

Municipality/Nonprofit Organization: Town of Hull

Project Title: North Nantasket Beach Dune Restoration and Accessibility Project

Grant Award: \$ \$118,937

Match: \$ \$43,345.50

Community Overview:

The Town of Hull is one of the most vulnerable communities in Massachusetts to coastal climate change impacts; residing at the forefront to impacts from sea level rise and increasing frequency and extent of coastal storms and subsequent storm surge. Because of its northeast exposure, Hull is particularly susceptible to nor'easter storms.

Description of Climate Impact:

Flooding and storm surge damage is likely the greatest threat that contributes to flooding and public safety in the Town of Hull. Hull relies greatly on the storm surge and flood protection provided by the Nantasket Beach primary dune and beach system.

Project Goals:

This project builds on recent vulnerability assessments and the development of (a) design enhancements to the existing primary dune that would result in a continuous vegetated dune along northern Nantasket Beach and (b) pedestrian access strategies that meet the overall goal of restoring a continuous primary dune and preserving and maximizing the protection afforded by the dune for storm damage prevention and flood control.

Approach and Result:

The Town of Hull developed designs for primary dune restoration and pedestrian access at one of the most vulnerable areas identified in the previous FY CZM grant (end of A St). This was culminated in the submission of a Notice of Intent to the Hull Conservation Commission for dune restoration and construction of a pedestrian walk-over structure at the A Street location. In addition, Hull conducted field-studies and spatial analyses of the dune to characterize the extent and locations of non-permitted pedestrian paths across the primary dune and engaged stakeholders through three charrettes and presentations. The details of this effort is available for the public to review. See: <https://www.town.hull.ma.us/conservation-department/pages/north-nantasket-beach-resilience>

Lessons Learned:

Development of restoration and walkover was straight forward, with input from Town management and engineering expertise. Public engagement efforts were greatly improved from previous engagement efforts, possibly the result of COVID related adjustments like on-line platforms (e.g., GoToMeeting). For addressing the non-permitted access across the dune, the timing of implementing these closures and providing relief where needed is going to be important moving forward. Frequently, participants pointed to the lack of solutions for highly vulnerable sections of the dune (A St and an area that has been historically altered for parking).

The Town is underway in addressing these vulnerabilities, but the implementation (i.e., construction) to mitigate these highly visible areas should be well underway before beginning to implement the closure of non-permitted pedestrian dune paths. With on-line platforms and extending the public forum into the summer months, the concerns raised in the previous grant cycle has been address as the Town was able to actively engage seasonal residents on the importance of vulnerability mitigation measures for climate change impacts.

Partners and Other Support:

Name	Organization	Project Role
Christian Krahforst	Town of Hull, Conservation	Project Manager
Philip E. Lemnios	Town of Hull, Town Manager	Project Oversight
John Struzziery	Town of Hull, Public Works	Project Working Group Member
Chris Dilorio	Town of Hull, Planning	Project Working Group Member
David MacDougall	Town of Hull, Beach Mgmt. Cmt.	Project Working Group Member
Kirk Bosma	Woods Hole Group	Consultant: Dune and beach nourishment
Nasser Brahim	Kleinfelder	Consultant: Climate Planner
Laura Nolan	Kleinfelder	Consultant: Project Manager