



Marine & Coastal Resources Department

Town of Nantucket
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D. F. Fronzuto
Marine Superintendent/CHM
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Ms. Adrienne Harrison
University of New Hampshire
35 Colovos Road
Gregg Hall, Room 148
Durham, NH 03824

RE: Gulf of Maine Council on the Marine Environment & Northeast Regional Ocean Council, Letter of Intent, September 29, 2011

Dear Ms. Harrison:

The Town of Nantucket, Massachusetts is requesting consideration in response to above referenced RFP dated September 7, 2011.

The Town of Nantucket has been diligently working on Coastal Management Principles since 2008. Nantucket is an island community that is experiencing many of the impacts directly related to climate change and coastal flood inundation. Winter storms regularly batter various sections of the islands shorefront, and cause significant amounts of storm damage. Nantucket also has some of the highest rates of erosion in the state. In some sections of the island erosion rates exceed ten feet per year, and will likely accelerate in the future. Much of the town's vital infrastructure, including the downtown and the only passenger and freight terminals are located in the coastal flood zone. The Town recognizes the significance of future climate change impacts to the island's infrastructure and its economy, and would like to utilize the GOMC and NROC funding to begin long term planning and implementation strategy to minimize and mitigate these impacts.

Through this project, the town seeks to develop a local draft Floodplain Bylaw that will minimize flood related risks and impacts from both new development and from redevelopment of properties within coastal floodplains. To help educate decision makers about current and future risks from coastal flooding, the town seeks to develop updated flood inundation maps that will identify coastal flood zones for a variety of future sea level rise scenarios. These maps, along with other outreach materials, will help town officials better understand potential future flood impacts, and to help "make the case" for the need for the adoption of a local Floodplain Bylaw. This draft Floodplain Bylaw will then be reviewed by all appropriate town boards and local NGO groups in an effort to generate support for, and adoption of this draft Floodplain Bylaw at town meeting.

The project will build upon work that is the town is planning to undertake as part of the CZM StormSmart community pilot project program. This work includes:

- The town will use the updated MCZM shoreline change maps to help characterize potential impacts to coastal wetland resource areas and the developed environment. Assess the effects of movement in terms of potential impacts to coastal resource areas, such as coastal beach, coastal dune, barrier beach, ponds as well as developed areas and infrastructure.

- Develop a coastal structures “build-out” map, which would identify and map those parcels on the island with pre-1978 structures that could legally be considered for structural armoring under existing regulations. The existing 1992 FEMA flood maps are inadequate for this planning initiative. Recent LIDAR over flights have been conducted and will be extremely useful in determining coastal erosion and future flood inundation.
- Develop management recommendations for consideration for inclusion in Nantucket’s Municipal Harbor Plan and Nantucket’s Coastal Management Principles.

Deliverables:

- Conduct an inventory of existing coastal engineered structures and those properties that may, under the Coastal Wetlands Regulations, install coastal engineering structures at some time in the future. Particular emphasis will be placed on planning for sea level rise in both the developed and natural resources environment.
- Identify hazard identification and mapping of town-owned coastal parcels, town-owned roads, and public infrastructure in the coastal areas identified by region.
- Generate a series of GIS maps that identify contemporary erosion hotspots; identify sediment contemporary sediment transport trends and direction; identify vulnerable coastal resource areas in developed areas and impact on existing infrastructure.
- Prepare and present a report outlining specific short-term and long-term management recommendations to help achieve town coastal management goals and minimize climate change-related sea level rise impacts & vulnerabilities.

The Marine and Coastal Resources Department Superintendent and the Planning Department Director will lead this project; both have experience in this area through their involvement in the state Ocean’s Management Plan development. The Town is willing to dedicate staff from the Administration, Conservation Commission, Nantucket Planning and Economic Development Commission, Department of Public Works, and Marine and Coastal Resources Department to this important initiative. Many environmental groups and private stakeholders have also committed to the development and implementation.

The town plans to utilize the service of a qualified independent consultant to help with the development of a floodplain bylaw, and to help with the public education and outreach aspects of this project as well. At this point the town does not have a detailed budget for the project, but it is anticipated that the funding request will be in the \$20 - \$25K range. We will have a more detailed budget developed when we submit our full project proposal.

Thank you or your consideration and if any further information is needed please contact me at the above number.

Sincerely,

D. F. Fronzuto

NANTUCKET HARBOR IS A FEDERAL NO-DISCHARGE ZONE