Memorandum

to: Christine Player, VAI
date: June 5, 2009
from: Matt Grosschedl, VAI
RE: Salisbury Beach Access Opening Survey Summary

Christine,

The following is a summary of survey operation performed for the Salisbury Beach Access points on May 15, 2009 and June 4, 2009.

Record information regarding the locations of the access points was provided by the DCR in the form of copies of Land Court plans entitled "Plan of Land In Salisbury", prepared by C. B. Humphrey, dated June 10, 1933. No additional research was requested or performed beyond the Land Court plans provided by the DCR.

The access points staked out in the field represented the approximate seaward edge of the property lines at the fourteen public access ways located along Salisbury Beach. The access points were located in the field utilizing RTK GPS, with supplementary field survey utilizing a total station.

During the field survey, locations for several openings could not be accurately placed based on the provided record data due to conflicts with existing structures in the field. At the request of DCR, approximate limits of the access ways were staked out in the field based on visual observations at each opening. Locations of these access points were approximated utilizing existing fence lines, buildings, and or existing beach openings. Additional research and field survey would be required to more accurately locate the access points. These access ways include:

- Access Way #1 – 295 Atlantic Avenue
- Access Way #3 – Fowler Street
- Access Way #4 – Vermont Street
- Access Way #5 – Passageway
- Access Way #6 – 176 North End Blvd.
- Access Way #10 – 9th Street

The following is a summary of the field operations performed at each location:

1. **#1 295 Atlantic Avenue**

   Record information did not indicate location of this assess way. Points were set in field based on visual observation of existing access pathway through dune, and locations were recorded.

2. **#2 Murray Street**

   Set stakes at points and set 5' offset witness stakes.

3. **#3 Fowler Street**

   Record information conflicted with conditions in the field. Points were set in the field based on visual observations of the existing pathway between two existing structures, and locations were recorded.

4. **#4 Vermont Street**

   Record information conflicted with conditions in the field. Points were set in the field based on visual observations of the existing beach access opening, and locations were recorded.

5. **#5 Passageway**

   Record information conflicted with conditions in the field. Points were set in the field based on visual observations of the existing paved access way between two existing structures and existing beach access opening, and locations were recorded.

6. **#6 176 North End Blvd.**

   Record information conflicted with conditions in the field. Points were set in the field based on visual observations of the existing pathway between two existing structures, and locations were recorded.

7. **#7 Sullivan Way**

   Set 5' offset witness stakes. Set stake at northern point. Barrel still in place over southern point from prior location survey.

8. **#8 14th Street East**

   Set 5' offset witness stakes. Set stake at northern point. Barrel still in place over southern point from prior location survey.

9. **#9 Sea Crest**

   Set 5' offset witness stakes. Existing rebar at both points.

10. **#10 9th Street East**

    Record information conflicted with conditions in the field. Points were set in the field based on visual observations of the existing pathway between two existing structures and existing fence lines, and locations were recorded.

11. #11 7th Street East

Set stakes at points and set 5' offset witness stakes.

12. #12 Brookline Street

Set 5' offset witness stakes. Set stake at southern point. Barrel still in place over northern point from prior location survey.

13. #13 Beacon Street

Set 5' offset witness stakes. Barrels still in place over both points from prior location survey.

14. #14 – Bay State – State Line

Set stakes at points and set 5' offset witness stakes.

Conservation Commission
Town of Salisbury
5 Beach Road
Salisbury, Massachusetts 01952

Conservation
Michelle Rowden, Agent

(978) 499-0358
conservation@salisburyma.gov

Re: DEP No. 65-0905

July 29, 2009

Ron Silva
DCR:

Enclosed please find the WPA Form 5 - Order of Conditions for your project. Please read them carefully. Please note **G. Recording Information**, which states that the original order *must be recorded at the Registry of Deeds or Land Court prior to the start of any work*. A copy of the stamped cover page from the Registry must be returned to the Salisbury Conservation Office prior to the issuance of a building permit.

Should you have any questions do not hesitate to contact Agent Rowden.

Very truly yours,

Agnes Donovan
Conservation Commission Secretary

Enclosure

cc: C. Player
NHESP
DEP
Div. of Marine Fisheries

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

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

MassDEP File Number:

065-0905

A. General Information

1. From: Salisbury
Conservation Commission

2. This issuance is for (check one): a. ☒ Order of Conditions b. ☐ Amended Order of Conditions

3. To: Applicant:

a. First Name | b. Last Name

MA Dept of Conservation & Recreation
c. Organization

251 Causeway Street
d. Mailing Address

Boston | MA | 02114
e. City/Town | f. State | g. Zip Code

4. Property Owner (if different from applicant):

a. First Name | b. Last Name

c. Organization

d. Mailing Address

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

5. Project Location:

Salisbury Beach (Murray to Fowler) and Merrimack River
a. Assessors Map/Plat Number

Salisbury
b. City/Town

36/154 and 32
c. Assessors Map/Plat Number

137, 138, 140, 141, 144, 147 - 149, 151 - 158, 161, 162

Latitude and Longitude, if known:

e. Latitude | f. Longitude

6. Property recorded at the Registry of Deeds for (attach additional information if more than one parcel):

Essex
a. County

b. Certificate Number (if registered land)

c. Book

d. Page

7. Dates: 6/17/09 a. Date Notice of Intent Filed | 7/15/09 b. Date Public Hearing Closed | July 29, 2009 c. Date of Issuance

8. Final Approved Plans and Other Documents (attach additional plan or document references as needed):

See attached list...
a. Plan Title

b. Prepared By | c. Signed and Stamped by

d. Final Revision Date | e. Scale

Beach/Dune Nourishment and Maintenance Dredging Newburyport Harbor Fed Nav Project Notice of Intent | June 2009
g. Date

DEP# 065-0905

Department of Conservation and Recreation Beach/Dune Nourishment and Maintenance Dredging of the Newburyport Harbor

List of Approved Plans:

1. "Proposed Dredge Plan & Section Newburyport Harbor Entrance Channel" prepared by Vine Associates, Inc. dated June 2009 and stamped by Peter J. Williams.

2. "Proposed Fill Placement Plan and Sections Salisbury Beach State Reservation" prepared by Vine Associates, Inc. dated June 2009 and stamped by Peter J. Williams.

3. "Dune Planting, Fencing and Access Plan Salisbury Beach State Reservation" Figure A prepared by Vine Associates, Inc. dated June 2009.

B. Findings

1. Findings pursuant to the Massachusetts Wetlands Protection Act:

   Following the review of the above-referenced Notice of Intent and based on the information provided in this application and presented at the public hearing, this Commission finds that the areas in which work is proposed is significant to the following interests of the Wetlands Protection Act. Check all that apply:

a. ☐ Public Water Supply
b. ☒ Land Containing Shellfish
c. ☒ Prevention of Pollution
d. ☐ Private Water Supply
e. ☒ Fisheries
f. ☒ Protection of Wildlife Habitat
g. ☐ Groundwater Supply
h. ☒ Storm Damage Prevention
i. ☒ Flood Control

2. This Commission hereby finds the project, as proposed, is: (check one of the following boxes)

Approved subject to:

a. ☒ the following conditions which are necessary in accordance with the performance standards set forth in the wetlands regulations. This Commission orders that all work shall be performed in accordance with the Notice of Intent referenced above, the following General Conditions, and any other special conditions attached to this Order. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, these conditions shall control.

Denied because:

b. ☐ the proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations. Therefore, work on this project may not go forward unless and until a new Notice of Intent is submitted which provides measures which are adequate to protect these interests, and a final Order of Conditions is issued. **A description of the performance standards which the proposed work cannot meet is attached to this Order.**

c. ☐ the information submitted by the applicant is not sufficient to describe the site, the work, or the effect of the work on the interests identified in the Wetlands Protection Act. Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides sufficient information and includes measures which are adequate to protect the Act's interests, and a final Order of Conditions is issued. **A description of the specific information which is lacking and why it is necessary is attached to this Order as per 310 CMR 10.05(6)(c).**

Inland Resource Area Impacts: Check all that apply below. (For Approvals Only)

3. ☐ Buffer Zone Impacts: Shortest distance between limit of project disturbance and wetland boundary (if available) _____ a. linear feet

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
4. ☐ Bank	a. linear feet	b. linear feet	c. linear feet	d. linear feet
5. ☐ Bordering Vegetated Wetland	a. square feet	b. square feet	c. square feet	d. square feet
6. ☐ Land Under Waterbodies and Waterways	a. square feet	b. square feet	c. square feet	d. square feet
	e. c/y dredged	f. c/y dredged		

B. Findings (cont.)

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
7. ☐ Bordering Land Subject to Flooding	a. square feet	b. square feet	c. square feet	d. square feet
Cubic Feet Flood Storage	e. cubic feet	f. cubic feet	g. cubic feet	h. cubic feet
8. ☐ Isolated Land Subject to Flooding	a. square feet	b. square feet		
Cubic Feet Flood Storage	c. cubic feet	d. cubic feet	e. cubic feet	f. cubic feet
9. ☐ Riverfront area	a. total sq. feet	b. total sq. feet		
Sq ft within 100 ft	c. square feet	d. square feet	0 e. square feet	0 f. square feet
Sq ft between 100-200 ft	0 g. square feet	0 h. square feet	0 i. square feet	0 j. square feet

Coastal Resource Area Impacts: Check all that apply below. (For Approvals Only)

10. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below			
11. ☒ Land Under the Ocean	77,667 a. square feet	77,667 b. square feet		
	20,000 c. c/y dredged	20,000 d. c/y dredged		
12. ☒ Barrier Beaches	Indicate size under Coastal Beaches and/or Coastal Dunes below			
13. ☒ Coastal Beaches	274,466 a. square feet	274,466 b. square feet	30,762 c. c/y nourishmt.	30,762 d. c/y nourishmt.
14. ☒ Coastal Dunes	30,877 a. square feet	30,877 b. square feet	5,891 c. c/y nourishmt.	5,891 d. c/y nourishmt.
15. ☐ Coastal Banks	a. linear feet	b. linear feet		
16. ☐ Rocky Intertidal Shores	a. square feet	b. square feet		
17. ☐ Salt Marshes	a. square feet	b. square feet	c. square feet	d. square feet
18. ☐ Land Under Salt Ponds	a. square feet	b. square feet		
	c. c/y dredged	d. c/y dredged		
19. ☐ Land Containing Shellfish	a. square feet	b. square feet	c. square feet	d. square feet
20. ☒ Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above			
	20,000 a. c/y dredged	20,000 b. c/y dredged		
21. ☒ Land Subject to Coastal Storm Flowage	a. square feet	b. square feet		

C. General Conditions Under Massachusetts Wetlands Protection Act

(only applicable to approved projects)

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Order.

2. The Order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.

3. This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.

4. The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:
   a. the work is a maintenance dredging project as provided for in the Act; or
   b. the time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.

5. This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order.

6. Any fill used in connection with this project shall be clean fill. Any fill shall contain no trash, refuse, rubbish, or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles, or parts of any of the foregoing.

7. This Order is not final until all administrative appeal periods from this Order have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed.

8. No work shall be undertaken until the Order has become final and then has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of the registered land, the Final Order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done. The recording information shall be submitted to this Conservation Commission on the form at the end of this Order, which form must be stamped by the Registry of Deeds, prior to the commencement of work.

9. A sign shall be displayed at the site not less then two square feet or more than three square feet in size bearing the words,

"Massachusetts Department of Environmental Protection" [or, "MassDEP"]

"File Number 065-0905 "

C. General Conditions Under Massachusetts Wetlands Protection Act

10. Where the Department of Environmental Protection is requested to issue a Superseding Order, the Conservation Commission shall be a party to all agency proceedings and hearings before MassDEP.

11. Upon completion of the work described herein, the applicant shall submit a Request for Certificate of Compliance (WPA Form 8A) to the Conservation Commission.

12. The work shall conform to the plans and special conditions referenced in this order.

13. Any change to the plans identified in Condition #12 above shall require the applicant to inquire of the Conservation Commission in writing whether the change is significant enough to require the filing of a new Notice of Intent.

14. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Order at reasonable hours to evaluate compliance with the conditions stated in this Order, and may require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.

15. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order and to any contractor or other person performing work conditioned by this Order.

16. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation Commission.

17. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Conservation Commission, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.

18. **The work associated with this Order is** (1) ☒ **is not** (2) ☐ **subject to the Massachusetts Stormwater Policy Standards. If the work is subject to the Stormwater Policy, the following conditions apply to this work and are incorporated into this Order:**

    a) No work, including site preparation, land disturbance, construction and redevelopment, shall commence unless and until the construction period pollution prevention and erosion and sedimentation control plan required by Stormwater Standard 8 is approved in writing by the issuing authority. Until the site is fully stabilized, construction period erosion, sedimentation and pollution control measures and best management practices (BMPs) shall be implemented in accordance with the construction period pollution prevention and erosion and sedimentation control plan, and if applicable, the Stormwater Pollution Plan required by the National Discharge Elimination System Construction General Permit.

C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

b) No stormwater runoff may be discharged to the post-construction stormwater BMPs until written approval is received from the issuing authority. To request written approval, the following must be submitted: illicit discharge compliance statement required by Stormwater Standard 10 and as-built plans signed and stamped by a registered professional engineer certifying the site is fully stabilized; all construction period stormwater BMPs and any illicit discharges to the stormwater management system have been removed; and all post-construction stormwater BMPs were installed in accordance with the plans (including all planting plans) approved by the issuing authority, and have been inspected to ensure they are not damaged and will function properly.

c) Prior to requesting a Certificate of Compliance, the responsible party (defined in General Condition 18(e)) shall submit to the issuing authority an Operation and Maintenance (O & M) Compliance Statement for the Stormwater BMPs. This Statement shall identify the responsible party for implementing the Operation and Maintenance Plan and also state that: 1. "Future responsible parties shall be notified in writing of their continuing legal responsibility to operate and maintain the stormwater management BMPs and implement the Pollution Prevention Plan; and 2. The Operation and Maintenance Plan for the stormwater BMPs is complete and will be implemented upon receipt of the Certificate."

d) Post-construction pollution prevention and source control shall be implemented in accordance with the long-term pollution prevention plan section of the approved Stormwater Report and, if applicable, the Stormwater Pollution Prevention Plan required by the National Discharge Elimination System Multi-Sector General Permit.

e) Unless and until another party accepts responsibility, the issuing authority shall presume that the responsible party for maintaining each BMP is the landowner of the property on which the BMP is located. To overcome this presumption, the landowner of the property must submit to the issuing authority a legally binding agreement acceptable to the issuing authority evidencing that another entity has accepted responsibility for maintaining the BMP, and that the proposed responsible party shall be treated as a permittee for purposes of implementing the requirements of Conditions 18(f) through 18(k) with respect to that BMP. Any failure of the proposed responsible party to implement the requirements of Conditions 18(f) through 18(k) with respect to that BMP shall be a violation of the Order of Conditions or Certificate of Compliance. In the case of stormwater BMPs that are serving more than one lot, the legally binding agreement shall also identify the lots that will be serviced by the stormwater BMPs. A plan and easement deed that grants the responsible party access to perform the required operation and maintenance must be submitted along with the legally binding agreement.

f) The responsible party shall operate and maintain all stormwater BMPs in accordance with the design plans, the Operation and Maintenance Plan section of the approved Stormwater Report, and the Massachusetts Stormwater Handbook.

g) The responsible party shall:
1. Maintain an operation and maintenance log for the last three years including inspections, repairs, replacement and disposal (for disposal the log shall indicate the type of material and the disposal location);
2. Make this log available to MassDEP and the Conservation Commission upon request; and
3. Allow members and agents of the MassDEP and the Conservation Commission to enter and inspect the premises to evaluate and ensure that the responsible party complies with the Operation and Maintenance requirements for each BMP set forth in the Operations and Maintenance Plan approved by the issuing authority.

h) All sediments or other contaminants removed from stormwater BMPs shall be disposed of in accordance with all applicable federal, state, and local laws and regulations.

i) Illicit discharges to the stormwater management system as defined in 310 CMR 10.04 are prohibited.

C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

j) The stormwater management system approved in the Final Order of Conditions shall not be changed without the prior written approval of the issuing authority. Areas designated as qualifying pervious areas for purpose of the Low Impact Site Design Credit shall not be altered without the prior written approval of the issuing authority.

k) Access for maintenance of stormwater BMPs shall not be obstructed or blocked. Any fencing constructed around stormwater BMPs shall include access gates. Fence(s) shall be at least six inches above grade to allow for wildlife passage.

Special Conditions (if you need more space for additional conditions, please attach a text document):

Please See Attached Document.

D. Findings Under Municipal Wetlands Bylaw or Ordinance

1. Is a municipal wetlands bylaw or ordinance applicable? ☐ Yes ☒ No
2. The Salisbury Conservation Commission hereby finds (check one that applies):
   a. ☐ that the proposed work cannot be conditioned to meet the standards set forth in a municipal ordinance or bylaw specifically:

      1. Municipal Ordinance or Bylaw _____ 2. Citation _____

      Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides measures which are adequate to meet these standards, and a final Order of Conditions is issued.

   b. ☐ that the following additional conditions are necessary to comply with a municipal ordinance or bylaw:

      1. Municipal Ordinance or Bylaw _____ 2. Citation _____

3. The Commission orders that all work shall be performed in accordance with the following conditions and with the Notice of Intent referenced above. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, the conditions shall control.
   The special conditions relating to municipal ordinance or bylaw are as follows (if you need more space for additional conditions, attach a text document):

Special Conditions

Applicant: MA Dept. of Conservation and Recreation
Address: Merrimack River, Salisbury Beach from Jetty to Fowler St.
DEP File #: 065-0905

19. The Conservation Commission (Commission) shall be notified in writing at the time of any transfer in the title to the property or any change in contractor/developers prior to the issuance of the Certificate of Compliance. The name, address and telephone number of the new owner shall be included in the notification, as well as certification that the new owner has been provided with a copy of this Order of Conditions.

Pre-Construction Conditions

Prior to the commencement of construction, the applicant shall:

20. Arrange for a pre-construction meeting with the Conservation Commission or its Agent no less than 72 hours prior to the commencement of work. Commencement of work includes any site clearing or grading. The purpose of this meeting is to review all conditions of this Order of Conditions with the applicant, contractor and sub-contractors as appropriate to ensure they are understood.

21. Provide to the Commission the name, address and telephone number of the person immediately responsible for supervision of all work, and maintaining compliance with this Order of Conditions. This person shall serve as ***project manager*** until a Certificate of Compliance is issued, or until another project manager is designated. Should the project manager change during the course of the project, the Commission shall be notified as soon as practical of this change.

22. Inform ***all*** contractors and subcontractors of the conditions and provisions of this Order. This Order shall be included in all construction contracts and subcontracts dealing with the work and shall supersede other contract requirements.

23. The limits of work in the field shall be clearly marked and all workers shall be instructed not to work beyond the limits.

24. The Commission shall be notified 24 hours in advance of the commencement of work at the site.

Construction Conditions

During the Construction Phase of this project:

25. Accepted engineering and construction standards shall be followed in the conduct of all work.

26. No excavated material shall be disposed of in violation of any local, state or federal laws.

27. Equipment storage, maintenance and refueling areas shall be located at least 100 feet from resource areas or as otherwise approved by the Commission.

28. Any de-watering activities at the site shall make use of a de-watering filter, stilling basin or settling basin to remove sediment prior to discharge into resource areas.

29. During and after work on this project, there shall be no discharge or spillage of fuel, oil, or other pollutants into any part of the site governed by this Order.

30. As soon as possible, all disturbed areas shall be bought to final grade and shall be permanently stabilized within 30 days of that time by measures acceptable to the Commission.

31. The project manager shall submit to the Conservation Commission, during construction and until a Certificate of Compliance is issued, monthly written status reports prepared by a professional competent in such evaluation, summarizing the work that has been completed and compliance with the Order of Conditions. Such reports shall be submitted by the last day of each month.

32. Any resource areas (other than that which is covered by the approved plans) that are disturbed during construction are to be restored immediately, in accordance with a plan prepared by a professional coastal scientist and approved by the Conservation Commission.

33. Failure to comply with all Conditions shall constitute sufficient grounds for the Commission to order all work to cease until compliance is achieved.

34. At least a portion of the southern parking lot designated as a staging area shall be kept open for the public during the project.

35. Applicant shall adhere to the following conditions as stated by the Division of Fisheries and Wildlife:

a. *Shorebird Monitoring and Protection Plan* that includes the following:

1. Each year, beginning April 1, a qualified shorebird monitor approved in writing by the NHESP shall determine whether territorial or nesting Piping Plovers or Terns are present at beach nourishment areas and if so, shall erect and maintain warning signs and symbolic fencing to protect nesting habitat and nests from disturbance or human-caused mortality.

2. Monitoring shall occur at least 2 times per week until at least July 1. However, if plovers or terns are found to be using the site, then monitoring frequency shall be increased to at least 3 times per week, and shall continue until all nesting and brood-rearing activity has been completed.

3. The applicant shall notify the NHESP prior to the start of work in the first year and before January 1st for each subsequent year as to what arrangements have been made for the aforementioned monitoring and site protection to occur. This notification shall include a written contract, memorandum of agreement, or some other formal written agreement with the individual(s) or organization that will undertake monitoring and protection efforts in the field.

4. A report shall be submitted to the NHESP each year, on or before September 30, on standard census forms provided by NHESP, that summarizes the results of the state-listed species monitoring and site protection activities.

b. Revised Plans for Nourishment Area. Please submit revised plans illustrating proposed vegetative plantings and sand fencing in the nourishment area.

Post Construction Conditions

The following conditions shall survive the Order of Conditions and remain in effect in perpetuity:

36. Prior to the issuance of a Certificate of Compliance, the applicant shall submit to the Conservation Commission for review and approval an ***as-built*** plan of the project, signed and stamped by a professional engineer. This plan shall be accompanied by a letter from the engineer of record stating whether the project has been constructed in accordance with approved plans, and if not, what deviations have been made from the approved plans.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

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

Provided by MassDEP:
065-0905
MassDEP File Number

Document Transaction Number
Salisbury
City/Town

E. Signatures and Notary Acknowledgement

This Order is valid for three years, unless otherwise specified as a special condition pursuant to General Conditions #4, from the date of issuance.
Please indicate the number of members who will sign this form.
This Order must be signed by a majority of the Conservation Commission.

July 29, 2009
1. Date of Issuance

Five
2. Number of Signers

The Order must be mailed by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate Department of Environmental Protection Regional Office, if not filing electronically, and the property owner, if different from applicant.

Signatures:

7/15/2009
7/15/2009
7/15/2009
7/15/2009
7-15-09

Notary Acknowledgement

Commonwealth of Massachusetts County of Essex

On this 15th Day of July Month 2009 Year

Before me, the undersigned Notary Public, personally appeared Sheila Albertelli
Name of Document Signer

proved to me through satisfactory evidence of identification, which was/were

Personally known to me
Description of evidence of identification

to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he/she signed it voluntarily for its stated purpose.

As member of Salisbury City/Town Conservation Commission

AGNES H DONOVAN
Notary Public
Commonwealth of Massachusetts
My Commission Expires
February 1, 2013

Signature of Notary Public

Agnes H. Donovan
Printed Name of Notary Public

February 1, 2013
My Commission Expires (Date)

Place notary seal and/or any stamp above.

This Order is issued to the applicant as follows:

☐ by hand delivery on
Date

☒ by certified mail, return receipt requested, on July 29, 2009
Date

Vint 7007 2680 0002 0955 1088
DEP 71009 0080 0001 2793

F. Appeals

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate MassDEP Regional Office to issue a Superseding Order of Conditions. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request of Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant. Any appellants seeking to appeal the Department's Superseding Order associated with this appeal will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order or Determination, or providing written information to the Department prior to issuance of a Superseding Order or Determination.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40), and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.

Section G, Recording Information is available on the following page.

G. Recording Information

This Order of Conditions must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Conditions. The recording information on this page shall be submitted to the Conservation Commission listed below.

Salisbury
Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

Salisbury
Conservation Commission

Please be advised that the Order of Conditions for the Project at:

Project Location

065-0905
MassDEP File Number

Has been recorded at the Registry of Deeds of:

County | Book | Page

for:

Property Owner

and has been noted in the chain of title of the affected property in:

Book | Page

In accordance with the Order of Conditions issued on:

Date

If recorded land, the instrument number identifying this transaction is:

Instrument Number

If registered land, the document number identifying this transaction is:

Document Number

Signature of Applicant

EOEA NO. 13503
PLUM ISLAND AND SALISBURY BEACH NOURISHMENT
NEWBURYPORT HARBOR FEDERAL NAVIGATION PROJECT
NEWBURYPORT, NEWBURY, SALISBURY, MASSACHUSETTS

NOTICE OF PROJECT CHANGE

Submitted to:

SECRETARY OF ENERGY & ENVIRONMENTAL AFFAIRS
MASSACHUSETTS ENVIRONMENTAL POLICY ACT OFFICE
100 CAMBRIDGE STREET
BOSTON, MASSACHUSETTS 02114

Prepared for:

MA DEPARTMENT OF CONSERVATION AND RECREATION
251 CAUSEWAY STREET, SUITE 600
BOSTON, MASSACHUSETTS 02114

Prepared by:

Vine ASSOCIATES, INC

372 MERRIMAC STREET
NEWBURYPORT, MA 01950

190 OLD DERBY STREET
SUITE 311
HINGHAM, MASSACHUSETTS 02043

18 BEACH STREET
P.O. BOX 555
MONUMENT BEACH, MA 02553

JUNE 2009

June 15, 2009

Mr. Ian A. Bowles
Secretary of the Executive Office
Of Energy and Environmental Affairs
100 Cambridge Street
Boston, MA 02114

Waterfront Engineering Consultants
Vine ASSOCIATES, INC.
190 Old Derby Street
Suite 211
Hingham
Massachusetts
02043
tel: (781) 749-3330
fax: (781) 749-3331

Attn: MEPA Unit

Re: EIR Waiver Request
Plum Island and Salisbury Beach Nourishment
Newburyport Harbor Federal Navigation Project
Newburyport, Newbury & Salisbury, MA
EOEA# 13503

Dear Secretary Bowles:

On behalf of the Department of Conservation and Recreation (DCR), Vine Associates, Inc. (VAI) is hereby submitting a Notice of Project Change (NPC) and a request for a waiver from the requirement for preparation of an Environmental Impact Report (EIR) for performing beach/dune nourishment at Plum Island and the Salisbury Beach State Reservation as part of the Newburyport Harbor Federal Navigation Project (FNP). Included with the EIR waiver request and the enclosed NPC forms are the following: a Project Narrative that explains the proposed project changes, as well as the larger overall project; a copy of the Secretary's Certificate on the Environmental Notification Form (ENF) issued on this project under EOEA No. 13503; the previously-reviewed plans; the currently-proposed plans; a U.S.G.S. topographic map indicating the project location; and a distribution list for circulation of this NPC.

This NPC is being filed for the change in dredging disposal areas from the existing Nearshore Disposal sites to two (2) beach/dune nourishment sites located in Newbury and Salisbury. The proposed project will be conducted by the U.S. Army Corps of Engineers (USACE) and will include the direct placement of approximately 160,000 cubic yards (CY) of sediments dredged from the federal entrance channel along eroded beach/dune areas at Plum Island (120,000 CY) and Salisbury Beach (40,000 CY). Over the past several years, both Plum Island and Salisbury Beach have been subjected to significant erosion, thus warranting the need for immediate direct placement of dredge sediments along beach/dune areas rather than placement at the adjacent nearshore disposal sites which have been

historically used for the FNP. As part of the proposed project, a total of approximately 22.0 acres of beach/dune nourishment will be conducted at Plum Island (13.5 acres) and Salisbury Beach (8.5 acres). As such, the proposed project is categorically included for preparation of an EIR pursuant to 301 CMR 11.03(3), as it will alter ten (10) or more acres of a resource area protected under the Wetlands Protection Regulations (310 CMR 10.00). However, these impact areas reflect a significant reduction in impacts to resource areas, from the originally-proposed impact of 34.4 acres at the extended Nearshore Disposal Site off Plum Island to 22.0 acres of beach and dune nourishment.

This project has undergone review by the Massachusetts Environmental Policy Act (MEPA) office on several occasions within the past 20 years. In 1987, an ENF was filed under EOEA No. 6429 for the maintenance dredging of the FNP which included nearshore disposal of channel sediments adjacent to Plum Island. In 1996, an NPC was filed under EOEA No. 6429 to include the nearshore disposal of channel sediments along Salisbury Beach. In 2005, an ENF was filed under EOEA No. 13503 for a 1,500 foot extension to the most southerly boundary of the nearshore disposal site at Plum Island, as a viable disposal option for the maintenance dredging of the Newburyport Harbor FNP. Under all prior filings to MEPA, it was determined that an Environmental Impact Report (EIR) was not required.

The MEPA Regulations (301 CMR 11.18) provide that a waiver from any provision of the regulations may be granted upon a finding by the Secretary that strict compliance with the regulations would result in undue hardship and would not serve to minimize or avoid damage to the environment. It is our contention that the preparation of an EIR for this project would result in an undue hardship caused by delays that would allow for continued erosion. According to the USACE Section 204 Study conducted for this project, Plum Island and other local beaches in the area surrounding Newburyport Harbor have sustained coastal storm damages and have experienced localized, acute, erosion rates along the beach face exposed to the Atlantic Ocean. The annual coastal erosion rate has been estimated at 13 feet per year, far in excess of the long-term average for this region. Any delay in moving forward with the proposed project may result in devastating impacts to over 50 properties that are located within/adjacent to proposed nourishment areas. In addition to property damage, existing public roadways and utilities may also be damaged or lost. In November 2008, a private home was lost due the erosion that is occurring within the proposed nourishment area at Plum Island. In April 2007, Salisbury Beach suffered significant erosion as a result of the Patriot's Day storm, resulting in emergency action by the State to place over 20,000 CY of sand along 1,200 linear feet (LF) of severely eroded dune. The

proposed project will extend an additional 1,200 to 1,400 LF to the 2007 emergency nourishment effort conducted by DCR.

Conducting an EIR would result in further expense to the State without further minimizing or avoiding impacts to the environment. It is our belief that in this case, the preparation of an EIR would not serve to minimize or avoid damage to the environment because of the extensive level of effort already expended on developing a project approach which examines and minimizes or mitigates all potential adverse impacts. Furthermore, the proposed project has been approved to utilize Federal Stimulus funds. Any delay in construction beyond this upcoming dredging season will result in the loss of these funds and likely postpone the project indefinitely.

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. Attached to this NPC submittal, as Attachment 4, is the Project Narrative. The narrative includes descriptions of the project site, findings of sediment analyses, proposed plans, alternative analyses and review of resource areas and the associated impacts resulting from the direct placement of dredge sediments along beach/dune areas at Plum Island and Salisbury Beach.

A draft Environmental Assessment Report (EA) has also been prepared by the USACE for the evaluation for the beneficial reuse of dredge material for nourishment at Plum Island and Salisbury Beach. The EA is presently under review by federal agencies including the U. S. Environmental Protection Agency (USEPA), U. S. Fish and Wildlife Service (USFWS), and National Marine Fisheries (NMFS); state agencies, the Department of Environmental Protection (DEP), the Office of Coastal Zone Management (CZM) and the Division of Marine Fisheries (DMF). This review process is quite similar to the review process for Draft and Final EIRs, relative to regulatory agency involvement. The draft EA concludes a 'Finding of No Significant Impact' for the proposed project.

Lastly, post-construction management at both Salisbury Beach and Plum Island will be performed in accordance with approved beach management plans for these sites. These beach management plans establish guidelines for coastal resource protection through appropriate management practices, in order to establish a framework in which DCR, the Town of Newbury and the City of Newburyport can conduct sustainable recreation planning, facility improvements and maintenance activities. DCR already has an approved/active beach management plan in place for Salisbury Beach. The City of Newburyport and Town of Newbury anticipate having their beach management plans in place for Plum Island within the next few months and prior to implementation of the FNP. Several regulatory

agencies, including DEP, CZM, the Natural Heritage Endangered Species Program (NHESP), USFWS, DCR and the local Conservation Commissions, have all participated in the development/review of these beach management plans.

Based upon the above, VAI believes that the planning, investigative and procedural reviews undertaken in the preparation of the NPC, the USACE draft EA report and the Salisbury Beach and Plum Island Beach Management Plans provides an extensive and thorough investigation of resources, and that the resulting measures for the beneficial reuse of dredge sediments for beach/dune nourishment will minimize impacts to natural resources.

If you have any questions regarding this request, please feel free to contact me at (781) 749-2530 x202 or via email at cplayer@vineassociates.net.

Sincerely,
VINE ASSOCIATES, INC.

Christine M. Player

Christine M. Player
Principal

Enclosure (1)

Cc: Raul Silva, DCR Deputy Chief Engineer
NPC Distribution List

EOEA NO. 13503
NOTICE OF PROJECT CHANGE

PLUM ISLAND AND SALISBURY BEACH NOURISHMENT
NEWBURYPORT HARBOR FEDERAL NAVIGATION PROJECT
NEWBURYPORT, NEWBURY, SALISBURY, MASSACHUSETTS

TABLE OF CONTENTS

Commonwealth of Massachusetts
Executive Office of Environmental Affairs ■ MEPA Office

For Office Use Only *Executive Office of Environmental Affairs*
MEPA Analyst:
Phone: 617-626-

NPC

Notice of Project Change

The information requested on this form must be completed to begin MEPA Review of a NPC in accordance with the provisions of the Massachusetts Environmental Policy Act and its implementing regulations (see 301 CMR 11.10(1)).

Project Name: Plum Island and Salisbury Beach Nourishment Newburyport Harbor Federal Navigation Project		EOEA #:13503
Street: Plum Island and Salisbury Beach		
Municipality: Newburyport, Newbury, Salisbury	Watershed: N/A	
Universal Tranverse Mercator Coordinates: N 4744762.4 to N 47400312 E 351635.3 to E352143.0	Latitude: 42°50'21"N to 42°47'54"N Longitude: 70°48'55"W to 70°48'29"W	
Status of project construction: 0 %complete		
Proponent: MA Department of Conservation and Recreation		
Street: 251 Causeway Street, Suite 600		
Municipality: Boston	State: MA	Zip Code: 02114
Name of Contact Person From Whom Copies of this NPC May Be Obtained: Christine M. Player		
Firm/Agency: Vine Associates Inc.	Street: 190 Old Derby Street	
Municipality: Hingham	State: MA	Zip Code: 02043
Phone: 781-749-2530 x202	Fax: 781-749-2751	E-mail: cplayer@vineassociates.net

In 25 words or less, what is the project change? The project change involves . . . change disposal locations from extended Nearshore Disposal Site to beach/dune nourishment in Plum Island and Salisbury Beach, MA. Change from hopper dredge to hydraulic dredging.

See full project change description beginning on page 3.

Date of ENF filing or publication in the Environmental Monitor: 4/09/2005

Was an EIR required? ☐Yes ☒No; if yes,
was a Draft EIR filed? ☐Yes (Date:) ☐No
was a Final EIR filed? ☐Yes (Date:) ☐No
was a Single EIR filed? ☐Yes (Date:) ☐No

Have other NPCs been filed? ☐Yes (Date(s):) ☒No

If this is a NPC solely for lapse of time (see 301 CMR 11.10(2)) proceed directly to **"ATTACHMENTS & SIGNATURES"** on page 4.

PERMITS / FINANCIAL ASSISTANCE / LAND TRANSFER

List or describe all new or modified state permits, financial assistance, or land transfers not previously reviewed: new Chapter 91 permit; MESA review

Are you requesting a finding that this project change is insignificant? (see 301 CMR 11.10(6))
☐Yes ☒No; if yes, attach justification.

Are you requesting that a Scope in a previously issued Certificate be rescinded?
☐Yes ☒No; if yes, attach the Certificate

Are you requesting a change to a Scope in a previously issued Certificate? ☐Yes ☒No; if yes, attach Certificate and describe the change you are requesting:

Summary of Project Size & Environmental Impacts	Previously reviewed	Net Change	Currently Proposed
LAND			
Total site acreage	34.4	-12.4	22.0
Acres of land altered	0	0	0
Acres of impervious area	0	0	0
Square feet of bordering vegetated wetlands alteration	0	0	0
Square feet of other wetland alteration	1,500,000 SF LUO (Land Under Ocean)	-1,334,976 LUO 79,412 Coastal Dune (nourishment) 654,953 SF Coastal Beach (nourishment)/ 46,746 SF (temp.) Overall impact reduction -600,611 SF (temp. impacts not included)	165,024 SF LUO 79,412 SF Coastal Dune (nourishment) 654,953 SF Coastal Beach (nourishment)/ 46,746 SF (temp.) Total: 899,389 SF/ 46,746 SF (temp.)
Acres of non-water dependent use of tidelands or waterways	0	0	0
STRUCTURES			
Gross square footage	N/A	N/A	N/A
Number of housing units	N/A	N/A	N/A
Maximum height (in feet)	N/A	N/A	N/A
TRANSPORTATION			
Vehicle trips per day	N/A	N/A	N/A
Parking spaces	N/A	N/A	N/A
WATER/WASTEWATER			
Gallons/day (GPD) of water use	N/A	N/A	N/A
GPD water withdrawal	N/A	N/A	N/A
GPD wastewater generation/ treatment	N/A	N/A	N/A
Length of water/sewer mains (in miles)	N/A	N/A	N/A

Does the project change involve any new or modified:

1. conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97? ☐Yes ☒No

2. release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction? ☐Yes ☒No

3. impacts on Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities? ☒Yes ☐No

4. impact on any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?
☐Yes ☒No; if yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources? ☐Yes ☐No

5. impact upon an Area of Critical Environmental Concern? ☐Yes ☒No

If you answered 'Yes' to any of these 5 questions, explain below:

PROJECT CHANGE DESCRIPTION (attach additional pages as necessary). The project change description should include:

(a) a brief description of the project as most recently reviewed

(b) a description of material changes to the project as previously reviewed,

(c) the significance of the proposed changes, with specific reference to the factors listed 301 CMR 11.10(6), and

(d) measures that the project is taking to avoid damage to the environment or to minimize and mitigate unavoidable environmental impacts. If the change will involve modification of any previously issued Section 61 Finding, include a proposed modification of the Section 61 Finding (or it will be required in a Supplemental EIR).

This project originally underwent review by the MEPA Office through the submittal of an Environmental Notification Form (ENF) in April 2005 (EOEA #13503) for the extension of the existing Nearshore Disposal Site off Plum Island. The extension was 1,500' by 1,000', covering 1,500,000 square feet (SF), or 34.4 acres, of Land Under the Ocean. This disposal site was to be used for the disposal of 150,000 cubic yards (CY) of sandy material to be removed by the maintenance dredging of the federal entrance channel located at the mouth of the Merrimack River as part of the Newburyport Harbor Federal Navigation Project. An Environmental Impact Report was not required. Other previous MEPA filings for this project have included the filing of an ENF in 1987 for the maintenance dredging of the Newburyport Harbor entrance channel with disposal at the Nearshore Disposal Site off Plum Island (EOEA #6429) and a Notice of Project Change, filed in 1996, to add the Nearshore Disposal Site off Salisbury. This Notice of Project Change (NPC) is being filed due to the change in placement areas for the dredge material

The clean, sandy dredge material (approximately 160,000 CY is proposed to be used for beach/dune nourishment at two severely eroded sites on Plum Island in Newbury (120,000 CY) and Salisbury State Beach in Salisbury (40,000 CY). The nourishment site on Plum Island is approximately 13.5 acres in size, and the nourishment site in Salisbury is approximately 8.5acres in size. The proposed nourishment will add necessary material to the beach and dunes to help curtail the severe erosion that has occurred in these areas, and improve storm and flood protection. The overall impacts to Resource Areas has been reduced from the previously-reviewed project from 1,500,000 SF (34.4 acres) of Land Under the Ocean to 899,389 SF (22.0 acres) for nourishment, including Coastal Beach, Coastal Dune and Land Under the Ocean. There will be a total of approximately 46,746 SF of temporary impacts to Coastal Beach due to project staging/access and placement of the temporary dredge pipeline. Temporarily impacted areas will be restored in-place after construction. Impacts to Land Containing Shellfish have also now been avoided (reduction of -1,500,000 SF). Time of Year restrictions will be implemented to avoid impacts to marine fisheries and endangered species, including the piping plover. Due to the change in disposal locations, the dredging methodology will change from use of a hopper dredge to a hydraulic cutter-head dredge. The originally-proposed project and its subsequent changes are described in greater detail in Attachment 5, Project Narrative. While the NPC is being filed for the change in disposal sites, the overall project, including beach/dune nourishment and maintenance dredging, is presented in the Project Narrative.

ATTACHMENTS & SIGNATURES

Attachments:

1. Secretary's most recent Certificate on this project
2. Plan showing most recent previously-reviewed proposed build condition
3. Plan showing currently proposed build condition
4. Original U.S.G.S. map or good quality color copy (8-1/2 x 11 inches or larger) indicating the project location and boundaries
5. List of all agencies and persons to whom the proponent circulated the NPC, in accordance with 301 CMR 11.10(7)

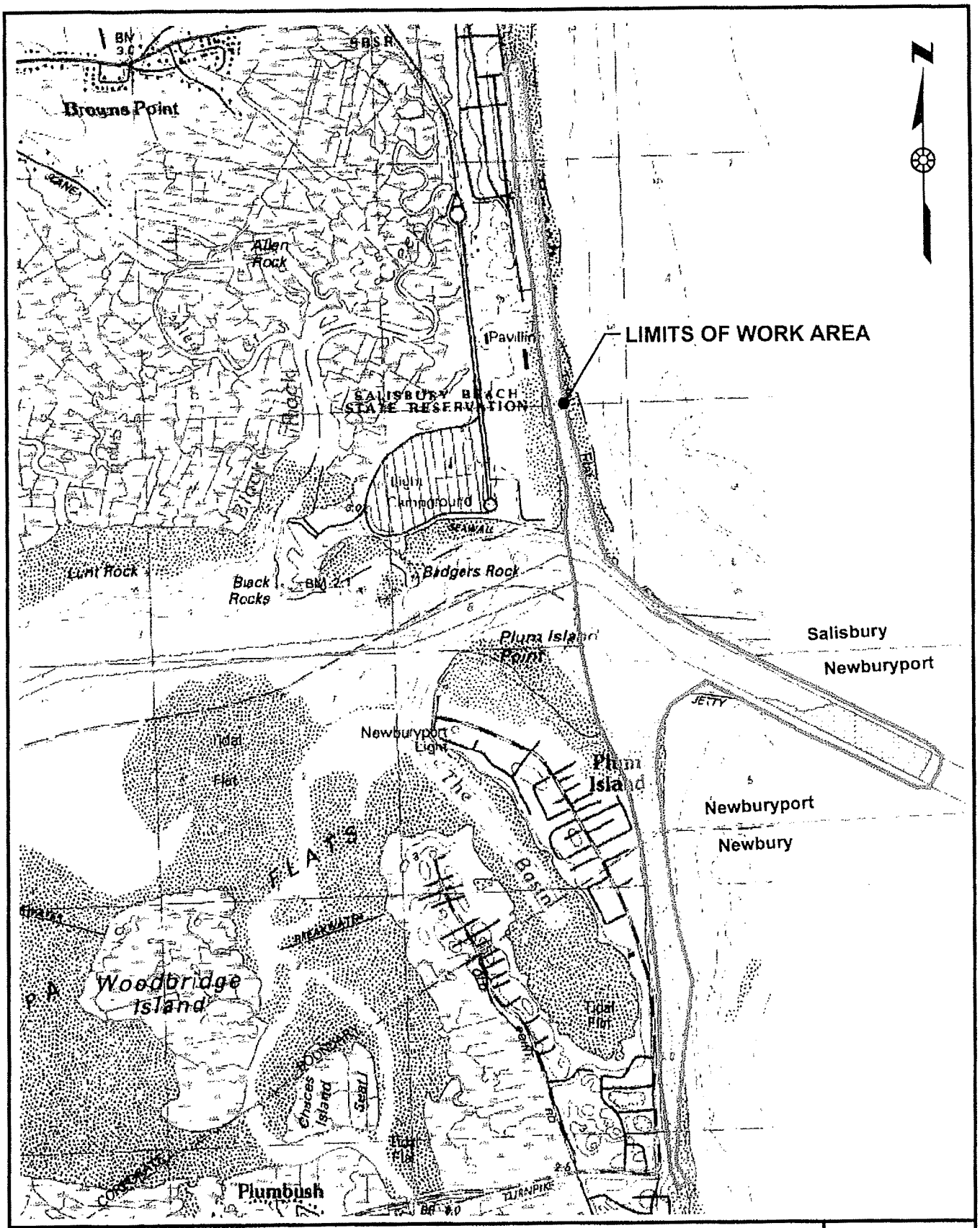
Signatures:

6/15/09 [signature]	6/15/09 Christine M. Player
Date Signature of Responsible Officer or Proponent	Date Signature of person preparing NPC (if different from above)
Raul Silva	Christine M. Player
Name (print or type)	Name (print or type)
MA Dept. of Conservation & Recreation	Vine Associates, Inc.
Firm/Agency	Firm/Agency
251 Causeway Street, Suite 700	190 Old Derby Street, Suite 311
Street	Street
Boston, MA 02114	Hingham, MA 02043
Municipality/State/Zip	Municipality/State/Zip
(617) 626-1392	(781) 749-2530x202
Phone	Phone

EOEA NO. 13503
PLUM ISLAND AND SALISBURY BEACH NOURISHMENT
NEWBURYPORT HARBOR FEDERAL NAVIGATION PROJECT
NEWBURYPORT, NEWBURY, SALISBURY, MASSACHUSETTS
NOTICE OF PROJECT CHANGE

ATTACHMENT 1

U.S.G.S. Topographic Map



Vine Associates, Inc.	U.S.G.S. Topographical Map Newburyport Harbor Federal Navigation Project	Attachment 1

EOEA NO. 13503

PLUM ISLAND AND SALISBURY BEACH NOURISHMENT
NEWBURYPORT HARBOR FEDERAL NAVIGATION PROJECT
NEWBURYPORT, NEWBURY, SALISBURY, MASSACHUSETTS

NOTICE OF PROJECT CHANGE

ATTACHMENT 2

Secretary's Certificate

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114-2524

MITT ROMNEY
GOVERNOR
KERRY HEALEY
LIEUTENANT GOVERNOR
ELLEN ROY HERZFELDER
SECRETARY

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

June 6, 2005

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME	: Near-Shore Dredged Material Disposal off Plum Island Beach
PROJECT MUNICIPALITY	: Newbury/Newburyport
PROJECT WATERSHED	: Merrimack
EOEA NUMBER	: 13503
PROJECT PROPONENT	: City of Newburyport
DATE NOTICED IN MONITOR	: April 9, 2005

Pursuant to the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62H) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project does not require the preparation of an Environmental Impact Report.

Project Description

As described in the Environmental Notification Form (ENF), the project involves the revision of the disposal site for approximately 15,000 cubic yards (cy) of sand to be dredged for maintenance purposes from the Federal Navigation Project in Newburyport Harbor (EOEA #6429). The material was previously approved for disposal at a sub-tidal site east of Plum Island, which is one of two near-shore locations historically used for disposal of dredged material from Newburyport Harbor. The newly proposed disposal site entails the extension of the previously approved disposal site by approximately 1,500 foot to the south

in order to indirectly nourish Plum Island Beach via in-shore migration of the deposited sand and to provide a measure of protection against further erosion of shoreline public utilities and properties. Benthic and physical sampling indicates that both the sediments and benthic community of the proposed disposal site are similar to the adjacent, previously-approved disposal site.

MEPA Jurisdiction and Permitting Requirements

The project is undergoing review pursuant to Section 11.03 (3)(b)(1)(f) and (3)(b)(4) of the MEPA regulations because the project involves alteration of one-half or more acres of wetlands (in this case, Land Under the Ocean) and the disposal of 10,000 or more cy of dredged material. The project will require a Chapter 91 License and a 401 Water Quality Certification from the Department of Environmental Protection (DEP) and may require Federal Consistency Review by the Office of Coastal Zone Management (CZM). The project will also require Order of Conditions from the Newbury Conservation Commission, which was issued on February 5, 2005, and has not been appealed.

The proponent is not seeking financial assistance from the Commonwealth for the project. Therefore, MEPA jurisdiction applies to those aspects of the project within the subject matter of required permits with the potential to cause Damage to the Environment. In this case, MEPA jurisdiction is limited to issues of wetlands, waterways and tidelands.

Permitting Issues

In its comments, DEP states that the proponents have provided sufficient information to proceed to permitting for a 401 Water Quality Certificate. However, the proponent should provide the additional items listed in DEP's comment letter when applying for the 401 Water Quality Certificate in order to ensure that the project avoids and minimizes impacts to the aquatic ecosystem. In its comments, CZM indicates its support for the project, but recommends that the dredged material be placed at the northernmost reaches of the proposed disposal site to maximize the effectiveness of the project to provide beach nourishment.

In its comments, the Board of Underwater Archeological Resources states that the U.S. Geological Survey and CZM will soon be conducting a remote sensing survey of the near-shore area off Plum Island and hat results of this survey should be available in September 2005. If the survey indicates the presence of shipwrecks or other archeological sites in the proposed disposal area, the proponent should work with the Board to develop and implement measures to avoid adverse effects, including but not limited to adjusting the disposal area boundaries to ensure avoidance of submerged cultural resources. This may necessitate the submission of a Notice of Project Change (NPC).

Conclusion

The impacts of the project within MEPA jurisdiction do not warrant the preparation of an EIR. I conclude that no further MEPA review is required. The proponents may resolve any remaining issues during the state and local permitting processes.

June 6, 2005
Date

Ellen Roy Herzfelder

Comments received:

04/25/05 Board of Underwater Archeological Resources
05/02/05 Office of Coastal Zone Management
05/31/05 Department of Environmental Protection Northeast Regional Office

ERH/RAB/rab

EOEA NO. 13503
PLUM ISLAND AND SALISBURY BEACH NOURISHMENT
NEWBURYPORT HARBOR FEDERAL NAVIGATION PROJECT
NEWBURYPORT, NEWBURY, SALISBURY, MASSACHUSETTS

NOTICE OF PROJECT CHANGE

ATTACHMENT 3

NPC Distribution List

EOEA NO. 13503
NOTICE OF PROJECT CHANGE

PLUM ISLAND AND SALISBURY BEACH NOURISHMENT
NEWBURYPORT HARBOR FEDERAL NAVIGATION PROJECT
NEWBURYPORT, NEWBURY, SALISBURY, MA

Distribution List

Secretary of Energy & Environmental Affairs
Attn: MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Executive Office of Energy & Environmental Affairs
Attn: Water Policy
100 Cambridge Street, Suite 900
Boston, MA 02114

Coastal Zone Management
Attn: Project Review Coordinator
251 Causeway Street, Suite 800
Boston, MA 02114

Department of Environmental Protection
Attn: Commissioner's Office
One Winter Street
Boston, MA 02108

DEP/Northeast Regional Office
Attn: MEPA Coordinator
205-B Lowell Street
Wilmington, MA 01887

DEP/Northeast Regional Office
Attn: Chapter 91 Reviewer
1 Winter Street
Boston, MA 0108

Department of Environmental Protection
Attn: Water Quality Certification Reviewer
One Winter Street
Boston, MA 02108

MA Board of Underwater Archaeological Resources
251 Causeway Street, Suite 900
Boston, MA 02114-2119

Division of Marine Fisheries
Attn: Environmental Reviewer
30 Emerson Ave.
Gloucester, MA 01930

Executive Office of Transportation and Construction (EOTC)
Attn: Environmental Reviewer
10 Park Plaza, Room 3510
Boston, MA 02116-3969

Massachusetts Highway Department
Public/Private Development Unit
10 Park Plaza
Boston, MA 02116

MHD-District #4
Attn: MEPA Coordinator
519 Appleton Street
Arlington, MA 02174

Massachusetts Aeronautics Commission
Attn: MEPA Coordinator
10 Park Plaza, Suite 3510
Boston, MA 02116

Massachusetts Historical Commission
The MA Archives Building
220 Morrissey Boulevard
Boston, MA 02125

Merrimack Valley Planning Commission
160 Main Street
Haverhill, MA 01830-5000

Metropolitan Area planning Council
60 Temple Place / 6th Floor
Boston, MA 02111

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

Newburyport Conservation Commission
City Hall
60 Pleasant Street
Newburyport, MA 01950

Newburyport Office of Planning and Development
City Hall
60 Pleasant Street
Newburyport, MA 01950

Newburyport City Council
City Hall
60 Pleasant Street
Newburyport, MA 01950

Newburyport Health Department
City Hall
60 Pleasant Street
Newburyport, MA 01950

Newbury Conservation Commission
Town Hall
25 High Road
Newbury, MA 01951

Newbury Planning Department
Town Hall
25 High Road
Newbury, MA 01951

Newbury Board of Selectmen
Town Hall
25 High Road
Newbury, MA 01951

Newbury Health Department
Town Hall
25 High Road
Newbury, MA 01951

Salisbury Conservation Commission
5 Beach Road
Salisbury, MA 01952

Salisbury Health Department
5 Beach Road
Salisbury, MA 01952

Salisbury Board of Selectmen
5 Beach Road
Salisbury, MA 01952

Salisbury Department of Planning and Development
5 Beach Road
Salisbury, MA 01952

U.S. Army Corps of Engineers
New England Division
696 Virginia Road
Concord, MA 01742-2751
Attn: Mark Habel

U.S. Army Corps of Engineers
New England Division
696 Virginia Road
Concord, MA 01742-2751
Attn: Ed O'Donnell

U.S. Army Corps of Engineers
New England Division
696 Virginia Road
Concord, MA 01742-2751
Attn: Todd Randall

EOEA NO. 13503

PLUM ISLAND AND SALISBURY BEACH NOURISHMENT
NEWBURYPORT HARBOR FEDERAL NAVIGATION PROJECT
NEWBURYPORT, NEWBURY, SALISBURY, MASSACHUSETTS

NOTICE OF PROJECT CHANGE

ATTACHMENT 4

Project Narrative

PROJECT NARRATIVE
NOTICE OF PROJECT CHANGE

PLUM ISLAND AND SALISBURY BEACH NOURISHMENT AND MAINTENANCE DREDGING NEWBURYPORT HARBOR FEDERAL NAVIGATION PROJECT NEWBURYPORT, NEWBURY, AND SALISBURY, MASSACHUSETTS

A. INTRODUCTION

The U.S. Army Corps of Engineers (USACE), in cooperation with the Massachusetts Department of Conservation and Recreation (DCR), is proposing the maintenance dredging of the Newburyport Harbor Federal Navigation Project (FNP) at the mouth of the Merrimack River. Dredge sediments will be beneficially reused for beach and dune nourishment along Plum Island and Salisbury Beach. The project site occurs within the municipal boundaries of Newburyport, Newbury and Salisbury, Massachusetts and includes the congressionally-authorized FNP (see Attachment 1). Approximately 160,000 cubic yards (CY) of clean, beach-quality sand will be hydraulically dredged from a recurring sandbar seaward of the existing jetties at the mouth of the Merrimack River. The proposed project will provide the required navigational restoration and improvements for vessel safety. The entire area has been previously dredged in the past and is therefore considered maintenance dredging. The proposed beach and dune nourishment will add necessary material to the beach and dunes to help curtail the severe erosion that has occurred in these areas and will improve storm and flood protection.

This maintenance dredging project was previously permitted in 2002 and 2005, with disposal of the dredge material at the subaqueous Nearshore Disposal Sites located off Plum Island in the Town of Newbury and City of Newburyport and off of Salisbury Beach in the Town of Salisbury (see Attachment 5, Figure 2). Beach and dune nourishment at Plum Island and Salisbury Beach is now the preferred disposal alternative. The USACE and DCR currently propose to place 120,000 CY of sand along Plum Island in the Town of Newbury and 40,000 CY of sand along Salisbury Beach in the Town of Salisbury. The reuse of the extended Nearshore Disposal Site located off Plum Island would have impacted approximately 34.4 acres of Land Under the Ocean, including Land Containing Shellfish. The currently-proposed nourishment activities will impact approximately 22.0 acres of resource areas, including the nourishment of severely-eroded beaches and dunes, and avoids any impact to Land Containing Shellfish.

The placement of sand on Plum Island and Salisbury Beach is considered to be a relatively short-term, yet necessary effort, to temporarily alleviate the severe erosion that has occurred in this area. The USACE estimates that the benefits from this beach nourishment effort should last for approximately five (5) years. Plans to address the

erosion problems in this area on a long-term basis are being pursued by DCR, in coordination with the USACE and the MA Office of Coastal Zone Management (CZM). This effort will include, but not be limited to, conducting studies and modeling of sediment transport within the Plum Island-Salisbury Beach system, investigating the affect of the existing man-made structures located within this area on erosion, evaluating accretion occurring at "The Point" on Plum Island and assessing vessel use and future needs of the existing federal navigation channel as required to identify long-term measures that will help minimize/reduce the current rates of erosion within the Plum Island-Salisbury Beach system.

In order to assure appropriate management practices and a higher-level of protection to the barrier beaches on Plum Island, the City of Newburyport and the Town of Newbury are currently preparing Beach Management Plans for the publicly-owned ocean beaches on Plum Island. Separate Notices of Intent (NOI) will be filed for each Beach Management Plan. The proposed nourishment will be implemented only after these Beach Management Plans have been approved. A Beach Management Plan was approved by the Salisbury Conservation Commission for Salisbury Beach (DEP #65-0871) in 2008. Copies of the Salisbury and Plum Island Beach Management Plans are available from Vine Associates, Inc. (VAI) upon request.

The USACE has prepared a draft Environmental Assessment (EA) for this project, to determine project compliance with Federal and State regulations. The EA also evaluated the potential environmental impacts from the proposed project. Much of the following narrative is based on this draft document, which was compiled as supporting documentation for Federal review, including Water Quality Certification, Coastal Zone Management Consistency Concurrence, Endangered Species Act Consultation, and Essential Fisheries Habitat Consultation for maintenance dredging with beach nourishment. Although the draft EA is not included in this narrative in its entirety, the most essential elements of it have been incorporated. The draft EA is available upon request from VAI.

The Project Narrative, presented herein, describes the Newburyport Harbor FNP in its entirety, including all proposed maintenance dredging and beach/dune nourishment activities. This Notice of Project Change (NPC), however, is being filed due to a change in dredge sediment disposal methods. The maintenance dredging activity has already been reviewed and authorized under the Secretary's Certificate issued on the Environmental Notification Form (ENF) that was filed in 2005 for the Newburyport Harbor FNP under EOEA No. 13503.

B. REGULATORY AUTHORIZATIONS

The last time the Newburyport Harbor FNP was permitted was in 2002 and 2005. At that time, the project was to dredge approximately 150,000 CY of sand from approximately

881,789 SF (20.2 acres) of the entrance channel using a hopper dredge and directly placing the material at the subaqueous Nearshore Disposal Site Extension off Plum Island in Newbury. In 2005, the USACE filed an Environmental Notification Form (ENF) with MEPA for the extension of the Nearshore Disposal Site of Plum Island (EOEA #13503). The extension was 1,500 feet by 1,000 feet (34.4 acres) of subtidal area (Land Under the Ocean).

The NPC, herein, is being filed with the Massachusetts Environmental Policy Act (MEPA) Office for the change in dredge disposal methods from the use of Nearshore Disposal to beach/dune nourishment. Orders of Conditions exist for the maintenance dredging project in the City of Newburyport (DEP #51-570) and the Town of Newbury (DEP#50-875). Current permit requirements for the proposed project include the filing of an NOI with the Town of Newbury for beach/dune nourishment, with placement of a temporary pipeline along the beach to the nourishment site; a Request for an Amended Order of Conditions with the City of Newburyport for temporary placement of the pipeline along the beach to pump sand to the nourishment site in Newbury; and a filing of a NOI with the Town of Salisbury for beach/dune nourishment and dredging, with placement of the temporary pipeline along the beach to the nourishment site. This project will also be filed with the MA Natural Heritage and Endangered Species Program (NHESP) for review under the MA Endangered Species Act (MESA) and a new Chapter 91 permit will be obtained from DEP. The USACE will obtain a Section 401 Water Quality Certification from DEP and MA CZM Federal Consistency for the project.

C. EXISTING PROJECT

The Newburyport Harbor FNP was adopted by Congress in 1880, and was been supplemented several times through 1945. The proposed dredging will occur within the 2,700-foot long, 400-foot wide, 12-foot deep entrance channel section of the FNP. The entrance channel was originally authorized as a 12-foot deep channel. The USACE has been maintaining this section of the FNP at a depth of 15 feet since 1996. From the entrance channel, the federal channel continues up the Merrimack River, where it is 200-feet wide and 9-feet deep and includes a turning basin in front of the City wharves. Additional elements of the Newburyport Harbor FNP include two jetties, one approximately 4,118 feet in length on the north side of the Merrimack River, and the other on the south side of the Merrimack River, which is approximately 2,445 feet in length. A timber dike which partially closes the Plum Island Basin also exists within the FNP. No work is being currently proposed on the aforementioned structures or within the 9-foot deep portion of the FNP.

The Newburyport Harbor FNP has been dredged at least 15 times since 1961. Typically, dredging has been performed on an "as-needed" basis in response to severe shoaling conditions. Disposal options have included offshore open water disposal by hopper dredge, nearshore disposal by hopper dredge or disposal adjacent to the channel by

sidecasting dredge. Two Nearshore Disposal Sites exist within close proximity to the entrance channel (see Attachment 5, Figure 2). One nearshore disposal site is north of the federal entrance channel in Salisbury, and the other is located south of the entrance channel, off Plum Island. These two disposal sites have been used as the most recent option for the disposal dredge material from the FNP. The use of these sites places the sandy dredged material in areas that could serve as nearshore berms, allowing for the reintroduction of sandy material to the littoral system and providing a potential supply of sand for transport landward. The entrance channel was last dredged by the USACE in 1999, when approximately 145,000 CY of material was removed from the channel and placed at the Plum Island Nearshore Disposal Site. Dredging has not been conducted since 1999 by the USACE due to insufficient federal funding.

D. PROPOSED PROJECT

Figure 3 illustrates the proposed project plan and all of its associated components (see Attachment 5). The proposed project will include the hydraulic dredging of 160,000 CY of clean, beach-quality sand from the existing 400-foot wide federal entrance channel footprint, with the dredge material being reused for beach/dune nourishment along Plum Island and Salisbury Beach. The entrance channel will be restored to -15.0 below mean low low water (MLLW) with a 2-foot allowable overdredge to –17.0 MLLW. The total area to be dredged is approximately 881,071 square feet (SF) (20.2 acres). The area of dredging to be conducted within the City of Newburyport is approximately 804,404 SF (18.5 acres), with the anticipated removal of approximately 140,000 CY of material. The area of dredging to be conducted within the Town of Salisbury is approximately 77,667 SF (1.8 acres), with the removal of approximately 20,000 CY of material. The entire project is considered maintenance dredging. The proposed dredge plan, as designed by the USACE, is presented in Attachment 7 (see Sheet 1).

Under the proposed project, the existing Nearshore Disposal sites at Plum Island and Salisbury Beach will not be used. Dredge sediments will be hydraulically dredged and pumped via a temporary pipeline to the Newbury section of Plum Island and Salisbury Beach for beach and dune nourishment. It is anticipated that the temporary pipeline will be approximately 22 to 24-inches in diameter and will be placed along existing beach grades between Mean High Water (MHW) and the toe of the existing dunes. The length of the pipeline on Plum Island will be approximately 3,600 feet long (1,450 feet in Newburyport; 2,150 feet in Newbury), extending from the south jetty on Plum Island in Newburyport to the nourishment site in Newbury. The length of the temporary pipeline in Salisbury will be approximately 3,800 feet, extending from the north jetty at the Salisbury Beach State Reservation to the nourishment site located between Murray Street and Fowler Street. The pipeline will be removed following the placement of the sand at nourishment areas. Areas will be restored following the completion of construction.

The Salisbury Beach nourishment site consists of an approximately 1,400-foot long stretch of beach/dune area located between Murray Street and Fowler Street and to the north of the inlet in the Salisbury Beach State Reservation. This nourishment area will tie into the emergency dune which was recently constructed by DCR in 2007. Sand will be placed within both dune and beach areas and extend from the existing dune crest seaward to approximately El. 0.0 MLLW. Approximately 40,000 CY of sand will be hydraulically pumped to the proposed nourishment area. The footprint of the total nourishment area is approximately 370,310 SF (8.5 acres). The sand fill will be placed along beach areas to El. +15.0 MLLW and have a typical berm width of approximately 60 to 80 feet and a seaward slope of no steeper than 10H:1V extending to approximately El. 0.0 MLLW. Sand fill will also be buttressed against the existing dune and be placed to El. +20.0 MLLW, with a typical berm width of 20 to 40 feet and seaward slope of approximately 3H:1V. The proposed nourishment plan and typical cross-sections, as designed by the USACE for Salisbury Beach, are shown in Attachment 7 (see Sheet 2).

The Plum Island nourishment site consists of a 2,500-foot long stretch of beach extending north from State Groin #1 at the seaward terminus of the Plum Island Turnpike in the Town of Newbury. This is an area that has experienced severe erosion over the past few years. Approximately 120,000 CY of sand will be pumped to Plum Island. Sand will be placed from the existing dune crest seaward to approximately El. -4.0 to -5.0 MLLW. The total footprint of the proposed nourishment area is approximately 587,317 SF (13.5 acres). The sand fill will be placed along beach areas to El. +17.0 MLLW and have a typical berm width of approximately 40 to 60 feet and a seaward slope of no steeper than 8H:1V extending to approximately El. -4.0 to -5.0 MLLW. Sand fill will also be buttressed against the existing dune and be placed to El. +22.0 MLLW, with a typical berm width of 20 to 50 feet and seaward slope of approximately 3H:1V. The proposed nourishment plan and typical cross-sections, as designed by the USACE for Plum Island, are shown in Attachment 7 (see Sheet 3).

Newly nourished dune areas at both Plum Island and Salisbury Beach will be planted with dune grass and protected from wind and foot traffic with sand/snow fencing located along the dune toe as well as laterally at frequent intervals to ensure effectiveness. The details of the location and design of fencing along with the location and densities of the plantings will be made in consultation with the U.S. Fish and Wildlife Service (USFWS) and NHESP. The Town of Newbury (Plum Island) and DCR (Salisbury Beach) will be responsible for maintaining the plantings and fencing, as outlined in the respective Beach Management Plans.

As part of the proposed construction activities, staging and access areas will be set up at both Plum Island and Salisbury Beach. The staging and access area at Plum Island will be approximately 0.6 acres in size and located at the Town Center Parking lot at the end of Plum Island Turnpike and extend down onto the beach area adjacent to and over State Groin #1. The staging and access area at Salisbury Beach will be approximately 3.8 acres in size

and located at the most southern end of the State Reservation within the existing parking lot. Access will extend down onto the beach area to the north jetty. All staging and access areas will be restored to pre-construction conditions upon completion of work.

The placement of the sandy dredge material on the beaches and dunes of Plum Island and Salisbury Beach is considered a practice of beneficial re-use and therefore qualifies this project to utilize the USACE §204 authority for beneficial use of dredged material. The beach disposal areas identified were selected as candidate sites for sand placement based on the need to alleviate severe erosion within these areas. The costs associated with placement of dredged sediments for beach/dune nourishment is significantly more than those associated with nearshore disposal. As such, the USACE has not historically implemented beach/dune nourishment as part of the Newburyport Harbor FNP since they are obligated to implement the most economically beneficial project. For dredge sediments to be pumped directly to beach and dune areas, the non-federal sponsor to the project (DCR) is obligated to contribute a 35% cost-share for the proposed nourishment efforts. The non-federal cost-share itself will be shared between DCR and the Towns of Newbury and Salisbury and City of Newburyport at 75%-25% respectively, with the 25% local share being funded collectively by the three municipalities. All costs pertaining to the maintenance dredging of the federal entrance channel will be the responsibility of the USACE, with no cost share to the non-federal sponsor. The total project cost for the dredging and nourishment at Plum Island and Salisbury Beach is currently estimated at approximately $3.7 million.

Permanent easements will be required for the proposed Newburyport Harbor FNP. Permanent easements are required since the proposed project will include the placement of sand on several private properties located along Plum Island and Salisbury Beach. Since this project is publicly funded, placement of sand on private property requires that public access easements be secured from these property owners to ensure future public access within these nourished areas. Temporary construction easements may also be required for placement of the dredge pipeline and will be determined during the final design phase of the project. DCR is presently coordinating efforts to secure all required easements for the proposed project.

E. RESOURCE AREAS

Resource areas occurring within the vicinity of the project area include Land Under the Ocean, Coastal Beach, Coastal Dune, Fish Run, Land Containing Shellfish and Land Subject to Coastal Storm Flowage. Riverfront Area exists adjacent to the Merrimack River. However, no work is proposed within Riverfront Area. Resource areas are shown on the Site Plans in Attachment 7 (see Sheets 1 through 3).

1. 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). 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".

The proposed maintenance dredging project will alter approximately 882,071 SF of LUO, approximately 804,404 SF in Newburyport and 77,667 SF in Salisbury. The entire entrance channel is located within LUO and has been impacted repeatedly by similar activity over several decades. Studies from similar nearby maintenance dredging projects showed that the benthic community that will be disturbed by the proposed activity would be indicative of a stressed environment and would be expected to recover quickly from any dredging activity.

No channel modifications or deepening beyond authorized depths is proposed by this project. There may be short turbidity impacts but these should be minor since the material will be dredged during the dormant fall and winter months. The proposed activity will not significantly impact the resource area's ability to provide feeding, spawning or shelter areas to coastal organisms, or to buffer the high energy effects of storms, to provide a sediment source for coastal beaches. The proposed dredging is far from any coastal structures, so support of these structures will not be compromised by the dredging activity. Recent MassGIS data also indicate that no eelgrass is located within or near the project area and all proposed activities are outside any mapped shellfish suitability areas.

Table 1 summarizes the anticipated impacts to LUO from the proposed nourishment activities at Plum Island and Salisbury Beach.

Table 1: LUO Impacts Resulting from Proposed Nourishment

Location	Fill Area (SF)	Fill Volume Placed (CY)
Plum Island	158,295	9,487
Salisbury Beach	6,729	3,347
Totals	165,024	12,834

2. 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 bankline 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.

The proposed work will improve the existing, eroded conditions of the Coastal Beach at both nourishment sites. Table 2 below summarizes the impacts anticipated to Coastal Beach from the proposed nourishment activities at Plum Island and Salisbury Beach.

Table 2: Coastal Beach Impacts Resulting from Proposed Nourishment

Location	Fill Area (SF)	Fill Volume Placed (CY)
Plum Island	380,487	77,282
Salisbury Beach	274,466	30,762
Totals	654,953	108,044

Table 3 summarizes the intertidal impacts (i.e. impacts occurring between MLW and MHW) that will occur within Coastal Beach as a result of the proposed nourishment activities.

Table 3: Intertidal Impacts within Coastal Beach (between MLW and MHW) Resulting from Proposed Nourishment

Location	Fill Area (SF)	Fill Volume Placed (CY)
Plum Island	141,669	44,221
Salisbury Beach	135,098	15,854
Totals	276,767	60,075

Staging and access areas and placement of the dredge pipeline will temporarily impact a total of approximately 22,369 SF and 24,377 SF of Coastal Beach at Plum Island and Salisbury Beach, respectively. All temporarily disturbed areas will be restored upon completion of work.

No site specific data on faunal resources of the beach disposal sites were collected. In general, however, sandy beach faunal communities are characterized

by low species diversity and low biological production because of the continually fluctuating physical conditions associated with beaches. The beach sites at both Plum Island and Salisbury are high energy sand environments which should exhibit these low diversity/productivity characteristics.

3. Coastal Dune (310 CMR 10.28)

A Coastal Dune is defined under the MA Wetlands Protection Act as "any natural hill, mound or ridge of sediment landward of a coastal beach deposited by wind action or storm overwash. Coastal Dune also means sediment deposited by artificial means and serving the purpose of storm damage prevention or flood control".

The proposed work will improve the existing, degraded conditions of the Coastal Dune at both nourishment sites. Table 4 below summarizes the impacts anticipated to Coastal Dune from the proposed nourishment activities at Plum Island and Salisbury Beach.

Table 4: Coastal Dune Impacts Resulting from Proposed Nourishment

Location	Fill Area (SF)	Fill Volume Placed (CY)
Plum Island	48,535	33,232
Salisbury Beach	30,877	5,891
Totals	79,412	39,123

5. Land Containing Shellfish (310 CMR 10.34)

The land containing shellfish is defined as "land under the ocean...when any such land contains shellfish". The dredging area is not located within any designated shellfish beds or Shellfish Suitability Areas, as defined by the MA Division of Marine Fisheries and available through MassGIS. The area adjacent to the beach nourishment area is mapped as suitable habitat for the surf clam (*Spisula solidissima*). The surf clam may be found in the surf zone, although it is typically found at deeper depths just offshore. The proposed beach/dune nourishment should avoid any significant shellfish populations and will therefore have no adverse impact to Land Containing Shellfish.

6. Banks of or Land Under the Ocean, Ponds, Streams, Rivers, Lakes, or Creeks That Underlie Anadromous/Catadromous ("Fish Run") (310 CMR 10.35)

The land under the ocean that underlies an anadromous/catadromous fish run is defined as "that area within...rivers...which is a spawning or feeding ground or passageway for anadromous or catadromous fish and which is identified by the

Massachusetts Division of Marine Fisheries (DMF) or has been mapped on the Coastal Atlas of the Coastal Zone Management Program. Several species of anadromous fish may transit the project area during spring and fall migrations up and down stream of the estuary. Species that may transit the area include: Atlantic salmon (*Salmosalar*), striped bass (*Morone saxatilis*), smelt (*Osmerus mordax*), American shad (*Alosa sapidissima*), alewives (*Alosa pseudoharengus*), and blueback herring (*Alosa aestivalis*).

The proposed dredging component of the project will temporarily alter approximately 2,700 LF of a Fish Run. The project will be conducted during the fall and winter months, in order to avoid spawning of anadromous fish. Therefore, this project will not adversely affect the fish run by impeding or obstructing the migration of fish, changing the volume or rate of flow of water, or impairing the capacity of spawning or nursing habitats necessary to sustain the various life stages of the fish.

7. ENDANGERED SPECIES

The dredging and nourishment sites are located within both Priority and Estimated Habitats (PH 1321 and EH 65), as designated by the NHESP (see Attachment 5, Figures 4 and 5). The piping plover (*Charadrius melodus*), a federally- and state- threatened bird species, can be found within the project area. Plovers nest, rest, and feed on areas of the beaches adjacent to the FNP. Plovers utilize areas of the beaches in Newbury, Newburyport, and Salisbury and associated tidal flats for nesting, resting, and feeding from April through August.

Several species of threatened or endangered sea turtles and marine mammals occur in offshore and nearshore waters of New England. Turtle species include the leatherback turtle (*Dermochelys coriacea*), green turtle (*Chelonia mydas*), loggerhead (*Caretta caretta*), Kemp's Ridley (*Lepidochelys kempi*), and hawksbill turtle (*Eretmochelys imbricata*). Marine mammal species include humpback whales (*Megapetera novaengliae*), right whales (*Eubalaena glacialis*), fin whales (*Balaenoptera physalus*) and harbor seals (*Phoca vitulina*). The potential does exist for these species to be present in the project area. However, these species generally occur in offshore-waters and their potential to occur in the project area is limited. During coordination with the U.S. Fish and Wildlife Service and National Marine Fisheries Service under Section 7 of the Endangered Species Act, it was determined that no threatened or endangered species are known to exist in the immediate dredging area or nearshore disposal areas.

The USACE has made the determination that the proposed use of the beach/dune nourishment sites is not likely to affect any threatened or endangered species given the following conditions: 1) that construction is limited to a period between September 1 and April 1; and 2) that a management plan is in place for plover

monitoring and protection. Both beach/dune nourishment areas have beach management plans that provide commitments to monitor and protect any threatened or endangered species that may occur at the beach sites. The Beach Management Plan for Salisbury Beach has already been approved and the Plum Island Beach Management Plans for the City of Newburyport and Town of Newbury will be submitted and approved before the proposed nourishment work commences.

F. SEDIMENT SAMPLING AND TESTING

Sediment sampling was conducted within the proposed channel dredging and beach/dune nourishment areas. Grain size analyses conducted on four (4) samples taken from the federal entrance channel indicate that the material is greater than 90% sand and is suitable for beach/dune nourishment. Grab samples were also collected from along existing beach/dune areas within/in close proximity to the proposed nourishment area at Plum Island (6 samples) and Salisbury Beach (7 samples) and analyzed for grain size so that it could be assessed whether dredge sediments are compatible with the existing beach/dune sand. The average grain size distribution of channel sediments and existing beach/dune are compared in Figure 6 (see Attachment 5). Figure 6 shows that channel sediments are similar and slightly coarser than existing beach/dune sand. As such, channel sediments are considered compatible for beach/dune nourishment at both Plum Island and Salisbury Beach.

G. ALTERNATIVES ANALYSIS

1. Disposal Alternatives

The most critical issues typically affecting disposal options for dredge sediments are: 1) grains size distribution and level of contaminants present in dredged material; 2) the volume of material to be disposed; and 3) identifying potential offshore and/or upland disposal facilities which can accommodate the dredge material. The following section provides a description of alternative disposal methods and how sediment disposal issues for this project relate to each one. The preferred method for disposal is the beneficial reuse of the sandy dredge material for beach/dune nourishment.

Upland Disposal

No upland areas were considered for this project. The material to be dredged is clean sand that is an important component of the Plum Island-Salisbury Beach system and considered a valuable resource. Consequently, the removal of this material from the system is deemed unacceptable. Therefore, upland disposal is not considered a practical option.

Offshore Disposal

Historically, dredged material from Newburyport Harbor was disposed at an offshore disposal site. The 1973 USACE Environmental Assessment describes the location of this site as: "An area one-half nautical mile square, the sides of which run true north and south and true east and west. The center is at a point with Black Rock Light bearing true 289°, a distance of 3,700 yards; and Newburyport Light bearing true 272°, a distance of 3,200 yards.

Currently, it is the USACE policy to place sandy dredged material at a nearshore site to keep the sand within the littoral system of the project area. Offshore disposal was therefore not being considered as a preferred alternative for the disposal of material from the Newburyport Harbor FNP.

Nearshore Disposal

Two nearshore disposal sites were originally considered for this project, including the extension of the southerly site, adjacent to Plum Island Beach (see Attachment 5, Figure 2). The northernmost part of the Plum Island Beach site is 1.5 nautical miles long and located between the 20-foot MLW and 30-foot MLW contours east of Plum Island Beach. This site has been successfully used in the past for disposal of dredged material on multiple occasions by the USACE for the Newburyport Harbor FNP.

The southernmost part of the Plum Island Beach site is approximately 0.5 nautical miles long and is located along the 15-foot bottom contour. This site it is located directly offshore of an eroding beach area and is immediately adjacent to the existing nearshore disposal area. This site, which is approximately 34.4 acres in size, was proposed/authorized for use in 2005 (EOEA #13503), but has never used for disposal of sandy material to-date. This area is also within DMF mapped suitable habitat for surf clams according to data presently available from MassGIS.

The second disposal area is located to the north of the project. It is located east of Salisbury Beach along the 20-foot depth contour and has been used historically for disposal of the sandy dredge material.

Investigation of sediment transport patterns along the Plum Island - Salisbury Beach system and coordination with the applicable resource agencies indicates that the placement of the sandy dredged material in the nearshore areas would keep the material within the littoral drift system. Nearshore placement would make material available for movement onto the adjacent beaches. In the past, disposal activities have alternated between each Plum Island and Salisbury Beach nearshore sites unless one site needed replenishment more than the other at the time of dredging. Nearshore disposal will not immediately place sand within the severely eroded occurring within the Plum Island-Salisbury Beach system.

Beach/Dune Nourishment

Two beach/dune sites located along Plum Island and Salisbury Beach and within close proximity to the dredge area have been evaluated for sand placement. The areas were selected as candidate sites for sand placement based on the need to alleviate severe beach/dune erosion. The Plum Island site is approximately 2,500 feet long, extending north from State Groin #1 at the terminus of the Plum Island Turnpike. The nourishment area extends across the beach face from the existing dune crest seaward to below MLLW. The Salisbury Beach site is approximately 1,400 feet long, and extends between Murray Street and Fowler Street. The nourishment area extends across the beach face from the existing dune crest seaward to approximately MLLW.

The placement of the sandy dredge material on adjacent beaches is considered a practice of beneficial re-use. The beach/dune areas identified for nourishment were selected as candidate sites for the need to alleviate beach erosion. The placement of the material on the selected beach sites was considered practical and therefore represented a viable beneficial reuse disposal alternative. The use of these sites for disposal also reduces the potential impacts to surf clams relative to the use of the extended nearshore disposal site at Plum Island. The beneficial re-use of dredge sediments for the purposes of dune/beach nourishment is the proposed and preferred disposal alternative for this project.

2. Dredge Footprint

The only alternative to maintenance dredging was the "No Dredging" alternative. This alternative is not viable, as it would not improve navigation at the entrance channel. This would allow the shoaling to remain, along with the extremely hazardous conditions that have been created by the shoaling. This would endanger vessels, particularly small craft, and would also create economic hardship on the fishing fleet and party boat operators that use the entrance channel to reach open waters.

The proposed and preferred alternative is for maintenance dredging within the currently established channel limits. This alternative will provide the required navigational restoration and improvements, while minimizing potential environmental impacts. By restoring water depths to -15.0 MLLW (with a 2-foot allowable overdredge to -17.0 MLLW) throughout the existing channel, public safety will be improved by removing the hazardous conditions that limit vessel usage of the area.

3. Dredging Methods

There are a number of dredging methods have been considered for the Newburyport Harbor FNP and they are presented below. The selected dredge method is dependent upon the preferred disposal alternative selected.

Small Hydraulic Pipeline Dredge

Small hydraulic dredges, of the type typically used in New England waters, are unable to work safely in the high-energy wave action of the Newburyport Harbor entrance channel. These dredges anchor using spuds or anchor and cable systems and have limited mobility and working reach, requiring a tug to move the dredge from area to area within the channel being dredged. Working only during periods of relative calm would result in project delays and additional cost and would make it less likely that the project could be accomplished within a typical dredging window. Working during periods of unpredictable and severe ocean swells would pose a threat to dredge personnel and equipment given the anchoring and positioning systems these dredges employ. Vessel traffic would be adversely impacted by stationary equipment, cables and pipeline in the channel for an extended period. Therefore the use of a small hydraulic pipeline dredge for this project is not considered practical.

Large Hydraulic Pipeline Dredge

If a pipeline dredge is to be used, it would need to be of the larger types that typically work in more southern waters on large channel or offshore borrow dredging projects. These dredges typically have pump and pipeline diameters of 20 to 27 inches or more and have a much larger dredge hull and much more robust anchoring systems that could be operated stably in the sea conditions of the Newburyport entrance. A pipeline would extend from the working dredge into the inlet to the shore end of the jetties, where it would cross the jetty and transition to a land line extending along the beaches to the discharge area. An A-frame barge would be used to position the floating pipe in the inlet. Heavy equipment such as a small dozer would be used to lay and extend the pipe on the beach, form toe dikes along the discharge area to minimize loss of beach-fill material to the surf, and to spread and grade the material to the finished elevations and slopes. This is the preferred dredging method for the placement of dredge sediments as beach/dune nourishment along Plum Island and Salisbury Beach.

Sidecast Dredge

The use of a side-casting dredge is considered impractical for the Newburyport Harbor FNP. A side-casting dredge would not be able to remove the material far enough away from the dredging area to provide effective maintenance. Conditions on the outer bars at the river's mouth could be expected to re-shoal this channel in a short period of time. Sidecast dredges are more appropriate for situations were longshore transport, wind and wave directions are relatively constant and unidirectional; not the situation found at Newburyport.

Mechanical Bucket Dredge

A mechanical dredge utilizing scows to transport and dispose of material for use in nearshore disposal would be able to effectively dredge the project area. However, such a dredge plant could not directly place the material on the beaches and would only be used if the nearshore sites were the preferred alternative for disposal.

Small Split-Hull Hopper Dredge
A hopper dredge would be an effective dredging method in the Merrimack River. Historically, maintenance dredging of the entrance channel has been performed by small class, self-propelled hopper dredges. Hopper dredges are less subject to damage from wave action and have little impact on vessel traffic because they dredge while underway, and do not employ anchoring devices while working in the channel. A small hopper dredge using split hull discharge could be used if the preferred disposal option was to use existing nearshore sites.

Large Pump-Off Hopper Dredge
For hopper dredging with direct placement on the beaches a large-class hopper dredge with onboard pump-off capability would be required. These vessels are larger than those typically used to working in New England waters. Using this method, a pipeline would be placed along the beach through the beach-fill areas with a branch leading offshore to a moored or barge-mounted connection in a water depth sufficient for the loaded hopper dredge to tie-up and connect to the discharge line. Because direct beach placement is being considered, a large hydraulic pipeline dredge is the preferred dredging method.

H. PROPOSED MITIGATION

The proposed project has been designed to minimize impacts to the existing resource areas to the greatest extent possible. All dredging will be performed within the existing footprint as last dredged in 1999 by the USACE. No improvement dredging is being considered. Although a "No Dredge" alternative would result in no environmental impacts with respect to the dredging operation itself, environmental impacts will result with the grounding out of vessels along the sandbar at the mouth of the Merrimack River. Dredging operations will be conducted in one season during the dormant fall and winter months when there is the least amount of marine and plant life activity. Hydraulic methods will be utilized for the dredging of sediments as opposed to conventional mechanical methods. The hydraulic dredge is a self-contained system, which handles both the excavation and disposal phases of dredging. Channel sediments will be removed by a cutter-head and directly pumped via a pipeline to the beach/dune nourishment sites. Hydraulic dredges remove sediments with minimal temporary resuspension (i.e. turbidity) of particles. Turbidity typically does not extend beyond the immediate vicinity of the dredge, thereby minimizing impacts to water quality and surrounding resource areas.

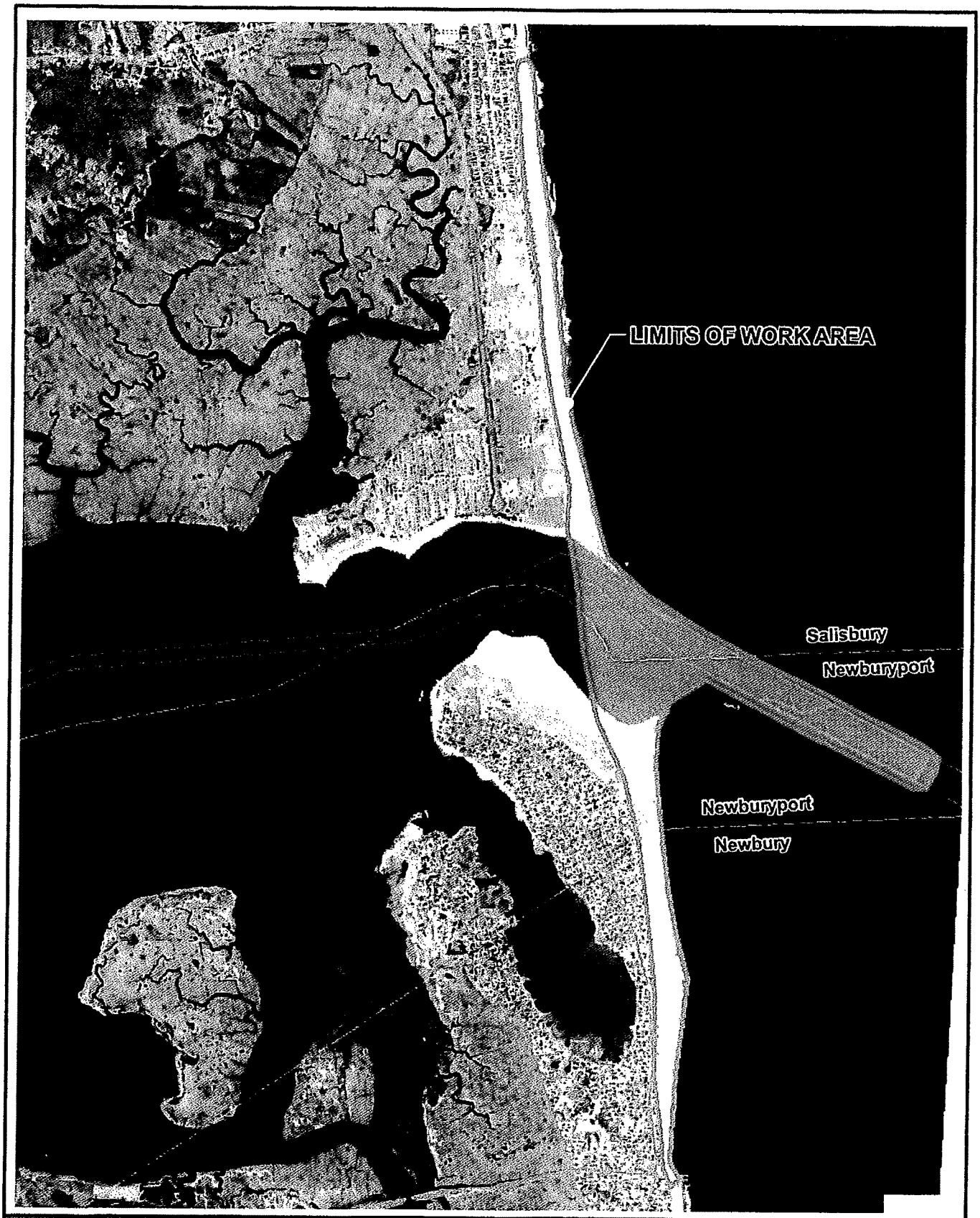
The proposed nourishment sites avoid impacts to Land Containing Shellfish and the nourishment will improve the functions of both the Coastal Beach and Coastal Dunes in these locations.

EOEA NO. 13503
PLUM ISLAND AND SALISBURY BEACH NOURISHMENT
NEWBURYPORT HARBOR FEDERAL NAVIGATION PROJECT
NEWBURYPORT, NEWBURY, SALISBURY, MASSACHUSETTS

NOTICE OF PROJECT CHANGE

ATTACHMENT 5

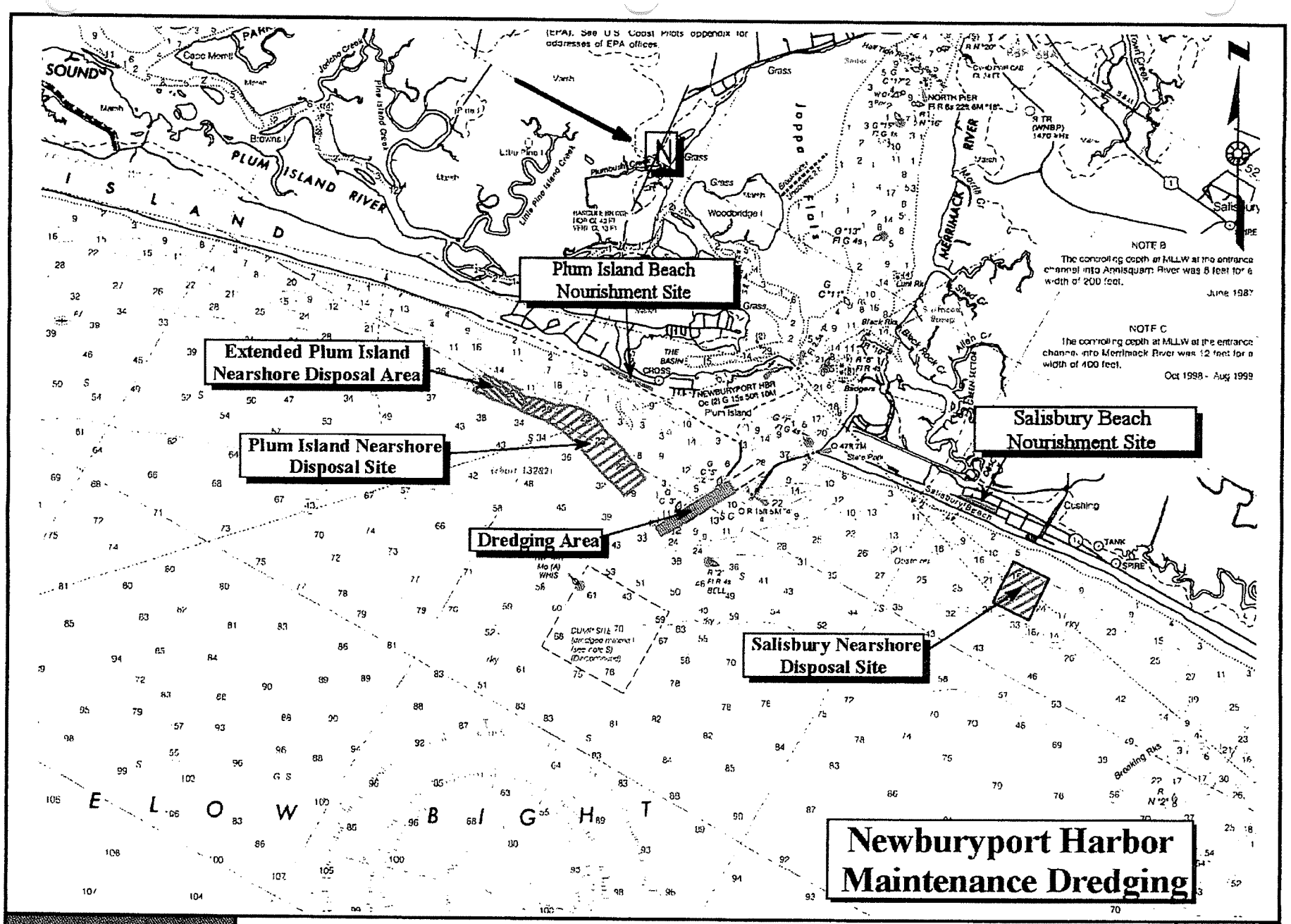
Figures



Vine ASSOCIATES, INC

Locus Plan
Newburyport Harbor Federal Navigation Project

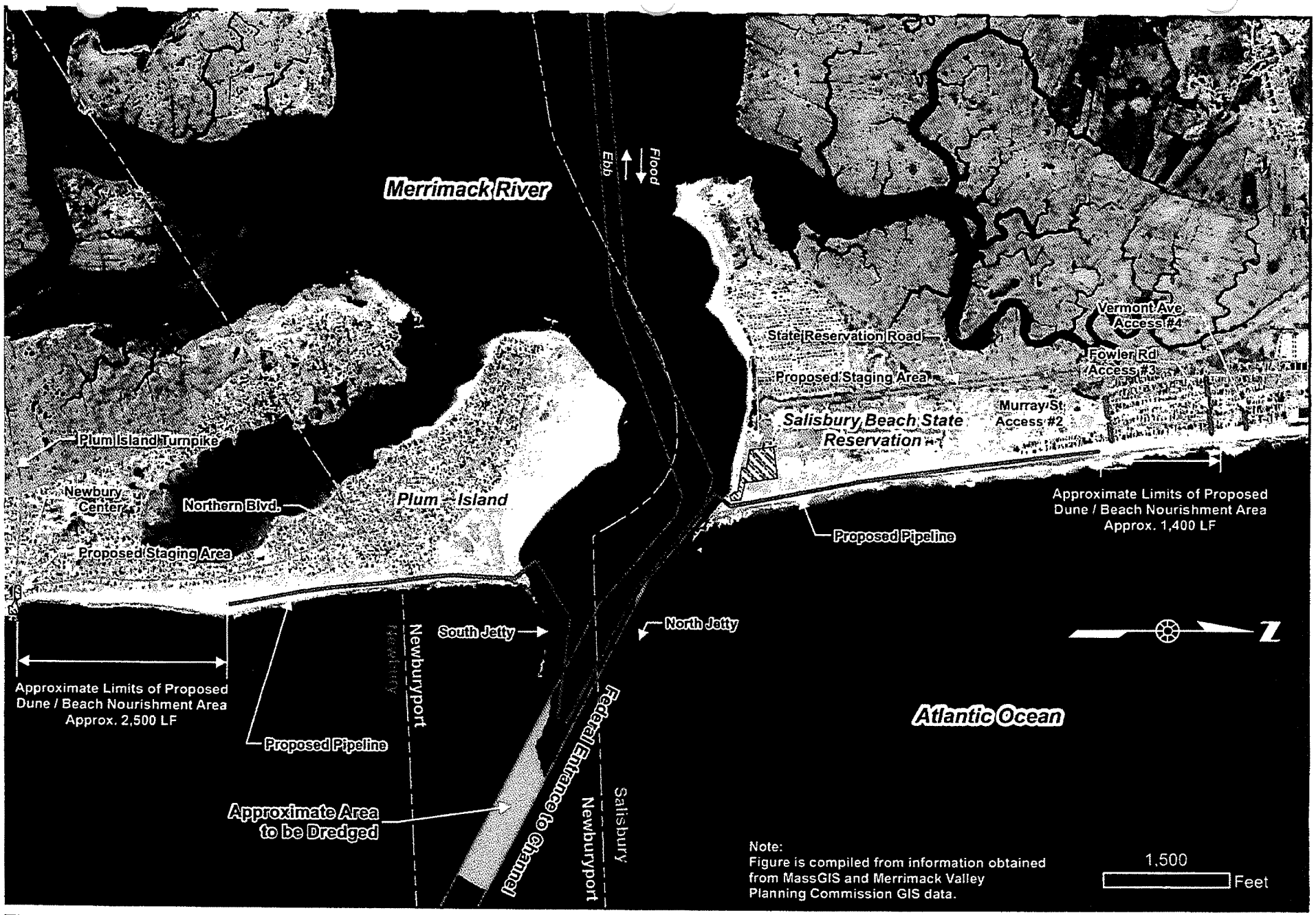
Figure 1



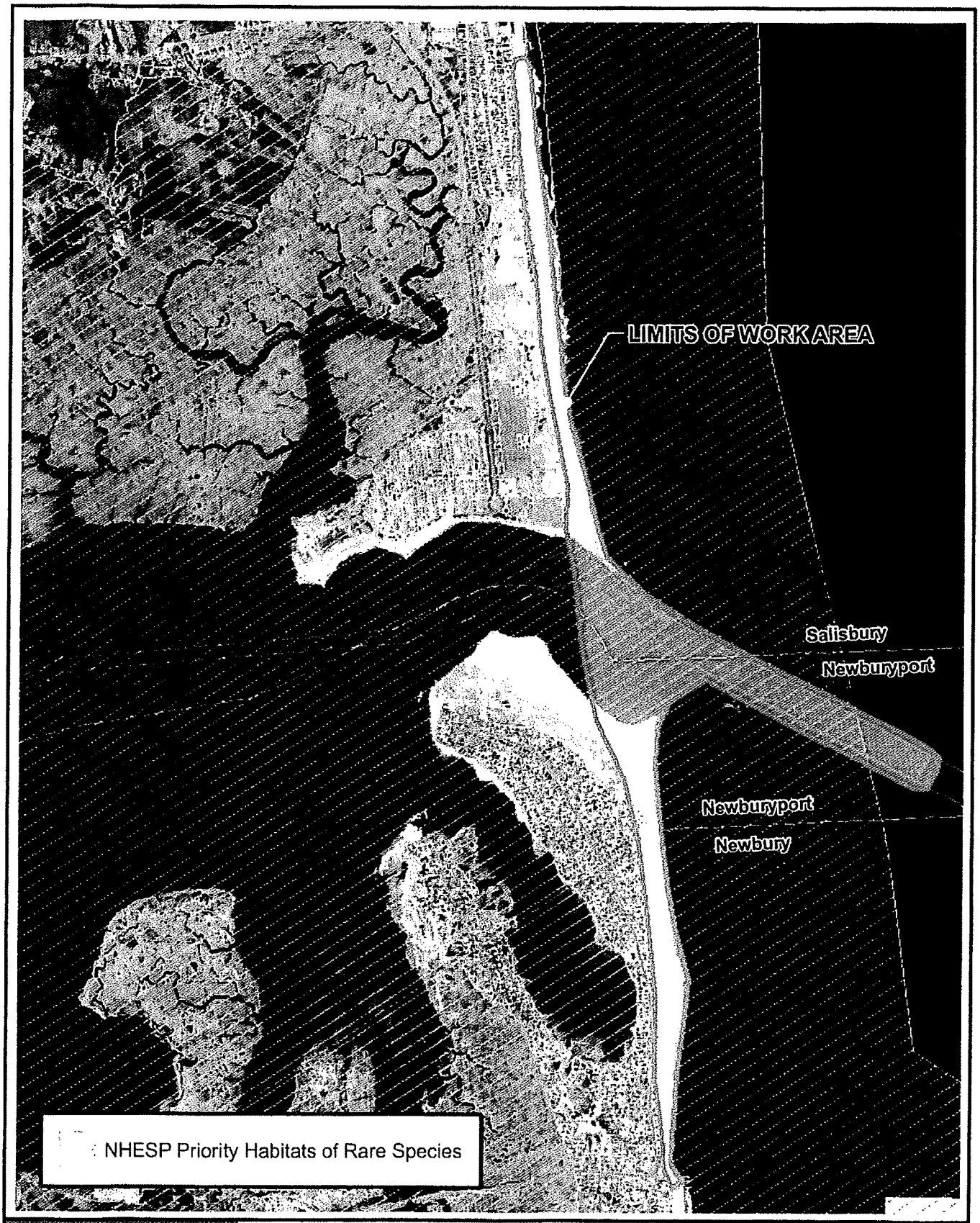
Vine ASSOCIATES, INC.

NEARSHORE DISPOSAL SITES
NEWBURYPORT HARBOR
FEDERAL NAVIGATION PROJECT

Figure 2



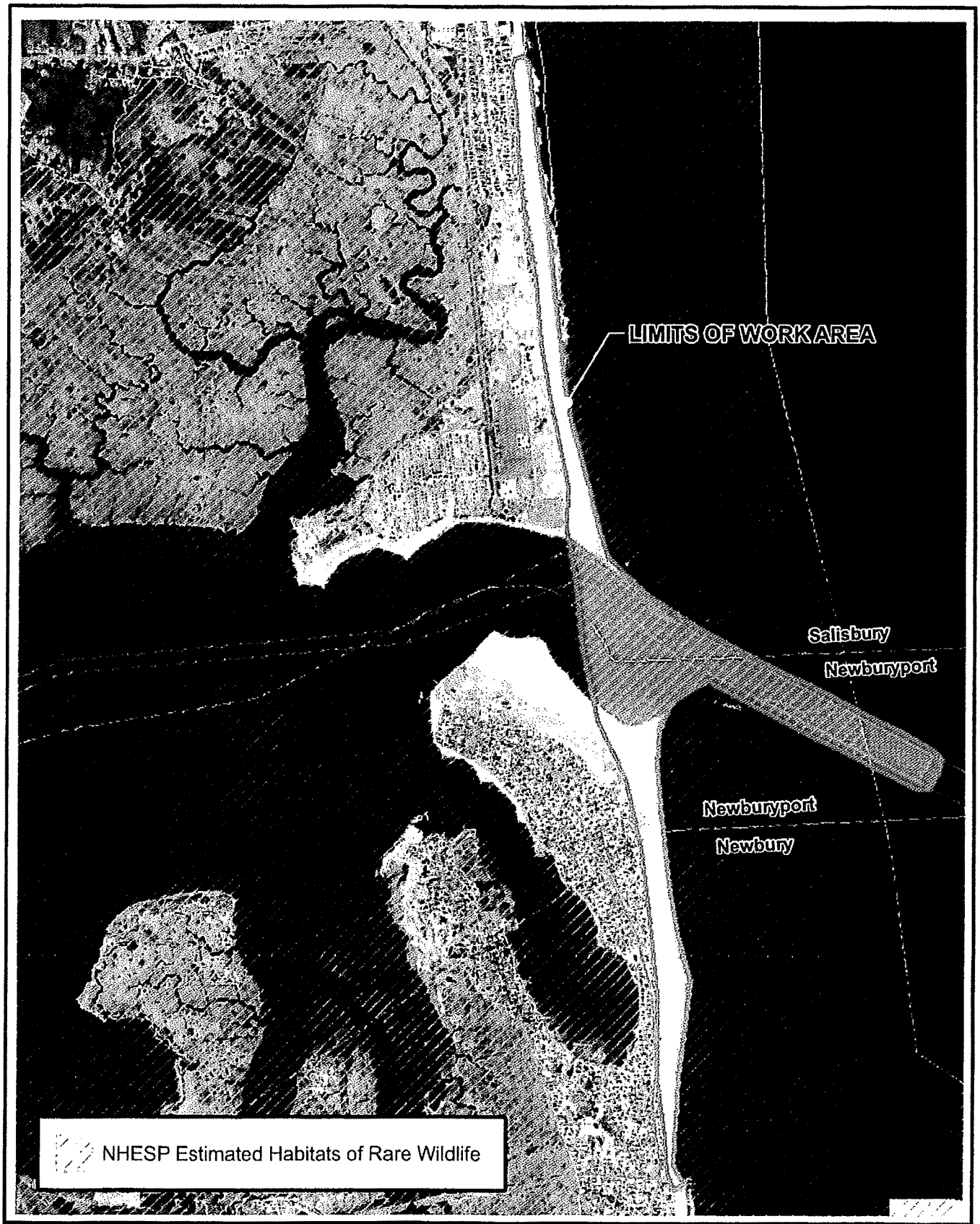
Vine Associates, Inc. 190 Old Derby Street Hingham, MA 02043 Tel (781) 749-7550 Fax (781) 749-7551	DREDGING AND NOURISHMENT PLAN	NEWBURYPORT HARBOR FEDERAL NAVIGATION PROJECT	FIGURE 3
SCALE : 1"=1500' MAY 2009			



Vine ASSOCIATES, INC

NHESP 2008 Priority Habitats for State-Protected Rare Species Newburyport Harbor Federal Navigation Project

Figure 4

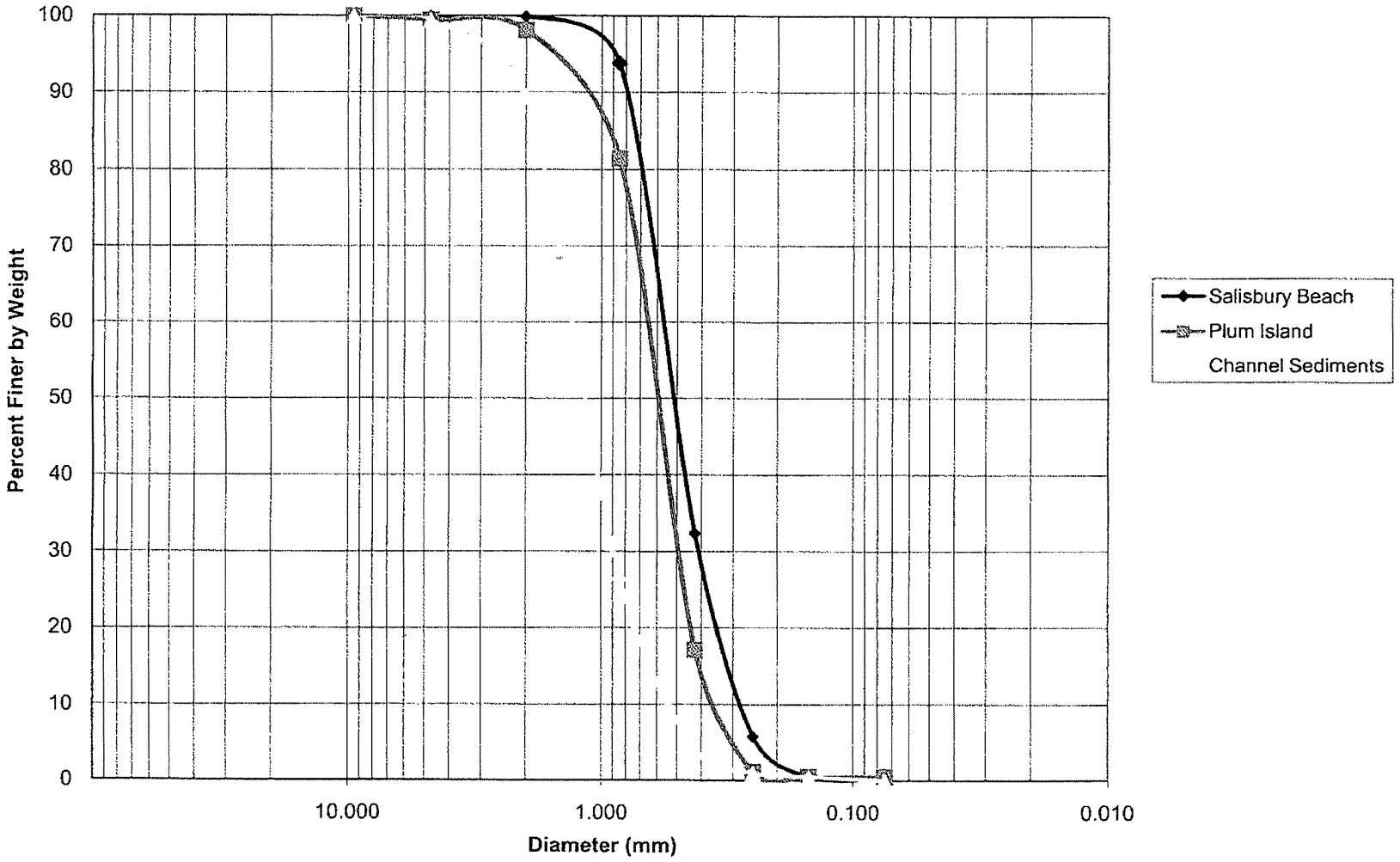


Vine ASSOCIATES, INC

NHESP 2008 Estimated Habitats of Rare Wildlife:
For Use with the MA Wetlands Protection Act Regulations (310 CMR 10)
Newburyport Harbor Federal Navigation Project

Figure 5

FIGURE 6 - Average Grain Size Analysis Comparison
Newburport Harbor Entrance Channel Dredge Sediments and Existing Beach/Dune Sand
at Plum Island & Salisbury Beach Nourishment Areas



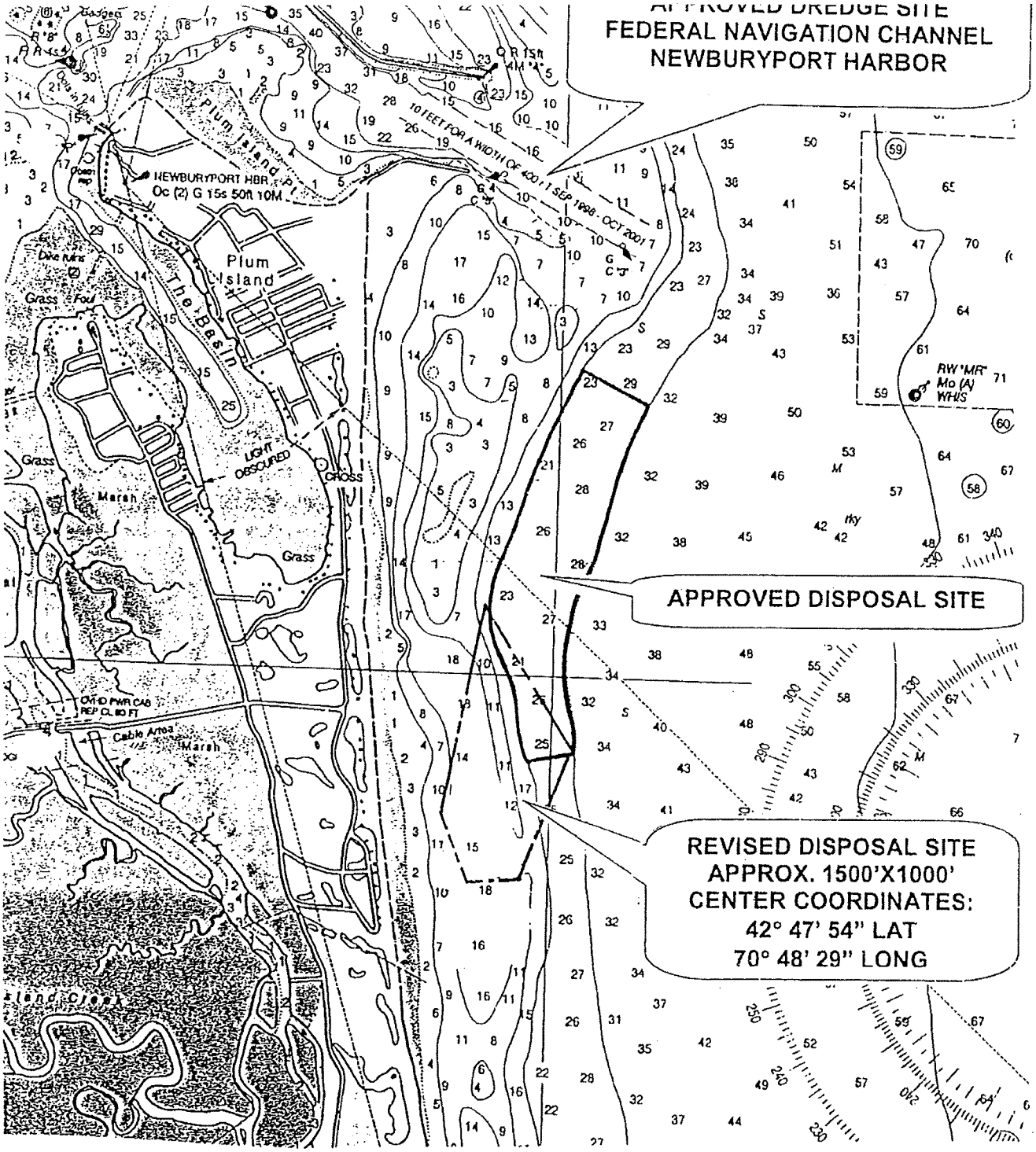
EOEA NO. 13503

PLUM ISLAND AND SALISBURY BEACH NOURISHMENT
NEWBURYPORT HARBOR FEDERAL NAVIGATION PROJECT
NEWBURYPORT, NEWBURY, SALISBURY, MASSACHUSETTS

NOTICE OF PROJECT CHANGE

ATTACHMENT 6

Previously Reviewed Plans



PLAN ACCOMPANYING PETITION
OF TOWN OF NEWBURYPORT ON
BEHALF OF ARMY CORPS OF ENGINEERS
TO: DISPOSE OF DREDGED MATERIAL
OFF PLUM ISLAND BEACH
SHEET 1 OF 1 MARCH 2005

KEY:

THE SOLID LINE DEPICTS THE LIMITS OF THE ORIGINALLY APPROVED DISPOSAL SITE.

THE DASHED LINE DEPICTS THE LIMITS OF REVISED DISPOSAL SITE.

EOEA NO. 13503
PLUM ISLAND AND SALISBURY BEACH NOURISHMENT
NEWBURYPORT HARBOR FEDERAL NAVIGATION PROJECT
NEWBURYPORT, NEWBURY, SALISBURY, MASSACHUSETTS
NOTICE OF PROJECT CHANGE

ATTACHMENT 7

Proposed Site Plans