

Public Works
F. P. 241

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF INDIAN AFFAIRS

IRRIGATION SERVICE
District No. 5
Albuquerque, New Mexico

April 4, 1934

Memorandum to Mr. H. C. Neuffer, Supervising Engineer

The following is the program of work prepared for the enlargement of a small storage dam on the Moen Ava Project. The storage dam as originally constructed held about one acre foot of water. While we have no accurate measurement of the flow from the springs feeding the reservoir, it is estimated at between 50 and 60 gallons a minute.

Recently the Agency forces raised the dam about four feet, and placed additional material on the downstream slope. Shortly after this work was accomplished the dam broke at the outlet conduit, making an aperture about four feet wide by fourteen feet in depth.

The slopes on the original dam were slightly steeper than 1 to 1 on each side, with a 4-foot crown. The placing of the material by the Agency forces on the back of the dam has increased this slope to $1\frac{1}{2}$ to 1.

The proposed plan of construction is as follows: The aperture which was washed out by reason of the dam failing is to be cut back to not less than 2 to 1 slope. In addition to this a small trench is to be excavated and the material puddled in place, in order to make a perfect bond between the new and old material. The inside or water side of the dam is to be thoroughly plowed down and the slope increased to 3 to 1. This is to be done by team method and the material thoroughly saturated as it is placed in the embankment. A 6-inch conduit is to be placed through the dam and provided with a gate valve on the downstream side. The valve will be enclosed in a box, in order to prevent freezing. In order to increase the size of the reservoir it is planned to excavate material from the upstream side and increase the area three acre feet. This is to be accomplished by the use of a dragline excavator.

The following is the estimate of cost for the reconstruction of this project:

4000 Cu. Yds. Embankment @ 30¢.....	\$1,200.00
5,000 Cu. Yds. Excavation to Enlarge Reservoir @ 20¢.	1,000.00
Gate.....	150.00
Outlet Pipe.....	100.00
Pipe through Spoil Bank.....	100.00
Moving Dragline and Depreciation.....	500.00
5%	200.00
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	\$3,250.00

C. A. Burns
C. A. Burns, Engineer