
What is Source Water Protection?

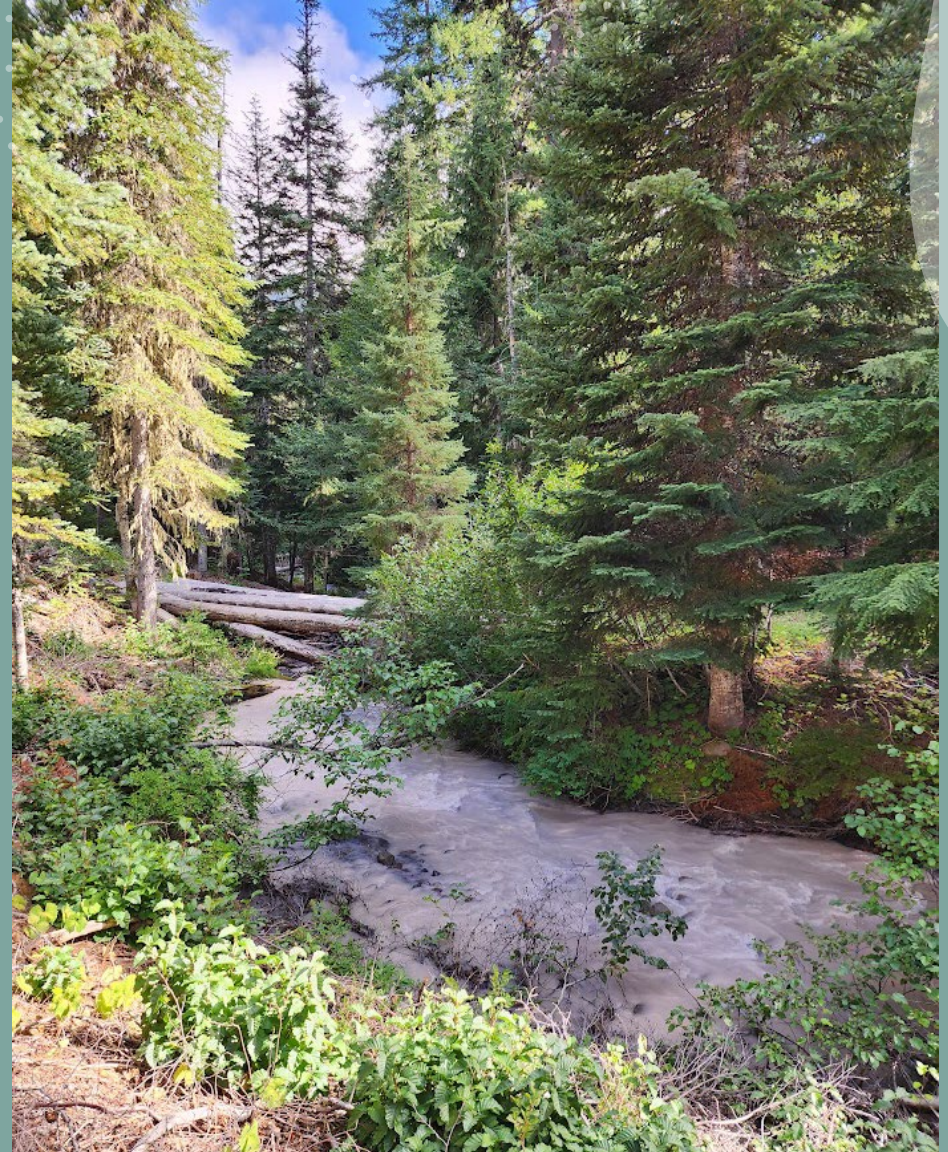
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Oregon Department of Environmental Quality
Drinking Water Protection Program

October 3 & 4 – October Coastal Partnerships for Drinking Water
Protection Workshops

What is source water?

Any type of surface water or groundwater feature from which we extract water for drinking water use



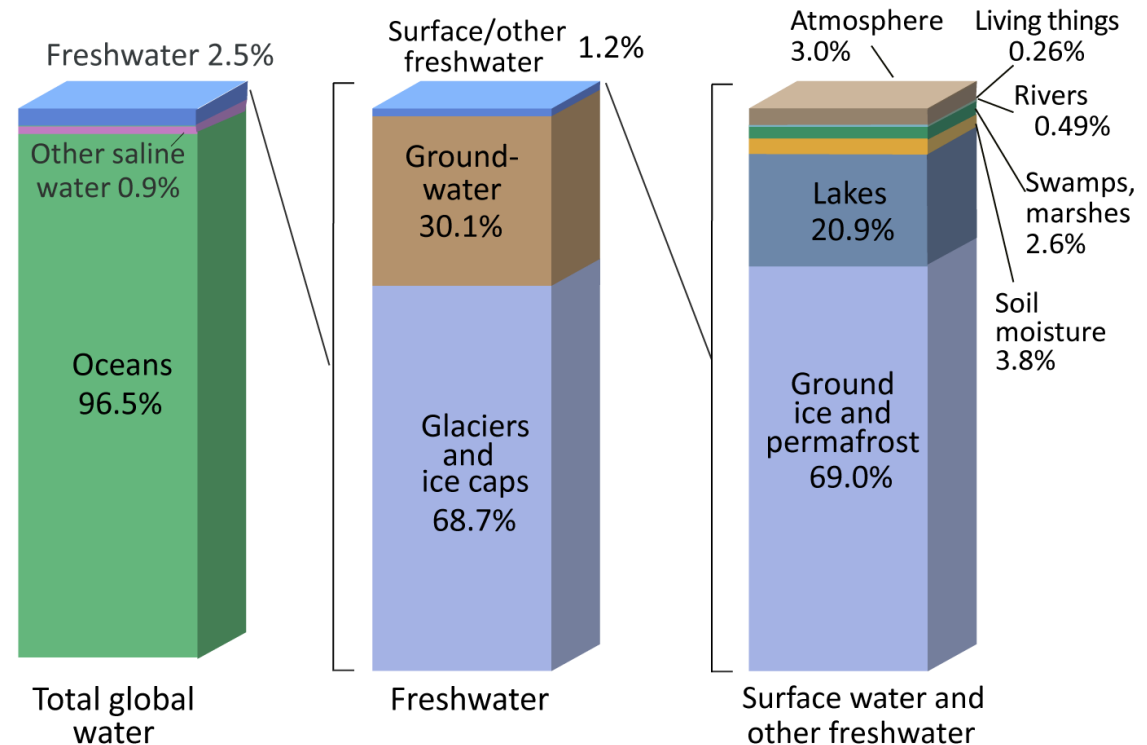
Why protect your source water?

- Reduce risk from potential sources of contamination in a watershed
- Limit/reduce treatment costs
- Meet drinking water standards set by the Environmental Protection Agency (EPA) and Oregon Health Authority (OHA)

[Safe Drinking Water Act](#)

- Protect water quality for drinking, wildlife, and recreational use
- Enhance a water system's resiliency

Where is Earth's Water?

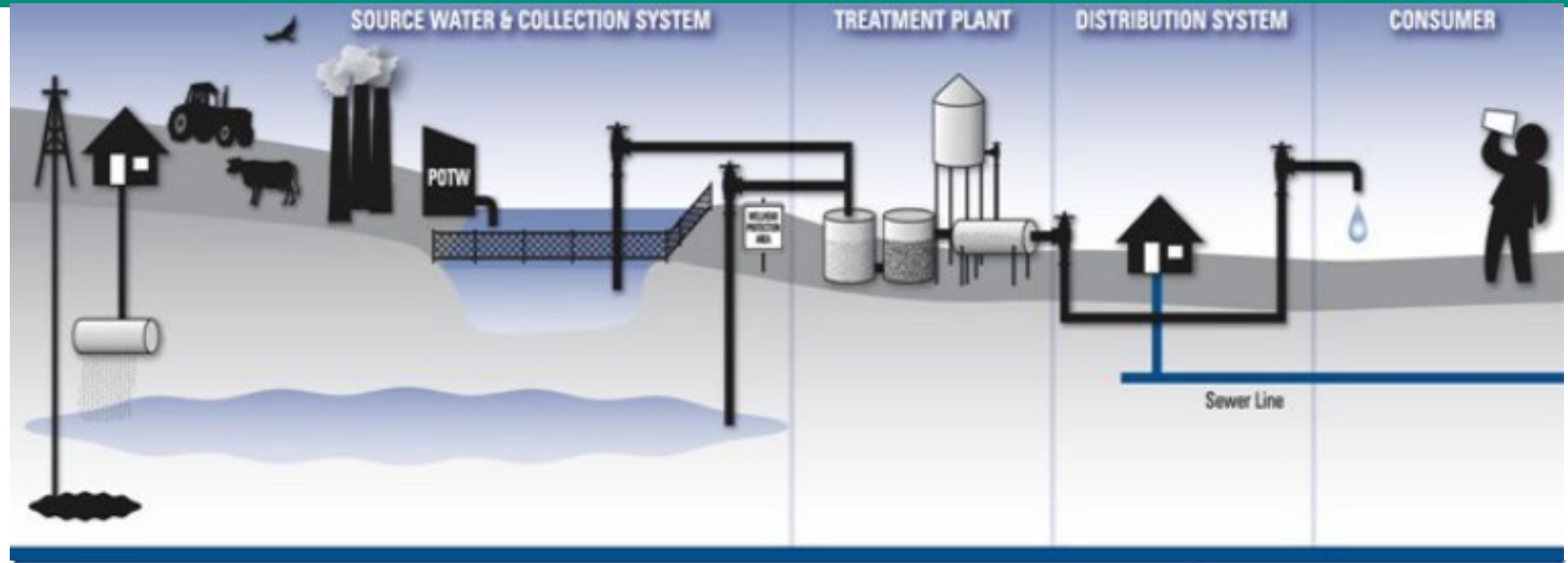


Credit: U.S. Geological Survey, Water Science School. <https://www.usgs.gov/special-topic/water-science-school>
Data source: Igor Shiklomanov's chapter "World fresh water resources" in Peter H. Gleick (editor), 1993, *Water in Crisis: A Guide to the World's Fresh Water Resources*. (Numbers are rounded).

Multi-Barrier Approach

Take-away: Watersheds are the first 'barrier' in the multi-barrier approach to public health – Natural Infrastructure

Cleaner raw water =
lower treatment cost
and fewer risks to public
health



Ecosystems are first line
of defense

SOURCE WATER PROTECTION
reduce contaminant threats

TREATMENT

**MONITORING &
COMPLIANCE**

**COMMUNITY
INVOLVEMENT**

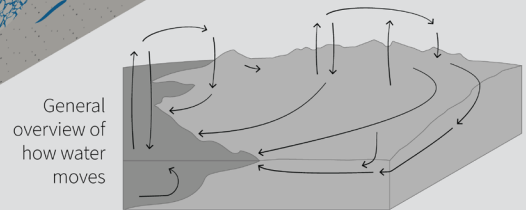
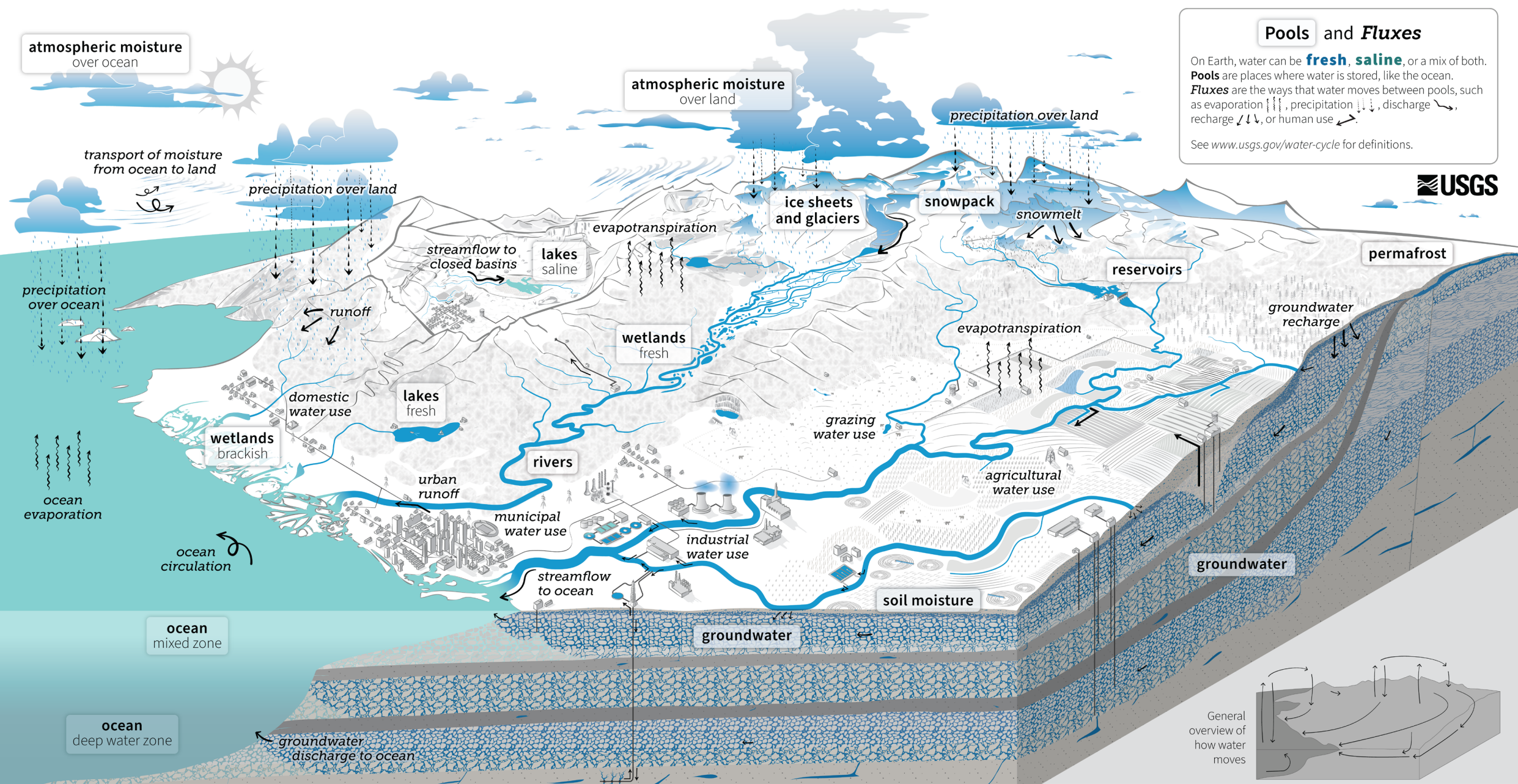
atmospheric moisture
over ocean

atmospheric moisture
over land

Pools and Fluxes

On Earth, water can be **fresh, saline**, or a mix of both. **Pools** are places where water is stored, like the ocean. **Fluxes** are the ways that water moves between pools, such as evaporation ↑↑↑, precipitation ↓↓↓, discharge ↘, recharge ↙↙, or human use ↘.

See www.usgs.gov/water-cycle for definitions.



Source Water Assessment Reports

Completed for Community &
Non-Transient Non-Community

Details on land use and ownership

Maps of nearby water systems and
drinking water source areas

Potential contaminant sources (PCSs),
locations, and risk levels

Susceptibility Analysis

Strategies and resources to help reduce
risks



***Common Land-Use Risk Categories
Addressed in Source Water Assessments***

Source Water Protection Resources

DEQ Drinking Water Protection Interactive Map Viewer

<http://www.oregon.gov/deq/wq/programs/Pages/DWP-Maps.aspx>

Shows most Updated Source Water Assessment results, land use, regulatory databases (including WQ 303(d) listed streams)

Coastal Drinking Water Atlas and Interactive Web Tool

<https://ecotrust.org/drinking-water-data-for-oregon-coast-communities/>

Updated Source Water Assessments (USWA)

<http://www.oregon.gov/deq/wq/programs/Pages/DWPAssessments.aspx>

Source water area/watershed and identification of potential risks

Resource Guides - Surface Water and Groundwater

<https://www.oregon.gov/deq/wq/programs/Pages/dwp.aspx>

Lists of partner organizations, best management practices, links to funds and resources

Water Systems Need Partners

- Public Water Systems have limited resources
- Source water protection not required
- Much of source area is outside of water system jurisdiction
- Watershed restoration/enhancement or groundwater protection not usually their specialty



Benefits of Collaboration

- Broadens community support for conservation and restoration activities
- Enhances regional water quality and land-use planning
- Leverages resources for funding sources that are:
 - ✓ Only available to public water suppliers
 - ✓ Require specific land ownership types
 - ✓ Give higher priority if in drinking water source area



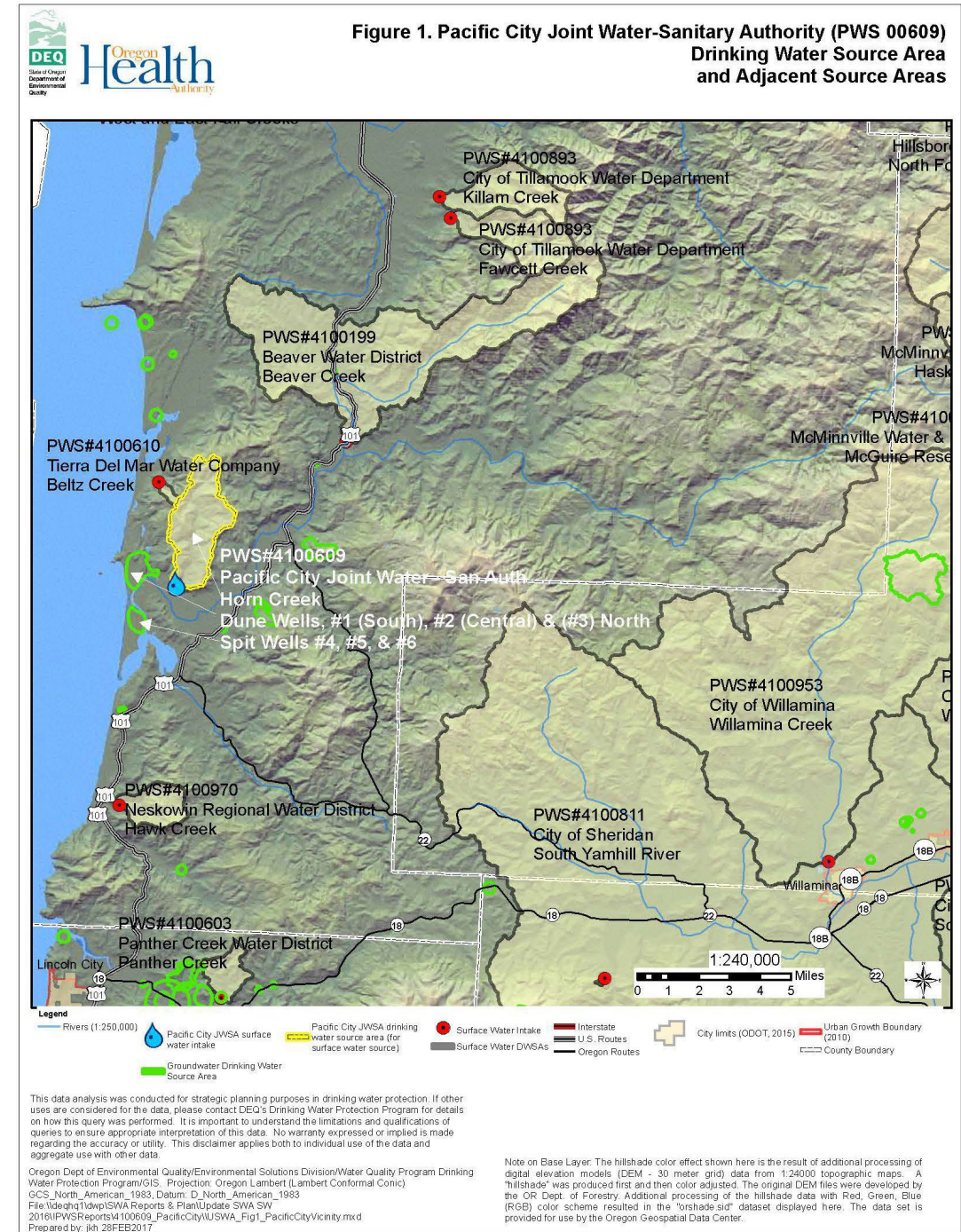
Partnerships

- Land Trusts, Soil and Water Conservation Districts (SWCDs), Watershed Councils, Non-Governmental Organizations (NGOs), and Drinking Water Providers have common goals:
 - Diverse and resilient ecosystems
 - Non-regulatory, voluntary approach to encourage adoption of best practices
 - Similar geographic priority areas and pollutants of concern
 - Address wide-range of issues
 - What's good for fish and aquatic habitat is good for drinking water (and vice versa!)
 - Land Trusts, SWCDs, Watershed Councils, NGOs commonly approach local landowners and are good at outreach!



Next Steps for Partner Organizations

- Tap into DEQ/OHA Resources:
 - Identify drinking water source areas and potential partners
 - <https://www.oregon.gov/deq/wq/programs/Pages/dwp.aspx>
- Updated Source Water Assessments
 - Surface water and groundwater supply areas
 - Vicinity Maps
 - Watershed characteristics (e.g. erosion, landslide, stream crossings)
 - Updated information on regulated sources (from > 20 state and federal databases)
 - Land use/ownership - acres and % of source area
 - Characteristics of the public water system/treatment and monitoring
- Interactive Maps, data and GIS Layers
- Review funding sources



Contact the Drinking Water Protection Team



Oregon Drinking Water Protection Program

<https://www.oregon.gov/deq/wq/programs/Pages/dwp.aspx>

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