

ENF Environmental Notification Form

For Office Use Only
 Executive Office of Environmental Affairs
 EOE No. **13614**
 MEPA Anal. **STEPH DE BUCKLEY**
 Phone: 617-626-**1044**

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: Coastal Bank Alterations for Maria J. Troulis & Michael E. Aronoff		
Street: 19 Whitney Lane		
Municipality: Plymouth	Watershed: South Coastal Basin	
Universal Transverse Mercator Coordinates: 279903/840479	Latitude: 41-48-38	Longitude: 70-32-02
Estimated commencement date: 10-01-05	Estimated completion date: 05-15-06	
Approximate cost: \$200,000	Status of project design: 95 %complete	
Proponent: Maria J. Troulis & Michael E. Aronoff		
Street: 19 Whitney Lane		
Municipality: Plymouth	State: MA	Zip Code: 02360
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Shelly McPhee		
Firm/Agency: O'Neill and Associates	Street: One Beacon Street, Suite 1600	
Municipality: Boston	State: MA	Zip Code: 02108
Phone: 617-646-1000	Fax: 617-646-1290	E-mail: smcphee@oneilandassoc.com

- Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?
 Yes X No
- Has this project been filed with MEPA before?
 Yes (EOEA No. _____) X No
- Has any project on this site been filed with MEPA before?
 Yes (EOEA No. _____) X No
- Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:
- a Single EIR? (see 301 CMR 11.06(8)) Yes X No
 - a Special Review Procedure? (see 301 CMR 11.09) Yes X No
 - a Waiver of mandatory EIR? (see 301 CMR 11.11) Yes X No
 - a Phase I Waiver? (see 301 CMR 11.11) Yes X 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): None

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

List Local or Federal Permits and Approvals: Local Conservation Bylaw Art. 27 & 310 CMR 10 Superseding or Final Order of Conditions (COMM MASS)

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 checked="" 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 checked="" type="checkbox"/> Superseding Order of Conditions <input 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 <i>(including Legislative Approvals) – Specify:</i>
Total site acreage	.67			
New acres of land altered		.22		
Acres of impervious area	.05	.10	.15	
Square feet of new bordering vegetated wetlands alteration		0		
Square feet of new other wetland alteration		8000+/-		
Acres of new non-water dependent use of tidelands or waterways		0		
STRUCTURES				
Gross square footage	2000+/-	1000+/-	3000+/-	
Number of housing units	1	0	1	
Maximum height (in feet)	25+/-	5+/-	30+/-	
TRANSPORTATION				
Vehicle trips per day				
Parking spaces				
WATER/WASTEWATER				
Gallons/day (GPD) of water use				
GPD water withdrawal				
GPD wastewater generation/ treatment				
Length of water/sewer mains (in miles)				

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.)

The site is located at 19 Whitney Lane in the Cedarville section of Plymouth. The property is located at a coastal bank, beach and buffer, and is improved with a house, shed, amenities and utilities, located within the coastal bank buffer. As documented in the NOI, the house was constructed circa 1972.

The Applicants propose constructing a 213 foot long stone revetment on the coastal bank in front of their property which would interface with the structures located immediately adjacent on either side. There is an existing 135 foot long revetment already in place between the Applicants' property and other properties located downdrift to the south. In conjunction with the revetment, the Applicant proposes to erect a sand fence on the coastal beach adjacent to the revetment to contain beach nourishment and to encourage additional accretion. Additionally, the Applicants propose to improve the existing retaining wall at the top of the bank which has been impacted by the recent erosion and to construct an access stairway to the beach to permit access to the beach without compromising the coastal bank. An irrigation system on the coastal bank is to be repaired and improved, and the existing septic system in the buffer is proposed to be upgraded. The Applicants also propose to construct a garage in the coastal bank buffer. The project is similar in nature and scope to the project completed by Harley Kaplan, an abutting neighbor at 17 Whitney Lane.

This past winter, a gabion mattress, geotextile and pipe assembly protecting the toe of the coastal bank was destroyed by a number of successive nor'easters. As a result of these storms, the bank bottom was eroded away, with bank face slumping to fill the void, compromising the upper retaining wall and threatening the security of both the home and property. The coastal bank is eroding along this entire area of coastline, impacting the properties both to the north and the south of the Applicants' property. Scott Cheney owns the property immediately to the north at 21 Whitney Lane. Mr. Cheney's property is partially protected by sloped stone placed on the coastal bank in front of his property. Harley Kaplan owns the property immediately to the south at 17 Whitney Lane. Mr. Kaplan's entire ocean frontage is protected by a stone revetment on the coastal bank. Mr. Kaplan's stone revetment was constructed in approximately 1993. The Applicants' property is sandwiched between these two properties with existing hard coastal engineering structures or other similar measures protecting them.

There is a long history of stabilization and erosion control at the subject property. These measures included both soft and firm measures, from vegetation and fencing to chain link fence over geotextile, sand, gravel and cobble. Unfortunately, these measures have all failed in fairly short order, resulting in the impending compromise to home security. The Applicants recently implemented emergency measures in the spring of 2005 to protect the bank. These measures included filling the eroded cavity at the bank bottom with sand and gravel and installing geotextile material buried at the base of the bank.

These emergency measures also failed as a result of further storm erosion in May of 2005. The erosion of the bank threatens not only the Applicants' home, but also the properties belonging to the abutting neighbors. Given the existing reduction in beach elevation and width consequent to successive storms already endured, the Applicants' home and property remain in precarious and alarming jeopardy on the next assault of hurricane or winter storms. (See Appendix A for photographs of recent storm damage.)

The Plymouth Conservation Commission approved the project and issued an Order of Conditions. The

Selectmen were of the opinion that the project would best preserve and protect the Town's property, as well as diminish the Town's liability where bank collapse might injure persons or properties

In summary, the Order of Conditions includes numerous special conditions to provide additional protection to the resource areas. The special conditions include:

- Management of stormwater runoff
- Beach access requirements
- Limits on size of the revetment
- Replacement of damaged vegetation
- Beach nourishment in the amount of 256 cubic yards placed within 1-year of project completion and a total of 768 cubic yards to be placed (if necessary) over a 3-year period.
- Annual beach profiling and monitoring
- Three year assessment reporting

The project as conditioned clearly meets all of the relevant performance standards under the Wetlands Protection Act and regulations, as well as the Town of Plymouth Wetlands Protection Bylaw and its regulations.

Alternatives

The Applicants have considered and rejected the following alternatives for the reasons stated below.

Alternative #1 – No Action

If the Applicants do nothing, the coastal bank will erode causing large scale slumping of the bank face and top of bank. The Applicants will potentially lose their home. Additionally, the slumping will threaten the coastal bank in front of Mr. Cheney's and Mr. Kaplan's properties threatening their homes. This alternative is clearly unacceptable.

Alternative #2 – Additional Soft of Firm Measures

There is a long history of the unsuccessful use of soft and firm measures at the property, including sediment-trapping fencing, chain link, geotextile gabion and pipe bracing. The extensive efforts of the Applicants to revegetate the coastal bank and top of bank have not succeeded in preventing further slumping. The Commission expressly determined that no method, other than construction of the proposed revetment was feasible, particularly given the historical and costly failures of all other efforts. It has been more than sufficiently demonstrated that continuation of these efforts is futile and will not protect the Applicants' home.

Alternative #3: House Relocation

As shown on the included NOI Plan, the house, its separations to septic and setbacks from both to each and property lines are very near minimums. There is no substantial room to move the dwelling away from the coastal bank. It is not rational to relocate the house on the lot away from the subject bank, which has exhibited a long-term erosion rate of 1.4' year, where there appears to be no more than about ten feet (10') of landward latitude to relocate house toward the road. Relocation is simply not an option. We must control erosion undermining the bank toe.

Alternative #4 – Revised Revetment Length

It has been suggested that the structure in front of Mr. Cheney's property may not be lawful and that the Applicants should not be permitted to connect their revetment to this structure. However, the Applicants extensive review of the public records suggests that the structure was allowed to remain in place by the Plymouth Conservation Commission and the Department of Environmental Protection. It makes perfect sense to connect the Applicants' proposed revetment to Mr. Cheney's structure to prevent end scour which would tend to undermine the Applicants' revetment. One continuous structure would better protect each of Mr. Kaplan's, Mr. Cheney's and the Applicants' properties. However, in the event that regulators determine that the Applicants should not be permitted to connect their revetment to Mr. Cheney's structure, the Applicants are willing to redesign the revetment to end short of Mr. Cheney's structure. While this alternative is feasible, it is not preferred because it does not implement the best available measures and provide the greatest degree of protection. It is absolutely essential, however, that the Applicants' proposed revetment extend toward the Cheney stones as far as permissible since the impact of wave action, setup and surge is from the northeast of the Applicants' home, not just generally east. To leave a wide gap between the end of the Applicants' proposed revetment and Cheney's stones will not serve the interest of storm damage prevention. It will leave homes at risk from intensified and aggravated erosion between hard structures in closer proximity. At the least, the Applicants' revetment should be extended fifty feet (50') north of the locus property line and onto land of Cheney, situated behind or landward of the Cheney stones, but not touching or integrating. The best alternative is to tear down the Cheney stones completely and incorporate them into the Applicants' revetment for the benefit of storm damage protection for the Applicants' home, thereby legalizing their existence and incorporating the same in a legitimate, sanctioned and mitigated design. It is suggested that one strike a

line on the included NOI Plan from the northwest corner of the Applicants' home in a northeasterly direction across the beach. The area southeast of the line indicated is subject to ocean assault from the northeast, including a strong current washing and slicing along bank toe and beach north to south. We ask you please consider the efficient placement and inclusion of armor units in light of the hazard potential.

The proposed stone revetment is the best available and most effective stabilization and protection measure given the height, texture and slope of the existing bank. Stone revetments are aesthetically attractive and indigenous, eventually destined to settle into the beach and add natural volume to the same. In addition, serpentine accretion fencing, beach nourishment with compatible sand sediments, planted frontal dune at revetment base, irrigated, vegetative stabilization of the disturbed bank slope and beach monitoring is being provided as further best available measures and mitigations.