

August 5, 2025

Bustins Island Village Corporation
Board of Overseers
240 US Route 1, Unit B1 #1011
Falmouth, ME 04105

**Re: Shoreline Stabilization in BIVC Shoreland Area
Lots B-31 and B-32A**

Dear Board Members,

As you know, the winter storms and the ongoing severity of storm events has badly eroded parts of our island's shoreline and slopes. There is significant loss of bank integrity on the BIVC area of my lot and I, with my neighbor to the south, would like to halt the erosion to protect our cottages.

The proposed repair work is on part of the southeasterly shoreline property seaward of our existing cottages that is owned by the BIVC. The land is zoned as *Shore Reserve*. I have deeded rights to pass/repass over the aforementioned BIVC acreage to the water. The existing eroded 390 SF of embankment is located on shoreline acreage along the lot frontage owned by the Bustins Island Village Corporation that includes our permanent decks and stairs extending to the shore, and a partially rip-rapped slope and eroded area owned by the Gardner Hatch Trust. To preserve the embankment, protect our homes, and to prevent additional erosion we are proposing to stabilize the shoreline by installing approximately 164 linear feet (1,886 SF) of a combination of large-scale riprap (D50 = 36" Min.), smaller rip-rap above (D50 = 78") and at the top of the work area install erosion control mix.

The project is necessary to curb the naturally occurring erosion and bank slumpage; to prevent further storm damage; to account for the revised FEMA Flood elevation of 17.0 (VE); and to anticipate additional sea level rise. The proposed slope stabilization within the 75-foot setback has no other practicable location and is not located in, on or over a protected natural resource. Per the DEP/IFW online Significant Wildlife Habitat Maps, this shoreline area is located adjacent to an area delineated as tidal waterfowl and wading bird habitat area. Tidal waterfowl and wading bird habitat is not subject to buffering, thus does permit us to install the proposed protection measures.

We are proposing that the contractor (Lionell Plante Associates of Peaks Island) access the shoreline via barge and that construction equipment travel along the existing ledge and mats during low tide in order to place the stone from the bottom of the bank. No work is proposed below the normal high tide line and the proposed riprap will extend close to the FEMA Flood VE Zone Elevation of 17.0 (NAV 88) to elevation, unless we determine it can be lower when work gets underway.

As you can see from the enclosed photographs, the existing vegetative cover in the area proposed for stabilization consists primarily of woody brush or is eroding slope. No tree cutting for the proposed stabilization project will be necessary. Only existing plant material that is currently compromised will be removed. Erosion and sedimentation (silt sock) controls will be placed as necessary at the toe of slope as shown on the enclosed site plan.

Please review the enclosed documentation, and contact me with any questions or comments. We will be submitting these plans for approval by the Maine DEP this fall, and will copy the BIVC on that submittal. Thank you for your time and consideration.

Sincerely,

Christine Martens

Construction Plan

Access to the site will be via barge over Casco Bay, and the work will be implemented from the bottom of bank during periods of mid to high water. Materials for the construction include erosion control silt sock, large and medium scale angular armor and rounded stone, filter stone, geotextile filter fabric and native or naturalized salt-tolerant vegetation. The deck/stair structure will remain.

Methods and Materials

Geotextile cloth (Mirafi® 600X woven polypropylene geotextile or approved equal) will be placed directly on the prepared slope. The upper end will be buried to a minimum depth of 18” and the bottom edge will be keyed into the toe of slope. A 3’ deep trench will be placed at the toe of slope to key in the stones or the bottom row of armor stone will be pinned to existing ledge with 2” epoxy coated rebar depending on existing conditions at the site. The geotextile filter cloth will be used in conjunction with a filter stone layer topped with armor stone. The armor layer of stone will be laid to a thickness of two times the maximum stone diameter. All stone will be installed with a minimum of voids and an even distribution of the stone sizes.

The installation shall take place from a barge accessing the area during mid to high tide. The stone placement will start at the toe of slope between high tide line and the highest annual tide elevation and the contractor will work upward toward the top of bank. The excavator bucket operating from the barge will be used to compact the stone into a solid, interlocking mass with hand placement of smaller stones as necessary to fill voids and achieve a uniform surface.

The anticipated construction schedule/sequence for the proposed shoreline stabilization is the winter of 2024 into 2025, or the spring of 2025. All work operations are dependent upon weather conditions.