

June 29, 1994

Dan and Kelly Smith  
Leadore ID 83464

Dear Dan and Kelly:

I wanted to get back to you on several issues that Greg Taylor and I discussed with Kelly on-site at Hawley Creek on 6-24-94. The first issue was the measurements we took versus the weir readings. These are listed below:

	<u>staff gauge</u>	<u>pygmy meter</u>
<u>Isoms Ditch</u> -	189" or 3.78 cfs	212" or 4.24 cfs
<u>Oxbow Ranch</u> -	88.5" or 1.77 cfs	130" or 2.61 cfs
<u>Oxbow Ranch</u> (515 ditch)	508.5" or 10.17 cfs	NA

The numbers above show that 786" were credited to the 3 diversions still left on, while the pygmy meter plus the parshall flume reading on the 515 ditch totaled 850". The difference of 64" could be significant at different delivery times but, in this sequence, you still have another 136" that is due Oxbow Ranch before Kagels would be eligible for water (64" overage + 136" = 200").

The measuring method Kelly demonstrated is called the weir stick method and is a valid technique alternative. The U. S. Bureau of Reclamation Water Measurement Manual of 1975 states, "At best the sticks can only approximate the accuracy obtainable with the weir when the head is measured in the normal manner." This must be kept in mind when certain delivery problems occur.

Finally, the question of delivery to the Kagel's ditch was of some concern. Section 42-701 of the Idaho Code states in part that ". . .the Department of Water Resources may order the duly qualified and acting watermaster of the water district to shut off and refuse to deliver at the point of diversion, the water claimed by such appropriator or user until he does construct and maintain such headgates, controlling works or measuring devices. . ." I feel that such an action is appropriate in this case.

I have included for your use a Parshall flume chart, copies of Section 42-701, Idaho Code and finally the B.O.R comments on weir sticks.

Sincerely,

Harold W. Jones  
Water Resource Supervisor

HWJ:lk

CC: Ray and Nancy Kagel