



EasyGrantsID: 43881  
 National Fish and Wildlife Foundation – Hurricane Sandy Coastal Resiliency Competitive Grants  
 Program 2013, Full Proposal  
 Title: Sandwich Community Beach Restoration and Resiliency Project  
 Organization: Town of Sandwich

**Grant Information**

**Title of Project**

Sandwich Community Beach Restoration and Resiliency Project

**Total Amount Requested** \$ 5,000,000.00  
**Matching Contributions Proposed** \$ 1,261,829.68  
**Proposed Grant Period** 05/19/ 2014 - 05/02/ 2016

**Project Description**

Sandwich community protection through beach and dune nourishment and identification of long-term beneficial reuse alternatives that will enhance flood control, storm damage protection, and resiliency.

**Project Abstract**

Beaches along the Cape Cod Bay shoreline of Sandwich, MA have a long history of erosion that stems from construction of jetties at the east end of the Cape Cod Canal in the early 1900s. Large quantities of sand destined for Sandwich Town beaches have been trapped at the northern jetty, or within the Canal, exacerbating natural erosion, increasing the potential for community-wide flooding and storm damages, and reducing valuable habitat for threatened shorebirds.

Recognizing the need to reduce vulnerability to coastal storms, sea level rise, flooding, and erosion, the Town is currently working to design and permit a regional beach and dune restoration project that will have community-wide benefits. Engineering and permitting are currently underway and the project is expected to be ready for construction by Fall 2014. Funds for construction of the project are being sought under the Restoration and Resiliency opportunity of the Hurricane Sandy Grant Program.

Additional planning and design work is also required to identify the range of viable sediment sources for the restoration. Funds to support an alternatives analysis that focuses on beneficial reuse options, as well as the design and permitting of the borrow sites are also being sought from the Project Planning and Design opportunity of the Hurricane Sandy Grant Program. In conjunction, the two projects will provide a blueprint for long-term management of the natural ecosystem that will enhance resiliency and habitat.

**Organization and Primary Contact Information**

Organization Town of Sandwich  
 Organization Type State or Local Government  
 Organization Web Address www.sandwichmass.org  
 Organization Phone  
 Street Line 1  
 Street Line 2  
 City, State, Country, Postal Code Sandwich,Massachusetts,North America - United States  
 Region (if international)  
 Organization Congressional District District 9 (MA)

**Primary Contact** Mr. George Dunham



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Organization: Town of Sandwich

Position/Title	Town Manager
Street Line 1	130 Main Street
Street Line 2	
City, State, Country, Postal Code	Sandwich, Massachusetts, North America - United States, 02563
Region (if international)	
Phone and E-mail	508-888-5144 x ; gdunham@townofsandwich.net
<b>Keywords</b>	Conservation Action; Conservation Threat; Major Habitat Type; Other; Species
<b>Sub-keywords</b>	Action - Land/Water Management; Action - Species Management; Coastal - Coastal beaches, dunes and shoreline; Coastal - Estuaries and Bays; Species - Bird; Threat - Climate Change & Severe Weather; Threat - Natural System Modifications
<b>Other Keyword(s)</b>	Bird - Shorebirds - Piping Plovers, Least Terns



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### Project Location Information

Project Location Description The beach restoration and resiliency project is located along 5,000 feet of critically eroded Cape Cod Bay shoreline in the town of Sandwich, MA, immediately downdrift of the Cape Cod Canal.

Project Country(ies) North America - United States

Project State(s) Massachusetts

Project Congressional District(s) District 9 (MA)

### Permits and Approvals

Permits/Approvals Description: Expanded Environmental Notification Form (ENF) needed to obtain a Certificate of the Secretary of Energy and Environmental Affairs approving beach/dune restoration project.

Permits/Approvals Status: Intend to Apply

Permits/Approvals Agency-Contact Person: Exec. Office of Energy and Environmental Affairs - Secretary Richard Sullivan

Permits/Approvals Submittal-Approval Date: 3/14/2014 12:00:00 AM

Permits/Approvals Description: Notice of Intent application needed to obtain an Order of Conditions approving the beach/dune restoration project.

Permits/Approvals Status: Intend to Apply

Permits/Approvals Agency-Contact Person: Sandwich Conservation Commission - Mark Galkowski

Permits/Approvals Submittal-Approval Date: 5/2/2014 12:00:00 AM

Permits/Approvals Description: Waterways application needed to obtain a Chapter 91 Waterways Permit approving the beach/dune restoration project.

Permits/Approvals Status: Intend to Apply

Permits/Approvals Agency-Contact Person: MA Department of Environmental Protection - Dave Hill

Permits/Approvals Submittal-Approval Date: 5/19/2014 12:00:00 AM

Permits/Approvals Description: 401 Water Quality application needed to obtain a Water Quality Certification approving the beach/dune restoration project.



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Organization: Town of Sandwich

Permits/Approvals Status: Intend to Apply

Permits/Approvals Agency-Contact Person: MA Department of Environmental Protection - Ken Chin

Permits/Approvals Submittal-Approval Date: 5/19/2014 12:00:00 AM

Permits/Approvals Description: Massachusetts Coastal Zone Management (CZM) Consistency Statement needed to obtain a CZM Determination approving the beach/dune restoration project.

Permits/Approvals Status: Intend to Apply

Permits/Approvals Agency-Contact Person: MA Coastal Zone Management - Robert Boeri

Permits/Approvals Submittal-Approval Date: 5/19/2014 12:00:00 AM

Permits/Approvals Description: US Army Corps of Engineers Permit application needed to obtain a General Permit approving the beach/dune restoration project.

Permits/Approvals Status: Intend to Apply

Permits/Approvals Agency-Contact Person: US Army Corps of Engineers - Karen Kirk Adams

Permits/Approvals Submittal-Approval Date: 5/19/2014 12:00:00 AM

Permits/Approvals Description: Expanded Environmental Notification Form (ENF) needed to obtain a Certificate of the Secretary of Energy and Environmental Affairs approving use of the borrow sites.

Permits/Approvals Status: Intend to Apply

Permits/Approvals Agency-Contact Person: Exec. Office of Energy and Environmental Affairs - Secretary Richard Sullivan

Permits/Approvals Submittal-Approval Date: 6/30/2014 12:00:00 AM

Permits/Approvals Description: Notice of Intent application needed to obtain an Order of Conditions approving use of the borrow sites.

Permits/Approvals Status: Intend to Apply

Permits/Approvals Agency-Contact Person: Sandwich Conservation Commission - Mark Galkowski

Permits/Approvals Submittal-Approval Date: 8/22/2014 12:00:00 AM



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Title: Sandwich Community Beach Restoration and Resiliency Project

Organization: Town of Sandwich

Permits/Approvals Description: Waterways application needed to obtain a Chapter 91 Waterways Permit approving use of the nearshore borrow site.

Permits/Approvals Status: Intend to Apply

Permits/Approvals Agency-Contact Person: MA Department of Environmental Protection - Dave Hill

Permits/Approvals Submittal-Approval Date: 8/29/2014 12:00:00 AM

Permits/Approvals Description: 401 Water Quality application needed to obtain a Water Quality Certification approving use of the nearshore borrow site.

Permits/Approvals Status: Intend to Apply

Permits/Approvals Agency-Contact Person: MA Department of Environmental Protection - Ken Chin

Permits/Approvals Submittal-Approval Date: 8/29/2014 12:00:00 AM

Permits/Approvals Description: Massachusetts Coastal Zone Management (CZM) Consistency Statement needed to obtain a CZM Determination approving use of the borrow sites.

Permits/Approvals Status: Intend to Apply

Permits/Approvals Agency-Contact Person: Jack

Permits/Approvals Submittal-Approval Date: 8/29/2014 12:00:00 AM

Permits/Approvals Description: US Army Corps of Engineers Permit application needed to obtain a General Permit approving use of the nearshore borrow site.

Permits/Approvals Status: Intend to Apply

Permits/Approvals Agency-Contact Person: US Army Corps of Engineers - Karen Kirk Adams

Permits/Approvals Submittal-Approval Date: 8/29/2014 12:00:00 AM



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**Salaries and Benefits**

	Units	Cost Per Unit	Total
<b>Total Salaries and Benefits</b>			<b>\$0.00</b>

**Equipment**

	Units	Cost Per Unit	Total
<b>Total Equipment</b>			<b>\$0.00</b>

**Contractual Services**

	Units	Cost Per Unit	Total
Borrow site investigations	1	\$29,428.00	\$29,428.00
Engineering analysis and design of nearshore borrow site	1	\$37,500.00	\$37,500.00
Alternatives analysis for borrow sources and environmental permitting	1	\$55,000.00	\$55,000.00
Contractor solicitation and selection for beach restoration	56	\$140.00	\$7,840.00
Site preparation, staking, and condition surveys for beach restoration	448	\$84.00	\$37,632.00
Site foreman for beach restoration	1040	\$50.00	\$52,000.00
Trucking - Sand, transportation, placement, & spreading	33000	\$35.00	\$1,155,000.00
Hopper Dredge - Sand dredging, transportation, placement, & spreading	150000	\$20.00	\$3,000,000.00



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	Units	Cost Per Unit	Total
Hopper Dredge - Mobilization & demobilization	1	\$500,000.00	\$500,000.00
Post construction monitoring surveys of beach	4	\$10,000.00	\$40,000.00
Post construction hydrographic survey of nearshore borrow site	1	\$10,000.00	\$10,000.00

<b>Total Contractual Services</b>			<b>\$4,924,400.00</b>
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Contractor costs associated with borrow site analysis: field investigations, engineering analyses, design, and environmental permitting. Costs associated with beach restoration: contractor solicitation, site prep, on site supervisor, purchase and placement of sand from upland and nearshore bottom sites, and post construction monitoring.

**Supplies and Materials**

	Units	Cost Per Unit	Total
Beach grass plugs	189000	\$0.40	\$75,600.00

<b>Total Supplies and Materials</b>			<b>\$75,600.00</b>
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Costs associated with the purchase of beach grass plugs planted 18 inches on center over 284,000 sq ft of restored coastal dune.

**Printing**

	Units	Cost Per Unit	Total

<b>Total Printing</b>			<b>\$0.00</b>
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**Travel**

	Units	Cost Per Unit	Total

<b>Total Travel</b>			<b>\$0.00</b>
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**Other**

	Units	Cost Per Unit	Total

<b>Total Other</b>			<b>\$0.00</b>

<b>Budget Grand Total</b>			<b>\$5,000,000.00</b>
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**Matching Contributions**

**Matching Contribution Amount:** \$44,420.00  
**Type:** Cash  
**Status:** Received  
**Source:** Town of Sandwich  
**Source Type:** Non-Federal  
**Description:** This cash contribution was used to conduct an existing conditions survey of the beach site, as well as post Sandy and Nemo surveys. The survey data are being used to develop the design for restoration and for environmental permitting.

**Matching Contribution Amount:** \$122,314.00  
**Type:** Cash  
**Status:** Received  
**Source:** Town of Sandwich  
**Source Type:** Non-Federal  
**Description:** This cash contribution is being used to develop the engineering design for the beach restoration project, and to complete the environmental permitting.

**Matching Contribution Amount:** \$32,052.80  
**Type:** In-kind  
**Status:** Intend to Apply  
**Source:** Town of Sandwich  
**Source Type:** Non-Federal  
**Description:** Staff from the Town of Sandwich Natural Resources Department will devote one-half time per week for a period of 6 months to monitor progress, address public comments, and ensure protection of sensitive coastal resources.

**Matching Contribution Amount:** \$33,042.88  
**Type:** In-kind  
**Status:** Intend to Apply  
**Source:** Town of Sandwich  
**Source Type:** Non-Federal  
**Description:** The Town of Sandwich will devote two days per week for a period of 6 months for a project manager and 5 hours per week for 6 months for contract administration.



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**Matching Contribution Amount:** \$10,000.00  
**Type:** In-kind  
**Status:** Intend to Apply  
**Source:** Town of Sandwich School Department  
**Source Type:** Non-Federal  
**Description:** The Sandwich School Department Science Technology Engineering Math (STEM) program will assist with monitoring performance of the beach/dune restoration by conducting annual beach surveys. Annual contribution based on industry standard.

**Matching Contribution Amount:** \$20,000.00  
**Type:** In-kind  
**Status:** Intend to Apply  
**Source:** Volunteer groups (scouts, Americorps, etc.)  
**Source Type:** Non-Federal  
**Description:** The Town of Sandwich will solicit volunteer groups to assist with planting of beach grass plugs. One time contribution based on industry standard for similar services.

**Matching Contribution Amount:** \$1,000,000.00  
**Type:** Cash  
**Status:** Intend to Apply  
**Source:** Community Preservation Act  
**Source Type:** Non-Federal  
**Description:** This matching contribution from the town’s Community Preservation Act Fund will be used to purchase an additional 28,570 cubic yards of sand, trucked to the site and spread on the beach at a unit cost of \$35/cubic yard.

**Total Amount of Matching Contributions** \$1,261,829.68



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## Activities and Outcomes

Funding Strategy: Habitat Restoration

Activity / Outcome: Sandy - Beach habitat quality improvements - Acres restored

Description: Enter the number of acres restored

Required: Recommended

Acres restored - Current: 8

Acres restored - Grant Completion: 18.6

Notes: Currently the project area has 8 acres remaining of previously nourished beach habitat. The beaches in this area have been continually eroding for decades, the remaining beach is very steep, and in some cases, little or no high tide beach remains. Through sand placement and beach nourishment, there will be 18.6 acres of beach habitat at the completion of the project. This not only results in an increase of 10.6 acres of beach habitat, but the quality of that habitat is also improved. The restored beach area will be more resilient to storms and provide added flood protection. Additionally, the ability of the beach habitat to function as effective piping plover habitat is increased because the slope of the beach will be reduced to no more than a 10:1 slope in the area of the piping plover habitat.

Funding Strategy: Habitat Restoration

Activity / Outcome: Sandy - Beach habitat quality improvements - Miles restored

Description: Enter the number of miles restored

Required: Recommended

Miles restored - Current: 0.00

Miles restored - Grant Completion: 0.95

Notes: The project area consists of approximately just under 1 mile (approximately 5,000 feet) of beach habitat along the northern coast of Sandwich, MA. At this point, none of the restoration for this project has occurred yet, resulting in 0 current miles of restored beach. This project will restore the beach habitat along the entire 5,000-foot length of the project area, restoring a beach berm at an appropriate elevation as well as appropriate intertidal and offshore slopes (10:1, unless restricted by other resources areas).

Funding Strategy: Habitat Restoration

Activity / Outcome: Sandy - Floodplain restoration - Acres restored

Description: Enter the number of acres restored

Required: Recommended

Acres restored - Current: 0

Acres restored - Grant Completion: 25.1

Notes: The entire project footprint, consisting of 25.1 acres, is within the 100-year flood plain mapped by FEMA. Therefore, by restoring the 18.6 acres of beaches and 6.5 acres dunes within the project area, this



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project effectively restores 25.1 acres of flood plain, and enhances the ecosystem values associated with healthy flood plains, such as natural resilience, storm surge mitigation, and biodiversity.

Funding Strategy: Habitat Management

Activity / Outcome: Sandy - Improved management practices - Acres under improved management

Description: Enter the number of acres under improved management

Required: Recommended

Acres under improved management - Current: 0

Acres under improved management - Grant Completion: 25.1

Notes: Through the identification of potential sand borrow sites, the entire project area of 25.1 acres will be under improved management. The identification of nearby and adequate amounts of sand is a crucial step in the successful continued maintenance of a long-term beach nourishment management regime.

Funding Strategy: Capacity, Outreach, Incentives

Activity / Outcome: Sandy - Outreach/ Education/ Technical Assistance - # people reached

Description: Enter the number of people reached by outreach, training, or technical assistance activities

Required: Recommended

# people reached - Current: 0.00

# people reached - Grant Completion: 100.00

Notes: The Sandwich School Department is implementing a new STEM (Science Technology Engineering Math) program for all 7th and 8th grade students in Sandwich, and has an established High School Environmental Technology class. The Town is currently in the planning stages with teachers of these programs to develop a student oriented collaboration project that would allow students from at least one class to participate in monitoring the project for at least 3 years. Assuming one teacher takes a leading role in this project, and a class size of 30 students, over 3 years, approximately 90 middle an/or high school students will have received education about and actively participated in the success of this project.

Additionally, the Town will contact the local chapter of AmeriCorps to explore the possibility of their volunteers assisting in the planting portion of the restoration project. If this collaboration takes place, approximately 10 AmeriCorps volunteers would also be reached through outreach activities.

With the combination of the students and the AmeriCorps volunteers, this project has the potential to reach 100 people through direct and hands-on education and outreach activities.

Funding Strategy: Capacity, Outreach, Incentives

Activity / Outcome: Sandy - Volunteer participation - # volunteers participating



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Description: Enter the number of volunteers participating in projects

Required: Recommended

# volunteers participating - Current: 0.00

# volunteers participating - Grant Completion: 100.00

Notes: The Sandwich School Department is implementing a new STEM (Science Technology Engineering Math) program for all 7th and 8th grade students in Sandwich, and has an established High School Environmental Technology class. The Town is currently in the planning stages with teachers of these programs to develop a student oriented collaboration project that would allow students from at least one class to participate in monitoring the project for at least 3 years. Assuming one teacher takes a leading role in this project, and a class size of 30 students, over 3 years, approximately 90 middle an/or high school students will have volunteered and actively participated in the success of this project.

Additionally, the Town will contact the local chapter of AmeriCorps to explore the possibility of their volunteers assisting in the planting portion of the restoration project. If this collaboration takes place, approximately 10 AmeriCorps volunteers would also be involved.

With the combination of the students and the AmeriCorps volunteers, this project has the potential to involve at least 100 volunteers.

Funding Strategy: Planning, Research, Monitoring

Activity / Outcome: Sandy - Management or Governance Planning - # plans developed

Description: Enter the number of plans developed that had input from multiple stakeholders

Required: Recommended

# plans developed - Current: 1.00

# plans developed - Grant Completion: 2.00

Notes: The Town of Sandwich recently produced a long-term beach management document for all the Town's public beaches. This document details the erosion rates and the changes that have taken place within the project area over the last few decades, and specifically the last few years with the severe storms the area has experienced. In addition, it recommends a long-term beach nourishment program to counteract this erosion and the effects of the large, sediment-trapping Cape Cod Canal jetties.

Because reliable sources of sand must be identified to supply any beach and dune nourishment project, particularly a long-term one, a borrow site management plan will be developed as part of this current phase of the project to maximize beneficial reuse of regionally available sediment. This would result in a total of 2 plans specifically related to the management of the project area by the completion of this project.

Funding Strategy: Habitat Conservation



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Activity / Outcome: Sandy - Wetland protection - Acres protected

Description: Other Metric

Required: Optional

Other Metric - Description: The barrier beach within the project area provides direct protection to the salt marsh and tidal creek habitats directly behind it. By restoring the beach and dune habitats within the project area, the more than 600 acres of wetlands behind the barrier are further protected from intense wave action during storms.

Notes:

Funding Strategy: Species Outcome

Activity / Outcome: Sandy - Piping Plover - Population - # nesting pairs

Description: Other Metric

Required: Optional

Other Metric - Description: Each year, Mass Audubon monitoring the project area for piping plovers, noting the number of pairs, nests, and fledglings.

In 2010, there were 4 nesting pairs.

In 2009, there were 5 nesting pairs.

In 2008, there were 7 nesting pairs.

It is hoped that through restoration of the beach and dune habitat at Town Neck Beach, the number of nesting pairs of piping plover can be increased to levels observed when the beach habitat was more conducive to nesting.

Notes:

Funding Strategy: Species Outcome

Activity / Outcome: Sandy - Piping Plover - Population - Acres occupied by species

Description: Other Metric

Required: Optional

Other Metric - Description: Currently there are approximately 4.5 acres of piping plover habitat in the project area. Through beach and dune nourishment and restoration activities, the completed project area will have 9.5 acres of piping plover habitat (an increase of 5 acres).

Notes:

Funding Strategy: Capacity, Outreach, Incentives

Activity / Outcome: Sandy - Tax revenue protected - Tax base annual value

Description: Other Metric

Required: Optional

Other Metric - Description: There are over 600 properties within the Town of Sandwich that are directly or



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indirectly protected by the barrier beach and dune system within the project area. Without the protection of the increased resiliency of this barrier beach system, these properties could be directly flooded and/or damaged during the next significant storm event. These properties have a combined property value of almost \$330 million, and represent annual tax revenue totaling \$3,539,433 for the Town.

Notes:



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The following pages contain the uploaded documents, in the order shown below, as provided by the applicant:

A-133 Audit  
GAAP audited financial statements  
Board of Trustees, Directors, or equivalent  
Engineered Plans  
Conceptual Plans  
Statement of Litigation  
Spatial Data  
Letters of Support  
Board of Trustees, Directors, or equivalent  
Other Documents  
Other Documents  
IRS Form 990  
Hurricane Sandy Proposal Narrative

The following uploads do not have the same headers and footers as the previous sections of this document in order to preserve the integrity of the actual files uploaded.

## A. Geographic Context

The Sandwich Community Beach Restoration and Resiliency Project is located entirely within the Town of Sandwich, Massachusetts, on the north shore facing Cape Cod Bay. It includes approximately 1 mile of shoreline, which extends from just south of the Cape Cod Canal (approximately in front of Hemisphere's restaurant at the end of Town Neck Road) to Sandwich Harbor Inlet (Figure 1). Sandwich Harbor is located to the east of the project area and serves to connect an extensive salt marsh system with Cape Cod Bay. The upper reaches of this salt marsh system directly abut many areas of historic downtown Sandwich, and critical infrastructure, such as the fire and police stations, will come under threat if the resiliency of the barrier beach is not increased.

This stretch of beach was the hardest hit shoreline of Sandwich during Hurricane Sandy. The beach experienced significant erosion, and the barrier was overtopped in numerous areas. An estimated volume of 60,000 cy yards was lost during Hurricane Sandy, and an additional 62,222 cy has been lost in subsequent storms. If no action is taken to restore the severely eroded beach within the project area, over 600 properties within the Town of Sandwich could be directly flooded and/or damaged during the next significant storm event. These properties have a combined property value of almost \$330 million, and represent annual tax revenue totaling \$3,539,433 for the Town.

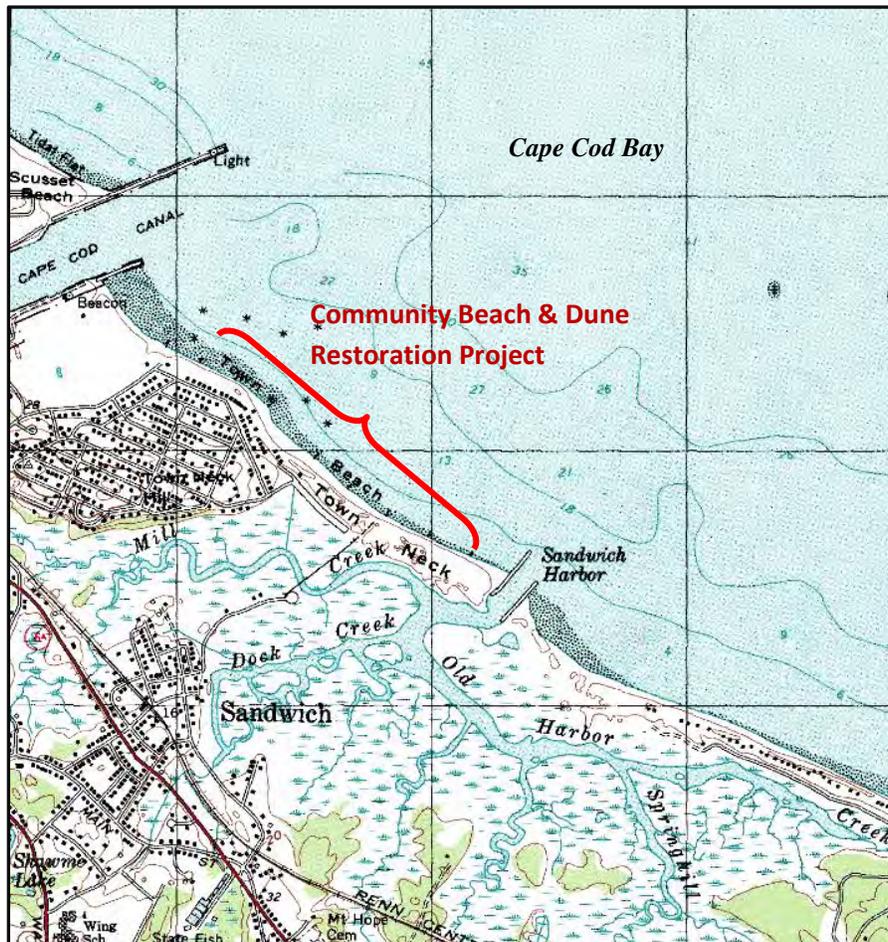


Figure 1. Project Location Map

## **B. Project Narrative**

The beaches in the Town of Sandwich, including the project area along Town Neck Beach, have a history of erosion. Construction of jetties at the east end of the Cape Cod Canal in 1906 has been the primary reason for this coastal erosion; the two Canal jetties cause an interruption in the natural longshore sediment transport from northwest to southeast. Hundreds of thousands of cubic yards of sand destined for Sandwich's beaches have been trapped at the northern jetty, or within the Cape Cod Canal, and subsequently dredged and disposed offshore, exacerbating natural erosional pressures arising from coastal storms and sea-level rise, increasing the potential for community-wide flooding, and reducing valuable habitat for threatened shorebirds.

Recognizing the need to reduce vulnerability to coastal storms, sea level rise, flooding, and erosion, the Town has been working over the past two decades to strengthen the natural beach and dune ecosystem, and to develop a more resilient community that can adapt to changing coastal conditions. During early 2013 the Town of Sandwich began a project to design and permit a regional beach and dune restoration project that will have community-wide benefits. The necessary scientific and engineering studies were conducted to develop a design that includes the placement of approximately 212,000 cubic yards of sand in the form of beach and dune nourishment. The project will extend along 5,000 linear feet of Sandwich Town Beach. The width and elevation of the dunes will be increased and the beach berm will be extended to push mean high water seaward by more than 100 feet. The project will reduce vulnerability to coastal storms, flooding, erosion, and sea level rise for over 600 properties, including a number of critical facilities and municipal properties.

The beach and dune restoration project will not only reduce community vulnerability, but it will also strengthen natural ecosystems for the benefit of fish and wildlife. The eastern end of the project area is utilized as nesting habitat by state and federally listed shorebirds. Through careful design, this area will be restored to meet the unique habitat requirements for these birds, and to increase the overall area and quality of habitat for these shorebirds. The extensive salt marsh ecosystem located landward of the project area will receive added protection from the project, preserving the functions of nursery and foraging habitat for fish, shellfish and birds, water quality protection, storm water storage, and recreation.

Additional planning and design work will be performed to identify the range of viable sediment sources for the beach and dune restoration. The Borrow Site Management Plan will focus on beneficial reuse options, including sand dredged during maintenance of the Cape Cod Canal, as well identification of a nearshore borrow site on the updrift side of the Canal, and various trucking options. Once the management plan is complete, environmental permits will be obtained for the use of the borrow sites.

Funds for construction of the beach and dune nourishment project are being sought under the Restoration and Resiliency opportunity of the Hurricane Sandy Grant Program. Funds to support the borrow site analysis, planning, and permitting are being requested from the Project Planning and Design opportunity of the Hurricane Sandy Grant Program.

The goal of the Sandwich Community Beach Restoration and Resiliency Project is to provide a blueprint for long-term management of the natural ecosystem that will result in a sustainable and functioning system capable of supporting the community of Sandwich as well as the natural flora and fauna. The project has three (3) specific objectives described below.

### **a. Project Goals**

Objective 1: Reduce the vulnerability of the Sandwich community to risks associated with coastal flooding, storm damages, and sea level rise through restoration of the natural beach and dune ecosystem.

Success of the restoration project will be measured using the engineering design criteria developed during the planning stages of the project. The two primary design criteria used to measure success of the project will be level of storm damage protection provided and lifetime of the nourishment material. The restoration will be considered successful when the project provides the designed level of protection over the expected lifetime of the project. For example, the project designed for the 25-yr storm, would have an engineered berm elevation, width, and dune crest elevation needed to protect against damage during a 25-yr storm. It does not, however, mean that the project is expected to last 25 years. The typical design life of the project, for example 7 to 10 years, is the length of time over which the project is expected to provide the desired level of storm damage protection. To maintain protection at the desired level, renourishment would be required approximately every 7 to 10 years. The design criteria for the Sandwich Community Beach Restoration and Resiliency Project will be clearly defined and used as the basis for a definitive evaluation of project performance and success.

Outcomes of the project will be measured through post restoration surveys and regular monitoring. The proposed 18.6 acres of beach restoration and 6.5 acres of dune restoration will be measured against post project surveys to determine if the plan objectives are met. Additionally, the proposed scale of the project needed to reduce vulnerability to the community, including 5,000 ft of restored beach using 212,000 cubic yards of sand, will be measured using post construction surveys of beach profiles. Twice annual monitoring surveys will be conducted for the lifetime of the project to measure the level of storm damage protection provided. The survey data will also be used to determine the percent of material remaining in the initial project footprint on an annual basis, and to measure the project against the designed lifetime. Records of storm frequency, wind and wave direction, and storm surge level will be maintained and used to verify the extent and magnitude of protection provided by the restoration project.

Objective 2: Improve and enhance habitat for state and federally listed shorebird species through beach nourishment and long-term management of the natural ecosystem.

Success of the restoration project in improving and enhancing habitat for listed species of shorebirds will be measured by quantifying the response of the birds through the Town's annual monitoring program. Post restoration data will be compared with pre project data to determine the on-going success of the project. Specific components of shorebird behavior including numbers of Piping Plover and Least Tern pairs, number of nests, eggs laid, eggs hatched, and number of chicks fledged will be recorded on census forms. The locations of nests will also be mapped and foraging areas will be identified. Natural factors affecting success of the shorebirds will be noted including potential for predation, disturbance by beachgoers, and elevated water levels caused by spring high tides or storms. The successful project will be one in which the number of nesting pairs of Piping Plover or Least Tern increases over the pre project condition.

The beach restoration project has been designed specifically to produce outcomes that will improve and enhance habitat for listed shorebird species. Nearshore slopes throughout the intertidal zone of the project will be 1V:10H, suitable for movement of young chicks between the water and nesting areas. At the east end of the project where nesting has occurred historically, the nourishment design will follow a 1V:10H slope from the seaward edge of the existing dune, through the intertidal zone into the water. The gradual slopes proposed with the project will also create a larger intertidal zone that will increase the area available for foraging.

Objective 3: Develop and implement a sustainable Borrow Site Management Plan that will support restoration and continued maintenance of the natural beach and dune ecosystem.

Success of this objective will be determined by comparing the long-term volumetric needs of the beach with the volumes and quality of sand identified in the various borrow sites. The Borrow Site

Management Plan will be considered successful if the needs associated with initial construction and periodic renourishment can be met by the borrow sites.

Outcomes of the project will consist of a Borrow Site Management Plan that identifies a range of nearby borrow sites containing known quantities of beach compatible sand. The plan will identify borrow sites that avoid adverse impacts to the environment. For the nearshore borrow site this will include a design that minimizes impacts of wave focusing on the shoreline, as well as impacts to benthic communities, fisheries, and shellfish. For the trucking alternative the plan will minimize impacts to heavily traveled roadways and transportation corridors. Beneficial reuse of sediment dredged from the Cape Cod Canal will be maximized by establishing a cooperative agreement between the Town of Sandwich and the entities operating in the Canal, including the US Army Corps of Engineers and the power utility company at the east end of the Canal.

#### **b. Priority**

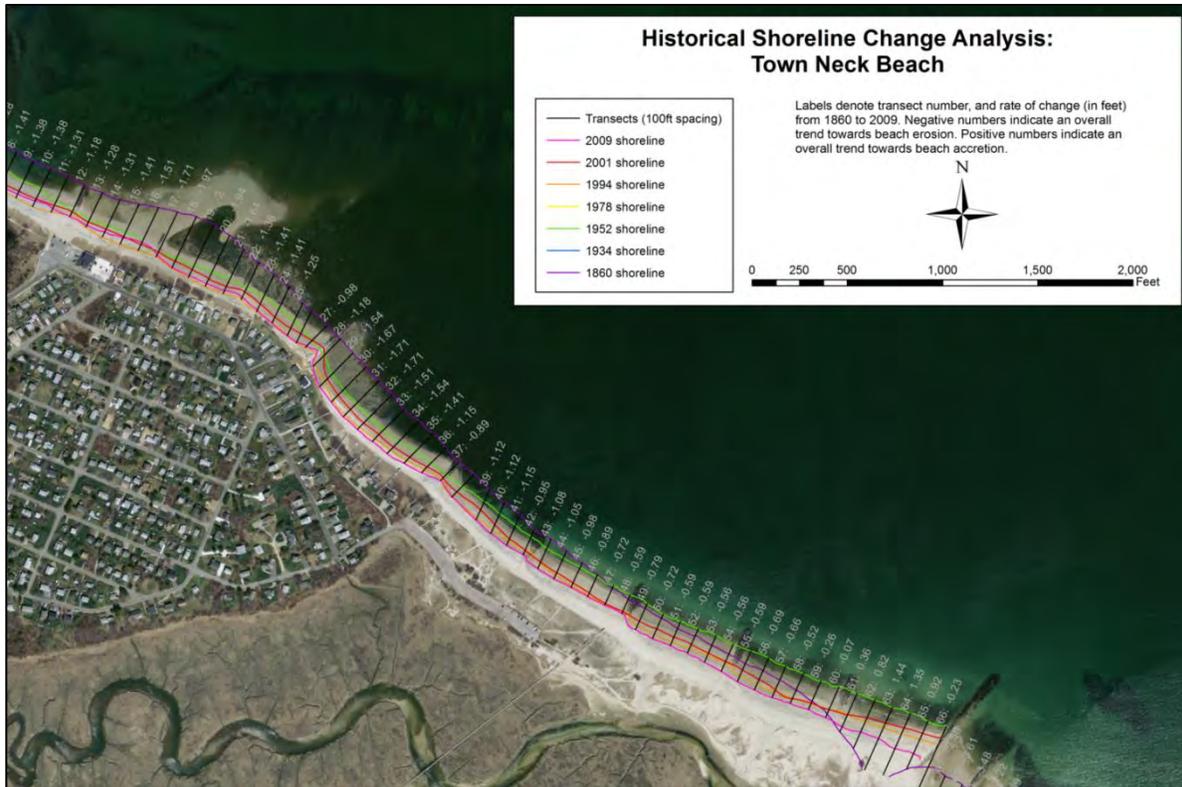
Increased resilience of the project location, Town Neck Beach, is of vital importance to the Town of Sandwich. Not only is this beach Sandwich's premiere tourist destination, boasting an impressive marsh boardwalk offering scenic vistas and a wildlife viewing platform, but this beach is crucial in providing protection to upland properties and the tidal marsh behind the barrier beach. The tidal marsh provides a wealth of ecosystem values to the Town, including wave attenuation, water quality treatment and storage, and a productive habitat for shorebird and plant communities. Without the barrier beach, the marsh would be quickly destroyed by wave action and coastal storms, leaving hundreds of surrounding properties, as well as vital Town infrastructure such as the fire and police stations, increasingly vulnerable to flooding and wave action during storm events.

The proposed approach is the only viable solution for addressing the areas current needs. Without an influx of sand, the already severely eroded beach and dune system will be unlikely to withstand another major storm event. This conclusion and the associated proposed project design are fully supported and informed by sound science. The Town has contracted with a local consulting firm to fully characterize the existing environment. A shoreline change analysis shows that between 1860 and 2009, the long term erosion rates along the project area range from 1 to 2 ft/yr (Figure 2). When a more contemporary timeframe (1952-2009) is considered, these erosion rates are as high as 3 ft/yr.

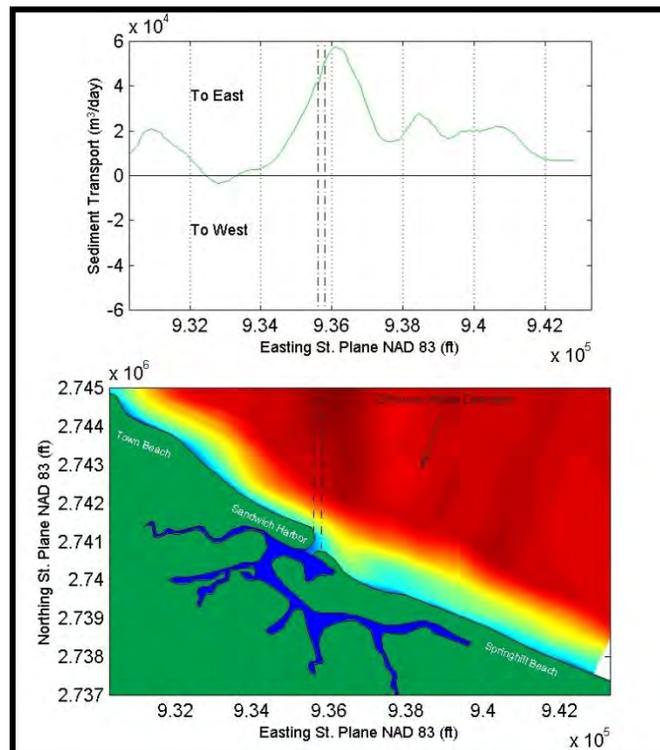
In addition to the shoreline change analysis, consultants for the Town have evaluated the wave climatology, storm surge elevations under various storms of record, and the potential for longshore sediment transport (Figure 3). The condition and location of existing resources such as rare and endangered species habitat, eelgrass, and shellfish have also been mapped. The engineering evaluation of existing conditions and supporting science were used to inform the alternatives considered, and select a final design that would provide the most and longest lasting resiliency to the project area.

#### **a. Sustained Benefits**

The project will provide substantial benefits, such as storm surge and flood protection, erosion mitigation, restored habitat, salt marsh habitat protection, and upland property protection over an extended time period. These benefits are measureable and can be quantified through the number of acres restored, number of properties protected, acres of tidal marsh habitat protected, etc. The project will be monitored twice annually for the lifetime of the project; the resulting data will provide a direct measure of project benefits over time. These benefits directly address projected changes in environmental stressors, such as climate change and sea level rise. Given projections of rising sea levels and increased severe storms, it is



**Figure 2. Shoreline change rates for Town Neck Beach**



**Figure 3. Longshore sediment transport potential occurring during a 10-yr storm event.**

imperative to bolster this currently vulnerable area. The Town of Sandwich is predominantly residential, and most developable land in the vicinity of the project area has already been built upon with single family homes. It is unlikely that the land use and level of urbanization will change considerably in the future, or have any negative effect on the project's success.

Although a renourishment will be needed periodically to combat ongoing erosion and provide the desired level of storm damage protection, once this initial restoration project is complete, the volume, and associated cost of sand necessary for subsequent nourishment activities will be substantially less. Additionally, the Borrow Site Management Plan will identify feasible sources of future sand, not only facilitating regular nourishment activities in the future, but also ensuring that needed sediment is beneficially reused in the overall coastal system rather than being disposed of offshore. This type of regional sediment management strategy is required for future sustainability and resilience.

#### **b. Leveraging**

Monies provided to construct the Sandwich Community Beach Restoration and Resiliency Project will be leveraged against approximately \$4.83 million in additional funds from FEMA for beach restoration following disaster declarations from Hurricane Sandy (DR4097) and nor'easter Nemo (DR4110). By combining funds from the Hurricane Sandy Grant Program with the FEMA funds, the Town will be able to significantly increase the benefits of the project by placing an additional 122,220 cubic yards of sediment on the beach for a total project volume of 333,800 cubic yards. The increased yardage will be placed on the upper portion of the beach along the toe of the dune, and will serve to increase the projected lifetime of the project.

#### **c. Speed to Functionality**

On-the-ground construction and planting work will take approximately 6 months to complete. The increased volume of sand placed on the beach and dune will provide substantial benefits instantly, resulting in decreased vulnerability to coastal storms, flooding, and sea level rise. Increased resiliency to damages caused by these coastal processes will also be immediate. Benefits from improved shorebird habitat are expected during the first year. The ability to advance rapidly is the result of the Town's prior substantial investment in planning, engineering design, environmental impact assessments and permitting activities.

### **C. Youth Engagement**

The Town of Sandwich plans to partner with the Sandwich School Department to conduct the post-construction dune and beach monitoring as part of the newly implemented STEM (Science Technology Engineering Math) Program. The STEM program is currently being launched for all 7th and 8th grade students. At least one class of approximately 30 students will be directly involved with regular monitoring of the nourishment project. With monitoring expected to last a minimum of three years, approximately 90 students will have direct engagement with the project. The Town hopes to continue long-term monitoring of the project, and as such, it is likely that many more students will have the benefit of engaging with this project.

Through student collaboration such as this, 7th and 8th grade students will gain direct hands-on experience with a coastal engineering project. They will be introduced to concepts such as coastal resiliency, climate change, and coastal management. They will develop and enhance data collection skills, hone math skills through data analysis, make vital connections between math, science and engineering, and develop a sense of stewardship towards an important town landmark. Safety of all the students involved will be the first priority. All hands-on youth engagement will occur under the direct

supervision of a trained teacher and the local Natural Resources Director. In addition, because the youth involved will be monitoring the beach after construction is finished, construction equipment and machinery will not pose any danger.

In addition, the local AmeriCorps chapter will be contacted to assist in planting beach grass plugs once the construction of the dune is complete. This collaboration will directly involve approximately 10 additional youth. Again safety will be maintained as a highest priority. All hands-on engagement will occur under the direct supervision of the local Natural Resources Director. In addition, because the AmeriCorps volunteers will be planting beach grass after construction is finished, construction equipment and machinery will not pose any danger.

#### **D. Collaboration and Partnerships**

The Town of Sandwich has been working for the past 20 years with interested stakeholders to improve the strength and protective nature of the natural barrier beach and dune ecosystem. The proposed project has been presented to state and federal regulatory agencies including MA Department of Environmental Protection (DEP), MA Coastal Zone Management (CZM), MA Natural Heritage and Endangered Species Program (NHESP), MA Division of Marine Fisheries (DMF), National Marine Fisheries Service (NMFS), and the US Army Corps of Engineers (USACE). The Town has also worked closely with FEMA to assess damages following major storms and to develop viable plans for smaller-scale beach and dune restoration. Annual monitoring for state and federally listed shorebirds is handled by MA Audubon, under contract to the Town of Sandwich. The Town has developed a close working relationship with MA Audubon and they are aware of the upcoming plans to improve habitat. Finally, the Town has worked hard to communicate the project plans with the affected property owners and local residents. Stakeholder support has been strong throughout the planning and design process. As the project proceeds through the permitting process, the Town will address comments as needed to gain the necessary approvals.

The Town has already invested more than \$400,000 to advance the design and permitting for the beach restoration project and management plan to position itself for expedited construction. In-kind support is being provided for this project by Town of Sandwich staff, as well as the youth engagement described in Section C. Additional funding of \$1.0 million from the local Community Preservation Act (CPA) Fund is being requested as in-kind support for the project. CPA funding was approved and used to support all of the previous engineering and permitting contracts for the beach. Since the contribution would be leveraged against the larger federal funding, it is expected to pass approval by the Community Preservation Committee (CPC) without delay. The project will also be leveraged against \$4.83 million in funding from FEMA for beach restoration work required following disaster declarations from Hurricane Sandy (DR4097) and nor'easter Nemo (DR4110).

#### **E. Work Plan and Logistics**

##### **a. Project Team**

The Town of Sandwich will have a number of key personnel working on the project. The Director of the Natural Resources Department will monitor progress, address public comments, and ensure protection of sensitive coastal resources. The Town Manager and his Assistant will oversee both project management and contract administration. In addition, the Town Engineer and Engineering Technician from the Department of Public Works will be involved with the project on site, monitoring trucking activity, road conditions, and overseeing the construction monitoring and surveys. Finally, staff from the Town will also provide oversight for the volunteer efforts involved with long-term monitoring and planting. These Town personnel have been working on coastal management related projects in the area of Town Neck Beach for decades and have invaluable experience to bring to the project.

The Project Team will also include Woods Hole Group, an environmental, scientific, and engineering consulting firm headquartered in Falmouth, Massachusetts. Woods Hole Group is a recognized leader in hydrodynamic and wave modeling, coastal engineering and design, beach and dune restoration, and coastal resilience and adaptation planning. The Woods Hole Group staff, comprised of highly experienced coastal engineers, geologists, scientists and permitting specialists, will ensure compliance with plans and ensure that the construction is built to the design specifications.

Additionally, the project team will involve a number of contractors. A site foreman will be contracted to provide full time on-site day-to-day supervision of the project, serve as the project's safety officer, and document the project's progress through thorough record keeping. Finally, dredge and trucking construction firms will be contracted to supply, transport and spread the sand according to design specifications.

#### **b. Work Plan**

Initial planning and design work will be performed to identify the range of viable sediment sources for the beach and dune restoration, and develop a Borrow Site Management Plan. This plan will identify beneficial reuse options, including sand dredged during maintenance of the Cape Cod Canal, as well identification of a nearshore borrow site on the updrift side of the Canal, and various trucking options. To minimize adverse environmental impacts, the design for the nearshore borrow site minimizes impacts of wave focusing on the shoreline, as well as impacts to benthic communities, fisheries, and shellfish, while the trucking alternative minimizes impacts to heavily traveled roadways and transportation corridors. Once the plan is complete, environmental permits will be obtained for the use of the borrow sites.

Prior to performing any of the nourishment work, all funding, permitting, and a sediment source will be ensured. A limit of project activity will be established, using snow fencing, and will be maintained until project completion. Construction will occur during the late fall and early winter (November 15th through March 31st), when beach usage is low, and within appropriate construction windows to protect site specific fish, wildlife and endangered species habitat. Construction access will be gained from the upland across the low-lying coastal dune and coastal beach located immediately to the west of the Hemisphere's Restaurant property, as was done during past beach nourishment work. This access will be used by construction machinery (e.g., bulldozer, loader, trucks, crane) to prepare the project site, and to regrade the beach and dune after completion of the project.

The material dredged from the selected borrow area will be hydraulically pumped from a barge located offshore. One landing area will be utilized for the pipe that will extend from the offshore barge to the beach. As the material is placed on the beach, it will dewater in place to the extent possible. After dewatering, the material will be reshaped to final design specifications and profiles. Construction is expected to take approximately 4 to 6 months to complete. Upon completion of the proposed work, all portions of the construction access will be restored to pre-existing conditions. Following regrading, the low-density grass planting will be performed by hand in the dune regions. Teams of volunteers supervised by paid staff will plant the grass in early spring (March 1 through April 30) after the threat of storm damage has passed but early enough to allow the plants to become established.

#### **c. Monitoring and Measuring Performance**

To document the objectives of reducing the vulnerability of the Sandwich community and increasing the resiliency of the natural beach and dune ecosystem, the project will be monitored through beach profiles for the expected lifetime of the project (approximately 7-10). Because resiliency is increased by the increased height and volume of the beach and dune, the intent of beach profiles is to document the pre-project, and post-project beach configuration, including the gradual equilibration of the project to wind,

wave and tide activity. Beach profiles will be surveyed at 100 yard intervals along the beach within the project area and to 500 yards to either side of the project area along a pre-established baseline. The beach profiles will run from the extant dune, to the limit of wading depth, with elevations measured approximately at 10 foot intervals and at marked breaks in slope. Elevations will be referenced to an appropriate datum (such as NAVD88). Beach profile data will be collected twice each year, once during a winter time period, and once during a summer time period, in order to sample seasonal changes. Profiles will be plotted, compared with previous profiles, and data provided to the resource agencies upon request. Beach profiles will be surveyed for the entirety of the projected project life (approximately 7-10 years), at which time continued beach profile monitoring will be evaluated.

Additional monitoring will also be done on the establishment success of the newly planted beach grass and on the numbers of coastal nesting birds. The Town of Sandwich will conduct a visual survey of the areas where beach grass is proposed for sparse planting, and in areas where beach grass may potentially grow naturally following the project. The survey will include estimation of the area covered by beach grass, and its health (density, propagation, etc.). A survey will be conducted once per year for the first 3 years following project completion. The Town of Sandwich will also continue its ongoing coastal bird monitoring program, to document the number of nesting pairs, number of eggs laid, and number of chicks fledged. In particular, it will have observers available in the spring to assure no adverse effects to nesting and/or breeding birds on the affected beach. Any increase in the number of nesting piping plover pairs observed after the project's completion will be considered a success.

#### **d. Return on Investment**

By increasing the resiliency of the natural beach and dune ecosystem, greater storm and flooding potential is afforded to the surrounding upland community in Sandwich. This not only reduces the need for disaster relief requested from the Federal Emergency Management Agency (FEMA) in the future, but directly protects more than 600 nearby properties with a total value of almost \$330 million. Thus, the level of funding requested represents approximately 1.5% of the tangible value of the infrastructure protected, which equates to a favorable investment considering the 7+ year life expectancy of the project. The protected infrastructure also represents annual tax revenues totaling more than \$3.5 million for the Town, which is more than 4% of the Town's annual revenue. This revenue is at risk without the project. Sacrificing this revenue through direct damage and decreases in property values will affect the Town's operations. In coastal communities, even the perception of risk can affect values; thus, implementing this project will not only provide necessary protection, but also help sustain value and revenue. This infrastructure also includes power utilities and critical roadway infrastructure used for evacuations and access to public areas, which will be protected through this investment. Intangible economic benefits include public safety, sustained natural wildlife habitats, recreational enjoyment, and indirect spending to local businesses associated with visitors to the area that includes a public beach.

The return on investment, however, is not only realized in the money saved by FEMA, the Town and Sandwich taxpayers by minimizing and/or avoiding future storm and flood damage, but also in the bolstered resiliency of the coupled human-natural system. Like many coastal communities, residential development along the waterfront in Sandwich is low lying and dense. By choosing a natural solution to enhance coastal resilience, as opposed to hard engineered structures such as bulkheads and groins, the natural ecosystem and habitat value is improved at the same time additional protection is provided to these coastal properties. What are now a vulnerable residential neighborhood and a badly eroded beach and dune ecosystem can be transformed into a resilient, protected community and productive habitat through this project.

**e. Risk**

Although the probability of substantial project failure is low, as with all coastal communities, a degree of vulnerability always exists for assets on the coast. FEMA maps indicate areas of the coast that are susceptible to erosion from a severe storm today. Future sea level rise has the potential to cause additional flooding. Beach nourishment projects have a defined design criteria that can be exceeded (e.g., a project designed to withstand a 25-year storm has a 1 in 25 (or 4%) chance of being exceeded in any given year). There is no assurance that future storm patterns will mimic history, and there is a chance that multiple storms exceeding the 25-year standard could occur in a single or consecutive calendar years. Additionally, periods of increased storm frequency and storms of extended duration can reduce the protection afforded by the projects even if the storms do not exceed the 25-year design criteria. Coastal engineering is also based on limited data, which introduces uncertainty. Uncertainty leads to risk, and risk introduces vulnerability. However, this project’s design was based on records of historical conditions, as well as future modeled parameters such as storm surge elevation, storm wave conditions, and storm duration to create the most appropriate design possible. Future sea level rise predictions have also been incorporated into the design.

Although the project is designed to have a lifetime of 7-10 years, the coastline will always be exposed to storm energy and erosion potential no matter the level of investment. However, even if a storm occurs that exceeds the design criteria for the project, as described above, there is no possibility of the potential substantial project failure having a negative impact on the coupled human natural system resilience. In fact, just the opposite will occur. Because the project increases the volume and height of the beach and dune systems, and therefore the overall resiliency of the system, even if the project completely fails (i.e. is completely eroded during a major storm) it would have still provided added resiliency to the surrounding wetlands and upland development until it is completely eliminated.

**f. Permits and Approvals**

Both the beach nourishment and dredging will require a number of permits from various agencies. These permits are listed in Table 2. All permit applications will be submitted in the spring/summer of 2014, with the anticipation that approval could be granted for all permits by January 2015.

**Table 2. Required Permits**

<b>Permit/Approval Description</b>	<b>Status</b>	<b>Agency - Contact Person</b>
Expanded ENF/Certificate of the Secretary of Energy and Environmental Affairs	Intend to Apply	Executive Office of Energy and Environmental Affairs/Secretary Richard K. Sullivan, Jr.
Notice of Intent/ Order of Conditions	Intend to Apply	Sandwich Conservation Commission/Mark S. Galkowski
Chapter 91 Waterways/ Chapter 91 Permit	Intend to Apply	DEP/Dave Hill
401 Water Quality/Water Quality Certification	Intend to Apply	DEP/Ken Chin
MA CZM Consistency/CZM Determination	Intend to Apply	CZM/Robert Boeri
USACE General Permit/USACE Permit	Intend to Apply	USACE/Karen Kirk-Adams

**g. Safety**

The Town will ensure that any contractor selected has an adequate Health and Safety Plan for ensuring the safety of personnel, equipment and the environment during construction.



**THE COMMONWEALTH OF MASSACHUSETTS**  
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS  
OFFICE OF COASTAL ZONE MANAGEMENT  
251 Causeway Street, Suite 800, Boston, MA 02114-2136  
(617) 626-1200 FAX: (617) 626-1240

January 21, 2014

Hurricane Sandy Coastal Resiliency Competitive Grants Program  
National Fish & Wildlife Foundation  
1133 15th St NW #1100  
Washington, DC 20005

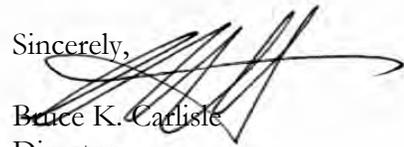
Re: **“Sandwich Community Beach Restoration and Resiliency Project”** proposal for  
Hurricane Sandy Coastal Resiliency Competitive Grants Program

To Whom It May Concern:

The Massachusetts Office of Coastal Zone Management (CZM) is committed to partnering with the Town of Sandwich on the **“Sandwich Community Beach Restoration and Resiliency Project”** proposal, submitted for consideration under the Hurricane Sandy Coastal Resiliency Competitive Grants Program. The Town is poised to implement a major coastal beach and dune system restoration project along the Town Neck Beach area of its Cape Cod Bay shoreline. This area has suffered severe erosion from a series of coastal storms, including especially Hurricane Sandy, which have had significant impact on the beach and dune system that protects critical natural resource and public and private infrastructure and assets. The Town Neck Beach area has seen more erosion in the 18 months following Hurricane Sandy than in the previous two decades. The Town of Sandwich has worked hard to manage the public and natural resources, and in an effort to balance the ongoing beach erosion and inlet migration and the public and natural resource interests, a large scale beach and dune restoration project—in development for several years—has reached the point in its development where the Town is prepared to formal permit filings within the next two months.

CZM is strongly supportive of the Town’s pursuit of the coastal beach and dune restoration project as a preferred alternative to addressing acute erosion issues at Town Neck Beach, which pose significant threats to the built and natural environment in the community and for the Cape Cod region. The project will stabilize and restore a barrier beach and coastal dune resources areas, including nesting and foraging habitat for rare species of shore birds; protect and enhance recreational opportunities; mitigate ongoing downdrift erosion caused by the Cape Cod Canal; and protect critical municipal infrastructure (police and fire stations) and valuable coastal property from storm surge and coastal inundation. CZM is committed to assisting the town with coordination, monitoring, and outreach. As a “shovel-ready” project, CZM believes that the proposed project meets the Department of Interior’s goals and will advance CZM’s coastal habitat, water quality, and floodplain management policies as well as support our StormSmart Coasts program. CZM looks forward to the restoration of this vulnerable barrier beach and estuarine marsh system as well as the application of lessons learned to other beach nourishment, coastal resiliency, and climate adaptation efforts.

Sincerely,

  
Bruce K. Carlisle  
Director





*The Commonwealth of Massachusetts*  
*House of Representatives*  
*State House, Boston 02133-1054*

**RANDY HUNT**  
**REPRESENTATIVE**  
5<sup>th</sup> BARNSTABLE DISTRICT

297 QUAKER MEETING HOUSE ROAD  
EAST SANDWICH, MA 02537  
TEL: (508) 888-2158

ROOM 136, STATE HOUSE  
(617) 722-2800 ext. 8743

January 29, 2014

Hurricane Sandy Coastal Resiliency Competitive Grants Program  
National Fish & Wildlife Foundation  
1133 15th St NW #1100  
Washington, DC 20005

Re: Sandwich Community Beach Restoration and Resiliency Project grant application

To Whom It May Concern:

I am writing to you in support of the Town of Sandwich's application for the U.S. Department of Interior's "Hurricane Sandy Coastal Resiliency Competitive Grant Program," which will support projects that reduce communities' vulnerability to the growing risk of coastal storms, sea level rise, flooding, erosion and associated threats through strengthening natural ecosystems that also benefit fish and wildlife.

This grant will help address the long-standing beach erosion problem at Town Neck Beach in Sandwich and the town plans to include a \$1.25 million match for the \$5.0 million grant request made up of in-kind services and direct funding.

I call your attention to a short, 10-minute video, which I produced along with the help of several Town of Sandwich residents in 2009 that gives you a feel for what Sandwich is facing. Keep in mind that we have lost literally dozens of feet of dunes since that video was shot. <http://youtu.be/YE2PG10srXg>

The beaches in the Town of Sandwich, including Town Beach and Springhill Beach, have a history of erosion over the last century. Construction of jetties at the east end of the Cape Cod Canal in the early 1900s has been one of the primary reasons for this coastal erosion. The two Canal jetties cause an interruption in the natural longshore sediment transport from northwest to southeast. This has resulted in shoreline accretion on the updrift (northwest, Scusset Beach) side of the Canal, and erosion on the downdrift (southeast, Town Beach) side. The material accreting on the northwest side of the Canal represents a significant portion of the sediment that would naturally have been distributed along the Sandwich shoreline. Hundreds of thousands of cubic yards of sand destined for Sandwich Town Beaches have been trapped at the northern jetty, or within, the Cape Cod Canal, exacerbating natural erosional pressures arising from relative sea-level rise on Cape Cod. This lack of sediment supply has resulted in significant erosion to Town beach and dune resources, as well as instability and migration of the Sandwich Harbor Inlet, resulting in degraded coastal protection from storm events and increased flooding potential.

The extent of the beach erosion in Sandwich has reached a critical stage where many public and private properties are in immediate jeopardy. There has been more erosion in the past 18 months since Hurricane Sandy than in the previous two decades.

It is hoped that you will look favorably on this project and award the Town of Sandwich their requested grant.

Sincerely,

A handwritten signature in blue ink, appearing to read "Randy Hunt", with a long, sweeping horizontal stroke extending to the right.

Randy Hunt, State Representative



The Commonwealth of Massachusetts

MASSACHUSETTS SENATE

OFFICE OF THE PRESIDENT

**THERESE MURRAY**

PRESIDENT

STATE HOUSE, ROOM 332  
BOSTON, MA 02133-1053  
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January 23, 2014

George Dunham, Town Manager  
Town of Sandwich  
130 Main Street  
Sandwich, MA 02563

Dear Mr. Dunham,

I write today in support of the Town of Sandwich's grant proposal to the US Department of Interior Hurricane Sandy Coastal Resiliency Competitive Grants Program to help address the long-standing beach erosion problem at Town Neck Beach.

For over a decade, the Town has been actively trying to permit a large scale beach renourishment project at this area and now the extent of the beach erosion in Sandwich has reached a critical stage where many public and private properties are in immediate jeopardy. As we continue to see larger storms, like those of Hurricane Sandy and Winter Storm Nemo, there is no question that the problem will be exacerbated, especially since there has been more erosion in the past 18 months since Hurricane Sandy than in the previous two decades.

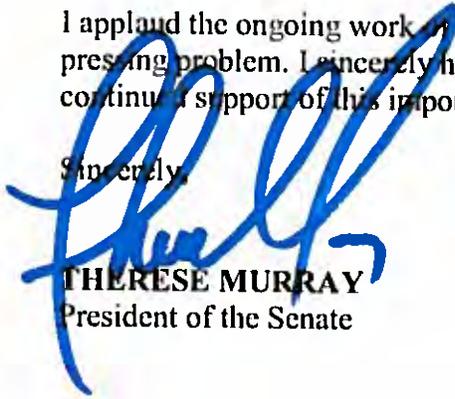
As we wait for information about the FEMA reimbursement requests for the beach erosion losses following Sandy and Nemo, which totaled over \$4.8 million, I believe the Town is headed in the right direction in pursuing this excellent opportunity to reduce erosion by rebuilding a healthy self-sustaining beach. It is made all the more better by the Town's plans to include a \$1.25 million match for the \$5 million grant request made up of in-kind services and direct funding.

This beach is an important natural resource for the Town. Not only is it habitat for the endangered piping plover species, but also an economic driver for the community. A large number of tourists come to Sandwich for the natural beauty of its beaches. If beaches continue to erode and recede the availability will no longer be able to support the large tourist demand. Moreover, coastal erosion is not a problem specific to Sandwich or

the Commonwealth of Massachusetts and we must all work diligently to preserve our open spaces and protect our land and water resources.

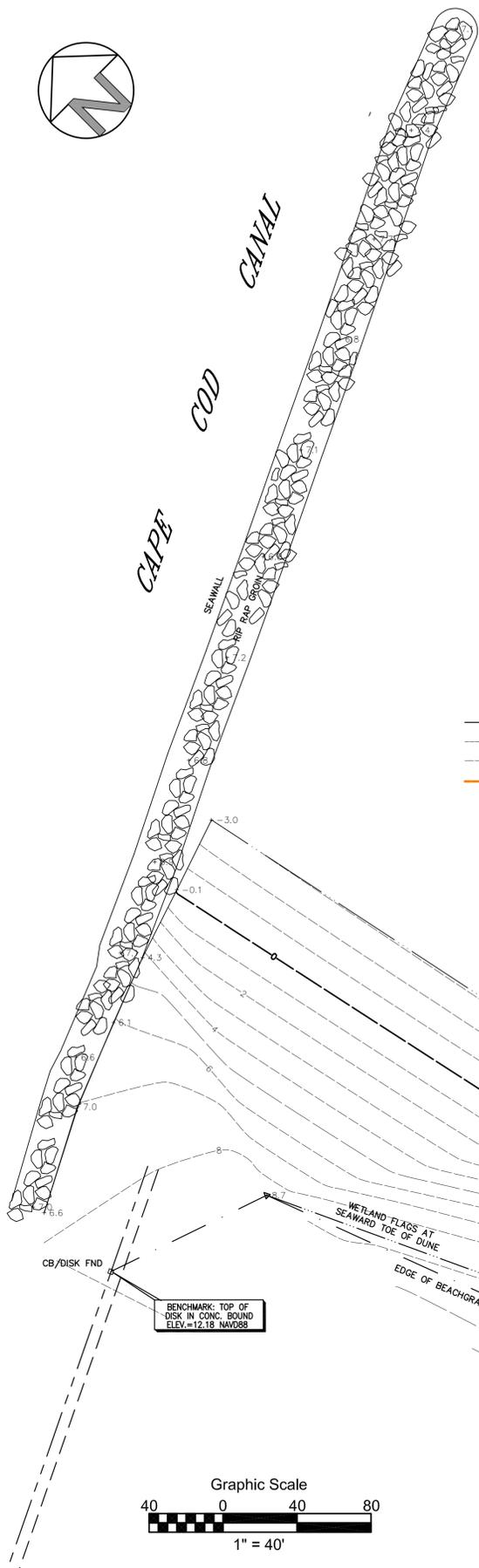
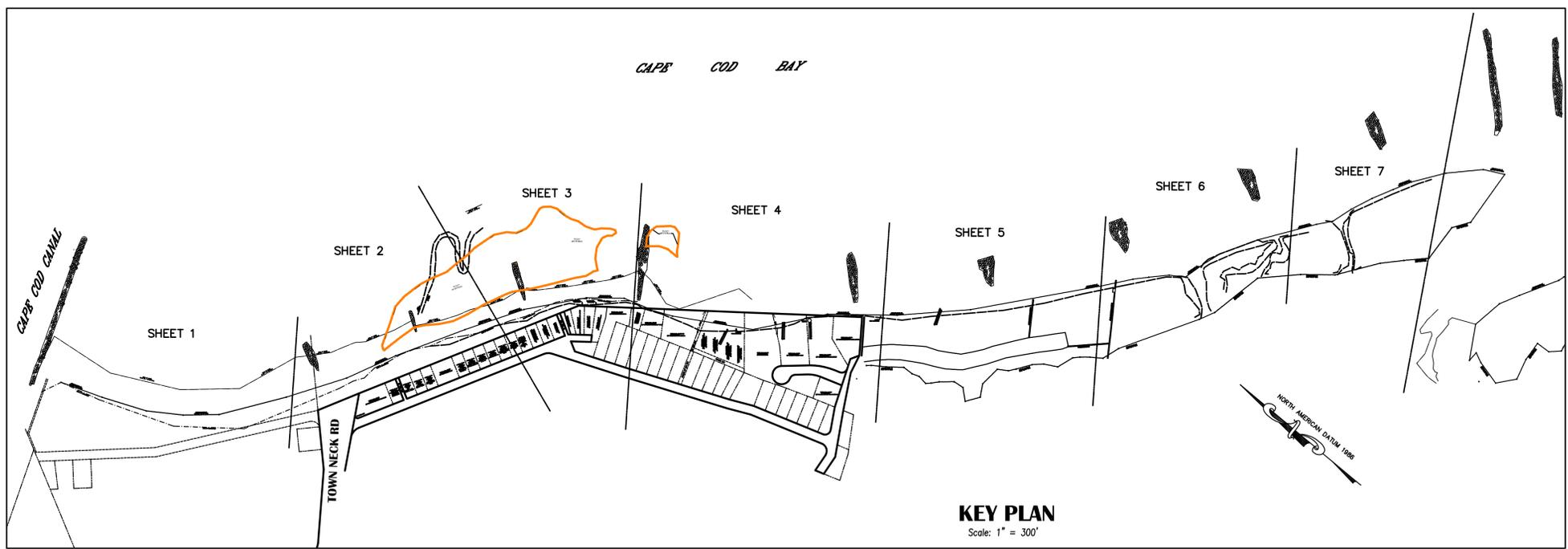
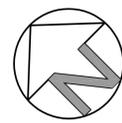
I applaud the ongoing work of Town of Sandwich and its partners in addressing this pressing problem. I sincerely hope the Town is successful in its application and offer my continued support of this important project.

Sincerely,



**THERESE MURRAY**  
President of the Senate

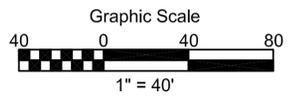




- Legend:**
- Property Line
  - - - Existing 2' Contour
  - - - Existing 10' Contour
  - DEP Wetlands mapped Rocky Intertidal Boundary
  - +8.5 Existing spot elevation - NAVD88
  - +8.5 Existing spot elevation - NAVD88 (from 3-15-13 survey)

**GENERAL NOTES:**

- 1.) THE INTENT OF THIS PLAN IS TO DETAIL EXISTING SITE CONDITIONS AT TOWN-OWNED WATERFRONT BEACH PROPERTIES IN THE VICINITY OF TOWN NECK, SANDWICH HARBOR (AT MILL, OLD DOCK AND OLD HARBOR CREEKS) AND SPRINGHILL BEACH.
- 2.) SUBJECT PROPERTIES ARE SHOWN ON SANDWICH ASSESSORS MAPS 93, 94, 89, 90, 84 - PARCELS 1, 2, 3, 4 AND 5 AND SANDWICH ASSESSORS MAP 85.  
 OWNER: TOWN OF SANDWICH  
 130 MAIN STREET  
 SANDWICH, MA, 02563-2208  
 CONSULTANT: KIRK F. BOSMA, P. E.  
 WOODS HOLE GROUP  
 81 TECHNOLOGY PARK DRIVE  
 EAST FALMOUTH, MA, 02563
- 3.) PROJECT BENCHMARKS AS SHOWN ON THIS PLAN ~ VERTICAL DATUM: NAVD29 ~ BENCHMARK ESTABLISHED BY LEICA RX 1250 TC GPS RTK - CONVERTED TO NAVD 29 USING CORPSCON 6 SOFTWARE.
- 4.) A TITLE SEARCH HAS NOT BEEN PERFORMED FOR THIS SITE. IF DETERMINED TO BE NECESSARY, A TITLE SEARCH SHALL BE PERFORMED BY OTHERS.
- 5.) THE PROPERTY LINE INFORMATION SHOWN IS BASED ON CURRENT AVAILABLE RECORD INFORMATION CONSISTING OF PLANS AND DEEDS WHICH WERE COMPILED AND ROTATED TO NAD83 HORIZONTAL DATUM.  
 PLANS USED IN THIS COMPILATION:  
 LAND COURT CASE 14716  
 LAND COURT CASE 16967  
 LAND COURT CASE 22318  
 LAND COURT CASE 28923  
 LAND COURT CASE 33312  
 LAND COURT CASE 37568  
 PLAN BOOK 13 PAGE 143  
 PLAN BOOK 34 PAGE 53  
 PLAN BOOK 88 PAGE 47 (MULTIPLE FRAMES)  
 PLAN BOOK 110 PAGE 21  
 PLAN BOOK 120 PAGE 49  
 PLAN BOOK 128 PAGE 155  
 PLAN BOOK 222 PAGE 25  
 PLAN BOOK 236 PAGE 91  
 PLAN BOOK 238 PAGE 153  
 PLAN BOOK 249 PAGE 89  
 PLAN BOOK 282 PAGE 86  
 PLAN BOOK 407 PAGE 73  
 PLAN BOOK 437 PAGE 14
- 6.) THE EXISTING FEATURES SHOWN HEREON WERE OBTAINED FROM AN ON THE GROUND FIELD SURVEY PERFORMED BY BAXTER NYE ENGINEERING & SURVEYING BETWEEN THE DATES OF JULY 23 AND OCTOBER 24, 2012.  
 WETLAND DELINEATION BY WOODS HOLE GROUP.
- 7.) COMMUNITY PANEL NUMBER 250012 0001 F THE FLOOD INSURANCE RATE MAP DEFINES BEACH AREA AS ZONES VE (EL 13), VE (EL 14) AND VE (EL 15).  
 COMMUNITY PANEL NUMBER 250012 0002 F DEFINES BEACH AREA AS ZONES AE (EL 11), VE (EL 12), VE (EL 14), VE (EL 15) AND VE (EL 16).



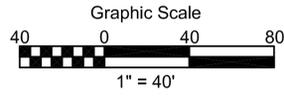
Revisions	Date
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**Title:** Sandwich Town Beach  
 Beach and Dune Restoration - 50% Design  
**PREPARED FOR:**  
 Town of Sandwich  
 Sandwich, MA

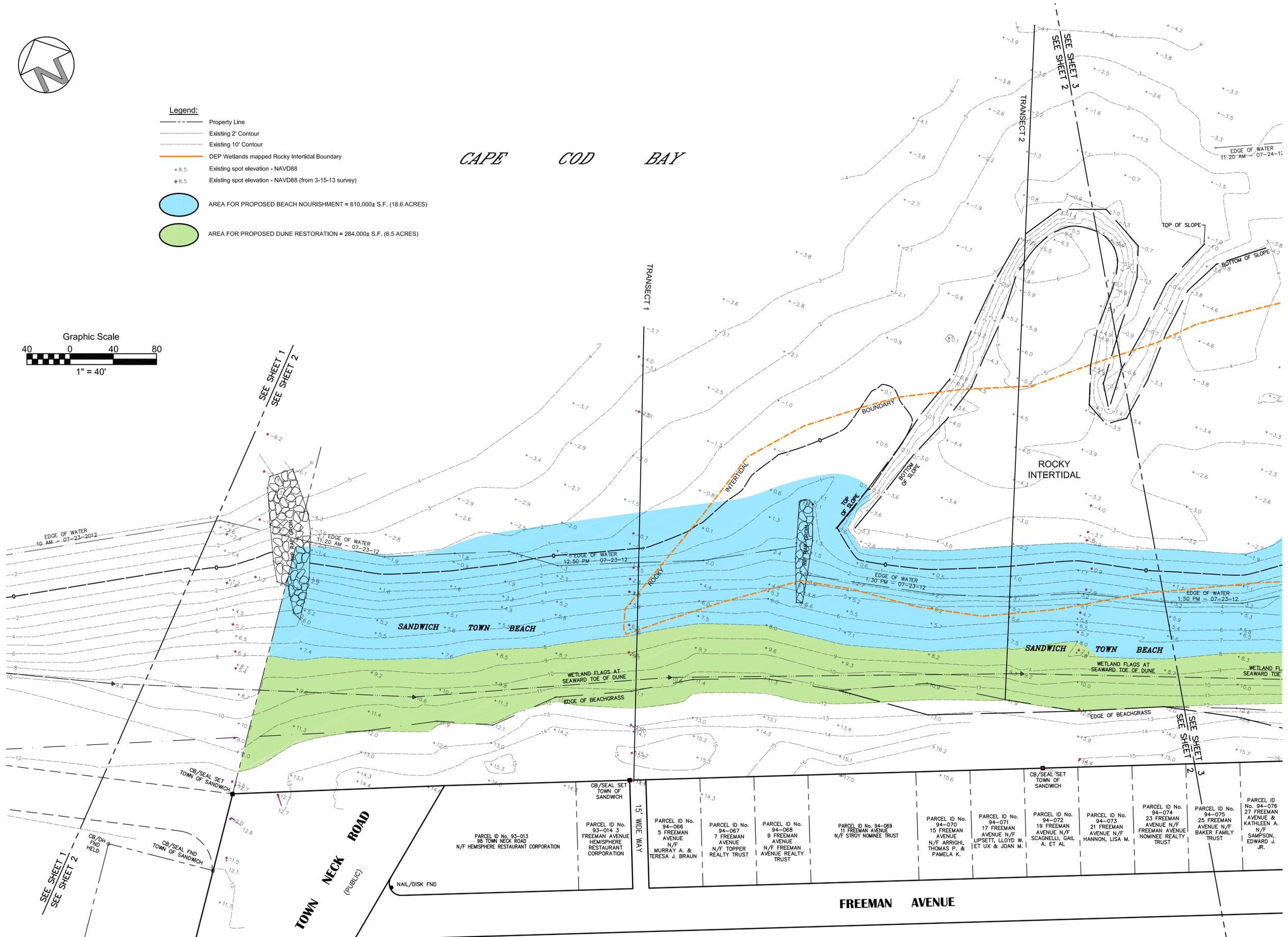
**Project Number:** 1998-114A  
**Drawing File:** 1998-114A Sandwich  
**Scale:** 1" = 40'  
**Date:** January 24, 2014  
**Approved:**  
**Drawn:** L.T.M.



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  - AREA FOR PROPOSED DUNE RESTORATION = 284,000± S.F. (6.5 ACRES)



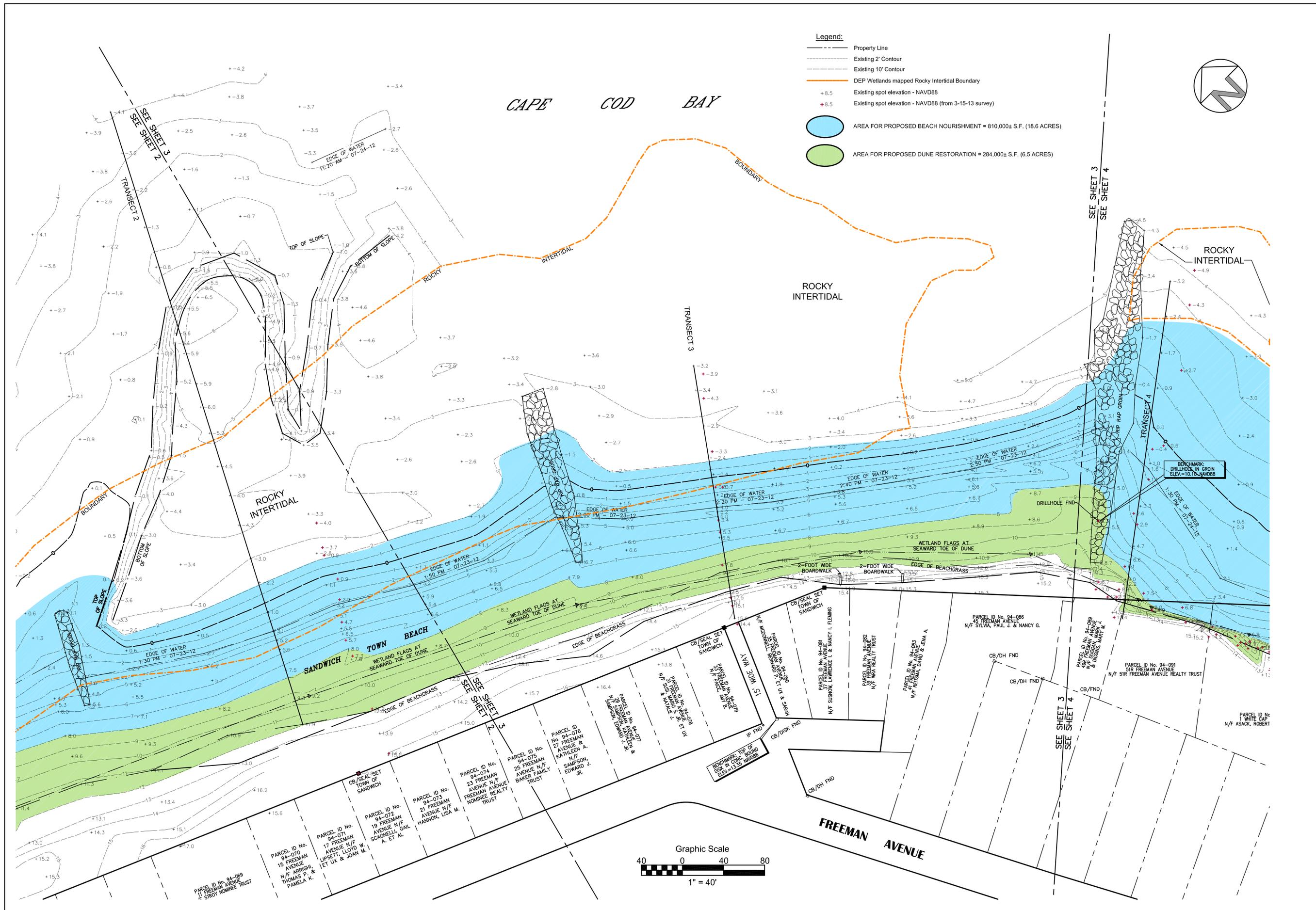
CAPE COD BAY



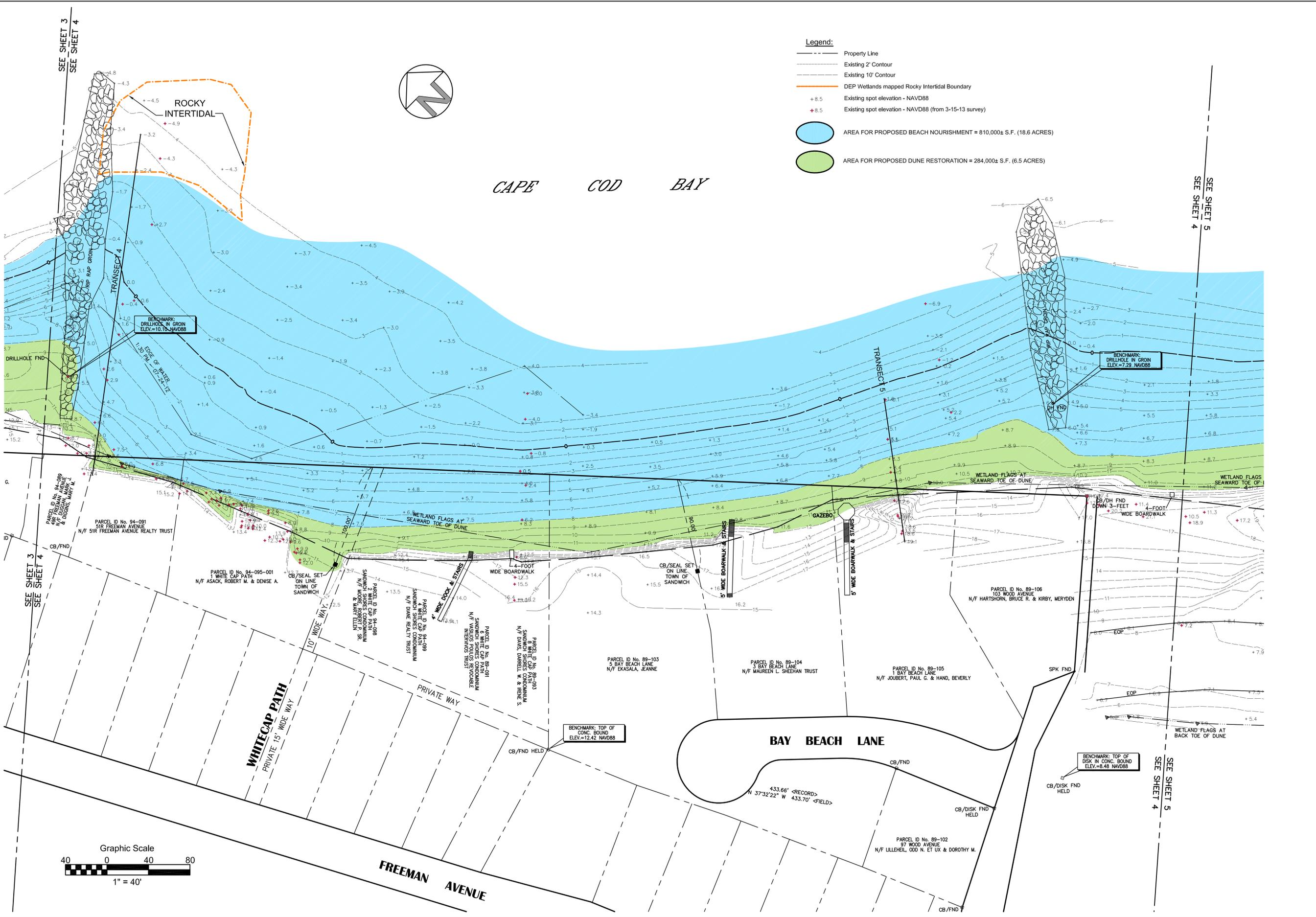
Date	Revisions

**Title:** Sandwich Town Beach  
**Beach and Dune Restoration - 50% Design**  
**PREPARED FOR:**  
 Town of Sandwich  
 Sandwich, MA

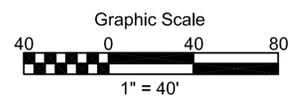
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Date	Revisions



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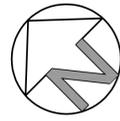
Date	Revisions

**Title:** Sandwich Town Beach  
Beach and Dune Restoration - 50% Design  
**PREPARED FOR:** Town of Sandwich  
Sandwich, MA

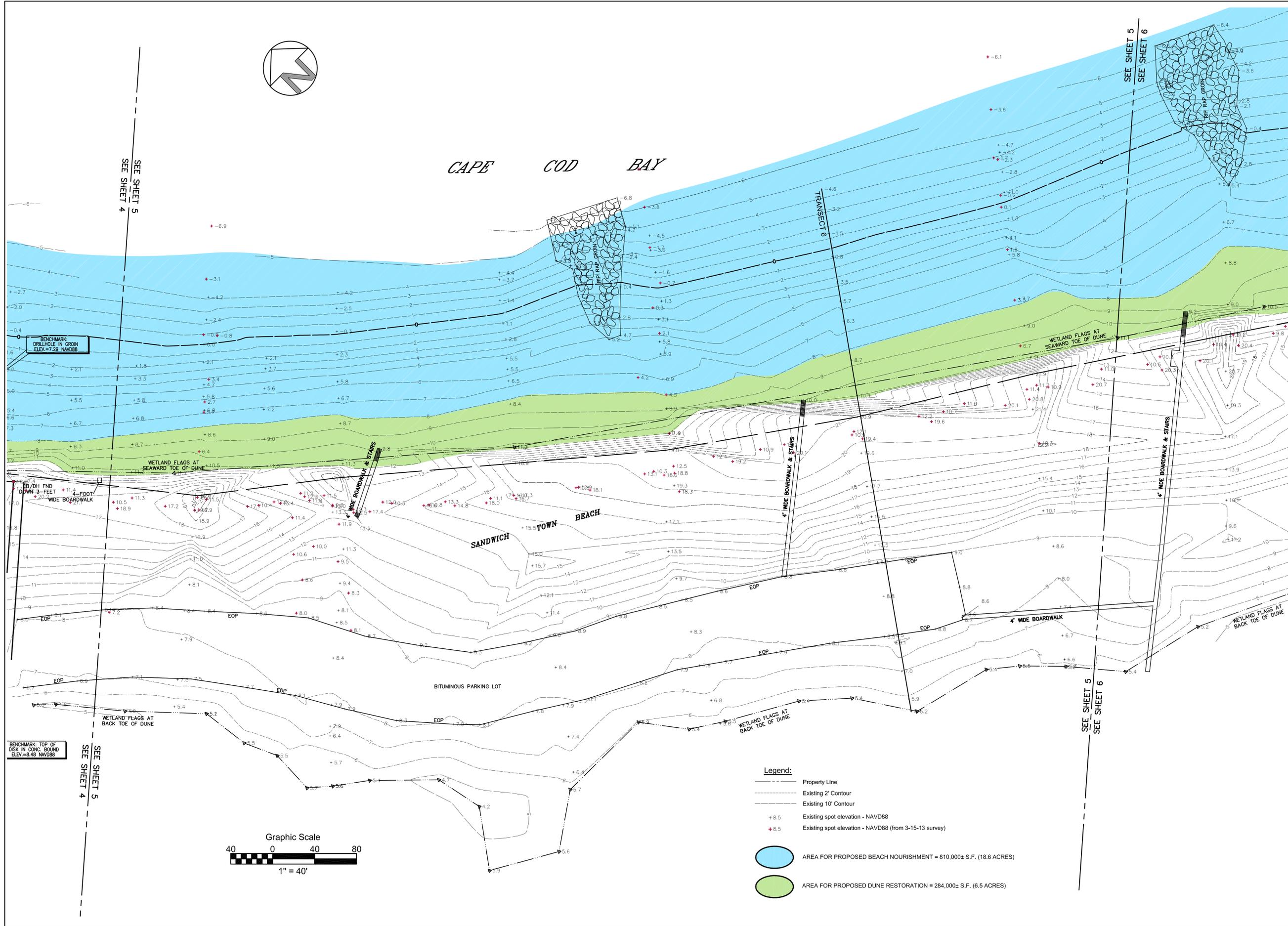
**Title:**

Project Number: 1998-114A
Drawing File: 1998-114A Sandwich
Scale: 1" = 40'
Date: January 24, 2014
Approved:
Drawn: L.T.M.

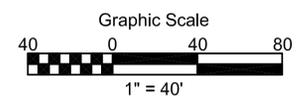
Page 4 of 7



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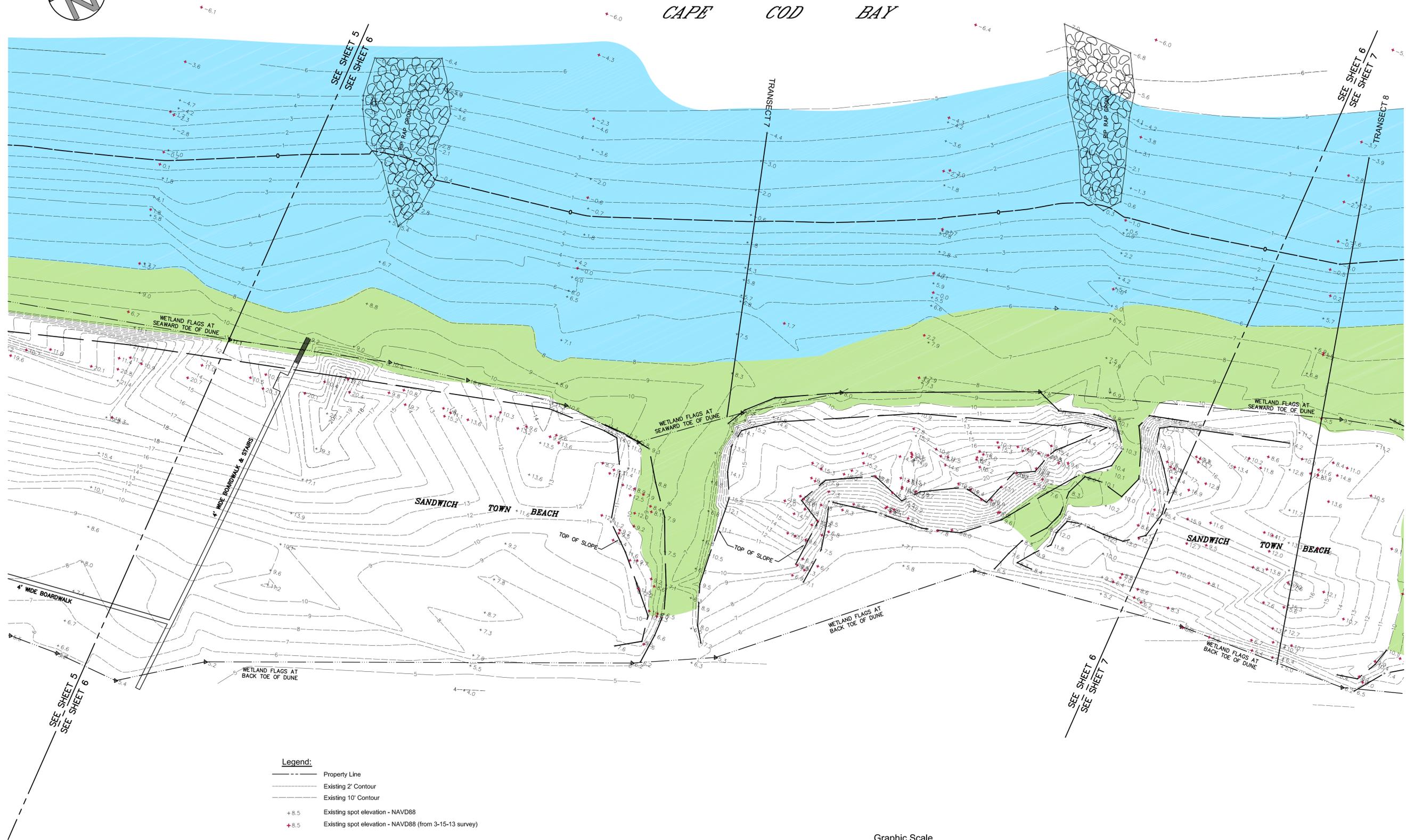
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**Title:** Sandwich Town Beach  
**Beach and Dune Restoration - 50% Design**  
**PREPARED FOR:**  
 Town of Sandwich  
 Sandwich, MA

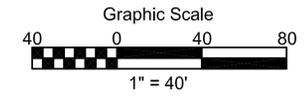
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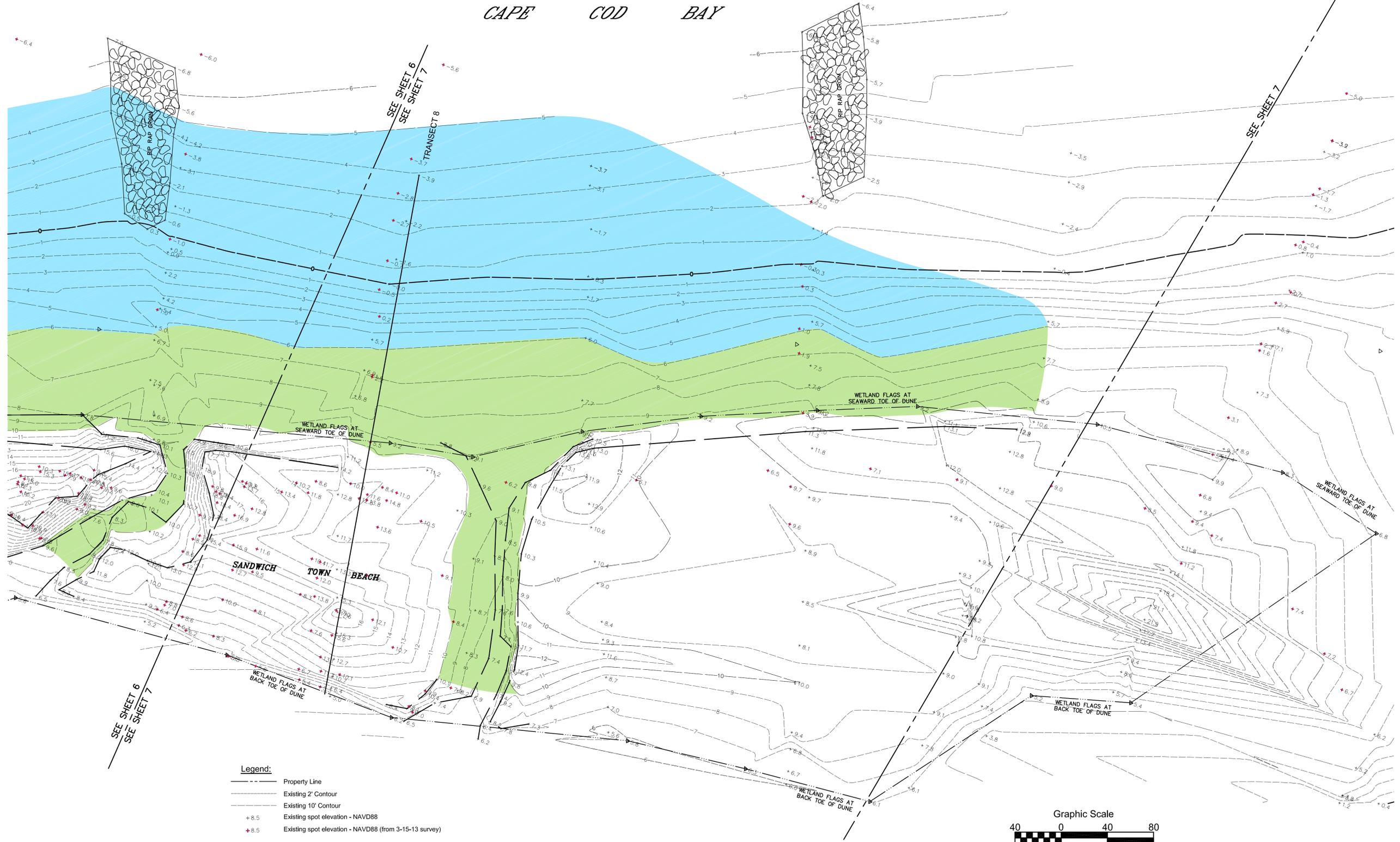
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Sandwich, MA

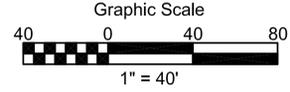
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Approved:  
Drawn: L.T.M.



NFWF

### Statement of Litigation

**Instructions:** Save this document on your computer and complete. The final narrative should not exceed two (2) pages; do not delete the text provided below. Once complete, upload this document into the on-line application as instructed.

**Litigation:** In the space provided below, state any litigation (including bankruptcies) involving your organization and either a federal, state, or local government agency as parties. This includes anticipated litigation, pending litigation, or litigation completed within the past twelve months. Federal, state, and local government applicants are not required to complete this section. If your organization is not involved in any litigation, please state below.

**The Town of Sandwich applicant is a local government and therefore not required to complete this Statement of Litigation.**



The  
Town of Sandwich  
Massachusetts


[Town Hall](#)
[Transfer Station Webcam](#)
[Directory](#)
[Public Documents](#)
[Calendar](#)
[MAPS](#)
[Minutes/Agendas](#)

 Inc.  
1639

## Departments In BOARDS & COMMITTEES

[BOARD OF APPEALS](#)  
[BOARD OF ASSESSORS](#)  
[BOARD OF HEALTH](#)  
**✦ BOARD OF SELECTMEN**  
[CAPE LIGHT COMPACT](#)  
[CAPITAL IMPROVEMENT](#)  
[PLANNING COMMITTEE](#)  
[CHARTER REVIEW COMMITTEE](#)  
[COMMISSION ON DISABILITY](#)  
[COMMUNITY PRESERVATION](#)  
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[FINANCE COMMITTEE](#)  
[GOLF ADVISORY COMMITTEE](#)  
[HISTORIC DISTRICT COMMITTEE](#)  
[HISTORICAL COMMISSION](#)  
[PERSONNEL BOARD](#)  
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[SUBSTANCE ABUSE](#)  
[PREVENTION TASK FORCE](#)  
[VISITOR SERVICES BOARD](#)  
[WATER QUALITY ADVISORY](#)  
[COMMITTEE](#)  
[WESTON MEMORIAL FUND](#)

## BOARD OF SELECTMEN Documents

[2010 and Earlier Meeting Minutes](#)  
[2011 Meeting Minutes](#)  
[2012 Meeting Minutes](#)  
[2013 Meeting Minutes](#)  
[License Applications](#)  
[Long Range Plan](#)  
[Meeting Agenda Packets](#)  
[News & Information](#)

[HOME](#) > [BOARDS & COMMITTEES](#) > [BOARD OF SELECTMEN](#)

## Board of Selectmen

Jim Pierce, Chairman (2015)  
[hawkeyejw@aol.com](mailto:hawkeyejw@aol.com)

Ralph A. Vitacco, Vice Chair (2016)  
[vitaccora@aol.com](mailto:vitaccora@aol.com)

John Kennan (2014)  
[jgktownofsandwich@comcast.net](mailto:jgktownofsandwich@comcast.net)

Frank Pannorfi (2014)  
[memoryfp@comcast.net](mailto:memoryfp@comcast.net)

Susan James (2016)  
[Srjames46@gmail.com](mailto:Srjames46@gmail.com)

### Staff:

Kathleen Coggeshall, Office Manager  
[kcoggeshall@townofsandwich.net](mailto:kcoggeshall@townofsandwich.net)

### Contact:

130 Main Street  
 Sandwich, MA 02563  
 Phone: (508) 888-4910  
 Fax: (508) 833-8045  
 E-mail: [selectmen@townofsandwich.net](mailto:selectmen@townofsandwich.net)

### Meetings:

Every Other Thursday @ 7 p.m.  
 Town Hall auditorium  
 130 Main Street

### About the Board of Selectmen

The Board of Selectmen is comprised of five (5) members elected at large for a three (3) year term. The Board of Selectmen serves as the chief policy-making body and executive board of the Town. They appoint a Town Manager to carry out the day-to-day operations of the Town and appoint members of various standing committees. The Board of Selectmen is responsible for setting guidelines for the preparation of the annual budget and to present the budget to Town Meeting. The Selectmen are also responsible for setting the date and warrant articles for the Town Meeting and any Special Town Meeting.

The Board of Selectmen serves as the licensing board for the Town and issues licenses for liquor sales, automobile dealers, Common Victualler, Auctionners, Fuel Storage Tanks, Second Hand Dealers, as well as Yard Sale Permits.

The Board of Selectmen is required to meet at least twice a month and typically meets every other Thursday at 7 p.m. at the Town Hall auditorium, 130 Main Street.

## Town of Sandwich

Main Town Hall  
 130 Main Street, 02563  
 E-Mail: [townhall@townofsandwich.net](mailto:townhall@townofsandwich.net)



© 2011 Town of Sandwich



### **Board of Trustees, Directors, or equivalent**

The Board of Selectmen serves as the chief policy-making body and the executive board of the Town of Sandwich, MA. The Board of Selectmen is comprised of five (5) members elected at large for a three (3) year term. The Selectmen appoint a Town Manager to carry out the day-to-day operations of the Town and appoint members of various standing committees. The Board of Selectmen is responsible for setting guidelines for the preparation of the annual budget and to present the budget to Town Meeting. The Selectmen are also responsible for setting the date and warrant articles for the Town Meeting and any Special Town Meeting.

The Board of Selectmen is required to meet at least twice a month and typically meets every other Thursday at 7 p.m. at the Town Hall auditorium, 130 Main Street.

### **Current Members of the Sandwich Board of Selectmen**

<b><u>Board Member</u></b>	<b><u>Term Expires</u></b>	<b><u>Email</u></b>
Jim Pierce	2015	<a href="mailto:hawkeyejw@aol.com">hawkeyejw@aol.com</a>
Ralph A Vitacco, Vice Chair	2016	<a href="mailto:vitaccora@aol.com">vitaccora@aol.com</a>
John Kennan	2014	<a href="mailto:jgktownofsandwich@comcast.net">jgktownofsandwich@comcast.net</a>
Frank Pannorfi	2014	<a href="mailto:memoryfp@comcast.net">memoryfp@comcast.net</a>
Susan James	2016	<a href="mailto:Srjames46@gmail.com">Srjames46@gmail.com</a>

Contact:

130 Main Street

Sandwich, MA 02536

Phone: (508) 888-4910

Fax: (508) 833-8045

E-mail: [selectmen@townofsandwich.net](mailto:selectmen@townofsandwich.net)

## Site Photos

*Site photos documenting the ongoing beach erosion:*



**Figure 1. Town Neck Beach during construction of the 2004 beach nourishment project.**



**Figure 2. Town Neck Beach in August 2012. The restored dune has been considerably eroded.**



**Figure 3. Town Neck Beach in November 2012 (post-Sandy). The dune is further eroded since the summer, and the beach elevation is much lower.**



**Figure 4. Town Neck Beach in January 2014, after a significant Nor'easter. The beach and dune continue to erode, damaging stairways and other coastal structures, and threatening coastal homes.**

*Site photos of the extent of flooding during storm events:*



**Figure 5. Overtopping of a washover area on the barrier beach (as seen from the Boardwalk parking lot) during a March 2013 Nor'easter.**



**Figure 6. Extensive flooding in the salt marsh area behind the Town Neck Beach barrier during Hurricane Sandy. Most of the boardwalk was entirely under water and many of the coastal properties bordering these wetlands experiences significant flooding.**



**Figure 7. Example of flooding during December 1992 Nor'easter.**



**Figure 8. Example of flooding during December 1992 Nor'easter.**



Figure 9. Example of flooding during October 1991 No-Name Storm.



Figure 10. Example of flooding during October 1991 No-Name Storm.

U.S. DEPARTMENT OF HOMELAND SECURITY  
FEDERAL EMERGENCY MANAGEMENT AGENCY

**PROJECT WORKSHEET**

**PAPERWORK BURDEN DISCLOSURE NOTICE**

Public reporting burden for this form is estimated to average 90 minutes per response. Burden means the time, effort and financial resources expended by persons to generate, maintain, disclose, or to provide information to us. You may send comments regarding the burden estimate or any aspect of the collection, including suggestions for reducing the burden to: Information Collections Management, U.S. Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, Paperwork Reduction Project (OMB Control Number 1660-0017). You are not required to respond to this collection of information unless a valid OMB number appears in the upper right corner of this form. NOTE: Do not send your completed questionnaire to this address.

DECLARATION NO.	PW REF NO.	DATE	FIPS NO.	CATEGORY	EMMIE NO.
FEMA 4097 DR MA	SNWGV1	04/25/13	001-59735-00	G	

APPLICANT	WORK COMPLETED AS OF:	
Town of Sandwich, MA.	DATE:	PERCENT:
	05/13/13	0%

DAMAGED FACILITY <input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> Uns	COUNTY
0	Barnstable

LOCATION	LATITUDE	LONGITUDE
Town Hall, 130 Main Street, Sandwich, MA	41.76780	-70.48450

Was this site previously damaged?

**DAMAGE DESCRIPTION AND DIMENSIONS:**

During the incident period of October 26th - 31st, 2012, Hurricane Sandy caused widespread damages throughout the State of Massachusetts due to high winds and flooding from high tides and surges along the coastal areas. A major disaster, DR-4097 was declared on December 19th, 2012. Coastal damage resulted in a loss of 144,000 CY of engineered dune for approximately 3000 LF. An attached report from Woods Hole Group indicates that the beach area is an engineered beach. The beach is known as Town Neck Beach and is located at GPS (42.76780, -70.48450). Slope volume is 22 ft x 100 ft. x 3000 LF x 1/2 = 3,300,000/27 = 122,222.22 CY. Damages were due to the occurrence of two storms. It is estimated that 60,000 CY was due to DR4097 Sandy and the remaining was due to DR4110 under a separate PW (SNWGV1) for the remaining 62,222.22 CY.

**SCOPE OF WORK:**

**Fund at 75%**

The applicant has proposed the following measures to restore the stone barrier to pre-disaster conditions by hiring a contractor to provide services and materials as follows: An engineering report indicates that approximately 3000 LF of beach area was devastated with sand loss due to heavy wave and tidal action from the storm. Approximately 144,000 CY of material would be needed to restore the loss in beach and dune volume to be restored to the pre-storm cross sections as indicated in the report.

Work Completed: Cost for surveying invoice (#009081A dated 3/1/2013) from Woods Hole Group attached for \$8,000.00.

Work to be Completed: Costs for this restoration is estimated as follows: (1) Engineering Costs for calculations, designs and oversight \$12,000.00; (2) Construction for restoration which includes materials, delivery and installation based upon 60,000 CY of sand at \$30.00/CY = \$1,800,000.00. Total cost = \$12,000.00 + \$1,800,000.00 = \$1,812,000.00. (SEE CONTINUATION SHEET FOR SOW)

**PROJECT COST**

ITEM	CODE	NARRATIVE	QUANTITY	UNIT	UNIT PRICE	COST
1	0	WORK COMPLETED:				\$ -
2	9003	Surveying	1.00	EA	\$8,000.00	\$ 8,000.00
3	0	WORK TO BE COMPLETED:				\$ -
4	9930	SMF Project cost from CEF (Code 9000)	1.00	EA	\$2,368,055.00	\$ 2,368,055.00
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
SUBTOTAL FROM COST CONTINUATION PAGE(S)						\$ -
TOTAL PROJECT COST						\$ 2,376,055.00

PREPARED BY: Vincent Masucci	TITLE: Project Specialist- Coastal Team Lead
FEMA PAC CREW LEADER: Daniel Whittington, Sr.	STATE PAC CREW LEADER: Lorraine Eddy
APPLICANT: George Dunham	DATE: PHONE: 508-888-5144



EDWARD J. MARKEY  
MASSACHUSETTS

COMMITTEES:

COMMERCE, SCIENCE, AND TRANSPORTATION  
SMALL BUSINESS AND ENTREPRENEURSHIP  
FOREIGN RELATIONS

CHAIRMAN:

SUBCOMMITTEE ON INTERNATIONAL DEVELOPMENT AND  
FOREIGN ASSISTANCE, ECONOMIC AFFAIRS,  
INTERNATIONAL ENVIRONMENTAL PROTECTION, AND  
PEACE CORPS

U.S. SENATE CLIMATE CHANGE CLEARING HOUSE

## United States Senate

SUITE SR-218  
RUSSELL BUILDING  
WASHINGTON, DC 20510-2107  
202-224-2742

975 JFK FEDERAL BUILDING  
15 NEW SUDBURY STREET  
BOSTON, MA 02203  
617-565-8519

222 MILLIKEN BOULEVARD, SUITE 312  
FALL RIVER, MA 02721  
508-677-0523

1550 MAIN STREET, 4TH FLOOR  
SPRINGFIELD, MA 01101  
413-785-4610

January 29, 2014

Mandy Chestnutt  
Hurricane Sandy Coastal Resiliency Competitive Grants Program  
National Fish and Wildlife Foundation  
1133 15th St. N.W., Suite 1100  
Washington, DC 20005

**RE: Hurricane Sandy Coastal Resiliency Grant Request  
Town of Sandwich, MA**

Dear Ms. Chestnutt,

I am writing to you in strong support of a grant proposal submitted by the Town of Sandwich to the U.S. Department of Interior Hurricane Sandy Coastal Resiliency Competitive Grants Program. Sandwich is asking for \$5 million to help address a severe coastal erosion problem they are facing.

The requested funding will go towards a large scale beach nourishment project that the town has been designing for over a decade. For years, the beaches of Sandwich have been hit with significant erosion, but with the series of intense storms that has hit the East Coast recently, the situation has become increasingly dire. There has been more erosion since Superstorm Sandy than there was in the two decades before the storm combined. Now, the extent of the beach erosion in Sandwich has reached a critical stage where many public and private properties are in immediate jeopardy. The town and its residents become more on edge with each passing storm.

The Town of Sandwich is an excellent candidate for this funding. They have focused much of their time and attention on this project and plan to include \$1.25 million in matching funds to any award they are granted. It is anticipated that formal permit filings will be made in the next two months, which means the project could be shovel-ready this year.

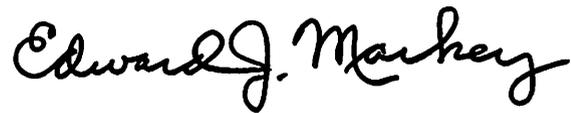
Mandy Chestnutt

January 29, 2014

Page 2

The project for which the Town of Sandwich is requesting this grant is a carefully planned and critically necessary endeavor and I wholeheartedly support their application. Should you have any questions or require additional information, please contact Christina Pacheco in my Boston Office at 617-565-8519.

Sincerely,

A handwritten signature in black ink that reads "Edward J. Markey". The signature is written in a cursive, flowing style with a large initial "E" and "M".

Edward J. Markey



Lynch, Malloy, Marini, LLP

*Certified Public Accountants & Advisors*

www.lmmepas.com

January 31, 2014

Town of Sandwich, Massachusetts  
George Dunham, Town Manager  
130 Main Street – Town Hall  
Sandwich, Massachusetts 02563

Sandwich, MA

Dear George:

Per your request, we are issuing this letter to confirm that the Town of Sandwich, Massachusetts is exempt from the filing of any tax returns, such as Form 990, per the Internal Revenue Tax Code.

I hope this information will be of help to you. Please call if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Lynch', with a long, sweeping flourish extending to the right.

Robert J Lynch, Partner

Rev. Proc. 95-48, 1995-2 C.B. 418, 1995-47 I.R.B. 13.

**INTERNAL REVENUE SERVICE**  
**Revenue Procedure**

**EXERCISE OF COMMISSIONER'S DISCRETIONARY AUTHORITY UNDER SECTION 6033**

Published: November 20, 1995

26 CFR 601.602: Forms and instructions

Section 501. - Exemption from Tax on Corporations, Certain Trusts, Etc.

Section 6033. - Returns by Exempt Organizations

Exercise of Commissioner's discretionary authority under section 6033. This procedure exercises the Commissioner's discretionary authority under section 6033(a)(2)(B) of the Code, by specifying that two additional classes of organizations, governmental units and affiliates of governmental units, which are exempt from federal income tax under section 501(a), are not required to file annual information returns on Form 990, Return of Organization Exempt From Income Tax. Rev. Proc. 83-23 supplemented.

**SECTION 1. PURPOSE**

This revenue procedure specifies two additional classes of organizations that are not required to file annual information returns on Form 990, Return of Organization Exempt From Income Tax. As described in section 4, these two classes of organizations are: (1) governmental units, and (2) affiliates of governmental units that are exempt from federal income tax under section 501(a) of the Internal Revenue Code. This revenue procedure supplements Rev. Proc. 83-23, 1983-1 C.B. 687.

**SECTION 2. BACKGROUND**

.01 Section 6033(a)(1) of the Code generally requires the filing of annual information returns by exempt organizations.

.02 Section 6033(a)(2)(A) of the Code provides certain mandatory exceptions to this filing requirement.

.03 Section 6033(a)(2)(B) of the Code provides discretionary exceptions from filing such returns where the Secretary "determines that such filing is not necessary to the efficient administration of the internal revenue laws."

.04 Section 1.6033-2(g)(6) of the Income Tax Regulations delegates authority to the Commissioner to excuse organizations from the filing requirement. It provides that "[t]he Commissioner may relieve any organization or class of organizations from filing, in whole or in part, the annual return required by [section 6033] where [the Commissioner] determines that such returns are not necessary for the efficient administration of the internal revenue laws."

.05 Section 1.6033-2(g)(1) of the regulations provides a partial list of organizations that are not required to file annual returns either because they are excepted by statute or because the Commissioner has exercised the authority referred to in section 2.03. Rev. Proc. 83-23 provides a more complete list.

**SECTION 3. ORGANIZATIONS EXCEPTED FROM FILING**

.01 Pursuant to the authority of section 1.6033-2(g)(6) of the Income Tax Regulations, an organization that is either a "governmental unit" or an "affiliate of a governmental unit," within the meaning of section 4, is not required to file Form 990.

.02 The exception from filing provided in section 3.01 applies to all tax years beginning after December 31, 1969, for which no Form 990 has been filed by the date of publication of this revenue procedure.

.03 This revenue procedure does not affect an organization's obligation to file Form 990-T, Exempt Organization Business Income Tax Return. Thus, if an organization is required to file Form 990-T, it must continue to file that form, even though it is not required to file Form 990.

#### SECTION 4. "GOVERNMENTAL UNIT" AND "AFFILIATE OF A GOVERNMENTAL UNIT"

.01 For purposes of this revenue procedure, an organization is treated as a "governmental unit" if:

- (a) It is a state or local governmental unit as defined in section 1.103-1(b) of the regulations;
- (b) It is entitled to receive deductible charitable contributions as an organization described in section 170(c)(1) of the Code; or
- (c) It is an Indian tribal government, or a political subdivision thereof, under sections 7701(a)(40) and 7871 of the Code.

.02 For purposes of this revenue procedure, an organization is treated as an "affiliate of a governmental unit" if it is described in section 501(c) of the Code and it meets the requirements of either section 4.02(a) or (b):

- (a) It has a ruling or determination from the Service that:
  - (i) Its income, derived from activities constituting the basis for its exemption under section 501(c) of the Code, is excluded from gross income under section 115;
  - (ii) It is entitled to receive deductible charitable contributions under section 170(c)(1) of the Code, on the basis that contributions to it are "for the use of" governmental units; or
  - (iii) It is a wholly owned instrumentality of a state or a political subdivision thereof, for employment tax purposes (see sections 3121(b)(7) and 3306(c)(7) of the Code); or
- (b) The organization does not have a ruling or determination described in section 4.02(a) but:
  - (i) It is either "operated, supervised, or controlled by" governmental units, or by organizations that are affiliates of governmental units, within the meaning of section 1.509(a)-4(g)(1)(i) of the regulations, or the members of the organization's governing body are elected by the public at large, pursuant to local statute or ordinance;
  - (ii) It possesses two or more of the affiliation factors listed in section 4.03; and
  - (iii) Its filing of Form 990 is not otherwise necessary to the efficient administration of the internal revenue laws.

.03 The following affiliation factors will be considered under paragraph (b)(ii) of section 4.02:

- (a) The organization was created by one or more governmental units, organizations that are affiliates of governmental units, or public officials acting in their official capacity.
- (b) The organization's support is received principally from taxes, tolls, fines, government appropriations, or fees collected pursuant to statutory authority. Amounts received as government grants or other contract payments are not qualifying support under this paragraph.
- (c) The organization is financially accountable to one or more governmental units. This factor is present if the organization is (i) required to report to governmental unit(s), at least annually, information comparable to that required by Form 990; and (ii) is subject to financial audit by the governmental unit(s) to which it reports. A report submitted voluntarily by the organization does not satisfy clause (i). Also, reports and audits pursuant to government grants or other contracts do not alone satisfy this paragraph (c).

(d) One or more governmental units, or organizations that are affiliates of governmental units, exercise control over, or oversee, some or all of the organization's expenditures (although it is not financially accountable to governmental units as described in paragraph (c) of this section).

(e) If the organization is dissolved, its assets will (by reason of a provision in its articles of organization or by operation of law) be distributed to one or more governmental units, or organizations that are affiliates of governmental units within the meaning of section 4 of this revenue procedure.

.04 In making a ruling or determination whether the organization's filing of Form 990 is otherwise necessary to the efficient administration of the internal revenue laws under section 4.02(b)(iii), all relevant facts and circumstances shall be considered.

Relevant facts and circumstances suggesting that filing is necessary for efficient tax administration include the extent to which the organization has taxable subsidiaries or participates in joint ventures with non-exempt entities; whether it engages in substantial public fund-raising efforts; and whether its activities provide significant benefits to private interests.

## SECTION 5. RULINGS AND DETERMINATION LETTERS

.01 An organization may request a ruling described in section 4.02(a) pursuant to Rev. Proc. 95-1, 1995-1 I.R.B. 1. The appropriate user fee must be paid (currently, \$3,575, pursuant to Rev. Proc. 95-1, Appendix A, 53).

.02 An organization that has been recognized as exempt under section 501 of the Code may (but is not required to) request a ruling or determination that it meets the requirements to be excepted from filing Form 990 as a "governmental unit" or an "affiliate of a governmental unit." The request for a ruling or determination must be submitted under the procedures in Rev. Proc. 95-4, 1995-1 I.R.B. 97. The appropriate user fee must be paid (currently, \$100 for a ruling, pursuant to Rev. Proc. 95-8, § 6.11(4), 1995-1 I.R.B. 187, 194).

.03 An organization seeking recognition of exempt status under section 501 of the Code may request a determination that it meets the requirements to be excepted from filing Form 990 as a "governmental unit" or an "affiliate of a governmental unit," by submitting information required by line 9 of Part I of Form 1023, Application for Recognition of Exemption Under Section 501(c)(3) of the Internal Revenue Code or submitting a separate written request with its application for recognition of exemption. See Rev. Proc. 90-27, 1990-1 C.B. 514, for additional procedures with regard to applications for recognition of exemption.

## SECTION 6. EFFECT ON OTHER DOCUMENTS

Rev. Proc. 83-23 is hereby supplemented.

## DRAFTING INFORMATION

The principal authors of this revenue procedure are Joe O'Malley of the Exempt Organizations Division and Amy Henchey, formerly of the Exempt Organizations Division. For further information regarding this revenue procedure, contact Joe O'Malley on (202) 622-7247 (not a toll-free call).

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