



MEMORANDUM

TO: Water Resources Commission

FROM: Justin Iverson, Groundwater Section Manager *J*
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Harmony Burrigh, Place-Based Planning Coordinator

SUBJECT: Agenda Item D, January 26, 2017
Water Resources Commission Meeting

**Greater Harney Valley Groundwater Area of Concern (GHVGAC)
Update**

I. Introduction

The Greater Harney Valley Groundwater Area of Concern (GHVGAC) was established in 2016 to ensure that groundwater in the GHVGAC is appropriated within the capacity of the resource and to maintain reasonably stable groundwater levels to protect existing water users. The rules require annual reporting to the Commission (OAR 690-512-0020); this informational report is provided in accordance with the rules.

II. Background

In 2015, initial groundwater data and aquifer recharge estimates by staff indicated that groundwater levels were declining over a broad portion of the Greater Harney Valley Area, and that as a result no new permits could be issued without harming existing water users or appropriating water beyond the capacity of the resource. Consequently, beginning in 2015, the Department stopped issuing new groundwater permits in the area pending completion of a more detailed groundwater study.

The Department then began significant outreach to the local community to build awareness of the situation, seek input and initiate efforts to address water needs for the area. This led to the Commission adopting updated Malheur Lakes Basin Program Rules (OAR Chapter 690, Division 512) in April 2016. A copy of the rules is included in Attachment 1. The updated rules:

- Established the GHVGAC within a portion of the Malheur Lake Basin, classifying groundwater in the Greater Harney Valley for exempt uses only (i.e., exempt groundwater uses are not limited).
- Provided a path forward for pending groundwater permit applications if they are able to meet certain criteria outlined in the rules.
- Required the Department to convene a local Groundwater Study Advisory Committee, jointly appointed by the Department and the Harney County Court.

III. Annual Report

The rules require the Department to report annually to the Water Resources Commission on certain issues early each calendar year. The rules specifically require that the report include: an overview of new groundwater permits issued within the GHVGAC after April 15, 2016; an update on groundwater level data and the groundwater study; and staff recommendations, if any, regarding whether the rules should be amended or repealed.

A. New groundwater permits issued within the GHVGAC after April 15, 2016

Two permits have been issued within the GHVGAC since April 15, 2016. Both of the permits were issued in the South Sub-Area.

These permits were issued consistent with our rules that allow 1,660 acre-feet of permits to be issued in the South-Sub Area and up to 7,600 acre-feet of permits issued in the Northwest Sub Area. The controlling rule for these permits to have been issued without providing off-set water is found at OAR 690-512-0020(6). Applicants wanting to take advantage of the sub-area provisions needed to contact the Department by October 15, 2016 and request that their applications be approved consistent with these provisions of the rules. We received two requests from the south sub-area and no requests from the north-west sub area.

These two permit holders, consistent with the rules and the resulting permit conditions, will need to construct a dedicated observation well within six months of permit issuance and will be prohibited from pumping under the permit if their March static water level measurement indicates there has been 18 feet or more of decline.

The conditions on their permit allows for the uses to continue three years after the groundwater basin study report is finalized if the study results are favorable to them or if they have provided off-set water. This last provision of the rules can be found at OAR 690-512-0020(6)(c).

B. An update on groundwater level data and the groundwater study

Groundwater staff have significantly increased the number of groundwater level observation wells in the Harney Basin since 2014. Table 1 summarizes the current state of the groundwater monitoring network as of December 2016 and compares it to available data in early 2014. In addition to locating wells and measuring quarterly or annual water levels in existing wells, staff have installed continuous water-level recording equipment in 13 unused wells in the basin, including eight dedicated observation wells. Staff will continue to locate and measure additional wells through 2017. Attachment 2 shows a map of the GHVGAC and observation well network.

Table 1: Summary of Current Water Level Monitoring Activities in the Harney Basin (Dec 2016)

As of:	12/2016	1/2014
Total Wells Field-Located	335	51
Total Water-Level Synoptic Wells	189	-
Total Water-Level Quarterly Wells	108	23
Spring 2016 Water Level Synoptic Measurements	149	-
Fall 2016 Water Level Synoptic Measurements	180	-
Total Water Levels Measured 2015 (by OWRD staff)	452	-
Total Water Levels Measured 2016 (by OWRD staff)	487	-
Continuous Recorder Instruments Installed	13	2
New Observation Wells Constructed	8	-

The Department has initiated the Harney Basin Groundwater Study (see OAR 690-512-0020(10)), a cooperative study with the USGS, and has commissioned DOGAMI to undertake detailed geologic mapping of select areas of the basin.

The local Groundwater Study Advisory Committee (SAC) referred to in OAR 690-512-0020(11) has been convened. Fifteen individuals, including Harney County citizens, landowners, and business owners, as well as representatives of a conservation organization, a federal agency, and the Burns Paiute Tribe, were jointly appointed by the Department and the Harney County Court in June 2016. Two SAC meetings have been held in Burns as of the date of this report, with a third scheduled for January 19, 2017. Meeting minutes, a work plan for the study, and other associated materials are available at:

www.oregon.gov/owrd/Pages/Place/Malheur_Lake_Basin.aspx

C. Need for changes to the rules

Based on data collected to date, staff do not recommend that the rules be amended or repealed at this time.

IV. Conclusion

The groundwater study has been initiated and the Department is actively coordinating with the local SAC. Staff expect to make significant progress on the study in 2017.

Attachments:

1. Malheur Lakes Basin Program Rules (OAR Chapter 690, Division 512)
2. Observation Well Locations within the Harney Basin

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► The Oregon Administrative Rules contain OARs filed through December 15, 2016 ◄

QUESTIONS ABOUT THE CONTENT OR MEANING OF THIS AGENCY'S RULES?
CLICK HERE TO ACCESS RULES COORDINATOR CONTACT INFORMATION

WATER RESOURCES DEPARTMENT

DIVISION 512

MALHEUR LAKE BASIN PROGRAM PROVISION

690-512-0010

Classifications

(1) Except as provided in OAR 690-512-0020, the groundwater and surface water of the Malheur Lake Basin are classified for direct appropriation of, or storage and use of, water for domestic, livestock, irrigation, municipal, quasi-municipal, industrial, mining, agricultural water use, commercial, power development, forest management, public uses, road watering, dust abatement and wildlife refuge management.

(2) Definitions of classified uses. Except as specified in these rules, and unless the context requires otherwise, the definitions in OAR 690-300-0010 apply except that "public uses" are defined in OAR 690-077-0010(27). "Exempt groundwater uses" are those uses defined in ORS 537.545.

NOTE: The Malheur Lake Basin is delineated on the agency Map 12.6, dated January 1, 1966.

Stat. Auth.: 536.300, 536.340 & 537

Stats. Implemented:

Hist.: WRD 2-2016, f. 4-14-16, cert. ef. 4-15-16

690-512-0020

Groundwater use in the Greater Harney Valley Groundwater Area of Concern

(1) The Greater Harney Valley Groundwater Area of Concern (GHVGAC) is established to ensure that groundwater in the GHVGAC is appropriated within the capacity of the resource and that new appropriations of groundwater assure the maintenance of reasonably stable groundwater levels and prevent depletion of the groundwater resource. Current data, comprising substantial evidence, indicate that groundwater levels are declining in areas of the GHVGAC. Additional allocation of groundwater within the GHVGAC may exacerbate these declines. A comparison between estimated annual recharge and previously allocated groundwater volumes indicates that groundwater is fully allocated in some areas of the basin. Subject to further study, the Department will not allocate additional groundwater permits unless the permit is issued consistent with OAR 690-512 rules. For the purpose of this rule, the GHVGAC is as described and shown in Exhibit 1.

(2) Except as provided in subsections (4), (5), (6), and (7) of this section, groundwater in the GHVGAC is classified only for exempt groundwater uses as specified in ORS 537.545.

(3) In processing applications to appropriate and use groundwater within the GHVGAC, the Department may not find that the proposed use will ensure the preservation of the public welfare, safety and health unless the use is classified, and unless water is available for the proposed new use as described in subsections (4), (5), (6), and (7) of this section.

(4) Voluntary Cancellations for Groundwater Availability. Notwithstanding OAR 690-300-0010 (57) and except for exempt groundwater uses, for the purposes of processing applications pursuant to ORS 537.621 and OAR 690-310-0130, an applicant who agrees to application of these rules to a completed pending application may request the Department find that groundwater is available for the proposed use(s) in the GHVGAC consistent with this subsection. In reviewing an application for a permit to appropriate groundwater, the Department may find that groundwater is available if:

(a) The proposed use does not have the potential for substantial interference as determined pursuant to OAR 690-009; and,

(b) The total rate and duty of the proposed groundwater use is offset by the contemporaneous and voluntary cancellation or partial cancellation of an existing primary groundwater certificate or primary permit within the GHVGAC as provided in subsection (c) of this section; and,

(c) The primary groundwater certificate or primary groundwater permit that is voluntarily cancelled or partially cancelled is not subject to forfeiture or cancellation for non-use and is equal or greater in rate, duty and acreage as compared to the rate, duty and acreage of the new appropriation sought; and,

(d) The application was pending and the groundwater right being cancelled was subject to transfer, permit amendment, or has a pending application for an extension of time that is subsequently approved, as of April 15, 2016; and the applicant has provided confirmed offset water to the Department by April 15, 2019.

(e) Notwithstanding subsection (2) of this section, if groundwater is available for a proposed new use consistent with this subsection and if the use is the type of use described in OAR 690-512-0010(1), the proposed use will be considered a classified use.

(5) Any primary permits or primary certificates that are voluntarily cancelled or partially cancelled within the GHVGAC that have not been specifically identified as offset for an application pending before the Department under section (4) will be made available for offset for pending applications under section (4) on the basis of priority determined by the tentative priority date.

(6) Groundwater Availability Where Voluntary Cancellation is not Sought. If an applicant does not elect to pursue processing of a pending groundwater application under subsection (4) of this section, and the well or wells associated with the pending application are located in the Northwest or South sub-areas of the GHVGAC, the applicant may request the Department to process a pending application pursuant to this subsection. These two sub-area locations are shown on Exhibit 1, and are designated based on limited groundwater level trend information. For the purposes of this subsection and processing applications pursuant to ORS 537.621 and OAR 690-310-0130, and notwithstanding OAR 690-300-0010(57), groundwater is available for appropriation to new proposed uses on pending applications in these sub-areas in the GHVGAC, if:

(a) The proposed use does not have the potential for substantial interference pursuant to OAR 690-009;

(b) Since April 15, 2016, there has not been a total of 7,600 acre feet of irrigation permits issued in the Northwest sub-area, and 1,660 acre feet of irrigation permits in the South sub-area. For the purposes of allocating water under this subsection, applications will be processed in the order they are received by the Department.

(c) Permits issued according to this subsection shall be conditioned to prohibit use of water if, based on the Department's Harney Basin groundwater study, the Department cannot make a finding that the groundwater use is within the capacity of the resource, is not over appropriated, or will not cause injury to senior water users. The permit holder may provide offset water in the manner described in subsection (4) within three years of the final report being issued. The Department shall make the findings described in this subsection for each permit issued under Section 6 within one year of completing the Harney Basin groundwater study. The Department's findings described in this subsection shall include site-specific substantial evidence.

(d) The application was pending as of April 15, 2016, and the applicant confirms to the Department in writing, within 6 months of April 15, 2016, that they wish for their permit to be issued under section (6) of these rules.

(e) If groundwater is available for a proposed new use consistent with this subsection and if the use is the type of use described in OAR 690-512-0010(1), the proposed use will be considered a classified use.

(7) Each permit issued according to subsections (4) and (6) must be conditioned as follows:

(a) Include a requirement for construction of a dedicated observation well at a location determined by the Department, to the same depth as the production well, within 6 months of permit issuance, or the permit may be cancelled. This 6 month deadline shall not be extended. Failure to construct a dedicated observation well within 6 months of permit issuance shall cause the watermaster to regulate off any future use under the permit.

(b) All groundwater pumping authorized by this permit is prohibited if March groundwater levels indicate 18 feet or more of decline has occurred, as measured in the observation well or any authorized irrigation well, when compared to the first March measurement. Subsequent groundwater pumping may occur with Department approval during the year(s) a subsequent March groundwater level measurement indicates the groundwater level at the observation well has recovered to less than 18 feet of decline when compared to the first March measurement.

(c) Notwithstanding OAR 690-008-0001(8b and 8c), all permits issued in the GHVGAC must include the following condition: Any well authorized under this permit shall be located more than 1,320 feet from any existing senior exempt, permitted or certificated well(s) not owned by the permit holder. Any well authorized on this permit, when located between 1,320 feet and 2,640 feet of any senior exempt, permitted or certificated well not owned by the permit holder, shall immediately cease pumping groundwater if Department staff, during investigation of a complaint, determine 10 feet or more of measured groundwater level interference related to the authorized well use has occurred in the complainant's senior exempt, permitted or certificated well.

(8) The Department shall keep an accounting, and track the status of, existing groundwater permits, certificates and groundwater applications pending within the GHVGAC as of April 15,

2016. This information shall be provided to any person upon request. Updated information shall also be kept and made available at the Watermaster's office in Burns.

(9) The Department shall report annually on the implementation of these rules to the Water Resources Commission early each calendar year beginning in 2017. The Commission may amend these rules to adjust the boundaries of the GHVGAC, or amend or repeal these rules. The Department's report to the Commission shall include at least the following information:

- (a) New groundwater permits issued within the GHVGAC after April 15, 2016;
- (b) An update on groundwater level data, and the groundwater study to assist the Department and Commission in understanding the aquifer system in the study area, and;
- (c) Staff recommendations, if any, regarding whether this section of rules should be amended or repealed.

(10) The Department study referenced in 690-512-0020(1) shall be designed to collect substantial data on the groundwater flow system in the GHVGAC. The final report containing study findings shall be scientifically peer-reviewed. The study is planned to be completed by the end of the year 2020.

(11) The Department shall plan and conduct the study in coordination with a local Groundwater Study Advisory Committee (SAC) to be jointly appointed by the Department and the Harney County Court. The committee may include, but not be limited to: local irrigators, well drillers, irrigation/pump contractors, members of the scientific community, a representative of the Harney County Court, conservation and instream interests, and interested members of the public. The Department will work with the SAC and individual water users to encourage the collection and use of hydrogeologic data. As part of the study process, the Department shall review and consider relevant data provided by or through the Groundwater SAC. The Department shall report quarterly to the Groundwater SAC to provide updates on the study status, data analyses and preliminary findings, and shall collaborate with the SAC with regard to actions and decisions that may result from the study. The Department shall provide the SAC a draft of the groundwater study report for review and comment prior to publishing the final report. The final groundwater study report shall be peer-reviewed.

(12) Within 1 year after the Groundwater Study discussed in subsection 11 has been published by the Department, the Department will convene a Rules Advisory Committee to explore whether there is a need for updates or changes to these rules. Members of the Groundwater Study Advisory Committee will be invited to participate on the Rules Advisory Committee.

[ED. NOTE: Exhibits referenced are not included in rule text. [Click here for PDF copy of exhibit\(s\).](#)]

Stat. Auth.: ORS 536.340(1)(a), 537.525(3),(5),(7) and (8), 537.621(2), 537.777(1), & 537.780(1) and (1)(h)

Stats. Implemented:

Hist.: WRD 2-2016, f. 4-14-16, cert. ef. 4-15-16

690-512-0090

Whitehorse and Willow Creeks

Willow Creek and tributaries, and Whitehorse Creek and tributaries are withdrawn from future appropriations except as described in the order of the Water Resources Commission effective April 24, 1992.

Stat. Auth.: ORS 536.410

Stats. Implemented: ORS 536.410

Hist.: WRD 2-2016, f. 4-14-16, cert. ef. 4-15-16

690-512-0100

Home Creek Reservations

(1) Reservations of water for economic development are established pursuant to ORS 537.249 and 537.356 economic benefits through both instream and out-of-stream uses of water. 4,550 acre-feet of unappropriated water in Home Creek and tributaries are reserved for multipurpose storage for future economic development as allowed under ORS 537.356 with a priority date of February 25, 2009.

(2) "Multipurpose reservoir", as used in OAR 690-512-0100 means a reservoir storing water to serve more than two potential beneficial uses including but not limited to irrigation, power generation, municipal water supply, recreation and flow augmentation for instream purposes.

(3) Reservations of water for future economic development allocate surface water for storage in multipurpose reservoirs.

(4) For the purposes of review of applications to store reserved water under OAR chapter 690, division 310, and subject to the provisions of section (6), the reserved quantities of water listed in OAR 690-512-0100(1) are available for appropriation.

(5) The determination of water availability under section (4) shall not substitute for consideration during the public interest review of site-specific information related to the capacity of the resource to support the proposed project, as required under OAR chapter 690, division 310.

(6) In addition to the requirements of ORS Chapter 537 and applicable rules, the Department will only issue an order approving an application for a permit to store water in the Home Creek basin reserved under any reservation if it first finds:

(a) The proposed reservoir and any water rights secondary with the storage right are consistent with the purpose and intent of the reservation following consultation with Harney County Court;

(b) The proposed reservoir and any water rights secondary to the storage right will protect instream values, including but not limited to instream flows and water quality based upon a written assessment of these values developed in consultation with Department of Fish and Wildlife and Department of Environmental Quality; and

(c) Whether minimum bypass flows are required.

(7) In addition to the requirements of ORS Chapter 537 and applicable rules, any final order approving an application for a permit to store water and any order for water rights secondary with the storage right under the Home Creek Reservation shall contain the findings required in (6)(a)–(c) above, and will also contain conditions that:

(a) Set the appropriate storage season,

(b) Ensure no injury to senior water rights, including instream water rights,

(c) Protect instream values; and

(d) Set minimum bypass flows if identified under (6)(c) above.

(8) If the Department has not received applications for multipurpose reservoir permits for the full quantity of reserved water by July 1, 2014, the Department shall provide the Parties involved in the Home Creek Settlement Agreement with a progress report on development of the reservations. The report shall include information on the continued need for the reservations and the quantities of water reserved. The Department shall continue to provide progress reports at five year intervals while these rules are in effect unless the Department receives applications for multipurpose reservoir permits for the full quantity of reserved water.

(9) If the Department has not received applications for multipurpose reservoir permits for the full quantity of water reserved by July 1, 2029, applications for remaining quantities of unallocated water under OAR 690-0512-0100(1) may not be accepted after July 1, 2029, unless this deadline is extended through rulemaking by the Water Resources Commission.

Stat. Auth.: ORS 536 & 537

Stats. Implemented: ORS 536.310, 537.249, 537.356 & 537.358

Hist.: WRD 2-2009, f. 6-18-09, cert. ef. 7-1-09

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