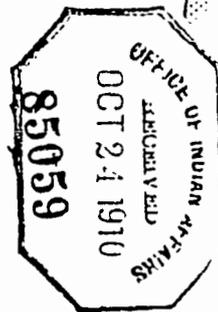


Ganado Reservoir
on Navajo Reserva-
tion, Arizona.

DEPARTMENT OF THE INTERIOR
UNITED STATES INDIAN SERVICE
OFFICE OF CHIEF ENGINEER (IRRIGATION)
522 BUMILLER BUILDING
LOS ANGELES, CAL.



REPRODUCED AT THE NATIONAL ARCHIVES

October 18, 1910.

The Secretary of the Interior,
Washington, D. C.

Sir:-

I enclose herewith reports of Consulting Engineer W. H. Sanders and Superintendent Robinson regarding the proposed Ganado reservoir on the Navajo Reservation in Arizona. This is a project which would accomplish much good if it were feasible in every respect, but there is a lack of definite data on two important points, i.e., hydrographic data as to the amount of flood waters that can be reasonably counted upon each year, and second, volumetric measurements to determine what proportion of silt is carried in suspension in the waters of the Rio Pueblo Colorado, which it is proposed to impound. This is an intermittent, torrential stream, all indications pointing to large quantities of silt during flood periods. The chief run off is said to be during the winter months, during which period it is probable that an ample supply of water comparatively free from silt flows down the channel to fill annually the small reservoir contemplated, as asserted very confidently by Mr. Hubbell, who has lived in the vicinity for approximately thirty years.

In view of the fact that the final surveys have demonstrated

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that this project will cost very much more than originally contemplated, I think definite data should be obtained during the ensuing winter regarding run off and silt content, and I have instructed Mr. Robinson to establish a gauging station and have the necessary measurements made. It is quite possible that sufficient data will be available before Congress adjourns so that the feasibility of this project can be determined upon, and if it is found practicable and meets with your approval, I assume Congressional permission could be obtained to construct it during the fiscal years 1912-13, paying for same out of the general appropriation "Irrigation Indian Reservations."

The estimated cost of this project is given by Superintendent Robinson at approximately \$60,000, making a reclamation cost of \$35 per acre for reservoir, diversion canal and distributing system. Since this amount exceeds by \$25,000 the limit fixed by Congress, the work could not be undertaken at this time without the consent of that body, even if it were a project which could be unqualifiedly submitted to you for approval.

Our observations at Zuni regarding the extent of silt deposit in the storage basin, as detailed in a separate report of even date, have been so discouraging that the writer will submit no more recommendations for storage reservoirs until the silt content of the water sought to be impounded is known.

Very respectfully,



Chief Engineer.

reports of Robinson
and Sanders enclosed.

WHC/HPC.