



Drought Update

Oregon Water Resources Commission

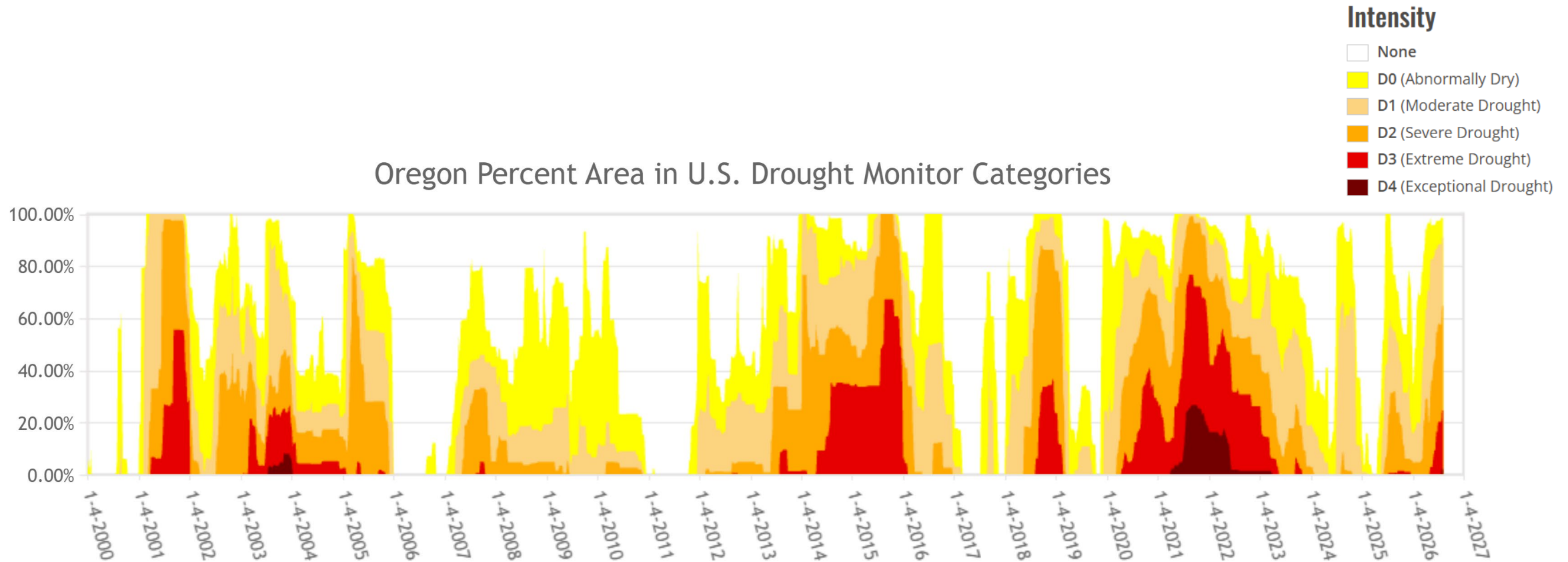
Bryn Hudson, Senior Policy Advisor

Lili Prael, Planning Coordinator

September 11, 2026



An Era of Water Scarcity (2000-2027)



From the U.S. Drought Monitor website, <https://droughtmonitor.unl.edu/DmData/TimeSeries.aspx>, 8-18-2026

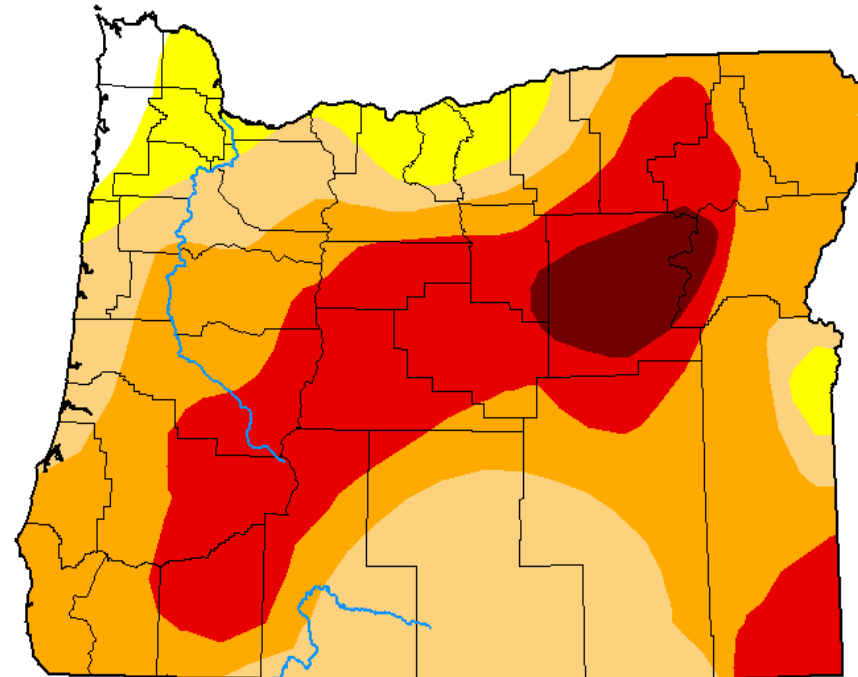


Governor Kotek Letter to Commission

Review Oregon's current drought response framework and actions and identify strategic adjustments to move Oregon toward planning for a more water scarce future

U.S. Drought Monitor Oregon

September 1, 2026
(Released Thursday, Sep. 3, 2026)
Valid 8 a.m. EDT



Intensity:

-  None
-  D0 Abnormally Dry
-  D1 Moderate Drought
-  D2 Severe Drought
-  D3 Extreme 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 <http://droughtmonitor.unl.edu/About.aspx>

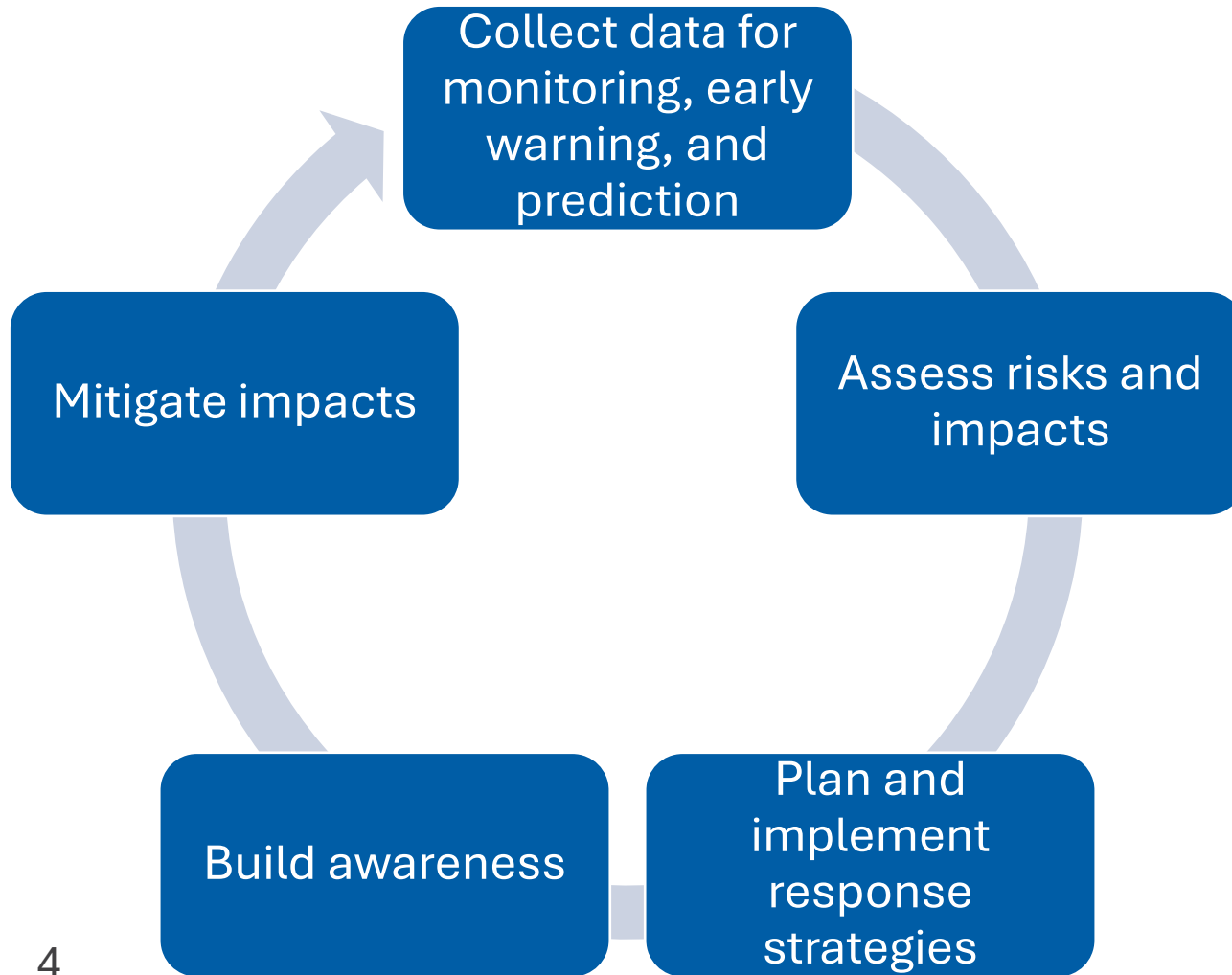
Author:

Curtis Riganti
National Drought Mitigation Center

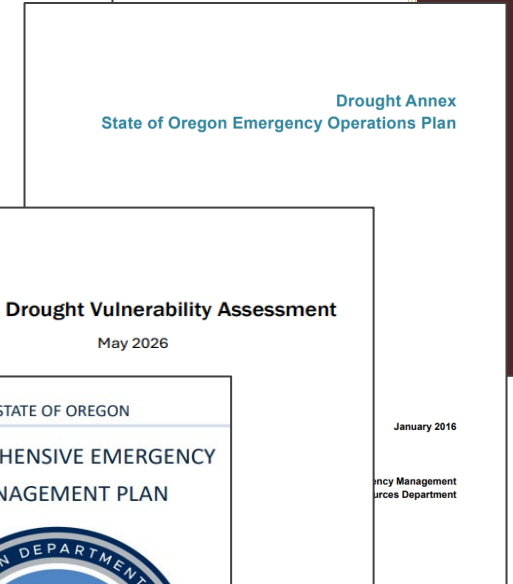
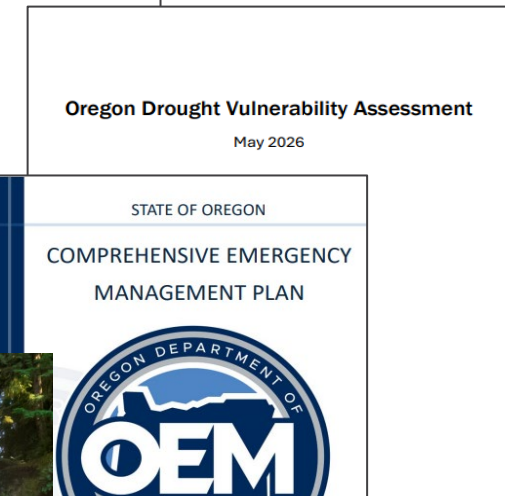


droughtmonitor.unl.edu

Drought Preparedness



4



IWRS Drought Strategies



**(1) Understand Oregon's
Water Resources**

**(2) Understand
Instream and Out-of-
Stream Needs**

Action 5A:

Plan and
Prepare for
Drought and
Wildfire
Resiliency

**(3) Understand the
Pressures that Affect
Our Needs and
Supplies**

**(4) Meet Oregon's
Instream and Out-of-
Stream Needs**

Drought Vulnerability Assessment (DVA)

Overview

Vulnerability Component	Report Authors
Exposure	Oregon State University
Sensitivity	National Drought Mitigation Center, University of Nebraska – Lincoln
Adaptive Capacity	University of Oregon, Environmental and Natural Resources Law Center
Water Justice Considerations	University of Oregon, Environmental and Natural Resources Law Center

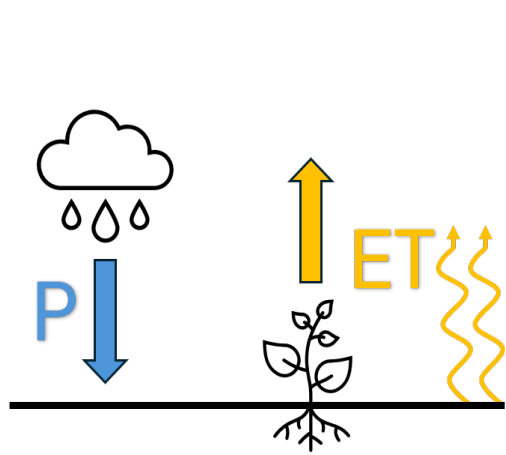
Drought Vulnerability Assessment

Exposure

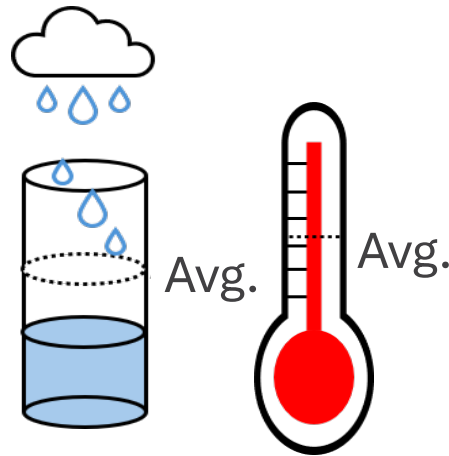
- **Exposure:** The degree (frequency and intensity) to which people and the things they value experience drought.
- **Authors:** Oregon State University

Drought Vulnerability Assessment

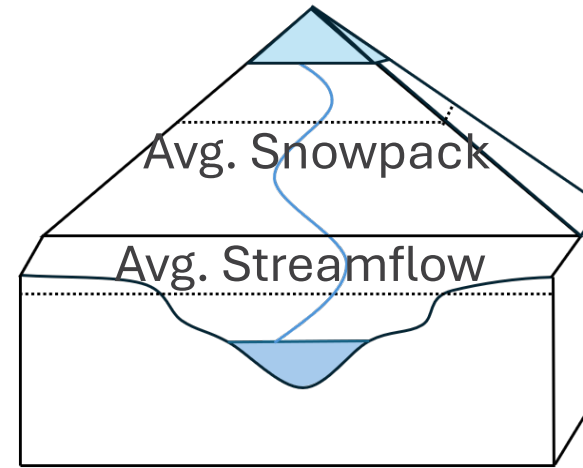
Exposure – how do we measure?



SPEI/SPI



**Precip. & Temp.
Anomalies**



**Snowpack, Streamflow
& Soil Moisture**

These are the tools we use to understand how drought has varied in time and space and why they are important. Does not refer to the specific water supply or legal context impacting water available to users.

Drought Vulnerability Assessment

Exposure – How has drought varied over time?

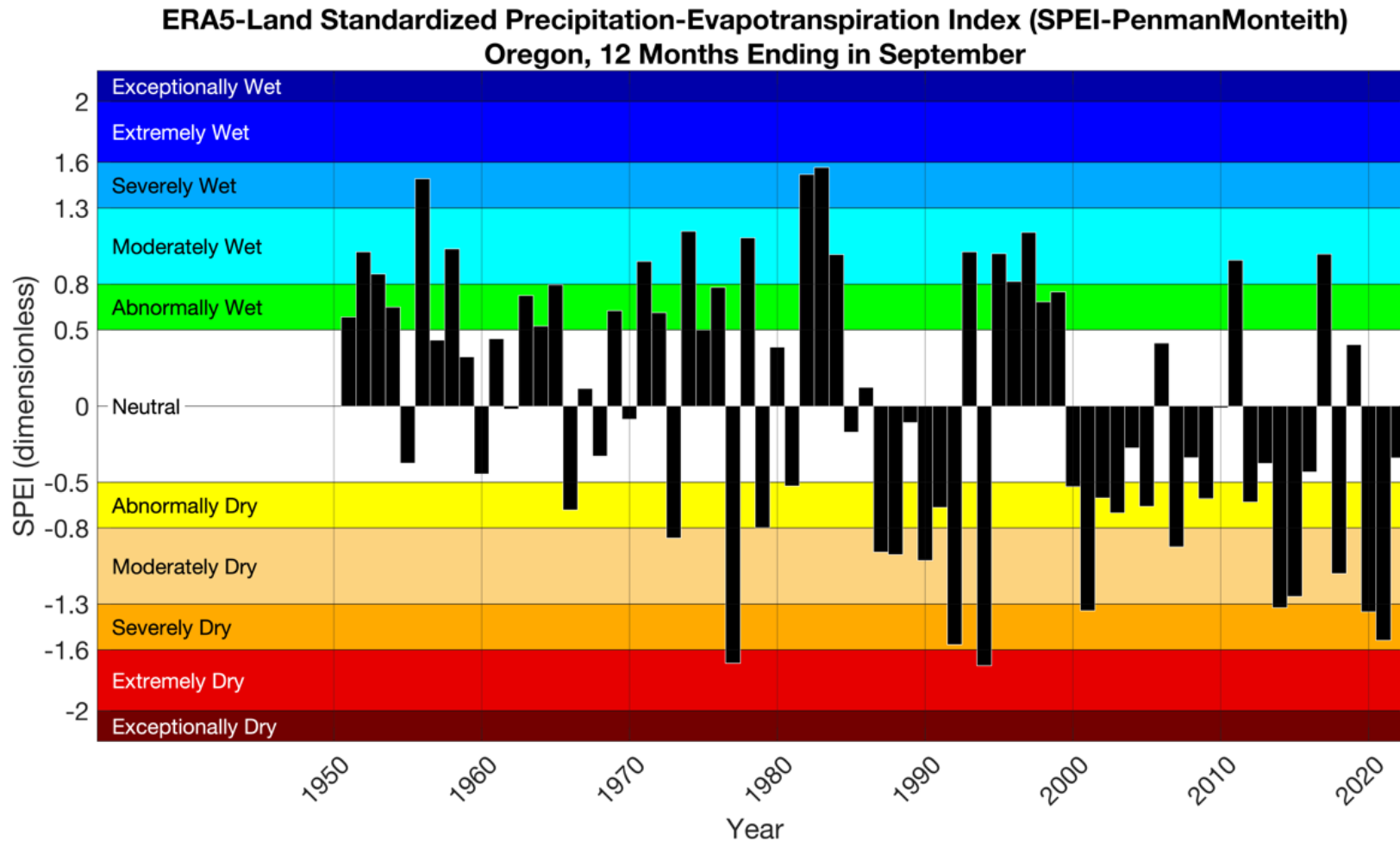
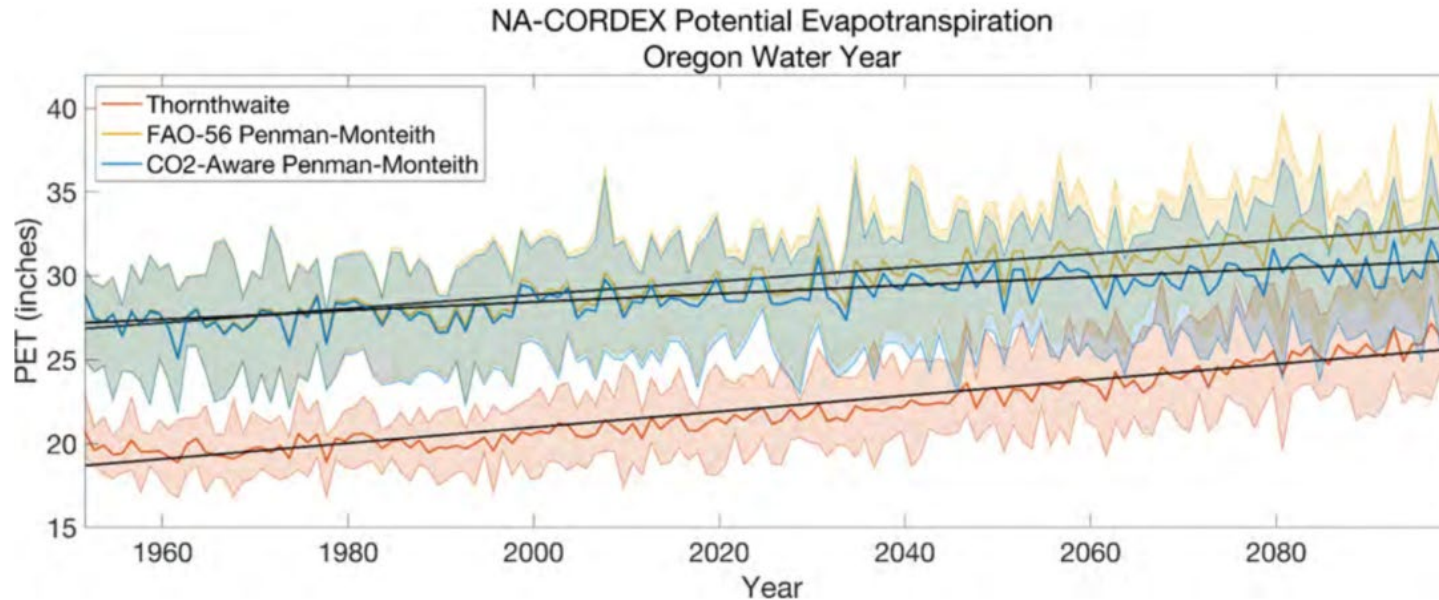


Figure 15. SPEI12 in Oregon, calculated from ERA5-Land data and the CO₂-aware Penman-Monteith equation for potential evapotranspiration, for each water year since 1951.

Drought Vulnerability Assessment

Exposure – Future Trends



- Oregon is projected to experience more intense and frequent droughts
- Increasing temperatures → declining snowpack
- Seasonal shifts in precipitation and increased evaporative demand → increased water stress across Oregon

Drought Vulnerability Assessment

Sensitivity

- **Sensitivity:** The degree to which people and the things they value are affected by drought
- **Authors:** National Drought Mitigation Center, University of Nebraska - Lincoln

Drought Vulnerability Assessment

Sensitivity

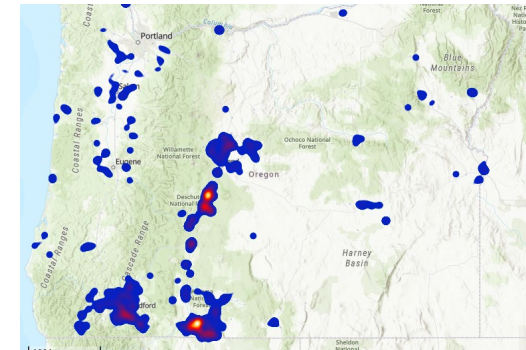
Topics

- (1) Drinking water supplies
- (2) Agriculture
- (3) Water-dependent recreation

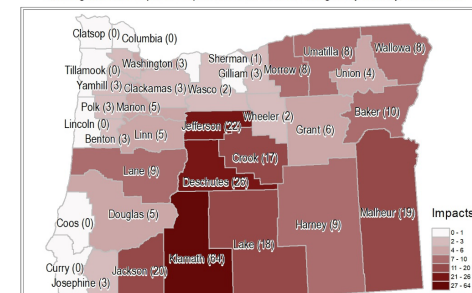
Data

- Dry well reporting (OWRD)
- Community water system data (OHA)
- Drought Impact Reporter
- Condition Monitoring Observer Reports
- Boating & boat ramp closures (OSMB, OPRD)
- Angling restrictions (ODFW)
- Informal and formal surveys (OPRD, ODFW)

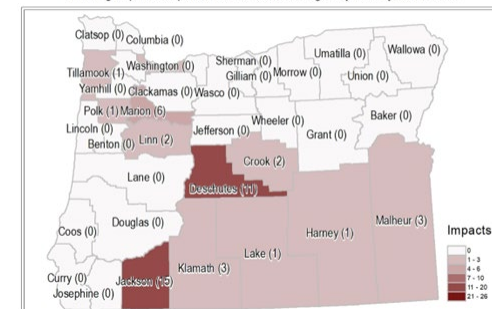
Maps (examples)



DIR Agricultural Impacts Reported in the State of Oregon by County, 2010-2023



Boating Impacts Reported in the State of Oregon by County, 2013-2023



Drought Vulnerability Assessment

Sensitivity

Lessons Learned

- No dataset that shows direct impacts of drought across these categories, or ecological impacts
- Maps generated in the report generally show where impacts have been observed, but are not comprehensive accounting of impacts across the state
- No standard “vulnerability” criteria

Drought Vulnerability Assessment

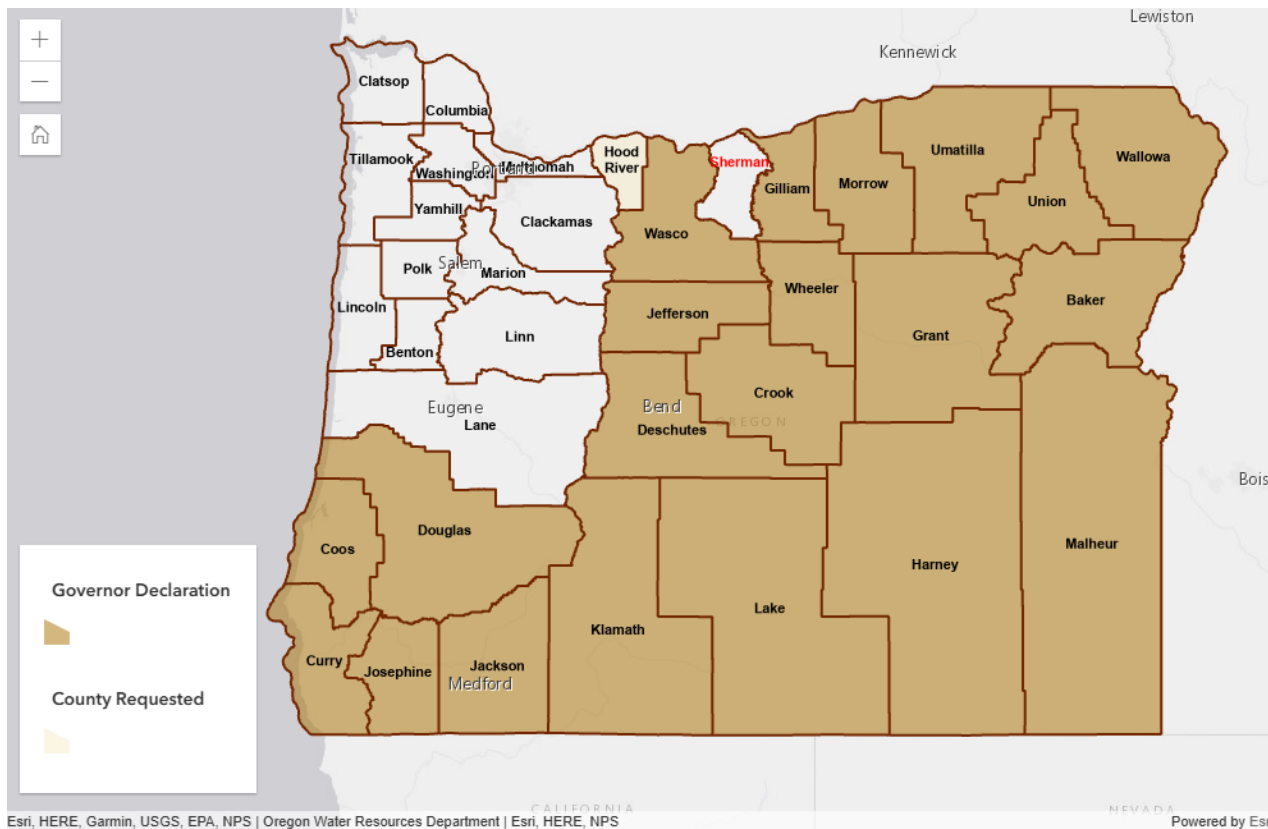
Adaptive Capacity

- **Adaptive Capacity:** The ability to mitigate, cope with and recover from drought
- **Author:** Michelle Smith, University of Oregon, Environmental and Natural Resources Law Center
- **Examined:**
 - Drought Response
 - Drought Planning
 - Drought Resilience Strategies

Drought Vulnerability Assessment

Adaptive Capacity - Response

Drought Response

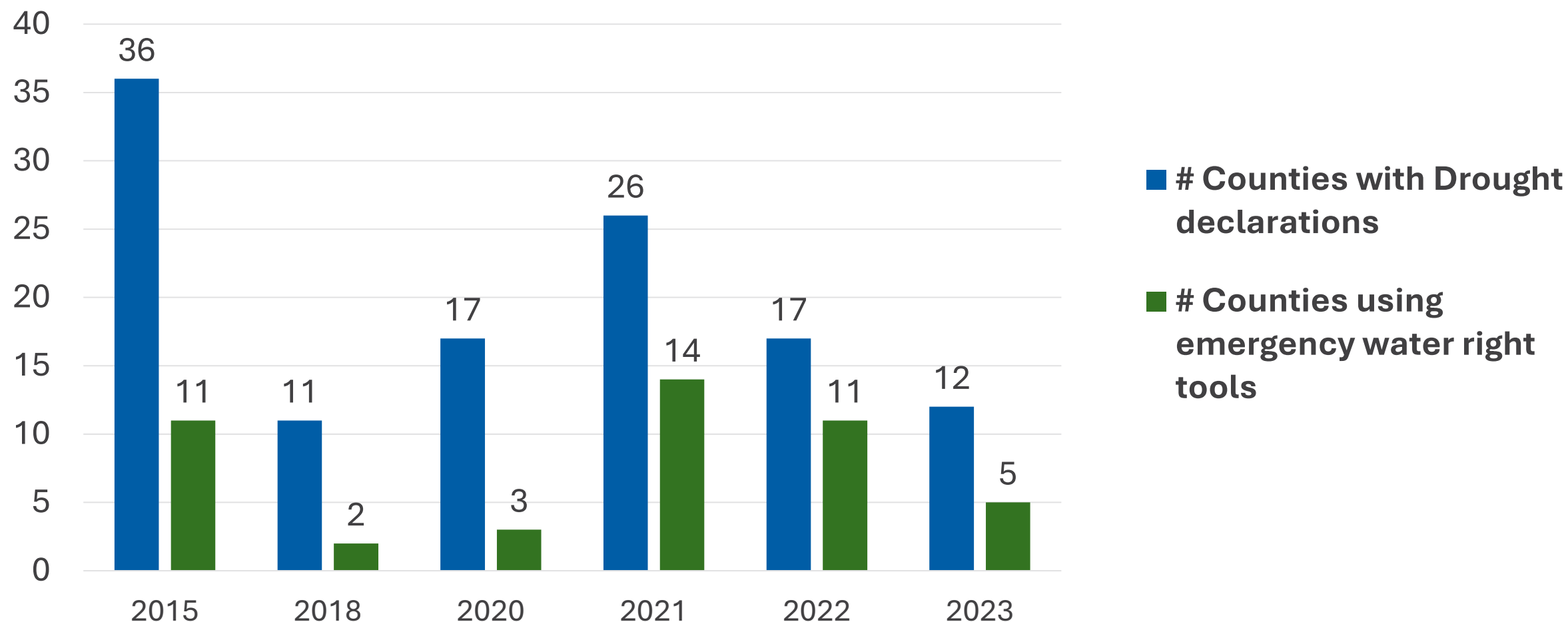


- Drought Declaration Process
- Short-term emergency authorizations to deal with water supply challenges, including instream leasing
- Expedited processing and reduced fees

Drought Vulnerability Assessment

Adaptive Capacity - Response

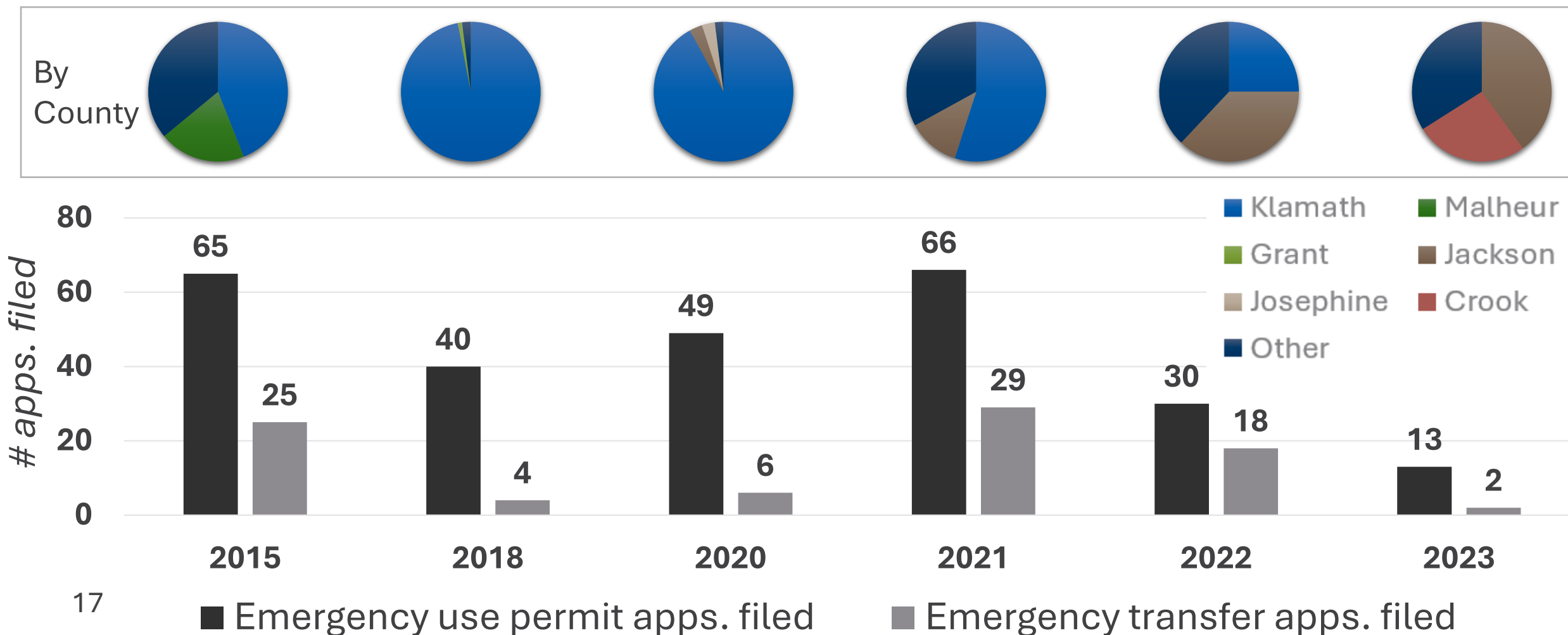
Drought declarations and county use of emergency water right tools



Drought Vulnerability Assessment

Adaptive Capacity - Response

Consistently used tools: drought applications



Drought Vulnerability Assessment

Adaptive Capacity - Gaps

Gaps - Response

- Need to improve coordination of response actions
- Information gaps around efficacy of state tools
- Limited measures to address environmental impacts
- Lack of established funding programs to respond

Drought Vulnerability Assessment

Adaptive Capacity - Gaps

Gaps - Planning

- State drought resilience planning
- Evaluation of drought impacts and policies
- Support for local drought planning
- Planning to address ecosystem vulnerabilities

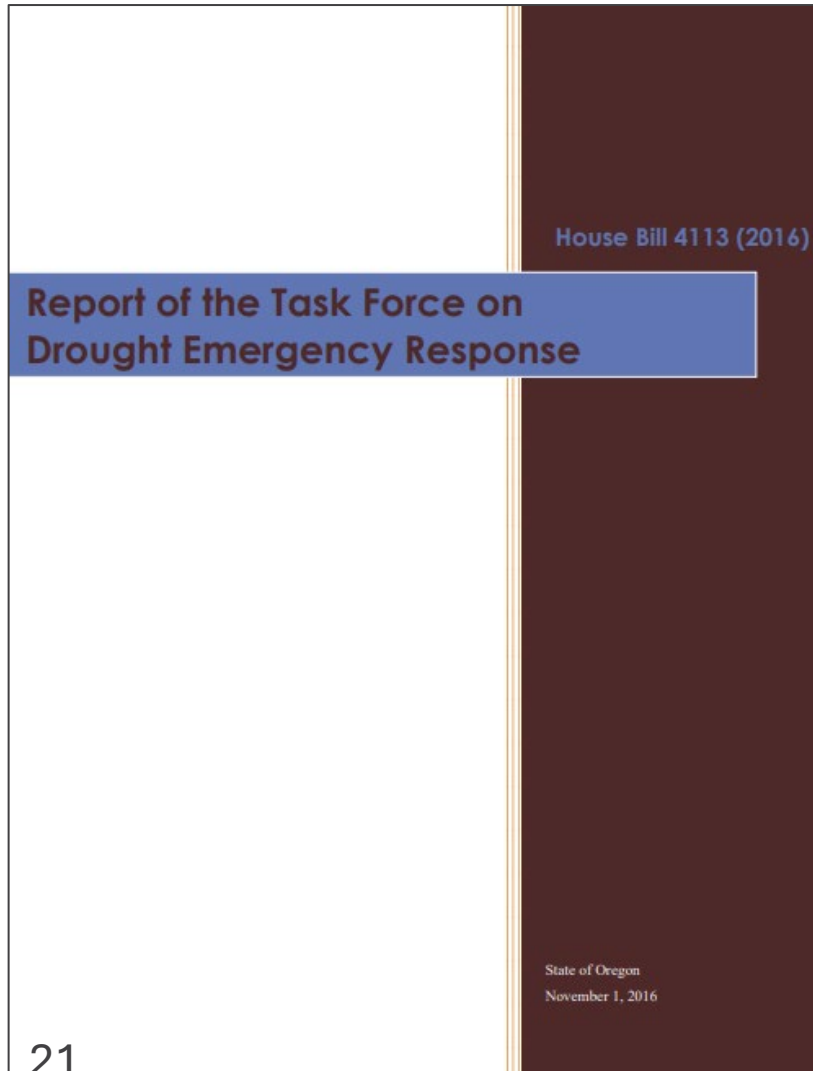
Drought Vulnerability Assessment

Water Justice Considerations

Authors: University of Oregon, Environmental and Natural Resources Law Center

- Indigenous Water Justice Leadership
- Renter's Rights
- Water Access and Affordability
- Natural and Built Infrastructure for Clean Water
- Emergency Preparedness
- Community Empowerment

2016 Task Force on Drought Emergency Response



- 13 recommendations to OWRD, other executive branch agencies, and the Legislature
 - Data collection for monitoring, early warning, and prediction
 - Assessing risk, vulnerabilities, and impacts
 - Drought preparedness, response, and mitigation

2016 Task Force Recommendations

Long-term resiliency

- Increase data collection to inform management and response to drought (Rec. A)
- Provide resources for assessments of drought impacts risks and vulnerability on instream and out-of-stream sectors to better prepare for, respond to, and recover from drought (Rec. B)
- Address lack of planning, support, resources and technical assistance for small water systems (Rec. H)

2016 Task Force Recommendations

Long-term resiliency

- Evaluate barriers to infrastructure funding programs and provide technical assistance/capacity building grants to improve access (Rec. I)
- Evaluate management options for stored water (Rec. J)
- Legislature should look at incentives to promote conservation and efficiency (Rec. K)
- Continue to encourage reuse (Rec. M)

2016 Task Force Recommendations

Drought response and near-term resiliency

- Review drought declaration process and tools (Rec. C)
- Legislature should establish funding programs for drought planning and emergency (Recs. D and F)
- Resources for OWRD outreach and communication and additional watermaster staff (Recs. E and G)
- Legislature should consider additional programs to facilitate voluntary streamflow restoration during drought (Rec. L)

Efforts to improve drought preparedness

- See Attachment 2 - DVA, IWRS, 2016 Task Force Report and progress
- Significant progress on:
 - Data gathering and analysis and funding
 - Interagency coordination and communication during drought
- Key area needing Commission review in near-term:
 - Current drought declaration process and tools;
 - Attachment, 2 page 7: Plan and Implement Response Strategies – particularly C.3, C.4 and C.5; response gaps 2&3

Tribal Engagement

- Discussed letter and drought with Tribes at July Tribal Water Forum
 - Limited Initial Feedback: drought tools not particularly useful; look at Washington Report - [Columbia River Basin 2026 Long-term Water Supply and Demand Forecast](#)
- Next Steps:
 - Sent follow up request for Tribes perspectives
 - Topic is on agenda for December Tribal Water Forum

Next Steps: Process Considerations

Determine Format for Commission discussions

- Subcommittee meetings outside of Commission meetings
- Full-commission work sessions during Commission meetings
 - Have opted for this option for recent efforts

Next Steps: Process Considerations

Topics for work session at December Commission meeting

- Staff analysis of challenges and opportunities with current drought process and tools
 - Feedback from other state agencies
- Invite speaker panels: Tribes, Legislators, other state agencies, interested parties

Next Steps: Process Considerations

Engagement w/ external parties

- Surveys, panels, public comment, etc.
- Prompts for public comment?
 - Drought Declaration & Response: How effective and responsive are the existing drought declaration process and available tools in meeting your needs?
 - Drought Forecasting & Severity: What information, knowledge or data sources do you rely on to understand drought severity?
 - Drought Preparedness & Resiliency: What actions or tools are needed to achieve “long-term drought resilience”?

OREGON



WATER RESOURCES
DEPARTMENT

Thank you!

Bryn Hudson

bryn.hudson@water.oregon.gov | 503-302-7584

Lili Prahl

lili.k.prahl@water.oregon.gov | 503-871-5868



Oregon.gov/owrd



@OregonGovWRD



Linkedin.com/company/owrd