

FILE 7161
FEB 23 1988

February 22, 1988

Mr. Rick Kaster
Route 3
Buhl, ID 83316

Dear Rick:

Orifice Flow

As per your telephone request, I am forwarding a copy of the Memorandum I prepared to Al Van Vooren on your orifice sizes. For the upper gate, I used a head of four feet, six inches to calculate the flow. On the lower gate, a head of three feet, zero inches was used to calculate the flow.

If you have any further questions or need additional information, please let me know.

Sincerely,

Grant S. Christensen
Chief, Bureau of Engineering

GSC:Q

Encs.

c Bill Horton

STATE OF IDAHO
DEPARTMENT OF FISH AND GAME
BOISE, IDAHO

January 11, 1988

MEMORANDUM

FROM: Grant Christensen 
TO: Al Van Vooren
SUBJECT: Orifice Flow/Rick Kaster

Mud Creek

As you are aware, Rick Kaster called requesting information on the size of a submerged orifice to pass approximately 5 cfs. Rick stated that we could be conservative to be sure that the unknowns were accommodated. Consequently, I calculated the following opening and orifice sizes:

Upper Gate

Using the head reported of 5 feet plus 4 inches, minus 6 inches, and a gate width of 44 inches, a gate opening of 2 inches would guarantee a flow of 5 cfs. A 2-inch opening, however, would be subject to restriction from gravel and debris and I would recommend the following:

Cut a new orifice out of the bottom of the gate 12 inches wide by 7 inches high. The gate can then be left in the fully closed position and pass the required flows.

Lower Gate

At the reported head of 3 feet, 6 inches, plus or minus 6 inches and a gate width of 47-1/2 inches, a 2-inch opening would again be satisfactory. As in the case of the upper gate, a much better solution would be to cut an orifice 12 inches wide by 8-1/2 inches high to insure the required flow with the gate in the fully down position.

I have relayed this information to Rick by telephone. If you need any further information, please let me know.

GSC:Q