



OREGON OFFICE OF EMERGENCY MANAGEMENT



Oregon Drought Response

OHA DWS Spring Training

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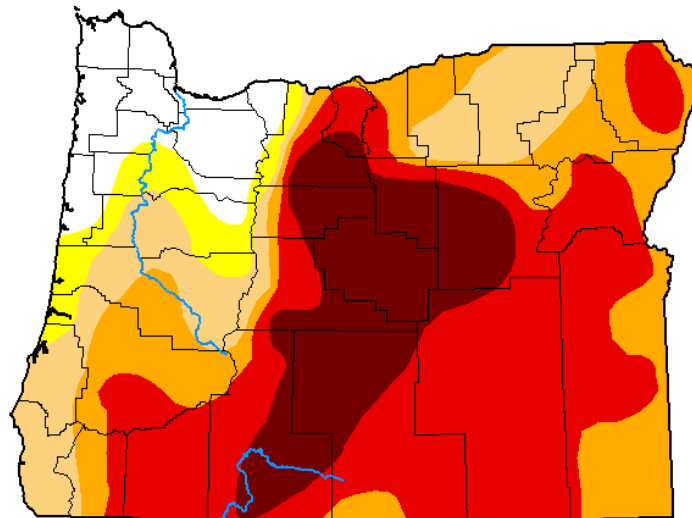
Objectives

- Discuss drought outlook and impacts throughout Oregon
- Review the Emergency Management structure in Oregon
- Explain the ongoing drought response in Klamath County
- Discuss available resources from USDA



US Drought Monitor

U.S. Drought Monitor Oregon



April 26, 2022

(Released Thursday, Apr. 28, 2022)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	9.08	90.92	86.14	72.31	53.12	17.30
Last Week 04-19-2022	9.08	90.92	86.14	72.31	53.12	17.30
3 Months Ago 01-25-2022	4.68	95.32	88.23	74.05	42.05	16.22
Start of Calendar Year 01-04-2022	4.16	95.84	89.75	75.37	50.84	17.27
Start of Water Year 09-28-2021	0.00	100.00	100.00	96.47	72.10	26.59
One Year Ago 04-27-2021	2.79	97.21	77.74	47.17	14.12	2.22

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

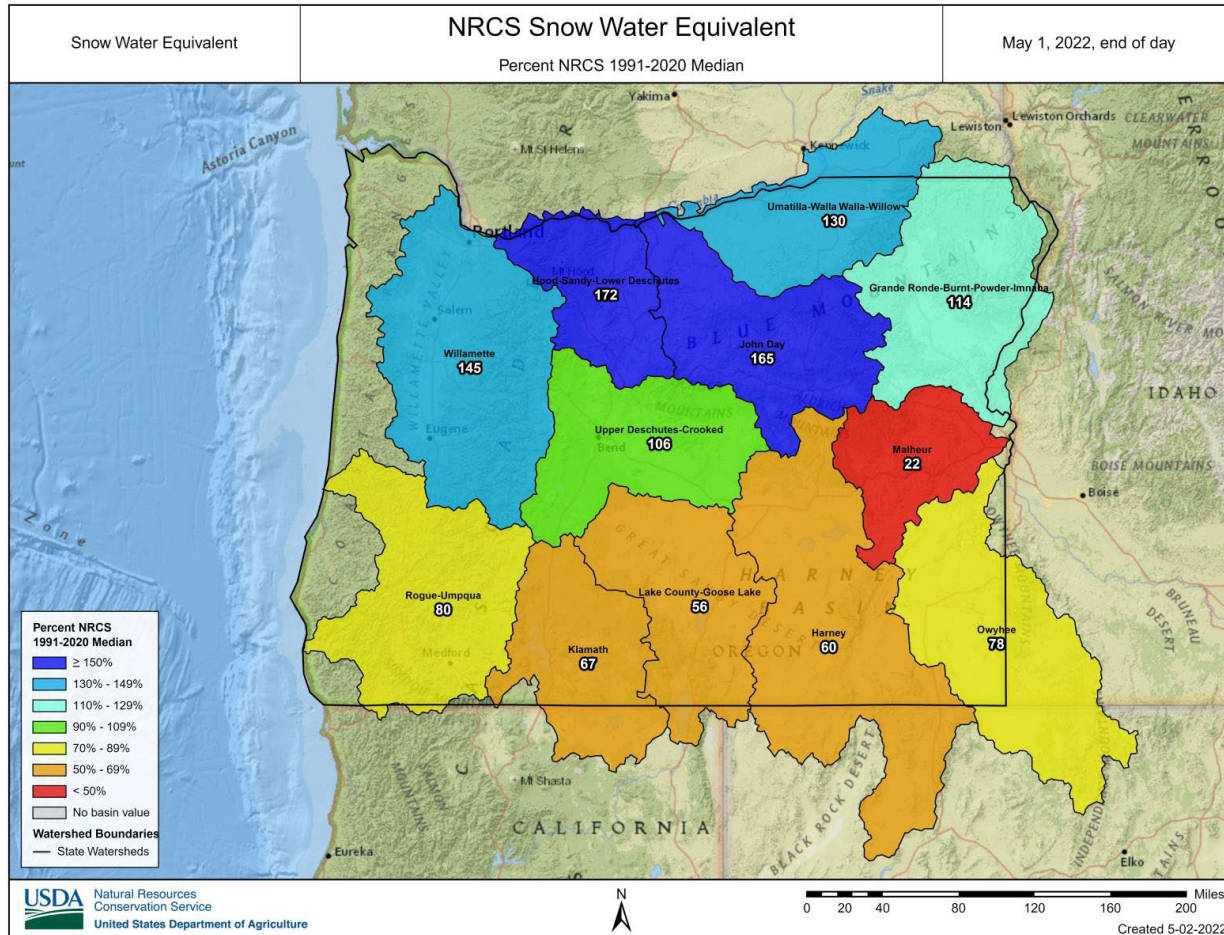
Brad Rippey
U.S. Department of Agriculture



droughtmonitor.unl.edu



Snow Water Equivalent

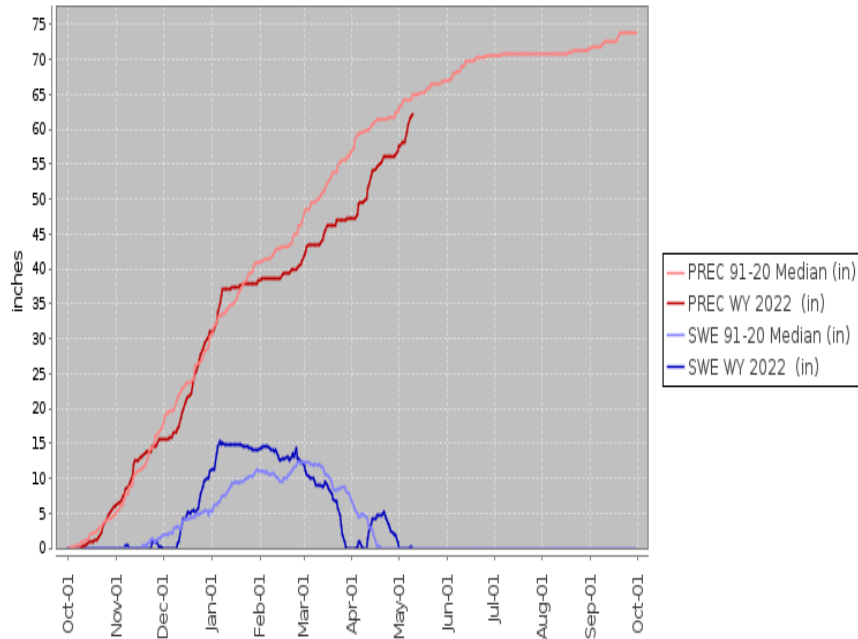




Water year 2022 National Weather and Climate Center

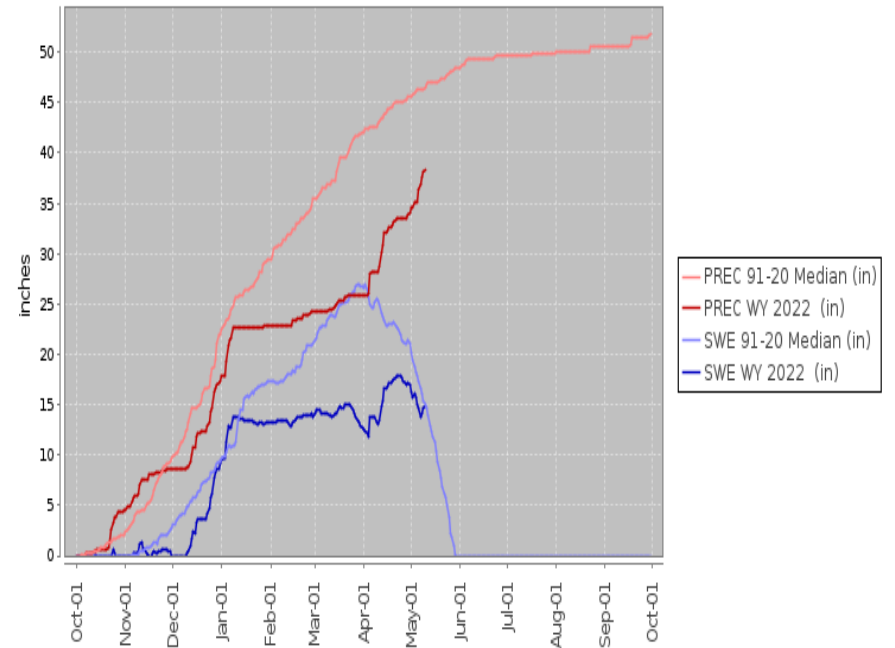
Santiam Pass

Station (733) WATERYEAR=2022 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision
Tue May 10 10:04:13 GMT-08:00 2022



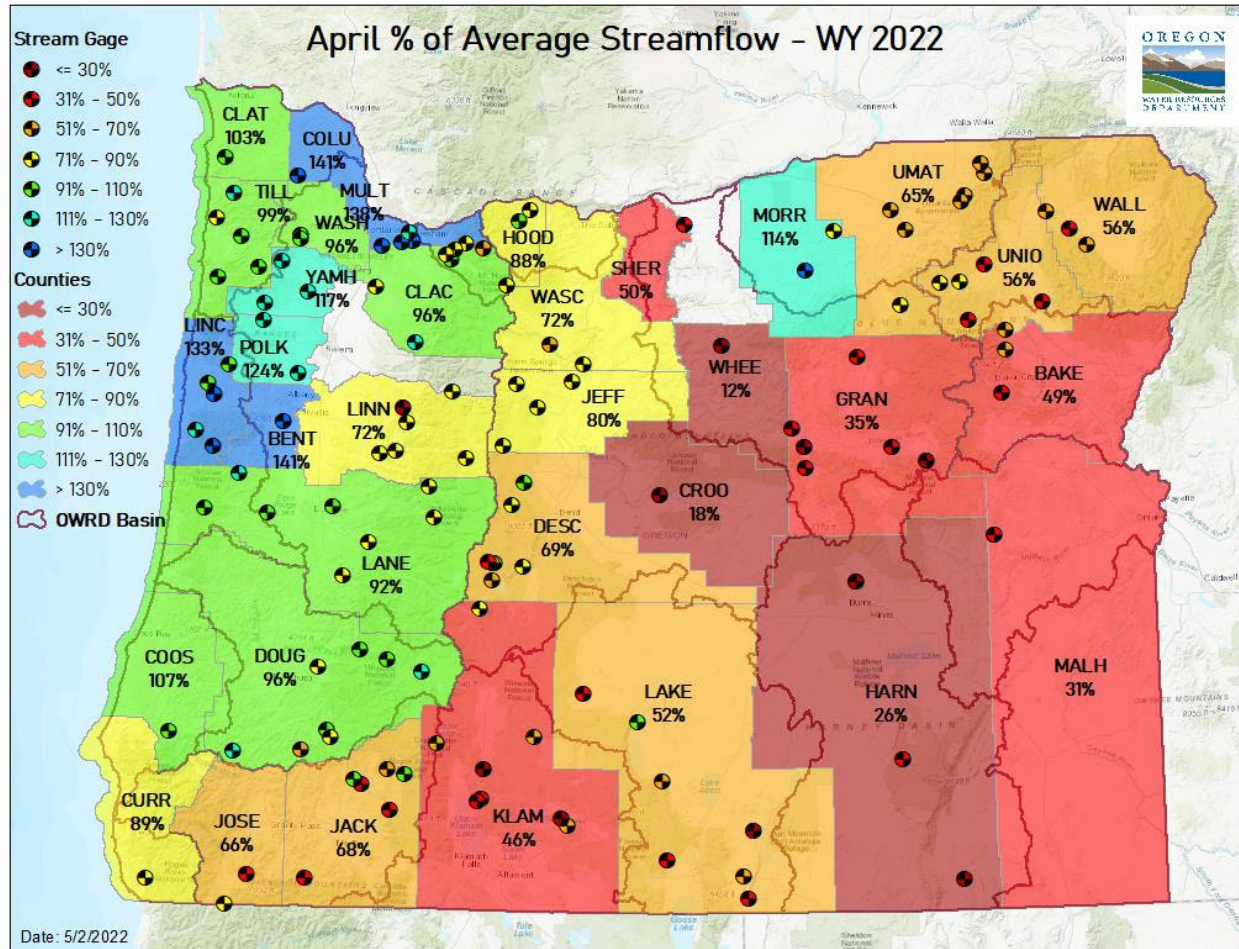
Fourmile near Lake of the Woods

Station (483) WATERYEAR=2022 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision
Tue May 10 10:07:03 GMT-08:00 2022



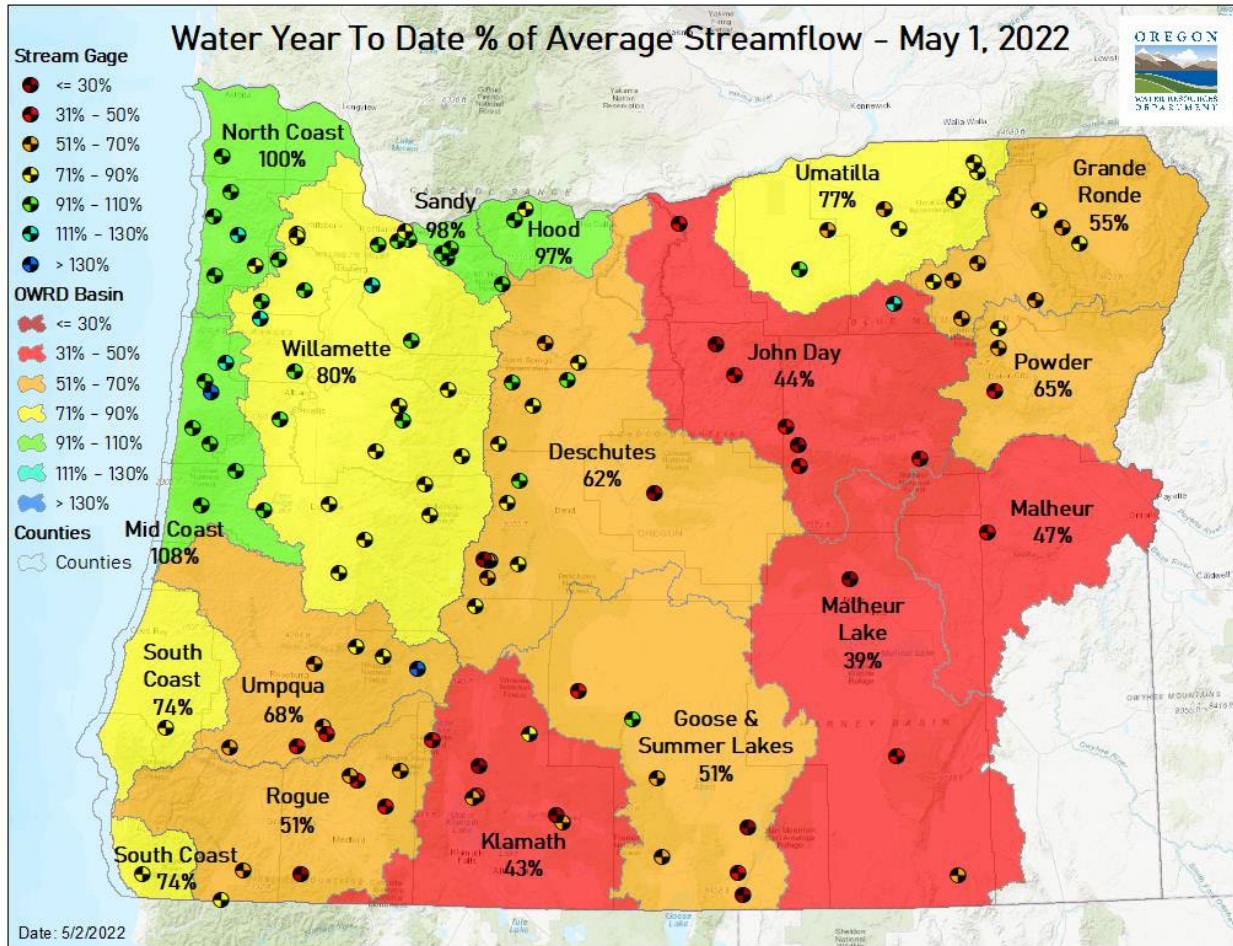


April Streamflows





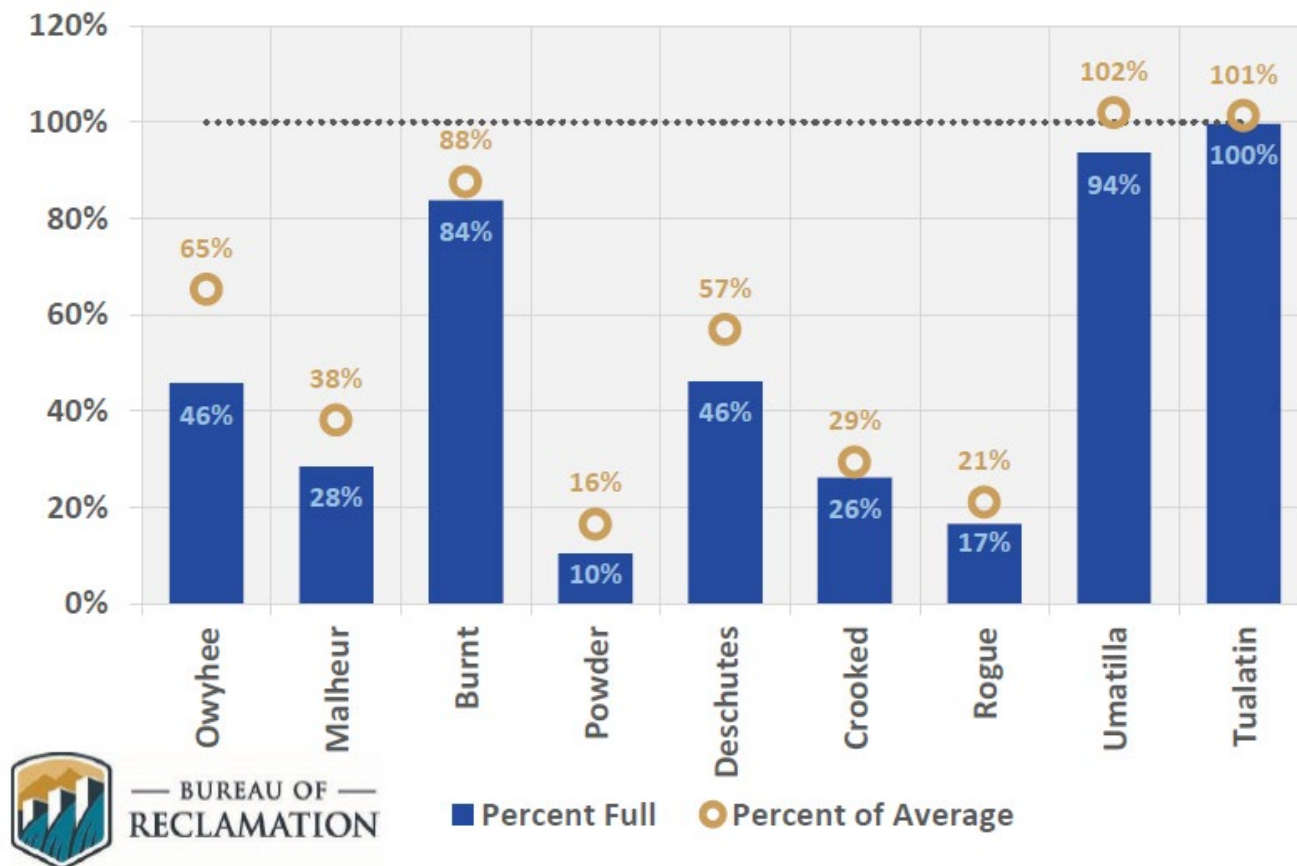
YTD Streamflows





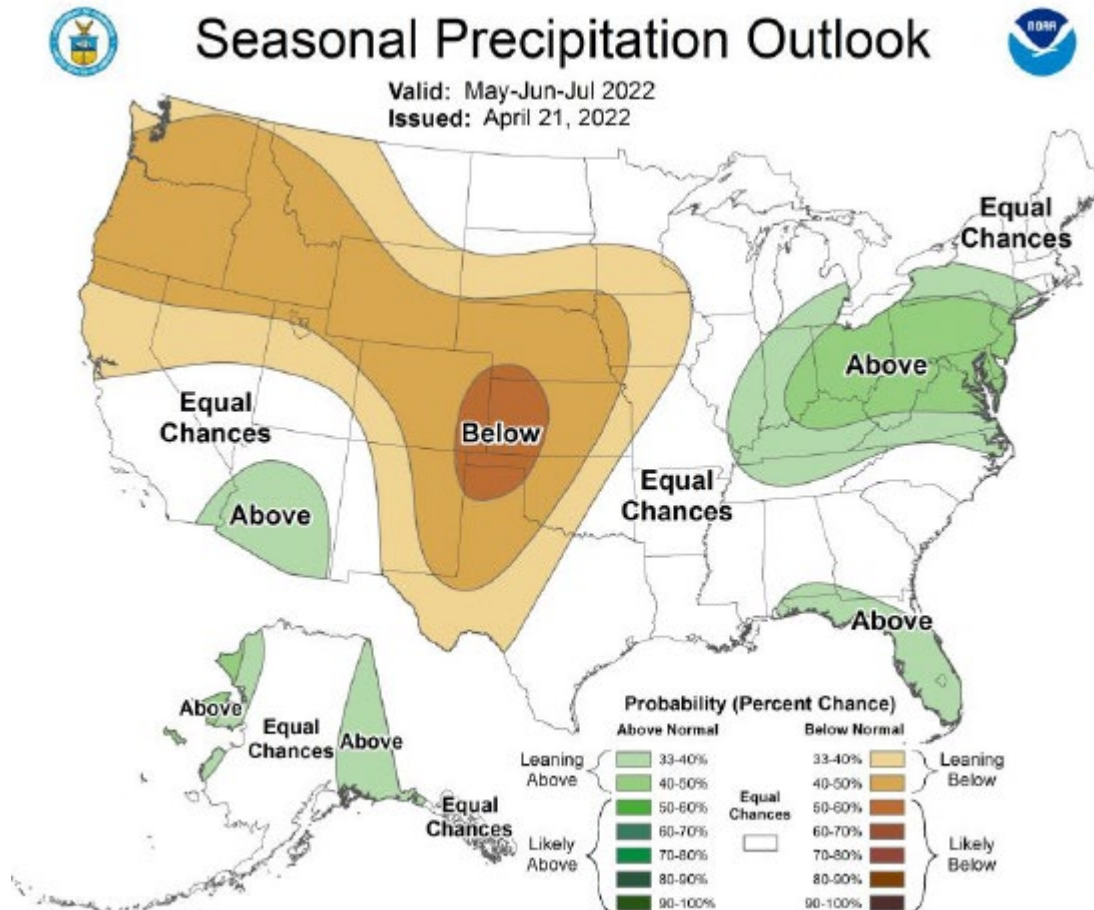
Reservoir Storage

May 1 Reservoir Storage



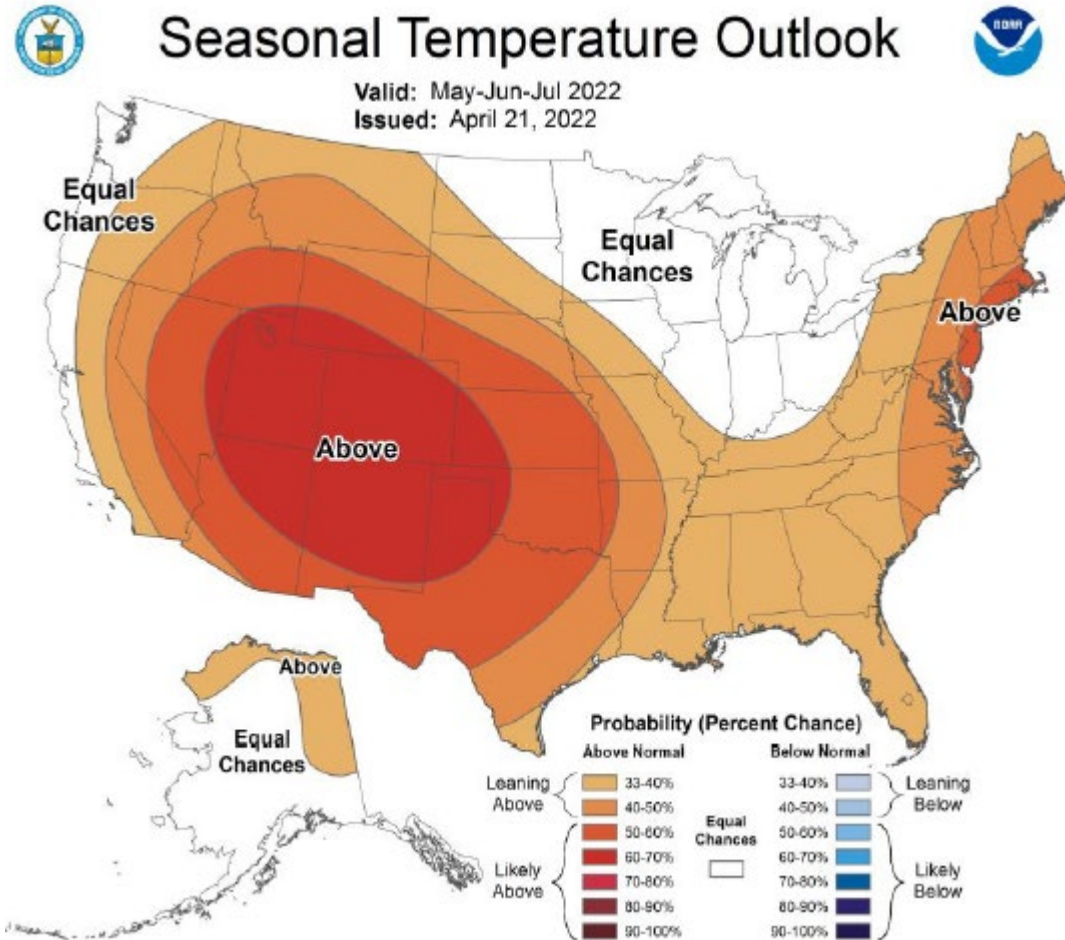


Seasonal Precipitation Outlook





Seasonal Temperature Outlook





Impacts

- Drought has significantly reduced the quantity and reliability of surface water across the state impacting agriculture and water systems that rely on surface water.
- Groundwater levels have been lowered across the hardest hit regions with some experiencing water table drops of 10+ feet.
- Klamath, Lake, Harney, Malheur, Deschutes, and Wheeler counties are all experiencing threatened water systems and/or dry domestic wells.
- Low reservoir levels and reduced streamflows impact water availability for wildland firefighting operations.



Local Emergency Management

- Each County is statutorily required to have an Emergency Manager (EM)
- Local EM functions include:
 - Maintaining Emergency Operations Plans
 - Whole community preparedness
 - Coordinate local response to emergencies
- Local EMs also have access to:
 - Grants and other funding opportunities
 - Local and regional mutual aid
 - State support when local resources are exhausted



OEM Overview

- Responsibilities defined in ORS 401. Responsible for coordinating State emergency response.
- OEM Sections:
 - Response
 - Preparedness
 - Mitigation
 - Recovery
 - 911
- More information at: www.Oregon.gov/oem



Oregon Emergency Support Functions (ESF)



ESF 1
Transportation



ESF 2
Communications



ESF 3
Public Works



ESF 4
Firefighting



ESF 5
Information and Planning



ESF 6
Mass Care



ESF 7
Resource Support



ESF 8
Health and Medical



ESF 9
Search and Rescue



ESF 10
Hazardous Materials



ESF 11
Agriculture and Animal Protection



ESF 12
Energy



ESF 13
Law Enforcement



ESF 14
Cross-Sector Business and Industry



ESF 15
Public Information



ESF 16
Volunteers and Donations



ESF 17
Cyber and Critical Infrastructure



ESF 18
Military Support



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Klamath County Situation

- Domestic Wells
 - 262 domestic wells reported dry in 2021
 - 102 additional domestic wells reported dry so far in 2022
 - 5-10 additional domestic wells reported dry weekly
- Public Water Systems
 - Some public water systems have serious concerns about the stability of their water supply due to failed or failing wells
- Demands on groundwater continue to exceed recharge from precipitation and snowpack



Additional Challenges

- Limited number of well drillers in the Klamath Basin and a shortage of drillers exists in the West US.
- US Bureau of Reclamation (BOR) did not release surface water into the Klamath Project canals in 2021.
- BOR intends to release 50K acre feet of water into the Klamath Project in 2022 which is about 30 percent of the request from Project agriculture producers.
- Lack of surface water = increased demand for groundwater = reduction in groundwater levels



Response Efforts

- Klamath dry and impacted wells program
 - Led by Klamath County with support from state agencies (OEM, OWRD, ODHS)
 - Provides households with one 500-gallon water tank per every 2 residents
 - Provides weekly water delivery
 - Approximately 50 residences are currently receiving water delivery with about 60,000 gallons of water delivered weekly.
- Water Point of Distribution (POD)
 - Tualatin Valley Water District (a member of ORWARN) provided a water distribution trailer
 - Set up at the Klamath County Road Dept. hooked to a standpipe
 - Community Emergency Response Team (CERT) helped residents fill their own containers or provided 1 gallon water bags
 - Operated for July and August of 2021



Response Efforts (cont.)

- Klamath County dry well financial assistance program
 - ~\$4 million dollars were allocated by the State E-Board for dry well response in Klamath County
 - County program to provide funding to impacted homeowners for drilling new wells or well deepening
 - First round of applications closed April 30th



Lessons Learned

- Early communication and collaboration is critical
 - Engage your local EM and watermaster
 - Engage other regional partners from the State
- Solve problems at the lowest level possible
 - Use local or regional mutual aid whenever possible
 - ORWARN is a great partner for helping solve problems
- Supply chain fragility continues to increase costs and/or delay implementation of solutions
- Preparedness is key



Preparedness and Resilience in Your Operations

- How can we make water systems more resilient?
- How can we make Oregonians more resilient?
- Do you have updated water management and curtailment plans for when water supply is impacted?
- Engage in “integrated” preparedness with emergency management
- Establish mutual aid partnerships before problems arise



Emergency Management Contact Information

- List of all [Local Emergency Managers](#) by county
- [OEM Employee Directory](#)

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