

Navajo Service
Tuba City, Ariz.
Oct. 6, 1948

MEMORANDUM TO: Mr. B. W. Kronquist

FROM : Walter J. Dutton

SUBJECT : Irrigation Report

In this report I will use: 301 Acres Reservoir Canyon (All Hopi)
257 Acres School Farm
430 Acres Hopi and Navajo Indians
Total 998 Acres

Of the 430 acres of Hopi and Navajo fields, 153 acres of these are farmed by Hopis making a total of 456 acres of the total farmed by Hopis, 267 acres by the School and 275 acres by Navajos.

This project starts at Hopi Bridge east of Hopi Village and ends at the bridge on the Tuba City-Flagstaff road.

Reservoir Canyon, 301 acres, watered from Hopi Reservoir (all Hopi). All of this was watered three times and part of it four or five times.

The ditch from the Reservoir to the fields is not maintained and part of it spreads out over a space of 150 to 200 feet and keeps this part waterlogged and the evaporation here is very high. It has been estimated that they are not getting over 50% of the water that leaves the reservoir on the fields.

Then taking one sentence from the report of S. C. Brown and L. C. Halpenny, Water Supply Investigation, March 19, 1948, about Pasture Canyon which is the source of water supply of the Hopi Reservoir: "It is believed that by properly developing the springs in Pasture Canyon and by collecting the discharge in a system of pipes or drains the amount of water available can be doubled."

The point that I am trying to bring out is that we can develop and double Pasture Canyon water supply and double the capacity of the reservoir, save the 50% that is being lost in the way that the water is being carried to fields from the reservoir, still give the Hopis the same amount of water that they are now getting and have 500 to 600 acre feet of water that we can use to supplement the water taken from Moencopi-Tuba Wash to irrigate the 430 acres farmed by Hopis and Navajos below the government farm.

This year of the possible 430 acres available to Hopi and Navajo Indians in the Moencopi-Tuba Wash, only 136 acres were watered in time for planting and this was divided up in most cases 2 acres to the man so that each might have a little garden. On this 136 acres only 147 acre feet of water

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was used or a little over 1 acre foot to the acre for the year. This was caused by water shortage in the Moencopi Wash.

The entire Moencopi-Tuba project needs reabjagation, new ditches and all. The present system of small borders is very inefficient. Water has to be impounded to a depth of 10 or 12 inches on the low side of border before it can be backed up to cover high side. Ditches wander all over project. On the main ditch from the diversion dam to the government farm, the second sluice gate must be lowered to give the ditch enough drop so that it can be sluiced out. At the present time it is silted so full that the new water gauge installed this year is not working efficiently because water does not get away from the gauge fast enough.

The School Farm, up to August 31, had used 278 acre feet of water on the 267 acres of their farm.

A total of 425 acre feet of water was used this year from the wash. During the month of September very little of the water could be used because of the many floods in the wash.

At the Willow Springs project the AAA is going to put in 9 or 10 small reservoirs for irrigation purposes but there will not be any money available for valves or gates to get the water out of the reservoirs. All of these fields need subjugation.

At Moenave we need the pipe and valves to complete the new reservoir that was put in last year as the old reservoir is about full. This is the place you suggested putting the overflow pipe from old to new reservoir.

The last time I was in Window Rock I spoke to you about lowering the sluice gate at the dairy barn the same as we lowered the one above last spring a year ago. Would it be possible to do this in the next month or so, before it freezes? If you want me to furnish the labor would like to have a few days notice.

Would surely appreciate your coming over. As for the Club, it is running but it would be advisable to phone over in advance so that a room can be saved for you.

Sincerely yours,

Walter J. Dutton

