Everybody Drinks!

Source Water Protection Planning Resources

Julie Harvey Oregon DEQ Drinking Water Protection Program

November 1 & 3, 2022 – Oregon Land Acquisition and Conservation Workshops

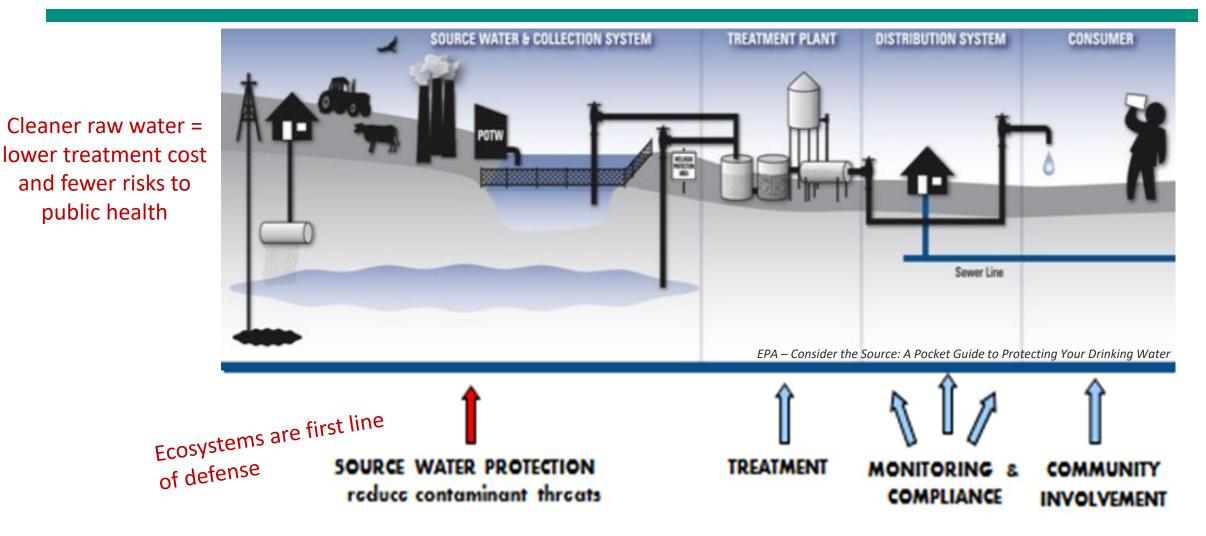


Drinking Water Protection Regulatory Framework

- Joint program between Oregon Health Authority and Department of Environmental Quality focused on public health
- OHA Safe Drinking Water Act implementation
- Treated water must meet Safe Drinking Water Act (SDWA) limits, regardless of source quality
- Source water protection is implemented under the Clean Water Act;
 - If water meets Clean Water Act standards, conventional treatment should be adequate for SDWA requirements



Multi-Barrier Approach





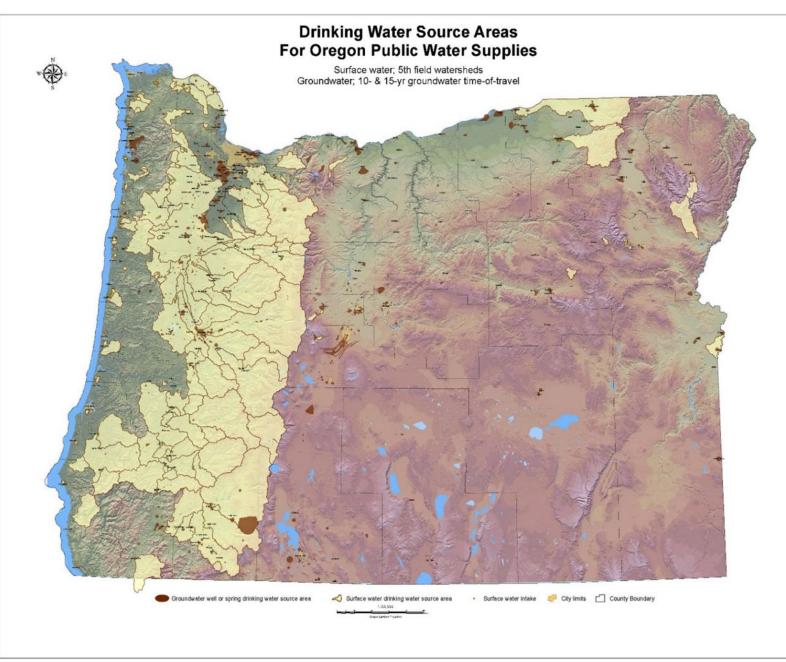
Statewide Drinking Water Providers

Over 2,500 public water systems serve 85% of Oregonians.

PWS serve >25 people or 10 connections.

~160 public water systems have surface water intakes (areas shown in yellow)

Many systems are small - 75% have < 3000 connections (connections = ratepayers)





Source Water Assessment Reports

- Completed for all Community and NTNC water systems
- 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



Surface Water Susceptibility Analysis

Evaluation of:

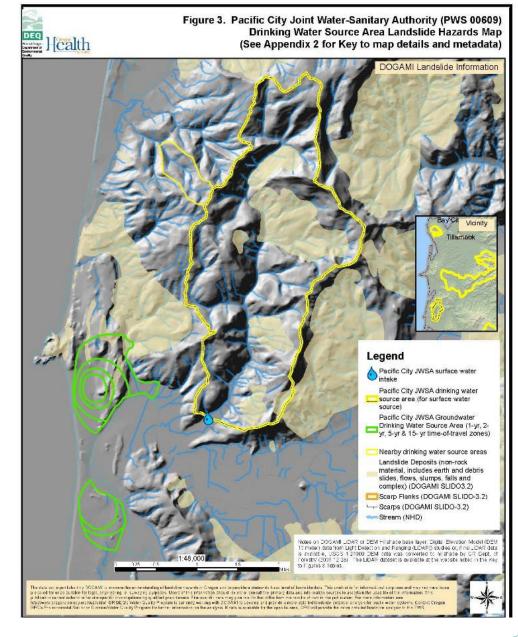
- Erosion
 Potential
- Landslide
 Potential
- Land ownership/use

Can be used to prioritize best management practice and actions

Figure 2b. City of Lowell (PWS 00492) Drinking Water Source Areas with Erosion Potential for Management Activities with Soil Surface Disturbance (See Appendix 2 for Key to map details and metadata) eaend City of Lowell Intake Surface Water Intake 😂 City of Lowell: 8hr Time of Travel to reservoir (10.9mi Buffer, starting 12.1mi upstream of intake) City of Lowell Drinking Water Source Area (including upstream areas) Nearby Drinking Water Source Areas Streams near soils with significant erosion potential. Erosion control measures (BMPs) may be necessary for land management activites that disturb or leave bare soils in these areas. Streams & Lakes (NHD) with significant erosion potential from intensive (>75%) soil surface disturbance (i.e.tilled or bare soils) (NRCS-RUSLE2/ODA-EVI; see Appendix 2 Note 4a). Streams & Lakes (NHD) with significant erosion potential from substantial (50-75%) soil surface disturbance (NRCS off-road/offtrail ratings; see Appendix 2, Note 4b). Streams (NHD) with significant erosion potential (slope>30% using USFS SRI data, NRCS SSURGO data not available; see Appendix 2 Note 4c). this assessment, DEQ used three methods aluating soil erosion potential depending on the e of the land surface, extent of so sturbance and data availability. Streams and akes/reservoirs that have moderate to very severe oil erosion hazard potential within 300 feet o are mapped to provide an estimate where land management activities m pact streams. Erosion control measures (BMPs be necessary in these areas. Maps and dat oil qualities without the 300-foot stream buffe and communities if additional detail eeded for place based planning. S opendix 2 Note 4 for additional information he 8-hour time of travel area is provided as tool for spills or releases at crossings ischarge points to the stream. Focus may need xtend further upstream for contaminants that a ntributed to the stream over long time periods cur frequently. See Note 1, Appendix 2.

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Source Water Protection Resources

DEQ Drinking Water Protection Interactive Map Viewer <u>http://www.oregon.gov/deq/wq/programs/Pages/DWP-Maps.aspx</u> 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) <u>http://www.oregon.gov/deq/wq/programs/Pages/DWPAssessments.aspx</u> Source water area/watershed and identification of potential risks

Resource Guides - Surface Water and Groundwater <u>https://www.oregon.gov/deq/wq/programs/Pages/dwp.aspx</u> Lists of partner organizations, best management practices, links to funds and resources



Water Systems need Partners

- Public Water Systems have limited resources and wear many hats in their community
- 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





Partnerships

- Land Trusts, SWCDs, Watershed Councils, NGOs, and Drinking Water Providers have common goals:
 - Diverse and resilient ecosystems
 - Soil protection, water quality, and health
 - 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!







Partnerships

- Land Trusts, SWCDs, Watershed Councils, NGOs commonly approach local landowners and are good at outreach!
- Water systems may need to evaluate rate structure and communicate watershed goals with ratepayers
- Communicate with landowners and rate payers early and often







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 drinking water nexus
 - ✓ Give higher priority if in drinking water source area





Drinking Water Source Protection Grants/Loans

DW Source Protection Fund ~\$200,000/ year total (may be \$400,000 in 2023)

- Grants: Up to \$50,000* per public water system to reduce risk in source area - no match required. (*\$50,000 in 2022, TBD for 2023)
- Loans: Up to \$100,000 per project, low interest. i.e., land acquisition or incentive-based protection

Purpose: To reduce risk risks within the drinking water source area. Examples:

Land conservation planning inc. property appraisals	Legal assessment
Forest inventory and cruise	Forest/roads management planning
Transactional, financial, or management modeling	Restoration of sensitive riparian areas and roads
Community outreach and engagement	Lots others!



DW Source Protection Fund – Overview

Public Water System must apply

- Community and Nonprofit Non-Community water systems
- Must have completed Source Water Assessment
- Can only receive in two consecutive years
- ✓ Accept Letters of Interest January through March
- \checkmark Awarded projects must spend money within 2 years to avoid forfeiture
- \checkmark Water systems can collaborate on a regional (joint) project and combine funds
- \checkmark Emergency grants for source water threats that arise outside the LOI submission deadline.
- ✓ Search: OHA Drinking Water Source Protection <u>https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/SRF/Pages/</u> <u>spf.aspx</u>



Drinking Water Providers Partnership



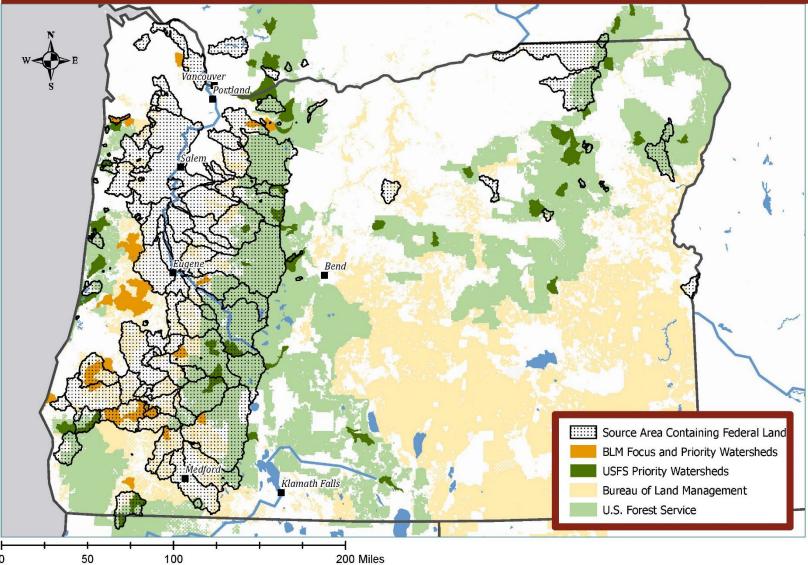
- Public and private organizations pooling funds to improve health of drinking water watersheds and aquatic life benefit
- Supports local partnerships between downstream drinking water providers and upstream landowners and restoration practitioners.



Drinking Water Providers Partnership

- Must be a drinking water source area with a federal (USFS/BLM) nexus
- Multiple types of eligible applicants
 - Tribal, local, state, or federal governments, educational institutions, public water systems, non-profit organizations, watershed councils, landowners, soil and water conservation districts

Surface Water Source Areas in Oregon



Drinking Water Providers Partnership



- \$400,000 to \$600,000/year available (projects up to \$50,000)
- Projects that are a good fit for Source Protection Funds are referred to state program
- Awarded projects must be completed by end of following fiscal year (for Federal Funds)

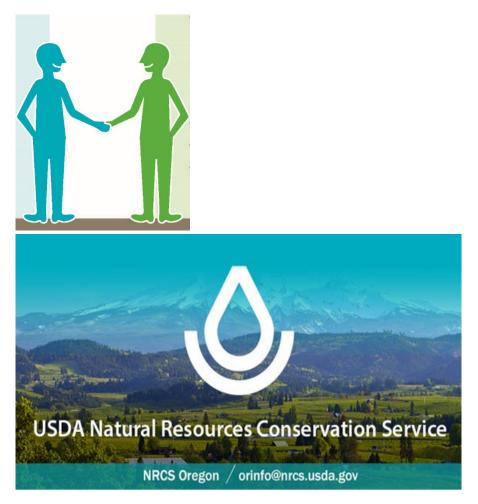
✓ Proposals due January 7, 2023

https://www.workingwatersgeos.org/drinking-water-providers-partnership



Partnering with NRCS

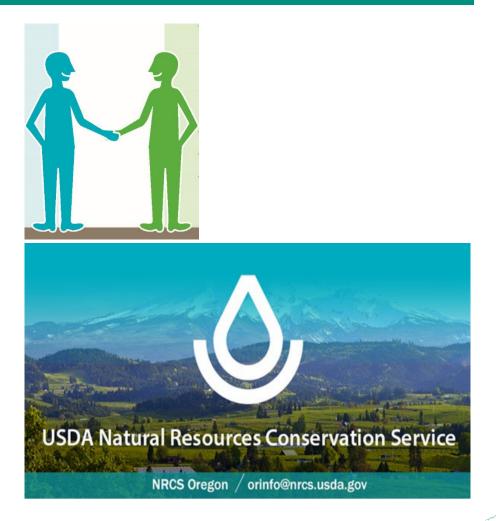
- NRCS offers a variety of programs to help farmers, ranchers, family forests, Tribes, and conservation partners perform voluntary conservation on private lands.
- 2018 Farm Bill implemented new focus on Source Water Protection Areas - National Water Quality Initiative (NWQI)
- Funding for detailed watershed assessment and an outreach strategy to address agricultural-related impacts to source water quality.





Partnering with NRCS

- Begin now to discuss with NRCS how to tie potential NWQI watersheds into the locally led Conservation Implementation Strategy process
- Source water protection SWCDs, Watershed Councils, utilities and other partners should contact their local NRCS District Conservationist to discuss potential projects
- DEQ can provide information for delineated drinking water source areas





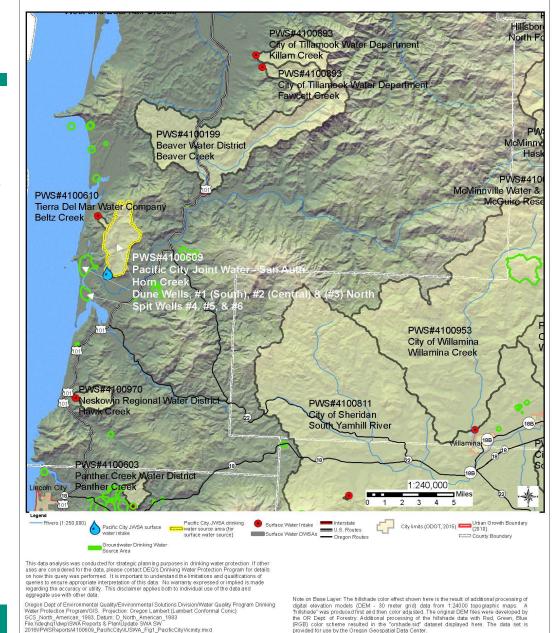
Next Steps for Partner Organizations

- Tap into DEQ/OHA Resources:
 - Identify drinking water source areas and potential partners
 - <u>https://www.oregon.gov/deq/wq/programs/Pages/dwp.aspx</u>
- 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 for good fits see "Resource Guides"



renared by: jkb 28EEB201

Figure 1. Pacific City Joint Water-Sanitary Authority (PWS 00609) Drinking Water Source Areaa and Adjacent Source Areas



Questions?



Oregon Drinking Water Protection Program https://www.oregon.gov/deq/wq/programs/Pages/dwp.aspx Julie Harvey –DEQ Program Coordinator julie.harvey@deq.oregon.gov Laura Johnson - Western Region Tessa Edelen - Northwest & Eastern Region Alyssa Leidel – Statewide Technical Assistance Ratna Adhar – GIS Specialist

