

## **THE SALTON SINK BEFORE THE GREAT FLOOD OF 1905**

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For millennia the Colorado Desert was an empty land, scorched by an incessant heat. It was a land to hurriedly pass through; a corridor to a more hospitable place, but never itself a destination. For a few, however, the Colorado Desert held potential; if water could be taken from the Colorado River, then dry land would become wet and the desert would yield to thousands of farmers.

The land of the Colorado Desert was the last agricultural dream of the 19<sup>th</sup> century and the first agricultural frontier of the 20<sup>th</sup> century. The conversion of the Colorado Desert into farms dramatically illustrated that a raw unyielding desert could be shaped, reworked, reclaimed and renamed with access to water. It was the ultimate conquest of land. By the beginning of the 20<sup>th</sup> century, the Colorado Desert had become the Imperial Valley, a majestic name proclaiming a grand future.

The first water was turned from the Colorado River in 1901, and by 1903 more than 100,000 acres was irrigated. With news of available water, settlers began to arrive daily, merchants setup stores and speculators were everywhere. Success could be seen throughout the valley, but conquest had unexpected consequences.

The formation of the Salton Sea is most commonly attributed to the devastating floods of 1905-1907. However, in the haste to deliver water and meet increasing demand, the

California Development Company took many shortcuts. One of the shortcuts was with how it dealt with wastewater, which the company allowed to flow freely into the Salton Sink.

Tracing the early transformation of the Salton Sink into the Salton Sea is difficult, particularly prior to 1900. There are few reports and detailed descriptions rare.

However, there is one reliable source. In March 1905, the New Liverpool Salt Company sued the California Development Company for allowing waste water that it dumped into the Salton Sink to flood their operations. The trial ran for more than 3 years and yielded over 2400 pages of depositions and testimony, along with numerous maps, graphs and diagrams. From depositions and testimony a fairly complete view of the flood history of the Salton Sink can be established.

The New Liverpool Salt Company was established in the northern reaches of the Salton Sink in the early 1880s to mine salt left by the saline hot springs that flowed into the Sink. By the 1890s, the company had created a fairly large operation, including a rail line to connect with the Southern Pacific.

Trial testimony from experts on both sides clearly indicated that the Salton Sea was occasionally flooded by the Colorado River through both the Alamo and New River channels. Water from the Colorado River flowed into the sink in 1884, 1891, 1892, and 1895. A small dam had been constructed across the Alamo River to prevent water from flowing to the Salton Sink, but was washed away in the 1891 flood. In addition, water

flowed into the Sink every year from occasional rainstorms and from a number of small creeks that emptied into the basin. By the end of every summer, however, the water had evaporated, leaving the Salton Sea a dry desert.

Beginning in 1902, one year after the first water was turned from the Colorado River into the Imperial Valley, water began to flow into the Salton Sink even though no major rain had occurred and the Colorado River had not overflowed. By the end of that year, most of the water had evaporated. In 1903 a similar situation occurred. In 1904 the water again began to rise in the Salton Sink, but did not recede as normal.

By the end of 1904-early 1905, the Salton Sink had turned into a shallow lake measuring 20 miles long, five miles wide and almost 3 feet deep. The New Liverpool Salt Company was situated at approximately 275 feet below sea level. The new lake, as measured by an engineer named Jacob Miller, had filled the depression of the Salton Sink to where it was lapping at the edges of The New Liverpool Salt Company's works.

The demand for water had outstripped California Development Company's ability to deliver the amount they had promised. To increase the amount of water, three intakes without head gates, were opened to divert water from the Colorado River. Edwin Duryea Jr., a water engineer, measured the amount of water flowing through each intake on the 14<sup>th</sup> and 15<sup>th</sup> of February 1905. The upper intake was measured at 456cfs, the middle intake allowed 896cfs and through the lower intake flowed 2,495cfs. The three intakes

combined allowed 3,847cfs (equal to 28,852.50 gallons) of water to flow into the Imperial Valley.

Except for a single waste gate, there was no ability to control or regulate the amount of water diverted from the Colorado River. Increasing or decreasing the amount of water entering the waste gate regulated the amount of water flowing through the intakes. The water through the waste gate was measured at 1,911cfs. Another engineer estimated that for the previous three months an additional 300-500cfs had been wasting into the Salton Sink through the Alamo River.

On the 14<sup>th</sup> of December 1904, P. L. Sherman, a water engineer, took a boat trip down the Alamo River and estimated the amount of water flowing in the channel to be 260fs. The trip ended when the boat was grounded in mud flats approximately one mile from the forming lake.

The beginning of the Salton Sea was the result of an enthusiastic view of what might be accomplished with water in an arid land. It was an exciting time. The Imperial Valley was a new frontier, a 20<sup>th</sup> century frontier where everything was possible. All rushed to take land, plant crops and become irrigators. Water made all expectations possible. With little understanding of the consequences, the initial sea was formed to satisfy each and every dream.