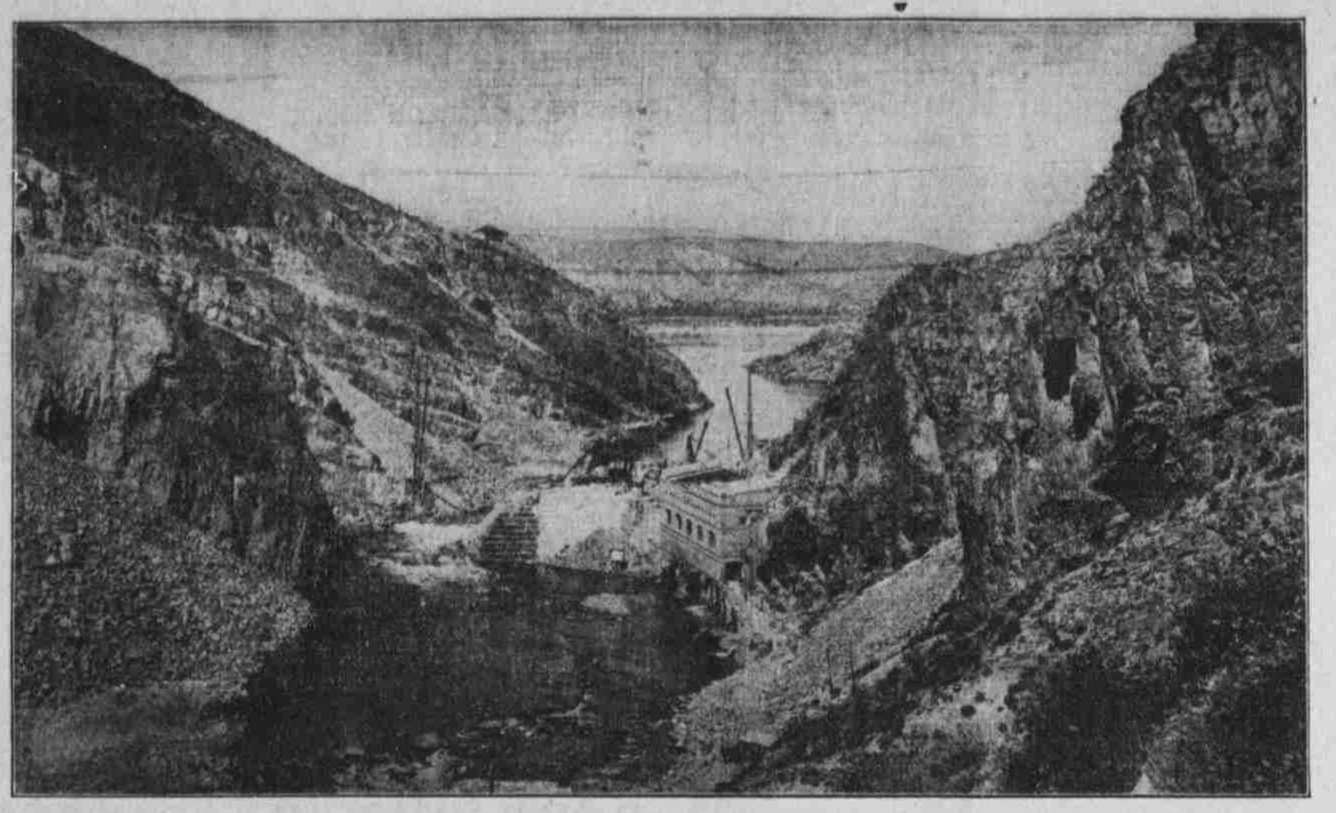
THE GOVERNMENT'S LARGEST IRRIGATION PROJECT IS IN THE SALT RIVER VALLEY OF ARIZONA

BY LLOYD C. THOMAS



Roosevelt Dam, 70 miles from Phoenix. This picture shows the dam just after construction was begun. Electric power house is at the right of the picture.

The Salt River Valley has many natural conditions that offer an imperative invitation for man to go to work and supply the one condition which Nature did not. Here we find thousands of acres of land which is a bare desert without water but with the application of water it becomes marvelously productive with an ideal climate and flowing streams, the largest of which is the Salt River. This river at the season of greatest need is but a meager stream; at other seasons, from its steep, bare watershed sweep floods which not only could not be utilized, but which frequently destroyed the casual and insufficient irrigating works first constructed.

It was a simple idea to save these flood waters which came down the river when least needed but to the ordinary person or combination of men this would have appeared impossible because of the large amout of money needed to construct the storage dam to hold this flood water. It is difficult to imagine the immense amount of water to be stored in the reservoir and the magnitude of the undertaking.

In 1902 the Reclamation Act was passed, and soon after the work on the project was begun. Briefly, the scheme was this: Seventy-five miles up the Salt River and just below its junction with Tonto Creek, build a masonery dam, arched upstream, 276 feet high above bedrock, 700 feet long on top, and containing 326,000 cubic yards of masonery, thus forming a reservoir twenty-five miles in area, to contain water sufficient to cover 1,284,000 acres, one foot deep. The water so stored to be released as needed, to flow down the old river channel, and on reaching the irrigable land to be turned into the irrigating ditches by a low diversion dam, to generate power at the dam and transmit it to the Valley for use in pumping water to irrigate more land.

The site of the reservoir dam was inaccessible from Phoenix, save over the roughest of trails, so men and material were first brought from Globe, forty miles, over a road none of the best. As electric power was needed a power canal was built nineteen miles above the dam site and it conveys 250 cubic feet of water per second to a point just below the dam, where a drop of 220 feet is obtained. On the line of this canal are twenty-one tunnels, two inverted siphons to carry the canal under cross canyons, many culverts, waste gates and other structures. The tunnels were lined, and the other structures all built of concrete.

Most of the materials needed in the construction of this immense dam are manufactured on the ground because of the long haul. Lime is burned, bricks made, a sawmill furnishes lumber, and a cement mill furnishes cement for the dam. This cement mill has a capacity of 450 barrels every twenty-four hours. A very fine wagon and automobile road was constructed from Mesa, not far from Phoenix, to the dam, at a cost of $300,000.

The reservoir when completed will irrigate 250,000 acres in the vicinity of Phoenix. At the present time only about 125,000 acres are under cultivation. One of the most valuable assets of the valley will be the power which is to be developed on the project, in all some 25,000 horsepower. The mining towns in the near by mining regions will buy a large share of this power and the manufacturing plants which will start up in the valley will be enabled to buy cheap power from the Government. In this way the power plants of this project are made to utilize that by-product of an irrigation system, the excessive fall, usually a source of expense.

The following questions are asked many times regarding the Salt River Valley by people who are interested, I am sure that you will find the answers given to be correct.

1. Where is the Salt River Valley? In Maricopa county, in south central Arizona, comprising the land lying on both sides of the Salt River, above the confluence of the Salt and Gila.

2. How large is the Salt River Valley? The Valley, proper, is about 50 miles in length by 15 miles in width, containing about 750 square miles, aggregating about a half million acres of land.

3. How much of this land is now in cultivation? About 125,000 acres.

4. How much will be irrigated when the Roosevelt dam or Salt River project is completed? About 250,000 acres.

5. When will the Roosevelt dam be finished? It ought to be finished by the last of this year, 1910.

6. How is the climate of the Salt River valley? Climate is mild. From September to June the climate is delightful. From June to September the weather is warm.

7. What is the lowest temperature in winter? The lowest usually experienced is about 32 degrees above zero.

8. What is the highest summer temperature? On one occasion within twenty years, by U. S. Weather Bureau record, the thermometer has gone as high as 117 degrees.

9. What is the average summer heat? About 87.7 degrees.

10. What is the average rainfall per year? Six to seven inches.

11. How about storms, snow and ice? We have little frost, no snow, very little ice. No violent storms or cyclones.

12. How does the heat affect one? A temperature of 90 to 95 degrees in the eastern and northern states is far more prostrating and dangerous than the highest temperature experienced in the Salt River Valley.

13. What is the cause of the difference? The absence of humidity in the atmosphere.

14. What is the cost per acre per year for water? From $1.00 to $1.60 per acre.

15. How is the water obtained for domestic purposes? From wells from 18 to 100 feet deep.

16. How about the market? This valley supplies the Arizona towns and mining camps, also California and eastern cities.

17. Is it profitable to keep bees? Yes, this is a very profitable business, and carloads of honey are shipped out of the valley every year.

18. How are the roads? Excellent the year round, and kept well graded.

19. How many acres of land are necessary to support a family? From ten to twenty.

20. Is there any Government land in the Salt River Valley open for entry where water can be obtained? No, but relinquishments can be purchased on land that will have water as soon as the project is completed.

21. How would a new settler procure a home? By purchasing from some one who owns more than he needs.

22. Where can one purchase a small tract for a home, a large tract for investment, or Phoenix property? There are many reliable real estate firms in Phoenix, among them being the Dick Erdmans Real Estate & Investment Co., 42-44 North First Street, Phoenix. They are always glad to answer inquiries or show Salt River Valley property.

24. What fuel is used? Wood, coal and oil.

25. What advantage does this valley offer to the farmer over other sections? With 82 per cent of sunny days, it is possible for laborers to work out doors nearly every day in the year; the great yield for the labor bestowed, and good prices for crops. In addition to this we have good roads to market, good schools for the children, free rural delivery, and telephone connection all over the valley.

26. What will be the cost of the Salt River project, including the Roosevelt dam and reservoir, diversion dam, etc.? About $30 to $35 per acre for the 200,000 to 250,000 acres to receive the benefit. Payments will be made in ten equal annual installments without interest, but will not commence until the reservoir is completed although the water from the reservoir is being distributed at the present time.

27. What is the greatest need of the Salt River Valley? The valley needs families to settle on small tracts of irrigated lands from 20 to 40 acres per family. All laborers, whether skilled or unskilled, can find steady employment at good wages. Truck farmers, fruit growers, dairymen, and poultry raisers can make money here on small investments.

28. Are there any settlers in the Salt River Valley from Nebraska and Western Nebraska in particular? Yes, there are a great many, one of those from Western Nebraska being Stanley Howard, formerly of Box Butte County. He has a fine well improved quarter section west of Phoenix with modern home and fine forty-acre orchard. On a recent visit to his home the writer was shown over the farm which is certainly a desirable place. He has good blooded stock, cattle, hogs, horses and fowls, and he emphatically states that he wouldn't make his home in any other part of the country. He works out of doors every working day in the year and does not believe he could stand it to live in the land of wind, dust, ice and snow. Mr. Howard inquired about many of his friends and acquaintances in Nebraska and said that he would be glad to have them call on him when in the valley.

In my next article I will give a more complete description of the industries of the valley than I have given before.

Phoenix, Arizona, April 20, 1910.

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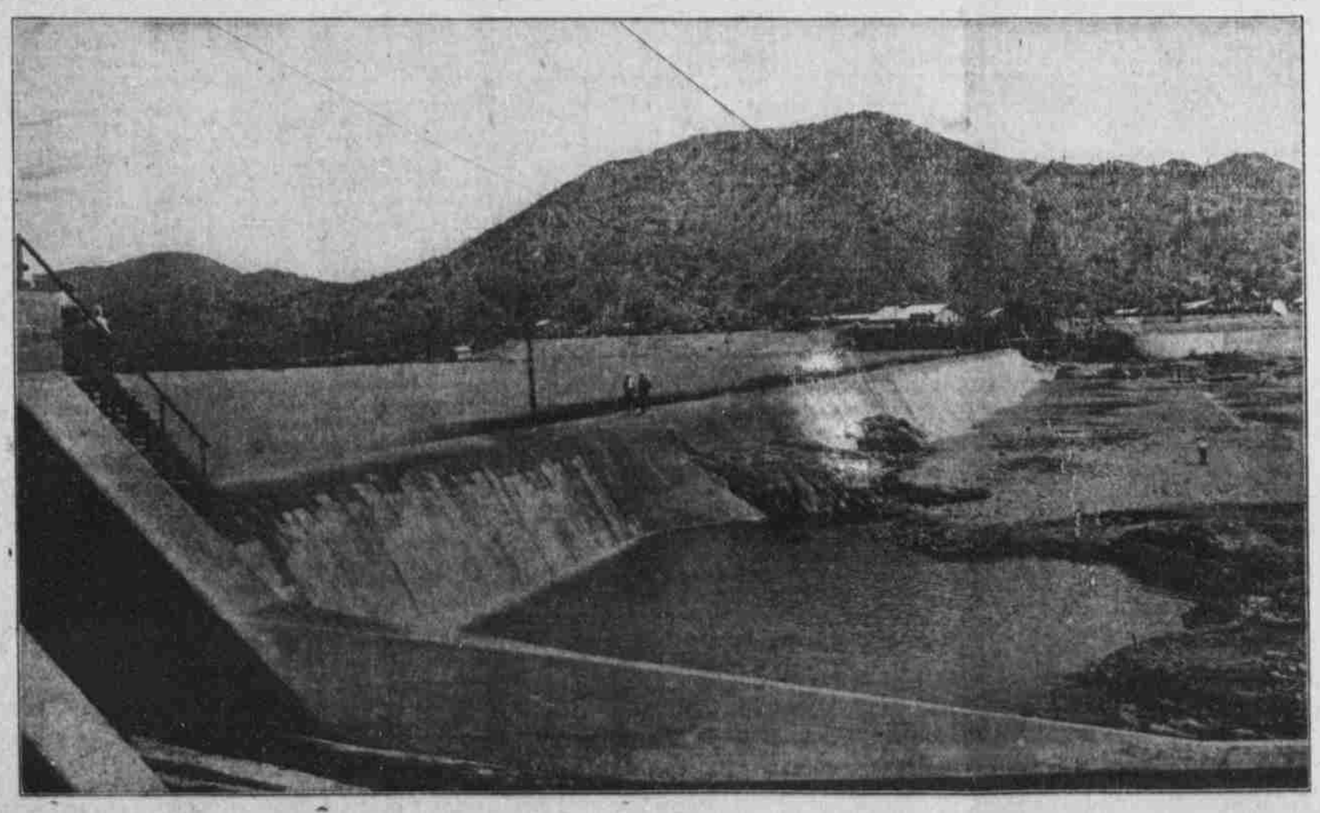
King-Murphy

Married at Holy Rosary church, Sunday, April 24, 1910, at 7 p. m., James P. Murphy, to Miss Ellen King, both of Angora, Fr. McNamara performing the ceremony. The couple were attended by Mr. Ora Black as best man and Miss Maggie King, a sister of the bride, as bridesmaid.

They will make their home on the ranch of the groom near Lakeside.

It is a pleasure to chronicle the marriage of such worthy young people and this paper wafts to them its warmest congratulations.



Granite Reef Diversion Dam on Salt River, 28 miles from Phoenix. The water coming down the river from Roosevelt reservoir is here diverted into canals on both sides of the river and distributed over the valley, covering 250,000 acres.