

Nature's Value in the Salish Sea: Identifying the Economics Behind a Healthy Puget Sound

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Earth Economics acknowledges that we operate on the lands of the Coast Salish peoples, specifically the ancestral homelands of the Puyallup Tribe of Indians, and the 1854 Medicine Creek Treaty.

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Earth Economics has been a leader in applied ecological economics for over 20 years.

We quantify and value the benefits nature provides.



Salish Sea Basin Ecosystem Services Valuation (ESV)

Purpose

Help stakeholders appreciate the value of protecting and restoring the Salish Sea.

Goal

A comprehensive baseline ESV of the Salish Sea Basin.



What are Ecosystem Services?

Ecosystem Services = quantifiable benefits humans receive from nature

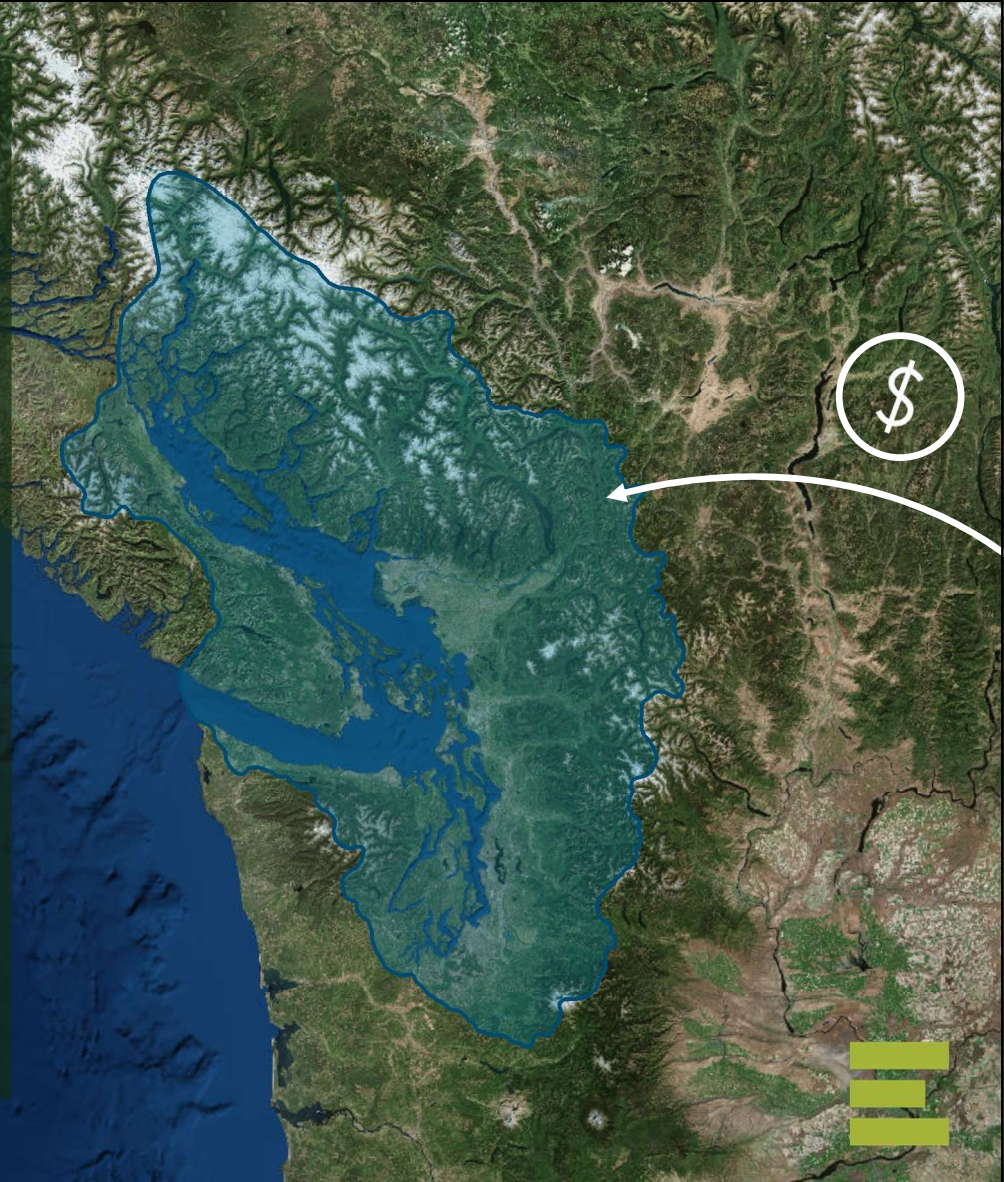
Ecosystem Services Valuation (ESV) = estimating economic benefits humans receive from nature



Methodology

Effectively estimate the value of variety of ecosystem services.

1. Benefit Transfer Method
2. Landcover Analysis
3. Spatial Attributes
4. Landcover Type + Spatial Attribute



EVToolkit: SERVES

A proprietary
database of over 9,000
published ecosystem
valuation estimates.

The screenshot displays the SERVES web application interface. At the top, there is a navigation bar with the following links: SERVES, Dashboard, Create Dataset, Transcribe Study, Find Study, and Bibliographic Directory. Below the navigation bar is a sidebar on the left containing filter categories: Filters (+), Sites (North America, United States X), Land Covers (Grasslands X, Non Herbaceous X, Shrublands X, Subterranean X, Underwater X, Water X, Wetlands X), Attributes (Proximities: Urban Fringe X), and Services (Information, Aesthetic Information X, Information, Cultural Value X). The main content area shows a table of search results under the heading 'Untitled'. The table has columns for selection, status, author, publication year, location, land cover, ecosystem service, and valuation. The table contains 8 rows of data, each with a checkbox and a colored circle icon. The first row is selected. The table is currently on Page 1 of 1.

<input type="checkbox"/>	<input type="radio"/>	AUTHOR ↑	PUB.	LOCATION	LAND COVER	ECOSYSTEM SERVICE	VALUATION
<input type="checkbox"/>	<input checked="" type="radio"/>	Adusumilli, Naveen	2015	New Jersey United States	Wetlands Other	Cultural Value Amenity Value	Meta-Analysis
<input type="checkbox"/>	<input type="radio"/>	Azevedo, Christopher D.; Crooker, John R., et al.	2012	Illinois; Indiana; Michigan; Wisconsin United States	Water Unspecified	Cultural Value Existence	Stated Preference Contingent Valuation
<input type="checkbox"/>	<input type="radio"/>	Hall, Darwin C.; Hall, Jane V., et al.	2002	California United States	Non Herbaceous Other	Cultural Value Preservation / Conservation ...	Stated Preference Contingent Valuation
<input type="checkbox"/>	<input type="radio"/>	Harrison, George L.	2014	Florida United States	Grasslands Lawn	Aesthetic Information Unspecified	Value Transfer Point Transfer
<input type="checkbox"/>	<input type="radio"/>	Hazen and Sawyer Environmental Engineers & Scientists	2008	Florida United States	Water Estuaries	Cultural Value Existence	Stated Preference Contingent Valuation
<input type="checkbox"/>	<input type="radio"/>	Hazen and Sawyer Environmental Engineers & Scientists	2008	Florida United States	Water Estuaries	Aesthetic Information Real Estate Value	Market Based Market Price
<input type="checkbox"/>	<input type="radio"/>	Hazen and Sawyer Environmental Engineers & Scientists	2008	Florida United States	Water Estuaries	Cultural Value Existence	Stated Preference Contingent Valuation
<input type="checkbox"/>	<input type="radio"/>	Hazen and Sawyer Environmental	2008	Florida United States	Water Estuaries	Aesthetic Information Real Estate Value	Value Transfer Point Transfer



Ecosystem Services

Spatial Attributes:

- Climate Zone
- Riparian Buffer
- Urban
- Ag Border
- Upper Watershed
- Shellfish Beach
- Old Growth

Ecosystem Service	Beach	Cropland	Estuary	Forest	Grassland	Lake	River	Seagrass	Shrubland	Wetland
Aesthetic Information	Produced by landcover, valued in report	Not valued in report	Produced by landcover, not valued in report	Produced by landcover, valued in report	Produced by landcover, valued in report	Produced by landcover, not valued in report	Produced by landcover, valued in report	Not valued in report	Produced by landcover, not valued in report	Produced by landcover, valued in report
Air Quality	Not valued in report	Not valued in report	Not valued in report	Produced by landcover, valued in report	Produced by landcover, not valued in report	Not valued in report	Not valued in report	Not valued in report	Produced by landcover, not valued in report	Not valued in report
Biological Control	Not valued in report	Produced by landcover, valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, valued in report	Not valued in report	Not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report
Climate Stability	Not valued in report	Not valued in report	Produced by landcover, valued in report	Produced by landcover, valued in report	Produced by landcover, valued in report	Not valued in report	Not valued in report	Produced by landcover, valued in report	Produced by landcover, valued in report	Produced by landcover, valued in report
Existence Value	Produced by landcover, valued in report	Produced by landcover, valued in report	Produced by landcover, not valued in report	Produced by landcover, valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report
Disaster Risk Reduction	Not valued in report	Not valued in report	Not valued in report	Produced by landcover, valued in report	Produced by landcover, valued in report	Not valued in report	Not valued in report	Not valued in report	Produced by landcover, not valued in report	Produced by landcover, valued in report
Food	Produced by landcover, valued in report	Produced by landcover, not valued in report	Produced by landcover, valued in report	Produced by landcover, valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report
Habitat	Produced by landcover, not valued in report	Not valued in report	Produced by landcover, valued in report	Produced by landcover, valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, valued in report
Pollination, Seed Dispersal	Not valued in report	Produced by landcover, valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Not valued in report	Produced by landcover, not valued in report	Not valued in report	Produced by landcover, not valued in report	Not valued in report
Recreation and Tourism	Produced by landcover, valued in report	Not valued in report	Produced by landcover, valued in report	Produced by landcover, valued in report	Produced by landcover, valued in report	Produced by landcover, valued in report	Produced by landcover, valued in report	Not valued in report	Not valued in report	Produced by landcover, valued in report
Science and Education	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report
Soil Retention	Not valued in report	Produced by landcover, valued in report	Not valued in report	Produced by landcover, valued in report	Produced by landcover, valued in report	Not valued in report	Not valued in report	Not valued in report	Produced by landcover, not valued in report	Produced by landcover, valued in report
Water Capture, Conveyance, Supply	Not valued in report	Not valued in report	Not valued in report	Produced by landcover, valued in report	Produced by landcover, not valued in report	Not valued in report	Produced by landcover, not valued in report	Not valued in report	Produced by landcover, not valued in report	Produced by landcover, valued in report
Water Quality	Not valued in report	Produced by landcover, not valued in report	Not valued in report	Produced by landcover, valued in report	Produced by landcover, valued in report	Not valued in report	Not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, valued in report
Water Storage	Not valued in report	Not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Produced by landcover, not valued in report	Not valued in report	Produced by landcover, not valued in report	Produced by landcover, valued in report



Webmap of ESV Results: <https://arcg.is/0SyfTT>





THANK YOU

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Questions?

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