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ACTIVITIES. THIS IS FOR DISCUSSION PURPOSES ONLY AND DOES NOT REPRESENT AN
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Task Force on Drought Emergency Response

DISCUSSION DRAFT

A. Background on House Bill 4113 (2016)

Drought is not an abnormal occurrence in Oregon, with notable droughts in the 1930s, 1976-77, 1992, 2001-02, and 2015. In 2015, Oregon experienced severe-to-extreme drought across the entire state, resulting in 25 counties receiving a drought declaration – more than any other year since 1992, when a statewide declaration was issued.

In 2015, Oregon experienced severe to extreme drought conditions across the entire state, according to the U.S. Drought Monitor. 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.

Water is important to Oregon’s ecosystems, communities, and economy. In most areas of the state, surface water is no longer available for new uses in summer months. Groundwater supplies are also limited in some areas. Although Oregon often has the reputation as a wet state, the availability of surface water depends greatly on the location and timing of precipitation. Precipitation varies depending on location, and also between seasons. Precipitation typically occurs between the months of October and May; however, peak demands for water generally occur in the summer. Rainfall is essential for coastal areas where snowpack is not a significant contributor to streamflows.

As shown by the 2015 drought, Oregon, like much of the Northwest, is highly dependent on temperature-sensitive springtime snowpack to meet competing water demands. Predicted changes in climate are expected to result in increased temperatures, declining snowpack, and earlier spring snowmelt, likely leading to more frequent droughts like the one seen in 2015. Meanwhile, population growth, longer growing seasons, and warmer temperatures are likely to increase demands for water for instream purposes as well as out-of-stream purposes.

The 2015 drought highlighted the need to develop solutions to meet our instream and out-of-stream water resources needs now and into the future. Such efforts have been underway for several years, with the 2015 Oregon Legislature providing more than \$50 million in funding to plan for, evaluate, and implement water resources projects (such as water conservation, reuse, storage, etc). However, the effects of drought are far-reaching – impacting agriculture, communities, fish, wildlife, and recreation – and water resource projects take time to plan, develop, and implement. As the State invests in helping communities meet long-term water needs, the State also needs to ensure that it has effective tools to immediately respond to drought as it is occurs.

As a result, House Bill 4113 (2016) established a task force to review the State’s existing drought response tools, identify potential gaps, and make recommendations on tools and information needed to ensure that the State is prepared to respond to drought in the future.

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Specifically, House Bill 4113 directed the Task Force to research and evaluate potential tools to prepare for or deal with drought emergencies. The bill further provided that the Task Force may also consider drought response tools, as well as needed information and data as outlined below:

- Evaluate the sufficiency of existing tools to address short-term drought response needs and recommending additional tools to address short-term drought response needs;
- Identify options to minimize the impact of drought on agricultural, municipal, fish and wildlife, and other interests;
- Identify tools to assist small water providers in developing water management, conservation or efficiency plans and in anticipating drought risks and responses.
- Identify the data and resources necessary for anticipating drought and drought impacts on the economy, communities and the environment;
- Recommend improvements in information sharing necessary for enabling the public, water users and recreational in-stream users to understand drought conditions and to assist in efforts to mitigate or adapt to drought.

B. Task Force Membership

In accordance with House Bill 4113, the Oregon Legislature appointed four task force members:

Richard Kosesan, Water for Life, appointed by Senate Minority Leader
 Mary Anne Nash, Oregon Farm Bureau, appointed by House Minority Leader
 Representative Ken Helm, appointed by Speaker of the House
 Senator Arnie Roblan, appointed by Senate President

In addition, the Governor appointed eleven members to the Task Force:

JR Cook	Industrial	Northeast Oregon Water Association
Suzanne DeLorenzo	Municipal	Clackamas River Water
Brett Golden	Conservation	Deschutes River Conservancy
Jason Green	Municipal	Oregon Association of Water Utilities
Rodney Park	Agriculture	Parks Nursery
Kimberley Priestley	Conservation	WaterWatch of Oregon
Eric Quaempts	Tribal	Confederated Tribes of the Umatilla Indian Reservation
Robert Rees	Conservation	Association of Northwest Steelheaders
Daniel Shoun	County	Lake County Commissioner
Julie Smitherman	Municipal	City of Ashland
April Snell	Irrigation Districts	Oregon Water Resources Congress

Senator Roblan and Representative Helm were appointed to serve as Co-Chairs by unanimous vote of the other members of the Task Force.

Racquel Rancier, Senior Policy Coordinator, and Lanaya Blakely, Research Assistant, provided primary staff support to the Task Force on behalf of the Oregon Water Resources Department (OWRD).

C. Task Force Decision-Making

The Task Force met XX times.

Ideas were incorporated into a draft report for review of the members and to provide an opportunity for further discussion before a vote. A majority of the Task Force (8 members) was required to approve recommendations; however, the Task Force strove to reach consensus. As a result, votes of the task force are recorded in this report and it is noted where task force members dissented from a recommendation made by the majority of the task force. Nothing in this report should be construed to represent the opinions of Task Force members' affiliated organizations.

D. Task Force Recommendations and Interface with Oregon's Statewide Integrated Water Resources Strategy

Oregon's Integrated Water Resources Strategy goes beyond drought, outlining actions to help the State improve understand of our water resources and meet current and future instream and out-of-stream needs. For example, the Strategy includes recommendations (see #1a, 1b, 1c) on the need for groundwater and surface water data to support water management and water right permitting decisions. The Strategy also includes recommended actions to assist with climate adaptation and resiliency (5b), improve water conservation and efficiency (10a), improve access to storage (10b), encourage water reuse (10c), and develop additional instream protections (11a).

The Strategy is required to be updated every 5 years, with the next update due in 2017. Executive Order 15-09 directed the Department to include drought resiliency in the 2017 Update. In early 2016, the Department appointed a Policy Advisory Group to provide information and advice on gaps in the IWRS, such as the need to address extreme events, including drought. Some issues identified by Task Force members, particularly issues relating to longer-term actions, may be referred to the Policy Advisory Group for further consideration.

I. Introduction to Oregon's Drought Response and Mitigation Plans

In the early 1980s, professionals urged State's to adopt drought plans. These early plans were primarily focused on responding to emergencies caused by drought.¹ Oregon adopted its Drought Annex, which is a component of the States' Emergency Operations Plan.

¹ (Wilhite, D.A., & Rhodes, S.L. (1994)) [page 4] Wilhite, D. A., & Rhodes, S. L. (1994). State-level drought planning in the United States: Factors influencing plan development. *Water international*, 19(1), 15-24.

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In the 1990s, theories on preparing for drought began to shift from “response” to “mitigation,” prompting some states to adopt drought “Mitigation Plans.” The literature identified the following key components of drought preparedness: (1) data collection for monitoring, early warning, and prediction, (2) assess risk, vulnerability, and impacts, (3) prepare and implement response strategies, and (4) develop and carry out mitigation actions.²

Like most responses to emergencies, all levels of government may have a role in responding to drought. Drought is unlike other natural disasters that typically have a clear beginning and ending point (such as earthquakes, tsunamis, and floods); it is often called a slow-moving disaster, because impacts are widespread and take time to develop and accumulate over months to years. Like other natural disasters, Oregon’s response framework is contained in two primary documents: the Drought Annex to the State Emergency Operations Plan and the Statewide Natural Hazards Mitigation Plan.

Drought Annex and Emergency Response

The Drought Annex, last updated in 2015, outlines the process for the issuance of a Drought Declaration by the Governor for a particular area and outlines the various responsibilities of State agencies once a State Drought Declaration has been issued.

The Drought Annex is classified as a “Response Plan” and does not provide information on actions that can be taken to anticipate drought or reduce risks, vulnerabilities, and impacts prior to a drought occurring. While it provides an overview of potential sectors affected by drought, the Annex does not attempt to identify specific areas that are likely to have challenges during a drought response so that State resources can be targeted.

More information on the process and tools for drought declarations are provided in section X of this document.

Oregon’s Natural Hazards Mitigation Plan

The Disaster Mitigation Act of 2000 (44 CFR 201) and amendments to the act, require states to update their multi-hazard mitigation plans every 5 years to maintain eligibility for federal disaster assistance. Oregon’s Natural Hazards Mitigation Plan was last updated in 2015. The State Interagency Hazard

² (Wilhite, D. A. (2011). Breaking the hydro-illogical cycle: progress or status quo for drought management in the United States. *European Water*, 34, 5-18.

Wilhite, D. A. (2011). Breaking the hydro-illogical cycle: progress or status quo for drought management in the United States. *European Water*, 34, 5-18. (verified page 11&12, three key elements of drought mitigation plan)

Schwab, J. C. (2013). Planning and Drought. *Planning Advisory Service Report*, (574). (verified, page 66)

Sivakumar, M. V., Stefanski, R., Bazza, M., Zelaya, S., Wilhite, D., & Magalhaes, A. R. (2014). High level meeting on national drought policy: summary and major outcomes. *Weather and climate Extremes*, 3, 126-132. (verified page 2)

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Mitigation Team which maintains the plan, was instituted as a permanent body under the direction of Governor Kitzhaber after floods in 1997. The team is chaired by Oregon Emergency Management.³ Updates to Oregon’s Natural Hazards Mitigation Plan is managed by the Department of Land Conservation and Development, working with the State Interagency Mitigation Team. OWRD is the lead agency for Drought the developing the plan and has a number of responsibilities related to implementation of actions.

The mission of the plan is to create a disaster resilient Oregon. The plan seeks to conduct a risk assessment by: (1) characterizing hazards – both past events and future probability, (2) assessing vulnerabilities, including who is most impacted by drought and what communities and sectors are most affected, and (3) analyzing the impacts of drought. The risk assessment is intended to lead to a better understanding of the hazard and where mitigation actions should be directed. Mitigation actions are steps that can be taken to reduce the potential losses or impacts from future hazards. The Hazard Mitigation Plan outlines actions that need to be taken to make Oregon more resilient to drought; however, there are not sufficient resources to carry out all recommended actions at this time.

Excerpts of several of the recommendations from the Natural Hazards Mitigation Plan are included in [Appendix A](#).

II. Evaluation of Existing Tools

A. Oregon’s Drought Response Tools

Process for Declaring Drought

Prior to receiving a drought declaration from the Governor, the county has traditionally been required to first submit a letter from the Board of Commissioners or County Court, requesting the declaration and providing supporting information as to why it is needed. The Drought Readiness Council will review information provided by the county and data about conditions from the Water Supply Availability Committee to ensure that a declaration is warranted. The Drought Readiness Council also considers impacts on the ground that may require a response. The Drought Readiness Council provides recommendations to the Governor’s Office; ultimately, it is up to the Governor to decide whether to issue a drought declaration.

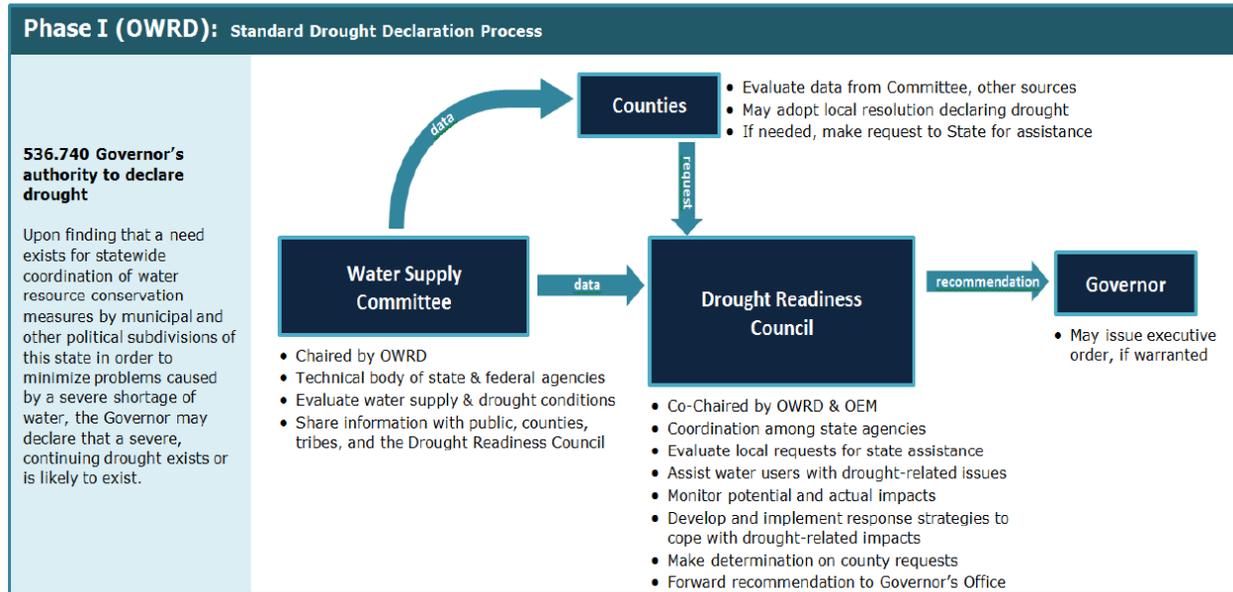
It is important to note that a drought declaration makes state drought response tools available; however, there are likely to be areas of the state experiencing drought conditions that do not request or require state-level assistance. State drought declarations have typically been done on a per county-basis. There have been some exceptions, for example, in 1992 there was a statewide declaration, while in 2012 there was a declaration on a sub-basin scale in the Lost River subbasin.

³ Oregon Natural Hazards Mitigation Plan (2015) p. 1257-1258

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Figure 4: Standard Drought Declaration Process



The Governor can issue a declaration that a “severe, continuing drought exists, or is likely to exist” triggering Water Resources Activation of tools under Chapter 536. The legal authorities for drought mitigation and response functions are found in Oregon Revised Statutes (ORS) ORS 536.700 - 536.780 and Oregon Administrative Rules (OAR) Chapter 690, Division 19. Under ORS 536.740, the Governor has authority to declare that a severe, continuing drought exists, or may exist, in any (or all) of the drainage basins in Oregon. Based on that declaration, the Governor or the Oregon Water Resources Commission can also direct state agencies and political subdivisions to implement a water conservation plan or water curtailment plan. Additionally, ORS 536.750 states that a drought declaration by the Governor allows the Water Resources Department to provide existing water right holders with access to temporary water management tools, described in OAR 690-019. Department authorities pursuant to Oregon Revised Statutes Chapter 536.

The Governor may also issue a declaration of a state of emergency under ORS Chapter 401.165, triggering the more traditional emergency response activities. More serious conditions may require further action, including a declaration of emergency as defined under ORS 401. When requesting a declaration of emergency by the Governor, local governments must first conduct response operations to the full extent of their capability, as defined by local statutes and more fully described in emergency operations plans. As a part of that response, local governments must have exhausted all local resources including requesting assistance through mutual aid, intergovernmental agreements, and private contracts. Assistance through this process is most applicable when the severity of the drought causes or threatens widespread loss of life, injury to person or property, human suffering or financial loss—in other words, agricultural or socioeconomic droughts. If water supply conditions deteriorate to the point of a severe water emergency, for example, where drinking water supplies are threatened and state resources are needed to respond, then an emergency declaration under ORS 401 can be triggered. A part of that local declaration must be a request for a state declaration of emergency. This state declaration allows much broader action than the water right tools available under ORS 536, including the deployment of people and equipment from any state agency deemed necessary.

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(Drought Annex)

Overview of Tools

Emergency Water Use Permits

An approved emergency water use drought permit allows a water user to temporarily replace water not available under an existing water right. The most common drought permit allows the use of groundwater as an alternative to an existing surface water right. A well-prepared application generally takes approximately ten business days to process. Emergency water use permits are issued through an expedited process and are valid for one year or the term of the drought declaration, whichever is shorter.

Temporary Transfer

A water user can apply to change the type of use, place of use, or the location of the diversion under an existing water right. A temporary drought transfer takes place under an expedited process, and is in effect for the duration of the drought declaration or up to one year, whichever is shorter.

Temporary Instream Lease

Once approved, a water user can convert all or a portion of a water right to an instream use for a period of one year or the term of the drought declaration, whichever is shorter.

Temporary Substitution

Any person holding both a primary right originating from a surface water source and a supplemental right from a groundwater source may apply to temporarily use the supplemental right instead.

Special Option Agreements

A water-right holder can enter into an agreement that authorizes the use of water at locations, from points of diversion, and for uses other than those described in the water right. Typically, the agreement remains in place until terminated by the parties, and provides additional water-supply options in times of drought.

Temporary Exchange of Water

The Water Resources Commission can approve a temporary exchange of existing rights, such as using stored-water instead of a direct-flow surface-water right.

Human Consumption or Stock Water Use Preference

The Water Resources Commission has authority to grant a temporary preference to water rights for human consumption and/or stock watering uses. The preference is given over other uses regardless of the priority date (seniority) of water rights associated with the other uses. In order for the preference to go into effect, the Water Resources Commission must approve temporary rules instituting the preference.

Requiring Development and Implementation of Curtailment or Conservation Plans

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ORS 536.780 allows the Water Resource Commission, “upon a finding that a severe or continuing drought is likely to occur,” to direct individual state agencies and political subdivisions (e.g., a county, city, town, or district) to prepare “a water conservation or curtailment plan or both.”

Some entities have already developed curtailment plans as part of their Water Management and Conservation Plans. Many municipal water suppliers, irrigation districts, and other agricultural water suppliers are required to prepare Water Management and Conservation Plans (WMCP) to meet their water right obligations; such as, water right permit conditions, long-term permit extension request, or to participate in a water right transfer under OAR 690-385. A WMCP describes the water delivery system and its water demands, identifies the sources of water, and explains how the entity will manage and conserve those supplies to meet present and future needs. A WMCP also includes a curtailment element, which can be used to meet the requirement for a curtailment plan by the Commission during a drought declaration. (WMCP guidebook, page 85, Ch. 4 Water Curtailment Element).

Pursuant to OAR 690-86, water curtailment plans are required to have the following:

- A description of water supply deficiencies experienced within the past 10 years;
- An assessment of current capacity limitation(s) and the ability to maintain water delivery during long term supply shortages;
- At least three stages of alert;
- Pre-determined situations which trigger each stage of alert; and
- A list of curtailment actions to be enacted under each stage of alert.

⁴ (WMCP guidebook, page 86, Ch. 4 Water Curtailment Element)

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Appendix A. Recommendations from the Natural Hazards Mitigation Plan

- 39 - Add real-time telemetry at existing gaging stations
- 77 & 105 - Develop an improved method for identifying most vulnerable communities to drought and related impacts
- 79 - Continue to refine the hazard description
- 80 - Continue to refine exposure, vulnerability, and losses
- 81 - Continue to refine priorities, and those at greatest risk
- 85 - Provide support for development and update of local and state hazard mitigation plans.
- 86 - Improve and sustain public information and education programs aimed at mitigating the damage caused by natural hazards
- 87 - Provide technical assistance and funding to local governments to evaluate the need and opportunities for inter-tie projects in Local Natural Hazards Mitigation Plans.
- 97 - Expand the state's stream gaging network. Seek stable funding for the operation, and maintenance of stream gages.
- 98 - Better coordinate, fund, and publicize programs to reduce the abundance of juniper trees in arid landscapes across Oregon.
- 105 - Implement the improved methodology for gathering data and identifying the communities most vulnerable to drought and related impacts.

Table 3-1, starting on pg. 1016