

MEETING MINUTES  
GROUND WATER ADVISORY COMMITTEE (GWAC)  
May 12, 2006  
North Mall Office Building, 725 Summer St. N.E., Ste. A  
Salem, Oregon 97310

GWAC Members Present		Staff Present		Others
Barry Beyeler	Jim Mack Sr	Kris Byrd	Barry Norris	Malia Kupillas
Paul Christensen	Tim Smith	Bill Ferber	Debbie Colbert	
Greg Kupillas	John Stadel	Karl Wozniak	Juno Pandian	
Dave Graham	Merilyn Reeves	Tracy Eichenlaub		

I. Call to Order – Paul Christensen, Chair

Members voted to suggest future GWAC agenda items at the end of each meeting.

II. Approval of Minutes for the 3/23/06 Meeting-Deferred to September meeting

III. Legislative and Rulemaking Update

Debbie Colbert, Senior Policy Coordinator, said that the Water Resources Commission recently adopted changes to the pump test rules. Hearings generated no comments to relaxing the requirements and GWAC previously provided input on the proposed changes. The changes did not modify the time of test result submittals pursuant to permit conditions. The Commission also adopted rules for the issuing of a single well constructor's license. The hearings generated no comments and the rules will probably go into effect by June 30. Currently, certain procedural rules and rules to modify ground water registrations are out on public comment. Debbie noted that the "Stay Informed" link on the Department's homepage is a great way to get information on rulemaking, staff reports, meeting minutes and more.

The preliminary legislative concepts from last meeting's discussion have been submitted to the Governor's Office and the Department of Administrative Services. All but the fee proposal have also gone on to legislative counsel for drafting. The fee adjustment proposal is part of broader fee adjustment considerations that for which criteria are being formulated. In response to Malia Kupillas' suggestion, the Department has proposed to increase the non-refundable portion of an application to better cover costs of processing.

IV. Amendments to OAR Chapter 690, Divisions 380 and 382 Related to Water Right Transfers and Ground Water Registrations

Bill Ferber, Western Region Manager, and Doug Parrow, Transfer Program Coordinator, explained proposed amendments to Divisions 380 and 382. In 2005, the Oregon Legislative Assembly passed House Bill (HB) 2123 which modifies ORS 537.610 to require the Oregon Water Resources Commission to adopt rules defining the process and standards by which the Commission will recognize changes in the place of use, type of use, or point of

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appropriation for claims to appropriate ground water registered under ORS 537.610. The proposed Division 382 rules define the process and standards for recognizing ground water modifications. HB 2123 also modifies ORS 540.531 to provide greater flexibility for surface water to ground water point of diversion transfers by eliminating the requirement that only unconfined aquifers were eligible. The proposed rule amendments in Division 380 implement provisions of HB 2123 related to other provisions related to water right transfers.

Ground water registrations are claims to the use of ground water prior to implementation of a permitting process for use. Claims must be adjudicated to determine their validity. Likewise, the proposed rule changes do not determine the validity of the registration but do allow modifications of use under the claim. The proposed modification process is similar to the transfer process for water rights but includes scenic waterway consideration in addition to injury and enlargement reviews.

The proposed basic fee for a change in place of use under a registration is \$350 while that of more complex changes would be the maximum of \$500 allowed in the statute. There is also an associated fee incentive to have unused wells properly abandoned and one to stimulate modification by those who had “informally” modified their use by virtue of a letter to the file.

Other provisions addressed actions on layered companion water rights to a registration modification, providing a more lasting approach to severed water right ownership from land ownership by water right conveyance agreements, and mapping requirements.

The Department will hold a hearing on amendments on May 22 and seek rule adoption by the Commission at the August meeting.

GWAC members had a number of questions about ground water registrations, layered water rights, water right conveyance agreements, and terminology. The committee did not vote on the proposed changes. Bill indicated that comments could be accepted for consideration.

V. Domestic Ground Water Heat Pump Issues

Greg Kupillas, GWAC member, and Malia Kupillas, former GWAC member, presented their concerns with the two types of domestic ground water heat pump systems. The open-loop system pumps water out of a well, extracts heat from or adds heat to the water, and usually discharges the spent geothermal effluent at the surface. Some small percentage of these would discharge to an injection well. The closed-loop system consists of a borehole with a grouted loop in place which allows energy transfer at the surface portion of the loop and the down-hole portion of the loop. No water is pumped and no well is constructed.

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The basic concern of the committee with open-loop was the depletion of ground water supplies by the pump-and-dump process. The number of these systems is unclear and, although they probably occur within legal extraction limits, can represent a rather large and intense demand. In addition, the temperature impacts on surface waters are potentially detrimental.

The committee's primary concern with closed-loop systems is the possible contamination that can result from improper grouting of the loop in the borehole. Currently, these are constructed as geotechnical holes which should result in a report to the Department but no start card or fee. The performance standard may not suffice and there was interest in having these re-categorized in the well construction standards. Paul noted the potential for thermal interference when users are closely spaced.

Juno stated that an inquiry of Department field staff has produced no feedback. On that basis, the Department has not really identified problems ground water heat pump problems. However, she agreed to refer the well construction standards issue to the drilling technical committee when it meets in the fall.

The committee's "unofficial" recommendations were to put closed-loop hole in a separate category, require a start card to know where they will be constructed, and the need to be able to find them later if there is a problem.

There was much discussion that related to personal experiences with ground water heat pump systems. There was also a desire to know more about the topic. Several assignments followed. Malia would try to find out the number of open-loop and closed-loop systems that have been constructed. Merilyn would contact state building codes and energy for system requirements. Kris Byrd, Well Construction Specialist, would research the drilling regulations of other states on these systems.

The committee wanted a brief follow-up on this topic at the next meeting.

#### VI. Update on Driller Continuing Education Program

Tracy Eichenlaub, Continuing Education Program Coordinator, provided an explanation of the program. This is the second year of the program and a broad range of courses have been approved for credit. Courses have been offered in several cities in the state. Courses have been well received and several courses are presented by non-department individuals. All occur with no cost to the drillers. The continuing education committee determines acceptable courses and required subjects. Paul suggested that occupational safety should be emphasized in the program. Merilyn thought a fee would be important to focus value on the courses and cover related costs. Jim agreed with a fee on the basis that the continuing education courses have a cost to produce and, without a fee, they compete with fee-based courses. There needs to be coordination

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with the Oregon Ground Water Association course offerings. GWAC voted to recommend that the Department evaluate the continuing education program particularly regarding costs and these matters come back to GWAC in the future. Paul asked that WRD supply a copy of approved minutes on this topic to the continuing education committee. Tim requested that OGWA provide a spokesperson to explain its concerns with the continuing education program when this topic returns.

VII. Update on Ground Water Conditions in the Sherwood/Dammasch/Wilsonville Ground Water Limited Area

Karl Wozniak, Staff Hydrogeologist, explained the ground water impacts due to the City of Wilsonville's shift from basalt ground water to surface water in April 2002. Prior to that shift the City of Wilsonville and the nearby Dammasch State Hospital had strongly developed basalt ground water. That reliance changed when the hospital was closed and the city started using Willamette River water. Well water level declines of 50 or more feet that developed over 40+ years experienced rises of about 60% by 2005. The rate of recovery has slowed greatly and complete restoration seems very unlikely. Monitoring has revealed that effects of the Wilsonville pumping have been traced as much as seven miles away.

Karl noted that multiple head aquifers are probably common in area wells. John asked why those wells are not required to be fixed to isolate a single aquifer. Karl said that it is often hard to prove commingling without performing down-hole logging to document flow. John noted that in his experience drilling wells in the area frequently finds different heads that requires casing and cementing to prevent commingling. Dave said that his experience with the Columbia River Basalt Group aquifers at Hanford showed subtle, but certain, interaction between adjacent aquifers.

Jim asked if the water level recovery would be leading to removal of the ground water limited area designation. Karl said that would be a policy decision. Barry Norris said that such a policy decision would be based on science and evaluated when the need prompted.

Public Comment

No public comment was offered.

**Audiotapes of the entire meeting are available.**