded, including USACE material type description, moisture content, density/consistency, color, odor, and visual evidence of impacts (e.g., hydrocarbon-like sheens).

d. Visual stratification, structure, and texture.

e. Vegetation and debris.

f. Biological activity (i.e., detritus, shells, tubes, bioturbation, and live or dead organisms).

g. Any other distinguishing characteristics or features.

11. Samples shall be collected in accordance with the intervals specified in the project planning documents. Rocks, twigs, leaves, and other debris will be removed prior to homogenization.

12. The sample segments will be collected using a stainless-steel spoon (or other decontaminated sampling equipment) to collect a relatively equal volume of sediment from the full target sample interval. Care shall be taken to avoid sampling sediment that was in direct contact with the sides of the core tube. Sample shall be placed in a disposable aluminum pan or decontaminated stainless-steel bowl and homogenized (i.e. thoroughly mixed) until a uniform color and consistency are achieved. Representative photograph(s) shall be taken of each sample in the aluminum pan or decontaminated stainless-steel bowl.

13. Sediment sample jars should be prepared by pre-labeling with sample ID, sample depth (if stratification occurs), date, time, sampler, and analysis (if not already completed by lab). All sample jars will have a piece of clear plastic tape placed over the label to ensure no smudging occurs. All labels shall be clear and legible.

14. Using a clean dedicated disposable glove on the hand or putty knife, completely fill pre-labeled sample containers. Should any material be submitted for frozen archival, at least one-half inch of air space shall be left void in the top of the sample container (to avoid breakage due to sediment expansion during freezing).

15. Immediately after filling the sample container with material, place the screw cap on the sample container(s) and tighten.

16. Thoroughly check all sample containers for proper identification, analysis type, and lid tightness. Place all samples of the same core, or stratification layer, within a clear plastic bag. Pack each bag carefully to prevent breakage, and place inside a cooler with enough ice to ensure that the proper temperature is maintained until lab retrieval.

17. In the event that both USACE Regional Implementation Manual (RIM) testing for offshore disposal and Massachusetts Department of Environmental Protection (MA DEP) upland testing are being collected, jars shall remain separate for each analysis. All USACE sample intervals shall be placed within a clear plastic bag and placed within a cooler designated for USACE samples. All MA DEP sample intervals shall be placed within a clear plastic bag and placed within a cooler designated for MA DEP samples.

18. Laboratory chain-of-custody (COC) forms shall be filled out prior to currier arrival on site. All forms shall detail the required analysis per the SAP as well as the samples being sent for analysis. In the event that both USACE RIM testing for offshore disposal and MA DEP upland testing are being collected, COCs shall remain separate for each analysis and completed in accordance with the SAP.

19. Sample hold times shall be coordinated with the lab prior to sediment collection. All samples shall be held for a minimum of six months to a year.

20. Reusable equipment should be cleaned and decontaminated for the next sampling event. Discarded equipment and PPE shall be disposed of in a proper waste receptacle. Excess material not sent for laboratory testing shall be disposed of by the contractor.

Phase 2: Biological

1. For Phase 2 sampling, the following sample data shall be collected recorded in a sampling log to provide to the USACE (Note that if any of the phase two cores are significantly different from the material that was sampled during phase one, a representative core should be photographed and described and the USACE should be consulted for guidance):

    a. Date and time.

    b. Latitude, longitude, and GPS accuracy.

    c. Measured water depth, tidal correction.

    d. Number of cores collected at each station, core lengths, and a general description of the sediment.

2. Core photograph will not be required for Phase 2 sampling, unless otherwise specified within the SAP. Sediment cores from each station shall be collected using inert core liners and may be transferred directly into food grade polyethylene pails provided by lab after core recovery has been measured.

3. Care shall be taken to keep the buckets cold while on the deck. Sediment shall be placed in the shade or covered when possible and transferred to the lab as soon as feasible.

4. If Elutriate sampling is required as part of the SAP, site water samples shall be taken from a central location of the site. Samples should be collected from the middle of the water column using either a non-contaminating pump or a discrete water sampler.

5. Coordination shall occur with the USACE to confirm if reference site biological samples are available within USACE archives based on the proposed sediment disposal location. (Example: it is not required to collect sediment or water samples from the Rhode Island Sound Disposal Site [RISDS], as the results of biological testing are typically compared to recent reference site data collected by the USACE.)

Documentation

Observations and quantitative data collected during implementation of this sampling procedure should be recorded in one of the Field Log Book and Sediment Core Collection and Processing Log. The EQuIS® database system (by EarthSoft) is another tool that provides data in a timelier manner if available.

The Sediment Core Collection and Processing Log (attached) will be completed for each core location. The log will contain the following information: location, date, time, personnel, weather conditions, latitude/longitude (or other appropriate coordinate system for the state where work is being conducted), make/model of GPS equipment used, water depth, top of sediment elevation, sediment thickness (if probing is conducted), core tube ID, sediment penetration, sediment recovery, and miscellaneous sampling information (i.e., problems encountered, etc.).

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Attachment 1
Example Field Log

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Attachment 2
Typical Regional Implementation Manual
Chain-of-Custody with Volatile Organic Compounds (Alpha)

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Attachment 3
Typical Massachusetts Department of Environmental Protection Chain-of-Custody with Volatile Organic Compounds (Alpha)

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Attachment 4
Typical Biological Chain-of-Custody (EA)

Attachment J

Certified Abutters List and Abutter Notification Form

HULL BOARD OF ASSESSORS

ABUTTERS LIST APPLICATION

DATE REQUESTED 12/7/23 - DATE PAID mailing in check

MINIMUM OF ONE (1) WORKING DAY REQUIRED TO PRODUCE LIST

SUBJECT PROPERTY ADDRESS 48 George Washington Boulevard

MAP 37 LOT 007 OWNER Town of Hull

REASON FOR ABUTTERS LIST

X CONSERVATION COMMISSION
_____ TRAILERS HEARINGS
ALL PARCELS WITHIN 100' OF LOT LINES

_____ ZONING BOARD OF APPEALS & SITE PLAN REVIEW
ALL PARCELS WITHIN 300' OF LOT LINES
TWO SETS OF LABELS – ONE RECORD CARD

_____ COMMON VICTUALER LICENSE
_____ LIQUOR LICENSE
_____ ENTERTAINMENT LICENSE
ABUTTERS 300' (STREETS ARE TRANSPARENT)

_____ OTHER _____

PROVIDE CRITERION FOR LIST

PERSON REQUESTING LIST Fiona Vardy

ADDRESS 114 Touro Street, Newport RI 02840

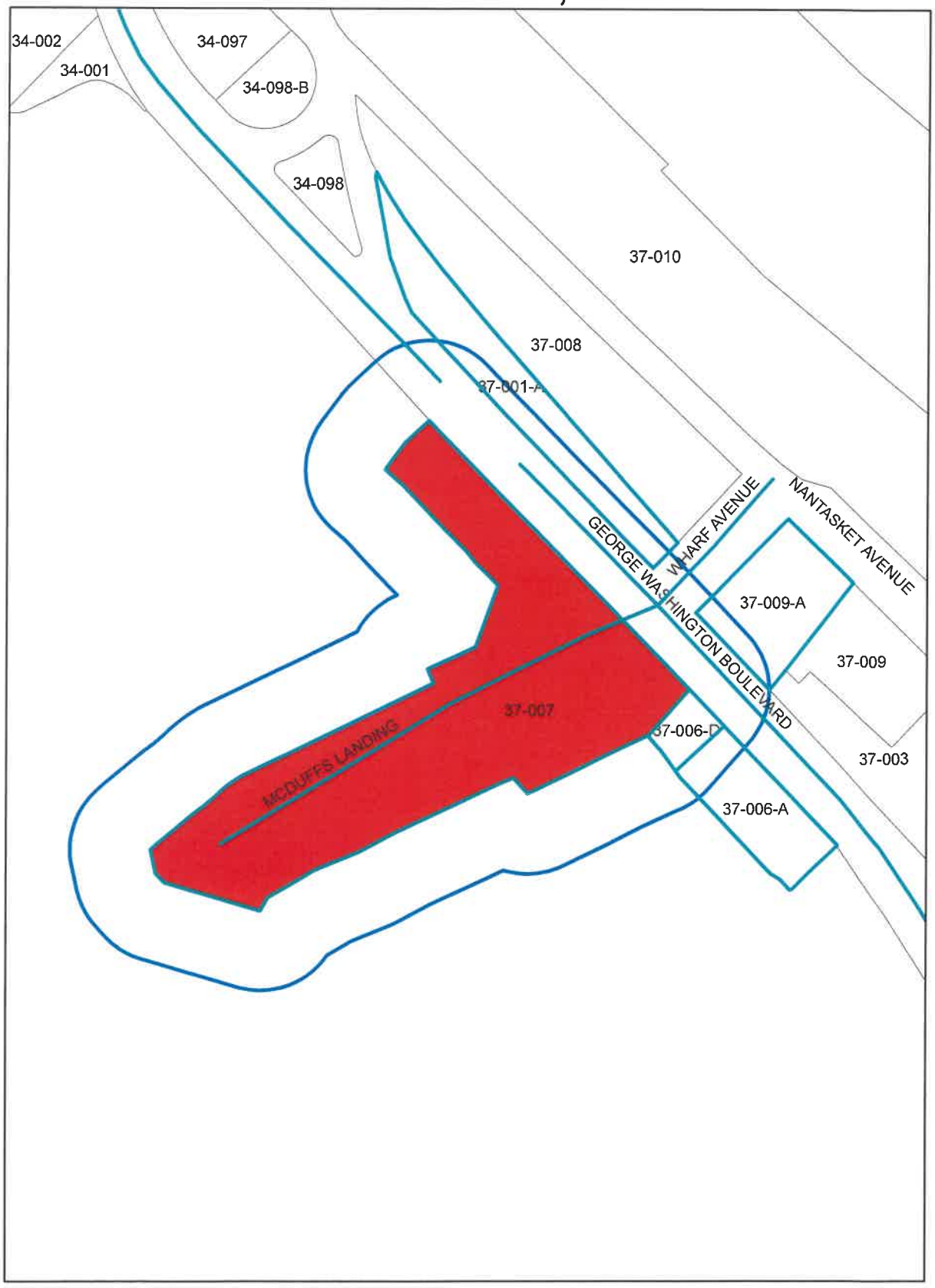
TELEPHONE 401-910-7720

LIST TO BE PICKED UP _____ MAILED X

Fiona.Vardy@Foth.com

48 GEO WASH BLVD 100 FT

DECEMBER 7, 2023



For assessment purposes only: not to be used in legal boundary descriptions

Patriot Properties

HULL

12/07/2023

2:21:11PM

Abutters List

HULL

Abutters List

Subject Parcel ID: ***37-007***

Subject Property Location:

	Location	Owner	Co-Owner	Mailing Address	City	State	Zip
3942	8 WHARF AVENUE	MA/DCR	REAL PROPERTY OFFICE	251 CAUSEWAY ST	BOSTON	MA	02114
3948	50 GEO WASH BLVD	BAYSIDE MARKETING SYSTEMS INC	C/O OBRIEN EDWARD	P O BOX 262	HULL	MA	02045
3951	46 GEO WASH BLVD	TOWN OF HULL		253 ATLANTIC AVE	HULL	MA	02045
3953	48 GEO WASH BLVD	STEAMBOAT WHARF MARINA INC.		48 GEO WASH BLVD	HULL	MA	02045
3956	1 WHARF AVENUE	MA/DCR	REAL PROPERTY OFFICE	251 CAUSEWAY ST	BOSTON	MA	02114

Parcel Count: **5**

End of Report

8 WHARF AVENUE HULL, MA 02045 37-001-A

LUC: 925

MA/DCR
REAL PROPERTY OFFICE
251 CAUSEWAY ST
BOSTON, MA 02114-0000

50 GEO WASH BLVD HULL, MA 02045 37-006-A

LUC: 326

BAYSIDE MARKETING SYSTEMS INC
C/O OBRIEN EDWARD
P O BOX 262
HULL, MA 02045-0000

46 GEO WASH BLVD HULL, MA 02045 37-006-D

LUC: 930

TOWN OF HULL
253 ATLANTIC AVE
HULL, MA 02045-0000

48 GEO WASH BLVD HULL, MA 02045 37-007

LUC: 384

STEAMBOAT WHARF MARINA INC.
48 GEO WASH BLVD
HULL, MA 02045-0000

1 WHARF AVENUE HULL, MA 02045 37-009-A

LUC: 901

MA/DCR
REAL PROPERTY OFFICE
251 CAUSEWAY ST
BOSTON, MA 02114-0000