RELATED PROJECTS: GILA PROJECT

FINDING OF FEASIBILITY, JUNE 21, 1937

THE SECRETARY OF THE INTERIOR,
Washington, D. C.

The PRESIDENT,
The White House.

MY DEAR MR. PRESIDENT: The following report is made to you on the first division of the Gila Reclamation project, Arizona, under section 4 of the act of Congress of June 25, 1910 (36 Stat. 385), and under subsection B of section 4 of the act of December 5, 1924 (43 Stat. 701).

Section 4 of the act of June 25, 1910, provides in effect that after the date of that act no irrigation project to be constructed under the act of June 17, 1902 (32 Stat. 388), and acts amendatory thereof or supplementary thereto shall be undertaken unless and until the project shall have been recommended by the Secretary of the Interior and approved by the direct order of the President.

Subsection B, section 4, of the act of December 5, 1924, provides as follows:

> That no new project or new division of a project shall be approved for construction or estimates submitted therefor by the Secretary until information in detail shall be secured by him concerning the water supply, the engineering features, the cost of construction, land prices, and the probable cost of development, and he shall have made a finding in writing that it is feasible, that it is adaptable for actual settlement and farm homes, and that it will probably return the cost thereof to the United States (43 Stat. 702).

By the act of Congress of June 22, 1936 (49 Stat. 1757, 1784), $1,250,000 was appropriated for the continuation of construction of the Gila project, under the reclamation laws, the project having been initiated (1) by an allotment of $75,000 under title II of the National Industrial Recovery Act of June 16, 1933 (48 Stat. 195), and (2) by allocation of $2,000,000 under the Emergency Relief Appropriation Act of 1935, approved April 8, 1935 (48 Stat. 115).

The Gila project comprises the irrigable lands on both sides of Gila River, in southwest Arizona, susceptible of irrigation from the Colorado River, within feasible pumping lifts, with cheap power which can be made available for this purpose from developments on

the lower Colorado River. No other source of water exists. Lands agriculturally suitable for irrigation total 585,000 acres below elevation 600, and this total may in the future be modified either way in the light of operating experience with the initial unit. The project is unusually well adapted to development by divisions in this manner.

The project for which authorization is now desired comprises an initial division of 150,000 acres in the immediate vicinity of Yuma, Ariz., including 10,000 acres already irrigated from Colorado River, but requiring better facilities.

The various features requiring investigation and report under subsection B, section 4, act of December 5, 1924, supra, will be discussed in the order in which presented in that subsection, as follows:

WATER SUPPLY

The flow of Colorado River, regulated by the Boulder Dam, will be ample for the project as well as all other contemplated drafts thereon.

Section 4 of the Boulder Canyon Project Act (45 Stat. 1058) reads:

> The states of Arizona, California, and Nevada are authorized to enter into an agreement which shall provide (1) that of the 7,500,000 acre-feet annually apportioned to the lower basin by paragraph (a) of article III of the Colorado River compact, there shall be apportioned * * * to the State of Arizona 2,800,000 acre-feet for exclusive beneficial consumptive use in perpetuity.

While an agreement has not been concluded by the States, there is no doubt that such an agreement when reached will insure a full water supply for at least the initial division of the project. In all sales of water rights it will be necessary to prescribe that the water supply of the project is subject to the Colorado River compact, and to the Boulder Canyon Project Act and to the sales of water under the compact and said act and to the treaty which it is anticipated will be made with Mexico fixing that country's rights in the flow of the Colorado River.

ENGINEERING FEATURES

Project waters will be diverted at the eastern end of the Imperial Dam being constructed to supply primarily the All-American Canal. A canal of 1,900 second-feet capacity, 17 miles long, will lead to a main pumping plant located 12 miles east of Yuma, crossing the Gila River en route. Here waters will be lifted to canals at two levels. Two pumping plants further on will relift to still higher levels. The series of parallel canals leading from the pumping plants will serve a compact area lying between the present Yuma project, and the Fortuna Mountains, from Gila River to the Mexican boundary, a small part by gravity, and the balance with varying lifts up to 450 feet. Power for the operation of the pumps will eventually be secured from Parker Dam, now under construction for the Metropolitan Water District of Southern California where the United States reserved one-half the

power possibility, but initially it is expected to utilize surplus power at Boulder Dam. No unusual engineering problems exist.

COST OF CONSTRUCTION

The cost of the first division of the project is estimated as follows:

Dam, headworks and desilting works	$1, 397, 910
Canal system	4, 217, 612
Pumping plants	4, 793, 580
Distribution system (139,000 acres)	8, 475, 862
Transmission line	590, 000
Total	19, 474, 964

This cost would be distributed at the rate of $134 per acre for the 139,000 acres of mesa lands and at $74 per acre for the 11,000 acres of north and south Gila lands. The difference in price is due to the fact that no distribution system must be constructed for the north and south Gila lands.

LAND PRICES AND PROBABLE COST OF DEVELOPMENT

The following quotation is taken from the Report of the Feasibility of Gila Valley Project, Arizona, by a special nonbureau committee comprised of W. H. Code, William Peterson, and W. L. Powers:

> The land ownership is largely Federal with a moderate amount of State and some private holdings.
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> The type of farm which seems best is a general 80-acre seed alfalfa, seed flax, cotton, sorghum, and forage crop with livestock and winter vegetables, or 40 acres with semitropical horticultural enterprises included.
>
> The investment required to bring such farms into full production is estimated from $6,000 to $12,000.
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> The crops which can be most successfully grown on Gila project soils include alfalfa for seed and hay, flaxseed, cotton, including the long staple type, winter barley, sorghum, lettuce, honeydew melons, carrots, and various winter vegetables. Horticultural crops which succeed are pecans, dates, grapefruit, late winter oranges, limes, tangerines, grapes, and strawberries.

Privately owned lands not already under irrigation will be appraised and holdings in excess of the needs for individual farms would be required to be sold at desert-land prices.

FINDING REGARDING FEASIBILITY OF PROJECT

The data herein presented justify the conclusion that the first division of the project is feasible from an engineering and an economic standpoint, and I accordingly so find and declare.

ADAPTABILITY OF LAND TO SETTLEMENT AND FARM HOMES

The undeveloped lands of this project are of average fertility for desert lands, but are lacking in humus. They will need special atten-

tion over several years to reach full productiveness for the type of crops to which this semitropical region is adapted. With proper preparation the lands should produce crops of unusually large value.

With care in the selection of settlers, physically and financially equipped to carry on a proper development program, success in farming may be anticipated.

The demand for irrigated agricultural lands in the southwestern section of this country has always exceeded availability of such lands at reasonable prices.

PROBABLE RETURN TO RECLAMATION FUND OF CONSTRUCTION COST

A finding is required that the cost of construction will probably be returned to the United States. This is interpreted to mean that it will be returned within the maximum period fixed by reclamation law, which is 40 years from the time the public notice that the works are completed is issued by the Secretary.

The average annual cost to cover operation and maintenance of the irrigation system and the repayment of the construction cost is estimated at $8.06 per acre for the undeveloped lands. It is believed that with small initial annual construction charge installments, in order to enable settlers to utilize their resources in bringing their lands to a stage of full production, a repayment ability will be developed that will justify the belief that the cost of the project will be returned. An early beginning of the construction of this project is important to the end that the waters of the Colorado River, made much more usable by the Boulder Dam, will be placed in use within the United States before an extension of their uses in the Republic of Mexico results in a condition which may make it practically difficult in the future to limit the delivery of water to Mexico to the amounts that may be agreed upon by treaty and to retain for use in the United States an amount suitable for proper agricultural development.

Based upon the foregoing I find that the project is feasible, that the lands watered thereby are adaptable for actual settlement and farm homes, that the lands are in need of a water supply and that the project will probably return the cost thereof to the United States.

I recommend that the project, now in process of construction, be approved, and that authority be given to this Department to proceed with the work and to make contracts and take any necessary action to construct and complete the project.

Sincerely yours,

(Signed) CHARLES WEST,
Acting Secretary of the Interior.

Approved June 21, 1937.

(Signed) FRANKLIN D. ROOSEVELT,
President.