



State of Idaho

DEPARTMENT OF WATER RESOURCES

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PHILIP E. BATT
GOVERNOR

R. KEITH HIGGINSON
DIRECTOR

April 3, 1995

Irvin Gilbert
Portneuf Marsh Valley Canal Co.
Downey, ID 83234

RE: Development of a storage reservoir elevation relationship

Dear Mr. Gilbert:

On October 5, 1990, the department issued an order requiring the development of a staff gauge (stage) storage relationship for the Portneuf Reservoir. A series of low water years allowed several opportunities for the survey of the reservoir topography, and the development of a stage-storage relationship. I recognize from past correspondence that Portneuf-Marsh Valley Canal Co. did not ignore the order, but also did not move forward with great haste to conduct the survey. I also understand that at the close of the 1994 irrigation season, the Soil Conservation Service (SCS) surveyed two or three survey lines across the reservoir. Personnel of the Department's Dam Safety Section attempted to use this data to draw contour topography for reservoir bottom, but the survey data was inadequate to develop the capacity. As a result, the order still remains unsatisfied.

Personnel at the Department of Water Resources recently met to reevaluate the need for the stage-storage relationship. We do not want to require Portneuf Marsh Valley to spend money for information that will not be useable. Those who assist with water distribution questioned the need for the stage-storage relationship. There are, however, significant unresolved questions about the quantity of natural flow which should be delivered to natural water right holders. Tim Luke of this office has verified increases in natural flow which correspond directly to the shut down of delivery of storage water from the Portneuf Reservoir. A stage-storage relationship would help verify that the measurement of storage releases are accurate.

In addition to comply with dam safety regulations, the relationship between storage and water surface elevation must be developed not only to the spillway crest, but also for flood routing when the reservoir is surcharged, and the spillway is operating. The stage-storage relationship is necessary for the Department to adequately assist you when there is a significant flood event.

Because of the dual purpose the stage-storage relationship will serve, I again reiterate the importance of Portneuf-Marsh Valley's compliance with the order. I expect that the company should begin planning now to either commission another survey, or complete the SCS survey at the close of the 1995 irrigation season. Failure to do so could result in appropriate enforcement action imposed by the Department.

Sincerely,


R. Keith Higginson
Director