

**BERYL-ENTERPRISE AREA  
GROUNDWATER MANAGEMENT PLAN  
SECOND PUBLIC MEETING  
AUGUST 6, 2007**

This meeting is a continuation of the Groundwater Management Planning process initiated with an earlier public meeting held on March 13, 2007. The planning process is mandated and guided by statute at § 73-5-15, Utah Code Annotated.

This second meeting was held in the Jay O. Holt Memorial Auditorium at Enterprise High School, 565 South 200 East in Enterprise, Utah. Notices were mailed to all persons who had attended the first meeting and signed the roll distributed at that meeting. In addition, several public agencies were notified and a press release was issued to local media outlets.

State Engineer Jerry D. Olds started the meeting at 7:00 PM by welcoming those in attendance and noting that attendance roll sign-in sheets were being distributed throughout the auditorium. Mr. Olds summarized the agenda for the meeting to address the following:

- Definitions of groundwater management terms and issues;
- Presentation of alternative management scenarios;
- Discussion of status and use of water right records in management planning;
- Presentation of methods and results of “safe yield” calculations;
- Discussion of future direction and actions contemplated.

Mr. Olds presented a series of slides intended to assure that all participants had a common understanding of key terms and concepts related to water use and its effects on groundwater aquifers. Terms and concepts discussed included: consumptive use; net irrigation requirement; depletion; irrigation diversion allowance (duty); voluntary arrangements (as provided in statute at subsection 73-5-15 (4) (c)).

Mr. Olds also summarized the guidance and objectives established by legislative action in enacting the groundwater management plan statute. He noted the legal definition of “safe yield” therein and that the principle objectives are to limit withdrawals to an amount consistent with safe yield and protective of the physical integrity and water quality the managed aquifer. In addition, he pointed out that regulation in pursuit of these objectives must be based on the principle of prior appropriation (priority date of the regulated water rights) except as this principle may be modified by “voluntary arrangements.”

In addressing the issue of voluntary arrangements, Mr. Olds cited the referenced statute, drawing attention to the requirements that such arrangements be made in consultation with the State Engineer, may be proposed and implemented at any time, must be consistent with other portions of the law, and cannot affect the management of rights belonging to persons who decline participation in the voluntary arrangement.

A series of slides was presented outlining five scenarios which could be considered in adopting a general approach to groundwater management. It was emphasized that the State Engineer was not recommending nor endorsing any particular approach, that these options were presented for the purposes of initiating discussions, thought and debate of their relative merits. The options presented included:

- Delayed implementation of “stepped” diversion reductions over several phases until aquifer overdrafts are eliminated;
- Importation of “new” water to offset diversions in excess of safe yield;
- Immediate implementation of a phased reduction in diversions (x% reduction, based on relative priority) over a pre-determined time period (x years) until aquifer overdrafts are eliminated;
- Implementation of the voluntary arrangement proposal of the Escalante Valley Water Users Association (EVWUA) incorporating an irrigation duty reduction, metering of participants’ diversions, voluntary acreage reductions (approximately 2,500 acres over a period of 40 years), and compensation of those reducing acreage utilizing state and local funds (50% from each).

Mr. Olds commended the EVWUA for their efforts and participation, but noted that the proposed amendment to the irrigation duty and voluntary acreage reductions were not presently considered likely to be sufficient in bringing depletion into line with estimated safe yield.

Mr. James Greer, an engineer with the Division of Water Rights presented several slides summarizing the status and findings of his work in evaluating the State Engineer’s records of water rights diverted and used within the area under planning consideration. He described efforts to thoroughly review the paper records for all pertinent rights in pursuit of accurately defining sole supply limitations and places of use. In addition, efforts have been made by Division personnel to enable certification of all pending proof documentation for pertinent rights, thus enabling accurate and valid definition of those rights.

Mr. Greer noted that the results of these efforts are being tabulated in a spreadsheet that will be posted on the Division’s website and will allow viewers to sort the data on several criteria, thus enabling the owners of all pertinent rights to examine and verify that correct information is being used to define their respective rights. Mr. Greer noted that, although the tabulation will be posted as soon as tomorrow (August 7, 2007) there remained a substantial number of rights that are not yet fully defined, primarily being those included in supplemental groupings for which sole supplies are not readily determined.

Slides containing definitions and formulae presently in use by the Division in pursuit of calculating safe yield were presented and discussed by Mr. Greer. It was noted that multiple past published studies were being used, in addition to more currently available groundwater level measurements. A full listing of references will be posted on the Division’s website.

Utilizing the calculations and methodology described, a current safe yield estimate of **34,000 acre-feet/year** has been determined. Although this estimate is generally consistent with all past and current studies and data, Mr. Greer stated that the only true and valid measure will be achieved by reducing aquifer depletions until groundwater levels are observed to stabilize over time.

At the conclusion of Mr. Greer's presentation, Mr. Olds then opened the meeting to questions and comments from the participants.<sup>1</sup>

Q: Will this plan take irrigation water to be given to residential development?

A: No.

Q: Will wells serving domestic water rights be metered?

A: Probably not. There are no present plans for such and no currently known need for implementing such metering.

Q: Will the water right tabulation discussed by Mr. Greer be limited to irrigation rights?

A: No, all water rights, regardless of allowed beneficial use, will be included in the tabulation.

Q: Does the annual recharge estimate (31,425 acre-feet/year) include the mountain areas outside the groundwater basin?

A: Yes. The estimate recognizes that much of the recharge to the basin originates in areas outside the boundaries of the groundwater aquifer.

Q: Is the term "safe yield" equivalent to "recharge" in your calculations?

A: Yes, but only when "recharge" is taken as the long-term value. The "recharge" value will vary from year to year, but the long-term average is the basis for a "safe yield" definition as required by statute.

Q: The aquifer drawdown figures presented are for the period of 2001-2005. Will or have other time periods be considered?

A: Other time periods have not been examined in detail, but they will be. The period of 2001-2005 is believed to be a reasonably representative period in that it has included years of both drought and flood. However, efforts will be made to determine a true long-term recharge estimate based on all pertinent data.

Q: Do you know the transport time from the mountain recharge areas to the groundwater aquifer?

---

<sup>1</sup> These minutes will contain some detail regarding questions and comments submitted verbally at the meeting. For the sake of brevity, the comments and questions will be summarized in an effort to portray the primary issue addressed. Some questions or comments were deemed to be related to issues not directly pertinent to the purpose of the meeting and will not be included here.

A: No, this is not known and it will vary from location to location. The potential time lag from snow melt to aquifer recharge will be considered in monitoring the effectiveness of the adopted management plan.

Q: Are there any provisions in the statute or the contemplated plan to consider forfeiture of rights and to modify priority considerations on that basis?

A: No, such considerations are outside the scope of a groundwater management plan. Forfeiture of rights is certainly an important issue and could impact management, but those determinations are not to be made in the context of the proposed plan.

Q: How are economic considerations included and implemented?

A: The economic impacts of the implemented plan will be largely determined by the time horizon adopted. Based on the assumptions and constraints adopted in the economic analysis, certain types and levels of impact will be predicted. The governing statute mandates consideration of economic impacts, but does not allow that such predicted impacts override considerations of safe yield or prior appropriation. The statute does allow for gradual implementation of a plan to mitigate economic effects.

Q: Is it possible that the observed declines in the groundwater levels in this aquifer are affected by water being taken by St. George City?

A: Although it is possible, it is not likely. There are no known diversions being made by/for St. George City that are believed to impact groundwater in this valley.

Q: Will pumping of groundwater by Nevada affect this valley?

A: It's not likely under present proposals by Nevada water users that this valley will be affected. However, future proposals for groundwater development in Nevada could potentially have effects in this aquifer.

Q: How deep is the aquifer in this valley?

A: Aquifer depth varies with location. [It was not clear whether this question was in reference to the depth to groundwater from the ground surface, or the depth to the bottom of the aquifer. The answer assumed the former reference.]

Q: What will be done, once the aquifer is stabilized, to protect the aquifer from future water demands from outside the basin?

A: When the legislature debated the governing statute, they concluded that groundwater management must be guided by considerations of long-term sustainability of the resource and distribution based on priority of right. Any effort to divert water for use outside the basin would be limited by these same considerations. Under the present statute, efforts inconsistent with those principles would be deemed contrary to legislative intent and not allowed.

Q: What is the extent of groundwater level decline in this valley?

A: The decline varies with location and from year to year. Taken as a long-term average over the entire aquifer, the figure is around one to two feet of decline per year.

Q: Most of the discussion has been about the regulation of irrigation rights. What about the regulation of domestic water users?

A: The statute does not provide for distinctions based on the beneficial use. Domestic rights will be regulated on the basis of safe yield and priority date, the same as any other right.

Q: If it is proposed to cut diversions back to the safe yield estimate of 34,000 acre-feet per year, the cut-off priority date will be February 11, 1941. Is that correct?

A: We don't presently know that, but that could be close to the correct date. Until we complete the water rights records analysis described by Mr. Greer, we cannot fix that date.

Q: Will the State pay for the water rights that are cut off by the plan?

A: The statute presently adopted does not provide for compensation. Surface water users are cut off regularly throughout the state without compensation. Representatives of the EVWUA have met with the legislative interim committee and have asked the committee to consider appropriations of funds for this purpose.

Comment: The real purpose for this plan is to preserve the water for a future "better" use.

Reply: The State Engineer does not agree with that comment.

Comment: The proposed voluntary arrangement is the fairest and best hope for resolution of the issue and preservation of the resource.

Q: Where are water levels being monitored and why don't you use bore holes throughout the valley specifically for that purpose?

A: The U.S. Geological Survey has already established a network of monitoring sites throughout the valley (refer to slide presented by Mr. Greer). We believe those data to be accurate and valid. Development of an independent network of measuring sites would be expensive and there are no funds provided for such development.

Mr. Olds closed the meeting by thanking all in attendance for their interest and participation in the planning process. He affirmed that no specific plan has been proposed or adopted, but participants should consider and discuss the alternative approaches presented and provide their comments, concerns and suggestions to the Division. All owners of water rights were asked to review their records in the tabulation described by Mr. Greer and verify accuracy. Comments should be submitted before September 30, 2007. A third meeting will be scheduled in late fall, probably in November, 2007. It was noted that printed handouts summarizing tonight's presentation would be distributed at the door.

The meeting concluded at approximately 8:30 PM.