



Memo

To: David Tuthill, Gary Spackman, Jeff Peppersack, Doug Surerus
From: Charles G. Brockway
Cc:
Date: April 14, 2008
Re: Re-cap of April 2, 2008 meeting regarding aquifer recharge and mitigation for the Fish Creek Reservoir Company

In attendance were David Tuthill, Gary Spackman, Jeff Peppersack from IDWR; Doug Surerus, Chip Molyneux, and Lawrence Kimball from Fish Creek Reservoir Company, and Charles G. Brockway.

General Discussion

There was general consensus on the following items.

Seepage from Fish Creek does not return to the creek. Very little data is available for the Fish Creek valley aquifer, but ample anecdotal evidence indicates that the water table near the creek is not shallow.

It is presumed that the Fish Creek valley aquifer is tributary to the Eastern Snake Plain Aquifer.

It is not necessary to account for carryover storage.

There may be an opportunity for a credit to the company due to reduction in reservoir evaporation. This warrants further exploration.

There are no diversions or returns to Fish Creek downstream of the Hot Springs Ditch diversion. All water in the creek at this point sinks in the basalt, with the exception of extremely high years such as 2006 when some water reaches Carey Lake.

The "forgone storage" volume of 8,896 acre-feet cannot all be credited as aquifer mitigation due to the likelihood that some of this water was not consumed by the crop due to irrigation inefficiencies. On the other side of the equation, some amount of seepage in the creek will likely occur that otherwise would not have occurred without the recharge plan.

These two components are difficult to quantify. In the interest of reaching a reasonable compromise, it was postulated that the Fish Creek seepage might be considered approximately equal to the non-consumptive component of the irrigation water so that the two effects could be assumed to cancel out.

For 2008, it was proposed that Fish Creek Reservoir Company would:

- Construct new weirs in Fish Creek at the upper road crossing and just downstream of the Hot Springs Ditch diversion. The lower weir would be a direct measure of water directed to recharge.
- During spring 2008, use the new weir in conjunction with the existing outlet weir to determine the total spill from the dam.
- Compare this measurement with the lower weir measurement to make an estimate of channel seepage.
- Evaluate potential evaporation credit for reduced reservoir surface area.

The Company will discuss the data collection with IDWR staff during the summer of 2008, and re-submit a final plan for aquifer recharge and mitigation.

Administrative Options

Water bank options were viewed as the least palatable due to the fact that a 10% administrative fee would be assessed whether the water was rented back to the company or to another party.

A transfer application can be processed by IDWR to modify the right to the following structure:

Irrigation Storage	1/1-12/31	14,411 ac-ft
Irrigation From Storage	4/15-10/31	14,411 ac-ft
Recharge Storage	1/1-12/31	8,896 ac-ft
Recharge From Storage	3/1-7/31	<u>8,896 ac-ft</u>
TOTAL		14,411 ac-ft

There may be issues with recording a storage component for recharge when the reservoir cannot physically store this water. A transfer of this magnitude would require legislative approval, which likely would not be difficult to obtain.

A permit application with a mitigation plan, without a transfer of the storage right, can be processed by IDWR. The volume not stored would be protected from forfeiture since it would be part of a mitigation plan (I.C. 42-223(10)). The permit would list both a diversion rate and volume. This option would not require legislative approval. At this time, it appears the permit option may be the cleanest approach to accomplishing the goal.