

Joseph McMahon

From: Alan [alan@haydenirrigation.com]
Sent: Sunday, March 28, 2010 11:26 PM
To: helen.harrington@idwr.idaho.gov
Cc: Joseph McMahon; daisy@cnrep.org; matt@cnrep.org
Subject: RP-CAMP
Attachments: Technical Memorandum-ID-WA Growth Comparison.pdf; Full Inchoate Right Model Scenario.pdf; Final Order Rathdrum Ground Water Mgt Plan.pdf; Rathdrum Prairie Aquifer flow chart.pdf; direction_2-26-10.pdf; CAMP questions for mtg #4.pdf

Helen, Joe, Matt and Daisy;

Sorry for the delay in getting this to you, I had asked a co-worker to review some of this for accuracy and that slowed down the process. Then, although I was unaware, my e-mails were receiving but not sending. This was written a week ago.....

I have attached the two studies that have been completed by Spokane County; which I believe will be very useful for the CAMP committee members to review. As mentioned, Spokane County is working on a 3rd study which will be completed by June 2010. This may also be beneficial, however based on the presentation given today at the Spokane River Forum I don't believe it will be directly comparable to the demand study SPF is completing for Idaho. Based on discussion with Christian there may be methods to compare the two studies. The 2 attached studies are fairly short and not overly technical, the inchoate rights in question are Spokane City's unused 'paper' water rights, they equal about what is being used now (roughly doubles their water right holdings). Those rights cause a great deal of concern to other water providers in Washington using the RP-Aquifer. The availability of those rights is being determined in Washington courts now and is expected to be heard by Washington Supreme Court in April. Washington allows municipalities to hold water rights for anticipated needs for up to 20 or 30 years (I might be wrong on the # years, but it is significant).

I have also attached the final RP-Ground Water Management Plan, obtained from the IDWR website. At the last meeting I had Daisy copy the draft I had because that was all I had and several folks were asking for that plan. It would be better to get the final plan into the committee members hands then the draft plan they have now.

I have also attached two documents (direction_2-26-10; Rathdrum Prairie Aquifer flow chart) I created which have been helpful for me to maintain a focus and to more clearly define some of the topics we are discussing. These may be helpful to the other committee members also. There are some areas on page 2 of the flow chart that are questions I was asking myself and do not know the answers to. In this flow chart the aquifer breaks down to quantity, quality and politics.

And finally, a list of questions I would propose for the panel discussion at RP-CAMP mtg # 4. (4-16-10)

Please disseminate the 2 studies, and the additional information to the rest of the committee members. The Spokane River Forum is going well, and will likely provide some more food for thought to the committee members.

I will be out of town until 4-5 (returning on). I will try to get a reviewed set of minutes to you soon thereafter, from my initial read there were areas where some clarification as to meaning would help define the statement better. I'm not sure if you were looking to the committee members to edit the minutes (suggest review pg 4 for flow and grammar). On page 4 although tributary (3rd point from the top) was what the discussion was about, perhaps 'watershed' may be a better term to include all those areas that feed the aquifer.

Thank you, again I apologize for the delay

Alan Miller, P.E.
Administrator
Hayden Lake Irrigation District

(208) 772-2612
alan@haydenirrigation.com

To: Advisory Committee, Facilitators,

I am concerned about our ability to complete this task within the designated period of time. If that concern is mine alone I can readily accept that. However if others share that concern I will offer some thoughts on methods of approaching this task in what may be a simplified manner allowing for more focused review of the topics. I would certainly accept others suggestions to this end also.

The purpose of the CAMP advisory committee is to generate recommendations to the Idaho Water Resources Board. Those recommendations are based on a 50 year projection steering how the aquifer is viewed, used, and cared for. I would anticipate the recommendations to be general enough to be achievable in this committee's time frame, and specific enough to be useful to those tasked with carrying them out. I would not anticipate those recommendations to be overly detailed.

In many ways and when kept at a certain level the aquifer is fairly simple, if one wanted to dig deeper into nearly any individual topic the complexities could supply a life time of learning. I know this committee does not have a life time and therefore would need to keep things fairly simple. To that end I have developed a flow chart that keeps topics and issues focused into main groupings. It has assisted me, I offer it on the chance it may assist others also.

At the level the committee needs to understand the aquifer, much of the information is already available, with some other significant works expected to be completed by early / mid summer. I believe the committee members need to have these documents available, and they need to read them. These documents are all available in electronic form, as well as most available in written copy. Many of the members of the committee are familiar with some if not all of these documents and may already have a copy.

The documents are:

1. Aquifer Atlas 2000, 2004 and 2009 edition (note 2000 edition not available)
2. USGS / Idaho / Washington study completed in 2007 (electronic copy only)
3. Spokane County Water Use studies completed in 2007
 - a. Technical Memorandum Id-WA Growth comparison
 - b. Full Inchoate Right Model Scenario
4. Kootenai County Wastewater Master plan

Documents nearing completion are:

5. Idaho Rathdrum Prairie Water Demand study
6. Spokane County Water Demand study

What if the committee were to look at the aquifer from an Idaho geographic centric view initially? In this concept we focus on how the aquifer supplies Idaho's geographic needs, and what problems or issues the aquifer presents to Idaho and similarly, Idaho presents to the aquifer. In this concept we initially view Washington as a 'user' no different from a city. Once we have looked at that, we then bring into discussion the issues that are relevant to Washington and the bi-state use of this aquifer. This may assist in keeping things manageable.

Aquifer Quantity Basic Facts:

All water comes from precipitation, either from direct rainfall, or from watershed runoff to lakes and streams.

Nearly all production from lakes and streams comes from Montana and Idaho. Kootenai County Idaho also receives significantly more precipitation on average than Washington due to the mountains.

Surface water flows to groundwater in Idaho.

Surface water and groundwater flow in both directions in Washington.

The river flow (quantity) is impacted in Idaho by flows to the river through impoundments (dams), and treated wastewater effluent.

The river flow is impacted in Washington by surface water / groundwater interaction, large scale pumping (municipal, other?), treated wastewater effluent.

Idaho pumping does have some effect on the river in Washington, however based on modeling it appears to be small. Washington pumping appears to have a greater effect on the river in Washington.

Based on the USGS study and model, it does not appear that the aquifer is being 'mined' (greater withdraw than supply); but the river appears to be negatively impacted in various areas by either pumping (direct effect) or by natural flows from the river to the aquifer. It is not well known (?) if Idaho pumping (withdraws) significantly affect the quantity of natural flows from the river to the aquifer in the Barker Road reach area. (IE: If Idaho pumped less would there be more in the aquifer and therefore less flow from the river to the aquifer? (reduced demand = increased aquifer water table level) With the reverse also true?; IE: If Washington pumped less would there be a reduced demand on the aquifer and therefore less flow from the river to the aquifer? (reduced demand = increased aquifer water table level))

Methods of resolving the issues at the river include reduced demands (pumping) which would in turn curtail growth at some point. Increased flow in the river by increasing the dam output, which involves the recently completed 50 year FERC re-licensing to AVISTA. Or some sort of augmentation scheme such as artificially recharging water at some pre-determined point on the aquifer and pumping that water from Pend Oreille or Coeur d'Alene lakes.

Aquifer Quality Basic Facts:

This aquifer is susceptible to contamination due to the porous ground cover over the water table. This ground cover offers little natural filtration.

The velocity which the aquifer moves helps reduce the contamination hazard, this due partly to effects of dilution by dispersion. However a rapidly moving aquifer may still take years to move across the two states.

Rathdrum Prairie Aquifer – Comprehensive Aquifer Management Plan (RP-CAMP)

