

MEMORANDUM

TO: Water Resources Commission

FROM: Paul Cleary, Director

SUBJECT: Water Resources Commission Meeting
Agenda Item D, November 20, 2003

Amity Hills/Walnut Hill Ground Water Limited Area

I. Issue Statement

The Commission is asked to adopt amendments to the Willamette Basin Program, OAR Chapter 690, Division 502, to establish the Amity Hills/Walnut Hill Ground Water Limited Area (GWLA) in Yamhill County. The final proposed rules are located in Attachment 1. The final proposed rules limit new use of ground water from the Columbia River Basalt aquifers (CRB) to uses that are statutorily exempt from the requirement to obtain a permit.

This report summarizes the Department's ground water investigation in the proposed GWLA and the results of the Department's public rulemaking process.

II. Background

In December 1996, the Friends of Yamhill County requested that the Commission expand the existing Eola Hills Ground Water Limited Area (GWLA) to include the Amity Hills/Walnut Hill area. In May 1997, staff recommended to the Commission that additional ground water level data be collected to better document ground water conditions. The Department's data collection and analysis were presented to the Commission in August 2002. Since then, staff have also presented the study results to area landowners, the Commission's Ground Water Advisory Committee, and the Yamhill County Board of Commissioners.

The Department has compiled a substantial body of ground water data in the Amity Hills/Walnut Hill area. Since 1995, 30 wells in the area have been measured annually. Miscellaneous measurements have also been made at a number of additional wells and at Stephens Quarry. Five monitoring wells were installed in the quarry, and the operator has been measuring water levels quarterly since 1995.

The ground water data collected by the Department indicate a strong connection between ground water levels and precipitation and that recharge occurs fairly rapidly to both the CRB and marine sediment aquifers. The data highlight that well users in the CRB are reliant on annual recharge to provide ground water storage for low rainfall years. The data also highlight two areas of concern for ground water stability in the basalt aquifers: (1) an area of low storage that showed significant declines related to the 2001 drought; and (2) an area of water level declines where water levels have dropped 5 to 12 feet despite average to above-average precipitation in four of the last five years. Basalt aquifers adjacent to these areas of concern are likely to experience instability as development of the resource proceeds. In general, ground water levels in the marine sediment aquifer are stable at this time.

In June 2003, staff informed the Commission of the Department's intent to initiate rulemaking to modify the Willamette Basin Program rules to establish the Amity Hills/Walnut Hill GWLA. The proposed GWLA is located just east of the City of Amity, between Highway 99W and the Willamette River, as shown in Attachment 2. The southern boundary is one mile from the Yamhill/Polk County line and borders the existing Eola Hills GWLA. The northern boundary is approximately seven miles north of the Yamhill/Polk County line.

III. Discussion

On August 1, 2003, the Department provided public notice of proposed rules to establish the Amity Hills/Walnut Hill Ground Water Limited Area. The "hearing draft" rules proposed to limit the new use of ground water in the Columbia River Basalt and marine sediment aquifers to uses that are statutorily exempt from the requirement to obtain a permit.

Commissioner Smith conducted the public rulemaking hearing in Amity on August 26, 2003. Nine people provided oral testimony, and 22 written or e-mail comments were submitted prior to the close of the comment period. A copy of the written comments is provided as Attachment 3. A summary of public comment is provided as Attachment 4.

Most of the comments supporting the "hearing draft" rules came from residents of the area. Comments opposing the rules came from several groups: those wanting to develop agricultural uses of water, larger real estate interests, and those that felt that the rules were not restrictive enough. Comments from Yamhill County staff and Board of Commissioners expressed concern that these rules may cause an unintended shift in land use; that the rules do not protect the basalt aquifer adequately; and that there is not enough evidence to extend the proposed restrictions east toward the Willamette River.

Based on the comments received, staff are recommending final proposed rules that differ from the "hearing draft" rules. The final proposed rules (Attachment 1) do not limit new use of ground water from the marine sediment aquifer; they only limit new use of ground water from the Columbia River Basalt aquifers. A summary of the significant issues raised during the public rulemaking process follows.

Proposed Restriction on the Marine Sediment Aquifer

The Department's "hearing draft" rules proposed to limit new ground water use from both the the Columbia River Basalt and the marine sediment aquifers. As described above, the Department's data indicate that the marine sediment aquifer is stable at this time. The Department initially proposed to limit use of the marine sediment aquifer to serve as a "back-up" water supply in case existing wells in the CRB fail in the future. While a number of area residents support the protection of the marine sediment aquifer for future supply, numerous commentors, including Yamhill County, felt no restriction is needed on the marine sediment aquifer. On further evaluation, staff concur that current data do not support limiting the use of the marine sediment aquifer, which typically supports only low yield uses and is less prone to well-to-well interference.

Proposed Restriction on the Columbia River Basalt Group Aquifers

The Department's "hearing draft" rules and final proposed rules would limit new use of ground water from the Columbia River Basalt aquifers to uses that are statutorily exempt from the requirement to obtain a permit. Comments from area residents and Yamhill County indicate a concern that the rules are inadequate to protect existing water users in the high elevation areas of the proposed GWLA. On the other hand, a small group of potential water users raised concerns about limiting the use of the CRB and advocated for limited "agricultural use" permits as allowed in the adjacent Eola Hills GWLA. Some contend that highly efficient drip irrigation of small vineyards would actually result in less water use than the domestic uses that would be allowed under the proposed rules.

The proposed rules are meant to protect existing ground water users. There are a total of 89 ground water rights within the proposed GWLA, almost 90 percent for agricultural use. In order to protect these existing water rights and other ground water users, staff believe it is appropriate to limit use of the Columbia River Basalt aquifers. Given our current knowledge of the Amity Hills/Walnut Hill ground water resource, staff believe the resource can, under the current rural residential land use patterns (minimum lot size of five acre), sustain some additional domestic uses. According to calculations based on information provided by the Chemeketa Community College Viticulture Center, a typical small vineyard (5 acres) would use significantly more water than a typical domestic use (5.5 acre-feet vs. approximately 1.0 acre-foot).

The proposed restriction on the CRB will help to stabilize the resource for existing users, provide for limited "new" domestic use, and provide for future modifications if necessary.

Extent of the Proposed Ground Water Limited Area

Some commentors expressed concern about the extent of the proposed GWLA. Yamhill County was specifically concerned that the Department did not provide data to support

limiting use of the CRB in the area east of Highway 221 (*See* map, Attachment 2). Others commented that certain areas of the proposed GWLA (high elevation areas) should be excluded because of insufficient data indicating an unstable resource. Area residents were generally supportive of the extent of the proposed GWLA.

This proposed action by the Commission is to protect existing water users. The proposed GWLA includes the CRB beneath the valley floor (east of Highway 221) because use of the CRB in this lowland area can further impact existing wells in the high elevation areas. In addition, the Department's evaluation of existing data does not support excluding portions of the high elevation areas from the proposed GWLA. Staff recommend that no changes be made to the geographic extent of the proposed GWLA.

Land Use Impacts

Yamhill County expressed concern that restricting use of the CRB and marine sediment aquifers east of Highway 221 would likely have the unintended consequence of encouraging additional rural residential use. Area residents have also indicated they oppose increased residential density.

The proposed rules are intended to protect existing water users, not shift the character of land use from agriculture to rural residential use. The proposed rules do not affect existing agricultural water rights in the area and, as urged by Yamhill County, have been modified to limit only new uses in the CRB aquifers. Irrigation on the valley floor can still be accomplished from existing CRB wells and high yield wells that develop basin-fill sediments extending from Highway 221 east to the Willamette River. The valley floor area can also continue to receive water for agricultural use supplied by Palmer Creek Irrigation District. Finally, the proposed rules do not preclude the continuation of dry land agricultural practices in the area including grass seed, orchards, vineyards and pasture.

The Department's recommendation to establish the Amity Hills/Walnut Hill GWLA is based on the current rural residential land use patterns; but will require future monitoring, evaluation, and modification if necessary. Staff are hopeful that Yamhill County and the Department can work together to ensure partition requests approved by the County consider an assessment of ground water supplies.

IV. Summary

Staff have evaluated the ground water data, expected demands on the resource, and public comment on the proposed rules. In addition, staff presented the final proposed rules to the Commission's Ground Water Advisory Committee on October 3, 2003, for their input. The Committee had no recommendation for the Commission.

Based on the input received staff propose to modify the August 1, 2003, "hearing draft" of the proposed rules. The final proposed rules limit the use of ground water only from the CRB aquifers in the geographic area depicted in Attachment 2. As a housekeeping measure, the final proposed rules also renumber the existing GWLAs.

In order to protect existing ground water users and to minimize additional pressure on the resource, it is appropriate to adopt rules that limit use of the Columbia River Basalt aquifers in the Amity Hills/Walnut Hill area. This action will help stabilize the resource, provide for limited "new" domestic use, and provide for future modifications if necessary.

The final proposed rules reflect the Department's statutory mandate that adequate and safe water supplies be preserved and protected for human consumption, while conserving maximum supplies for other beneficial uses.

The final proposed rules advance the Department's co-equal goals of protecting the ground water resource and addressing Oregon's water supply needs by limiting use of the unstable CRB aquifers but continuing to allow applications for uses of the marine sediment aquifer.

The final proposed rules fit within staff capabilities. In fact, the rules will minimize conflict over new CRB applications and will also help prevent additional conflicts among existing ground water users.

The final proposed rules provide for adaptive management. Staff are committed to continue the monitoring and evaluation of the ground water resource in this area. As needed, the GWLA rules can be modified to address new stresses.

V. Alternatives

The Commission may consider the following alternative actions:

1. Adopt the final proposed rules to amend OAR Chapter 690, Division 502, to establish the Amity Hills/Walnut Hill Ground Water Limited Area (Attachment 1).
2. Adopt amended final proposed rules.
3. Not adopt rules and request that the Department further evaluate the issues.

VI. Director's Recommendation

The Director recommends Alternative 1, that the Commission adopt the final proposed rules in Attachment 1 amending OAR Chapter 690, Division 502, to establish the Amity Hills/Walnut Hill Ground Water Limited Area.

Attachments:

1. Final Proposed Rules
2. Area Map
3. Written Comments (Provided as an attachment to the Commission; copies available upon request.)
4. Public Comment Summary Matrix

Bill Fujii
(503) 986-0887

Doug Woodcock
(503) 986-0847