CITY ISLANDS EROSION
WHAT THE SITES REVEALED AND POSSIBLE NEXT STEPS

THE MAY 7TH WEBINAR explored shoreline conditions across Portland's islands through real property evaluations conducted using DEP's OUR SHORE framework. Discussions focused on erosion patterns, runoff, bluff conditions, shoreline structures, upland influences, and potential management approaches.

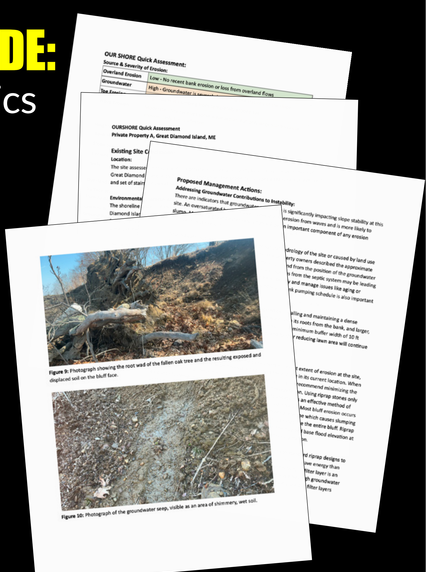
MISSED IT? TAP FOR REPLAYS

PRESENTATION | Q AND A

ARE YOU SEEING EROSION ON YOUR PROPERTY and not sure where to start? Keep scrolling to explore the featured GDI sites to better understand your shoreline conditions, contributing erosion factors, and potential next steps for long-term management.

THE REPORTS INCLUDE:

- shoreline characteristics
- erosion causes and patterns
- potential management approaches
- permitting regulatory considerations



TAP FOR FULL REPORT P.6

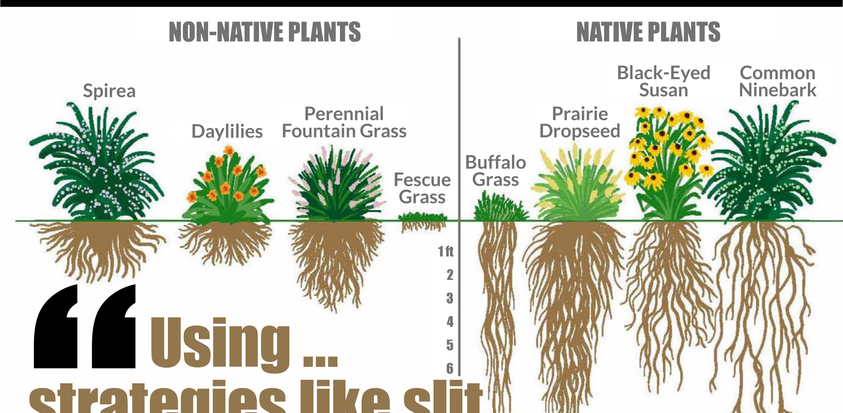
SITE A

OBSERVATIONS

- Lawn-dominated upland
- Roads, driveways, and other impervious surfaces near the shoreline
- Overland flow of water is a significant contributor to instability in the bluff

NEXT STEPS

- Address ground water instabilities
- Increase deep-rooted vegetation, including shrubs and trees, to absorb water before it reaches the bank
- Minimize irrigation and maintain septics to help reduce groundwater instability



“Using ... strategies like slit planting and live staking disturb less soil than planting potted plants that require large planting holes. These planting practices ... don’t require a state permit to implement.”

TAP FOR FULL REPORT P.14

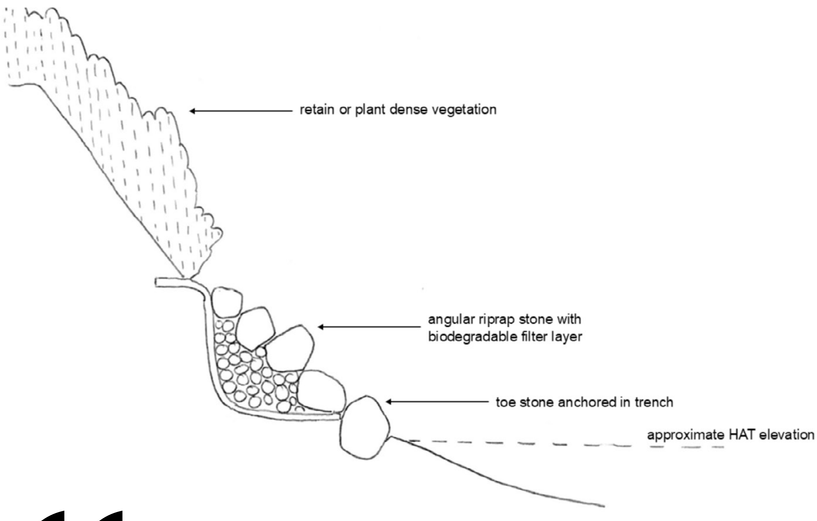
SITE B

OBSERVATIONS

- Saturated bluff conditions
- Severe bluff slumping
- Erosion at the bluff base
- Annual storm-driven wave erosion
- Lawn-dominated upland

NEXT STEPS

- Address upland ground water instabilities
- Plant dense native vegetation with deep root systems in the upland zone to reinforce bluff integrity
- Use a hybrid stabilization approach for the bluff toe and slope



“An oversaturated bank is more vulnerable to erosion from waves and is more likely to slump.”

TAP FOR FULL REPORT P.24

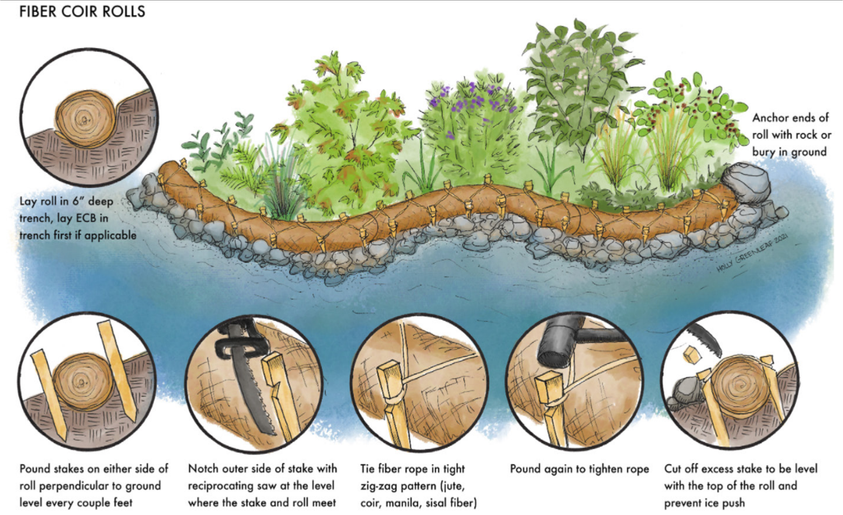
SITE C

OBSERVATIONS

- Impervious surfaces and sparse vegetation near bank
- Moderate wave erosion from large storms
- Lawn and bare ground on bank and upland

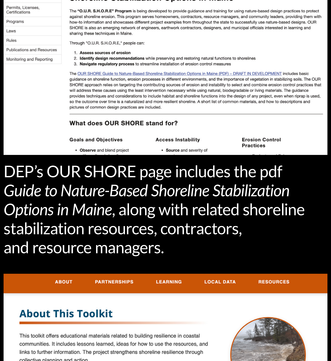
NEXT STEPS

- Consider coconut fiber stabilization to support plantings at the eroded toe
- Historic salt marsh presence suggests strong potential for marsh restoration to reduce wave energy and erosion at the shoreline
- Establish a 10–15 ft salt-tolerant upland vegetation buffer to help absorb storm tides

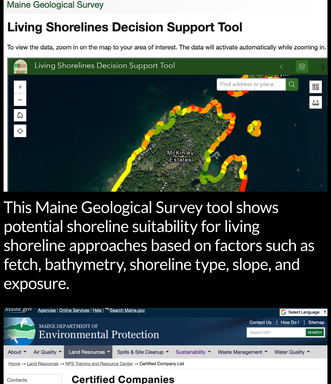


> “Lawn grass ... has a shallow root system that doesn’t effectively stabilize soil.”

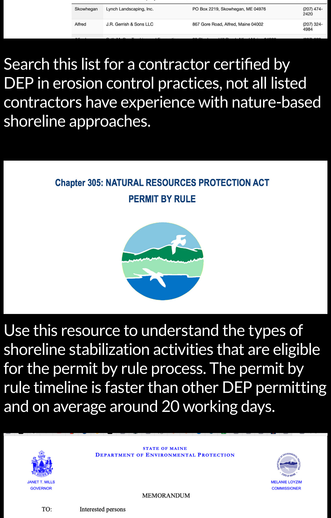
RESOURCES [TAP IMAGES FOR LINKS]



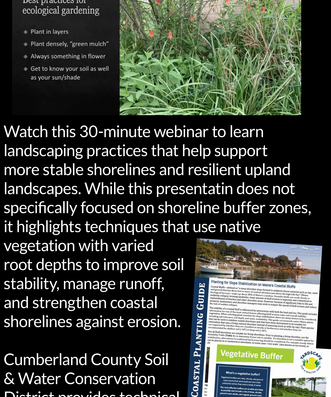
DEP's OUR SHORE page includes the pdf *Guide to Nature-Based Shoreline Stabilization Options in Maine*, along with related shoreline stabilization resources, contractors, and resource managers.



The *Calling Your Bluff Toolkit*, developed by the GDI Partnership with Long, Chebeague, and Little Diamond in collaboration with Island Institute, includes educational materials, Casco Bay nature-based shoreline examples, and resource links.



This Maine Geological Survey tool shows potential shoreline suitability for living shoreline approaches based on factors such as fetch, bathymetry, shoreline type, slope, and exposure.



Search this list for a contractor certified by DEP in erosion control practices, not all listed contractors have experience with nature-based shoreline approaches.

Use this resource to understand the types of shoreline stabilization activities that are eligible for the permit by rule process. The permit by rule timeline is faster than other DEP permitting and on average around 20 working days.

Read this memo to understand which activities and plantings are allowed without a DEP permit.

Watch this 30-minute webinar to learn landscaping practices that help support more stable shorelines and resilient upland landscapes. While this presentatin does not specifically focused on shoreline buffer zones, it highlights techniques that use native vegetation with varied root depths to improve soil stability, manage runoff, and strengthen coastal shorelines against erosion.

Cumberland County Soil & Water Conservation District provides technical assistance, educational resources, and guidance on erosion control, stormwater management, native plantings, buffer restoration, and nature-based approaches that help improve shoreline stability and resilience.