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MEMORANDUM

TO: Representative Ken Helm, Chair

House Committee on Agriculture, Land Use, Natural Resources and Water

FROM: Bryn Hudson, Legislative Coordinator

SUBJECT: November 7, 2023 Groundwater Allocation Hearing Follow Up

DATE: November 20, 2023

The Department's responses to questions received during the November 7th hearing on the Groundwater Allocation Rulemaking Process are provided below.

1. **Given the connection between surface and groundwater, how will surface water and groundwater data be used to make determinations on groundwater availability?**

   "Hydraulic connection" refers to how surface water and groundwater are interconnected. In hydraulically connected systems, declining groundwater levels can affect streamflows by reducing the amount of groundwater that reaches the surface. Because surface water and groundwater are interconnected across most of Oregon, surface water users are often affected by declining groundwater levels. With enough time in hydraulically connected systems, groundwater pumping will be fully sourced from surface water.

   Under the proposed rules, the methodology for evaluating hydraulic connection will continue to match the Department's current practice. In evaluating hydraulic connection, the hydrogeologist analyzes data and applies commonly used hydrogeologic principles. The hydrogeologist relies on local hydrogeology from published reports, groundwater and surface water elevations, and whether the stream is perennial, intermittent, or ephemeral. The draft proposed rules specify that groundwater permit reviews will rely on generally accepted hydrological principles as consistent with statute to evaluate the potential for substantial interference between a proposed new groundwater use and hydraulically connected surface water resources.

2. **How will rulemaking take into consideration future, climate change driven changes of recharge times, and react to those changes in time to forestall overallocation?**

   Anticipated climate change impacts in the future include more frequent and intense weather events, and a transition to more rainfall-dominated precipitation in the highlands (that is, less snowfall and snowpack on average than historically observed). These changes may affect the amount of annual recharge that flows into the aquifers, and if that occurs, then it would be reflected in observed groundwater levels as compared to historical observations. For this

rulemaking, the proposed definition of "reasonably stable water levels" depends on observed groundwater levels. If reduced recharge causes groundwater levels to decline below reasonably stable water levels, under the proposed rules, water would not be available for additional allocation. While the proposed rules do not attempt to *predict* changes in groundwater availability due to climate change, they do allow the Department to more rapidly recognize and respond to changes in groundwater availability caused by climate change or other factors.

3. Why are we here? What has happened in the last 68 years and what has happened since the creation of the 2016 groundwater map of concern?

Since the Groundwater Act was passed in 1955, the Department has proceeded to implement it statutory authorities including establishing critical groundwater areas or restricting new uses where aquifers are overallocated. The Department has also sought resources to study aquifers around the state. Support for implementation of these tools and funding has been inconsistent over time. Meanwhile, groundwater use has increased, particularly as surface water supplies have been fully allocated in many basins for some time. As more basins are affected by over-allocation of groundwater and surface water resources, the state needs to re-evaluate its approach.

Since 2016, the Department has:

- Obtained increased and consistent funding to collect and analyze groundwater data;
- Completed a groundwater study in the Harney Basin, and started a groundwater study in the Walla Walla Subbasin;
- Completed rulemakings to prevent further overallocation of groundwater resources in the Harney and Walla Walla Subbasin;
- Partnered with the community to address commingling wells in the Mosier area that were contributing to groundwater declines;
- Partnered with communities in four basins to develop place-based integrated water resources plans to address water needs – including developing and implementing tools to address the Harney Basin's groundwater challenges;
- Updated our Division 10 rules to align with statutes on critical groundwater areas to facilitate future management and solutions;
- Generated a 2021 Groundwater Resource Concerns Report and a groundwater concern map based on several types of data used to assign concern levels across the state.

The culmination of the work since 2016 along with the increased awareness and understanding of the finite nature of our groundwater resources made it evident of the need to update the Department's allocation rules.

4. How is OWRD planning towards a robust water future regarding innovative water and management planning with a focus on basins?

OWRD is not sure that we fully understand the question; however, we have attempted to respond to the question as we understand it. We can provide further information if needed.

The Department continues to work with other state agencies and partners to identify tools for meeting our water needs now and into the future through the Integrated Water Resources Strategy. With a renewed focus on the IWRS, state agencies will be developing a workplan to move forward actions to meet our water needs into the future.

The IWRS also recommended a collaborative, place-based approach to integrated water resources planning. In 2015, the Legislature authorized funding for a Place-Based Integrated Water Resources Planning pilot (ORS 536.220). The Department has since provided technical and planning assistance to the planning groups, along with a total of $2.4 million in grant funding. Existing place-based planning efforts have identified innovative approaches to address water needs. In 2023, the Legislature made Place-Based Integrated Water Resources Planning a permanent program and provided staffing and dollars for grants to support new and existing planning groups. The Department is in the process of setting up this permanent program.

The Department is also assessing how we can better connect statewide planning, basin program rules that guide management, and place-based planning. Further, we know that growth will continue to occur in Oregon, but Oregonians must adapt, invest and innovate to meet the changing water realities and address water needs. As we move forward, the State will need to help communities meet their water supply needs through other means such as:

- Efficiency and conservation measures;
- Transfer of water rights;
- Water sharing agreements;
- Market-based solutions;
- Designing for water reuse and recycling; and
- Other solutions.

5. Why are exempt wells not included in the *data collection that informs the groundwater models?* (Revised question from 11/17)

The Groundwater Allocation Rulemaking modifies rules that govern the permitting of new groundwater uses. Oregon law (ORS 537.545) exempts certain groundwater uses from the requirement to obtain a water use permit; therefore, these rules cannot apply exempt uses.

Exempt well water use measurements are not generally required or reported to the Department. The Department typically uses estimates of exempt well water use to account for these groundwater withdrawals from studies produced by the USGS. The Department does measure water levels in a limited set of exempt use wells across the state. These water level measurements are available to the public through the groundwater information system (GWIS) and are used to inform groundwater basin studies and associated groundwater models.