Oregon Regulation Update

PNWS AWWA Section Conference

Spokane, Washington

May 2, 2024

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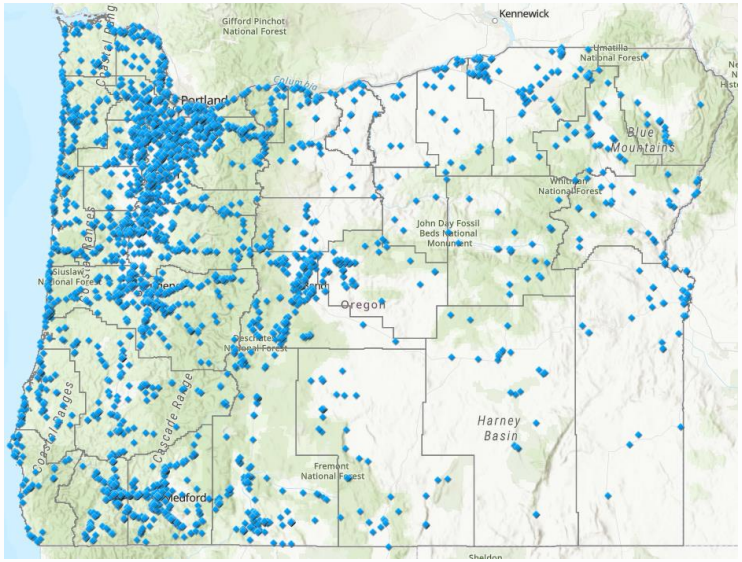
OHA-Drinking Water Services

Outline

- Regulation update
  - Emerging contaminants
  - Cybersecurity
  - Lead and copper
- Program updates
  - Recruitment
  - Funding resources
  - Miscellaneous program updates

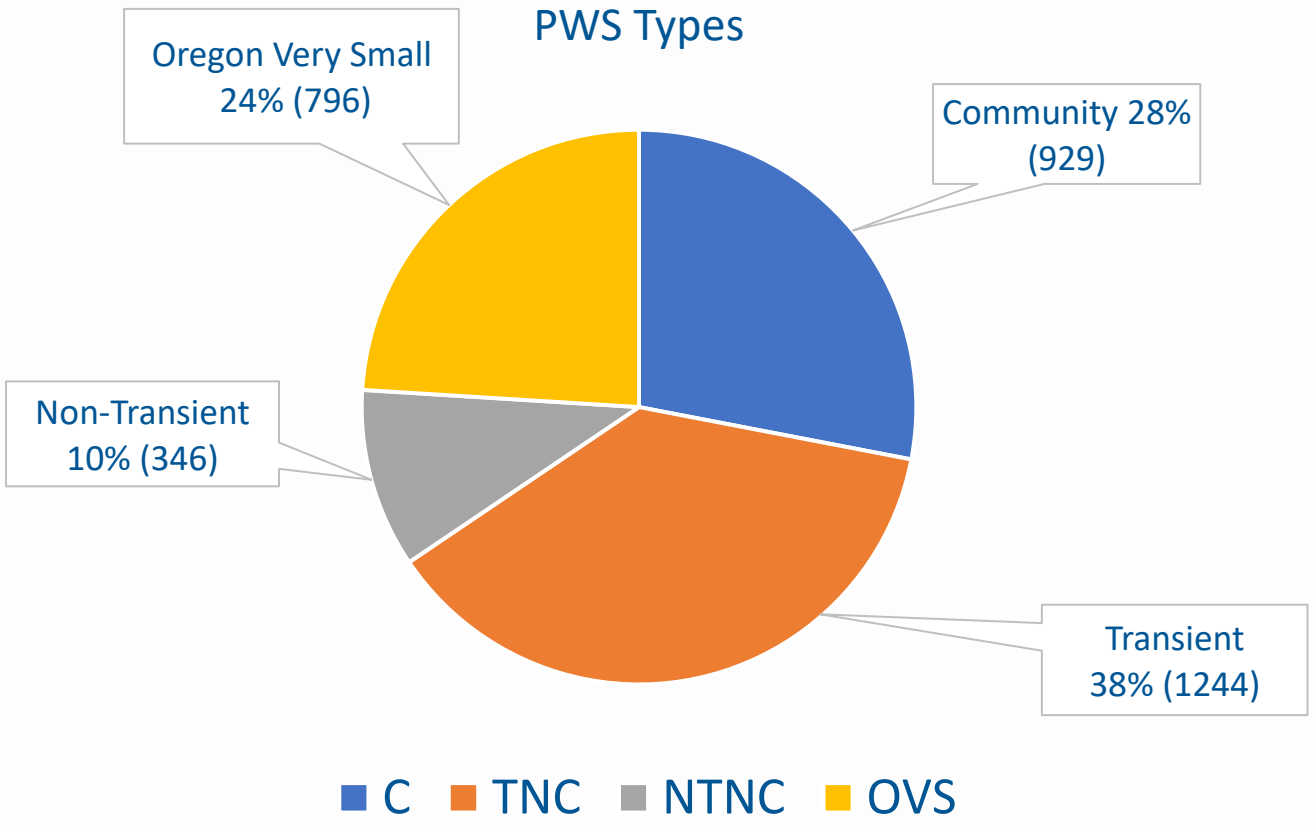
DWS regulatory authority

- 2,500 federally classified public water systems
- 800 Oregon Very Small (OVS) systems
- 2,700 groundwater systems serving < 3,300
  - Regulated by local public health authorities and Department of Agriculture



Public water system types

Total = 3,315



Emerging contaminants

- Naturally occurring or manmade chemicals present in drinking water
- Known or suspect risk to human health
- Subject to federal regulatory oversight
  - Unregulated Contaminant Monitoring Rule (UCMR)
  - Per- and Polyfluoroalkyl Substances (PFAS) *New*
  - Manganese
  - Cyanotoxins

UCMR 5

- EPA's Fifth Unregulated Contaminant Monitoring Rule
- Regulatory process decides frequency and detection levels in nation's drinking water
- Requires monitoring for 29 PFAS chemicals and lithium
- Sampling to occur 2023 - 2025
- CWS & NTNC PWSs serving ≥ 3,300 people
- A subset of PWSs <3300 are required to monitor
- EPA pays for analysis for systems serving < 10,000

UCMR 5 in Oregon

- Sampling efforts
  - Between January 2023 and January 2024
  - 53 of 127 PWSs in Oregon have sampled
  - 6 systems detected PFAS
  - 4 systems detected lithium
- Response
  - Follow-up with PWSs that have UCMR 5 detections
  - Provide information on how results compare to state health advisory levels and federal regulations
  - Discuss public notification, consumer reporting, and available funding

Final PFAS drinking water regulation

- EPA released final National Primary drinking water regulation for 6 PFAS chemicals on April 10, 2024
- Establishes individual MCLs for 5 PFAS and a hazard index MCL for a mixture of 4 PFAS
  - States have 2 years to adopt
  - PWSs have 3 years to complete initial monitoring (by 2027)
  - PWSs have 5 years to comply with PFAS MCLs (by 2029)

Chemical	Maximum Contaminant Level Goal (MCLG)	Maximum Contaminant Level (MCL)
PFOA	0	4.0 ppt
PFOS	0	4.0 ppt
PFHxS	10 ppt	10 ppt
HFPO-DA (GenX chemicals)	10 ppt	10 ppt
PFNA	10 ppt	10 ppt
Mixture of two or more: PFHxS, PFNA, HFPO-DA, and PFBS	Hazard Index of 1	Hazard Index of 1

*Compliance is determined by running annual averages at the sampling point

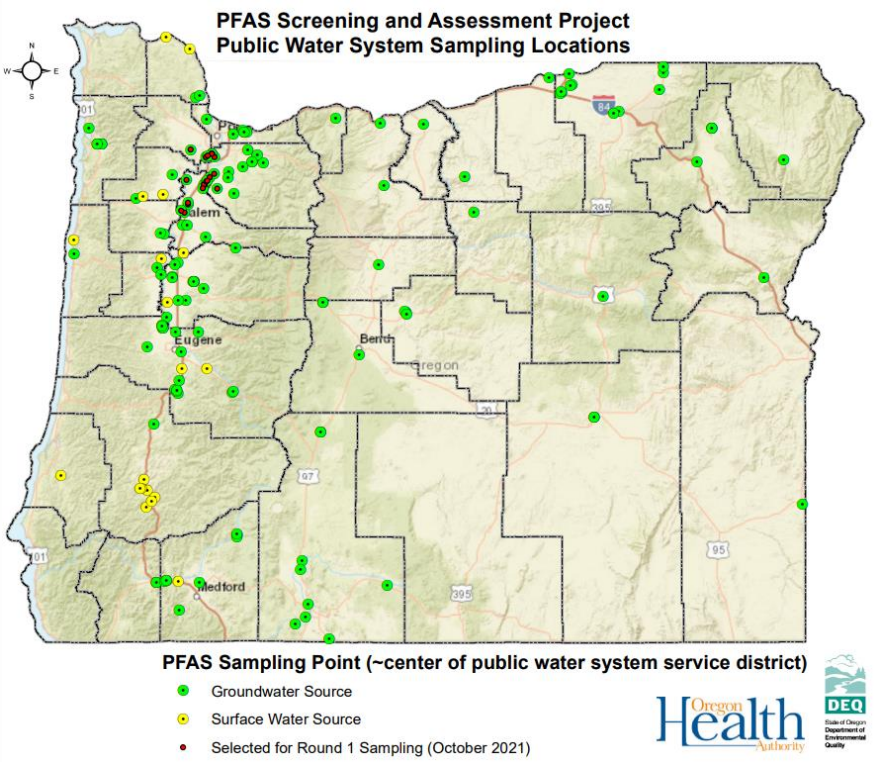
Oregon's drinking water HALs for PFAS

- Oregon established health advisory levels (HALs)
- 4 PFAS compounds commonly found in humans
- Levels set to protect all persons as well as sensitive populations
- Includes short and long-term exposures

PFAS Compound	Oregon Drinking Water Health Advisory Levels (HALs)* parts per trillion (ppt) or nanograms per liter (ng/L)
PFOS	30 ppt
PFOA	30 ppt
PFNA	30 ppt
PFHxS	30 ppt

Oregon's PFAS sampling projects

- 2021-2022
  - 143 PWSs targeted
  - Sample collection and analyses by DEQ
  - No cost to systems
  - 7 samples at 5 PWSs had detections
- 2023 resampling
  - 35 samples at 31 PWSs
  - 17 sources at 16 PWSs had detections



Oregon's PFAS sampling results

- PFAS sampling projects, UCMR, and voluntary monitoring
- Results as of 4/10/24:
  - 27 PWSs with measurable PFAS detections
    - 41 groundwater wells, 1 surface water source
  - 2 of 27 PWSs exceed Oregon's HALs and issued advisories
  - 20 of 25 PWSs subject to new rule have levels above EPA MCLs
- 11 different PFAS chemicals detected at PWSs
  - Primarily PFOS
- PFAS resolution: technical and funding assistance
  - Treatment options or identify new water source

Manganese

- Naturally occurring element
- EPA has established Health Advisory Levels:
  - 0.3 mg/L over 10 or more days for infants
  - 0.3 mg/L lifetime exposure for general population
  - 1 mg/L one-day exposure for general population

- Historic data show elevated levels of manganese in some OR PWS wells
  - If treating or blending, sample to verify result
  - Follow up with PWS

Cyanotoxins in Oregon

- 2018 Salem, OR cyanotoxin event prompted need for emergency rules and now permanent rules
  - Established health advisory levels (HALs)
- Oregon developed regulations for PWSs using surface water sources susceptible to harmful algae blooms
  - Routinely testing for two regulated cyanotoxins
  - Notify public about test results

Cyanotoxin	For Vulnerable People (µg/L or ppb)	For Anyone (µg/L or ppb)
Total Microcystins	0.3	1.6
Cylindrospermopsin	0.7	3

Cyanotoxins monitoring

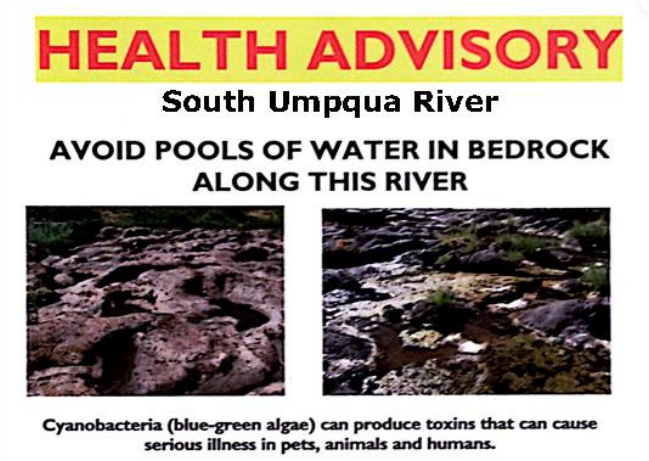
- Monitoring applies to approximately 60 water suppliers with susceptible surface water sources
- Raw water sampling every 2 weeks (May-Oct)
- Detects trigger increase in sampling of raw and finished water
- Confirmed detects in finished water above HALs requires issuing a “do-not-drink” advisory
  - Health effects include upset stomach, diarrhea, vomiting, long-term liver/kidney damage

Cyanotoxins monitoring

- In 2023, microcystin detected in 6 raw water microcystin detections at 3 water systems
  - Columbia River, Lake Selmac
- Normally, on average 33 raw water Microcystins are detected in a season (May-Oct)
- No entry point detections since 2019
- Potential impacts in watersheds
  - Low precipitation years
  - Higher temperatures
  - Wildfires

Cyanotoxins - additional efforts

- DEQ received funding to conduct testing 4 times a year
- Four cyanotoxins at 40 water bodies statewide
- Prioritize highly used recreational water bodies
- Testing to start in 2024
  - Normal bloom season (May-Oct)
- Some water bodies also serve PWSs



Cybersecurity

- Systems using operational technology should take steps to increase cybersecurity. At minimum:
  - Multifactor authentication
  - Update software
  - Use strong passwords
  - Phishing awareness
- Report cybersecurity breaches
- Cybersecurity is being included in Emergency Response Plan requirements

CYBERSECURITY & INFRASTRUCTURE SECURITY AGENCY

Cybersecurity

- March 28, 2024, White House letter to state governors
- Requesting statewide cybersecurity action plan by June 28th
- Plan must describe state's approach to identify and address cybersecurity vulnerabilities for drinking water and wastewater systems
- Decide which PWSs the action plan would cover
- Establish process to engage PWSs in developing plans

CYBERSECURITY & INFRASTRUCTURE SECURITY AGENCY

Emergency preparedness

- Identify risks and vulnerabilities most likely to impact communities
- Emergency response plan – update every 5 years
- Steps and procedures to improve resilience
  - Physical infrastructure and cybersecurity
  - Higher risk contaminant sources in watersheds
  - Access to auxiliary power and alternate water sources
- Maintain good communication with customers
  - Multiple languages, reach vulnerable populations

Lead and Copper Rules

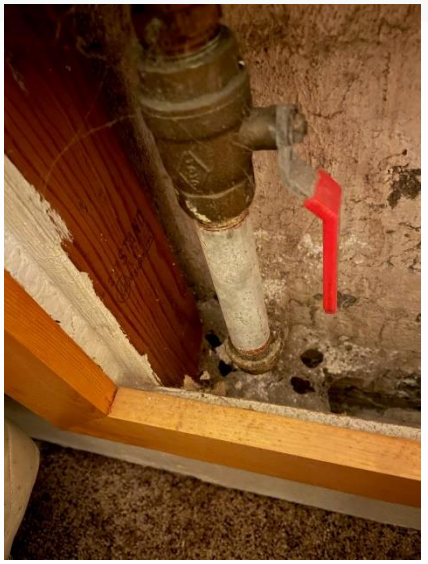
- LCR Revisions finalized in 2021
- LCR Improvements proposed December 2023
  - Waiting for final rule
- Service line inventory focus
  - Initial inventory received by October 16, 2024
  - Categorize service line materials
    - Lead, non-lead, galvanized requiring replacement (GRR)
  - Identify and remove lead service line or GRR
- Outreach and education
  - Consumer notices and inventory accessibility

Previous efforts to certify no lead

- Oregon banned lead in PWSs July 1, 1985
  - PWSs had to certify they had no lead, or
  - Be on a schedule to remove all lead components
- Non-evidence-based methods allowed at that time
  - Operator knowledge / history
- Public service lines included in inventory

Inventory methodologies

- Records review
- Installation date and size
  - Any lines constructed after January 1986 is considered non-lead
  - Any line 2 inches or larger is considered non-lead
- Visual inspection
  - Customer or PWS staff
- Physical inspection / excavation
- Statistical approach



Inventory methodologies

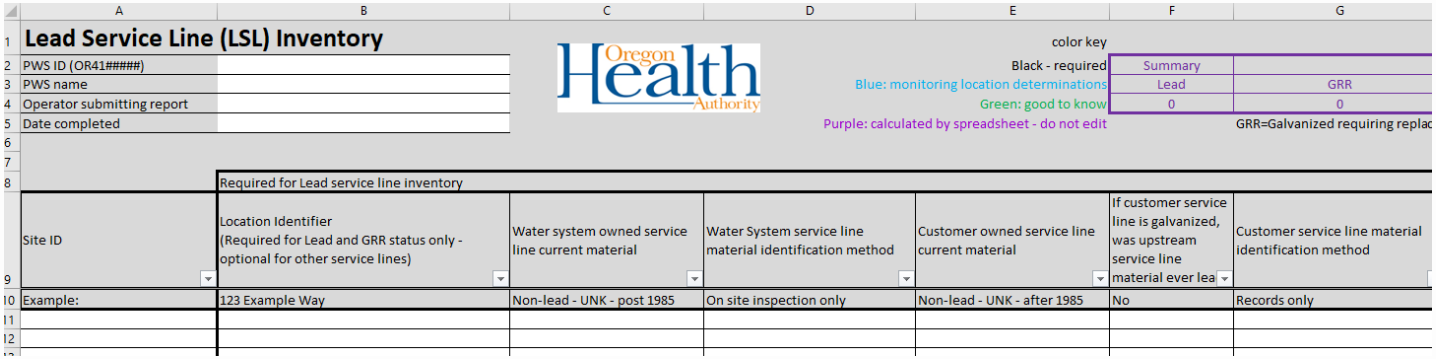
- Statistical approach
- If no known LSLs, PWSs can verify statistically none are present within unknown group:
  - Use 95% confidence interval
  - Flat percentage for small systems
- Physical verification needed for 95% confidence
  - Sites to excavate must be randomly chosen
- Use statistical method as last method to determine materials

Statistical Guidance for Evaluating Unknown Service Lines - *Updated April 2024* (for Community public water systems only)

Update includes revised Appendix A (number of lines requiring inspection).

Service line inventory reporting

- Inventory not summary data
- Use Oregon's template/spreadsheet
- Complete required elements section
- Include optional elements
  - Tap sample siting, others
- Electronic submittal process via email or data portal



	A	B	C	D	E	F	G
1	**Lead Service Line (LSL) Inventory**				color key		
2	PWS ID (OR41#####)				Black - required	Summary	
3	PWS name				Blue: monitoring location determinations	Lead	GRR
4	Operator submitting report				Green: good to know	0	0
5	Date completed				Purple: calculated by spreadsheet - do not edit		GRR=Galvanized requiring replac
6							
7							
8		Required for Lead service line inventory					
9	Site ID	Location Identifier (Required for Lead and GRR status only - optional for other service lines)	Water system owned service line current material	Water System service line material identification method	Customer owned service line current material	If customer service line is galvanized, was upstream service line material ever lea	Customer service line material identification method
10	Example:	123 Example Way	Non-lead - UNK - post 1985	On site inspection only	Non-lead - UNK - after 1985	No	Records only
11							
12							

Service line inventory assistance

- Free to systems serving <10,000 people
- Training and outreach resources
  - Records review
  - Records compilation
  - Develop strategy for identifying unknowns
  - Assistance with reporting
  - Does not include physical excavation

Program update - Recruitment

- Section Manager: Samina Panwhar
- Currently 41 staff
- Recruitment of 5 new positions (BIL)
  - Four positions approved by legislature
    - Technical specialist to develop and rank projects
    - Analyst to administer funding and subsidies
    - Data analyst to help identify needs
    - Fiscal analyst to track funding
  - New manager position to oversee funding

Program update - Funding

- Drinking Water State Revolving Fund
- Low-cost loans to community & nonprofit non-community water systems
- Planning, design and construction of drinking water infrastructure improvements

Oregon's "Base" DWSRF & BIL Appropriations (2022 - 2026)								
Fiscal Year		"Base" DWSRF	Needs Survey Rate (%)	General Supplemental	Needs Survey Rate (%)	Lead Service Line Replacement	Needs Survey Rate (%)	Emerging Contaminants	Needs Survey Rate (%)
2022		$ 9,220,000	1.32%	$ 23,673,000	1.32%	$ 37,300,000	1.32%	$ 9,940,000	1.32%
2023		$ 7,428,000	1.50%	$ 31,672,000	1.50%	$ 28,650,000	1.00%	$ 11,493,000	1.50%
2024		$ 7,011,000	1.50%	$ 34,575,000	1.50%	$ 28,650,000	1.00%	$ 11,493,000	1.50%
2025	Forecast	TBD*	1.50%	$ 34,575,000	1.50%	$ 28,650,000	1.00%	$ 11,493,000	1.50%
2026	Forecast	TBD*	1.50%	$ 34,575,000	1.50%	$ 28,650,000	1.00%	$ 11,493,000	1.50%
Total		$ 23,659,000		$ 159,070,000		$ 151,900,000		$ 55,912,000	

** TBD - "Base" DWSRF allotment is based on the rate of the annual national DWSRF appropriation after CDS (earmarks) have been removed first*

*** 2024 appropriation for LSLR is still TBD and may change*

Bilateral Infrastructure Law funding: Base and Supplemental

- Base funds reduced from ~$9.2 M to $7 M due to congressional directed spending
  - Subsidy determined case by case
- Supplemental is ~$34 M for 5 years
  - 49% must be provided as loan forgiveness (grant) to disadvantaged communities
- Letter of Interest submittal by January 15th each year
- PWSs have already requested $160 Million
  - Prioritizing small, disadvantaged systems with compliance issues

BIL funding: Emerging contaminants

- Prioritizing PFAS
- 100% grants
- 25% of funds must be given to disadvantaged communities or PWSs serving < 25,000 people
- Includes contaminants with a HAL, not MCL
  - Cyanotoxins, manganese
- Approximately $11 Million for 5 years
- Set-asides can be used to develop future projects

BIL funding: LSL replacement

- Can be used to replace Lead or GRR service lines
- Can be used for 3rd party to conduct inventory work
- ~$28.6 Million for 5 years
  - 49% must be provided as loan forgiveness (grant) to disadvantaged communities
- If lead SLs are found, downstream service line must also be replaced
- State set-asides can be used to develop inventories
  - Up to 31% of submitted LSL replacement projects
- Oregon did not apply for first year funds (no projects)

Other funding

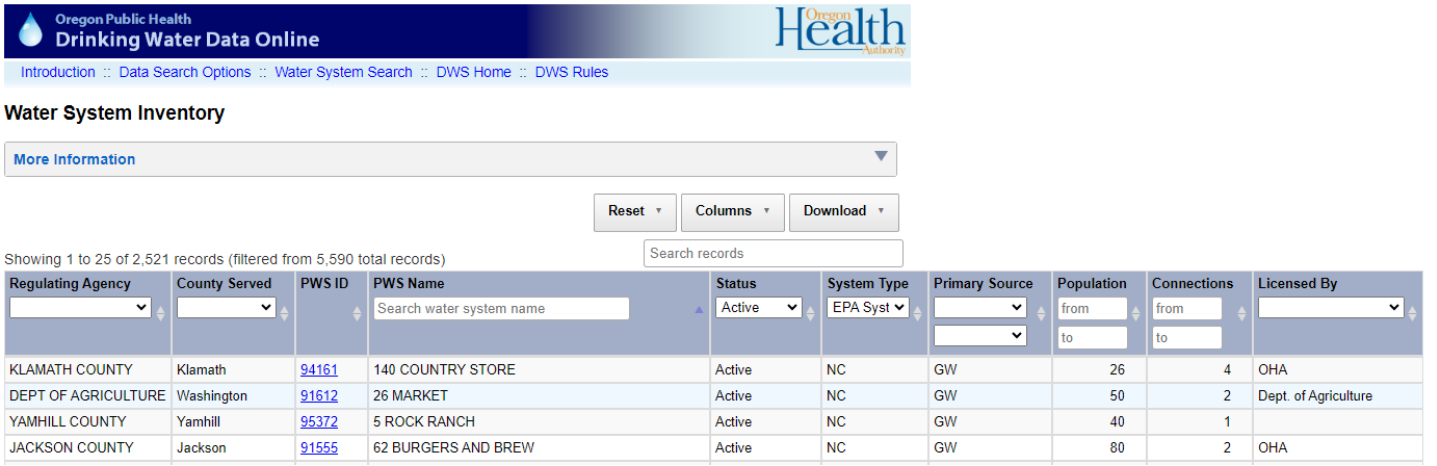
- EC SDC grant ~ $10M
  - Emerging contaminants
  - Small disadvantaged communities
  - 100% grant
- WIIN/SUDC grant < $1M
  - Small, out of compliance, disadvantaged communities
  - 100% grant
- WIFIA funding
  - ~$6.5 billion for water, wastewater, and stormwater projects
  - Generally, for large projects
- Assistance applying for funding is available

Program strategies: Upstream approach

- Capacity assessment
  - Identify disadvantaged PWSs
  - Focus on technical, managerial, and financial capacity
  - Target outreach to PWSs most in need
- Source water protection
  - Identify potential contaminant sources in protection areas
  - Target outreach to implement strategies to reduce risk
  - Incorporate protection into emergency response planning

Program strategies: Upstream approach

- Improving data accessibility
- Oregon's Drinking Water Data Online
  - Individual for water systems
  - Summarized water system data
  - Special projects (PFAS, cyanotoxins, wildfire VOCs)



Oregon Public Health
Drinking Water Data Online

Introduction :: Data Search Options :: Water System Search :: DWS Home :: DWS Rules

Water System Inventory

More Information

Reset | Columns | Download

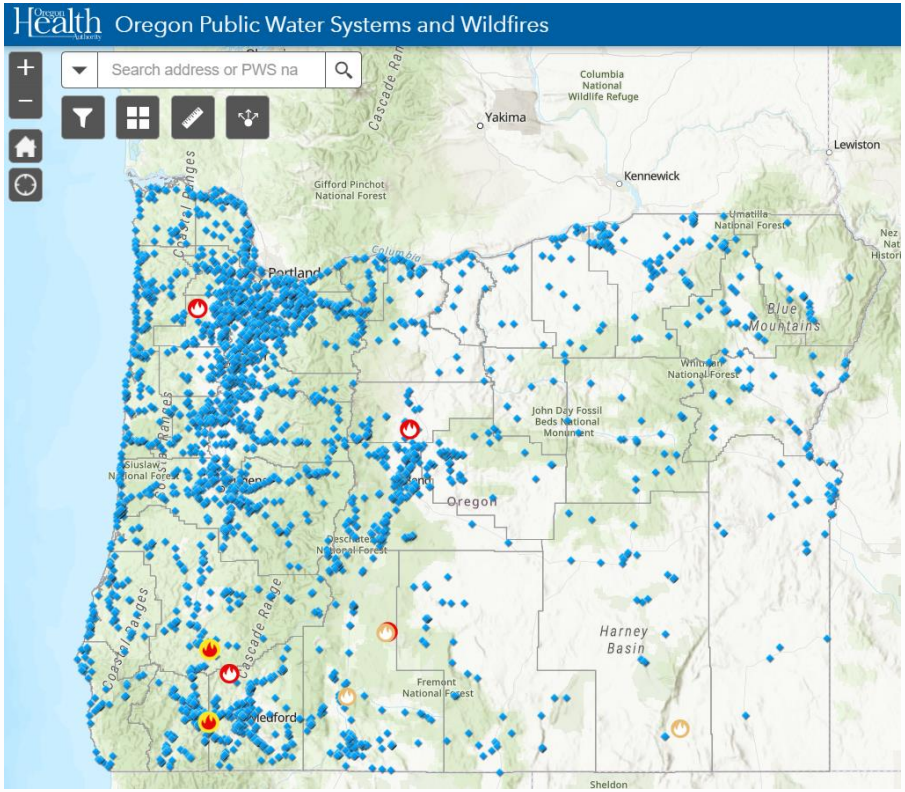
Search records

Showing 1 to 25 of 2,521 records (filtered from 5,590 total records)

Regulating Agency	County Served	PWS ID	PWS Name	Status	System Type	Primary Source	Population	Connections	Licensed By
			Search water system name	Active	EPA Syst		from / to	from / to	
KLAMATH COUNTY	Klamath	94161	140 COUNTRY STORE	Active	NC	GW	26	4	OHA
DEPT OF AGRICULTURE	Washington	91612	26 MARKET	Active	NC	GW	50	2	Dept. of Agriculture
YAMHILL COUNTY	Yamhill	95372	5 ROCK RANCH	Active	NC	GW	40	1	
JACKSON COUNTY	Jackson	91555	62 BURGERS AND BREW	Active	NC	GW	80	2	OHA

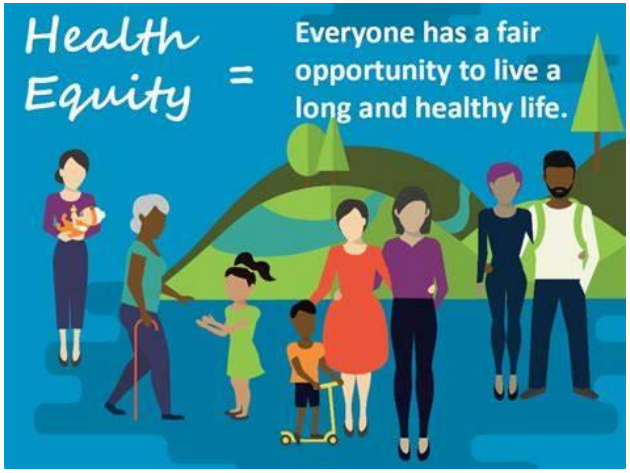
Program strategies: Upstream approach

- Map resources
  - Drinking Water Advisories
  - ORELAP Accredited Labs
  - Public Water Systems

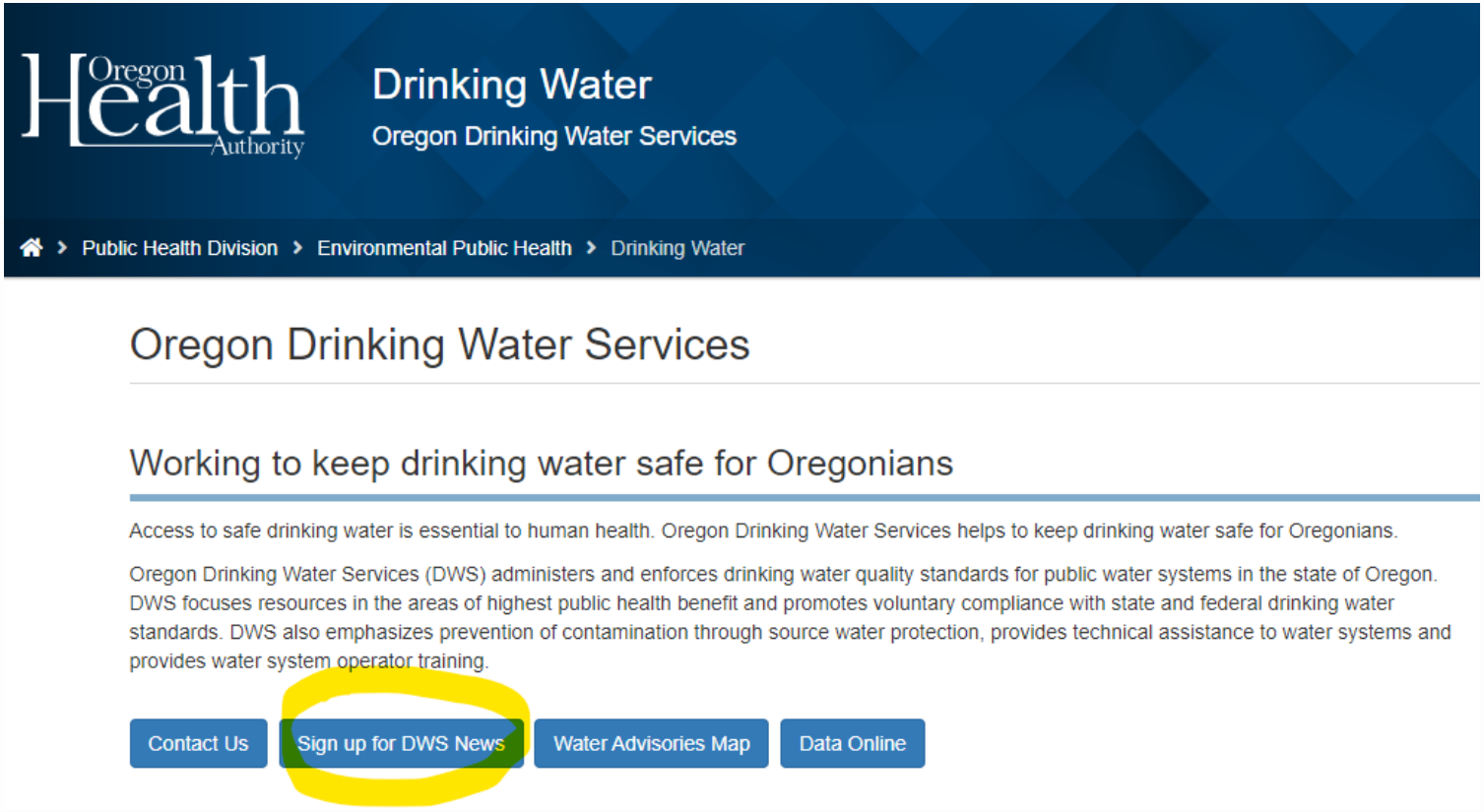


Oregon's goal - Health equity

- DWS contribution to eliminating health inequity by 2030:
  - Identify areas facing drinking water insecurity
  - Proactive outreach
  - Technical and financial assistance
  - Encouraging consolidation and regionalization
  - Public notice templates in multiple languages



Subscribe to DWS listserv



Thank you.

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