



## Living With the Coast Shoreline Landowner On-line Resources

Northwest Straits Foundation: http://nwstraitsfoundation.org/what-we-do/

Northwest Straits Foundation Shoreline Landowner Program: http://nwstraitsfoundation.org/project\_cat/shoreline-landowner-program/

# Living on the Shoreline - Educational Information:

Your Marine Waterfront: A guide to protecting your property while promoting healthy shorelines -This booklet provides waterfront property owners tools for understanding causes of shoreline erosion and options for addressing erosion. http://wdfw.wa.gov/publications/01791/

**Shore Friendly** - Shore Friendly is a public information website for waterfront homeowners who care about the health of Puget Sound. It is funded through the National Estuary Program by the Washington Departments of Fish and Wildlife and Natural Resources. http://www.shorefriendly.org/

**Restore America's Estuaries: What are living shorelines? -** "Living shorelines" is a term used to define a number of shoreline protection options that allow for natural coastal processes to remain through the strategic placement of plants, stone, sand fill, and other structural and organic materials. <u>https://www.estuaries.org/living-shorelines</u>

**Encyclopedia of Puget Sound: Salish Sea Currents Magazine:** The Encyclopedia of Puget Sound is a free, open access website where scientists, policymakers and educators find and share information about the state of the Puget Sound ecosystem — its species, its features, its health and its people. The website is a product of the University of Washington <u>Puget Sound Institute</u>.

https://www.eopugetsound.org/magazine/shoreline-armoring https://www.eopugetsound.org/magazine/ssec2016

#### Shore Stewards Guide for Shoreline Living

http://shorestewards.cw.wsu.edu/wp-content/uploads/sites/3/2015/03/GuideforShorelineLiving-Final-2-27-15.pdf

Soft Shoreline Stabilization: Shoreline Master Program Planning and Implementation Guidance -Booklet contains plant selection guide. https://fortress.wa.gov/ecy/publications/documents/1406009.pdf

Friends of the San Juans: <u>www.sanjuans.org</u> Shoreline Stewardship Guide:





http://sanjuans.org/wp-content/uploads/2017/02/Living-with-the-Shoreline-2017.pdf

**Marine Shoreline Design Guidelines** - The *Marine Shoreline Design Guidelines* (MSDG) were developed to provide a comprehensive framework for site assessment and alternatives analysis to determine the need for shore protection and identify the technique that best suits the conditions at a given site. The MSDG were created to inform responsible management of Puget Sound shores for the benefit of landowners and our shared natural resources. This is a technical document to be used by professional coastal engineers and consultants.

http://wdfw.wa.gov/conservation/habitat/planning/ahg/

#### **USGS Shoreline Armoring Impacts-State of the Science**

The US Geological Survey in the federal research and advisory agency for earth science issues. A scientific workshop was convened in May 2009, specifically to bring local and national experts together to review the state of the science regarding the physical and biological impacts of armoring on sheltered shorelines such as those of Puget Sound.

Website: http://pubs.usgs.gov/sir/2010/5254/

## **Native Plant Resources for Marine Shorelines:**

**Vegetation Management: Guide for Puget Sound Bluff Property Owners,** by Elliott Menashe for Dept. of Ecology: <u>https://fortress.wa.gov/ecy/publications/documents/9331.pdf</u>

**Shoreline Management and Stabilization Using Vegetation**, Greenbelt Consulting for the Coastal Training Program: <u>http://www.greenbeltconsulting.com/ctp.html</u>

**Marine Riparian Vegetation Communities of Puget Sound**, by James S. Brennan: <u>http://www.pugetsoundnearshore.org/technical\_papers/riparian.pdf</u>

Marine Shoreline Plants-Mason Conservation District: <u>https://www.masoncd.org/marine-shoreline-plants.html</u>

Sound Native Plants – Marine Shoreline Species: <u>https://soundnativeplants.com/wp-content/uploads/Marine\_Shorelines.pdf</u>

Sound Native Plants - Native Plant Nursery: https://soundnativeplants.com/nursery/

Washington State Native Plant Nurseries:

https://www.kingcounty.gov/services/environment/stewardship/nw-yard-and-garden/native-plant-nurserieswashington.aspx

Sample Planting Plans – Native Plant Landscaping Made Easy: Use Sample Plans: https://green2.kingcounty.gov/gonative/Plan.aspx





*Winter in the Woods: A Winter Guide to Deciduous Native Plants in Western Washington*. Helpful for site assessment and gathering cuttings for propagation. Erica Guttman and Rod Thurman. WSU Thurston County Extension. <u>https://pubs.wsu.edu/ItemDetail.aspx?ProductID=14400</u>

## **Drainage Management:**

Surface Water and Groundwater on Coastal Bluffs: A Guide for Puget Sound Property Owners: https://fortress.wa.gov/ecy/publications/SummaryPages/95107.html

# **Coastal Processes, Geology, Shoreline Photos, Landslides:**

#### WA Dept. of Ecology – Shorelands

DOE maintains oversight over the County Shoreline Program and the shoreline permit process. They also maintain a large and informative website. New developments are planned for shorelines.

 Puget Sound:
 https://ecology.wa.gov/Water-Shorelines/Puget-Sound

 Landslides:
 https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal 

 management/Hazards/Puget-Sound-landslides
 Coastal Maps/Shoreline photos:

 https://fortress.wa.gov/ecy/coastalatlas/

# Gravel Beach Blogspot – photos from around Puget Sound by Hugh Shipman, Washington Dept of Ecology

http://gravelbeach.blogspot.com/

#### **USGS Landslide Hazards**

The US Geological Survey operates an Internet site with a large amount of information, including landslide hazards. <u>http://geohazards.cr.usgs.gov/</u>

# Reading the Washington Landscape (Blog)

www.washingtonlandscape.blogspot.com

*Soils Management for Small Farms*. Easy-to-read overview for understanding soils, as well as information about nutrients and compost: http://whatcom.wsu.edu/ag/documents/soil compost/SoilMgtSmFarms WSUeb1895.pdf

NRCS soil surveys: <a href="http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm">http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm</a>

DNR's Washington State Geologic Information Portal: http://www.dnr.wa.gov/geologyportal

Maps and Mapping Tools:





Coastal Atlas – Washington Department of Ecology: Create or view maps of beaches, coastal geology, biology and ecology, slope stability, drift cells, land use, and more. <u>https://fortress.wa.gov/ecy/coastalatlas/</u>

Washington Department of Fish and Wildlife: Marine Beach Spawning Forage Fish – information and maps for surf smelt, sand lance, and Pacific herring. https://wdfw.wa.gov/conservation/research/projects/marine\_beach\_spawning/

**Sound IQ:** SoundIQ allows you to search for Puget Sound-area information and create custom maps. This mapping interface is flexible and should work on desktop, tablet and phone devices. <u>https://www.igmap.org/geviewer/Html5Viewer/Index.html?viewer=SoundIQ</u>

**NOAA Sea Level Rise Viewer:** This mapping tool simulates various sea level rise scenarios (from one to six feet above the average highest tides) and the corresponding areas that would be impacted by flooding. <u>http://coast.noaa.gov/digitalcoast/tools/slr</u>

#### Washington State Geologic Information Portal

Using our interactive maps, you can create and view custom maps, find out more information about map features, and download map data for use in a geographic information system (GIS). In addition to a variety of geoscience layers that can be turned on and off, each interactive map has many base layers to choose from.

http://www.dnr.wa.gov/geologyportal

#### USDA Web Soil Survey

Web Soil Survey provides soil data and information produced by the National Cooperative Soil Survey. <u>https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm</u>

### Rules & Permits: Check with your local jurisdiction for specific rules & regs

Shoreline Master Programs: <u>https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Shoreline-coastal-planning/Shoreline-Master-Programs</u>

Shoreline Management Act: <u>https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Shoreline-coastal-planning/Shoreline-Management-Act-SMA</u>

Washington State Hydraulic Code: http://apps.leg.wa.gov/wac/default.aspx?cite=220-660

Washington Department of Fish and Wildlife: Hydraulic Permit Approval: https://wdfw.wa.gov/licensing/hpa/

**Governor's Office For Regulatory Innovation and Assistance** (Permit Assistance Center): <u>https://www.oria.wa.gov/site/alias\_oria/347/our\_permitting\_services.aspx</u>





# Other (Miscellaneous articles, conference proceedings, research):

Puget Sound Nearshore Ecosystem Restoration Project- White papers: http://www.pugetsoundnearshore.org/technical\_reports.html

#### **King County DNR**

Lots of great graphics and information about the nearshore environment. <u>http://www.kingcounty.gov/services/environment/watersheds/central-puget-sound/nearshore-environments.aspx</u>

**Video** about habitat restoration and sea level rise adaptation: <u>https://www.youtube.com/watch?v=4jazzH-pCVs&feature=youtu.be</u>

"A Place at the Table" – Video about shoreline restoration and removing shore armor https://www.youtube.com/watch?v=sP0zUwKUBEs

## **Local Resources:**

#### Marine Resources Committees (MRCs):

Whatcom MRC <u>https://www.whatcomcountymrc.org/</u> Skagit MRC: <u>http://www.skagitmrc.org/</u> Island MRC: <u>https://www.islandcountymrc.org/</u> Snohomish MRC: <u>https://www.snocomrc.org/</u> Jefferson MRC: <u>https://www.jeffersonmrc.org/</u> Clallam MRC: <u>https://www.clallamcountymrc.org/</u> San Juan MRC: <u>https://www.sjcmrc.org/</u>

**Washington Conservation Districts:** Find local offices by searching the maps here: <u>http://www.scc.wa.gov/</u>