

*For Office Use Only*  
**Executive Office of Environmental Affairs**  
 MEPA Analyst: *Ann Cannaday*  
 Phone: 617-626-*1035*

# 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: <i>Nantasket Beach Coastal Storm Damage Protection Project</i>		EOEA #: <i>12668</i>
Street: <i>Nantasket Avenue/Hull Shore Drive</i>		
Municipality: <i>Hull</i>	Watershed: <i>Boston Harbor</i>	
Universal Transverse Mercator Coordinates: <i>4.681, 350N, 19.346.850E</i>	Latitude: <i>42°16'19"</i>	Longitude: <i>70°51'27"</i>
Status of project construction: <i>planning phases</i>		%complete <i>0</i>
Proponent: <i>Massachusetts Department of Conservation and Recreation (DCR)</i>		
Street: <i>251 Causeway Street</i>		
Municipality: <i>Boston</i>	State: <i>MA</i>	Zip Code: <i>02114-2104</i>
Name of Contact Person From Whom Copies of this NPC May Be Obtained: <i>Mr. Mike Galvin, Project Engineer</i>		
Firm/Agency: <i>DCR</i>	Street: <i>251 Causeway Street</i>	
Municipality: <i>Boston</i>	State: <i>MA</i>	Zip Code: <i>02114-2104</i>
Phone: <i>(617) 626-1442</i>	Fax: <i>(617) 626-1351</i>	E-mail: <i>Mike.Galvin@state.ma.us</i>

In 25 words or less, what is the project change? The project change involves . . .

- *2,000 feet of seawall toe protection*
- *Beach access improvements (cut stone steps and 3 ADA ramps)*
- *Minor repairs to existing seawall*

See full project change description beginning on page 3.

Date of ENF filing or publication in the Environmental Monitor:

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): *12/15/2004*)  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:

Are you requesting a finding that this project change is insignificant? (see 301 CMR 11.10(6))

Yes  No; if yes, attach justification.

See attached Justification Section on the bottom half of page 3 of this NPC Form.

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:

See page 4 for the change request and Attachment 1 for the Secretary's Certificate.

Summary of Project Size & Environmental Impacts	Previously reviewed			Net Change	Currently Proposed Seawall toe protection <sup>d</sup>
	Filed Project <sup>a</sup>	930 ft North Section (sheet-backed revetment) <sup>b</sup>	2,000-foot seawall repair <sup>c</sup>		
<b>LAND</b>					
Total site acreage	36	1.2	11.0	-1.06	1.54
Acres of land altered					
Acres of impervious area	1.43	0.2	0.43	0	0.43
Square feet of bordering vegetated wetlands alteration					
Square feet of other wetland alteration	1,570,000 <sup>e</sup>	2,805	0	32,235	32,235 <sup>f</sup>
Acres of non-water dependent use of tidelands or waterways					
<b>STRUCTURES</b>					
Gross square footage	64,240	55,600	32,300	42,800	75,100
Number of housing units					
Maximum height (in feet)	17 NGVD	17 NGVD	16.5 NGVD	0	16.5 NGVD
<b>TRANSPORTATION</b>					
Vehicle trips per day					
Parking spaces					
<b>WATER/WASTEWATER</b>					
Gallons/day (GPD) of water use					
GPD water withdrawal					

GPD wastewater generation/ treatment					
Length of water/sewer mains (in miles)					
<p><sup>a</sup> – As filed in the original ENF, December 26, 2002, the Filed Project includes Phase I (seawall repair) and Phase 2 (sand nourishment of the 6,800-foot long beach). The Temporary Seawall Fortification is not included in these numbers. It has been completed and affected about 1.7 acres of intertidal habitat (seasonally variable).</p> <p><sup>b</sup> – Completed as part of the first Notice of Project Change.</p> <p><sup>c</sup> – The 2,000-foot middle section is that portion of the original project that compares to the current NPC for the expanded Phase 1.</p> <p><sup>d</sup> – Figures include minor additional alternatives for access ramps.</p> <p><sup>e</sup> – Includes entire proposed beach nourishment area (36 acres).</p>					

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:

**Request For A Finding That This Project Change Is Insignificant (per 301 CMR 11.10(6))**

**The Proponent may include in a Notice of Project Change an explanation of why the Secretary should deem the change in the Project or the lapse of time to be insignificant in terms of its environmental consequences, with specific reference to these factors and other relevant information.**

*Explanation: The change in project is insignificant because the new action consists of 1. the addition of 2,000 feet of seawall toe protection (STP) in the middle portion of the seawall, between Stations 30+00 and 50+00; 2. beach access improvements to deteriorating stairways and ramps; and 3. minor repairs to the existing seawall at spots along its entire length. These project changes were designed to improve the functionality of the existing structure and improve safe access to the beach area. None of the project aspects significantly increase the loss of intertidal habitat, and each have been coordinated with state and federal resource agencies to minimize impacts.*

**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).

**(a) Description of the project as most recently reviewed**

*The project as presented in the Secretary's Certificate (January 25, 2002) involves a phased storm drainage protection project. It extends 6,800 feet from Atlantic Hill in Hull, Massachusetts northward along the eastern shore of Hull (Nantasket Beach) and involved a two year construction project in two phases:*

- Phase 1 – repair of the 5,400-foot long concrete seawall.
- Phase 2 – 6,800 feet of beach sand nourishment

*The proposed Phase 1 work consisted of repairs to the existing 5,400-foot long concrete seawall, including replacing a 550-foot long section of collapsed seawall at its northern end and placing stone rubble toe protection north of the collapsed seawall for about 450 feet. The existing seawall footprint underneath the sand fill and sidewalk behind the seawall increased from about 37,800 square feet (ft<sup>2</sup>) to 45,800 ft<sup>2</sup> – an increase of 8,000 ft<sup>2</sup> (21%). The existing seawall configuration remained the same. Also included in the seawall project was reconstruction of nine stairways, nine ramps, and three vehicular access ramps leading to the beach, and replacement of the railing atop the seawall and the adjoining sidewalk along the entire length of the project. Light posts along the parking lot at the south end of the project were to be replaced. Three handicapped accessible ramps fully compliant with the Commonwealth of Massachusetts Architectural Access Board were also proposed.*

*Phase 2 is feasible only following completion of Phase 1. The original Phase 2 consists of placing about 280,000 cubic yards of sand along the 6,800-foot beach. This beach nourishment consisted of the placement of sand to an elevation of 12 feet National Geodetic Vertical Datum (NGVD) extending horizontally 50 feet from the seawall and then tapering to the existing beach with a 1 foot vertical to 15 feet horizontal (1V:15H) slope along the entire length of the project. In addition a 1,400-foot long dune with a 10-foot wide crest at elevation 17 feet NGVD and 1V:3H slopes would be built behind the proposed 50-foot wide berm sand fill from the north end of the seawall to the northern limit of the project area near Phipps Street to provide additional storm protection in the area lacking a seawall. Sand would be obtained from an upland source, such as a sand quarry. Periodic maintenance (renourishment due to sand loss to erosion) would be required at a rate of approximately 4,300 cubic yards per year.*

*A prior Notice of Project Change was submitted in 2004. This change involved use of a sheet pile backed stone revetment rather than the originally proposed in-kind replacement of the original seawall. The first NPC involved two separate changes to the original project described in the ENF. The first change was an emergency Temporary Seawall Fortification (TSF) that was constructed from June to August 2004. The TSF involved placing 3,500-pound stone to a height of 10 feet NGVD, with a cross slope of 3V:1H to elevation -7 feet NGVD along 2,000 feet of the southernmost section of the seawall. The TSF was an emergency response to a February 18, 2004 routine post-storm inspection that showed the southernmost section of the seawall to be an imminent threat of failure from erosion and toe scour. Originally proposed as a cobble berm, the TSF was changed by state and local officials to a stone revetment. The TSF affected about 1.7 acres (seasonally variable intertidal habitat) of the high tide habitat along the beach.*

*The second change was to allow the original project to be completed in three phases. Phase 1 included replacing a northern section of the existing seawall with a new stone revetment about 930 feet long; Phase 2 included repairs to the remainder of the existing seawall; and Phase 3 included sand nourishment along about 6,800 feet of the beach. The 930-foot sheet-backed stone revetment was to be moved landward about 21 feet from the original proposed project (in-kind seawall repair/replacement) and tied into an existing revetment.*

**(b) Description of material changes to the project as previously reviewed**

*This NPC requests an expansion of the work to be completed under the previous Phase 1 waiver. The proposed additional interim work is to provide Seawall Toe Protection (STP) and improve the stability to the remaining vulnerable section of the seawall along the middle reach of Nantasket Beach. In addition the work will improve the existing, inadequate and unsafe beach access, and make minor repairs to the seawall which include the sealing of cracks, joint repairs, and repairing spalling or deteriorated concrete. The middle reach of seawall extends between the southerly emergency Temporary Seawall Fortification (TSF) and the northerly Phase 1 Revetment projects. Although the STP work is not an emergency action, recent observations raise serious concerns that this section of seawall may be at substantial risk to failure from future reoccurring storm events. As a result, the Department of Conservation and Recreation (DCR) intends to implement a proven and cost-effective interim measure to increase the longevity of the seawall. As the STP is an interim measure it will be designed for a 25-year storm event similar to the criteria utilized for the TSF constructed along the southerly reach of the beach. Implementation of this project at this time will substantially reduce the likely need of a more costly emergency seawall stabilization or replacement project in the near future.*

*The current project involves construction of 2,000 feet of a STP revetment, seaward of existing seawall, along with improved beach access and minor repairs to the existing seawall over a 4,380 foot length of the beach. The proposed project will extend from the end of the 2005 completed Phase 1 Revetment Project, approximately Station 29+29, to the southern end of the beach at Station 73+81. The STP would be constructed between Station 30+00, the end of the Phase 1 Revetment Project, and Station 50+00, the beginning of the TSF section constructed in the summer of 2004. The revetment work is similar in scope to the TSF constructed in 2004 and is designed for a 25-year storm event.*

*While it is understood that a large-scale beach nourishment project plays a role in the stabilization of the seawall and the overall Reservation master planning process, DCR recognizes that implementation of a beach nourishment project will require a longer term planning process. This process must address a number of key issues such as: cost; sand sources; grain size and color compatibility; transportation; and other environmental concerns. Therefore, DCR wishes to immediately proceed with the stabilization and protection of the existing seawall as a necessary interim project.*

*The original NPC defined Phase 2 as repairs to the remainder of the existing seawall. The current Phase 2 is being redefined as the longer term additional shoreline protection measures which will be evaluated as part of the ongoing study. As with the first NPC, the proposed changes are under Phase 1 of the project. Phase 3 continues to consist of beach sand nourishment, as defined in the previous NPC.*

*Improved access over the existing TSF and proposed STP will be provided over the total 4,380 linear feet of this project from Station 30+00 to Station 73+81. The beach access improvements will involve constructing stone stairways and the three new handicap access ramps. Minor repairs to the seawall which includes the sealing of cracks, joint repairs, and repairing spalling or deteriorated concrete, will be made from Station 30+00 to Station 73+81. In addition, the existing pipe railing extending linearly along the top of the seawall from Station 30+00 to Station 73+81 will be removed and replaced.*

*We believe the project changes are consistent with the following Commonwealth of Massachusetts Coastal Zone Management Policies:*

- **Coastal Hazard Policy #2.** *Ensure construction in water bodies and contiguous land areas will minimize interference with water circulation and sediment transport. Approve permits for flood or erosion control projects only when it has been determined that there will be no significant adverse effects on the project site or adjacent or downcoast areas.*
- **Coastal Hazard Policy #3.** *Ensure that state and federally funded public works projects proposed for location within the coastal zone will:*
  - *not exacerbate existing hazards or damage natural buffers or other natural resources, be*

- reasonably safe from flood and erosion related damage;
  - not promote growth and development in hazard-prone or buffer areas, especially in Velocity zones and Areas of Critical Environmental Concern; and
  - not be used on Coastal barrier Resource Units for new or substantial reconstruction of structures in a manner inconsistent with the Coastal Barrier Resource/Improvement Acts.
- **Coastal Hazard Policy #4.** Prioritize public funds for acquisition of hazardous coastal areas for conservation or recreation use, and relocation of structures out of coastal hazard areas, giving due consideration to the effects of coastal hazards at the location to the use and manageability of the area.

**(c) Significance of the proposed changes, with specific reference to the factors listed in 301 CMR 11.10(6)**

*301 CMR 11.10(6) lists seven specific references, identified as a) through g) below to determine whether change in a Project or the lapse of time might significantly increase environmental consequences.*

**(a) Expansion of the Project.** A change in a Project is ordinarily insignificant if it results solely in an increase in square footage, linear footage, height, depth or other relevant measures of the physical dimensions of the Project of less than 10% over estimates previously reviewed, provided the increase does not meet or exceed any review thresholds

*The STP does not expand the project. The STP is a proven and cost-effective interim measure to increase the longevity of the remaining vulnerable section of the seawall and is identical to the previous TSF measures that were designed with input from resource agencies including the Massachusetts CZM.*

**(b) Generation of further impacts, including an increase in release or emission of pollutants or contaminants during or after completion of the Project.** A change in a Project is ordinarily insignificant if it results solely in an increase in impacts of less than 25% of the level specified in any review threshold, provided that cumulative impacts of the Project do not meet or exceed any review thresholds that were not previously met or exceeded

*Construction of the STP and access improvements will not increase any review thresholds. The STP will provide improved dissipation of wave energy and result in reduced scour and erosion. There are no known proposed actions that would increase impacts greater than 25 percent or increase releases of emissions of pollutants or contaminants during or after completion of the project.*

**(c) Change in expected date for Commencement of the Project, Commencement of Construction, completion date for the Project, or schedule of work on the Project**

*The original project construction schedule dates were the year 2002 (seawall repair/replacement) and 2004 (sand nourishment). The TSF was constructed from June to August 2004. The original Phase 1 (sheet pile backed revetment) was constructed in 2005. The current Phase 1 activities will be constructed in early 2007. Construction of the STP and access improvements will not affect the scheduling of work for the originally proposed project.*

**(d) Change of the Project site**

*The current proposed activities are within the original project site.*

**(e) New application for a Permit or New request for Financial Assistance or a Land Transfer**

*Not applicable*

**(f) For a Project with net benefits to environmental quality and resources or public health, any change that prevents or materially delays realization of such benefits**

*Not applicable*

**(g) For a Project involving a lapse of time, changes in the ambient environment or information concerning the ambient environment**

*There are no known changes in the ambient environment.*

**(d) Measures that the project is taking to avoid damage to the environment or to minimize and mitigate unavoidable environmental impacts**

*The proposed STP is identical to the originally constructed TSF. During the development of the TSF project design, the proponent (DCR) held extensive coordination meetings with the Massachusetts Office of Coastal Zone Management, Massachusetts Department of Environmental Protection, Massachusetts Division of Marine Fisheries, Massachusetts Executive Office of Environmental Affairs - MEPA Unit, the Town of Hull, and the U.S. Army Corps of Engineers to create a project that minimizes impacts to intertidal areas and adheres to Coastal Zone Management policies. On October 12, 2006, the Nantasket Beach Citizens Advisory Committee (CAC) met and voted to endorse the STP Project to stabilize and protect the middle reach of the seawall along with improving pedestrian access to the beach.*

**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:

Date	Signature of Responsible Officer or Proponent	Date	Signature of person preparing NPC (if different from above)
	<u>Mike Galvin</u>		<u>Bernward Hay, Ph.D</u>
	Name (print or type)		Name (print or type)
	<u>DCR</u>		<u>The Louis Berger Group, Inc.</u>
	Firm/Agency		Firm/Agency
	<u>251 Causeway Street</u>		<u>75 Second Avenue, Suite 700</u>
	Street		Street
	<u>Boston, MA 02114</u>		<u>Needham, MA 02494</u>
	Municipality/State/Zip		Municipality/State/Zip
	<u>617-626-4997</u>		<u>781-444-3330</u>
	Phone		Phone