



Oregon

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MEMORANDUM

TO: Water Resources Commission

FROM: Jason Spriet, East Region Manager
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SUBJECT: Agenda Item D, September 13, 2024
Water Resources Commission

Harney Basin Rulemaking Update

I. Introduction

During this agenda item, staff will brief the Commission on the latest developments in the Harney Basin rulemaking effort to designate a Critical Groundwater Area (CGWA). *This is an informational report.*

II. Integrated Water Resources Strategy Recommended Action

- 1 A-C – Understanding water resources today
- 9. C – Partner with federal agencies, Tribes, and neighboring states in long-term water resources management
- 10. F – Provide an adequate presence in the field
- 11.E – Develop additional groundwater protections

III. Background

The Department's goal for the Harney Basin is to stabilize groundwater level declines by achieving a target water-level trend of zero decline. This goal consists of three aspects: the target water-level trend, the spatial extent to meet that goal, and the timeline to achieve stabilized groundwater levels.

Target Water-Level Trend: Previously, the Department defined what “reasonably stable” means for the Stage Gulch and Butter Creek Critical Groundwater Areas. For example, in the Butter Creek CGWA, reasonably stable was defined as “an annual static water level decline of less than one foot over the entire subarea... and the water level change for the subarea averaged over five consecutive years displays no decline.” For the Harney Basin, the Department is proposing to not define reasonably stable, as some areas of the basin are showing more than 50 feet of decline. Instead, the Department is framing the discussion about goals for future groundwater level trends

in the Harney Basin as the target water-level trend. The Department's goal is to stabilize groundwater levels at a target water-level trend of zero decline for the entire designated CGWA.

Defining the Spatial Extent: The rate and magnitude of existing declines in groundwater levels are not uniform across the basin. The Department's methods to achieve a target water-level trend of zero decline is anticipated to vary based on the severity of the rates and the magnitudes of declines in different areas in the basin.

Timing to Achieve Stabilized Groundwater Levels: Members of the community have said that an immediate implementation of regulatory actions would result in significant impacts to the economy of the Harney Basin. The Department desires to minimize the impacts to the community by implementing a timeline for groundwater reductions that would support economic transition, while also addressing our duty to halt excessively declining water levels. A longer implementation timeline would result in continued groundwater declines, compounding impacts to groundwater users and groundwater-dependent ecosystems, but may reduce the short-term economic impacts to the community.

For the next several RAC meetings, the Department will be working with the RAC members to develop different management scenarios to be simulated using the USGS Harney Basin Groundwater Model. A management scenario will represent some change in groundwater use to see how water levels respond in the flow model. Three management scenarios will be developed and one of them will be selected as the Department's proposed strategy to stabilize groundwater levels. The scenarios will be evaluated on the likelihood of meeting a target water-level trend of no decline. The Department's intention is to achieve a target water-level trend of no decline for long-term sustainable groundwater use, without further negative impacts. The flexibility the community has for achieving the target water-level trend is around defining the spatial extent of the goal and the timing to achieve stabilized groundwater levels.

IV. Discussion

Measuring Success: One major challenge with meeting this goal to achieve a target water-level trend of zero decline is determining how success will be measured. The Department still needs to have a conversation around this topic with the RAC. Two options under consideration are:

1. The mean of all static water-level trends in an area demonstrates no decline, or
2. All wells show no decline.

Staff will discuss the challenges and opportunities with each of these methods during the commission meeting.

Balancing Impacts: The time to achieve stabilized groundwater levels presents challenging policy decisions. Rapid and significant reductions in groundwater use will likely achieve the expected target water-level trend relatively quickly (with less impacts to domestic wells and groundwater dependent ecosystems) but would be expected to increase fiscal impacts to the community in the short-term. Gradual reductions in groundwater use will eventually achieve the expected target water-level trend and is anticipated to minimize the short-term impacts to the

local economy; however, this will likely impact domestic well users and groundwater dependent ecosystems. Different parts of the basin will require different timelines for groundwater reductions depending on the magnitude of total groundwater level decline and rate of declines.

V. Conclusion

Upcoming RAC meetings will include focused conversations around achieving a target water level-trend of zero decline. Over the coming months, the Department will work directly with the RAC to develop three management scenarios that will run through the recently published USGS Harney Basin Groundwater Model. Each management scenario will be evaluated relative to achieving the water-level trend goal of zero decline.

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