



Staff Report

TO: Water Resources Commission

FROM: Bryn Hudson, Senior Policy Advisor
Lili Prah, Planning Coordinator

DATE: September 11, 2026

SUBJECT: Agenda Item D

DROUGHT UPDATE

I. Introduction

As discussed at the June Commission meeting, staff will provide an overview of Oregon's drought framework, recommendations from the 2016 Task Force on Drought Emergency Response, the 2026 Drought Vulnerability Assessment, relevant drought related actions from the Integrated Water Resources Strategy, and OWRD's progress on implementation. The Commission will also discuss Governor Tina Kotek's letter to Chair Neuman on drought and next steps for responding to and carrying out the work.

II. Integrated Water Resources Strategy Recommended Action

Improving drought response and resiliency is incorporated throughout multiple actions within Oregon's Integrated Water Resources Strategy (IWRS). An overview of IWRS actions implemented in recent drought preparedness efforts are incorporated in Table 1 of Attachment 2.

III. Background

Droughts are frequently slow-moving, complex disasters unveiling new vulnerabilities over time while exacerbating existing water challenges and limiting water supplies. In Oregon, droughts have been occurring more frequently in recent years driven by a changing climate and come in different forms, including snow and flash droughts. Warming temperatures are resulting in greater demand for water across the landscape in drought and non-drought years - longer growing seasons, increased evapotranspiration, and higher atmospheric demand. With recurring drought conditions year over year and "wet" years offering less chance of recovery to stressed systems, Oregon's water supply systems are facing unique resiliency challenges. Current drought conditions result from above normal temperatures, long- and short-term precipitation deficits, and well below normal snowpack. This winter was tied for the second warmest on record, yielding a record-low snowpack and below-normal streamflows across most basins resulting in water regulation occurring 4-8 weeks earlier in many areas.

During the June Commission meeting, staff briefed the Commission on drought conditions and response efforts, and there was interest in further discussion on drought preparedness and

response efforts.

Following the June meeting, Governor Tina Kotek sent a letter to Water Resources Commission Chair Neuman, requesting that the 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.

The letter requested that this effort consider tailoring drought response to severity and frequency of occurrence and strengthen Oregon's approach to long-term drought resilience, including developing drought triggers, indicators, tools, and actions that could be deployed. The letter also requested recommendations for integrating climate-informed hydrology into water planning and management efforts and strengthening ways to stretch and share water resources. The full letter can be found in attachment 1.

IV. Drought Preparedness and Response Work

In 2015, Oregon experienced severe to extreme drought conditions across the entire state, similar to this year's drought. The 2015 drought was prompted by warmer than normal temperatures, record-low snowpack, and, in some parts of the state, below-normal spring and summer precipitation. The result was record-low to near-record-low streamflows in most parts of the state. The Governor declared drought in 25 of Oregon's 36 counties, the most since 1992, when a statewide drought declaration was issued.

Oregon agencies considered the 2015 drought to be a warning shot of what was to come with a changing climate. A helpful framework for identifying key components of drought preparedness include: (1) data collection for monitoring, early warning, and prediction, (2) assessing risk, vulnerability, and impacts, (3) preparing and implementing response strategies, (4) building awareness, and (5) developing and carrying out mitigation actions (see references in Drought Task Force Report, Wilhite, 2011; Schwab, 2013, pp. 65-66). This framework emphasizes the importance of taking actions to be more resilient to drought by proactively eliminating or minimizing the risk (e.g. identifying and addressing water supply challenges and implementing solutions, etc.), while also having tools to respond effectively if the risk is realized and not able to be mitigated (e.g. emergency tools).

Following the 2015 drought several actions were taken consistent with that framework. These actions included updating the Drought Annex, further incorporating drought into the Hazard Mitigation Plan, formation of a drought task force and report, more explicitly addressing drought in the update to the IWRS, and conducting a drought vulnerability assessment.

Drought Annex: Serving as the State's drought response plan, the Drought Annex is part of the State of Oregon's Emergency Operations Plan. The Drought Annex, last updated in January 2016, describes the process for drought response, including issuance of a drought declaration and the various roles and responsibilities of state agencies during severe drought. The [Drought Annex](#) is available online.

Natural Hazards Mitigation Plan: The Natural Hazards Mitigation Plan, last updated in September 2025, is focused on strategies to mitigate risk and address recurring disasters and repetitive losses. It describes Oregon's natural hazards and their probability, the state's vulnerabilities, its mitigation strategies, and implementation resources. The Plan also seeks to conduct a risk assessment for all hazards, including drought, that is intended to lead to a better

understanding of the hazard and where mitigation actions should be directed to reduce the potential losses or impacts from future hazards. The [2025-2030 Natural Hazards Mitigation Plan](#) is available online.

2016 Task Force on Drought Emergency Response: Following that drought season, OWRD worked with the Oregon Legislature to introduce and pass [House Bill 4113](#), which established the Task Force on Drought Emergency Response and directed the Task Force to research and evaluate potential tools to prepare for or deal with drought emergencies. The Task Force developed 13 recommendations, each of which contain several sub-recommendations. The [Report of the Task Force on Drought Emergency Response](#) is available online.

Integrated Water Resources Strategy and Efforts to Improve Drought Preparedness: In addition to these two plans, Oregon's Integrated Water Resources Strategy (IWRS) identifies actions to help meet Oregon's current and future water needs. Items from the 2016 Drought Task Force Report were incorporated into the 2017 and 2025 IWRS updates. Attachment 2 provides a summary of OWRD efforts to improve Oregon's drought preparedness, including IWRS recommended actions.

Drought Vulnerability Assessment: One of the 2016 Drought Taskforce's recommendations was to provide resources for assessments of drought impacts, risks, and vulnerabilities on instream and out-of-stream sectors to better prepare for, respond to, and recover from drought. This recommendation is echoed in the Integrated Water Resources Strategy and the Natural Hazards Mitigation Plan. To help implement this recommendation, the legislature authorized funding via Senate Bill 5561 during the 2021 December Special Session, to support the development of a state-wide drought vulnerability assessment. This was the first drought vulnerability assessment done by the state and it was unclear what data would be available for this work. OWRD worked with three universities to test out an approach. The [Drought Vulnerability Assessment](#) is available online.

V. Discussion of Next Steps

Since the 2015 drought, there have been continued efforts to better understand, prepare for, and respond to drought in Oregon, while also recognizing that the most effective approaches enhance long-term water supply resiliency. Over the past ten years, however, the severity and frequency of drought in Oregon has increased; which raises questions about whether the current drought response process and tools are sustainable or the best approach for addressing an emerging climate where drought is appearing more frequently.

To address the matters raised in the Governor's letter, the Commission will need to determine how they would like to proceed on the following matters: whether the Commission will form a subcommittee or approach this work as a full commission; engagement with the tribes, the public, legislators, interested parties, and other state agencies in this effort; and how OWRD staff can best support the Commission in this effort.

OWRD, in coordination with Commissioner Neuman, initiated conversations with the Tribes at the last Tribal Water Forum. In addition, staff internally are beginning to prepare information for the Commission on challenges and opportunities observed by OWRD staff and other state agencies involved in drought response activities.

OWRD anticipates that the Commission will discuss these matters and provides the following

for consideration:

- The Commission should determine whether to appoint a subcommittee. Subcommittee work is considered a public meeting and, therefore, requires similar staffing and support as a regular Commission meeting. For recent Commission efforts, the Commission has instead opted to have the full Commission participate during regular meetings and schedule longer-workshop style agenda items to allow sufficient time for Commission discussion.
- For the next Commission meeting, OWRD is prepared to support a workshop-style format with the Commission, which could include: (1) a presentation from staff on challenges and opportunities we see with the current drought process, as well as a data on the frequency of use of existing drought tools; (2) an invitation to legislators to hear about their work on drought; (3) presentations from interested parties and emergency management professionals on their experience with Oregon's drought tools, (4) information from the tribes on their thoughts on drought preparedness and response, (5) observations from multiple state agencies that have been involved in drought response, and (6) time for discussion amongst the Commission.
- The Commission should also discuss opportunities for engagement from external parties, which could be in the form of public comment at Commission meetings, formal opportunities for written comments, surveys, or other mechanisms.
- If panel discussions, surveys, or other comment opportunities are offered, what information is the Commission seeking? Example prompts could include:
 - Drought Declaration & Response: What changes to the drought declaration process would you like to see? Is the current process effective? Which of the current drought response tools do you find valuable, or would you like to see used more frequently? What poses challenges to effective drought response? Are there other tools needed?
 - Drought Forecasting & Severity: What information, knowledge or data sources do you rely on to understand drought severity? Is there existing information that is useful (e.g., federal and state data sources)? Would drought severity categories be useful for your decision-making?
 - Drought Preparedness & Resiliency: What actions or tools are needed to achieve "long-term drought resilience"?

VI. Conclusion

OWRD staff are prepared to support the Commission in this effort to improve drought preparedness, resiliency, and response. The Department is working to prepare additional information for the December Commission meeting and is interested in understanding what information the Commission is interested in and how the Commission would like to approach this effort.

Attachments:

1. Drought Letter from Governor Tina Kotek to Water Resources Commission Chair Neuman
2. Summary of OWRD efforts to improve drought preparedness in Oregon

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TINA KOTEK
GOVERNOR

June 17, 2026

Jan Neuman, Chair
Oregon Water Resources Commission
725 Summer Street NE, Suite A
Salem, OR 97301

Dear Chair Neuman,

Congratulations on your appointment as Chair of the Oregon Water Resources Commission. I look forward to your leadership as Oregon navigates an increasingly complex water management landscape.

As you know, Oregon is entering a period of persistent, climate-driven drought that is reshaping water availability, stressing ecosystems, and challenging communities across the state. Water is one of Oregon's most important natural resources, and it is imperative that we manage it with the urgency and foresight that this moment demands and with an eye toward securing long-term resiliency.

The state's current framework for evaluating drought declarations and authorizing drought-related water-right tools is grounded in ORS 536 and the Drought Annex jointly developed by the departments of Water Resources and Emergency Management in 2016. Although this framework incorporates data from multiple state and federal sources, it is largely response-oriented and fails to distinguish between varying levels of drought intensity. The recently released Drought Vulnerability Assessment makes clear that Oregon must shift from reactive drought response to proactive, long-term resilience.

Accordingly, I am requesting that you lead the Commission to review Oregon's current drought response framework and actions and identify strategic adjustments that will move Oregon from reacting uniformly to drought emergencies toward planning for a more water scarce future. This should include tailoring drought response to severity and frequency of occurrence and strengthening Oregon's approach to long-term drought resilience. This effort should consider appropriate drought triggers and indicators and define the tools and actions that should be deployed when those triggers are met, as well as recommendations for integrating climate-informed hydrology into water planning and management efforts and strengthening ways to stretch and share water resources.

Oregon's future depends on our ability to adapt to a changing water landscape. The Commission's efforts will help ensure that Oregon's communities, ecosystems, and economy remain resilient in the face of persistent drought.

Thank you for your leadership and commitment to stewarding Oregon's water resources.

Sincerely,

Governor Tina Kotek

cc: Ivan Gall, Director, OWRD



Efforts to Improve Oregon's Drought Preparedness

Drought is becoming more frequent and severe in Oregon. Preparation will be key for Oregonians as the state faces current and future water supply pressures. Over the years, public, private, Tribal, and non-profit organizations have been working to better prepare Oregon's communities to meet the current era of water scarcity. A helpful framework for identifying key components of drought preparedness include: (1) data collection for monitoring, early warning, and prediction, (2) assessing risk, vulnerability, and impacts, (3) preparing and implementing response strategies, (4) building awareness, and (5) developing and carrying out mitigation actions (see references in Drought Task Force Report, Wilhite, 2011; Schwab, 2013, pp. 65-66). OWRD has made progress improving Oregon's drought preparedness, through implementation of both the Integrated Water Resources Strategy (IWRs) and the 2016 Drought Task Force recommendations (Table 1). Note that table 1 provides a summary of key initiatives being carried out by OWRD and is not inclusive of all work related to drought, including the work being done by the many other agencies involved in drought preparedness.

2016 Drought Task Force Recommendations

House Bill 4113 (2016) established the Task Force on Drought Emergency Response and directed the Task Force to research and evaluate potential tools to prepare for or deal with drought emergencies. The Task Force may: (1) Evaluate the sufficiency of existing tools to address short-term drought response needs and recommend additional tools to address short-term drought response needs; (2) Identify options to minimize the impact of drought on agricultural, municipal, and other interests; (3) Identify options to minimize the impact of drought on fish and wildlife; (4) Identify tools to assist small water providers in developing water management, conservation or efficiency plans and in anticipating drought risks and responses; (5) Identify the data and resources necessary for anticipating drought and its impacts on the economy, communities and the environment; and (6) Recommend improvements in information sharing necessary for enabling the public, water users and recreational instream users to understand drought conditions and assist in efforts to mitigate or adapt to drought.

Recognizing drought response is a shared responsibility, the task force developed a set of recommendations - with varying degrees of consensus amongst task force members for each - for both the executive and legislative branches for implementation. The [Report of the Task Force on Drought Emergency Response](#) is available online.

Drought Vulnerability Assessment

The 2016 Drought Task Force recommended providing resources for assessments of drought impacts, risks, and vulnerabilities on instream and out-of-stream sectors in order to better prepare for, respond to, and recover from drought. This recommendation is echoed in the state's

Integrated Water Resources Strategy and the state's Natural Hazard Mitigation Plan. In 2021, the legislature authorized funding in Senate Bill 5561 (2021 Special Session) to support the development of a state-wide drought vulnerability assessment focused on instream and out-of-stream vulnerability, in areas such as agriculture, environment/ecosystems, and municipal and domestic.

The Drought Vulnerability Assessment (DVA) is organized around the basic concept that vulnerability is a product of exposure, sensitivity, and adaptive capacity. The assessment examines each of these components, along with water justice considerations. This was the first time the state undertook such an assessment, and available time, funding, and data required the scope to be limited. The goal was to learn more about how to develop a drought vulnerability assessment, evaluate data gaps, and to identify, where possible, drought vulnerabilities in the state. The OWRD engaged with universities with recognized expertise with data and policy analysis, environmental and water justice, and climate and droughts. Oregon State University, the National Drought Mitigation Center at the University of Nebraska-Lincoln, and University of Oregon Environmental and Natural Resources Law Center each examined a different component of drought vulnerability and produced separate reports for each component. The [Drought Vulnerability Assessment](#) is available online.

Integrated Water Resources Strategy

Oregon's Integrated Water Resources Strategy (IWRS) provides a framework to better understand and meet Oregon's instream and out-of-stream water needs including water quantity, water quality, and ecosystem needs. Improving drought response and resiliency is incorporated throughout the actions and priorities of the IWRS, as described below.

IWRS Actions

(1) Understand Oregon's Water Resources

Water Resource/Supply Information

- 1A: Improve Water Resource Data Collection and Monitoring
- 1B: Conduct Additional Groundwater Basin Investigations
- 1C: Enhance Interagency Data Coordination
- 1D: Support Basin-Scale Climate Change Research

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

Instream & Ecosystem Water Needs

- 2A: Determine Instream Flow Needs (Quality and Quantity)
- 2B: Determine Needs of Groundwater-Dependent Ecosystems
- 2C: Develop Instream and Ecosystem Water Need Forecasts

Out of Stream Water Needs

- 3A: Improve Water-Use Measurement and Reporting
- 3B: Regularly Update Out-of-Stream Water Demand Forecast

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

Natural Hazards

- 5A: Plan and Prepare for Drought and Wildfire Resiliency

Land Use Planning

- 6A: Improve Integration of Water Information and Land Use Planning

Water Infrastructure

- 7A: Maintain, Upgrade, Decommission Water and Wastewater Infrastructure

Education and Outreach

- 8C: Promote Community Education and Outreach

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

Water Planning

- 9A: Support Place-Based Integrated Planning and Other Water Planning Efforts

- 9C: Partner with Tribes, Federal Agencies, and Neighboring States in Long-Term Water Resources Management
- 9E: Lead Meaningful Community Engagement

Water Use and Management

- 10A: Improve Water-Use Efficiency and Water Conservation
- 10B: Encourage Water Reuse Projects
- 10D: Reach Environmental Outcomes with Non-Regulatory Alternatives
- 10E: Provide an Adequate Field Presence

Healthy Ecosystems

- 11A: Watershed Health, Resiliency, and Capacity for Natural Storage
- 11B: Develop Additional Instream Protections

Funding

- 13B: Fund Water Resources Management Activities by State Agencies
- 13C: Invest in Planning, Feasibility Studies, and Water Resource Project Implementation

IWRS Priority Tasks

Priority 2: Assist the State and Communities to Prepare for Water Scarcity

- P2.1: increase quality and accessibility of water availability, water use, and water demand information
- P2.4 Increase the number of communities and Tribes that have completed or are participating in water planning efforts

Priority 3: Adapt to Water Scarcity by Stretching our Water Supplies

- P3.1 Increase the pace and scale of water reuse and aquifer storage, recovery and recharge projects that support resilience and protect the environment
- P3.2 Increase the number of water users that are planning/implementing water conservation, efficiency, or modernization efforts
- P3.4 Identify priority areas for new above and below ground storage

Table 1. Table of DVA identified gaps, 2016 Drought Task Force Recommendations, relevant IWRS actions, and OWRD efforts since 2016 related to drought preparedness. This table is a summary of key initiatives being carried out by OWRD and is not inclusive of all work related to drought, including the work being done by the many other agencies involved in drought preparedness.

Collect data for monitoring, early warning, and prediction	
Gaps identified in the DVA	
• Planning Gap 2. The need for improved evaluation of drought impacts and policies, including encouraging the public to report impacts to the Condition Monitoring Observer Reports (CMOR) and dry wells to OWRD.	
2016 Task Force Recommendation	IWRS Actions / Implementation progress since 2016
A. The State should continue to increase and enrich water-related data collection to inform water use decisions, conservation, and management, as well as better anticipate and respond to drought. • A.1: Agencies should continue to assess data gaps and work with local communities and partners to identify and prioritize data needs and	<u>IWRS Actions:</u> 1A-1D, 2A-2C, 3A-3B <u>IWRS Priority Task:</u> P2.1 • Investments in water data (HB 2018, 2021; HB 5202, 2022; HB 2010, 2023)

communicate those needs to the Legislature, and where applicable, federal partners. • A.2: Funding is necessary for data collection instruments and associated staff to collect and process the data, including additional stream gages, adding real-time telemetry to existing gages, maintaining existing gages, adding observation wells, collecting groundwater data and conducting groundwater studies, and assessing instream data needs. • A.3: Federal data on snowpack in some basins relies on only a few data points; increased snow survey data would improve water supply forecasts. The State should advocate for federal funding to support snow surveys.	• Groundwater Basin studies: ○ Harney Basin Study: Completed April 2022 ○ Walla Walla Basin Study: Scheduled completion 2027 ○ Fifteenmile Sub-Basin Study: Target completion 2030-2031 • Statewide conceptual water budgets: ○ Webpage providing the latest water budget information and progress updates (will be updated bi-annually through 2030) ○ Statewide Groundwater Recharge Study: ○ OWRD Baseflow Fact Sheet provides overview of initial USGS baseflow data release for use by the interested public. Additional baseflow data collection and refined estimates are planned for completion in 2027. ○ USGS Scientific Investigation Report describing conceptual groundwater budget components for each administrative basin in the state: Anticipated publication in 2027 ○ Bi-Annual updates on Statewide Recharge Study progress: January 2026 Update here • Evapotranspiration (ET) ○ Desert Research Institute (DRI) report quantifies crop evapotranspiration, consumptive use and open water evaporation for Oregon (2025). ○ OWRD-developed tools to use ET data now available to support technical products such as basin studies (2025-2027). ○ Supporting partners (Bureau of Reclamation, DRI, Open ET Inc, OSU Extension) are developing water conservation tools for irrigators and water managers, utilizing ET and agricultural weather data (2025-2027).
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	○ Bi-Annual updates on Statewide ET Project and Developing Water Use Tools: January 2026 Update (through 2030). ○ Installation of 30 AgriMet stations for Statewide ET Project (HB 2018, HB 2010) ● Updating Surface Water Information Modeling System (SWIMS; target completion 2030) ● Water measurement ○ Installation of 7 (of 10) stream gages for SWIMS ○ Continued measurement device installation at Significant Points of Diversion ○ Increased installation of measurement devices using resources from the Water Measurement and Cost Share Fund ○ Installation measurement devices on all surface water diversions on mainstem John Day River ○ Expansion of Observation Well Monitoring Network ○ Outreach and enforcement for static water level permit condition reporting ● Dry Well Reporting System established during 2021 drought ● Participated in Oregon Water Data Portal
Assess risks and impacts	
Gaps identified in the DVA	
● Planning Gap 2. The need for improved evaluation of drought impacts and policies. ● Planning Gap 4. The need for planning to address ecosystem vulnerabilities.	
2016 Task Force Recommendation	Implementation progress since 2016
B. Provide resources for assessments of drought impacts, risks, and vulnerabilities on instream and out-of-stream sectors in order to better prepare for, respond to, and recover from drought. ● B.1: Drought vulnerability, impact, and risk assessments should be conducted for various instream and out-of-stream sectors affected by drought. Given that assessments are a substantial undertaking, likely beyond the scope of existing resources, agencies should work with the Legislature to identify resources necessary to accomplish assessments. At a minimum, as	IWRs Actions: 1D, 2A-2C, 3A-3B, 5A, 13B, 13C ● Drought Vulnerability Assessment (SB 5561, 2021 Special Session) ● Oregon Health Authority Climate and Health in Oregon (2021-2022) ● Oregon State University; development of drought support tools in AgTap

resources allow, assessments should be conducted for agriculture, instream, and municipal water systems, taking into account the cumulative impacts of drought. These assessments should then be utilized to target resources to reduce vulnerability and increase resiliency and could inform local hazard planning and mitigation activities, as well as the statewide Natural Hazards Mitigation Plan.	
Plan and implement response strategies	
Gaps identified in the DVA	
• Response Gap 1. The need to improve coordination of state drought response actions. • Response Gap 2. Information gaps around the efficacy of state emergency drought tools. • Response Gap 3. Limited measures to address environmental impacts from drought. • Response Gap 4. The lack of established funding programs to respond to drought impacts.	
2016 Task Force Recommendation	Implementation progress since 2016
C. The State should review the drought declaration process and tools to ensure drought declarations are effective to assist with emerging drought response. The Department and its partners should consider: • C.1: The Drought Readiness Council and the Water Supply Availability Committee should continue to meet and coordinate on drought preparedness, response tools, and data – regardless of drought conditions. To the extent possible, the Drought Readiness Council should include local entities and stakeholders, especially during times of drought, to represent the full spectrum of instream and out-of-stream interests potentially affected by drought. • C.2: Provide more information to help the public, elected officials, and others to understand when an area is likely to experience drought, and what a drought declaration means. • C.3: The timing of drought declarations should be reviewed, as late declarations make it difficult to utilize drought tools and plan for drought. Efforts should be on identifying drought as early in the year as possible. Addressing timing may help both out-of-stream and instream needs. Consider a predrought warning or advisory to draw attention early in the season, or declaring drought earlier in the year. Look at opportunities to improve coordination with local jurisdictions, so that they are aware of these pre-drought conditions. • C.4: There is no requirement in ORS Chapter 536 that the process involve a county request or occur on a county scale. Some members observed that	<u>IWRS Actions:</u> 5A, 13B • Increased coordination with Oregon Department of Emergency Management (OEM), with more timely communication with County and Tribal emergency managers • Increased public messaging on drought impacts and conservation options • See also actions on other recommendations.

there may be pros and cons to the current county approach. Factors to consider include: Not all sectors or entities within a county are impacted by drought in the same way: only one sector or one entity (such as a district or municipality) may require assistance or be short on supplies. Utilizing only scientific indicators and indices to trigger a drought declaration versus requiring a county request. The current approach allows for local input into the decisions and 15 accounting for the local and regional conditions, but not all sectors may receive consideration, such as impacts on fish and wildlife, agriculture, and municipalities • C.5: The Department should review the drought tools and consider: (1) instituting tracking mechanisms for less frequently used tools, (2) evaluating use of temporary drought transfers and emergency drought permits – most uses occur in only a few counties, (3) identifying impacts of the use of tools and balancing the short-term need with longer-term impacts, (4) improving awareness of those less commonly used and how they work, and (5) interaction with Department’s regular water management tools.	
D. The Legislature should look at establishing a drought emergency fund for instream and out-of-stream needs. • D.1: The Oregon Legislature should consider establishing an emergency fund for drought response activities to: (1) address the unexpected issues that arise for drinking water systems, particularly small systems, (2) incentivize actions to address instream needs, particularly in high priority streams for sensitive, threatened or endangered fish, and (3) address emergency water for agriculture. • D.2: In developing a fund, the Legislature should look to programs in other states, as outlined above and implement lessons learned from each state. These states have funding for both instream and out-of-stream purposes. • D.3: Prior to establishing a new fund, Oregon Office of Emergency Management’s (OEM) Local Disaster Assistance Grant and Loan program is an existing fund that should be reviewed to 17 determine if it meets the response goals during drought for both instream and out-of-stream needs. In addition, a barrier to using this fund is that it has not been capitalized. Eligible applicants are local governments. • D.4: Other programs may limit funding eligibility to local governments; however, other entities may need to be eligible if the fund is to address all sectors’ needs.	<u>IWRS Actions:</u> 5A, 13C • Water Well Abandonment, Repair, and Replacement Fund established (HB 2145, 2021): provides financial assistance to low to moderate income homeowners experiencing dry household wells, including those that are experiencing severely declining water levels, and wells damaged or destroyed by wildfire. OWRD has awarded \$7.3m in grants and restored water to 250 households

Build Awareness	
Gaps identified in the DVA	
Planning Gap 3. The need to increase support for local drought planning.	
2016 Task Force Recommendation	Implementation progress since 2016
E. Provide OWRD with staff resources to do outreach and communication. Develop communication toolbox to educate all sectors and elected officials about existing tools, water conservation, drought conditions and preparedness, and help small communities respond to drought. E.1: Provide OWRD with staff resources to do outreach and communication; this may also require IT and GIS support. Staff should work on increasing awareness of OWRD's existing programs, as low uses of programs may be from lack of outreach. This would include regular water management tools (e.g., transfers, instream leasing, allocation of conserved water, groundwater recharge, etc.), as well as drought response tools outlined in Appendix A (e.g., temporary drought transfers, emergency drought permits, special option agreements, temporary substitutions, temporary exchanges of water, and preferences for human consumption or stock water use). E.2: As resources allow, OWRD should develop a communication toolbox to educate all sectors and elected officials about existing instream and out-of-stream tools, water conservation, and drought conditions and preparedness, and to help small communities to respond to drought. A toolkit would minimize the expense and time required to develop messaging and make it easier for smaller systems to assess risk, implement best practices, and communicate with their customer base about water conservation. See Appendix C for more information on what needs to be developed for effective outreach. E.3: In order to leverage limited resources, OWRD should explore partnerships with third parties such as larger utilities, universities, industry groups, and other organizations to share outreach materials and coordinate outreach and education efforts.	<u>IWRS Actions:</u> 8C, 10A, 10E, 13B - Staffing for communications, outreach, and engagement (HB 2018, 2021; SB 5545, 2021; SB 5561, 2021 Special Session) - Outreach to County and Tribal Emergency Managers through existing Oregon Emergency Management communication lines - Developed public engagement and outreach tools to engage the public around technical information on drought - Maintain and improve outreach tools regarding drought options for water users - Ensuring consistent and current drought information is available to public, lawmakers and news media by developing biweekly Drought and Water Supply Conditions report, available via email and OWRD website. - Developed interagency drought communications plan with state and federal agencies to improve coordination and consistency of public information regarding drought causes and impacts - Developed information and resources for domestic well owners to maintain their water supply, and promoting dry well reporting to improve data on potential groundwater issues throughout the state - Developed guidance for well owners and water right holders impacted by wildfire - Maintain and post online water conservation information for homes, farms & ranches, and municipal water suppliers

	- Promote low-cost, equity-tested tips for water conservation through partnership with Regional Water Providers Consortium - School Team provides support and resources for agency staff for outreach and engagement with elementary to middle-school aged children - Participation in the Outdoor School to teach the next generation about water stewardship
Mitigate impacts	
Gaps identified in the DVA	
Response Gap 3. Limited measures to address environmental impacts from drought. Planning Gap 1. The need to strengthen state drought resilience planning. Planning Gap 3. The need to increase support for local drought planning. Planning Gap 4. The need for planning to address ecosystem vulnerabilities.	
2016 Task Force Recommendation	Implementation progress since 2016
F. The Legislature should look at establishing a fund for drought planning to help communities be better prepared and more resilient to drought. F.1: The Legislature should approve expenditure limitation of federal funds and provide state match funds to assist with development of local and state hazard mitigation plans. Local hazard mitigation plans should take into account drought, as all of the state can be susceptible to drought. F.2: The Legislature should also consider establishing a fund that can be used to assist with other planning efforts, which could include: (1) match funds to leverage federal WaterSMART Drought Contingency Planning Grants, (2) funds to assist small water systems in developing a water management and conservation plan, curtailment plan, or conservation plan, or further refining their Emergency Response Plan required by Oregon Health Authority, and (3) funding to incentivize irrigation districts and others to develop water management and conservation plans.	IWRS Actions: 5A, 9A, 9C, 9E, 13B, 13C - Place-Based Integrated Water Resources Planning Fund made permanent and \$2 million allocated for pre-planning work, community capacity building, place-based planning, and implementation coordination of place-based plans; allowable planning actions expanded to include those related to drought (HB 2010, 2023) Place-Based Water Planning Handbook published - Place-Based Water Planning 2026 Funding decision in winter 2026 - Feasibility Study Grant program amended to allow for additional activities related to water management conservation planning and drought resiliency and reduced match requirements for small municipalities (HB 3364, 2025; SB 1585, 2026)
G. Provide funding for additional watermaster staff and tools to make water distribution more efficient. G.1: OWRD should identify tools that would make water distribution more efficient. For example, developing tools through the use of information	IWRS Actions: 10E, 13B

technology can help some field offices, but requires investments in technology staff. Investments in telemetry and stream gages can also help staff with water distribution; however, technical staff to maintain the stations and process the data have not kept up with needs and, therefore, new gaging stations and technology may increase watermaster workloads. • G.2: The Legislature should provide funding for additional watermaster staff and as identified, provide funding to implement tools to make water distribution more efficient.	• Water Measurement Cost-Share Fund expanded to allow for payment of measuring devices for groundwater wells (HB 3015, 2017) • Additional resources for OWRD in field staff and establishment of Enforcement section (SB 5545, 2021; SB 5561, 2021 Special Session; HB 5043, 2023) have resulted in a downward trend of community-based complaints: 242 in 2024, which is down from the previous years of 377 in 2023, 508 in 2022, and from 1,120 in 2021. • Staff added to Hydrographics to improve efficiency of gaging work
H. Need to address lack of planning, support, resources, and technical assistance for small water systems to be better prepared for drought. • H.1: OWRD should develop a voluntary WMCP lite template as a tool for small communities to understand their water rights, drought risk, and approaches for conservation, and curtailment. Such effort should be coordinated with OHA's Drinking Water Program to ensure consistency and prevent duplication of Water System Master Plan Requirements or Emergency Response Plan Requirements. • H.2: With over 3,400 public water systems, OWRD and OHA have limited capacity to provide technical assistance and outreach. Resources are needed to provide technical and planning assistance to small communities, develop training materials, and work with third parties such as Rural Community Assistance Corporation and the Oregon Association of Water Utilities. • H.3: To the extent that resources allow, OWRD and OHA should coordinate with Rural Community Assistance Corporation, Oregon Association of Water Utilities, and other partners to provide training and technical assistance to small water systems and help them better prepare for drought. • H.4: To the extent that resources allow, OWRD and OHA's Drinking Water Program, in cooperation with OEM, other applicable state agencies, local governments and water providers, should work to identify and implement actions to improve coordination on matters related to drinking water supply shortages.	<u>IWRS Actions:</u> 5A, 7A, 9A, 10A, 13C <u>IWRS Priority Task:</u> P2.4 • 2017 legislation introduced that did not pass: HB 2297 expanded allowable expenditures from the Feasibility Study Grant program to include planning efforts to mitigate the actual or potential impacts of existing or future drought conditions. • Division 86 Rules governing Water Management Conservation Plans (WMCP) updated to better accommodate the needs of smaller municipal water suppliers in the development of their plans (2018) by adjusting the level of detail and analysis required for a small municipality. • See Place-Based Integrated Water Resources Planning Fund in Recommendation F. • Administering grants to implement the Walla Walla Water 2050 Plan (SB 1567, 2024) • Currently updating the municipal WMCP Plan guidebook • Ongoing outreach and technical assistance to small water systems through partnership with the Oregon Association of Water Utilities (OAWU), including participation in OAWU technical conferences and

	present twice each year on a range of water management topics, such as water supply planning, conservation, drought preparedness, and OWRD programs and requirements. OEM resource guides: “Local Water Supply Emergency Planning Guidance”, “Drought Assistance for Counties and Individuals”, and “Drought Assistance for Tribes”
I. Assemble a group of experts to evaluate and identify existing infrastructure programs and evaluate barriers to accessing infrastructure funding. Provide technical assistance or capacity building grants to help individuals and communities identify, apply for, and access infrastructure funding to improve drought resiliency. I.1: The Governor or Legislature should assemble a group of experts to identify existing infrastructure funding programs, outline their requirements, and evaluate potential barriers to accessing infrastructure funding. I.2: To improve individuals and communities’ ability to access infrastructure funding sources, the State could either hire technical assistance staff with knowledge of various funding sources, or could create a capacity grants program to allow communities to hire experts. Such a program could be particularly helpful to assist small communities.	IWRs Actions: 5A, 7A, 13C - See Place-Based Integrated Water Resources Planning Fund in Recommendation F. - See Feasibility Study Grant program in Recommendation F. - Water Project Grants and Loans program amended to increase annual funding cycles, streamline administration, and reduce match requirements for small municipalities (HB 2010, 2023; HB 3364, 2025; SB 1585, 2026) - Business Oregon Regional Infrastructure Fund \$10 million investment for infrastructure construction and planning grants (HB 5204, 2026)
J. Evaluate management options for stored water to better address current and future instream and out-of-stream needs. J.1: Evaluate current state rules and statutes related to reservoir management to determine if the state has flexibility to change spill/fill procedures. J.2: There is a need for better understanding by stakeholders of what rule curves are and what is needed to change a rule curve so the State can better represent its interests.	IWRs Actions: 1D, 2A, 2B, 3A, 6A, 13B IWRs Priority Task: P3.4 - The U.S. Congress passed legislation in 2020 to reallocate storage space within the Willamette Valley Project to three categories: 69 percent for fish and wildlife, 21 percent for agricultural irrigation, and 10 percent to municipal and industrial water uses. - In the Willamette Basin, a project was launched in 2025 called “Forecast Informed Reservoir Operations,” and is currently being led by USACE, the Scripps Institute of Oceanography, and co-chaired by OWRD. This multi-year project will use improved weather and water forecasts to better inform decisions about retaining or releasing water from

	Willamette Valley Project dams, ultimately leading to additional flexibility in reservoir operations.
K. The Legislature should look at measures and incentives to promote water conservation and efficiency. K.1: The Legislature should look at providing tax incentives for water conservation and efficiency measures. K.2: The Legislature should look at making water rebates nontaxable income.	IWRS Actions: 10A, 13B, 13C IWRS Priority Task: P3.2 - Harney Conservation Reserve Enhancement Program established for permanent groundwater right retirement (SB 5545, 2021) \$50 million allocated to OWRD Water Projects Grants and Loans Fund for irrigation modernization (HB 5030, 2023). All funds have been expended: overview of active grants and completed projects (see pages 1-4) - Grants to implement the Walla Walla Water 2050 Plan (SB 1567, 2024)
L. The Legislature should consider additional programs to facilitate restoration of streamflows through voluntary means during times of drought. L.1: The Legislature should look at establishing a program that would allow for the pre-approval of leases for instream purposes. A pre-approval process, with appropriate sideboards, could improve water right flexibility by allowing a water right holder to submit an application to lease their water instream for up to 5 years and notify OWRD immediately prior to each irrigation season if they desire their water to remain instream, without having to go back through the application process. The water right holder could use their water out-of-stream per their water right during all other years. The lease application would still be subject to the injury and enlargement review, additionally, failure to notify OWRD of the desire to keep the water right instream would count towards non-use, minimizing opportunities for misuse and ensuring that the forfeiture statute is not circumvented. This change would allow water right holders to respond to and mitigate for the impacts of drought conditions with a low financial and administrative burden to the water right holder.	IWRS Actions: 10A, 10D, 11A, 11B, 13B, 13C 2017 legislation introduced that did not pass: pre-approval of instream leases to improve water right flexibility by allowing a water right holder to submit an application to lease their water instream for up to 5 years and notify OWRD immediately prior to each irrigation season if they desire their water to remain instream, without re-application process - Split-season leasing authority made permanent allowing for a water right lease for split use of water between the existing water right and in-stream water right within same year (HB 3164, 2023)
M. Oregon should continue to encourage water reuse activities throughout the state, while giving due consideration to the protection of instream flow, water quality, public health, and drinking water sources.	IWRS Actions: 10B, 13C IWRS Priority Task: P3.1 - Water reuse legislation and interagency report published (HB 2010, 2023; HB 2169, 2025) - Ongoing participation in Interagency Reuse Team and Water Reuse Advisory Group

Water Justice Considerations

As part of the Drought Vulnerability Assessment, researchers from the University of Oregon Environmental and Natural Resources Law Center used Oregon Water Futures Collaborative (OWF) findings and its Water Justice Framework to identify substantive issues to consider when planning for and during droughts to serve environmental justice communities:

- **Indigenous Water Justice Leadership:** Integrating Indigenous water justice leadership into state decision-making processes, according to interviewees, would enable the state to more effectively engage the unique vulnerabilities that Native communities face, and the solutions they mobilize, when water resources are compromised. Community engagement suggests that Indigenous water leadership can be mobilized to address drought impacts by supporting: a Tribal Water Justice Task Force with impact on decision making processes relevant to drought; projects that further enable Indigenous food sovereignty among Oregon's tribes and Indigenous immigrant communities; increased co-management of natural resources with tribes that incorporate cultural burnings as a drought mitigation practice; solutions for the water crisis impacting the Confederated Tribes of Warm Springs; and engagement with non-federally recognized tribes, such as Chinook Indian Nation, in drought prevention, mitigation, and relief efforts.
- **Renter's Rights:** Community engagement suggests that renter's rights can be best supported during droughts by acknowledging and addressing renters' specific vulnerability; the challenges renters face when well water quality is compromised; the high costs of well testing and remediation that both landlords and renters fear; and limited access to information about water quality.
- **Water Access and Affordability:** A few potential areas of intervention regarding water access and affordability impacted by drought relevant to environmental justice communities may include: recognizing the human right to water; increasing environmental justice communities' access to funds for well repair, remediation and replacement; developing solutions to drinking water quality challenges; supporting innovative approaches to water uses in agricultural businesses; and finding creative ways to sustain home and community gardens serving food insecure communities during droughts
- **Natural and Built Infrastructure for Clean Water:** To address drought impacts to natural and built infrastructure, the following may be productive avenues for action: engaging indigenous land stewardship practices, facilitating water conservation and re-use at home, ensuring food security through water re-use systems and fishing regulations, and continue investing in improving outdated utilities and well systems impacted by drought and wildfires.
- **Emergency Preparedness:** In environmental justice communities, especially rural and low-income communities and those for whom English is a second language, emergency preparedness must be culturally competent (able to provide information in multiple cultural and linguistic registers) and accessible (free of jargon). Economic resources must also be readily available to provide water, food and medical care to those most impacted or to evacuate them as needed.
- **Community Empowerment:** Community members interviewed by OWF expressed across the board the desire to learn more about water stewardship, resources, utilities, services, advocacy, and emergency preparedness. Consulting the general public and creating opportunities for the state to provide accessible information about droughts, their impact, and mitigation strategies, enables people to feel more empowered to act. Information must be distributed in multiple formats through radio, mail, television, and social media, in a variety of languages, free of jargon, and with attractive formats and mediums, such as short educational videos and educational materials that children can share with their parents.

Considerations for Future Communication Efforts and Research on Drought Impacts

The Drought Vulnerability Assessment also identified areas where improved communication and data collection could improve research on drought impacts across the state. Some of these are outside of the scope of OWRD's work but are included below for completeness.

- **State Parks:** Park managers stated that increased education for visitors regarding what to expect at parks during drought would be highly beneficial in reducing staff stress and turnover. Additionally, DVA authors identified analysis of park revenue compared to drought metrics as a potential avenue for further work on assessing drought impacts.
- **Waterfowl, Fishing, and Fish Ecology:** Future analysis of the impact of drought on waterfowl, fishing, and fish ecology would benefit from greater formal collaboration with tribal communities and the Oregon Department of Fish and Wildlife. Useful data would include comprehensive records of instances where angling restrictions were put into place (dates and locations) and the criteria used to determine when angling restrictions are necessary.
- **Agriculture:** The state may wish to determine whether it is feasible to begin collecting data on key crops through a centralized coordinating body to better understand drought impacts on agricultural production. Several of the drought impacts from news mentioned farmers fallowing crops in response to curtailed irrigation. Future research could look at quantifying what portion of fallowed acres are due to drought.
- **Drought Vulnerability Analysis:** Including additional socioeconomic and physical drought vulnerability indicators, along with systematic methods for enhanced communication with water suppliers and users, could help refine this vulnerability analysis. To what extent this is necessary depends on how this information will be used and the level of detail necessary for effective decision making.