



State of Idaho

DEPARTMENT OF WATER RESOURCES

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GOVERNOR

KARL J. DREHER
DIRECTOR

October 12, 1995

Ervin Gilbert
Portneuf-Marsh Valley Canal Co.
Downey, ID 83234

Re: Chesterfield Reservoir Survey

Dear Mr. Gilbert:

This letter concerns the completion of the reservoir survey and is made in response to your letter of April 26, 1995, and the Natural Resource Conservation Service (NRCS) letter by Tom Allen dated June 5, 1995. I apologize for the late response.

On August 8, 1995, IDWR staff members met with Tom Allen via telephone conference call regarding the status and completion of the Chesterfield Reservoir survey. IDWR staff members present at the conference call included Dave Hollingshead, Dam Safety Section Manager, Sonny Hornbaker, Dam Safety Engineer, Gary Spackman, Water Distribution Section Manager and Tim Luke, Water Distribution Section Hydrologist. Tom Allen was the only representative from the NRCS.

During the call Mr. Allen reviewed the survey results and methodology. Sonny Hornbaker of IDWR explained that he had modeled the NRCS survey data using a computer program and found that the topography throughout parts of the reservoir varied significantly. The irregular topography generated by the computer model suggested to IDWR staff that more cross-sectional survey data may be needed. IDWR believes that the existing NRCS survey data is both useful and accurate. IDWR would only like to supplement the existing survey with additional data to achieve a higher level of confidence in the resulting stage-storage curve. Moreover, IDWR would like to extend the survey, if possible, above the spillway elevation for future emergency flood routing and dam safety purposes.

After presenting the IDWR concerns, Mr. Allen acknowledged that the NRCS survey did not include survey points above the spillway elevation. In addition, Mr. Allen acknowledged that some additional cross-sectional survey data would provide a more accurate stage-storage curve. Mr. Allen explained that the lower end of the reservoir near the dam has more topography change and agreed that additional survey points in this area would be useful.

It is IDWR's understanding that Mr. Allen and the NRCS does not object to IDWR's concerns and desire to supplement the existing survey. IDWR further understands that the NRCS is willing to cooperate with IDWR in sharing survey data and providing personnel

to make an initial site visit this fall. There was also some discussion about NRCS possibly providing some field staff assistance this year if IDWR were to take the lead in conducting a supplemental survey and completing the final stage-storage curve.

IDWR staff believes that at least two to three people and up to four to five field days may be needed to collect the supplemental survey data. At least another 40 hours would be spent by a dam safety engineer in the office to reduce the field data and complete the stage-storage curve. If reservoir levels and/or weather conditions hamper the ability to obtain additional data, or limit the amount of data that can be obtained this year, then additional data may have to be obtained the following year. Any additional data that is collected this year will be added to the existing NRCS survey. IDWR will then evaluate whether further data is needed.

In order for IDWR staff to collect additional field data, it is probable that a survey instrument will need to be rented. Staff may also need to acquire or lease other field equipment, including a boat for making cross-sectional measurements. PMV may be able to provide some items, including the boat and one or more representatives to man a boat or assist with the survey. IDWR proposes that rental costs be paid by PMV. We estimate rental of a survey instrument to be about \$300. IDWR's costs associated with travel, lodging and other per diem costs would be charged to the State, and not charged directly to PMV.

If staff resources and other physical reservoir conditions are permissible, IDWR could start work in late October or early November. At this time IDWR asks that PMV provide a written response to IDWR's proposals and understandings presented in this letter. Specifically, IDWR would like to know if PMV supports IDWR's proposals and understanding with NRCS, and whether PMV would support paying some rental costs and providing whatever assistance is possible. IDWR asks that PMV provide a response to IDWR regarding this matter within the next one to two weeks. Please contact me or the other IDWR staff members identified in this letter if you have questions concerning this matter.

Sincerely,


Gary Spackman

cc: Tom Allen, NRCS