The Forested Salish Sea

The Role of Forest Stewardship in Protecting Marine Health

Erik Kingfisher

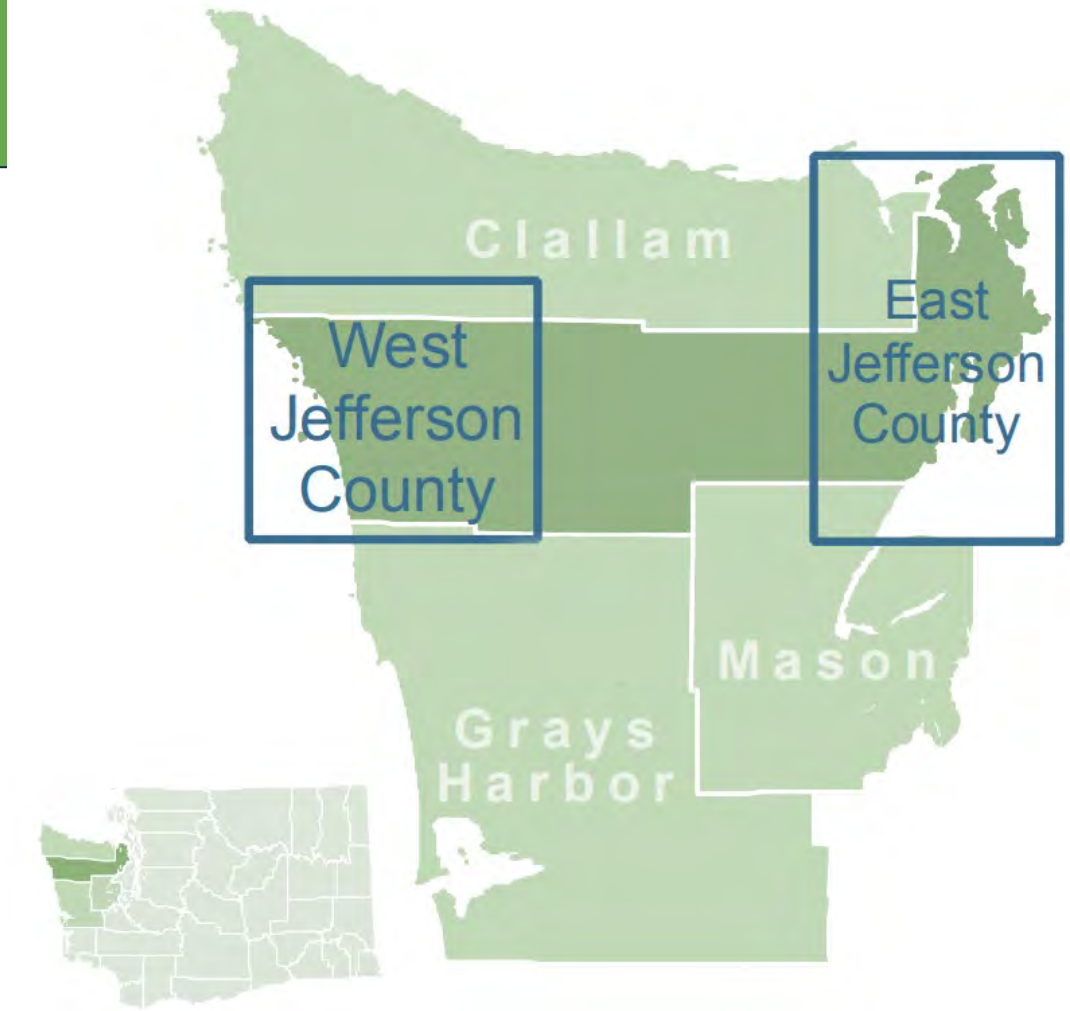
Director of Stewardship and Resilience

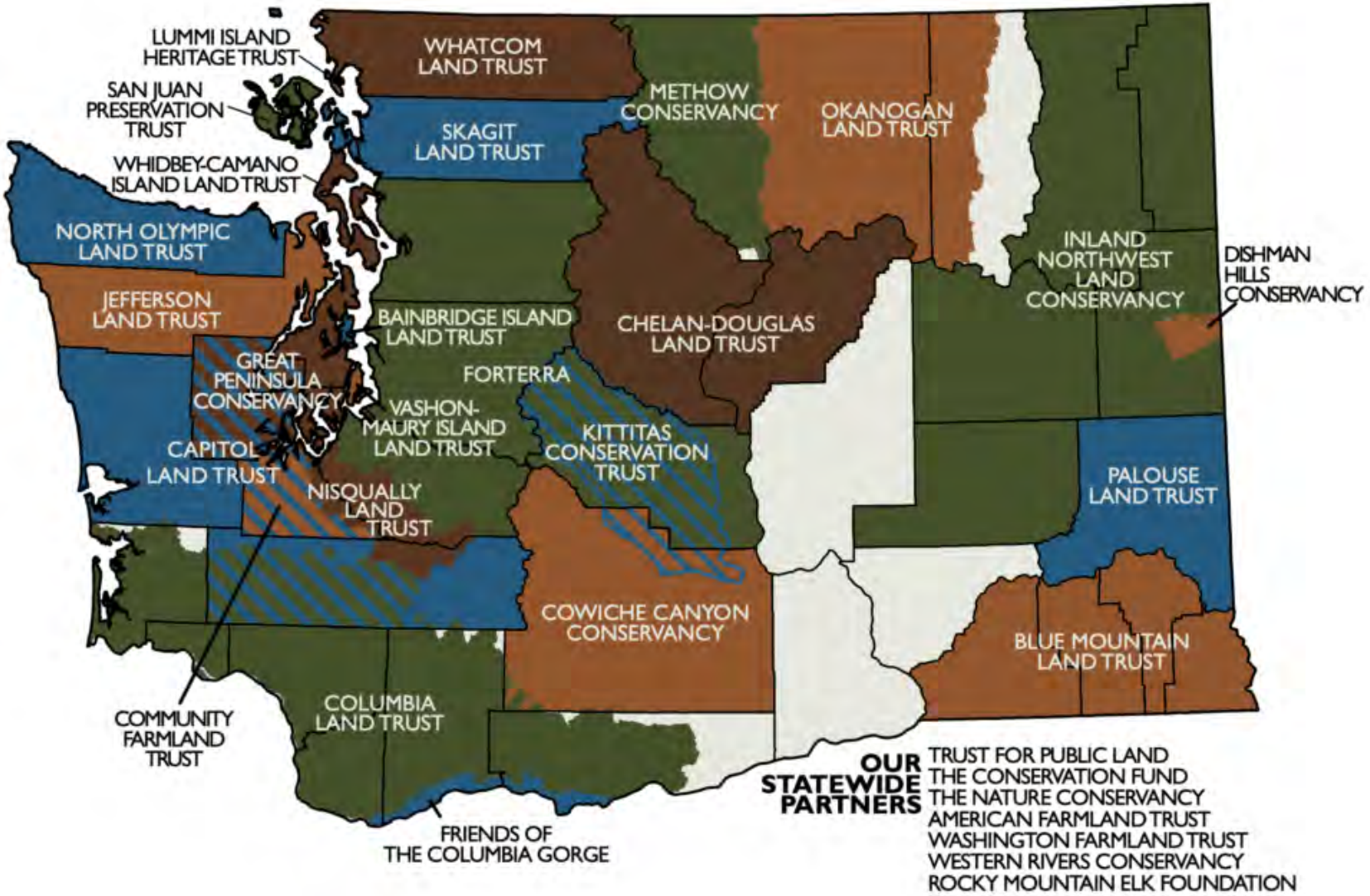
Jefferson Land Trust

JEFFERSON LAND TRUST

Helping the community to preserve open space, working lands and habitat forever.

www.saveland.org




LUMMI ISLAND HERITAGE TRUST
WHATCOM LAND TRUST
SAN JUAN PRESERVATION TRUST
METHOW CONSERVANCY
OKANOGAN LAND TRUST
SKAGIT LAND TRUST
WHIDBEY-CAMANO ISLAND LAND TRUST
NORTH OLYMPIC LAND TRUST
INLAND NORTHWEST LAND CONSERVANCY
DISHMAN HILLS CONSERVANCY
JEFFERSON LAND TRUST
BAINBRIDGE ISLAND LAND TRUST
CHELAN-DOUGLAS LAND TRUST
GREAT PENINSULA CONSERVANCY
FORTERRA
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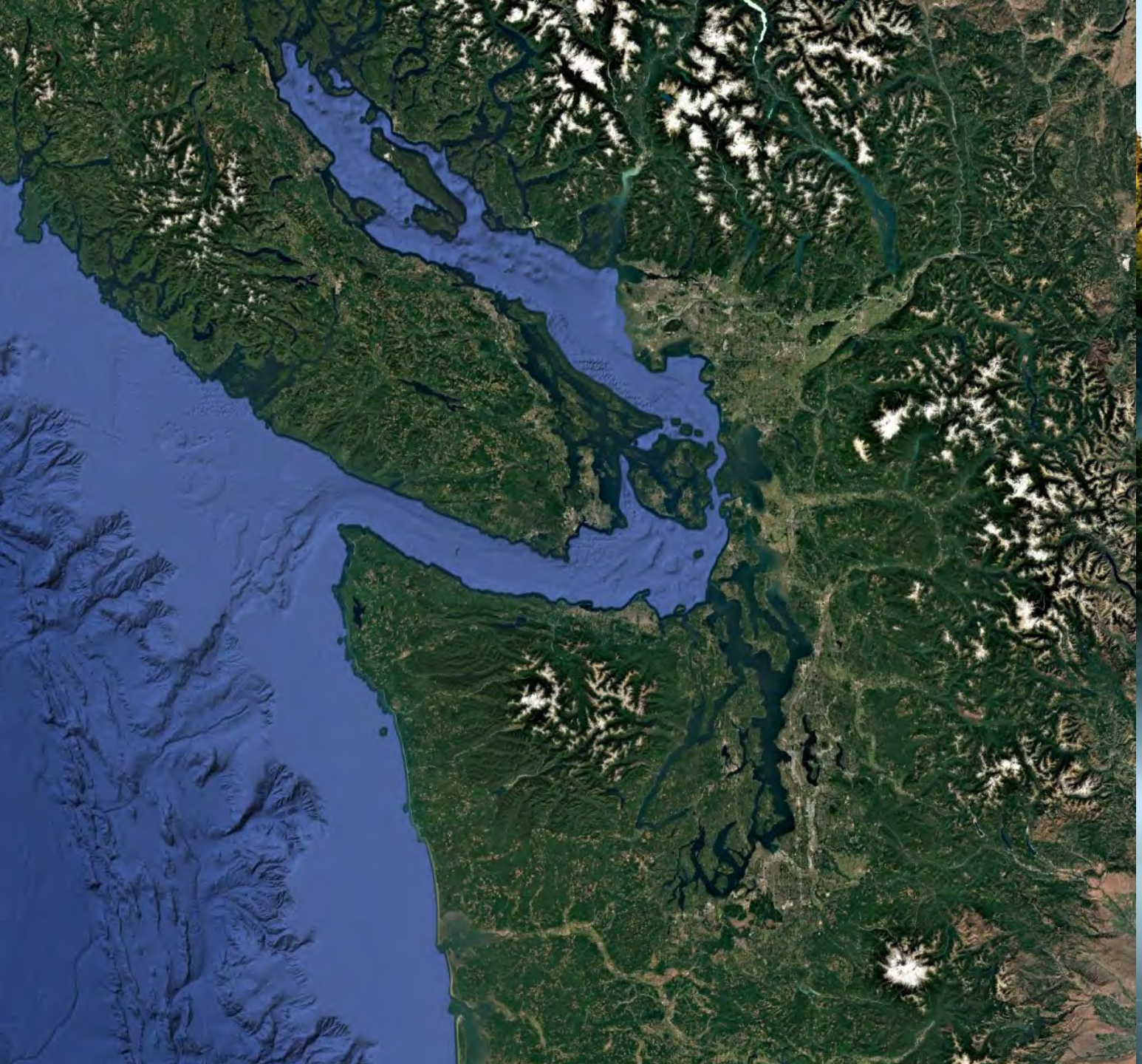
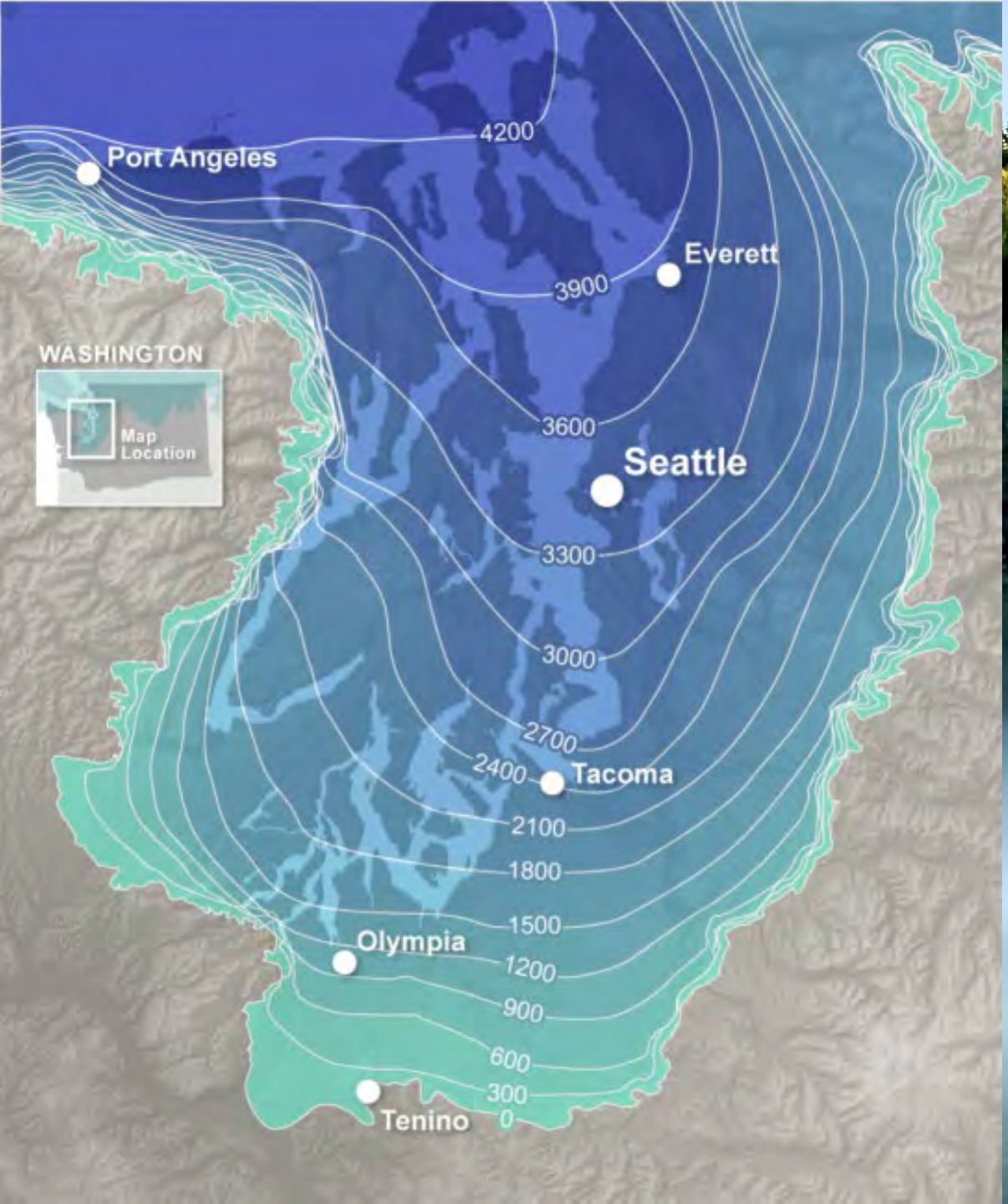
NISQUALLY LAND TRUST
COWICHE CANYON CONSERVANCY
BLUE MOUNTAIN LAND TRUST
COMMUNITY FARMLAND TRUST
COLUMBIA LAND TRUST
FRIENDS OF THE COLUMBIA GORGE
OUR STATEWIDE PARTNERS
TRUST FOR PUBLIC LAND
THE CONSERVATION FUND
THE NATURE CONSERVANCY
AMERICAN FARMLAND TRUST
WASHINGTON FARMLAND TRUST
WESTERN RIVERS CONSERVANCY
ROCKY MOUNTAIN ELK FOUNDATION




Port Angeles
Everett
Seattle
Tacoma
Olympia
Tenino
4200
3900
3600
3300
3000
2700
2400
2100
1800
1500
1200
900
600
300
0
WASHINGTON
Map Location


Lillooet Lake
Campbell River
Powell Lake
Upper Campbell Lake
Lois Lake
Buttle Lake
Squamish River
Comox Lake
Harrison Lake
Pitt Lake
Nanaimo River
Fraser River
Cowichan Lake
Nooksack River
Nitinat Lake
Cowichan River
Ross Lake
Skagit River
Stillaguamish River
Elwha River
Snohomish River
Lake Washington
Puyallup River
Nisqually River

Upland Forests: Ecological Functions

Capture rainfall, release gradually

Stabilize soil and prevent erosion

Provide shade and habitat for salmon streams

Sequester carbon

The Forest-to-Sea Connection

Watersheds connect uplands to marine waters

Sediment, nutrients, and pollutants flow downstream

Water quality of streams and rivers impacts the marine environment

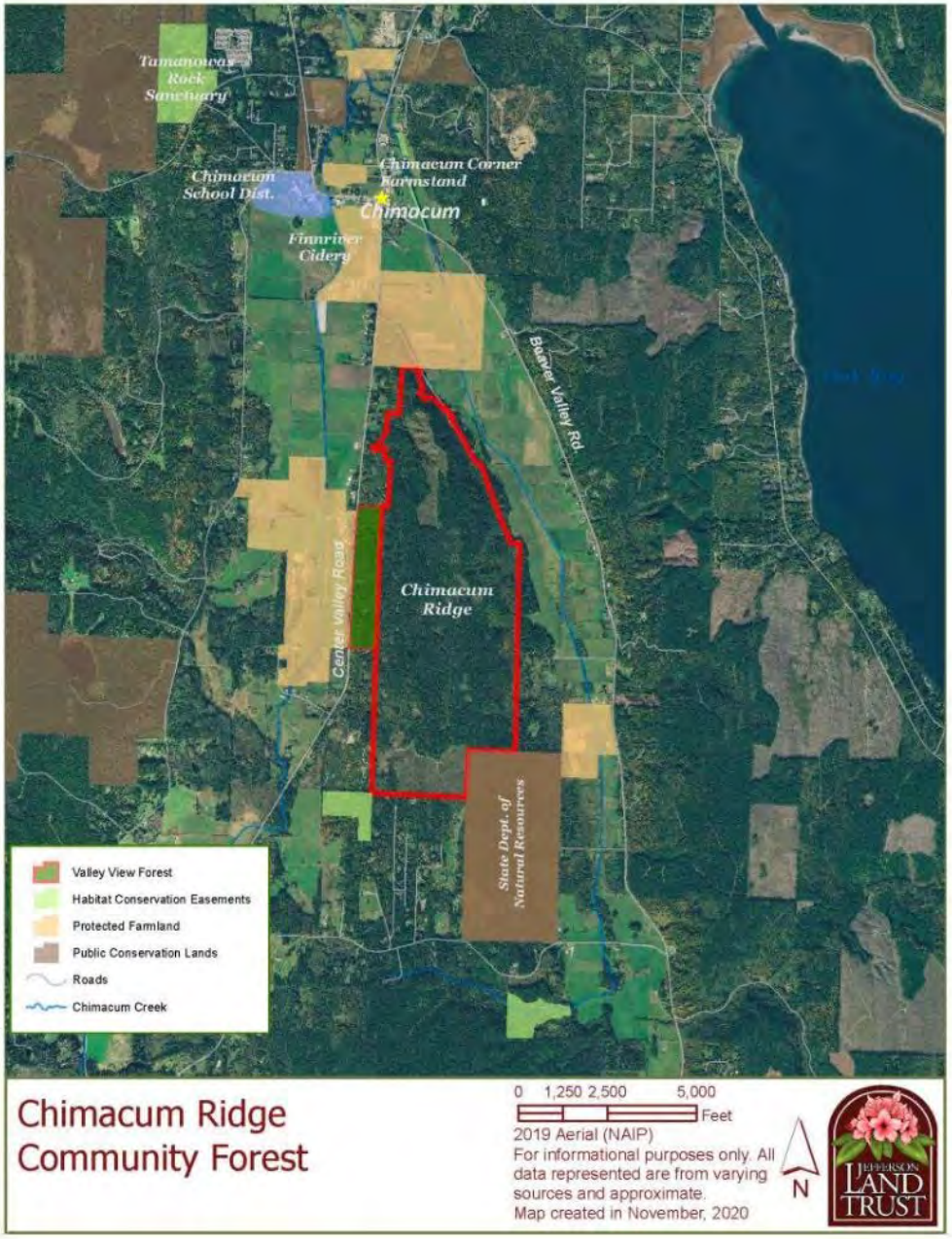
Marine Benefits of Healthy Forests

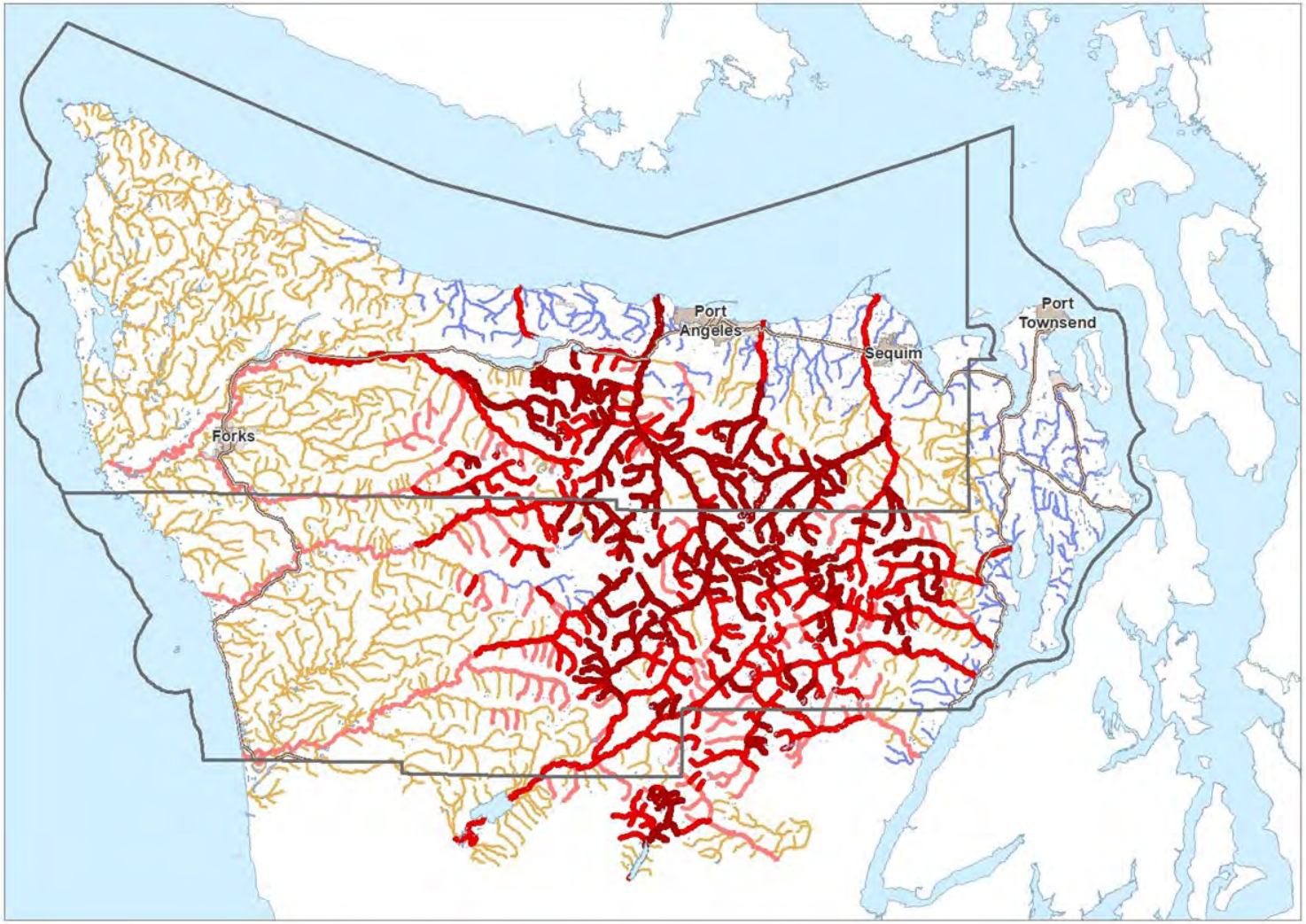
- Improved salmon survival supports orcas
- Clean water benefits shellfish beds
- Healthy estuaries and eelgrass thrive

The Role of Land Trusts

- Help protect forests from conversion and development
- Help preserve watershed features critical for salmon and marine life

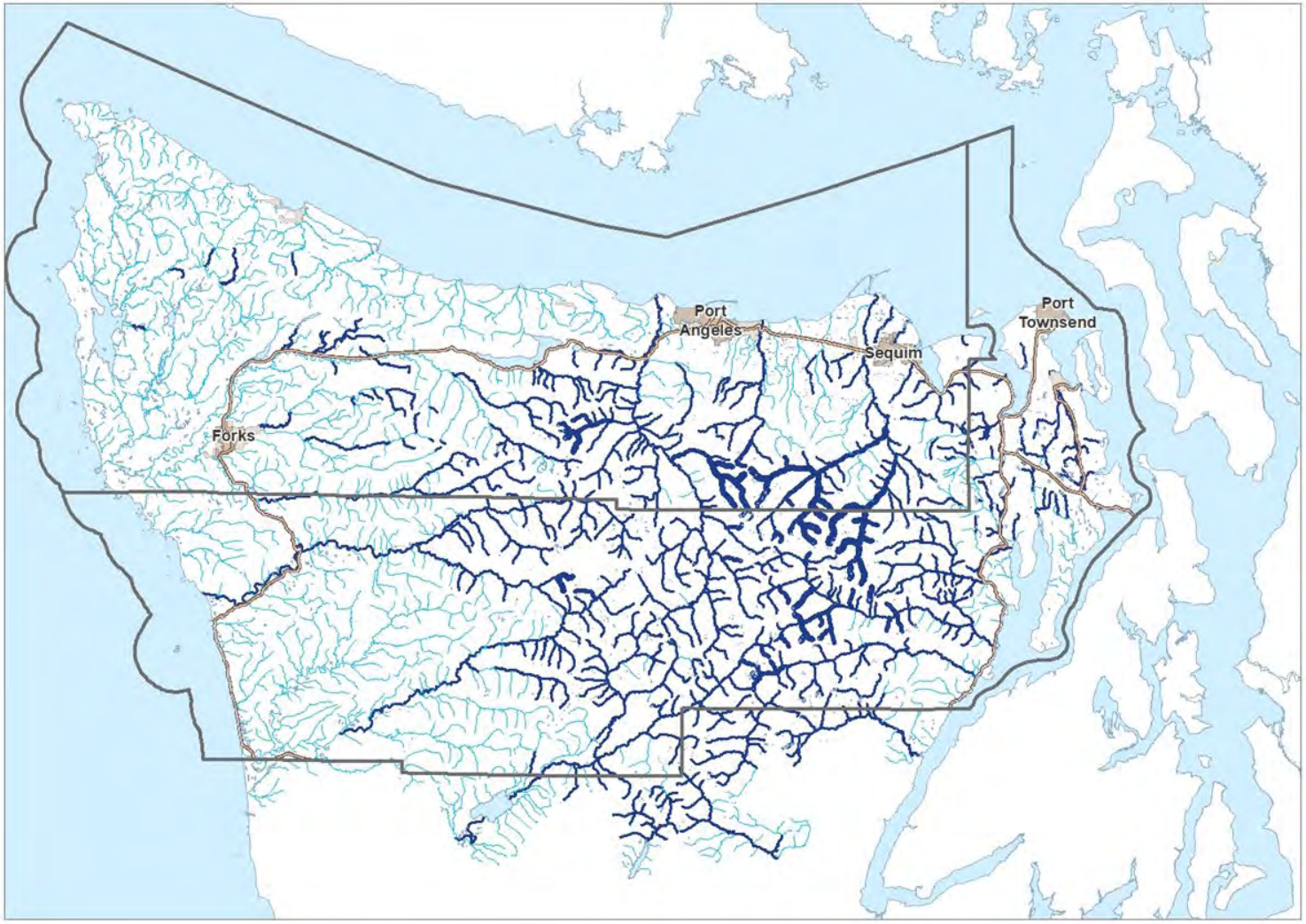

Port Townsend
Port Townsend Bay
Glen Cove
Kala Pt.
Crane Pt.
Irondale
Port Hadlock
Jefferson Hill
Discovery Bay
Four Corners
Fort Discovery
Mill Pt.
Woodmans
Chimacum
Oak Bay
Maynard
Fairmont
Lucas
Eaglemount
Chimacum Ridge


Tamanowas Rock Sanctuary
Chimacum School Dist.
Chimacum Corner Farmstand
Chimacum
Finnriver Cidery
Beaver Valley Rd.
Center Valley Road
Chimacum Ridge
State Dept. of Natural Resources
Valley View Forest
Habitat Conservation Easements
Protected Farmland
Public Conservation Lands
Roads
Chimacum Creek
Chimacum Ridge Community Forest
0 1,250 2,500 5,000
Feet
2019 Aerial (NAIP)
For informational purposes only. All data represented are from varying sources and approximate.
Map created in November, 2020
N
Jefferson Land Trust



Changes to Summer Stream Flow 2011-2040

VIC (Variable Infiltration Capacity) model produced by USFS Rocky Mountain Research station



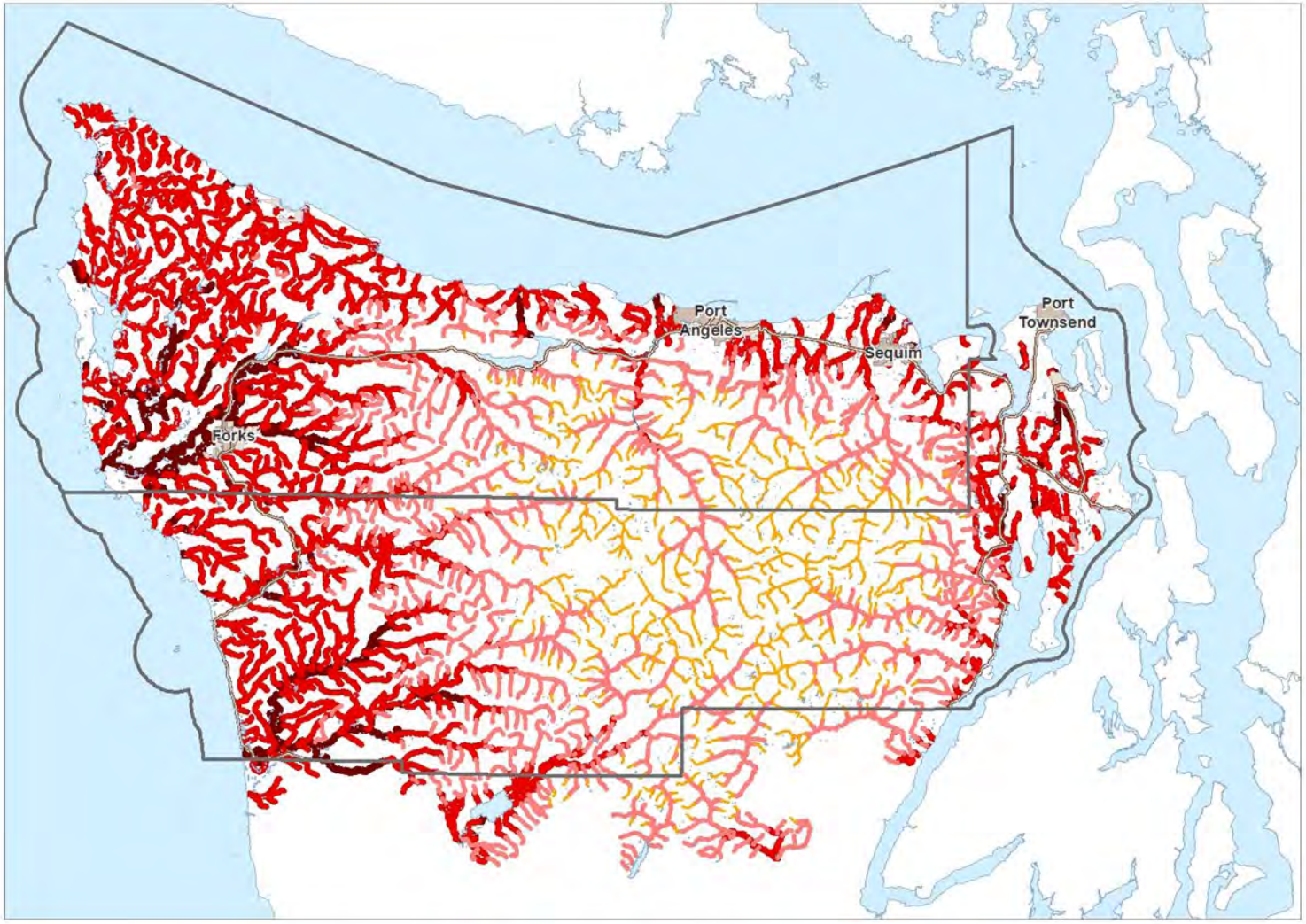
Changes to Winter Stream Flow 1995-2040

Forecasted Change in Winter Flow

Mean Winter Pct Chng 1995-2040

- -6.2 - 0.0
- 0.1 - 94.3
- 94.4 - 191.5
- 191.6 - 357.1
- 357.2 - 700.0
- Highways
- Lakes
- Incorporated City
- UGA
- County Boundaries

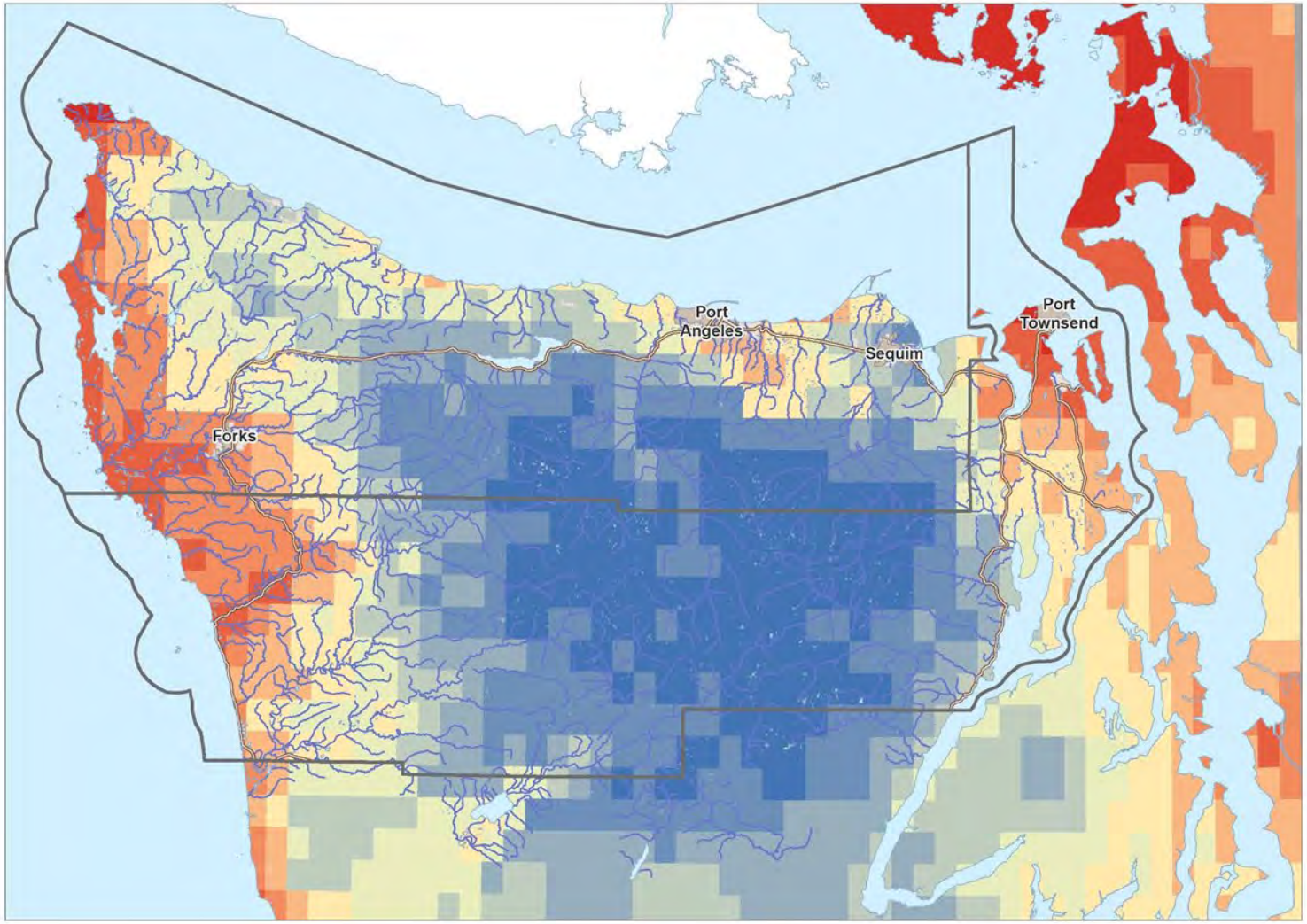
VIC (Variable Infiltration Capacity) model produced by USFS Rocky Mountain Research station

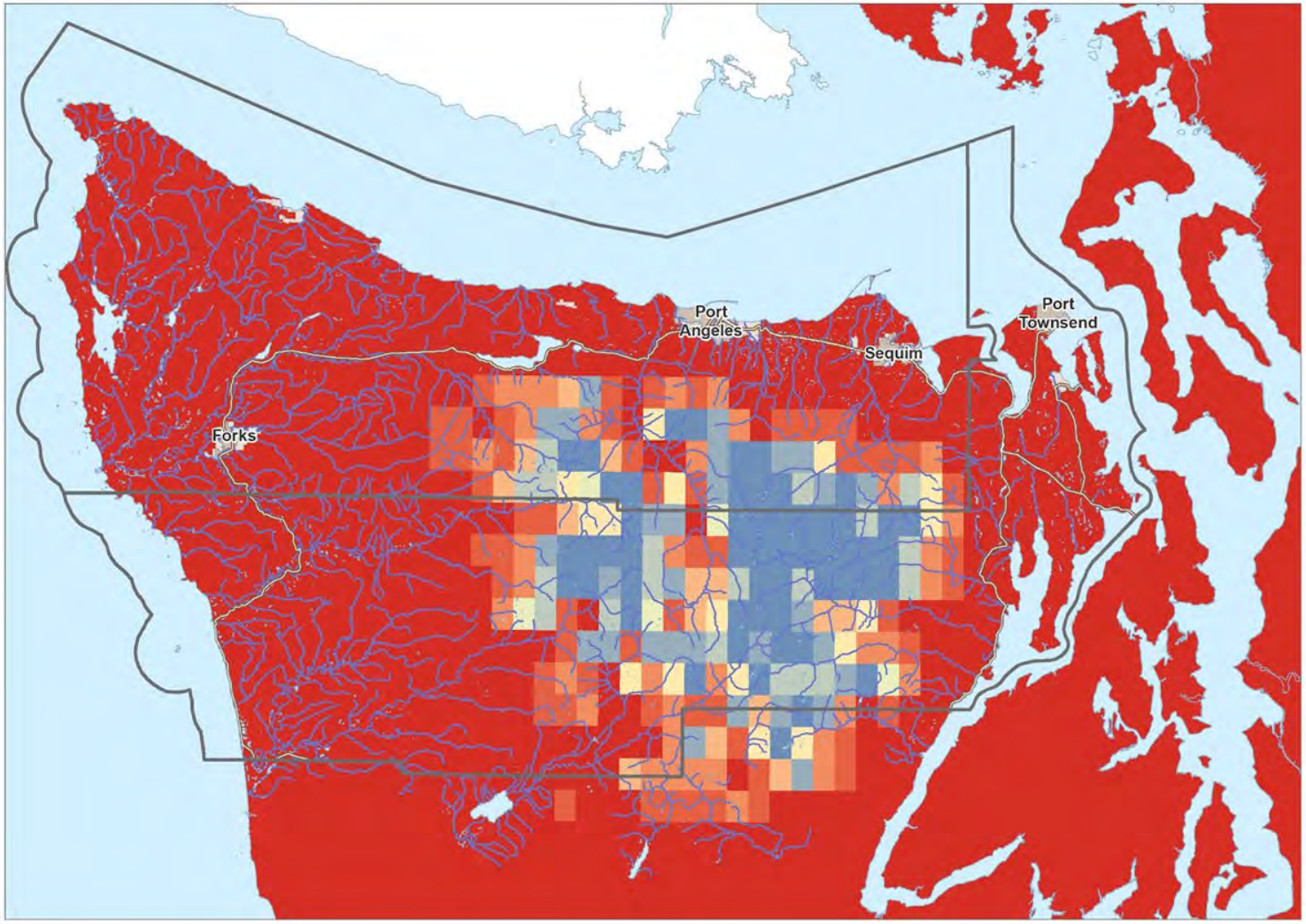


Changes to Stream Temperature 2011-2040

NorWeST model produced by USFS Rocky Mountain Research station

Date of Freeze, 1975-2005





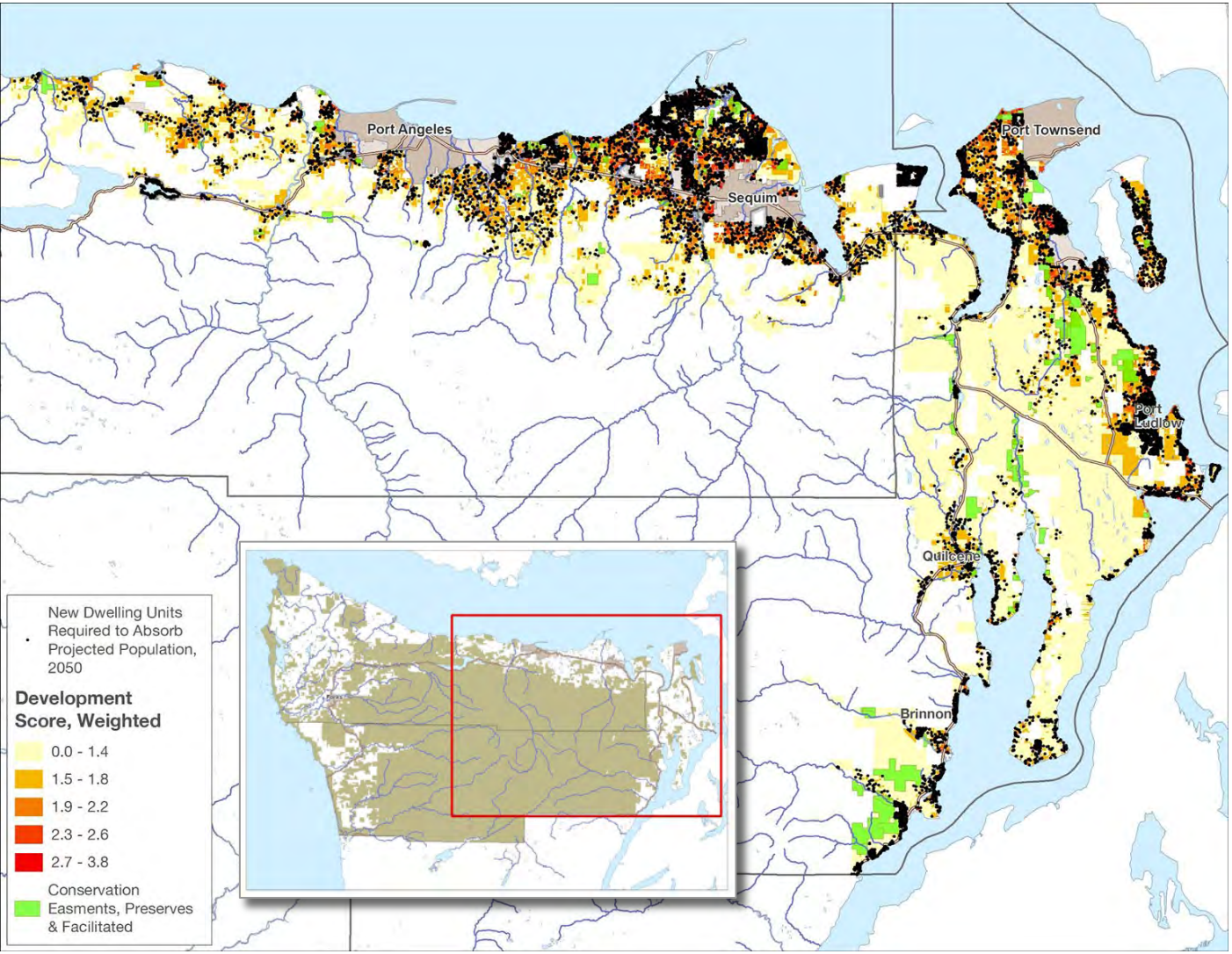
Date of Freeze, 2071-2090

RCP 8.5 (High Emissions Scenario)

Date of Freeze (2071-2090)

Julian Days

- *268 - 295*
- *296 - 311*
- *312 - 317*
- *318 - 320*
- *321 - 323*
- *324 - 325*
- *326 - 327*
- *328 - 332*
- *333 - 339*
- *340 - 352*
- Highways
- Rivers & Creeks
- Lakes
- Incorporated City
- UGA
- County Boundaries



New Development by 2050, OFM 'High' Series

We used the most recent population projection generated by OFM for 2050 and held ratios of City/UGA/Unincorporated constant:

Clallam +8,363 units

Jefferson +8,353

Then distributed by avg ppl/du from high to low probability

Maintaining Ecological Function

Healthy forests support a healthy sea

Responsible forestry + conservation support a resilient Salish Sea

Maintaining a forested land base supports future marine conditions

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