



State of Id

DEPARTMENT OF WATER RESOURCES

1301 North Orchard Street, Statehouse Mail, Boise, Idaho 83720-9000

Phone: (208) 327-7900 FAX: (208) 327-7866

CECIL D. ANDRUS
GOVERNOR

R. KEITH HIGGINSON
DIRECTOR

June 11, 1992

Tracey Baxter
3000 Pegram Rd.
Montpelier, ID 83254

RECEIVED

JUN 1 1992

Re: Sorensen Ditch Measuring Device Department
Eastern District Office

Dear Mr. Baxter:

On June 3, 1992, I visited the upper reach of the Bear River and had an opportunity to inspect the Sorensen Ditch and the penvane measuring device which you recently installed. Pete Peterson, the Bear River watermaster, accompanied me on this inspection. The inspection was made during Mr. Peterson's normal round of upper reach diversions.

The particular size penvane or deflection vane found at the measuring site was not adequate in relation to the height of the penvane holding bracket and width of the channel/railroad tie form structure. This particular size vane does not sit freely on the bracket nor can it be freely suspended in the water. Either the bracket is too low for this size vane or the vane is too long for the height of the bracket. Moreover, the vane at your site is made for a 5 foot channel whereas the width of your channel is only about 4.5 feet wide. Due to the size and/or specification problems described above, your penvane measuring device is completely inoperable and is therefore not acceptable.

While at your ditch, it was necessary for the watermaster and I to current meter the ditch. Our initial measurement showed that you were not getting all of your water. The headgate was subsequently adjusted so that the proper amount could be delivered. We found that a full opening of your headgate on this day only yielded an amount which was a little less than you were actually entitled given the current available natural flow of the river. The initial current metering and subsequent adjustments and current metering on your ditch consumed a considerable amount of our time. Due to this delay, Pete and I missed a scheduled meeting later that day with a group of water users. All of the other ditches and diversions I visited in the area that day were equipped with functional measuring devices.

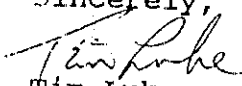
Since it appears that you can not physically divert your full entitlement, the watermaster and I decided that it was not necessary to close your headgate due to lack of an adequate measuring device. I further do not believe it is necessary for the Department to require some immediate deadline in which to install an adequate device. I do however strongly recommend that you

correct the problem as soon as possible. Long delays in correcting this problem can result again in closure of your headgate. If changes are made to the diversion works or headgate this season so that additional water can be diverted, then the Department will instruct the watermaster to shut the headgate and require you to immediately install an adequate measuring device if one has not already been installed.

I suggest that you consider installing a simple rectangular or cippolletti weir or a parshall flume. Either weir can be installed at the front end of your railroad tie structure. Specifications for weirs can be found in the water measurement booklet already sent to you. Weirs can be constructed out of aluminum or galvanized steel. Some sheet metal shops in your area may have some experience with constructing weirs or could probably make them if they have the specifications. You may be able to order pre-fabricated parshall flumes from Contech Construction Products in Twin Falls or Salt Lake City. The A & B Irrigation District in Rupert, Idaho may have some flumes which you could purchase and pick up in Rupert. The Department does not particularly recommend penne devices. Accuracy in reading penne can be effected by wind and floating debris. Weirs and flumes are generally easier to use and are often more accurate. These latter devices are certainly more common and widely used today in Idaho. Penne however are adequate if they are the proper size for the channel and properly installed.

Please inform this office or the watermaster as to when you expect to correct the problem outlined in this letter and when a functional measuring device will be installed. Please contact this office if you have questions concerning this letter or need assistance regarding this matter.

Sincerely,


Tim Luke
Hydrologist

cc: Pete Peterson
Bruce Larson
Region