

MEMORANDUM

TO: Water Resources Commission

FROM: Paul R. Cleary, Director

SUBJECT: Water Resources Commission Work Session
April 11, 2002

Deschutes Ground Water Mitigation Issues Overview

I. Issue Statement

The Department and the U.S. Geological Survey (USGS) recently completed a study of the ground water system in the Upper and Middle Deschutes River Basin. The study establishes a hydraulic connection between ground water in the upper and middle Basin and surface water flows in the Deschutes River and various tributaries. In response to the study conclusions, the Department initiated a rulemaking to address the impact of current and future ground water withdrawals on existing water rights and the Deschutes River Scenic Waterway flows. The Department intends to ask for Commission action on proposed rules at the June 7 Commission meeting.

At its meeting in November 2001 the Commission was presented with an overview of Deschutes Basin hydrology and the conclusions of the ground water study. At the February 2002 Commission meeting, four stakeholder panels provided their views on the Basin's water management challenges and restoration opportunities. At the close of that session the Commission asked staff to schedule additional time for discussion of the major outstanding policy issues raised by the rulemaking. That is the purpose of today's session. This staff report provides a summary of these issues to facilitate the Commission's discussion. A map of the Deschutes Basin is attached.

II. Background

Growth pressures in the Deschutes River Basin have increased demand for new water supplies, with a particular emphasis on ground water. However, the conclusions of the Department/USGS study demonstrate a hydraulic connection between ground water and surface water, such that new uses of ground water in certain parts of the Basin can impact existing surface water rights and scenic waterway flows. In a nutshell, most of the ground water of the Deschutes Basin discharges to the surface in and around Lake Billy Chinook, augmenting the flow of both the Lower Crooked River and the Lower Deschutes River. The Lower Deschutes is protected by a scenic waterway flow established in 1991; and by two instream water rights, one with a 1989 priority date and one with a 1991 priority date. The 1991 instream right is for the same amount

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of water as the scenic waterway flow. Surface water is not available for new appropriations except in February, March, and the first part of April due to water availability and listed species constraints.

In an effort to accommodate the water demand associated with growth and at the same time to protect the Deschutes River, the Department has been working for almost four years with the Deschutes Basin Steering Committee, which represents a broad spectrum of Basin interests. Despite years of sustained effort, comments on the draft rules the Department published in September 2001 demonstrate that we do not have consensus within the Steering Committee or the Basin as a whole, and that several significant policy issues remain unresolved.

Since the February 2002 Commission meeting the Department has worked with a sub-committee of the Steering Committee to develop a revised hearing draft of the Deschutes Basin Ground Water Mitigation rules. As part of that re-write, the Department has separated the provisions implementing HB 2184 (enacted in the 2001 legislative session and provides for mitigation banking in the Deschutes Basin) into a different rule division from the provisions implementing SB 1033 (enacted in the 1995 legislative session and requires mitigation). The Department re-noticed the rulemaking in the Secretary of State's Bulletin on April 1, 2002; published a revised draft of the rules; and re-opened the public comment period for written comment until May 7, 2002. The Department will hold a public hearing, at which a Commission member will preside, in Bend on April 22, 2002.

Over the last four years Department staff and many other stakeholders have committed substantial time and effort to develop an approach that will satisfy the Basin's diverse interests. Processing of new water right applications in the Basin has been put on hold for several years. Department staff believe it is time for Commission action on mitigation rules, even if we do not have unanimous agreement. The Department plans to ask the Commission to adopt proposed rules at the June 7, 2002, meeting.

III. Discussion

A. Summary of Department's Proposed Rules:

The Department perceives common ground around three basic themes:

1. The Lower Deschutes is a resource of statewide and national significance that deserves continued protection.
2. The Middle Deschutes and tributaries have been most impacted by historical Basin water use and are excellent candidates and opportunities for streamflow restoration.

3. The Basin will continue to experience population growth and development pressure requiring new and expanded water supplies, with ground water being the preferred source.

The opportunities created by this common ground need to be supported by the Department's mitigation rules. With that in mind, the Department's proposed rules would adopt a performance-based, adaptive management approach to ground water mitigation and streamflow restoration in the Basin. The goals, desired outcomes and program elements of such a system are outlined below:

Goals:

- Sustain existing water uses and accommodate growth through new ground water development.
- Protect senior water rights (both instream and out-of-stream) and scenic waterway flows.
- Facilitate restoration of the Middle Deschutes River and tributaries.
- Create a level playing field of low cost/low hassle mitigation for small water users, with large users having the option to pursue more complex mitigation/restoration that benefits from economies of scale.
- Add predictability to the process with options for mitigation projects, banking credits and restoration payments; easy to calculate requirements; and practical, common sense approaches.

Desired Outcomes:

- Cumulative impacts being addressed through cumulative mitigation/restoration on a basinwide, long-term basis with flows protected in the Lower Deschutes and restored in the Middle Deschutes, using a performance-based rather than prescriptive approach.
- Mitigation/restoration occurring in advance of impacts so resource benefits today and "credits" are readily available for permit holders and applicants. Mitigation/restoration projects focused on reducing withdrawals and putting more water instream above ground water discharge points.

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- Funds generated from mitigation payments being used for streamflow restoration in the Middle Deschutes and tributaries to both protect and enhance baseline conditions in the most impacted reaches of the Basin.
- People choosing to mitigate rather than to litigate or legislate, reducing incentive to challenge science or challenge or change the law.

Core Elements of Department's rule proposal:

- New appropriations in the Deschutes Basin capped at 200 cfs, with Commission review in 2008.
- Extensive streamflow monitoring by the Department, required measurement on all new appropriations, accounting for new use and flow restoration in the Basin.
- Mitigation required for every new ground water right in the Deschutes Basin study area, and for every applicable existing conditioned water right.
- Mitigation in the form of either individual mitigation projects that make water available for instream use; mitigation credits (generated by mitigation projects); or "payment to provide" made to a streamflow restoration entity approved by the Department.
- Mitigation obligation equal to consumptive use of the water right, calculated in acre feet, for individual mitigation projects or use of mitigation credits; one acre foot of mitigation credit or mitigation water required for every acre foot of mitigation obligation.
- Mitigation obligation equal to the full amount of the paper water right, calculated in acre feet, for payment to provide. Requires payment of \$250 for every acre foot of paper water right.

B. Major Unresolved Policy Issues:

The Department's revised proposal does not have the unanimous support of interested stakeholders. The major points of contention are described below:

1. Should existing conditioned water right holders be required to mitigate in order to avoid regulation?

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A vigorously disputed question in this rulemaking is whether, in addition to requiring mitigation for new water rights, the rules should require the holders of certain existing conditioned permits to mitigate for the impacts of their water use on the scenic waterway in order to avoid curtailment of their use. The Scenic Waterway Law provides that any ground water permit issued after July 19, 1995, in or above a state scenic waterway must be conditioned

to allow the regulation of the use if analysis of data available after the permit or certificate is issued discloses that the appropriation will measurably reduce the surface water flows necessary to maintain the free-flowing character of a scenic waterway in quantities necessary for recreation, fish and wildlife in effect as of the priority date of the right or as those quantities may be subsequently reduced. @ ORS 390.835(9)(g)

Since 1995 the Department has issued approximately 196 permits, for some 91,000 AF, that include this condition. The question is whether holders of the conditioned permits should be required to provide mitigation in order to avoid regulation; and if so, what should be the extent of the obligation.

The Department's proposed rules offer holders of existing conditioned permits the opportunity to avoid regulation by mitigating for 30% of their water use. This approach reflects the fact that regulation of water use to protect other uses occurs in "areal time," rather than on a modeled water availability basis. That is, otherwise lawful water users are only regulated off at times when senior water rights are not satisfied. In this case, the condition provides for regulation to protect scenic waterway flows. In the Lower Deschutes, those flows are not met, on average, about 30% of the time. It follows that impact from these permits cannot be occurring more than 30% of the time. Hence, staff propose that the mitigation obligation be 30% of their water use, measured on either a consumptive use or paper right basis depending on their selected mitigation option.

On this point, opponents at one end of the spectrum argue that the Commission should require existing conditioned permit holders to mitigate for 100% of their water use. They believe both the statute and permit condition require the Department to shut off existing permit holders who do not provide 100% mitigation. Opponents at the other end of the spectrum argue that the Commission is not authorized to require mitigation only to regulate C and that regulation, given the hydrology of the Deschutes Basin, would constitute a futile call. A "futile call" is a term of art describing the water law concept that junior water users need not be regulated off unless doing so would provide more water to senior water users. Shutting off particular ground water use in the Deschutes Basin will not have an instantaneous impact on surface water. In fact, in many cases, it would more likely be months before ground water curtailment would affect surface water flows. Thus, in some people's view, regulation of ground water use to protect surface water rights would be a futile call and is not required.

Department staff have reviewed our records and the records of the Deschutes Basin Steering Committee in an effort to determine the original intent with respect to existing permits. The Department has asserted for several years, in several contexts, that existing permits would be subject to some level of mitigation in order to avoid regulation. The Deschutes Basin Steering Committee members themselves recognized the premise in the Memorandum of Understanding (MOU) that guided that process, which recognizes *A general agreement that the development of a plan to comprehensively address the water mitigation needs of the basin may be a reasonable, beneficial, and productive alternative to deal with both existing, conditioned water uses and future development needs, and to protect and enhance the basin ecosystem upon which basin residents are dependent.*@ The MOU goes on to state that *A[m]anagement strategies will assess and address impacts of proposed consumptive water uses, and existing uses permitted since 1995"* and that *A[i]t is anticipated that the [Water Management] Plan will contain strategies for avoiding or mitigating potential impacts to existing water rights and scenic waterway flows from existing and future ground water withdrawals.*@ (Memorandum of Understanding, Deschutes Basin Water Management Planning Process, April 28, 1999) Although Department staff recognize room for argument regarding interpretation of the statutory requirement and the language of the permit condition, we propose to adhere to the long-standing position that existing permit holders must mitigate to avoid regulation. The 30% mitigation requirement is a fair representation of the actual impact from these permits, and when combined with the "payment to provide" option, provides a low cost mitigation approach for existing conditioned permits.

2. Should the rules incorporate a performance-based adaptive management approach that includes a "payment to provide" as a mitigation option?

The proposed rules would implement a performance-based adaptive management approach to ground water allocation in the Deschutes Basin. To implement the approach, the rules propose a 200 cfs cap on new appropriations in the Basin. Before January 1, 2008, the Commission would evaluate the rules and associated mitigation and streamflow restoration to determine whether to lift or otherwise modify the cap. During the intervening time the Department would monitor streamflows, ground water appropriations, and mitigation/restoration activity to determine whether scenic waterway flows in the Basin continue to be met on at least an equivalent or more frequent basis as compared to long-term running average base period flows established by the Department.

The proposed rules authorize three methods of mitigation: mitigation credits (generated by mitigation projects); individual mitigation projects; and a *A*payment to provide.@ Examples of mitigation projects include transfer of an existing out-of-stream use to instream use, and creation of instream rights out of saved water generated by canal lining or piping. For applicants using

mitigation credits or individual mitigation projects, the mitigation obligation equals the consumptive use of the water right.

The proposed rules also authorize an additional mitigation option, that of a payment to provide, for water rights of 2 cfs or less, and for water rights of any size for irrigation. This option would entail payment of \$250 per acre foot, based on the paper right, to a qualified entity-- a non-profit organization, approved by the Department, whose articles of incorporation require it to use the funds for streamflow restoration in the Deschutes Basin.

The Department sees significant resource benefits from a payment to provide approach that is coupled with performance-based adaptive management. The approach fits mitigation for ground water use into a larger restoration picture for the Basin. Basin interests are currently organizing to develop a comprehensive restoration plan for the Deschutes Basin, which will be incorporated into the Northwest Power Planning Council's (NPPC) Fish and Wildlife Program for the Columbia Basin. The Deschutes Resources Conservancy (DRC), established by Congress in the Oregon Resource Conservation Act of 1996 for the purpose of implementing ecological restoration projects in the Basin, will be the fiscal agent contracting with the NPPC. The Coordinating Group is likely to be chaired by a representative of the West Resource Conservation and Development Council, which is leading the organizing effort along with the DRC.

A payment to provide mitigation complements these comprehensive Basin restoration efforts. Non-profit organizations, such as the DRC, the Oregon Water Trust, conservation districts, and watershed councils are already actively engaged in flow restoration efforts in the Basin. If some of these organizations are approved by the Department as qualified entities and are thus eligible to receive "payment to provide" funds, the funds will support the ongoing flow restoration efforts, and will leverage additional federal and state funds. In addition, a flow restoration strategy will likely be part of the subbasin plan that is currently being developed. Payments to provide will allow for strategic decisions about how and where to spend restoration funds, with an eye on the needs of the whole Basin. Such payments avoid the inefficiencies and likely piecemeal approach that will result if mitigation proposals originate with individual water users.

Those who oppose the "payment to provide" option argue that it does not provide sufficient certainty that the flow restoration the payment buys will equal the use authorized by the water right in terms of volume of water, location of impact, and timing of impact. They argue that mitigation must be guaranteed as wet water, permanently protected instream at or above the point of impact. But given the local, state and federal efforts in the Basin, it is reasonable to project that restoration enhanced through "payment to provide" will more than offset any new ground water development, even if that development reaches the proposed 200 cfs cap. It is also

reasonable to conclude that mitigation funds will be better spent by entities whose mission is to restore streamflow, rather than by individual water users searching for mitigation for their particular water use.

3. Should the rules authorize mitigation based on volume of use, rather than rate of use?

The rules propose that the mitigation obligation be calculated based on the annual volume of water used or authorized, rather than on the instantaneous rate at which water is withdrawn from the aquifer. Those opposed to this approach argue for a precision match between the timing of the impact of ground water use on surface water, and the mitigation that will offset it. Because most of the available mitigation water will likely come from agricultural uses with a seven-month season of use, that kind of match would require that users secure additional water to send down river during the winter months.

The Department's approach in these rules is tempered by the reality that mitigation is only required to address impact to scenic waterway flows and senior water rights. Impact, as a legal matter, only happens when those flows and water rights are not met. The actual impact of ground water use in the Deschutes will vary widely; both because rate of use for individual water rights varies year to year, month to month, and even day to day, and also because flows in the Deschutes vary with climatic conditions. In some years the scenic waterway flows and instream water rights are rarely met; in others they are met every day. Instantaneous mitigation, i.e. mitigation that is provided *only* when required flows are not met, is nearly impossible. Conversely, mitigation when flows *are* met is not required. Given these facts, a mitigation approach that matches annual volume of mitigation water to annual volume of use is sufficient to address the impact in all water years over the long term, which is the goal of these rules.

Even if the Deschutes were susceptible to month-by-month flow management, the Department simply does not have the resources to implement such an approach. Instantaneous mitigation would be extremely labor intensive for the Department to determine, enforce and monitor; and may be very difficult, if not impossible, for the water user to secure. The Department does not believe such a labor-intensive approach would yield corresponding resource benefits that would justify the expense.

The Department does anticipate that instream transfers that mitigate ground water use will include a flow schedule generally spanning the irrigation season, depending on the location of the water right and the resource values being protected. The current proposed rules do not specifically require such a flow schedule, but could be revised to do so if deemed desirable.

4. Should the rules be more prescriptive with respect to standards for mitigation?

The proposed rules have been criticized as being insufficiently prescriptive. Some have argued, for example, that the rules should prescribe that mitigation must be *Awet@water*, entering the system at or above the point of impact, legally and permanently protected instream with effective priority dates, on a bucket for bucket basis. The fear is that, without these prescriptive requirements, the river will not be sufficiently protected. The Department's fear is that, with these prescriptive requirements, mitigation will be impossibly complex to secure or to manage, without corresponding resource benefit. The Department's proposal attempts to provide the protection certainty that the resource needs without creating process rigidity that will impede, rather than support, local restoration efforts. The question is whether the rules strike the right balance. We believe, for example, that channeling "payments to provide" to local restoration entities, though not prescriptive beyond the requirement to pay the funds, is a very effective way to strategically target areas of the Basin in greatest need of restoration by utilizing the local expertise and knowledge of those entities.

IV. Conclusion

This staff report describes the general outlines of the Department's proposed rules, and highlights some of the major points of continued debate. The Department welcomes Commission input and direction regarding these and other issues presented by the Deschutes Basin Ground Water Mitigation rulemaking. The Commission will have additional opportunity for discussion at the June 7, 2002, meeting, at which the Department will summarize public comments on the revised draft rules, highlight any subsequent changes, and propose rule adoption.

Attachment:
Map of Deschutes Basin