

SHORELINE CONSIDERATIONS WHEN BUYING MARINE WATERFRONT PROPERTY

You found the perfect waterfront home, but what about slope stability, vegetation, and drainage? Marine waterfront properties can be amazingly beautiful but also a challenge because of their changing nature. Before you invest, take time to ensure that the site fits your goals as well as the house does.

INTRODUCTION

This guidance is for those purchasing marine waterfront property in Puget Sound and focuses on the land rather than the house. It includes an overview of features to look for, useful information to review, and resources to explore.

An important consideration about shorelines is that they change over time. Unlike most inland parcels, marine shorelines are extremely dynamic, which makes them unique and beautiful. Each site will have different challenges based on its geology, vegetation, and hydrologic conditions.

Keep in mind that it is rare to find comprehensive records for every property and that sometimes the information found will raise uncertainties. Still, the more you can learn before a purchase, the more you understand what to expect. Based on a basic understanding of a property, each individual will need to define a personal comfort level relative to the inherent challenges of that site.

When buying marine waterfront property, expect the shoreline to change. Taking the time to do research will contribute to peace of mind when making final purchasing decisions.

THINGS TO LOOK FOR

The following sections explore desirable features in waterfront properties and explain why those qualities are benefits. It is important to remember that properties lacking some of the characteristics discussed later can still be great sites; they may just require extra management or investment.

HOME SITES

- **Significant building setbacks** from the edge of a bluff or beach (farther is almost always better). Safe setbacks are critical for homes but less crucial for decks or boathouses that can be moved back without major expense.
- **Minimal site clearing.** Properties that retain mature forest will manage stormwater and maintain slope stability more effectively than sites with large lawns and extensive clearing. Extra investment is often required to manage



A house situated well back from the shoreline, with great views through plants that provide natural bank protection.



issues with stormwater runoff or shoreline erosion at properties fully converted into lawn and structures.

- **Quality drainage infrastructure** (if any). Poor quality drainage pipes that are buried, leaking, or broken can compromise shoreline stability.
- **Existing shoreline armor** (if any). If the property has an old bulkhead or armor, explore whether the home setback will allow permanent removal rather than replacement, which will cost tens of thousands of dollars in design, permitting, and construction fees.

THE BEACH / SHORELINE

- **Densely-vegetated shorelines** with diverse, mature shrubs and trees provide protection against surface erosion and the heavy rains typical of Puget Sound. Well-established plants with dense, deep roots form physical infrastructure that helps stabilize bluffs and slopes, whereas groundcovers and lawn do next to nothing.
- **Vistas are created through “view corridors”** rather than shoreline clearing. Views that are established through pruned trees balance gorgeous views with the preservation of critical natural infrastructure.
- **Beaches with intertidal plants.** While not found on every type of shoreline, beaches with plants growing on the upper shore are a great bonus! Pickleweed and other native plants help to trap sediment and slow beach erosion. “Weeded” beaches are a mistake: removing the native intertidal plants weakens beach structure and potentially adds to beach erosion.
- **Watch out! Carefully investigate areas with dense ivy.** Ivy that covers the waterfront and/or a bluff can hide serious issues. This invasive weed is aggressive and expensive to remove. Ivy can screen

erosion, signs of slope instability, and other concerns (like perfect rodent habitat) below the heavy blanket of invasive vegetation.

WHY ARE THESE FEATURES SO IMPORTANT?

Well-vegetated properties with safely set back homes offer many benefits. They will withstand normal shoreline erosion, waterfront change, and sea level rise with less stress and expense. Such properties:

- Are unlikely to need shoreline bulkheads, therefore saving tens of thousands of dollars.
- Are less likely to need costly and complex engineering or site investigations to solve drainage and instability problems.
- Already have mature plants providing free water management and slope stabilization infrastructure! In addition to their protective function, such plants also provide aesthetic benefits and habitat.
- Cause less stress and worry as natural coastal processes occur over time.
- Preserve a precious sense of place and identity that is unique to Puget Sound shorelines – we are drawn to this area because of its beauty.



This property has a lovely vegetated shoreline next to the beach and a small lawn by the home. Gorgeous views are easily maintained through the trees.



HELPFUL RESEARCH:

Try to review this important information before making a final purchase.

SELLER RECORDS /COUNTY RECORDS

- **All geotechnical or engineering reports** (request all known reports for the property or even issues at adjacent properties or neighborhood)
- **Records of infrastructure like maps and As-Built documents** for septic system, any drainage infrastructure (buried drain systems, stormwater conveyance pipes etc.), irrigation systems – this will help you know what you are buying and how to maintain it
- **History, even anecdotal, about previous site uses and shoreline modifications** - bulkhead designs, stairways etc., areas that have been excavated or filled . . .
- Other property records that provide history or context: biological assessment reports etc.
- **Names/Contact information for contractors** who worked on the site - engineers, etc. company names, contacts etc. these individuals can offer valuable history.

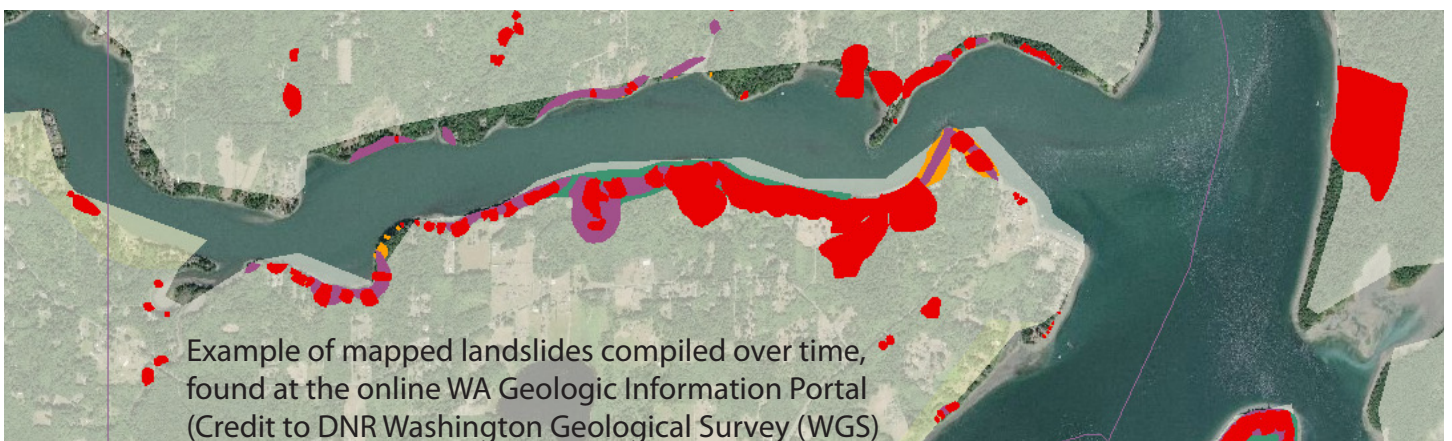
ONLINE RESOURCE FOR RESEARCH + LEARNING

- **WA Coastal Atlas online:** Coastal processes and environmental features are easy to find on the interactive “Coastal Atlas” mapping tool. Review historic shoreline photos that show past construction, clearing, or other activities on the parcel or neighboring parcels. <https://fortress.wa.gov/ecy/coastalatlus/tools/Map.aspx>
- **WA Geologic Information Portal:** Find information about geology, landslides, and more. The maps are continually updated. They offer a point for discussion of slope instability or landslide risk with a professional practitioner. Note that site-specific data may give results that differ from those displayed on the map. <https://geologyportal.dnr.wa.gov/>
- **County GIS/Assessor Website:** find records and past permits;County GIS maps often have useful information like topography, creeks, and other important information to review.

- **Sea Level Rise and the WA Coastal Hazards Resilience Project:** considering the risk and implications of sea level rise - and the land management challenges it will create - is a critical step for potential marine waterfront homeowners. Research and maps related to Climate Change and Sea Level Rise in Puget Sound can be found at this website.:

<http://www.wacoastalnetwork.com/wcrp-documents.html>

- **Climate Central: Surging Seas Risk Finder** has interactive maps, data, and resource links: <https://riskfinder.climatecentral.org/>



Example of mapped landslides compiled over time, found at the online WA Geologic Information Portal (Credit to DNR Washington Geological Survey (WGS))



MARINE WATERFRONT PROPERTY - CHECKLIST

LAND and HOME

- Home located far back from the bluff or beach
- Trees and shrubs growing along the waterfront
- View corridors pruned through trees/shrubs rather than fully cleared shoreline/topped trees
- Mature plants throughout the property (ideally - forest with diverse shrubs and trees)
- Minimal clearing with a small development footprint
- Natural beach without armor or a bulkhead to maintain
OR
- Old bulkhead or armor that can be easily removed without needing costly replacement

RECORDS

- Maps of any pipe/drainage systems
- As-builts/records for septic, well, earthwork (excavation/filling) etc.
- Copies of past geotechnical, engineering, or biological assessment reports

RESEARCH

- Understanding of risk of landslides and current/past slope stability issues
- Property can safely withstand storm surges and sea level rise impacts