



RG 75 Bureau of Indian Affairs
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DEPARTMENT OF THE INTERIOR,
UNITED STATES INDIAN SERVICE,

Kearns Canon, Ariz. Mar. 27, 1905.

The Honorable,

The Commissioner of Indian Affairs,

Washington, D. C.

Sir:- Replying to yours of March 2, "Land 14461-1905" I have the honor to state that the proposition relative to water storage submitted to your Office Feb. 9th, has a better backing now than it had at that time. Then it had only my judgment and that of one of the engineers who served as chief of staff on the Panama Canal and afterwards spent the season of rains in Arizona and learned something of the amount of water there is here at times, a part of which ought to be stopped here at least till it has rendered some service. Since then Supervisor Pringle has been here at a time when he got a different idea of the amount of surface water that might be stopped than any he had gotten before.

I went over with him the plan submitted to your Office and took him to a place near the school that in my judgment would be a fair place to make a trial in a small and inexpensive way. He gave it me as his judgment that it was worth trying and ran levels and surveyed a reservoir capable of storing 13000 barrels. We agreed that this^{is} small but will be sufficient to experiment and learn approximately what amount will be lost through evaporation, and seepage through the clay lining. As to the amount of land such reservoir would water that depends so largely on the amount of evaporation and the nature of the soils that it is diff

icult indeed to estimate. It is a fact that allowing one third for evaporation this should furnish two wettings equivalent to one half inch rainfall at each wetting to five acres of land. This in most seasons in most ~~countries~~ countries means a corn crop where otherwise there would have been failure.

It will not cost over fifty dollars to finish up this experimental reservoir and see what can be done towards making clay reservoirs hold water.

As to the quantity that can be stored and the amount of land that can be watered by such methods if clay will hold it is my judgement that we can find on the reservation eight to ten thousand acres that can be so watered, depending on the crop. And these reservoirs can be made by Indian labor and without shipping in one acre of material. At present I am arranging to haul from Holbrook a car of Hydraulic cement for water storage. I do not question that that is some better but not for Indians to use. And it makes land cost so much that if we should have the choice of making a success of such irrigation or buying farms elsewhere and moving the Indians to them the latter would be the cheaper.

I have the honor to request that I be allowed to expend the sum of fifty dollars in making the experimental clay reservoir.

It is planned 50 ft. wide and 150 ft long with the dirt taken out to be placed on the side next the prevailing winds and the prevailing winds to cross the 50 ft. Avoiding evaporation as much as possible.

Very Respectfully

Mrs. G. Linnon
Superintendent.