



State of Idaho

 COPY

## DEPARTMENT OF WATER RESOURCES

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C. L. "BUTCH" OTTER  
Governor

GARY SPACKMAN  
Interim Director

May 13, 2010

Regan Wheeler, Manager  
Cub River Irrigation Co.  
1820 S 800 E  
Lewiston, UT 84320

Gale Moser, President  
Cub River Irrigation Co.  
1864 South Hulls Crossing  
Preston, ID 83263

Re: Cub River Irrigation Company Measuring Device on Middle Ditch

Dear Gentlemen,

Last year staff from the Idaho Department of Water Resources (Department or IDWR) made several visits to the Cub River Irrigation Company (CRIC) Middle Ditch diversion to check the installation and accuracy of the new Acoustic Doppler flow meter (ADFM). Our staff representative, Mat Weaver, took current meter measurements of the Middle Ditch on three different dates during the irrigation season and compared those measurements with average readings from the installed ADFM device. Measurement results are shown on Attachment A of this letter.

In October of 2009, Mat corresponded with the Water District 13-A watermaster, Troy Foster, to provide an update on several items that the Department was working on during 2009, including calibration measurements of the Middle Ditch ADFM device. As shown in Attachment A, the ADFM is not providing accurate measurements, particularly at higher or peak diversion flows. Mr. Weaver directed the watermaster to advise CRIC of the problem and confirm with the Department when the device has been corrected or modified for greater accuracy. Additionally, Mat shared his measurement results and concerns with Intermountain Environmental, the ADFM installation consultant. The representative from Intermountain Environmental indicated that they would work with CRIC to improve the accuracy of the device prior to the 2010 irrigation season.

The watermaster recently contacted our office to advise that he is not aware of any changes in location of the ADFM or other improvements having been made to the ADFM since he reported the problem to CRIC. The purpose of this letter is to remind you of the need to immediately correct the accuracy issues with the installed ADFM device. We believe that the problem is likely the result of significant turbulent flow at the device location. We suggest the device be moved downstream in the system where the flow is less turbulent.

Please contact me or Mat Weaver at 208-287-4800 if you expect any problem or delay in correcting the meter. Please also contact us if you have other questions or need any assistance in this matter.

Regards,

A handwritten signature in black ink that reads "Tim Luke". The signature is written in a cursive style with a large, sweeping initial "T".

Tim Luke  
Water Distribution Section

Encl: Attachment A

Cc: Troy Foster, WD13-A Watermaster  
Mat Weaver, IDWR Water Allocations  
James Cefalo, IDWR Eastern Region  
Randall Budge, Attorney, CRIC

ATTACHMENT A

CUB RIVER IRRIGATION COMPANY  
MIDDLE DITCH DIVERSION  
IDWR 2009 CALIBRATION MEASUREMENTS

Date	Current Meter: Flowtracker, Q* (CFS)	Greyline DFM, Q** (CFS)	% Error
6/17/2009	10.1	11.9	17.8%
7/9/2009	33.2	15.0	54.8%
9/10/2009	14.3	15.5	8.4%

\*These values were obtained at a cross section located approximately 15 feet downstream of the first daylight point of the middle ditch (1/4 of a mile from the DFM).

\*\*These values represent an average of instantaneous flow rates taken every minute for 10 consecutive minutes.