

Jessica A. Archer and Jessica J Bennett
BEACH (Beach Environmental Assessment, Communication and Health) Program
Washington State Department of Ecology, Olympia, WA.
Publication No. 09-03-019, May 2009 www.ecy.wa.gov/biblio/0903019.html

MAPPING SHORELINE FOR PUBLIC ACCESS

Introduction

The Shoreline Public Access Project is a GIS project to locate all publicly accessible marine shoreline in Washington. Through the Project, the best available information has been summarized into a single dataset that classifies each shoreline segment by the level of public accessibility. Results of the Project were released to the public in December 2008.

What Is A Beach?

In Washington, no property is legally defined as a beach. Shoreline property is either "upland", "tideland" or both. The Project included shoreline property that had public uplands or tidelands or both. A shoreline that had only public uplands would not be included because access to the water cannot be assumed.

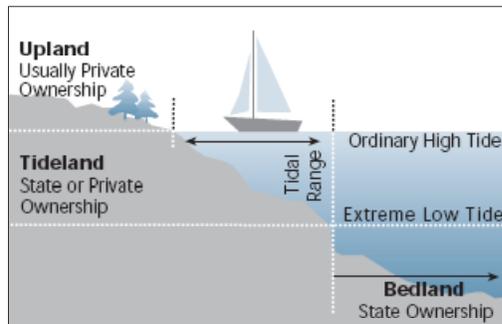


Figure 1. Tidelands: from Washington State Dept of Natural Resources, Aquatic Habitat Program's "Boundaries of State Owned Aquatic Lands" document www.dnr.wa.gov/Publications/aqr_esa_land_boundary.pdf

Methods

- A digital "Public Access Shore Guide" (WA Dept of Ecology, 1986) was used to identify the first set of public access points in the state.
- All available shoreline ownership data were collected from various federal, tribal, state, county, and local agencies.
- Each public access point was individually examined, and the most accurate boundaries from the various data sources were identified.
- The boundaries are clipped using the ShoreZone shoreline to match the parcel found to be the most accurate (WA DNR, 1994-2000).

HOW MUCH PUBLIC SHORELINE?

Of the 3065 miles of coastline, 1016 is publicly owned and has public access. Only 312 miles of that is parks. These data are easy to query because of the beach classification system.

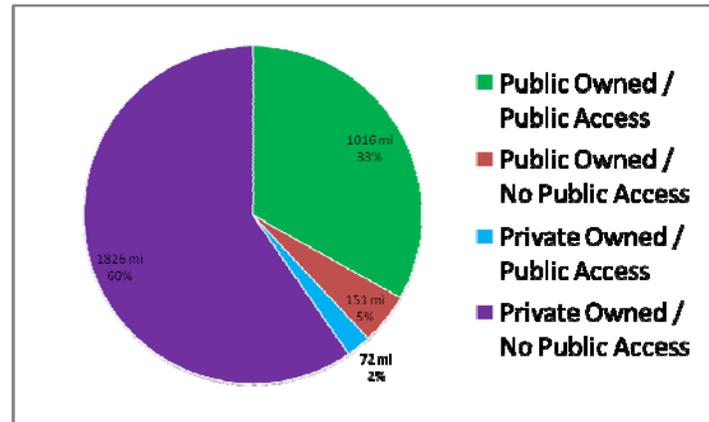


Figure 2. Public accessibility and ownership of Washington's shore.

Table 1. Breaks down by county how much of the shoreline is publicly owned and accessible.

COUNTY	TOTAL SHORELINE	PUBLICLY ACCESSIBLE
Mason	231.48	11%
Kitsap	254.21	14%
Snohomish	132.75	17%
Pierce	240.40	18%
Thurston	116.01	21%
Whatcom	146.16	25%
King	122.67	26%
Island	214.06	30%
Jefferson	254.10	37%
Skagit	228.97	39%
Grays Harbor	183.23	42%
Pacific	279.29	47%
San Juan	407.78	51%
Clallam	253.78	52%



POTENTIAL USES

Enhancing Washington's Coastal Atlas

The dataset will be used to enhance the Washington Coastal Atlas. With this public access information, the public can more readily find nearby access points with the desired facilities and activities, similar to the Oregon Coastal Atlas. You can provide updates by emailing us at shorelinepublicaccess@ecy.wa.gov.

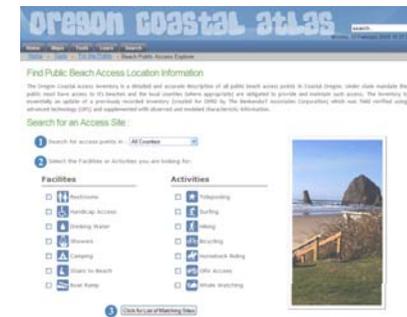


Figure 3. Oregon Coastal Atlas.



Spill Response Planning

Identifying public shoreline where spill response crews can work is an important component in the development of spill response action plans.



Improving Public Access To Beaches

Much of Washington's shoreline is private property, and there is an increasing demand for public access. This dataset can help identify areas in need of more public access.



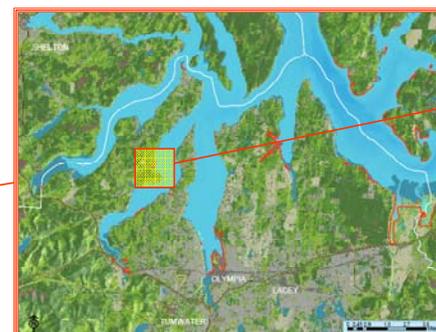
Shoreline Management Applications

As populations along Washington's shoreline rise, proper management of these areas becomes essential.

FRYE COVE PARK – A CASE STUDY



THURSTON COUNTY



FRYE COVE COUNTY PARK

Frye Cove County Park is an undeveloped public park with 1055 meters of natural (unarmored) shoreline on a small, quiet inlet. Using the ShoreZone classification themes, we can characterize this beach. There are many different types of kelp along the nearshore, including non-floating kelps and soft brown kelps. There is no seagrass or eelgrass in the vicinity. The sediment source is mainly fluvial or backshore, being made up of mostly fine sediments/mud and sand. There are low and high inclined cliffs that line the beach with live trees and dune grass in the overlying hill on each side of the perennial river channel. In addition, this is one of the only public beaches on the Steamboat Peninsula and could be an important site for responding to spills in Eld Inlet.

COUNTY	BEACH_NAME	BEACH_ID	CLASS	OWNER	DATA_SOURCE	LENGTH
THURSTON	WIDE BAY OLIVEHED PARCEL	1000000000	PROPOSED	CITY OF OLYMPIA	Parsons	1000
THURSTON	CHERRY TREE BRIDGE, OYSTER BAY	1000000000	WILDLIFE	BRIDGE	Parsons	1000
THURSTON	205 OLYMPIA HIGHWAY BRIDGE, OYSTER BAY	1000000000	WILDLIFE	BRIDGE	Parsons	1000
THURSTON	THURMONT CLIFF BRIDGE	1000000000	WILDLIFE	BRIDGE	All State Parks, The Beaches, BOD	1000
THURSTON	CAROLAN BEACH COUNTY CLUB	1000000000	WILDLIFE	BRIDGE	Parsons	1000
THURSTON	GRACE & HELEN PARK	1000000000	WILDLIFE	BRIDGE	Parsons	1000
THURSTON	TRUSS HARBOR COMMUNITY BEACH	1000000000	WILDLIFE	BRIDGE	Parsons	1000
THURSTON	WEST BAY PARK	1000000000	WILDLIFE	BRIDGE	City of Olympia	1000

ShoreZone Data Unit ID: Unlocks more than 50 parameters describing geomorphology, vegetation, and anthropogenic development.