



## THE HISTORY OF WATER IN THE SAN DIEGUITO WATER DISTRICT

In the late 1800's, the area now known as Encinitas was very important to railroad operations for it served as the water and wood station for the train. The water was pumped out of Cottonwood Creek by a windmill into a large wooden tank. If the tank was full when the train came through, the conductor would climb out and shut off the windmill.

While this simple water system served the railroad's needs well, the same could not be said about it serving the domestic needs of the citizens at the time. Ted Hammond, who brought his family to the area in 1883, wrote the following description of the local water system for the newspaper:

"The entire water system consisted of a large tank by the railroad track, where the new concrete bunkhouses are being built, and a windmill over a large well in the canyon. The only railway crossing in the neighborhood was by this tank and the only means we had of getting water to the hotel was by pushing or rolling a barrel filled at the tank over a bumpy and rutty trail and up an incline to the north end of the house, where it was doled out very carefully. There was not hot and cold water in every hotel room then, and if a guest wanted to take a bath, he was invited to go to the beach, where all was free, and a bathing suit was not necessary, for he would be the only one there. This barrel system was bad enough, but nothing in comparison with the conditions on some of the ranches that summer. For our family of eleven, the water was all carried on the back of a horse in two five gallon cans. Most any afternoon the younger girls of the Hammond family could be seen on a trail leading a horse loaded with a ten gallon supply of water, a stack of flower and other provisions".

Another feature of the early days was the community wash day. Early Monday morning during the dry season, the housewives could be seen with lunches and laundry going down to the railroad well in the canyon. Washboards and tubs were stored there. While the women did the wash, the children played at the beach. The clothes were hung on the bushes to dry.

It was the lack of an adequate water system that kept growth in the area to a minimum through the turn of the century. Land in the area was being subdivided and lots sold quickly, but without water, the town did not grow.

Things were soon about to change, though. Hodges Dam, San Dieguito Dam and the Hodges Flume were constructed in 1918 by the San Dieguito Mutual Water Company, a private company not affiliated with San Dieguito Water District.

Hodges dam was named after a vice president of the Santa Fe Railroad who made the necessary financing for the construction of the dam. The dam consisted of 23 reinforced concrete arches, each spanning 24 feet. The cost of the dam was about \$630,000. Soon after being put in use though, cracks began to show. Alarmed residents of the valley began to demand action. The State Board of Engineers issued a report in 1923 that stated that the dam was safe provided that it was not subject to a major earthquake. Since it was assumed at the time that a major earthquake could never strike the



area, no action was taken. A large earthquake hit Long Beach in 1933 which quickly changed a lot of people's thinking. Reinforcement of the dam was completed in 1937 at a cost of \$143,000.

The San Dieguito Dam was constructed in just four short months at a cost of \$160,000. This hollow gravity, multiple arch structure created the San Dieguito Reservoir to serve as a regulating reservoir which would receive water from Lake Hodges.

The flume was constructed to connect Lake Hodges to the San Dieguito Reservoir and was originally called the Carroll Conduit. For most of its 4-mile length, the flume is an open concrete lined canal, but in other places, its section changes to concrete pipe siphon or steel flume. These sections were required to cross ravines and gullies. You can see some of these sections as you drive along Del Dios Highway.

In 1922, the South Coast Land Company of Leucadia formed the San Dieguito Irrigation District, now called the San Dieguito Water District. The District originally included 2,300 acres on the coastal mesa around Encinitas. There were all of 12 voters living within District boundaries at the time. Later that year, the town site of Encinitas and lands covered by another water district, the Cardiff Irrigation District, were added thus increasing the total area to 3,900 acres.

In 1923, the District entered into a contract with the San Dieguito Mutual Water Company for an annual water supply of 3,200 acre-feet from Lake Hodges. That same year, a bond issue of \$400,000 was approved for the construction of a distribution system within the District. The improvements included 7 1/2 miles of 26" redwood stave pipeline and booster pumps to lift the water to the higher elevations.

The Depression brought monetary woes to the area. The delinquency rate for taxes soared to 34% in 1933. A newsletter was sent out to all taxpayers explaining the District's financial difficulty and asking for their help. These problems left insufficient funds to meet the bond service and operating expenses of the District which led to the District being refinanced by the Reconstruction Finance Corporation in 1935.

Up to this time, a vast majority of the water in the District was used for irrigation, so treating the water was not necessary. Now more and more domestic meters were getting added to the system, so in 1940 a chlorine ammonia plant was installed at the San Dieguito Reservoir to disinfect the water.

World War II kept the District improvements to a minimum since materials used for pipelines were simply not available. The years following the war, though, brought a wide variety of profitable commercial agriculture into the area. The area population was also growing faster than ever. This led the District to join the San Diego County Water Authority. As a member agency, the District was now entitled to a proportionate share of imported water from the Colorado River.

A new 30" steel and cast iron distribution main was constructed in 1950 to accommodate for the growing community and to replace the old redwood line.

In 1965, District voters passed a \$3,000,000 bond measure for the construction, jointly with Santa Fe Irrigation District, of a filtration plant and 13 million-gallon reservoir located east of Rancho Santa Fe. Also included was a 30" transmission main. The improvements were completed in 1970.

In 1975 a 2.5 million-gallon underground reservoir was built under the ball fields at Oak Crest Junior High.

As growth continued, a 36" water main was then added to the district system in 1983.

Then between 1987 and 1991, the area experienced a major drought. District customers were required to cut water use by 30%. This required reduction in water use was just about to be increased to 50% but then came the Miracle March Rains. They spared the District and the area from what would have been very severe and economically destructive water use restrictions.

Reality now began to set in. Everyone began to realize that we really do live in a desert and that the vast majority of water consumed in the area has to be imported from hundreds of miles away. Water conservation programs were put into place. Low-flow showerheads were handed out and incentives were given to replace old toilets that used 5 to 7 gallons per flush with new models that used only 1.6 gallons. Education programs were also set up to teach children about just how valuable a resource water is. These conservation programs, along with many others, are still going strong today.

In 1998 the district added a 7.5 million-gallon underground reservoir. It is conveniently located under the Encinitas Ranch Golf Course driving range.

In August, 2000 recycled water became available in the District. This highly treated wastewater, which comes from the San Elijo Wastewater Treatment Plant, will be used to water park grass and the golf course as a means of conserving our very limited potable water supplies.

Currently, the population of the District is about 37,180. There are 10,400 connections to the system. District customers used approximately 2.8 billion gallons of water last year or 208 gallons per person per day. 65% of the water went for residential use, followed by 16% for agriculture, 10% for commercial and 9% miscellaneous use.

As you can see from that last statistic, Encinitas is no longer the small agricultural town that it once was. Yes, Encinitas has changed and the San Dieguito Water District has had to change right along with it.