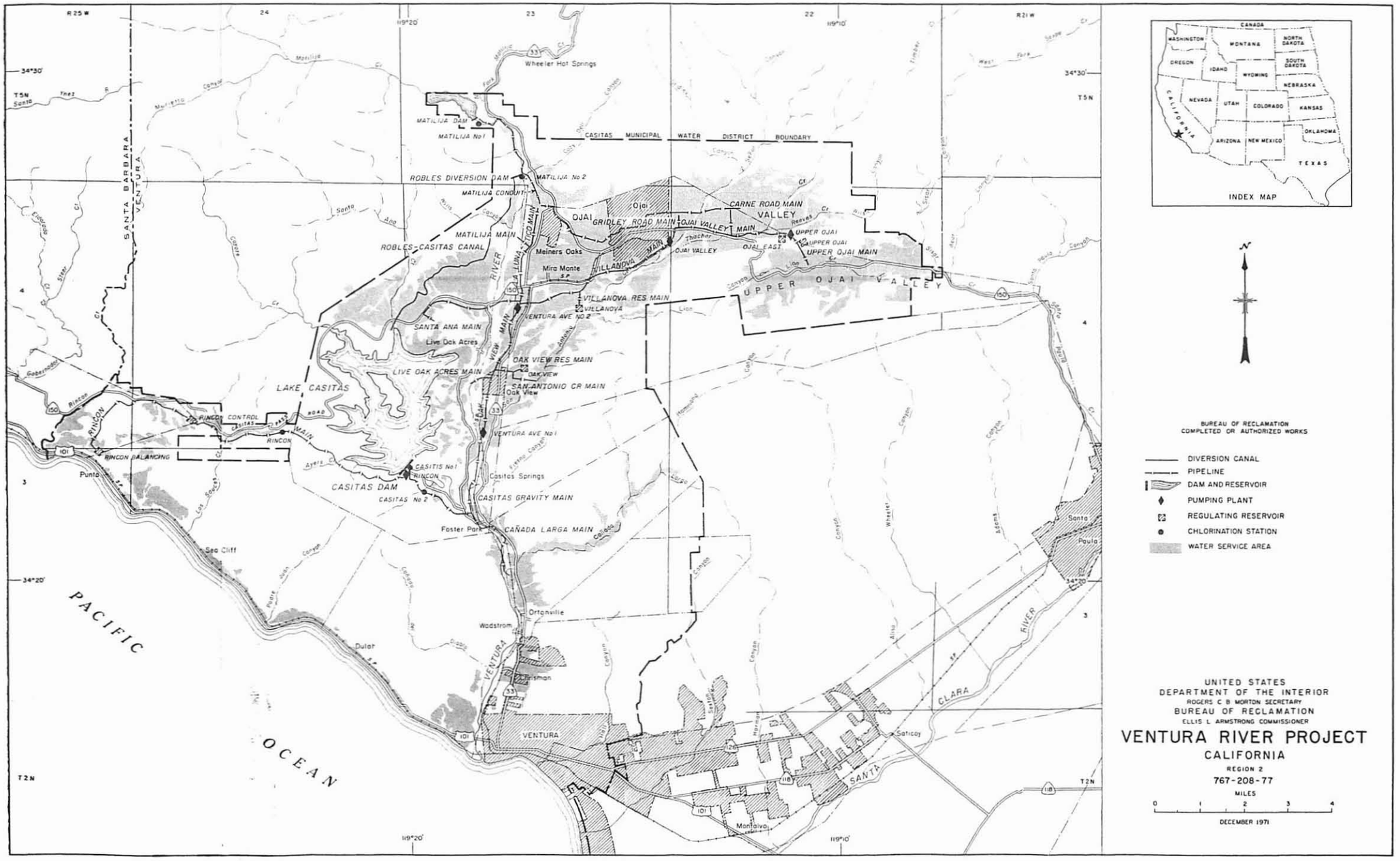


BUREAU OF RECLAMATION
COMPLETED OR AUTHORIZED WORKS

- DIVERSION CANAL
- PIPELINE
- DAM AND RESERVOIR
- PUMPING PLANT
- REGULATING RESERVOIR
- CHLORINATION STATION
- WATER SERVICE AREA

UNITED STATES
DEPARTMENT OF THE INTERIOR
ROGERS C B MORTON SECRETARY
BUREAU OF RECLAMATION
ELLIS L ARMSTRONG COMMISSIONER

VENTURA RIVER PROJECT

CALIFORNIA

REGION 2

767-208-77

MILES 0 1 2 3 4

DECEMBER 1971

Factual Data on the Ventura River Project

The Ventura River Project in southern California, about 60 miles northwest of Los Angeles, is designed to furnish a supplemental supply of irrigation water to approximately 13,200 irrigable acres of land. The project, authorized in 1956, furnishes municipal and industrial water to approximately 8,000 acres in urban and suburban areas within the Casitas Municipal Water District.

WATER SUPPLY

Ventura River and its tributaries are the main sources of water for the Ventura River Project. It has a drainage area of 228 square miles, 221 of which are within Ventura County and the remainder in Santa Barbara County. The highest elevation within the drainage area is 6,003 feet above sea level, but most of the irrigable land lies below 1,000 feet. Small summer flows are maintained by springs along the large tributaries. No significant accumulation of snow occurs in the watershed, and accordingly the winter runoff occurs almost immediately after precipitation. Seasonal runoff has varied from a minimum of less than 5 percent of the mean to a maximum in excess of 400 percent. The maximum runoff of record at Casitas and Robles Dams occurred in 1941 when a total of 204,000 acre-feet was recorded. A minimum total runoff of 1,900 acre-feet was recorded in 1951.

FEATURES OF THE PROJECT PLAN

CASITAS DAM on Coyote Creek is located about two miles above the junction of Coyote Creek and the Ventura River. The reservoir, which has a storage capacity of 252,000 acre-feet, regulates flows along the lower reaches of Coyote Creek and stores surplus water for irrigation and municipal purposes. The dam is an earthfill structure, containing a total of 9,310,000 cubic yards of material, with a height of 334 feet above streambed and a crest length of 2,000 feet.

ROBLES DIVERSION DAM on the Ventura River is located about 1.5 miles downstream from the confluence of Matilija Creek and North Fork Matilija Creek. The dam has a height of 24 feet above foundation with a crest of 530 feet. The structure is rockfilled with a timber cutoff wall and a rolled earth core. Its function is to divert water into the headworks of the Robles-Casitas Canal.

ROBLES-CASITAS CANAL with a total length of approximately 5.35 miles and a capacity of 500 cfs conveys water from Robles Diversion Dam to Lake Casitas. It includes 4.26 miles of concrete canal, 0.86 of a mile of 78-inch reinforced concrete pipe, and 0.21 miles of rectangular drop chutes.

MAIN CONDUIT is a pressure-pipe system with a length of about 34 miles and consists of reinforced concrete pipe and mortar lined steel pipe ranging in size from 54 inches to 12 inches. The main conduit starts at Casitas Dam with a capacity of 121 cfs. After crossing the Ventura River it branches to serve the lower area, including the city of Ventura, and the upper area to the north and east of Lake Casitas. The main conduit for the west coastal area has a capacity of 9.6 cfs at the dam, and passes through a pumping plant, and traverses a westerly direction over Casitas Pass to the Rincon Balancing Reservoir near the coast, a distance of 9.7 miles.

PUMPING PLANTS — Five pumping plants, Ventura Avenue No. 1 and No. 2, Ojai Valley, Upper Ojai, and Rincon lift water from the elevation of the storage level in Lake Casitas to the elevations of the points of delivery.

BALANCING RESERVOIRS — Six balancing reservoirs, Oak View, Villanova, Ojai East, Upper Ojai, Rincon Control and Rincon Balancing, are filled from the main conduit during the off-peak hours and are used to help supply the full requirement of water during peak hours and as a carryover supply in case of an emergency.

CHLORINATION STATIONS — Five chlorination stations are provided; two downstream from the outlet of Lake Casitas, two downstream from the outlet of Matilija Dam, and one between the Rincon Pumping Plant and Rincon Control Reservoir. These stations are operated for the dual purpose of preventing algal growth in the pipelines to maintain their capacity for delivering water and for assuring the safety of the supply for domestic purposes.

DISTRIBUTION SYSTEM — The Casitas Municipal Water District constructed and operates the distribution system within the project subareas.

DRAINAGE SYSTEM — Physical conditions and ground-water pumping in the project service area keep water tables at a depth that prevents drainage problems from developing.

IRRIGATION PLAN

The Ventura River Project provides for a storage reservoir on Coyote Creek, a diversion dam on the Ventura River, a canal to carry water from the diversion dam to the reservoir, and a high-pressure pipeline distribution system with pumping plants, and balancing reservoirs to distribute the water from Lake Casitas to the various areas within the project for irrigation, municipal, and industrial uses. Use of waters from Matilija Dam, built by Ventura County and placed in operation in 1948 are incorporated with the overall plan for the operation of the project.

SERVICE AREA

The gross arable and urban land within the project area totals 22,700 acres. At the present time 3,400 acres are irrigated, 1000 acres are dry farmed and 1,300 acres are urban, suburban, or industrial. The remainder is either being grazed or idle. The project furnishes an annual supplemental supply of approximately 16,000 acre-feet of water for agricultural, municipal and industrial uses.

CHARACTER OF SOIL

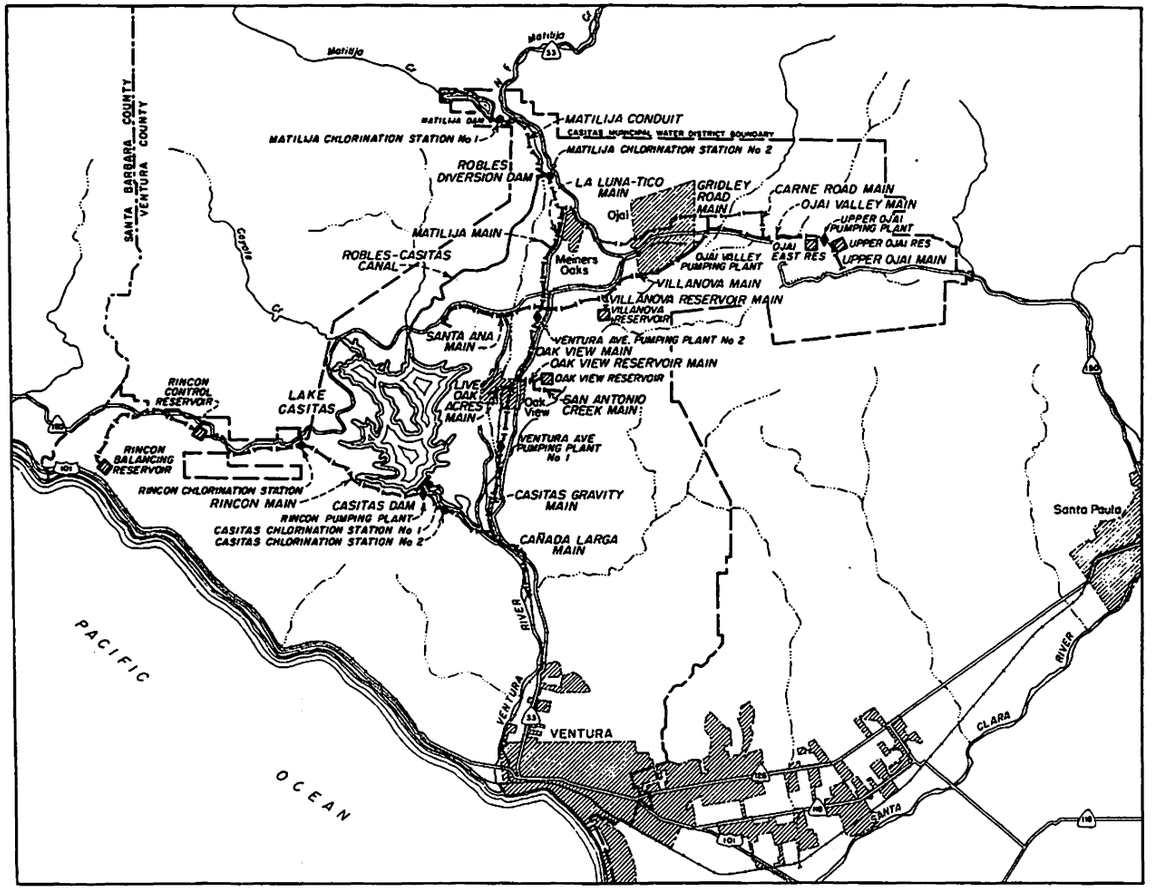
Most of the arable soils of the project are alluvial deposits on the flood plains and fans of the valley floor, and as older terrace benches around the fringes of the valleys. Intermixed with the older terrace benches around the valley rims and adjacent to the coast are some arable lands on residual soils from sedimentary rocks. The mountainous areas are composed of sandstone and shale rocks and for the most part are not suitable for irrigation.

ALTITUDE OF IRRIGABLE LANDS

Most of the project lands lie in the Ojai and Upper Ojai Valleys and average about 1,000 feet above sea level. The remainder borders the Ventura River, its tributaries, and the ocean shore and ranges from sea level to about 500 feet.

FARM WATER REQUIREMENT

Water requirement for general irrigated agriculture for the project area is approximately 1.6 acre-feet per acre.



LENGTH OF IRRIGATION SEASON

The average irrigation season extends for 180 days. The growing season along the coast averages 332 days, and in the vicinity of Ojai it averages 232 days.

ANNUAL RAINFALL

Precipitation generally occurs as rainfall, except in the higher mountainous regions where there is some snowfall in most years. Mean seasonal precipitation varies from a minimum of about 15 inches at the city of Ventura on the coast to as much as 32 inches in the Topatopa Mountains along the northern edge of the basin.

RANGE OF TEMPERATURE

Proximity to the ocean provides a moderating effect on the temperature throughout the inhabited area. Fog occurs along the coast part of each year. The temperatures rarely fall below freezing except in the mountainous area and certain valley pockets. During the summer months, temperatures in the valley areas seldom exceed 100 degrees. The average monthly temperatures along the coast vary from approximately 54 degrees in January to 65 degrees in August. In comparison with the coast section of the basin, the average monthly temperature at Ojai, 12 miles from the ocean and at an elevation of 750 feet, is about 3 degrees cooler in the winter and nearly 10 degrees warmer in the summer.

PRINCIPAL PRODUCTS

The principal products of the project area are oranges, lemons, avocados, walnuts, deciduous fruits, pasture, barley, oats, and truck crops. Oranges and lemons combined now represent about two-thirds of the irrigated acreage. In addition to these irrigated crops the following dry farmed crops are produced: almonds, walnuts, sudan pasture, grain, hay, barley, beans, deciduous fruits, and grapes. About fifty percent of the dry-farmed acreage is usually planted to grain, hay, barley, beans, deciduous fruits and grapes.

PRINCIPAL MARKETS

The project is favorably located with respect to the markets of the Los Angeles area. The rapidly expanding population of Los Angeles County and the southern part of Ventura County are ready outlets for all farm products. Railroads, highways, and the port of Los Angeles give the area access to other portions of the state as well as nationwide and foreign markets.

Address all inquiries regarding additional information concerning this project to:

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