DIVISION 512 - NEED FOR RULEMAKING:

CGWA

Since the 1990s groundwater development in the Harney Basin has increased significantly, primarily for irrigation, leading to declines in groundwater levels, with some areas seeing declines of over 100 feet. The Harney Basin Groundwater study (Gingerich et al. 2022; Garcia et al. 2022) identified that the groundwater budget in the basin's lowlands is out of balance, with discharge exceeding recharge by 110,000 acre-feet per year. This imbalance has caused widespread groundwater level declines, especially in areas with intensive groundwater pumping. The study also found that much of the pumped groundwater is ancient and not replenished on human timescales. Ongoing groundwater level data collection confirms that groundwater levels continue to decline in many areas.

The groundwater conditions in the Harney Basin have resulted in the need to designate the basin a critical groundwater area (CGWA), which enables the Department to restrict further groundwater appropriation within the basin, establish a limit on the volume of water that can be pumped, and determine the handling of any water right permits issued during the rulemaking process. A basin can be designated a critical groundwater area if all or part of the basin meets one of the criteria defined in ORS 537.730(1). In the Harney Basin the following requirements from ORS 537.730(1)(a), (e) have been met:

(a) Groundwater levels in the area in question are declining or have declined excessively

(e) The available ground water supply in the area in question is being or is about to be overdrawn

Groundwater levels are considered to have declined excessively when they decline more than 50 feet below the highest known water level and are considered excessively declining at a rate of 3 feet per year over 10 years. In the Harney Basin, some wells have experienced a decline of 50 feet or more and/or a decline rate of 3 feet per year for 10 years. For a more detailed explanation, refer to “Groundwater Report for the Harney Basin Critical Groundwater Area Rulemaking” (Boschmann 2024).

A groundwater reservoir is overdrawn when the amount of groundwater pumped annually exceeds the average annual recharge. In some areas of the Harney Basin, groundwater pumping exceeds recharge. For a more detailed explanation, refer to Boschmann (2024).

The Department proposes defining the CGWA boundary as the established administrative boundary of the Greater Harney Valley Groundwater Area of Concern (GHVGAC). Within this boundary, the CGWA will be divided into seven subareas. Exhibits depicting the critical groundwater area and subarea boundaries are attached to draft rule OAR 690-512-0020.

SWMPA

The proposed Serious Water Management Problem Area (SWMPA) in the Harney Basin requires monthly totalizing flowmeter measurement and annual water use reporting for all wells authorized under a groundwater right. The Department proposes establishing the SWMPA boundary to cover areas of Grant and Harney counties located in the Harney Basin and within the

Malheur Lake Administrative Basin. An exhibit depicting the SWMPA boundary is available in the draft rules OAR 690-512-0020(#). The criteria for designating a SWMPA are outlined in ORS 540.435 and OAR 690-085-0020. In the Harney Basin the following requirements from OAR 690-085-0020(1) have been met:

(1) OAR 690-085-0020(1)(a) - Ground water decline in the area is of such magnitude that the aquifer does not recover annually;

(2) OAR 690-085-0020(1)(f) - There are frequent occurrences of surface or ground water shortages caused by use of water from streams or wells. Shortages may be evidenced by complaints from water right holders, requests to regulate water use, degraded water quality, or failure to meet administrative restrictions or minimum streamflows.

Widespread year-to-year groundwater level declines occur across many parts of the Harney Basin. Groundwater wells have been regulated off due to static water level declines below allowed conditions on water right permits. Complaints from domestic well owners have also been received due to groundwater declines.

Classification
The Harney Basin Groundwater Study findings show groundwater pumping surpasses the total recharge entering the basin. The Department proposes establishing the SWMPA boundary to cover areas of Grant and Harney counties located in the Harney Basin and within the Malheur Lake Administrative Basin. Further groundwater development within this area will compound the problem of declining groundwater levels. Future groundwater applications will be restricted within the classification boundary, although non-consumptive geothermal uses will not face limitations. Exempt uses as defined in ORS 537.545 will not be restricted.

Documents Relied Upon
Boschmann, D.E., 2024, Groundwater Report for the Harney Basin Critical Groundwater Area Rulemaking, draft report prepared for OWRD, available at https://www.oregon.gov/owrd/Documents/Groundwater%20Report%20for%20the%20Harney%20Basin%20CGWA%20Rulemaking.pdf.

Garcia, C.A., Corson-Dosch, N.T., Beamer, J.P., Gingerich, S.B., Grondin, G.H., Overstreet, B.T., Haynes, J.V., and Hoskinson, M.D., 2022, Hydrologic budget of the Harney Basin groundwater system, Oregon: U.S. Geological Survey Scientific Investigations Report 2021–5128, 140 p. [Also available at https://pubs.usgs.gov/publication/sir20215128.]

Gingerich, S.B., Johnson, H.M., Boschmann, D.E., Grondin, G.H., and Garcia, C.A., 2022, Groundwater resources of the Harney Basin, Oregon: U.S. Geological Survey Scientific Investigations Report 2021– 5103, 116 p. [Also available at https://doi.org/10.3133/sir20215103.]