

CREATING AN ATLAS OF THE SALISH SEA BIOREGION

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THE SALISH SEA

The Salish Sea is an intricate network of inland marine waterways in Washington and British Columbia. The exceptionally biologically rich waters of this **transboundary estuarine ecosystem** are home to many charismatic and threatened species.



The transboundary Salish Sea Bioregion includes land and water in British Columbia (58%) and Washington (42%)

Although currently divided by an international border, the Salish Sea region can be considered a cohesive geographic unit, or **bioregion**, based on its many cohesive natural and cultural characteristics and histories.

The Salish Sea Bioregion includes both the marine waters and their upland watersheds. This region encompasses the Vancouver-Seattle megaregion and is **home to over nine million people**.

The Salish Sea's name was first officially recognized in 2009. The concept of a cohesive Salish Sea region has rapidly become a critical focal point for local education, research, restoration, conservation, and policy development.

A pervasive lack of comprehensive transboundary spatial datasets and maps hampers management, science, and education in the Salish Sea Bioregion.

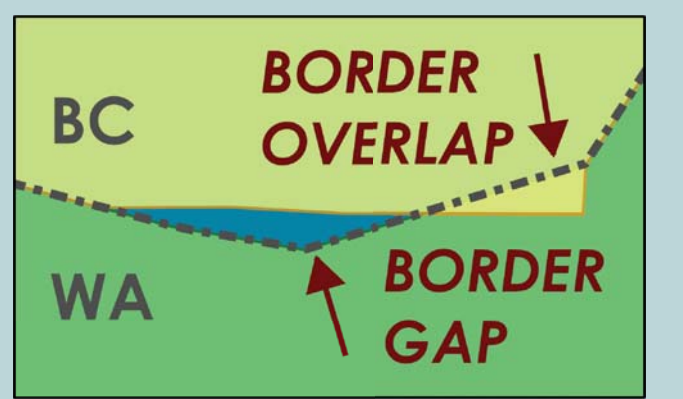
THE SALISH SEA ATLAS

- Cohesive, comprehensive, easily accessible geospatial warehouse of **harmonized geospatial datasets** for analysts and cartographers.
- Free, creative commons-licensed static **maps**.
- Open access, **digital atlas** containing interactive maps and summaries of spatial patterns for the entire region for educators, policy makers, scientists, and all community members.
- Delivered via ArcGIS Online Story Maps and Hub Site.

TRANSBOUNDARY MAPPING CHALLENGES

Lack of cohesive cross-border data:

- Data may not exist at all.
- Data may exist, but be housed by multiple different agencies and difficult to compile.



Transboundary Census records may have spatial mismatches (gaps and overlaps), temporal mismatches (Census years), and conceptual mismatches (demographic categories such as ethnicity or education)

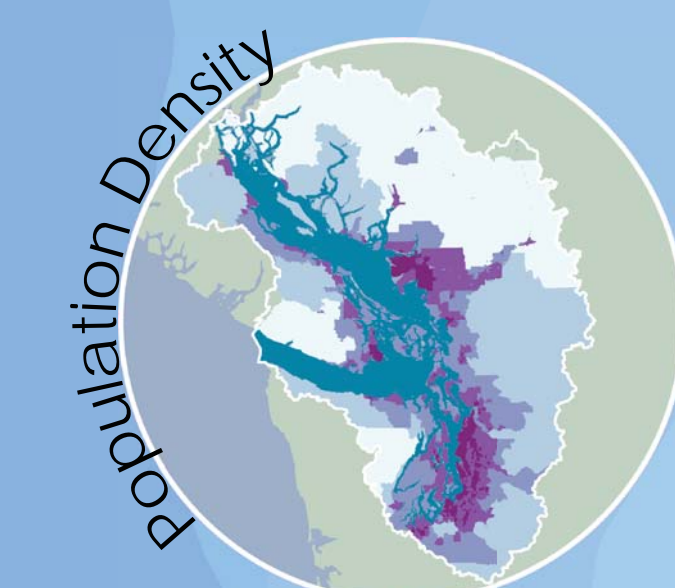
Datasets do not line up:

- **Spatially:** extent, scale, generalization, aggregation, coordinate systems, or definition of boundaries.
- **Temporally:** when and how often data were updated.
- **Conceptually:** units of measurement, type of data collection, scales or categories used to record characteristics.

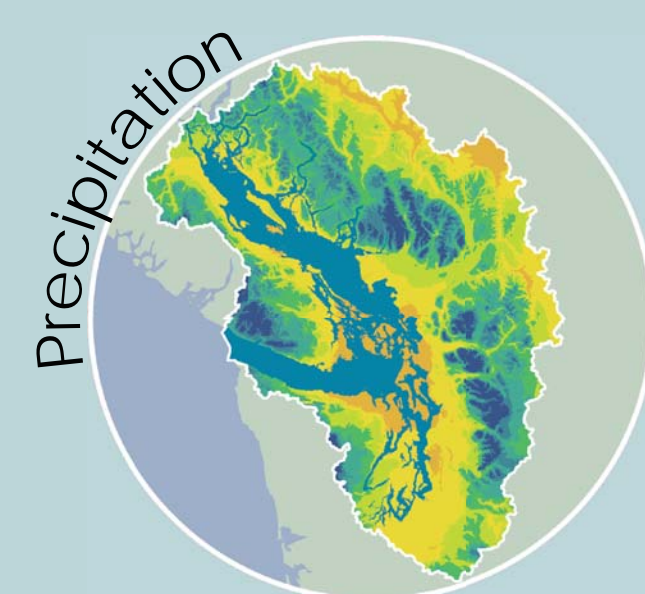
Spatial datasets must be compiled and harmonized before they can be used to create cohesive transboundary analyses and maps.

ATLAS THEMES

The Salish Sea Atlas is divided into thematic chapters accompanied by geospatial datasets including:



PLACE NAMES
DEMOGRAPHY
POPULATION GROWTH
INDIGENOUS LANGUAGES



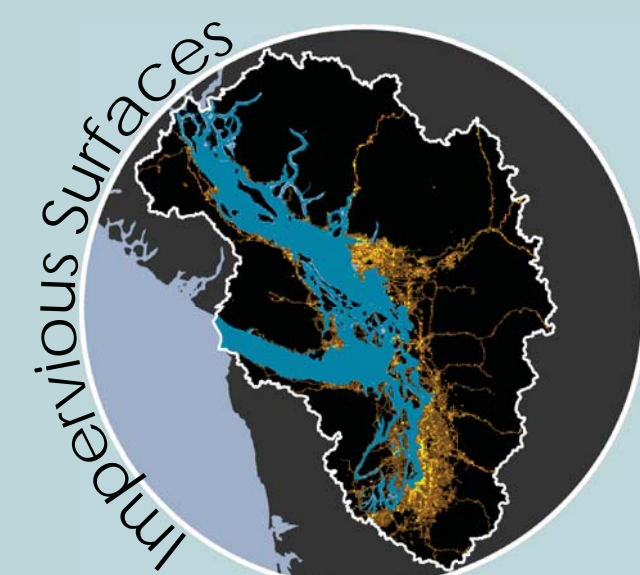
TEMPERATURE
PRECIPITATION
WIND DIRECTION
CLIMATE CHANGE



WATERSHEDS
LAKES & STREAMS
MARINE WATER BODIES
BATHYMETRY & ELEVATION



JURISDICTIONS
LAND OWNERSHIP
PROTECTED AREAS
INDIGENOUS LANDS



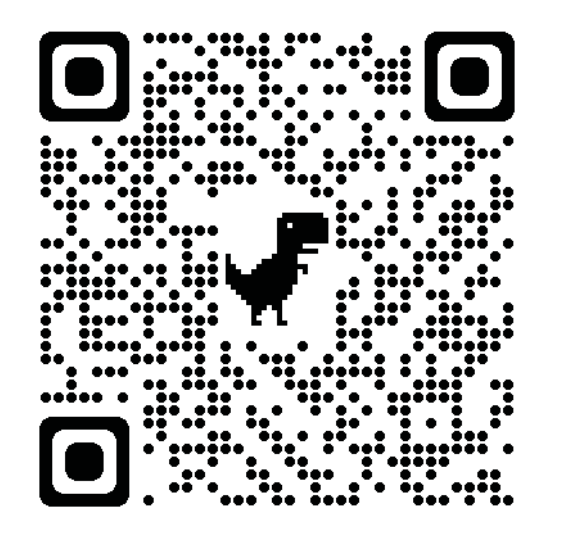
LAND COVER
AGRICULTURE
VEGETATION TYPES
IMPERVIOUS SURFACES

ACKNOWLEDGEMENTS

The Salish Sea is named in honor of the Coast Salish peoples who have been stewards of this bioregion's lands and waters for millennia. This work was completed on the ancestral lands of the Lummi Nation and the Nooksack Tribe.

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Data on these maps are more fully described in the atlas. They came primarily from NOAA, NASA, Natural Earth, Statistics Canada, the US Census Bureau, CEC, Protected Planet, USGS, NHN, Environment Canada, and ClimateNA.



wp.wvu.edu/SalishSeaAtlas

