



## Soft-shore Stabilization

### What does soft-shore stabilization mean?

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Soft-shore stabilization is the use of natural materials to provide erosion control for shoreline properties. Soft-shore techniques mimic natural features that form along the shore and avoid hard breaks such as bulkheads and revetments. Soft-shore stabilization typically includes grading to remove historical fill and installation of gravels, cobbles, boulders, logs and native plants placed near the water to avoid erosion.

### Does the Shoreline Master Program require soft-shore stabilization?

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It might, depending on where your property is located in the city and which shoreline environment designation it is located in (see Shoreline Environment Designation handouts for more information). For most properties in the city, you can choose between installing hard armoring (bulkheads, revetments) and soft-shore stabilization. But you have to get a Conditional Use Permit for new bulkheads. A Conditional Use Permit involves stricter review standards and the State Department of Ecology's approval. So in most cases, it'll be easier for you to install soft-shore stabilization.

*Note: If you are located in the Natural shoreline environment designation you are not allowed to install bulkheads or soft-shore stabilization.*

### What if I already have a bulkhead protecting my property?

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Then you can do normal maintenance on your bulkhead so that it doesn't deteriorate or fail. If you have to replace the entire bulkhead, you may have to get a Conditional Use Permit for a new one or replace it with soft-shore stabilization.

Replacing a bulkhead with soft-shore stabilization typically involves the following steps. Final design should be performed by a State licensed engineer, geologist, or landscape architect with experience with soft shore protection.

1. Understanding the site – the amount of exposure to open water, wave climate, local drift patterns and surrounding geology and topography all factor into an appropriate soft shore stabilization approach
2. Removing existing bulkhead or revetment
3. Typically grading a portion of your backyard to install a more gentle slope toward the water
4. Adding gravel, sand, boulders, and large wood as needed
5. Installing native plants at appropriate elevations to provide soil stability
6. Maintaining plants and potentially adding gravel in case of beach erosion

*Note: You will need to consult with the City's Planning Department to obtain the necessary permits before you can make any changes to your property. In some cases, you may need to obtain permits from the State and Federal government as well.*

### What are the benefits of soft-shore stabilization?

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- A more natural shoreline improves habitat for salmon and other wildlife while protecting your property.
- Improved water access for boating or swimming.
- A softer more natural backyard that better integrates to Puget Sound.

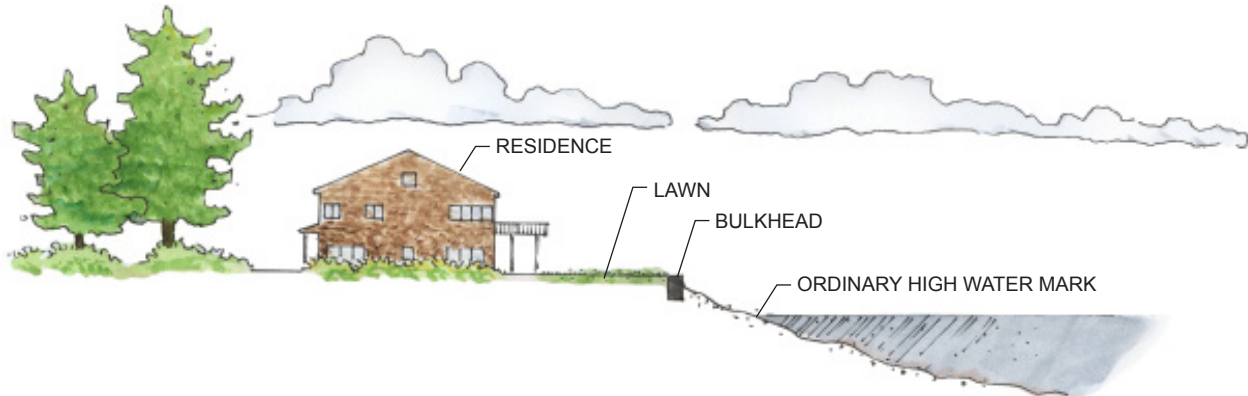
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**Further Information:** If you have any questions please contact the Gig Harbor Planning Division at (253) 851-6170.

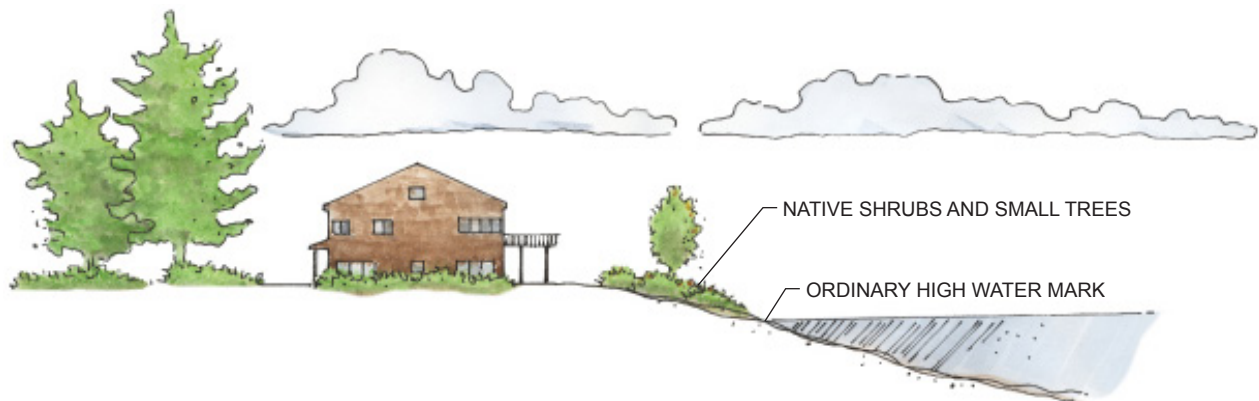


## Soft-shore Stabilization

### Conditions along the shoreline today



### Conditions after bulkhead removal and planting



## Additional Resources

**Alternative Bank Protection Methods for Puget Sound Shorelines** (Department of Ecology, Publication #00-06-012)  
This report describes 15 projects around the Puget Sound that have used alternatives to hard armoring for shoreline protection.  
<http://www.ecy.wa.gov/biblio/0006012a.html>

**Green Shorelines Bulkhead Alternatives for a Healthier Lake Washington**  
A guidebook prepared by City of Seattle on alternatives to the use of bulkheads and other shoreline armoring. Although the guidebook focuses on Lake Washington properties, Gig Harbor Bay has similar characteristics in terms of erosion and wave energy.  
<http://www.govlink.org/watersheds/8/action/greenshorelines/default.aspx>

**Slope Stabilization and Erosion Control** (Department of Ecology)  
Website that describes the use of slope planting techniques to manage soil erosion.  
<http://www.ecy.wa.gov/programs/sea/pubs/93-30/index.html>

**Puget Sound Shoreline Stewardship Guidebook** (prepared by Puget Sound Water Quality Action Team & King County)  
Guidebook on taking care of your beach property while preserving its ecological value.  
<http://www.kingcounty.gov/environment/watersheds/central-puget-sound/shoreline-stewardship-guidebook.aspx>

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