



State of Idaho

DEPARTMENT OF WATER RESOURCES

322 East Front Street • P.O. Box 83720 • Boise, Idaho 83720-0098
Phone: (208) 287-4800 • Fax: (208) 287-6700 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor

DAVID R. TUTHILL, JR.
Director

October 16, 2007

MARGARET WATKINS AND ROBERT JARRETT
2397 STRYKER AVE
FORT LEWIS, WA 98433

Re: Order Requiring Controlling Works and Measuring Devices in Water District No. 170

Dear Ms. Watkins and Mr. Jarrett:

The Idaho Department of Water Resources (IDWR) received your letter dated October 9, 2007 in which you describe plans for measurement of your water diversions in Water District No. 170. Additionally, you requested additional time to bring your diversion from Gold Creek into compliance pending resolution of discussions with the Idaho Department of Fish and Game (IDFG) to possibly alter the diversion.

Your letter indicated you plan to install an hour meter on the groundwater diversion and a ramped flume in the collection ditch for the spring water you share with Mr. and Mrs. Rember. These devices are acceptable for measurement of these two diversions if the devices are installed in accordance with manufacturer instructions. IDWR staff will arrange to visit your property next spring to measure the groundwater diversion so your water usage can be calculated using the hour meter.

As mentioned during discussions with IDWR staff previously, please note that a means of limiting the diversion of water from the springs may be necessary if regulation becomes necessary or if the springs produce water in excess of that authorized by existing water rights. However, the need for such a structure will be evaluated following the 2008 irrigation season.

Given that the Gold Creek diversion seldom diverts water and may be reconstructed or altered pending discussions with the IDFG, a one-year extension for compliance with the control and measurement order is warranted. As such, water may be diverted from the Gold Creek diversion during the 2008 irrigation season prior to installing devices for measurement and control. However, water may not be diverted from the Gold Creek diversion after the 2008 irrigation season unless approved measurement and control devices have been installed or another extension has been granted by IDWR.

Please feel free to contact me if I can be of any further help or if you have any questions regarding this issue.

Sincerely,

Nick Miller, P.E.
Water Distribution Section

WD

09 October 2007

RECEIVED

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DEPARTMENT OF
WATER RESOURCES

Nick Miller, P.E.
Idaho Department of Water Resources
322 East Front Street
Boise, Idaho 83720-0098

Re: Controlling Works and Measuring Devices for water rights: 71-4013, 71-4014, 71-4015

Dear Mr. Miller:

Pursuant to your letter of 23 July 2007 and our subsequent conversations, following is our plan for compliance with the Order Requiring Controlling Works and Measuring Devices in Water District No. 170:

Water right No. 71-4013: We have ordered a mounting gasket (Part # B20017, see enclosed) and an hour meter (Part # T50B1, see enclosed) to monitor pump hours from the groundwater pump located on the southeast portion of our property. We will have these in Spring 2008 prior to using the pump for irrigation.

Water right No. 71-4015: We have ordered and received an EZ Flow Ramp Flume (Part # EF3.5, see enclosed) from Intermountain Environmental, Inc. We will install it in Spring 2008 in the location we identified during your site visit. John Rember has been quite cooperative and will share the cost as well as help with installation.

Water right No. 71-4014: Per our conversation, I would like to request a one year exemption with regard to the Gold Creek Diversion water right. I will be talking with the Department of Fish and Game (Larry Weeks) about alternative methods to divert this water (conduit versus ditch). This may impact definitive plans for measurement. Additionally, the amount of water available from this water right remains uncertain with regard to the upstream use by Idaho Rocky Mountain Ranch.

Thank you for the assistance you have given us in this endeavor. We will need to arrange a time to measure the output from the groundwater pump, perhaps at the time you inspect installation of the items noted above.

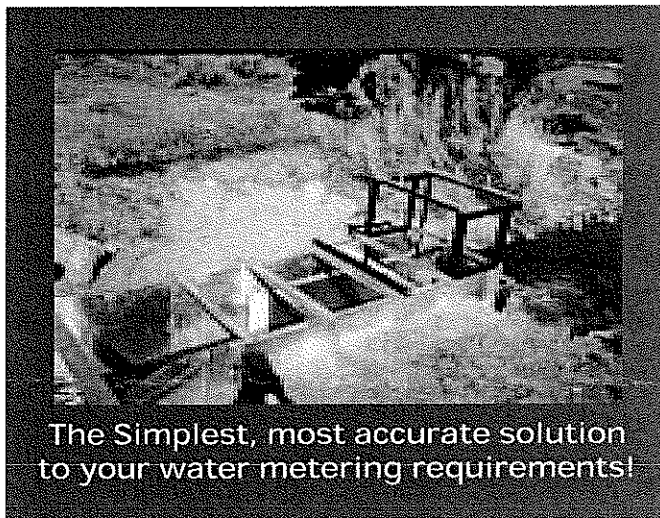
Respectfully,



Margaret Watkins
Robert Jarrett

Galvanized Steel Ramp Flumes

(Adjustable and Non-Adjustable)



The Simplest, most accurate solution to your water metering requirements!

Durable Construction

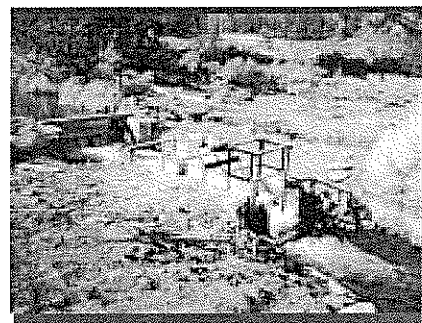
The Adjust-A-Flume™ and EZ Flow are made of high quality galvanized steel for years of trouble free service. They are designed with extremely rigid "flanged" construction throughout and utilize heavy cross bracing. The design allows the installation of the Adjust-A-Flume™ and EZ Flow Ramp Flume in locations with heavy soil backfill or in concrete channels.

Economical

The manufacturing process allows us to keep prices very affordable. Unlike other flumes where you may pay as much for shipping (because of the dimensional size and weight) as for the flume itself, the Adjust-A-Flumes™ and EZ Flow Ramp Flume are shipped unassembled for lower cost shipping and handling. In fact, most of the smaller sized flumes can be shipped via FedEx or UPS.

Installation

The Adjust-A-Flume™ and EZ Flow Ramp Flumes are easy to assemble, even in the field. Initial assembly usually takes less than an hour for the smaller flumes and no more than two hours for the larger flumes. After installing the flume in the water channel, just assure that the flume is level both end to end, and side to side and that the top of the fixed frame is 2 to 5 inches above the high water mark. Adjust the



height of the sill on the Adjust-A-Flume, and the flume is ready for service. It really is that easy. Unlike some other flume designs, the Adjust-A-Flume™ and the EZ Flow Ramp Flume do not require sight surveying or complicated excavation for proper and accurate installation. For more information on installation of the Adjust-A-Flume™, and the EZ Flow Ramp Flume contact us, or visit the "Flume" pages on our web site at www.inmtn.com.

Choosing the Correct Size

Choosing the correct flume size for your application is important. It is suggested that the smallest size flume that will accommodate the correct flow be used. On the back page is a listing of the standard available sizes. We can also design and manufacture other custom sizes upon request.

In today's resource conscious world, accurate measurement of water consumption is more important than ever. The Ramp Flume provides an economical way to accurately measure water.

Two models are available. The Adjust-A-Flume and the EZ Flow Ramp Flume. The main difference between the two is that the Adjust-A-Flume has an adjustable sill feature that allows the user to relocate the level of the sill after installation where the EZ Flow has a stationary sill. The EZ Flow is more economical, but if a user can afford the small additional expense the Adjust-A-Flume offers additional flexibility in measurement range and simpler overall installation.

Many different features have been tried in past adjustable flume designs. For example, fixed, portable, and vertically movable gates have been described by Bosetal. (1991). Small water trays have been used for leveling, as well as radial gates and vertical slide gates to regulate and estimate flow rate. Their range of utility is limited, and accuracy is a persistent problem in these past designs, with errors frequently exceeding +/-20%. The Adjust-A-Flume™ represents the "state-of-the-art" in flume design, achieving amazing flow metering accuracy.

Measurement Accuracy

Extensive testing and evaluation under field and laboratory conditions, have shown the Adjust-A-Flume™ and EZ Flow Ramp Flumes consistently achieve accuracies to within +/- 3%, when properly installed. The increased flow velocity in the throat section discourages sediment accumulation in this important part of the flume. The approach section near the gage, while somewhat less self-cleaning, is tolerant of considerable sediment accumulation before significantly altering the flumes function. This provides for long periods of time between cleaning and maintenance.



601 W. 1700 S., Ste B
Logan, UT 84321-8247

Ph: 435-755-0774
Web: www.inmtn.com

Fx: 435-755-0794
E-mail: info@inmtn.com

