

DISTRICT No. 5

DEPARTMENT OF THE INTERIOR

June 30, 1930

UNITED STATES INDIAN IRRIGATION SERVICE

Reservation Western Navajo State Arizona Project Moencopi Wash Division         

Total area reservation 3,397,000 Acres Tribes Navajo & Hopi Total census in 1930, 4040

LOCATION AND CLIMATIC CONDITIONS

County Coconino  
Townships and ranges 32N, 11 E, G. & S.R.M.  
Railroads on and adjacent None  
Railroad stations Flagstaff, Arizona  
Distance from project 90 miles  
Market for products Local  
Average elevation irrigable area 4500  
Average elevation watershed 5800  
Average rainfall on irrigable area 6 inches 6.91  
Average rainfall on watershed 8 inches  
Range of temperature on irrigable area 10° to 105°

WATER SUPPLY

Source of water supply Moencopi Wash  
Area of drainage basins in square miles 367  
Annual run-off in acre feet Unknown

SUMMARY OF RESULTS

Present available reservoir capacity None  
Reservoir          acre feet.  
Reservoir          acre feet.

Canal miles, with capacities in second-feet,  
 { More than 500  
 { From 250 to 500  
 { From 50 to 250  
 { From 15 to 50  
 { Less than 15 3 miles

Tunnels { Number 0  
 { Total length  
 { Size

Waste ditches { Miles 0 capacity          sec. feet.  
 { Miles          capacity          sec. feet.

Storage dams, number 0 cu. yds. { Masonry  
 { Earth  
 { Rockfill

Diversion dams, number 1 cu. yds. { Masonry  
 { Earth  
 { Rockfill 288.5  
 { Crib

Dikes or levees { Total length, feet 0  
 { Volume cubic yards

Number of canal structures (exclusive of dams and tunnels, but including bridges, culverts, pipes, flumes),  
 { Costing over \$2,000 each, Masonry  
 { Concrete  
 { Wood  
 { Costing from \$500 to \$2,000 each, Masonry  
 { Concrete 2  
 { Wood  
 { Costing from \$100 to \$500 each, Masonry  
 { Concrete 1  
 { Wood  
 { Costing less than \$100 each, Masonry  
 { Concrete 1  
 { Wood 1

Bridges— None

	Steel	Combina- tion	Wood	Concrete
Number { Length 50 feet or more				
Number { Length less than 50 feet				
Total length, feet				

Culverts { Concrete 0 number          length           
 { Wood 0 number          length           
 { Metal 0 number          length         

Pipe Lines— Under 12" 13" to 24" Over 24"  
 Concrete 0  
 Metal 0  
 Terra cotta 0  
 Wood 0

Flumes, concrete—  
 Number 0 size          length           
 Number 0 size          length           
 Number 0 size          length         

Flumes, steel—  
 Number 0 size          length           
 Number 0 size          length           
 Number 0 size          length         

Flumes, wood—  
 Number 1 size 6' x 2' length 30 ft.  
 Number          size          length           
 Number          size          length         

Buildings (Permanent)— None  
 Number of offices          cost           
 Number of residences          cost           
 Number of power plants          cost           
 Number of pumping stations          cost           
 Number of barns          cost           
 Number of warehouses          cost         

Wells—  
 Number 0 { Aggregate depth           
 { Aggregate cost           
 Total number constructed this year         

Roads—  
 Miles constructed 0 aggregate cost         

Telephone lines—  
 No. stations 0 aggregate cost          miles         

Transmission lines—  
 Miles constructed 0 aggregate cost         

Water power { H. P. developed 0  
 { Development cost per H. P.         

Material excavated { Class 1, cubic yards 1265 cost 366.79  
 { Class 2, cubic yards          cost           
 { Class 3, cubic yards 862 cost 1286.50

Riprap, square yards 78 cost 163.00  
 Masonry, cubic yards 174.3 cost 1618.77  
 Dry wall, cubic yards 74 cost 431.88  
 Concrete, cubic yards 523.8 cost 6221.13  
 Cement, bbls. used 694 cost 4016.41

How many Indian families are farming under project? No record White families? School Farm  
 Proportion of Indians and whites on reservation - -  
 Proportion of work done by force account All; by contract None  
 Crops raised: Kinds Alfalfa, Corn, Wheat, Oats, Fruit, Garden Truck; value \$30,730.00  
 How many acres are being irrigated, but not cultivated? 0  
 When was project initiated? By the Indians many years ago  
 How many acres were brought under cultivation during the last year by Indians?  
 How many acres were brought under cultivation during the last year by whites? 0  
 Cost of preparing land for cultivation, per acre Prepared by the Indians  
 M. and O. cost per acre, per year Except on structures, work done by Indians.  
 Average acreage cultivated by each Indian family 12  
 Are any of the Indians financially able to pay in full for their share of maintenance and operation costs? Free labor  
 For any part of the construction costs? No

Area of irrigable land owned by whites	acres,	<u>0</u>
Area of irrigable land owned by Indians	acres,	<u>800</u>
Total area of irrigable land in project, or division	acres,	<u>800</u>
Estimated amount required to complete the project or division	\$	<u>Complete</u>
Estimated cost per acre when completed	\$	
Estimated value of irrigated land, per acre	\$	<u>75.00</u>
Irrigated on June 30, 19	By Indians	acres, <u>600</u>
	Of Indian land, leased	acres, <u>0</u>
	Of white-owned land	acres, <u>0</u>
Area under constructed ditches, not irrigated	acres,	<u>- -</u>
Total area under constructed ditches on project, division	acres,	<u>Limited by water</u>
Estimated expenditures for construction, during next fiscal year	\$	<u>0</u>
Estimated expenditures for O. and M. during next fiscal year	\$	<u>0</u>

Other data and remarks in explanation of the true conditions of the project  
 Lands under the diversion dam are farmed by the school and the Navajos. Moencopi Wash is an ephemeral stream and at times there are only flood waters with which to irrigate. It has been hard to maintain a diversion in this wash because of the desert nature of the country, and the fact that the entire annual rainfall comes in two or three torrential down-pours. Principal structures are the diversion dam with a sluice gate near the headgate. 2000 ft. of the canal lined with concrete, sluice gate at the end of this lining and a water bridge over the canal.