



State of Idaho

DEPARTMENT OF WATER RESOURCES

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Topaz Irrigation Co
PO Box 293
Lava Hot Springs, ID 83246

Earl Smith
Dempsey Irrigating Co
9589 E Maughn Rd
Lava Hot Spring, ID 83246

Dear Gentlemen:

A tour of Portneuf River diversions was conducted with local water users on October 8, 1998. This tour was requested by McCammon Ditch Co. and the water district advisory committee. As part of this tour, I inspected that portion of the Dempsey-Topaz Canal where Fish Creek is diverted or intercepted. Questions were raised concerning how Fish Creek water is diverted and regulated. I also looked at the injection of Dempsey-Topaz Canal water into Dempsey Creek and the Topaz Canal diversion from Dempsey Creek. There are several concerns I have regarding this latter diversion and commingling of Dempsey-Topaz water with Dempsey Creek. These concerns and recommended improvements are listed below. This letter is addressed to both the Topaz Irrigation Co. and the Dempsey Irrigating Co. since the two companies may have some shared responsibilities over these issues.

- **Dempsey-Topaz Canal and Fish Creek Diversion**

The primary concern here is that there is no way to adequately measure and/or regulate the amount of Fish Creek water diverted into the Dempsey-Topaz Canal. Without such measurement and control, there is no way the watermaster or anyone else can adequately measure and record the Fish Creek diversion. The watermaster also can not assure that the diversion from Fish Creek is limited to the appropriate water right or rights and/or that any excess natural flow above these rights is bypassed below the canal and to the river. Similarly, it appears that canal users can assure that they are diverting the amount of water they are entitled to under their Fish Creek rights. Moreover, it seems that management or the proper delivery of both Fish Creek and Portneuf River water below this diversion off of the Dempsey-Topaz Canal is hampered or compromised without some way to measure and control the diversion from Fish Creek.

Given the above concerns, IDWR believes that some improvements should be made with the diversion of water from Fish Creek into the Dempsey-Topaz Canal. I would specifically recommend that a short ditch diversion be cut that connects Fish Creek to the Dempsey-Topaz Canal instead of the direct confluence between the creek and canal that currently exists. The short ditch should be fitted with controlling works and a measuring device so that the Fish Creek diversion is measured separately. Care should be given to the selection and location of a measuring device to assure that the device is not affected by the Dempsey-Topaz Canal.

An improved control structure should also be placed in the Dempsey-Topaz Canal to prevent additional diversion of Fish Creek water when the canal is not conveying Portneuf River water. This and the proposed Fish Creek control structure or gate should be lockable type structures capable of watermaster control. Since the Dempsey-Topaz river right (i.e.; canal water above the Fish Creek confluence) is fairly late in priority and junior to McCammon's right, it is probably not necessary to require fluming Fish Creek over the canal since regulation of the Fish Creek diversion may only be an issue after the canal water is shut off. However, some consideration should be given to the proper bypass of Fish Creek water so that this is not an issue again in the future and because it may be more efficient to address this matter with any work that is planned for the diversion from Fish Creek.

- Dempsey Creek Diversion and Measuring Devices

IDWR also found that water from the Dempsey-Topaz Canal is injected to Dempsey Creek and then re-diverted at the Topaz Canal. Although the points of injection and re-diversion are very close together, Dempsey Creek water is still commingled with the Dempsey-Topaz Canal water. The water injected to Dempsey Creek is not measured. Unless this injected water is measured separately before going into the creek, it should not be re-diverted into the Topaz Canal diversion from Dempsey Creek. Therefore, IDWR requests that a measuring device be installed for the injected water prior to any future re-diversion of this water. I also found that the Topaz Canal Parshall Flume measuring device was not set evenly. The Topaz Irrigation Co. should also re-set the flume so that is level.

The concerns and recommendations raised in this letter are not trivial. IDWR expects these matters to be addressed by you over the coming months and hopefully resolved prior to the 1999 irrigation season. I expect that you may have questions regarding these matters and encourage you to contact me directly at 327-7864, or Harold Jones in Idaho Falls at 525-7161. I would be happy to discuss the need for the recommended improvements and general design concepts.

You may also wish to consider applying for a loan or grant from the Idaho Water Resource Board to assist in the design and implementation of the recommended improvements. The IDWR representative who assists the Board with loan and grant requests is Brian Patton (327-5432). Additional engineering and financial assistance may be possible from either the US Bureau of Reclamation (USBR) and/or the Natural Resources Conservation Service (NRCS, formerly SCS). Contacts for these agencies are Brian Hamilton, USBR (208-378-5281) and Ron Davidson, NRCS (208-237-4628).

I look forward to your cooperation on these matters.

Sincerely,



Tim Luke

cc: Arlin Olson, Watermaster
Harold Jones, IDWR
Howard Hall, McCammon Ditch Co. & Water District Advisory Committee