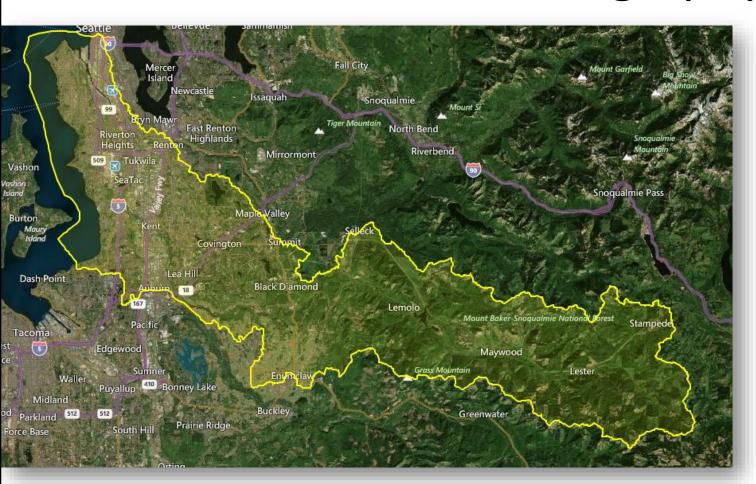


Geography of the Duwamish-Green Watershed

# The Duwamish-Green Watershed Geography



- About 569 square miles in area.
- Elevation ranges from sea level to ~5500 feet.
- Bounded by Puget Sound on the west and Cascade mountains on the east.
- Water flows out to the Puget Sound through Duwamish River, with a few exceptions.
- Lower 5 miles of the Duwamish River is a Superfund site.

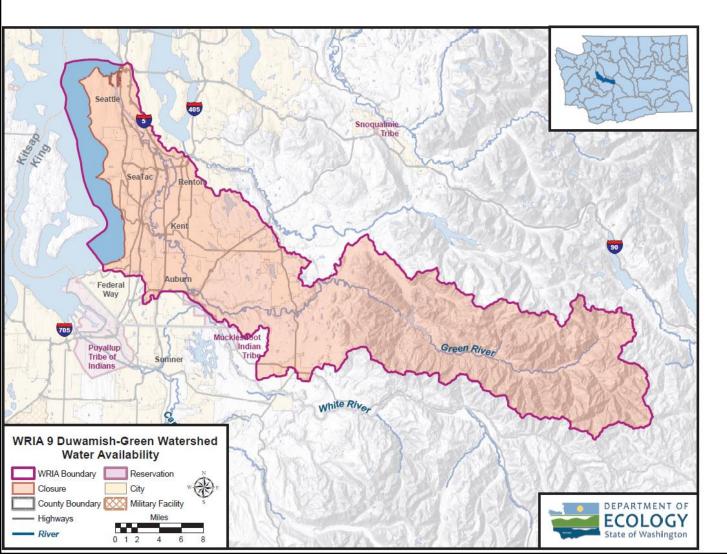
## The Duwamish-Green Watershed Water Sources



Groundwater and surface water are least available when water demands are the highest.

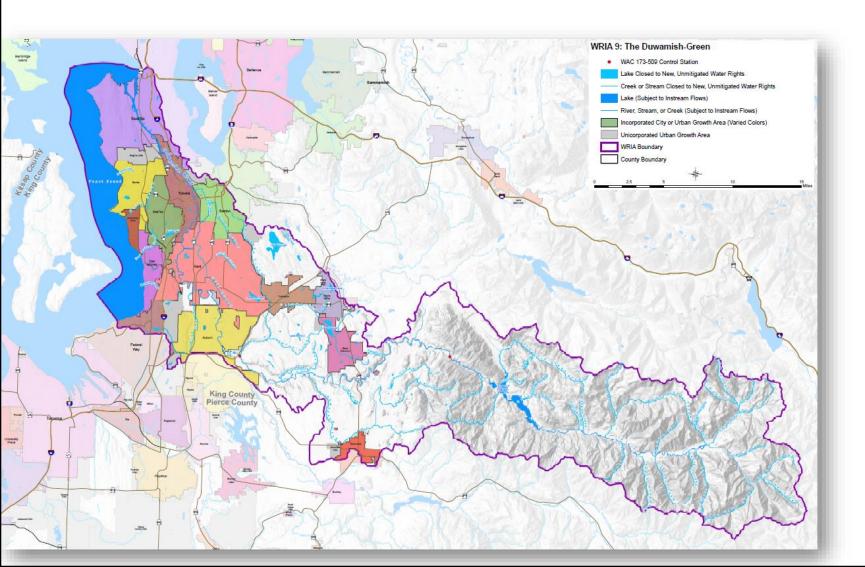
- Includes one major river, the Duwamish-Green River which originates in the Cascade Mountains; smaller creeks such as Jenkins, Little Soos, Newaukum, and Boundary; and marine nearshore and sub-basins that drain directly to Puget Sound.
- The Green River is the main source of drinking water for the Tacoma area.
- Includes Howard A. Hanson Dam which is used for flood control and reservoir purposes.
- Annual streamflow is largely driven by snowpack melt and annual rainfall.
- Average annual precipitation ranges from 30-35 inches in coastal areas to 70 inches in the mountains.
  - Most of this precipitation arrives during the winter months when overall water demands are the lowest.
  - During the summer, the snowpack is gone and there is little rain, and naturally low stream flows are dependent on groundwater inflow.
  - At the same time the demand for water for human uses, including irrigation are at the yearly maximum.

# The Duwamish-Green Watershed Water Resource Management



- WAC 173-509, adopted in 1979, is the instream resources protection program rule for the Duwamish-Green watershed.
- This rule closes tributaries of the Green and Duwamish Rivers to new consumptive water withdrawals and new withdrawals from the Duwamish and Green Rivers are subject to minimum instream flows.
- There is no water set aside in reserves for future consumptive uses in this watershed.
- Applicants seeking new consumptive water appropriations will need mitigation for the impacts of their water use on surface water bodies.

#### The Duwamish-Green Watershed



- WRIA 9 is within King County and includes parts of 15 cities.
  - Algona

Kent

• Auburn

- Maple Valley
- Black Diamond
- Normandy Park

• Burien

Renton

Covington

SeaTac

Des Moines

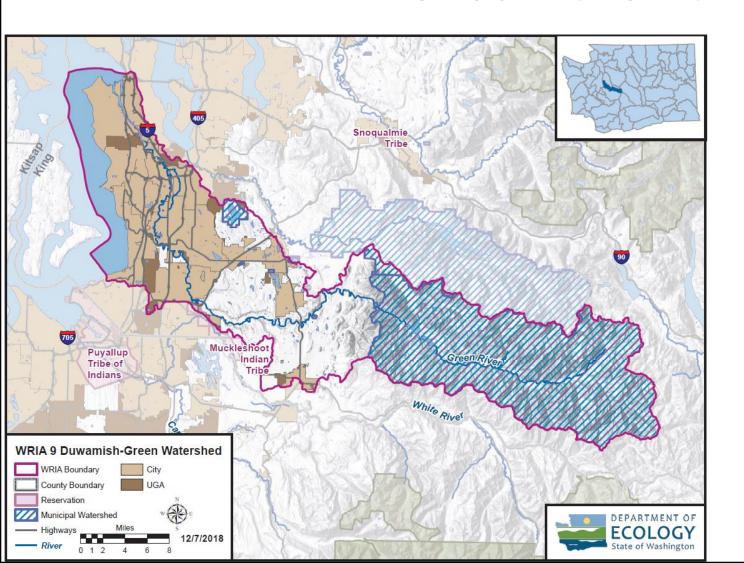
Seattle

Enumclaw

Tukwila

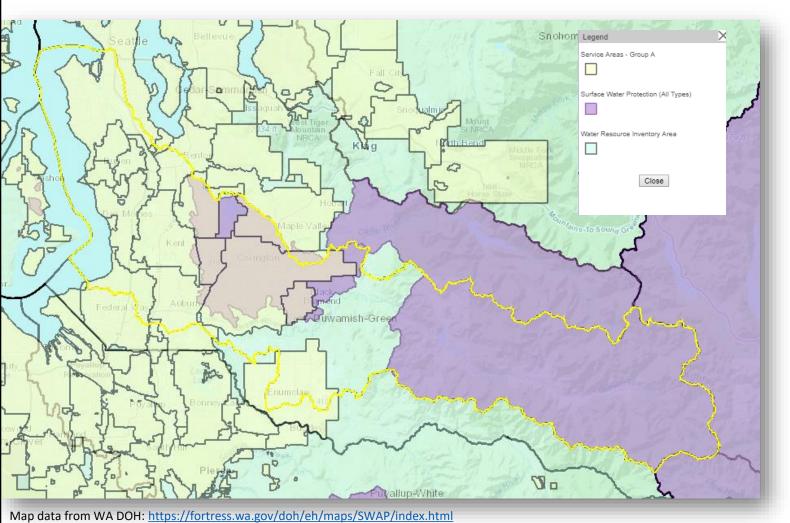
- Federal Way
- The Muckleshoot Indian Reservation lands are partially located in WRIA 9

## The Duwamish-Green Watershed Urban Growth Areas



Very developed with high population density.

### The Duwamish-Green Watershed Water Service Areas



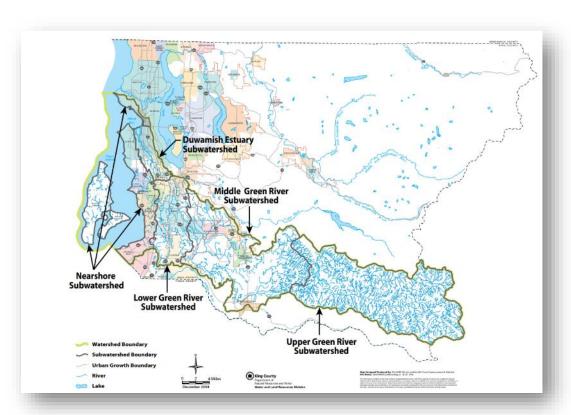
Most of the developable land in WRIA 9 is served by a water system.

Yellow: water service area

Purple: municipal watershed

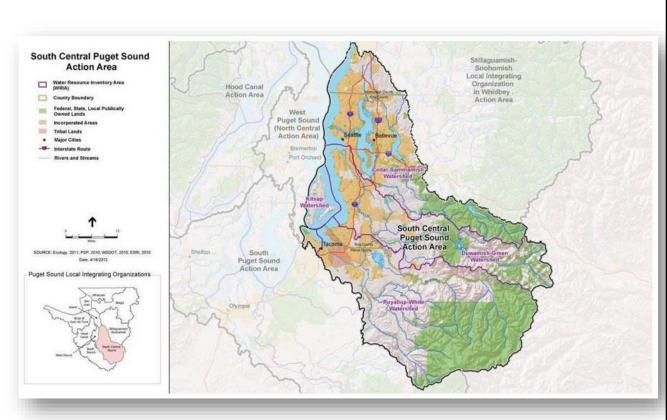
#### Partners in WRIA 9

Existing watershed-based organizations/collaborations in WRIA 8 include:



WRIA 9 Watershed Ecosystem Forum (Salmon Recovery Lead Entity) has mostly the same boundaries, except:

- Includes Vashon and Maury Islands, which are part of WRIA 15,
- Portions of WRIA 8 to include all of Elliott Bay in Seattle, and
- Portions of WRIA 10 to include all marine shoreline area of Federal Way.



South Central Action Area Caucus Group (Local Integrating Organization), covers WRIA 8, 9, and 10

### Questions?

Data sources: <a href="mailto:ttps://fortress.wa.gov/ecy/publications/documents/1111014.pdf">ttps://fortress.wa.gov/ecy/publications/documents/1111014.pdf</a>; <a href="https://fortress.wa.gov/ecy/publications/documents/1111014.pdf">https://fortress.wa.gov/ecy/publications/documents/1111014.pdf</a>; <a href="https://fortress.wa.gov/ecy/publications/documents/1111014.pdf">https://fortress.wa.gov/ecy/publications/documents/1111014.pdf</a>; <a href="https://fortress.wa.gov/ecy/coastalatlas/wc/MappingPage.html">https://fortress.wa.gov/ecy/coastalatlas/wc/MappingPage.html</a> (unless otherwise indicated)