To be prepared December 31 each year.

5—163 d

Summary Irrigation Data.

DISTRICT No. 5

DEPARTMENT OF THE INTERIOR,

Dec. 31, 1924

UNITED STATES INDIAN IRRIGATION SERVICE.

Reservation Navajo State Arizona Project Kinlichee

Total area reservation ..... Tribes ..... Total census in 19....

LOCATION AND CLIMATIC CONDITIONS.

County Apache

Townships and ranges

Railroads on and adjacent ATSFRR.

Railroad stations Gallup N.M.

Distance from project

Market for products

Average elevation irrigable area

Average elevation watershed

Average rainfall on irrigable area

Average rainfall on watershed

Range of temperature on irrigable area

WATER SUPPLY.

Source of water supply Rio Colorado

Area of drainage basins in square miles

Annual run-off in acre feet

SUMMARY OF RESULTS.

Present available reservoir capacity

..... 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 5000'

Tunnels
- Number
- Total length
- Size

Waste ditches
- Miles ..... capacity ..... sec. feet.
- Miles ..... capacity ..... sec. feet.

Storage dams, volume, cubic yards
- Masonry
- Earth
- Rockfill

Diversion dams, volume, cubic yards
- Masonry
- Earth
- Rockfill
- Crib 312

Dikes or levees
- Total length, feet
- 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 / Wood
- Costing from $100 to $500 each, — Masonry / Concrete / Wood
- Costing less than $100 each, — Masonry / Concrete / Wood

Bridges—

		Steel.	Combination.	Wood.	Concrete.
Number,	Length 50 feet or more				
	Length less than 50 feet				
	Total length, feet				

Culverts
- Concrete ..... number ..... length
- Wood ..... number ..... length
- Metal ..... number 3 ..... length

Pipe—
- Concrete feet laid ..... cost
- Metal feet laid ..... cost
- Terra cotta feet laid ..... cost
- Wood feet laid ..... cost

Flumes—
- Concrete, number ..... size
- length ..... cost
- Steel, number 2 ..... size 4 60
- length ..... cost
- Wood, number ..... size
- length ..... cost

Buildings—
- 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
  - Aggregate depth
  - Aggregate cost
- Total number constructed this year

Roads—
- Miles constructed ..... aggregate cost

Telephone lines—
- No. stations ..... aggregate cost ..... miles

Transmission lines—
- Miles constructed ..... aggregate cost

Water power
- H. P. developed
- Development cost per H. P.

Material excavated, Class
- 1. Cubic yards ..... cost
- 2. Cubic yards ..... cost
- 3. Cubic yards ..... cost

Riprap, cubic yards ..... cost

Masonry, cubic yards ..... cost

Dry wall, cubic yards ..... cost

Concrete, cubic yards ..... cost

Cement, bbls. used ..... cost

The estimated cost of completed project

Estimated area for completed project in acres 2440 A.

Area which can be supplied from constructed works without additional construction

Irrigated at present time by
- Indians, acres
- Whites
  - Owned, acres none
  - Leased, acres none

Total cost of project to date 7930.83

Average value of irrigated lands

8—4419

USPRI001183

How many Indians are benefited by this project?

How many Indians are farming on their allotments?

Was any portion of this plant constructed by contract?

Name the kind of crops raised on this project corn - wheat - melons - beans

How many acres were brought under cultivation during the last year by Indians? By whites?

Do the Indians on this project appreciate the benefits derived from irrigation? Yes

Are any of the Indians financially able to pay in full for their share of maintenance and operation costs?

no For any part of the construction costs? no

Other data and remarks in explanation of the true conditions on the project

Heavy floods during the summer washed out part of dam and canal before the project was completed. The Indians found they could no longer donate their services, but it was agreed to pay for the repair of this damage. Previous to this all labor, both hand & team were donated - the Government furnishing material and supervision.

APPROVED:

Project Engineer.

Supervising Engineer.

8—4419

DEPARTMENT OF THE INTERIOR.
U. S. Indian Irrigation Service.
District No. 5.

PROJECT SUMMARY?

Dec. 31, 1924.

* * * * * * * * * * * * *

Place or project Leupp
Reservation Navajo Extension State Arizona
County Railroads on or near A.T.& S.F.R.R.
Railroad Stations Winslow, Ariz. - Canon Diablo, Ariz.
Av. Elevation, project Av el. watershed
Av. Rainfall, project Range of temp.
Source water supply Colorado River
Area drainage basin Annual runoff

WORK DONE AND RESULTS:

Additional domestic water supply.

The supply was developed from an open well put down to ground water and perforated pipe then driven down below this point to collect sufficient supply.

An adequate supply was secured.

Future needs:

Expenditures including amounts in Pub. Doc. 1268. June 30 1914.

Total amount expended to June 30, 19 24 $ 15763.56
Deduct for maintenance and operation, $
Net project costs, $

USPRI001185

DEPARTMENT OF THE INTERIOR
U. S. Indian Irrigation Service.
District No. 5.

PROJECT SUMMARY.
December 31 1923. 4

* * * * * * * * * * * * * * * *

Place or project Aneth
Reservation San Juan Navajo State Utah
County San Juan Railroads on or near D. & R. G. 90 miles
Railroad Stations
Av. Elevation, project Av. El. watershed
Av. Rainfall, project Range of Temp.
Source water supply Elmo Canon and San Juan River
Area drainage basin Annual runoff

WORK DONE AND RESULTS:

There has been no construction work done at this point. Surveys were made for ditch or ditches from the San Juan River but the work was not justified by the estimated cost.

Future needs:

Possibility of taking out the ditch from Elmo Canon to irrigate small tract of land for school government farm. There is not enough water to plan on irrigation for Indians.

Expenditures including amounts in Pub. Doc. 1268, June 30, 1914.

Total amount expended to June 30, 19 23 4 $ 678.77
Deduct for maintenance and operation,
Net project costs,

USPRI001186

How many Indian families benefited? _____

Proportion of Indians & whites on reservation, _____

Proportion of work done by force account: _____ By contract: _____

Crops raised: kinds _____ Value: _____

Amount expended since 1914, **None**

When was project initiated? **Surveys, 1911**

What % of each allotment is cultivated, average? _____

Cost of preparing land for cultivation, per acre. _____

M. and O. per acre, per year **None**

Average acreage cultivated by each Indian family _____

Are there any Gov't farmers on this project? _____

USPRI001187

DEPARTMENT OF THE INTERIOR
U. S. Indian Irrigation Service.
District No. 5.

PROJECT SUMMARY,
December 31 19~~23~~24

* * * * * * * * * * * * * * * *

Place or project Black Creek (or Fort Defiance)
Reservation Navajo State Arizona
County Apache Railroads on or near A. T. & S. F.
Railroad Stations Gallup, 32 miles distant
Av. Elevation, project about 7000 Av.El. watershed
Av. Rainfall, project about 12" Range of Temp.
Source water supply
Area Drainage basin Annual runoff

WORK DONE AND RESULTS:

Surveys and reports were made covering the development of water in Bonito Canon for the Fort Defiance School in 1904.

Surveys were made in 1913 for the diversion of water from Black Creek to be used on lands cultivated by the Fort Defiance School. An investigation and report were made later regarding the domestic water supply of the school.

No construction work has been done on any of these projects.

Amounts shown on the books of this service for various surveys amount to $1264.15

Future needs:

There is nothing contemplated or known at the present time for future work.

* *

Expenditures including amounts in Pub. Doc. 1268, June 30, 1914.

Total amount expended to June 30, 19~~23~~ 24	$ 1264.15
Deduct for maintenance and operation,	$
Net project costs,	$

USPRI001188

How many Indian families benefited? _____

Proportion of Indians & whites on reservation, _____

Proportion of work done by force account: _____ By contract: _____

Crops raised: kinds _____ Value: _____

Amount expended since 1914, none

When was project initiated? Surveys in 1904

What % of each allotment is cultivated, average? _____

Cost of preparing land for cultivation, per acre. _____

M. and O. per acre, per year none

Average acreage cultivated by each Indian family _____

Are there any Gov't farmers on this project? _____

USPRI001189

DEPARTMENT OF THE INTERIOR
U. S. Indian Irrigation Service.
District No. 5.

PROJECT SUMMARY. 4
December 31 1923

* * * * * * * * * * * * * * * *

Place or project Black Falls
Reservation Navajo State Arizona
County Railroads on or near
Railroad Stations
Av. Elevation, project Av. El. watershed
Av. Rainfall, project Range of Temp.
Source water supply
Area drainage basin Annual runoff

WORK DONE AND RESULTS:

No construction ever done at this point. Surveys for irrigation of a tract of land were made. This would involve pumping water from wells for a portion of the year, as the river at this point is usually dry about three months.

While possible to do this, it was not considered practicable.

Future needs:

Nothing.

Expenditures including amounts in Pub. Doc. 1268, June 30, 1914.

Total amount expended to June 30, 1924 ~~521.55~~ 551.47
Deduct for maintenance and operation, $
Net project costs, $

USPRI001190

How many Indian families benefited? _____

Proportion of Indians & whites on reservation, _____

Proportion of work done by force account: _____ By contract: _____

Crops raised: kinds _____ Value: _____

Amount expended since 1914, **None**

When was project initiated? **Surveys in 1910**

What % of each allotment is cultivated, average? _____

Cost of preparing land for cultivation, per acre. _____

M. and O. per acre, per year **None**

Average acreage cultivated by each Indian family _____

Are there any Gov't farmers on this project? _____

USPRI001191