

Western Washington University Western CEDAR

Salish Sea Ecosystem Conference

2016 Salish Sea Ecosystem Conference (Vancouver, BC)

Jan 1st, 12:00 AM - 12:00 AM

Resources for Marine Shoreline Design

Theresa Mitchell Washington Department of Fish and Wildlife, theresa.mitchell@dfw.wa.gov

Follow this and additional works at: https://cedar.wwu.edu/ssec

Part of the Fresh Water Studies Commons, Marine Biology Commons, and the Natural Resources and Conservation Commons

Mitchell, Theresa, "Resources for Marine Shoreline Design" (2016). *Salish Sea Ecosystem Conference*. 27. https://cedar.wwu.edu/ssec/2016ssec/shorelines/27

This Event is brought to you for free and open access by the Conferences and Events at Western CEDAR. It has been accepted for inclusion in Salish Sea Ecosystem Conference by an authorized administrator of Western CEDAR. For more information, please contact westerncedar@wwu.edu.



PROBLEM STATEMENT:

As we learn more about the importance of the marine and terrestrial interface (the nearshore zone), we also understand more about how past practices of hard armoring shorelines can be problematic to the nearshore zone and the ecosystem goods and services it provides. Shifting property owners away from using common "hard" erosion protection approaches is difficult to achieve without easy access to information about preferred alternatives.

> The need for technical guidance was identified as a critical gap in shifting shoreline armoring behavior. Additionally, surveys showed landowners were largely uninformed but hungry for information.



over 650 miles (1000 km) of 'hard' armor.

BACKGROUND:

- the elements.

SOLUTION: Provide useful tools to encourage landowner behavior change. **REDUCED FISHING** Hard shoreline armoring can harm fish, wildlife, and the beach and may not prevent erosion. HANGES BEACH EROSION AND HABITAT SUPPORTS FEWER FISH AND ORCAS HARD ARMOR

Special thanks to: Randy Carman (WDFW), Jenna Jewett (WDFW), Alison Hart (WDFW), Patricia Jatczak (WDFW), Maggie McKeown (WDFW), and Maria Hunter (WDNR)

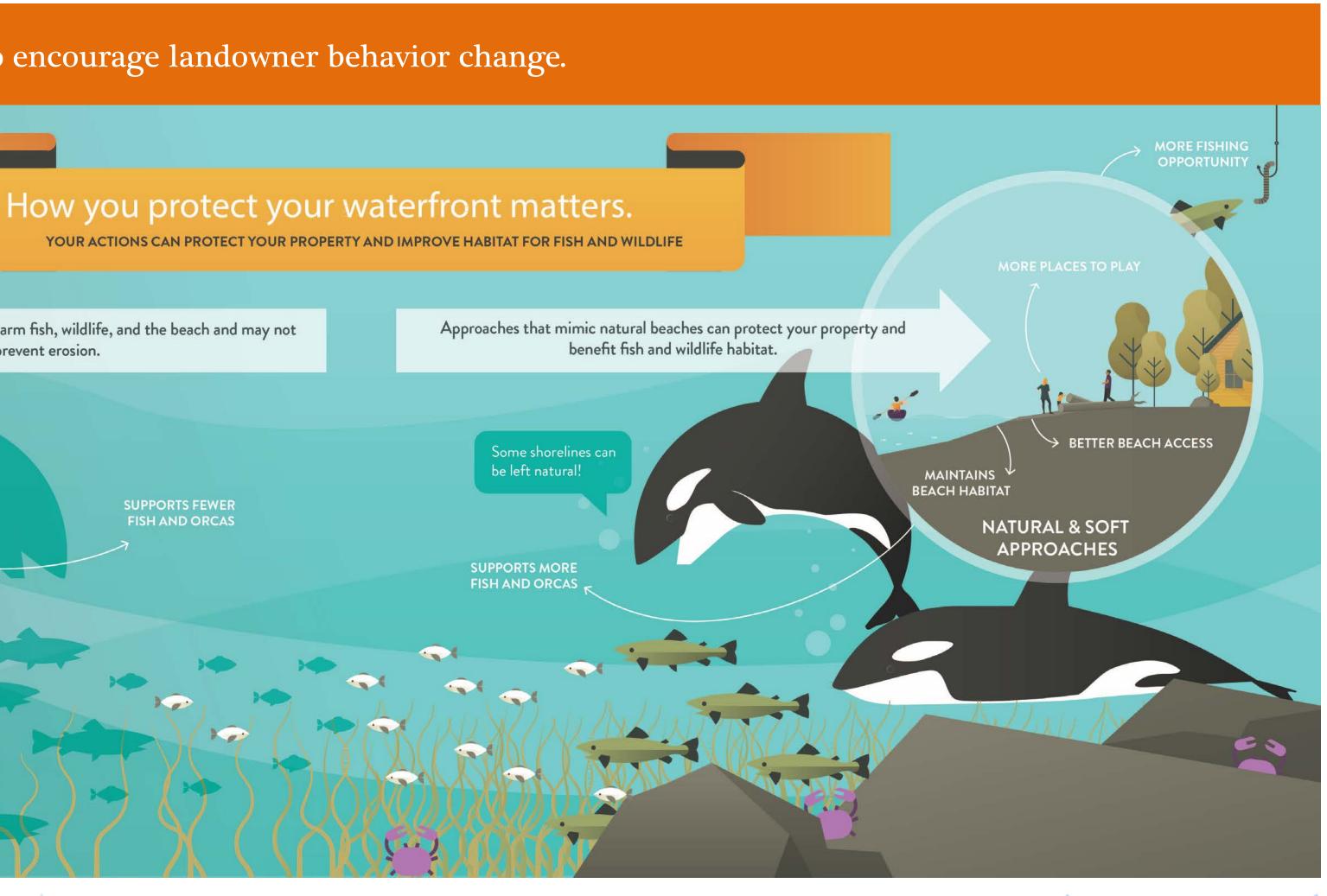
Connecting with Waterfront Landowners Communicating sustainable marine shoreline design options

• With iconic views and easy access to recreation, owning a waterfront property is a dream-come-true for many. But a property's greatest asset - *its waterfront location* - may come with concerns about erosion, flooding, and exposure to

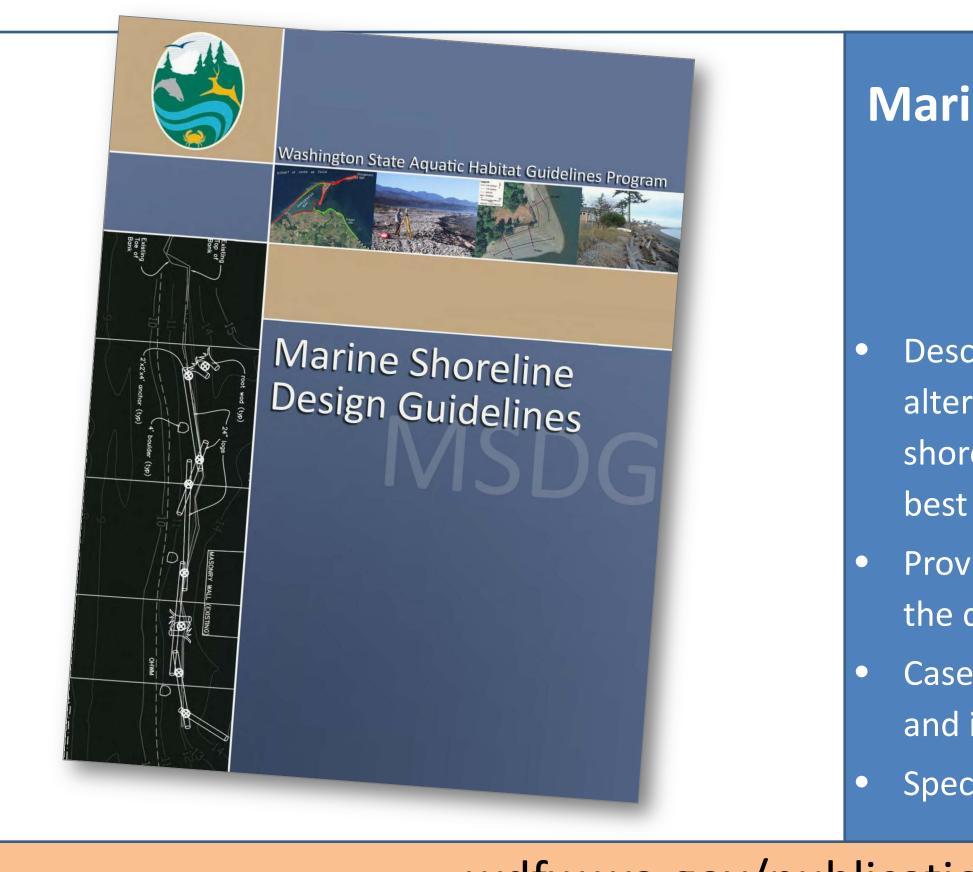
• In Puget Sound, 48% of residential waterfront parcels are armored with a bulkhead or other "hard" approach which often impair natural processes.

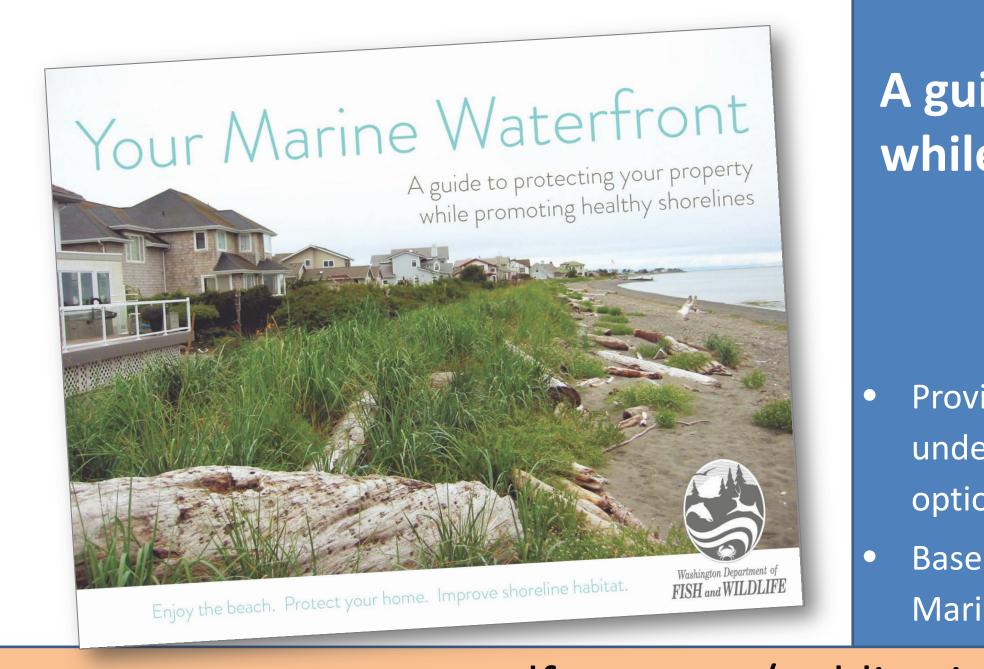
Unfortunately, most shoreline armor was installed long before we understood the value of the upper beach and backshore for fish and wildlife and was often installed in areas where it is ineffective or unnecessary for erosion control.

• Many waterfront property owners have limited understanding of how shoreline armor impacts the health of the nearshore, but want to learn more.

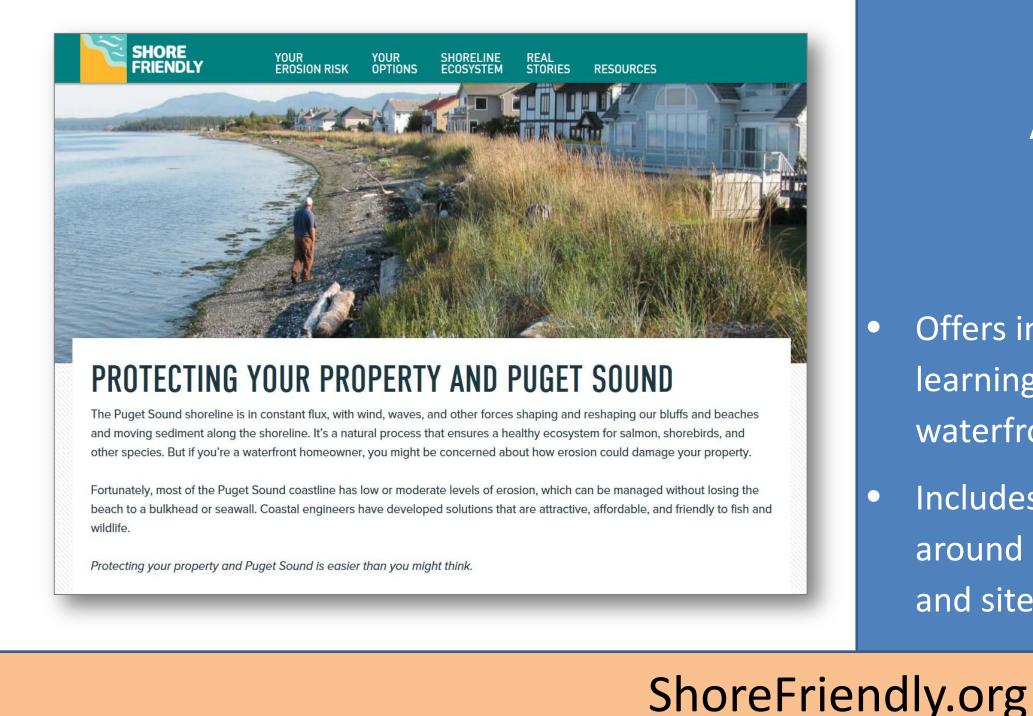


Theresa Mitchell * Habitat Program * Washington Department of Fish and Wildlife





wdfw.wa.gov/publications/01791



Products funded by the U.S. Environmental Protection Agency through a cooperative agreement with Washington Department of Fish and Wildlife.

Marine Shoreline Design Guidelines Audience: Technical

Pages: 419

- Describes a 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 site.
- Provides technical design information for each of the design techniques discussed.
- Case studies of 25 sites evaluate the effectiveness and impacts of the design techniques.
- Specific to landforms found within the Salish Sea.

wdfw.wa.gov/publications/01583

Your Marine Waterfront: A guide to protecting your property while promoting healthy shorelines Audience: Marine Waterfront Landowners Pages: 48

- Provides waterfront landowners tools for understanding causes of shoreline erosion and options for addressing erosion. Based on concepts presented in the
- Marine Shoreline Design Guidelines

ShoreFriendly website

Audience: Marine Waterfront Landowners Interactive Web Pages

- Offers information in a modern format to make learning about - and protecting – Salish Sea waterfront property easy.
- Includes information about local programs around Puget Sound that offer free workshops and site evaluations for waterfront landowners.