

NECA SHORELINE RESTORATION AND PROTECTION PROJECT



The Problem

Our shoreline is increasingly susceptible to coastal hazards including storms, flooding, and sea-level rise. These hazards are contributing to a worsening erosion problem.

The Solution

Restore and protect our shoreline via a combination of proven techniques intended to create what's called a "living shoreline".

- four headland breakwaters;
- sand nourishment;
- dune grass plantings; and
- possibly, beneficial use dredge material from the adjacent Breezy Point Marina channel.

The Benefits

Breakwater systems have been shown to provide superior shore protection and recreate habitat along eroded shorelines. The resulting living shoreline, which includes grasses and vegetation above/below water, will absorb and reduce wave energy and also help reduce landward impacts from rising water due to global sea rise. The four gapped offshore structures allow for tidal exchange and access by fauna.

The ten waterfront properties at the north end of our neighborhood have bulkheads, aka a hardened erosion solution. Waves crash against the bulkheads creating wave reflection producing more shoreline erosion where the beach is not



Proposed "living shoreline" will absorb and reduce wave energy, minimizing landward impacts from rising water due to global sea rise.

protected. This has necessitated placement of permanent sandbags, another hardened solution, at five homes south of the bulkhead. It is anticipated that these hardened solutions will contribute to erosion continuing to travel from north to south.

Our planned breakwater solution will create a high, wide beach that buffers breaking waves along the shoreline, the cause of overwash and flooding of roads. This flooding is a community problem that's absolutely not limited to waterfront homes. Many low-lying properties flood from shoreline overwash. In the north end of the community, waterfront homes are higher than the properties behind them. Shoreline overwash flood waters become landlocked in these low areas with no way to return to the bay.

Breakwaters represent a long-term solution to our shoreline erosion problem. They are designed to last 50 years and require only periodic maintenance.



PROJECT COST AND SCHEDULE	FUNDING SOURCE	CONTRACTOR
<p>Design Phase: (including permitting) \$35K; 16 months starting as early as April 2022.</p> <p>Construction Phase: Projected \$1.6M starting as early as September 2023. Phase length TBD</p>	<p>Design Phase: One of two different grants financed with MD and Federal Government dollars; NECA Shoreline Committee submitting applications on behalf of the community per NECA meeting vote on November 17, 2021. First grant due on December 2, 2021. Second grant due on December 15, 2021.</p> <p>Construction Phase: A different grant financed with MD and Federal dollars. Applications won't be submitted until sometime (TBD) during the design phase.</p> <p>100% of design and construction phase costs will be covered with grant monies; there will be no cost to Neeld Estate homeowners and residents!</p>	<p>Design Phase: Coastal Design, P.C. President, Scott Hardaway, is a recognized shoreline design expert with an extensive portfolio of relevant past projects on the Chesapeake Bay, Patuxent River, etc.</p> <p>Construction Phase: TBD by future competitive bids</p>

More Information

See the Neeld Estate website neeldestate.com for more information on our project and other similar successful projects on the Chesapeake Bay and rivers in Maryland and Virginia. Reach out to NECA Shoreline Committee Chair, Jon Norris, with your questions at jwnorris@comcast.net.