

DOI-NFWF

42279 Building Ecological Solutions to Coastal Community Hazards

NJ DEP Office of Coastal and Land Use Planning

Municipal Project Narrative

Upper Township

Scope: The Upper Township NFWF funded activities are the design, development of permit documents, permit approvals, bidding, implementation and monitoring of two areas of living shorelines contiguous to a public access boat ramp on Bay Ave, Strathmere, Upper Township.

Goals: The goals of these activities are habitat enhancement/creation, shoreline stabilization, marsh enhancement/restoration/creation/protection, tidal flood mitigation, public outreach and education, and overall additional resiliency for the upland residential areas beyond the site.

Project Partners: NJ Department of Environmental Protection, National Wildlife Federation, Barnegat Bay Partnership, Partnership for the Delaware Estuary, Stevens Institute of Technology, Upper Township,

Project Funding:

DOI NFWF Grant

Upper Township Match

Project Design:

The activity will occur at the terminus of Bayview Drive on the Bayview right-of-way and on Block 814, Lot 4 in the Strathmere section of Upper Township. Two areas of living shorelines will be established on the west and east of the public boat ramp to restore and enhance the marine habitat for species including, but not limited to, ribbed mussels, crabs and sessile organisms. The proposed living shorelines will not disturb coastal wetlands. The project area below the mean high water line is less than one acre in size. No special areas will be disturbed but rather they will be enhanced through the proposed project. The proposed project will restore a previously existing shoreline and will not exceed the footprint of the shoreline as it appeared on the Tidelands Map. The combined areas of the living shorelines is 3,324 SF that will be restored and will further the shoreline protection of the wetlands and the tidal streams.

Value: These activities will support the shoreline by providing areas for accretion and vegetation, a natural transition to the landward wetlands and provide insight into the use of ecological solutions at locations that are typically bulkheaded. The proposed habitat enhancement and creation will result in the improvements of the values and functions of the ecosystem through the removal of the debris in the area specified on the plans and by creating new and improved vegetated habitat for species.

DEP and USACE Permit Approval Process:

Joint Permit Processing meeting (1-for preliminary design review and permitting input)

DEP Coastal GP 24 – Habitat creation, restoration, enhancement and living shorelines activities

DEP Waterfront Development
DEP Tidelands License
CAFRA (for activities above mean high water)
Water Quality Certificate
USACE Nationwide Permit #27

The permits listed reflect additional projects funded by other sources that were combined in the applications in order to reduce permit fees and review time.

Monitoring: A monitoring plan will provide for documenting existing site conditions, monitoring during implementation, and post implementation monitoring through Jan 2018. Citizen scientist monitoring may be provided by locals. Monitoring of this project after installation will advance the level of knowledge regarding the living shorelines in the State.

Project Schedule:

The implementation is anticipated to start in September of 2016 and to be completed by May 2017. The schedule includes a break in the winter due to the spring planting period.

Associated Projects: Upper Township had County funding for the reconstruction and improvement of a public boat ramp. The NFWF project is coordinated with this work and builds upon it.

Detailed Project Activity:

The activity will occur at the terminus of Bayview Drive on the Bayview right-of-way and on Block 814, Lot 4 in the Strathmere community of Upper Township. Two areas of living shorelines will be established on the west and east of the public boat ramp to restore and enhance the marine habitat for species including, but not limited to, ribbed mussels, crabs and sessile organisms. The proposed living shorelines will not disturb coastal wetlands. The project area below the mean high water line is less than one acre in size. No special areas will be disturbed but rather they will be enhanced through the proposed project. The proposed project will restore a previously existing shoreline and will not exceed the footprint of the shoreline as it appeared on the Tidelands Map. The combined areas of the living shorelines is 3,324 SF that will be restored and will further the shoreline protection of the wetlands and the tidal streams.

Presently, the area of restoration and enhancement is occupied by rubble, concrete and asphalt debris and gravel in areas above and below the mean high water line that were previously vegetated per historic aerial photography. The existing debris will be removed.

To the west six coir logs, approximately 30 linear feet each, will be installed in two rows. The lower row will be slightly over 90' in length with a bottom elevation of MLW Elev. -2.41. The upper row will be 90' and have a top elevation of MHW 1.47. Between the log rows, clean sediment with organic content suitable for vegetation growth will be backfilled and 1200 sf of *Spartina Alterniflora*, 2" culms, will be planted at 12" on center. To the east, one coir log, approximately 30 linear feet, will be installed to align with an existing mitigation installation by others. Above the higher logs on the west and the single log on the east, clean sediment with organic content suitable for vegetation growth will be backfilled and a total of 1300 sf of *Spartina Patens*, 2" culms, which will be planted at 12" on center. Inland of that area, 950 sf of *Iva Frutescens* and *Baccharis Halimifolia*, 18-24" containers, will be planted at 5 foot on center. The total net fill below the high tide line is 3,292 CF and below the mean high tide line is 2,747

CF. The installation of the coir logs will be done partially after the restoration of the boat ramp in the fall of 2016 with the planting installed during the spring planting season of April 17-June 17, 2017.