

WATERING A DESERT AREA

NEW CANAL FOR DESERT TO WATER GREAT AREA

Project Recently Approved in Connection With the Hoover Dam Will Give Relief to Imperial Valley

WASHINGTON.

THE Federal Government is ready to start work on the biggest irrigation canal in the world, destined to bring water to the lowest, driest and most tropical spot in continental United States, and to convert desert sands into farming areas that, because of their peculiar geography, are different from any other.

Ray Lyman Wilbur, Secretary of the Interior, gave his approval recently to the form of contract between Imperial and Coachella Valleys in Southern California and the government for the construction of the all-American Canal which is to use chiefly the waters of the Colorado River that are to be impounded when the Hoover Dam is completed four or five years from now.

When this canal-building job is done the ditch will meander among the cactus-studded hills along the Colorado, be siphoned under the dry washes of the desert that sometimes carry roaring torrents, pick its way through areas of shifting sands, send out tentacles to enclose a body of desert land that lends itself to irrigation, and finally wind itself around Salton Sea, lying 250 feet below the level of the ocean. Altogether this canal and its branches will be approximately 210 miles long.

The canal will be 134 feet wide on the bottom, 200 feet wide at the waterline and 22 feet deep. This means that it could accommodate for purposes of navigation ships up

to 10,000 tons, drawing 20 feet of water. The flow of it will be equal to that of the Potomac River at Washington, twice that of the Rio Grande and three-fourths that of the Hudson. It will, in fact, become one of the outstanding streams of the nation — a stream peculiar in that, instead of running to waste in the sea, it will spread itself out on the land to breed luxuriant vegetation where nothing grew before.

The government is to spend \$34,000,000 in digging this canal. It is the element in the Boulder Canyon project, authorized by Congress, that is second in importance only to Hoover Dam, 150 miles up the river. The government will spend the money, but the owners of land irrigated must return it a little at a time for forty years until it is all paid back. Thus the government lends only its credit to the undertaking.

When Hoover Dam is completed and is storing the flood waters of the Colorado River Basin that heretofore have been running to waste in this land of thirst, they will be released as desired and will come rolling down between the parched hills of Arizona on one side and of California on the other until they have reached a point fifteen miles above Yuma, the hottest town in the United States. There a long, low weir dam costing \$2,700,000 and resting only on the sand of the river bottom, will divert the water into this man-made channels.

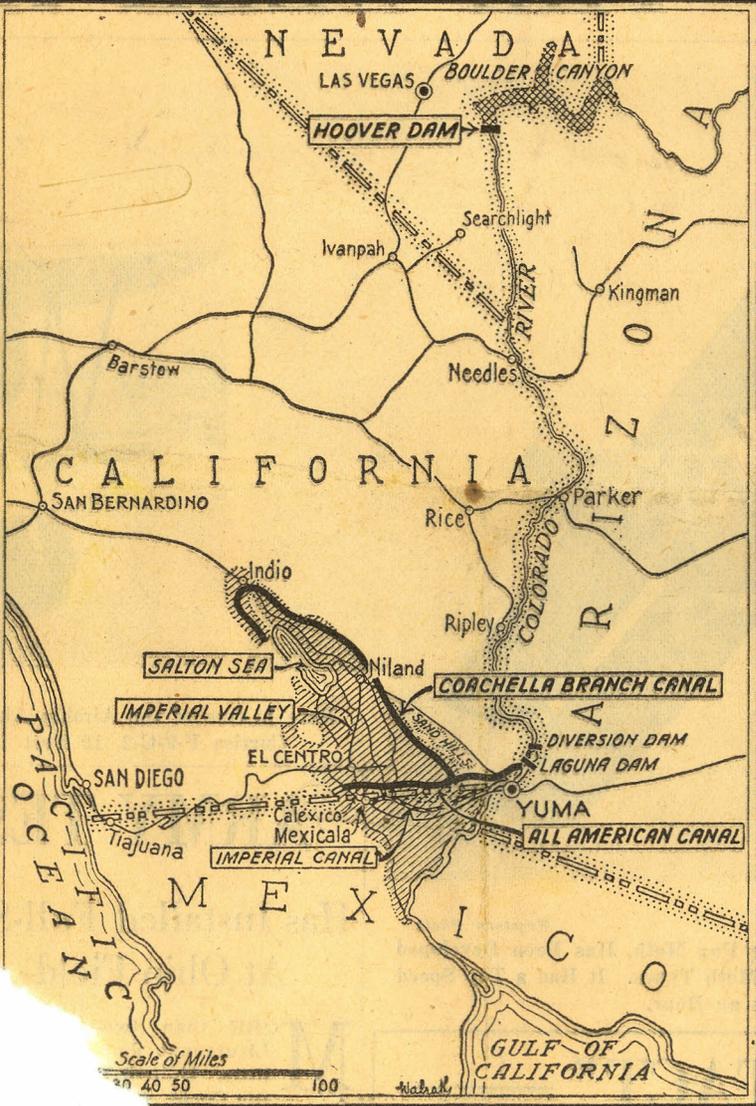
Opposite Yuma the canal will give

up about one-eighth of its water, which will be put over a drop to generate power for that town, will pass through a siphon under the river from which it came, and come up on the Arizona side. There it will water many grapefruit orchards that are already shipping their output to the Eastern markets.

A little further on that plague of engineering undertakings, the sand hills of the desert, shifting about with the wind currents, will be encountered. A ridge of earth which stands here today as high as a house may have disappeared tomorrow and the spot where it stood may have become a depression. Naturally there will be difficulty in putting a canal through this area and keeping it clear.

When the main canal reaches a point beyond the sand dunes a branch will strike out to the north, skirting that great depression in Southern California that lies below sea level and finds its lowest point in Salton Sea. All of this area was a part of the gulf until the Colorado River long ago deposited sediment that built a dike, cutting it off.

Thirty years ago a canal was taken out of the Colorado River. It ran past Yuma and then, that it might avoid the sand dunes, crossed the Mexican line, meandered for sixty miles through foreign territory and returned to the California side. This old canal, irrigating some 450,000 acres, developed the area known as Imperial Valley. The position of the residents on these farms below sea level has been precarious because the Colorado at flood-time has sometimes grown to titanic proportions; once since the settlements were made, in 1905, the river broke through and poured over this area, emptying itself into Salton Sea. Settlers have lived in the presence of a menace which will not be removed until Hoover Dam stops the floods.



Great Irrigation Canal That Will Be Constructed to Bring the Waters of the Colorado River.