

STATEMENTS

BY VARIOUS REPRESENTATIVES OF VARIOUS WATER PROJECTS
CONCERNING WATER USES FROM THE COLORADO RIVER SYSTEM
IN LOWER BASIN AND IN MEXICO

MADE IN DECEMBER 1935

TO L. WARD BANNISTER

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STATEMENT OF SENOR MANUEL FERNANDEZ GUERRA,
ENGINEER OF THE NORTHERN DISTRICT OF BAJA CALIFORNIA

December 11, 1935

The 1935 crop acreage here in Mexico under the Colorado River and nearly all under the Alamo or Imperial Canal was:

Cotton	115,000 acres
Wheat	23,000
Barley	5,000
Other Crops	<u>5,000</u>
Total	148,000 acres

In 1936 the acreage will be increased and I estimate it as follows:

Cotton	140,000 acres
Wheat	23,000
Barley	6,000
Other Crops	<u>5,000</u>
Total	175,000 acres

In the period 1918-1924 there were about 105,000 bales per year of cotton ginned as against about 70,000 bales in 1935, showing the large cotton acreage in the earlier period before the drop in cotton prices. Prices are better now, and from now on there will be an increase.

Think there are about 400,000 acres of land under the Colorado River that could be cultivated. (Guerra did not say whether this included or excluded the already irrigated land.) I am under the impression, from hearsay, that some agreement exists whereby a canal will be taken from the All-American Canal at a point about 15 miles west of Algodones, which is about one mile south of Rockwood Gates. To deliver to Mexico at an elevation of about 20 feet higher than the Alamo or Imperial Canal would save pumping lift on lands now served from Alamo or Imperial Canal by pumping.

Think the treaty between United States and Mexico of 1848 gives the two nations equal rights in the water. The American Section of the International Commission thought Mexico should not have more than 750,000 acre feet which is

more than Mexico needs and less than Mexico has used. The Mexican Section of the Commission claims 3,670,000 acre feet a year. Mexico would expect some water from Pilot Knob Power Plant - perhaps a thousand second feet - and would get the rest from the proposed diversion from the All-American Canal into the Alamo or Imperial Canal about 15 miles west of Algodones.

There are three cotton gins in Baja California: The Jabonera, the Chinese-Mexican and the Progreso. The first turns out at least 70,000 bales a year, the second about 6,000 and the third a few hundred.

STATEMENT OF JAMES STONE, GENERAL MANAGER
OF THE CIA INDUSTRIAL JABONERA DEL PACIFICO

December 10, 1935

Our Company is controlled by American capital, and I came from Phoenix. Our Company does a lot of financing of cotton growing by tenants of the Colorado Land Company and of others.

Say on about 2,465 acres the tenants pumped 5.2 acre feet for the year, and on another piece of 3,000 acres they pumped 6 acre feet per acre per year. On the lower delta land about 5.5 acre feet per acre is used and on the upper delta land about five acre feet per acre. In our Company, in budgeting a cropping place or tract with a tenant, figures five acre feet of water per acre of land and sometimes more, and figures on from three to nine irrigations per year, depending upon the kind of crop. On new cotton lands, just brought in, the first irrigation frequently is about four acre feet per acre and then two more acre feet for the rest of the season.

There are 116,000 acres of cotton this year and will be 140,000, or maybe 150,000, next year. In 1929 the cotton crop was estimated by some at 150,000 acres and by others at 173,000 acres. Few vegetables are raised because of lack of market. The only things that are raised are the staple crops, meaning mostly cotton and wheat. The wheat acreage will be less next year than this because cotton acreage is on the increase.

Five miles below the International Boundary there is a place where the Imperial or Alamo Canal could connect with the Colorado River. Here in Mexico, we are expecting to get 3,000 second feet because the Pilot Knob Power Plant will get 3,000 second feet, being the difference between the 13,000 second feet capacity and the 10,000 second feet capacity immediately above the Plant and immediately below the Plant. I am referring to the capacity of the All-American Canal.

The present holdings of the Colorado Land and Water Company (American capital) consist of 700,000 acres here in Mexico, practically all of which is susceptible of cultivation. Then there are about 100,000 acres in other owner-ships likewise susceptible of cultivation. The Colorado Land and Water Company is selling off tracts to Mexicans and now has a policy of getting rid of its land. These sales to Mexicans, of course, mean more land to go under actual irrigation. Our Company runs cotton gin, cotton seed oil mill and also makes soap and substitution for lard - all out of cotton. The Company does not own the lands of tenants but only finances them. The Colorado Land and Water Company owns most of the land.

STATEMENT BY AL VIERNUS, GENERAL MANAGER
OF COLORADO LAND AND WATER COMPANY

December 11, 1935

Live on American side of line but am General Manager of Colorado Land and Water Company which owns properties on both sides of the line, and I am Manager in Baja California.

In 1935 there were cultivated in Mexico about 175,000 acres. In 1936 the acreage will be about 225,000. At one time or another as many as 250,000 acres have been cultivated, whereof 50,000 acres have been watered by pumping from the canal system. Of the 50,000 acres there are 25,000 that could be served by gravity from a higher canal if the canal were about 20 feet higher than the Imperial or Alamo Canal. There are about 450,000 acres that could be cultivated in Mexico in addition to that already cultivated and maybe 500,000. The 500,000 acres would require three acre feet of water net to the land in view of crop rotation. Some crops would require more. Then too, much of the land is not raising crops of any kind all the year around.

Losses in the delivery of water are about 15 per cent of the gross amount diverted. The delivery requirements would be similar to those in the United States; sometimes less than 2,000 second feet would suffice, at other times 5,000 second feet would be required.

Pilot Knob Power Plant discharge would be a good thing for Mexico, but we want a canal 20 feet higher than the Alamo. I never heard of the cut mentioned by Senor Guerro from the Alamo Canal.

Imperial Irrigation District has a Mexican subsidiary corporation controlled by it and this subsidiary operates the canal system in Mexico.

The Colorado Land and Water Company is now following a policy of getting rid of its lands because of pressures of various kinds by the Mexican

Government against foreign capital. The Company owns what is probably the largest ranch in Mexico, but the Government is following a policy of putting the land of the country back into the hands of small owners, so our Company is conforming under a plan of sales of 40-acre tracts to Mexicans under a 20-year payment plan.

STATEMENT OF CHIEF ENGINEER DOWD OF THE
IMPERIAL IRRIGATION DISTRICT

The irrigable land in Mexico is about 800,000 acres, whereof about 150,000 acres are now irrigated. The maximum land watered in any one year in Mexico was about 217,000 which was along about the year 1928. The duty of water in Mexico is about $3\frac{1}{2}$ acre feet to the land but you must add to cover diversion loss about 15% more.

The Imperial and Alamo Canal are one and the same thing. It used to head at Hanlon Heading but afterwards was extended on up the river to what is now Rockwood Gates. Although the canal heads in the United States at a point about 6000 feet above the international boundary, it passes southwest into Mexico and finally comes back into the United States, watering both lands in Mexico and in California.

This year the canal watered about 400,000 acres in Imperial Valley. The most ever watered was about 450,000 acres. The irrigable land under the All-American Canal now being constructed to take the place of the Alamo or the Imperial, as far as the United States is concerned, is about 800,000 acres in the Imperial Valley, including that now irrigated. The irrigable land in Coachella Valley would be about 135,000, including the 15,000 now being irrigated. What is irrigated now in Coachella Valley is by pumping. The All-American Canal will provide a branch which will run over into the Coachella Valley. Coachella Valley will get only 1500 second feet from the All-American Canal for that is to be the capacity of the Coachella branch.

There are, of course, peak uses of water. In Mexico, the peak use is about 3000 second feet, tapering down to about 100 second feet in winter. Cotton, the grains, and alfalfa are about the only crops grown there, for there is no market for fruits and vegetables on account of tariff law exclusions by the United States and on account of the fact that the only way for the products of Lower or Baja California to reach the rest of Mexico would be by shipment through the United States. From March to October is the real growing season in Mexico. The peak water use is in the summer.

In the Imperial Valley the peak use likewise comes in summer, about 5000 second feet, and diminishes to about half that amount in winter. It would diminish still more if it were not for our crops of fruits and vegetables grown in winter. The most water we have ever diverted was 7200 second feet back in 1928 or 29. Right now today we are diverting about 3000 second feet for use in the United States and 200 or 300 second feet for use in Mexico.

Referring to the Yuma Project water right: Part of that right is older than the Imperial Valley right and another part not so old. The Indian part of the Yuma right is older. It covers the Yuma Reservation which is in California and is for 25,000 acres. There is also a part of the Yuma right that is used on the Arizona side of the Colorado and that likewise is older than

the Imperial Valley right, but there is another part over there that is not so old. The portion of the Imperial or Alamo Canal that is in the United States belongs to the Imperial Irrigation District. The portion that is in Mexico belongs to the Compania de Terrenos Y Aguas de la Baja California S.A., the name of the Mexican company owning and operating the canal system in Mexico. The company is controlled by the Imperial Irrigation District, the directors of the latter owning the stock in the Mexican company. I suppose the Mexican company will continue to use the Alamo Canal after the building of the All-American Canal and that it will receive water from the Pilot Knob Power Plant discharge. The elevation of the All-American Canal is higher than the Imperial or Alamo Canal and the Pilot Knob Power Plant, which will take water from the All-American would drop it down into the Imperial or Alamo Canal situate between the site of the proposed power plant and the Colorado River. The upper states need not fear this power plant. We shall be willing to agree that the Secretary of the Interior could limit the discharge from a plant in the Imperial or Alamo Canal to a quantity of water no larger than what Mexico already has been using, thus leaving the remainder of the discharge to go into the Colorado River. The upper states are better off with the Pilot Knob plant than without it because with it the control of the discharge would be with the Secretary of the Interior, whereas, without it, the All-American Canal would not take the power water out of the Colorado River but leave the water in the river and then there would be nothing to prevent the Imperial Irrigation District from making a private contract with the Mexican Company, whereby the Mexican Company would take whatever amount of water it wanted without limit from the river for transportation through the Imperial or Alamo Canal.

As against Arizona the Imperial District claims a water right of 10,000 second feet for domestic or irrigation purposes, whereof the amount contracted for with the Secretary of the Interior out of the Boulder or Hoover Dam is a part, and also they claim against Arizona the Pilot Knob Power Plant appropriation for power purposes. The Compact and the California Act of Limitation prevent us from claiming these things against the Upper States.

We need the Pilot Knob Power Plant. It is true that we have in contemplation four other power plants to be built along the line of the All-American Canal. These other power plants would waste no water to the river but simply back into the canal where it would be reused for irrigation. During the winter, however, the canal does not need for irrigation and domestic purposes more than half of the water needed in the summer. Consequently, if we were to run through the canal during the winter time the same quantity that we run through the summer we should be filling up the Salton Sea. You can see, therefore, that during the winter these other power plants on the canal could not generate the energy that they would generate in the summer time. The Pilot Knob Plant, however, wastes

its water back directly to the river and not into the canal and, therefore, may be relied upon either in winter or summer for a constant flow.

While we have the Pilot Knob and the four other plants in mind to be built ultimately, all we are expecting to build now is the Pilot Knob Plant and what we call Plant No. 3, the latter being one of the plants taking water from the canal and wasting it back into the canal.

The people of the Imperial Valley are counting heavily upon revenues from power. While they probably would have favored the All-American Canal without the incentive of power generation, yet the prospect of revenue from power distribution was the thing that put the project across. With the power generated along the canal system there would be no long lines of transmission such as The Southern Sierras Power Company has to have and we think our cost to the consumer will be much less than the price which a private company is obliged to charge.

The All-American Canal now under construction starts out with a capacity of 15,000 second feet and maintains it as far as the Siphon Drop Power Plant where it delivers 2000 second feet to the Yuma Irrigation and Power Project. From the Siphon Drop plant on, the capacity is 15,000 second feet until the site of the proposed Pilot Knob Power Plant is reached where the capacity drops to 10,000 second feet from there on. That gives 3,000 second feet to the Pilot Knob Power Plant. In addition to that quantity for the plant, there would be in the winter time when the All-American Canal is not carrying more than about half as much water for irrigation as is carried in the summer, some additional water if there is any in the Colorado River for that purpose. Our plans show 4,500 second feet for the Pilot Knob Power Plant.

With the Siphon Drop Power Plant receiving its water from the All-American Canal and discharging it back into the Colorado River and with the Imperial or Alamo Canal discontinued as far as concerns the use of any further water from the river for irrigation in the United States, there would be no means of picking up water again from the river north of the international boundary and whatever water there was would go on down to Mexico in the Colorado River, except as the Mexicans themselves may divert it into the present Alamo or Imperial Canal at a point below the boundary or except as they might make some arrangement with the Imperial Irrigation District for using also that part of the Alamo or Imperial Canal which lies within the United States and which heads at what is called Rockwood Gates.

At a point four or five miles below the international boundary the Mexicans could divert water from the river in the Alamo or Imperial Canal, but the project would be expensive, there being no rocky banks to which to tie the dam. It was at this point, early in the 1900s that we tried to divert water into the canal, and the attempt was followed by the flood which did so much damage to our canal system and carried so much water over our lands and into the Salton Sea. The best place for the Mexicans to get their water would be through the Rockwood Gates; in other words, at the head gate of the present Alamo or Imperial Canal.

STATEMENT OF PHIL SWING, ATTORNEY
FOR IMPERIAL IRRIGATION DISTRICT

The Pilot Knob Power Plant will do the upper states no harm because the water would be going down the river anyway. The District, I am sure, would be willing to have the Secretary of the Interior order that no more water shall be discharged by the Power Plant into the Alamo or Imperial Canal than Mexico has enjoyed hitherto. The rest of the discharge could be backed up by the Hanlon head gates through the Rockwood Gates to the river and be made to flow down the river. The present plan calls for the Pilot Knob water to be discharged into the Imperial or Alamo Canal at the point between its head known as Rockwood Gates and the point a few hundred feet farther down the canal known as Hanlon Heading, which is now used just as a check to help regulate water going on down the canal.

Referring to the Arizona suit and to the possibility of a contract between Arizona and the upper states, great care should be exercised because there would be a question as to whether such a contract would free California from the Colorado River compact and also whether it would free California from the obligation imposed by the California Act of Limitation.

As I construe the Act of Limitation, the Pilot Knob Power Plant water right is not included within the limitation because its use is non-consumptive, whereas the act limits California only as to consumptive uses.

STATEMENT OF CHARLES L. CHILDERS,
FORMER ATTORNEY FOR IMPERIAL IRRIGATION DISTRICT

December 18, 1935

I am no longer connected with Imperial Valley Irrigation District but practicing in Los Angeles, mostly in water law. Think the most land ever irrigated in Mexico from the Imperial Canal system was about 1926 and 217,000 acres, more or less. Think the most ever watered in Imperial Valley itself (United States) was about 450,000 acres. Average duty is about 4.4 acre feet diverted or about 4 acre feet on the land. The Imperial Valley Irrigation District bought out from various predecessors the entire canal system and issued bonds. These bonds represent a present burden on the land of the District of about \$29.00 per acre. The All-American Canal which is to replace the Imperial Canal for the watering of the lands in Imperial Valley will put about another \$29.00 per acre on the District land.

Another name for the Imperial Canal is the Alamo Canal. The Canal heads at Rockwood Gates on the Colorado. It used to head at Hanlon Heading, and later the Canal was extended from Hanlon Heading on up to Rockwood Gates. At the old Hanlon Heading there are check gates in the Canal so that the water allowed to flow on down through the Canal for irrigation may be regulated further than by Rockwood Gates. After heading in the United States, the Imperial or Alamo Canal runs on down into Mexico and then comes back into the United States. It waters lands both in the United States and in Mexico. Mexican interests have the right to half of the water but have not taken it because there is not so much land in Mexico under irrigation as in the Imperial Valley. That part of the Canal system which is situated in Mexico is owned by a Mexican Corporation, the name of which is Compania de Terrenos Y Aguas de la Baja California, S.A. This Mexican Company is a stock company chartered by the Government of Mexico for fifty years. Its

stock is held by the Directors of the Imperial Valley Irrigation District, so the Mexican Company is controlled by the Imperial Valley District. In my opinion the California Limitation Act, passed by the California Legislature and limiting California's use of the waters of the Colorado to 4,400,000 acre feet plus half of the surplus unapportioned by the Colorado River Compact, does not apply at all to non-consumptive uses. The Act applies only to consumptive uses. Therefore, in my opinion, the Act does not cover the use of water at Pilot Knob for power purposes. Referring to the Arizona suit, I am not at all authorized to speak for California, but as an individual suggest that the upper states should be very careful about entering into any agreement with Arizona to become incorporated in a decree, because there is some danger that such an agreement would absolve California from the Colorado River Compact and from the California Limitation Act.

At the present time the Syphon Drop wastes part of its 2000 second feet - the part that does not go through the siphon to the Yuma side where it is backed up by the Imperial or Alamo Canal. As soon, however, as the All-American Canal is built, from which Canal the Syphon Drop Power Plant will receive its water, there will be no pick-up of water from the Colorado River, for any purpose, in the United States below the Syphon Drop Plant or below the Pilot Knob Plant.

STATEMENT OF SUPERINTENDENT OR AGENT GENSLER
OF THE YUMA INDIAN RESERVATION

December 14, 1935

Although I am Agent or Superintendent of the Colorado River and the Camp Mojave Indian Reservations, I am the same for the Yuma Indian Reservation, which you have already visited.

I would not allow the Indians there to lease their lands to whites because I wanted to force them to do their own farming. They had been leasing, but I am trying to discourage, as much as I can, that way of handling their lands.

STATEMENT OF
IN RE YUMA PROJECT
DECEMBER 1935

Some representative of the Government, either Mr. Coffey of the Legal Department of the Reclamation Bureau at Los Angeles or Mr. Weber, Superintendent of the Yuma Project at Yuma, but have forgotten which, stated that the lands now irrigated under the project totals about 49,000 acres whereof 7,200 acres are in California and that included in the 7,200 acres are about 3,000 acres farmed by Indians.

STATEMENT OF R. F. WALTER OF THE
RECLAMATION SERVICE IN RE YUMA PROJECT

December 1935

This project is for about 100,000 acres of land in Arizona and about 2,000 in California and takes water from the Laguna Dam. Of the 100,000 in Arizona 55,000 are already under irrigation and the rest contemplated. The main canal for the rest has been built but a pumping plant for the higher ground is not yet in.

STATEMENT OF SUPERINTENDENT WEBBER
OF THE YUMA IRRIGATION PROJECT

December 14, 1935

I have been Superintendent here for a little over a year, but I want you to get your water data from Richard Coffey, Attorney in the Reclamation Bureau at Los Angeles. The project, of course, takes its water from the Laguna Dam.

STATEMENT OF RICHARD COFFEY, ATTORNEY FOR
RECLAMATION BUREAU IN LOS ANGELES

Over at the Yuma Project, the canal for which heads at the Laguna Dam, the Government owns the dam and distribution works and has a contract with the Yuma Water Users Association, whereby the latter makes revenue collections and collections of principal from the owners of the lands served. The water right is a right for 2000 second-feet. The headgate of the canal system was on the California side of the Colorado and the water for irrigation on the Arizona side is siphoned under the river in a siphon which has a capacity of about 900 second-feet. There is a power plant on the California side and on the line of the canal known as the Siphon Drop Power Plant. Out of the water which passes through it, there is wasted back into the river itself the difference between the 900 second-feet that would pass through the siphon and whatever amount out of the 2000 second-feet that the canal might be carrying at the time. The "fall" or "head" of water at the Siphon Drop Power Plant is 11 feet. The All-American Canal will pass along the Siphon Drop Power Plant at an elevation of 22 feet higher. The addition of this 22 feet will increase the fall or head of the plant to 33 feet. This does not mean that the Yuma Project will take more than 2000 second-feet but that the power to be generated at the Siphon Drop Plant can be trebled. The expectation is that this will be done and the power disposed of.

There are no riparian rights of any consequence on the California side of the Colorado River.

The Yuma-Gila Project is a proposed project for the irrigation of lands in the valley of the Gila. Originally the plan was to run a ditch down from the Parker Dam which is part of the system of the Metropolitan Water District now being constructed but the plan now is to divert the water from the Arizona end of the Imperial Dam which will be at the head of the All-American Canal and then run a canal from the dam down along the Arizona side of the river and then in the Gila Vallay. Part of the land in the Gila Valley would be watered by gravity from this canal. Then there would be other levels which would be watered from it, not by gravity, but by pumping. Bids were taken of this project or, rather upon a part of it, but not opened, because of orders from Washington to go no further for the present. My understanding is that the Department of Agriculture disagreed with the Reclamation Bureau over the quality of the land to be watered, holding the quality to be such as not to justify the expense. I understand that Secretary Ickes has just appointed a Committee of three private citizens to investigate and report upon the character of the soil.

What you call Yuma-Gila Project should be called Gila Project, although government contract is made with an irrigation district which carries the name Yuma-Gila. That project will consist of four units with about 150,000 acres in one unit and with the lowest of the four watered by gravity and the rest by pumping from the canal that will lead from the Arizona end of the Imperial Dam. The entire project will cost the government about \$80,000,000, with about \$20,000,000 thereof spent on each of the four units. The government has set aside \$2,000,000 for the first unit, but that is only two out of the supposedly necessary twenty million dollars. The money is still set aside for that purpose although construction, for the time being,

has been stopped and although the bids were not opened. I cannot say what the government has spent or will spend on Colorado River Indian Reservation. For that information call Indian Service, at Los Angeles, and talk with Chief Clerk or Engineer, telephone number Vandyke 8070.

Referring to the Yuma Project, it stands the government to date about \$11,000,000. The diversion for consumptive use, as distinguished from power purposes, have run from 600 to 700 second-feet, as a rule, so far, but there have been times when as much as 800 have been diverted for consumptive use. There will be an extension of water uses upon the Yuma Mesa, but the total appropriation of water for the Yuma Project will still remain 2,000 second-feet. The total irrigable area under the Project, including land already irrigated, is about 115,000 acres, whereof 15,000 are in California, 45,000 in Arizona and 55,000 on the mesa in Arizona. I cannot say how many acre-feet have been used for irrigation. You would have to get that information from the superintendent of the Project.

STATEMENT OF R. F. WALTER OF THE RECLAMATION
SERVICE IN RE GILA PROJECT

December 1935

This project calls for the watering of lands in the Valley of the Gila in Arizona and on three different levels. There would be about 400,000 acres all told, whereof about 150,000 would be on the first or lowest levels. On this last level there are already about 8,000 acres watered by private wells and from the North end of the Laguna Dam. Two million dollars have already been made available by the Government for this Project; about eighteen million dollars more will be required for the first unit, being the first level. We open bids tomorrow on some tunnels on the first unit but last night we received word to suspend all work.

No act of Congress authorized this project, but the W.P.A. has authorized (Walter thinks) it, and the President authorized two million dollars. He thinks that the second or third unit will not be built in our lifetime but that Arizona wants to make a showing as against Mexico. The plan is for the Government to enter into a repayment contract with a District which has already been formed and which is called "Yuma-Gila Irrigation District." A proposed draft of the contract has been completed but has not yet been signed. About 90% of the first 150,000 acres, being the approximate acreage of the first unit, is Government land. The percentage of Government land in the other two units would be still greater. Walter thinks the Upper States could be protected as to the 90% of Government lands by conditions to be imposed in the contracts made with private purchasers when in the future they buy. The Government land would not be open for purchase until the works are built. The proposed contract between the Government and the District contains the following Colorado Compact clause:

"This compact is made upon the express condition and with the express covenant that the United States and the District shall observe and be subject to and controlled by the Colorado River Compact, being the compact..... in the construction, management and operation of Boulder Dam and the reservoir created thereby, Imperial Dam and other works necessary or convenient for the use of the waters of the Colorado River and its tributaries, or for the generation or transmission of electrical energy generated by the means of said waters of said River or its tributaries and the parties hereto shall also be subject to and controlled by said Compact on the storage, diversion, delivery and use of the waters of the Colorado River or its tributaries."

STATEMENT OF MR. MAHONEY, MANAGER
OF PALO VERDE VALLEY CANAL SYSTEM

December 14, 1935

The canal system has not watered any land in the Valley outside of what is in the District.

There are about 104,500 acres in the Valley, whereof 89,860 acres are in the District. 40,000 acres have been watered. 30,000 acres are being watered now.

By Palo Verde Valley is meant what is in California. Across the Colorado River on the Arizona side is what might also be considered part of the Valley as a whole but it is the Cibola portion of the Valley and is not in the District.

STATEMENT OF MR. LAUGHLIN, WATCHMAN
AT PALO VERDE HEADGATE

December 14, 1935

Am watchman at Palo Verde headgate. We are now running 130 second-feet through the headgate but ordinarily 600 this last year and expect to run 700 second-feet during the coming year. The river is running about 4,000 second-feet now. The Palo Verde project generates no power.

STATEMENT OF SUPERINTENDENT GENSLER
OF COLORADO RIVER INDIAN RESERVATION

December 14, 1935

I am Superintendent of Colorado River Indian Reservation.

Irrigable area supposed to be 121,000 acres, but there is doubt whether there is more than 91,000. About 4,200 acres are actually irrigated now, whereof 3,000 acres by Indians and 1,200 by white tenants of Indians. There have been as many as 10,000 acres irrigated by rotating around, but not all at one time. Maximum irrigated at any one time about 7,000 acres. The system of irrigating is to pump into the canal system from the river. The pumps have a maximum capacity for 6,108 acres. The duty of water is $3\frac{1}{2}$ to $4\frac{1}{2}$ acre-feet for wheat and alfalfa and 3 for cotton.

Congress has authorized the construction of a dam and canal from Headgate Rock. Headgate Rock is two miles up the river from the present pumping station, and a canal from there will provide gravity irrigation. Pumping would then be discontinued and the canal would take care of the irrigation of the Reservation. There are about 600 Indians on the Reservation regularly, but at the present time there are about 700 because of extra work to be done in this vicinity.

When I say 91,000 acres of irrigable land, more or less, I mean from the canal to be built from Headgate Rock.

Many years ago, in the seventies, the Indians had a ditch heading near Headgate Rock, called the Dent-Grant ditch or canal, after President and Mrs. Grant. This old ditch has long since been abandoned, but traces of it can still be seen at Headgate Rock. The project generates no power. Each Indian is allotted 10 acres of land, including children as well. A family of four, including children, would have 40 acres. When the Indians rent the land, it is for cash at \$3.00 to \$5.00 an acre.

STATEMENT OF R. F. WALTER OF THE RECLAMATION SERVICE
IN RE COLORADO RIVER INDIAN RESERVATION IN ARIZONA

December 1935

The water would be for the Colorado River Indian Reservation and would be in Arizona. There are some white tenants leasing some of the land. There are about 100,000 acres in the valley to be watered from the dam; already 8,000 or 10,000 acres of the 100,000 are being watered by pumping. The duty of water so converted is from $3\frac{1}{2}$ to $4\frac{1}{2}$ acre-feet net on the land. A little work was done on this project by the United States three years ago but there is no money now with which to prosecute the work, although the Congress has authorized the building of the dam.

CHARLES A. ENGLE, SUPERVISING ENGINEER
IN INDIAN SERVICE AT LOS ANGELES IN RE
CAMP MOJAVE INDIAN RESERVATION

My headquarters are in 751 South Figueroa Street, Los Angeles. The Camp Mojave Indian Reservation has about 100,000 acres of irrigable land, wherein 10,000 have been irrigated. Enough water would be claimed for the entire 100,000 acres at the rate of 3 acre-feet net to the acre of land. Government expense on the project hitherto made and to be made hereafter will total about \$10,000,000. Actually at the present time there are about 10,000 acres of land occupied by white owners and about 10,000 occupied by Indians.

STATEMENT OF SUPERINTENDENT GENSLER
OF THE CAMP MOJAVE INDIAN RESERVATION

December 14, 1935

While I am Superintendent or Agent of the Colorado River Indian Reservation, I am also the same as to the Camp Mojave Indian Reservation across from Needles on the Arizona side of the River. That project waters 10,000 acres of land occupied by the whites and 12,000 occupied by the Indians. There is no power generated.