



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](http://www.idwr.idaho.gov)

SEPTEMBER 13, 2007

C. L. "BUTCH" OTTER  
Governor

DAVID R. TUTHILL, JR.  
Director

CATHERINE SUE FREEMAN  
DUANE LEE FREEMAN  
P.O. BOX 212  
STANLEY, ID 83278

**RE: Headgate and Measuring Device for Goat Creek Diversion GC-7**

Dear Mr. and Mrs. Freeman:

IDWR received your letter on August 3, 2007 describing your plans for measuring and controlling your diversion from Goat Creek in Water District No. 170. The plans described in the letter are generally acceptable to the department. However, the proposed twelve-inch rectangular weir is too large for your application. Given the size of your water right, as well as the possibility that lower flows will likely need to be measured, a 90-degree V-notch weir should be installed instead of a rectangular weir. Please note the following guidelines regarding the V-notch weir:

1. The V-notch weir should be installed level and plumb, with a smooth upstream face installed perpendicular to the ditch flow.
2. The crest edge should be beveled to a 45-degree angle, with the 45-degree face on the downstream side.
3. The notch on the weir should be located about 10 inches above the upstream channel bottom and at least three inches above the downstream water level.
4. The width of the ditch at the weir location should be about 30 inches to provide an adequate distance from the weir crest to the edges of the upstream pool.
5. The weir should be constructed such that flow does not occur around or under the weir plate and care should be taken such that the weir plate does not settle, heave or otherwise move over time.

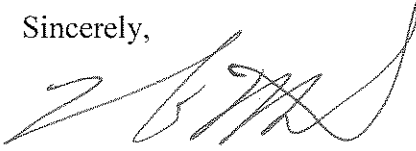
The description of the controlling works in the letter was very general, so the type of gate and structure are planned is unclear. However, please bear in mind that the headgate and supporting structures must be constructed such that diversion of water into the ditch may be controlled. The structure must be capable of delivering the entire water right and be capable of shutting the ditch off completely. Although the headgate will remain unlocked, the gate must be lockable in any position if circumstances require locking to prevent unauthorized adjustments.

After you have completed the installation, please notify IDWR and we will discuss measurement and reporting options for the 2008 irrigation season.

Mr. and Mrs. Freeman  
September 13, 2007  
Page 2

Thank you very much for your cooperation and attention to this matter. If I can be of further assistance, or if you have any further questions, please feel free to contact me at (208) 287-4956.

Sincerely,

A handwritten signature in black ink, appearing to read 'Nick Miller', written in a cursive style.

Nick Miller  
Water Distribution Section

S:\Correspondence\2007 HGMD Correspondence\Basin 71\091307\_Freeman.doc