# REPORT

OF THE

# Commissioner of Public Works

CALIFORNIA

1895

EXHIBIT 90

*Roberts Island.* (Area, 60,000 acres.)

[Authorities: E. E. Tucker, C. D. Rhodes, and J. W. Ferris.]

Reclamation operations were commenced on Roberts Island in 1856. The same general method of procedure was followed, namely: The individual settlers built small levees along the banks of the river in a disconnected and desultory manner. Back of these levees the bank land was cultivated in fruit and vegetables.

Following the law of 1868 district organizations were effected, and levees and cross-levees were built around the entire island. These levees were from 3 to 5 feet high; with a crown width of 4 feet, and slopes of 1 to 1½. In 1877–78 the greater portion of the island was acquired by the Glasgow-California Land Company. This company, with Mr. John W. Ferris as Superintendent, constructed about 32 miles of levee and dammed ten sloughs of various sizes. The levee was greatly enlarged, being raised to about 9 feet with slopes of 1 on 3 and 1 on 4 on the river side, and a crest width of from 8 to 30 feet. In this work there were about 3,000,000 yards of earth used, at a cost of $360,000. The area protected was about 38,000 acres, known as the lower division of Roberts Island, and separated from the upper portion by the Duck Slough and Honker's Ridge cross-levees. Some of the levee is upon peaty formation, having a stratum of this material in places 30 feet deep. At these points excessive width and height were adopted.

*Rough and Ready Island.* (Area, 1,680 acres.)

As early as 1853, Mr. Richard Crozier and W. L. Wright raised or warped about 5 acres of land above the level of flood water. This work was accomplished by wheeling the material from ditches several hundred feet back from the river upon the highest of the bank land. The cost of thus raising the land was about $1,200 per acre. It however furnished magnificent crops of early vegetables and fruit.

The ditches which were excavated for this purpose were connected with the river, and during floods were partly or entirely refilled with sediment. This same process was followed by Mr. Darque, who succeeded in raising about 5 acres of land just below the tract above mentioned. By 1872 some 23 acres had been thus warped above the level of the floods, at an average cost of $600 per acre.

In this year the owners of the island entirely inclosed it by levees about 9 miles in length. The cost of this work was $16,280, and by this means some 1,680 acres were reclaimed. The island was seeded, but the crops were largely destroyed by seepage water during the spring of 1873.

Under district organization in the five years between 1872–1877, the levees were strengthened and repaired. Through negligence the levee was broken in 1875, and the succeeding year repairs were finished too late to cultivate the land.

In 1878 a system of cross-levees and ditches were constructed for draining the lands, and steam pumps were put in to remove seepage water. The land is exceedingly fertile and yields as much as 10 tons of alfalfa hay per acre each year since it was planted in 1876. The yield of small fruits, vegetables, and berries is both valuable and large.

Owing to a break in the levee in 1892, a large clam-shell dredger was