

ENF Environmental Notification Form

<i>For Office Use Only</i> <i>Executive Office of Environmental Affairs</i>	
EOEA No.:	<u>13053</u>
MEPA Analyst:	<u>Deirdre Buckley</u>
Phone: 617-626-	<u>1044</u>

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: Michele & Paul O'Connor Proposed Bulkhead & Dredging, and Modifications to Existing Pier, Ramp & Float		
Street: 21 Captain Keavy Way		
Municipality: West Dennis	Watershed: Cape Cod	
Universal Transverse Mercator Coordinates:	Latitude: 041°39' 30" N Longitude: 070° 11' 00.3" W	
Estimated commencement date: 12/2003	Estimated completion date: 3/2004	
Approximate cost: \$75,000.	Status of project design: 100 %complete	
Proponent: Michele & Paul O'Connor		
Street: 174 East St.		
Municipality: Hingham	State: MA	Zip Code: 02043
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Beth E. Hays		
Firm/Agency: Coastal Engineering Co., Inc.	Street: 260 Cranberry Hwy	
Municipality: Orleans	State: MA	Zip Code: 02653
Phone: 508-255-6511 Ext. 553	Fax: 508-255-6700	E-mail: bhays@ceccapecod.com

- Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?
 Yes No
- Has this project been filed with MEPA before?
 Yes (EOEA No. 10493) No
- Has any project on this site been filed with MEPA before?
 Yes (EOEA No. 10493) No
- Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:
- a Single EIR? (see 301 CMR 11.06(8)) Yes No
 - a Special Review Procedure? (see 301CMR 11.09) Yes No
 - a Waiver of mandatory EIR? (see 301 CMR 11.11) Yes No
 - a Phase I Waiver? (see 301 CMR 11.11) Yes No

Identify any financial assistance or land transfer from an agency of the Commonwealth, including the agency name and the amount of funding or land area (in acres): N/A

Are you requesting coordinated review with any other federal, state, regional, or local agency?
 Yes (Specify _____) No

List Local or Federal Permits and Approvals: Issued, but expired: Order of Conditions SE 16-1238, Army Corps Permit CENED-OD-R-199502035, Ch. 91 License DEP 5682, MCZM Certificate issued May 3, 1996.

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):

- | | | |
|---------------------------------|---------------------------------------|--|
| <input type="checkbox"/> Land | <input type="checkbox"/> Rare Species | <input checked="" type="checkbox"/> Wetlands, Waterways, & Tidelands |
| <input type="checkbox"/> Water | <input type="checkbox"/> Wastewater | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Air | <input type="checkbox"/> Solid & Hazardous Waste |
| <input type="checkbox"/> ACEC | <input type="checkbox"/> Regulations | <input type="checkbox"/> Historical & Archaeological Resources |

Summary of Project Size & Environmental Impacts	Existing	Change	Total	State Permits & Approvals
LAND				<input checked="" type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input checked="" type="checkbox"/> Chapter 91 License <input type="checkbox"/> 401 Water Quality Certification <input type="checkbox"/> MHD or MDC Access Permit <input type="checkbox"/> Water Management Act Permit <input type="checkbox"/> New Source Approval <input type="checkbox"/> DEP or MWRA Sewer Connection/ Extension Permit <input type="checkbox"/> Other Permits (including Legislative Approvals) – Specify: <u>Note: above permits have been issued, but have expired. New applications are being submitted for these approvals.</u> _____ _____ _____ _____ _____ _____
Total site acreage	.25+/-			
New acres of land altered		0.07+/-		
Acres of impervious area	.25+/-	0	.25+/-	
Square feet of new bordering vegetated wetlands alteration		0		
Square feet of new other wetland alteration		0.07+/-		
Acres of new non-water dependent use of tidelands or waterways		0		
STRUCTURES				
Gross square footage	1240+/-	0	1240+/-	
Number of housing units	1	0	1	
Maximum height (in feet)	30+/-	0	30+/-	
TRANSPORTATION				
Vehicle trips per day	10	0	10	
Parking spaces	2	0	2	
WATER/WASTEWATER				
Gallons/day (GPD) of water use	330	0	330	
GPD water withdrawal	330	0	330	
GPD wastewater generation/ treatment	330	0	330	
Length of water/sewer mains (in miles)	N/A	N/A	N/A	

CONSERVATION LAND: Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?
 Yes (Specify _____) No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction?
 Yes (Specify _____) No

RARE SPECIES: Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities?

Yes (Specify _____) No

HISTORICAL /ARCHAEOLOGICAL RESOURCES: Does the project site include 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 (Specify _____) No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

Yes (Specify _____) No

AREAS OF CRITICAL ENVIRONMENTAL CONCERN: Is the project in or adjacent to an Area of Critical Environmental Concern?

Yes (Specify _____) No

PROJECT DESCRIPTION: The project description should include (a) a description of the project site, (b) a description of both on-site and off-site alternatives and the impacts associated with each alternative, and (c) potential on-site and off-site mitigation measures for each alternative (You may attach one additional page, if necessary.)

NOTE: See attached report by Woods Hole Group, dated June 10, 2003, addressing the Environmental Analysis for the site and proposed project.

The proposed project is located within a residential shorefront area of Dennis referred to as the Dennis Fingers area. The area, developed in the early 1950's, is comprised of eight small man-made canals or lagoons to allow for waterfront properties with docking facilities, protected from waves from Bass River and Weir Creek. The property is fronting Albatross Lagoon, on Capt. Keavy Way. The dwelling is landward of the low coastal bank which runs along the lagoon. This property has an existing dock facility for private residential boating. This property is between two adjacent properties already protected by bulkheads, and the locus property remains as one of the few properties within the Fingers area not protected by shorefront protection. As a result, the bank has been eroding over the years, depositing peat and fine grain material which is slumping into the lagoon. The fines and soft sediment slumping in the lagoon causes a "poor" shellfish habitat (see attached Woods Hole Group report). Armoring of the Coastal Bank would eliminate the source of the fines and soft sediment, as well as enhance the stability of the coastal bank to act as vertical buffer to storm water.

Only a small portion of the remains of a peat bank exists at the edge of the bank. The slope of the bank has been overtaken by phragmites. There but remains only fringe pockets of salt marsh vegetation (*spartina patens* and *spartina alterniflora*), amounting to a total of less than 50 square feet combined. The remaining peat bank is sediment starved and covered only with mosses. A proposed off-site mitigation plan is being submitted as part of this filing. This plan would expand on the similar mitigation plan, as approved under EOE Number 12652 by an additional 200 square feet. This amount would account for a 4:1 replication/restoration, to an area much more suitable for a salt marsh ecosystem and where there is an existing need for resource area improvement.

The channel/lagoon is narrow and hazardous to navigation with the floats extended in their current configuration. The proposed dredging would allow the floats to be moved inland, thereby opening the channel of the lagoon for navigable width. The proposed dredging would also remove the organic rich soft sediments which would improve the shellfish habitat and may increase productivity (see attached Woods Hole Group report).

The lagoon is located within the FIRM Flood Zone A8, Elevation 10'. The shoreline is not subjected to wave action, and therefore the consideration for a sloped rip-rap structure for wave energy absorption capability is not an issue. The proposed project involves the construction of a bulkhead in alignment with the adjacent bulkheads and fronting the scarped peat bank for the retention of the fines and soft sediment, as well as enhancing the stability of the coastal bank to act as a vertical buffer to storm water (see attached Woods Hole Group report). The construction of the bulkhead would also permit the landward relocation of the float for widening and enhancing the

navigability of the lagoon channel.

This project has previously been reviewed, and issued a Certificate from the Secretary of Environmental Affairs, under EOE 10493. This current filing includes a slight variation to that previously reviewed with the alignment of the proposed bulkhead with the two abutting bulkheads. This proposed project also includes a slight decrease in the total length of floats, as well as a repositioning of the floats that would affix the floats to the bulkhead, thereby reducing the intrusion into the channel. The previously approved project has also been issued a Chapter 91 License (DEP License No. 5682), Order of Conditions (SE 16-1238), Army Corps of Engineers Permit (CENED-OD-R-199502035), and Federal Coastal Zone Management Certification (5/3/96). Copies of these permits and documents are included in Appendix B.

Discussion of Options:

Option 1 – Do nothing

If nothing is done at this site, the peat, fines and soft sediments would continue to slump into the lagoon, further degrading the habitat for shellfish, further filling the bottom with sediments which would cause the existing float to either rest on the bottom at low tides, or force the seaward movement of the floats, which would further impair the safe navigability of the lagoon channel. No benefits would be gained either environmentally or for navigation should this option be chosen.

Option 2 – Preferred Alternative, Project as proposed

This option would armor the coastal bank in such a manner that is compatible with the Commonwealth's Wetlands Protection Regulations. This option would eliminate the slumping of the undesirable materials into the lagoon, which have been found to be adverse for healthy shellfish habitat. The vertical structure would eliminate the source of the sediment and help slow down the degradation of the bottom sediments within the canal, as well as increase the stability of the coastal bank. The proposed dredging would remove the existing undesirable materials from the area of the lagoon, which will improve the shellfish habitat and may increase productivity (see attached Woods Hole Group report). The proposed bulkhead and dredging would also improve the navigability of the lagoon channel by allowing the floats to be brought inland, thereby widening the channel for boat traffic.

This option would result in the loss of less than 50 square feet of fringe salt marsh vegetation which is all that remains on the deteriorating peat bank. The lower slope of the bank has been overtaken with *phragmites australis*. Considering the amount of the little remaining peat bank with its condition of being sediment starved, and the invasion of the *phragmites*, the feasibility of this area returning to a viable salt marsh ecosystem is improbable.

This option proposes an off-site mitigation program that would assist in the successful restoration of a salt marsh, performed in conjunction with three other approved mitigation projects. The proposed mitigation is outlined in the Mitigation Narrative, and illustrated in the Mitigation Plan (both found in Appendix A). The mitigation would include a 4:1 compensation in total area, 200 +/- square feet, along the salt marsh adjacent to the West Dennis Beach.

Option 3 – Dredging with stone sloped armoring of the coastal bank

This option would include the dredging, but utilize a sloped armoring of the coastal bank, as opposed to a vertical structure. The area is in a FIRM A Zone, not subjected to wave energy which must be absorbed. The toe of the armoring would protrude significantly into the lagoon thereby eliminating the benefit which would allow the landward relocation of the floats, thus, not improving the navigation within the lagoon channel. Since this area is not subjected to wave energy, there is no benefit to construct a sloped rip-rap structure for wave energy absorption. Therefore, this Option is not recommended, as it eliminates some benefits which would be obtained by the preferred option.