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WATER DEPARTMENT

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General Information



Overview

Following a vote of the people, the City of San Diego entered the municipal water supply business in 1901 when the City bought the water system from a private company. More than 100 years later, San Diego's water infrastructure has become one of the most complex in the United States. Today, the City of San Diego Water Department serves more than 1.2 million people populating more than 200 square miles of developed land.

In addition to our three water treatment plants, San Diego maintains and operates more than 2,890 miles of water lines, 45 water pump plants, 90-plus pressure zones, and more than 200 million gallons of potable water storage capacity in 32 standpipes, elevated tanks, and concrete and steel reservoirs.

Located in the semi-arid desert region of the southwestern United States where rainfall can vary from practically nil one year to plentiful the next, local water availability has always been an issue. On average, San Diego must import nearly 90 percent of its water from other areas, specifically northern California and the Colorado River.

The need to import water emerged in the 1940s when the increased presence of the United States Navy leading up to and into World War II, and the subsequent population boom thereafter, quickly overwhelmed local supplies. As a result, San Diego and other local water distributors formed the San Diego County Water Authority for the express purpose of purchasing Colorado River water from the Metropolitan Water District of Southern California and conveying it to San Diego County. San Diego's post-war population boom took quick advantage of those additional supplies, and today, about 35 percent of the more than 450,000 acre-feet delivered annually by the CWA to San Diego County goes to the City of San Diego.

In addition to supplying more than 250,000 metered service connections within its own incorporated boundaries, San Diego conveys and sells potable water to the City of Del Mar, the Santa Fe

and San Dieguito Irrigation Districts, and the California American Water Company, which, in turn, serves the Cities of Coronado and Imperial Beach and portions of south San Diego. San Diego also maintains several emergency connections to and from neighboring water agencies, including the Santa Fe Irrigation District, the Poway Municipal Water District, and Otay Water District, the California American Water Company, and the Sweetwater Authority.

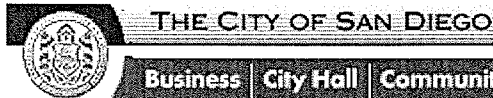
Potential water supply offsets such as conservation and water reclamation have only recently entered the water supply picture, but even the most optimistic projections credit those offsets with no more than 20 to 25 percent of total demand. San Diego will therefore continue to rely heavily upon imported water for its water supply needs far into the foreseeable future.

The Water Department receives no revenues from sales or property taxes, operating solely on funds from rates and service charges. In accordance with the provisions of the City Municipal Code, these funds are administered in an enterprise account, separate from the City of San Diego's General Fund.

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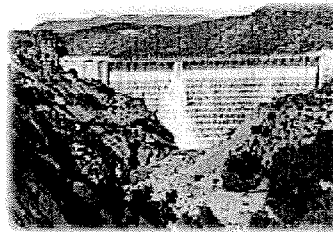
General Information



City of San Diego Water History

1850 -- California becomes a state and the City of San Diego is incorporated.

1852 -- City declared insolvent. Management oversight by the state instituted.



Barrett Dam - 1927

1873 -- San Diego Water Company formed to provide an organized water supply to serve a population of approximately 2,000. Water is \$.25 per bucket. An army private soldier makes \$13.00 per month.

1885 -- Sewer service begins along the lower portion of 5th and 6th Avenues with the raw effluent discharged directly into San Diego Bay.

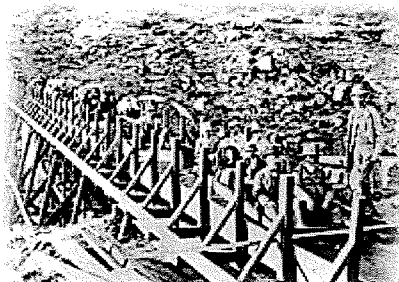
1887 -- Old Town Reservoir built to store water from 12 wells located in the San Diego River bed adjacent to the old Presidio.

1889 -- The San Diego Flume Company completes a 35.6 mile wooden flume to carry water from Boulder Creek to La Mesa Reservoir (the duck pond at Grossmont Summit).

1897 -- Lower Otay Dam completed by what becomes the Southern California Mountain Water Company. Construction of Morena Dam begun. Work is soon suspended.

1901 -- Following a vote of the people, the City of San Diego enters into the municipal water supply business by purchasing the facilities of the San Diego Water Company.

1906 -- The Lower Otay water supply is connected to the City's distribution system by the Bonita Pipeline to a filtration plant located at Chollas Heights Reservoir.



1912 -- The City purchases the Otay River-Cottonwood Creek system from the Southern California Mountain Water Company. Morena Dam completed. The City of East San Diego incorporated.

1914 -- The City purchases Morena Dam.

1916 -- A series of very heavy rain storms, in conjunction with the alleged rainmaking activities of Charles Hatfield, hit the county. The San Diego River floods Mission Valley from cliff to cliff cutting all highways to the north. Lower Otay Dam, built without a spillway, tops out and bursts, flooding the Otay Valley.

1918 -- Lower Otay Dam, now renamed Savage Dam, reconstruction completed. Lake Hodges Dam and San Dieguito Dam completed by the Santa Fe Land & Improvement Co. Both were later purchased by the City.

1922 -- City forces complete Barrett Dam and the Dulzura Conduit built to link Morena Reservoir and the Cottonwood Creek/Pine Creek watersheds with the City's water supply system at Lower Otay.

1923 -- City of East San Diego consolidates into the City of San Diego.

1928 -- Construction of what is now Sutherland Dam is halted after only one year of construction. The Metropolitan Water District of Southern California (MWD) is formed to bring Colorado River Water to Southern California. San Diego was not a member.

1930 -- The U.S. Supreme Court determines the City of San Diego has prior and paramount rights to the water of the San Diego River.

1931 -- Current San Diego City Charter adopted formalizing the Council-Manager form of government.

1935 -- With water rights secured, the City completes construction of El Capitan Dam and the El Capitan Pipeline connecting it to the City's water supply system. University Heights Filtration Plant enlarged.

1936 -- The City decommissions water well fields operated in Mission Valley.

1943 -- San Vicente Dam and pipeline are dedicated following two years of construction. This provides another source of water for San Diego's booming wartime population. The U.S. Navy completes the City's first sewerage treatment plant to reduce the health risks to sailors on ships in San Diego Bay.

1944 -- The San Diego County Water Authority (CWA) is formed, with the City joining, and became a member agency of MWD. CWA's first task is to complete a pipeline connecting the county with MWD's water supply system.

1947 -- The first MWD water from the Colorado River flows into San Vicente Reservoir. This ends San Diego's total dependence on local sources for water.

1950 -- The City of San Diego takes over operation of Murray Reservoir and commissions the Alvarado Filtration Plant. The water treatment plants at University Heights and Chollas Heights are decommissioned.

1954 -- Sutherland Dam, dormant since 1928, completed and connected by pipeline and natural streambeds to San Vicente Reservoir.

1956 -- South San Diego, Nestor, San Ysidro, and part of Otay Mesa annexed to the City. Service charges for sewer service instituted for the first time.

1958 -- The sewerage function transferred to the newly renamed Water Utilities Department.

1960 -- Miramar Dam completed and Miramar Filtration Plant put into commission. Lake Murray purchased from Helix Irrigation District.

1962 -- What is now Tierrasanta annexed.

1963 -- The Point Loma Wastewater Treatment Plant and the Metropolitan Sewerage System, now the Metropolitan Wastewater System, are put into service ending regular direct discharge of raw wastewater into the San Diego Bay and the Pacific Ocean. What is now Rancho Bernardo, Rancho Penasquitos and the San Pasqual Valley annexed to the City.

1996 and 1997 -- The wastewater collection and treatment functions are separated from the Water Utilities Department forming the Metropolitan Wastewater Department. The Water Utilities Department becomes the Water Department.

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Water & Sewer Bill/Rates



San Diego County Water Authority Pass-Through Fee Increases 1/1/06

Effective January 1, 2006, the water portion of your bill reflects a \$0.047 (4.7 cents) per HCF rate increase by the County Water Authority on the wholesale cost of water purchased by the City of San Diego. CWA also increased its meter-based Infrastructure Access Charge, resulting in an increase in fixed meter base fees as follows: under 1-inch: \$.25; 1 inch \$.40; 1.5-inch \$.75; 2-inch: \$1.30; 3-inch:\$2.40; 4-inch:\$4.10; 6-inch \$7.50; 8-inch:\$13.00; 10-inch: \$19.50; 12-inch: \$33.00; 16-inch: \$71.50. These fees will be applied on a pro-rated basis for bills covering the January 1 effective date. The new rates will raise the bill of a single family domestic customer using 14 HCF per month by about \$0.91, to \$40.64, representing a 2% increase in the current bill. More information can be found in City Managers Report No. 05-230, available at <http://clerkdoc.sannet.gov>

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THE CITY OF SAN DIEGO

Water Department

PUAC Presentation

November 28, 2006



The Water Department*

● OUR DEPARTMENT

- 914 Employees
- FY2007 Budget \$359 million

● OUR CUSTOMERS

- More than 1.3 million customers
- 403 square mile service area
- 274,000 meters in service

● OUR WATER SUPPLY

- 90 - 94% of our water supply is imported (annual avg.) – approx. 200,000 acre feet per year.
- Imported water costs more than \$119 million annually.

● OUR SYSTEM

- 3 water treatment plants
- 3,460 miles of water lines
- 49 water pumping stations
- 30 standpipes, elevated tanks and reservoirs storing approx. 260 million gallons of drinking water.

● OUR RESPONSIBILITY

- Treat and deliver 210 million gallons a day (annual avg.)

Reasons for Water Rate Increase

- Meet ongoing operational and maintenance (O&M) needs of the water system.
- Replace aging infrastructure to reduce the number of pipeline breaks and emergency repairs.
- Comply with Federal Safe Drinking Water Act and the California Department of Health Services Compliance Order.
- Repair and replace infrastructure to maintain system reliability.

Water System Improvements

Cast Iron Pipeline Replacement

Before

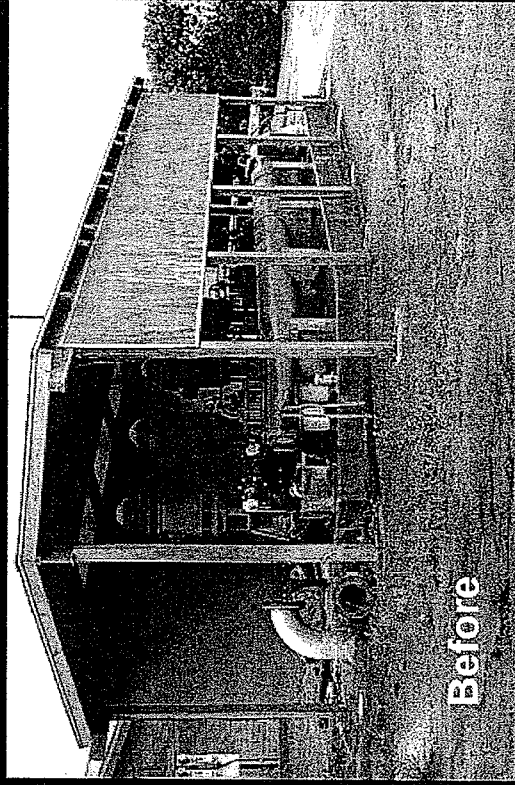


After

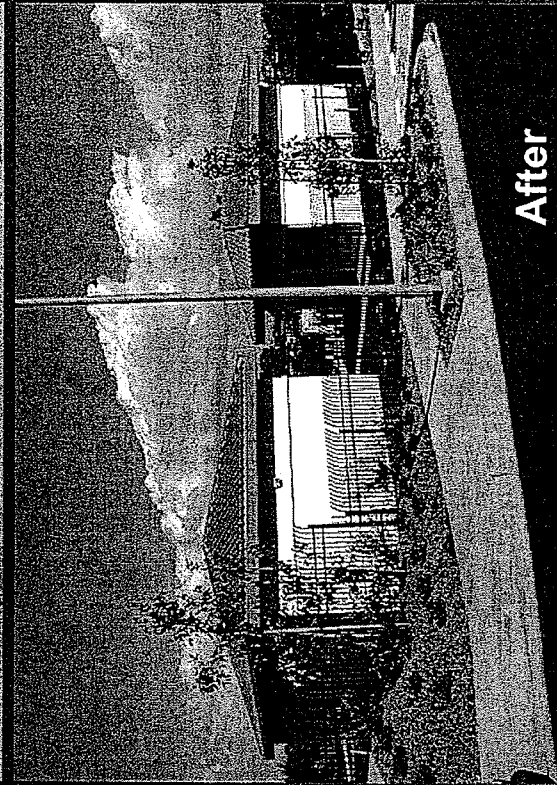


Catalina Pump Station Rehabilitation

Before



After



Accomplishments and Challenges

- Over 100 years of delivering safe drinking water
- More than 50 capital improvement projects completed since program start in 1997
- Over 90 miles of outdated cast iron pipe replaced since 1998
- Approx. 30 million gallons of treated water storage added for increased reliability
- Treatment capacity increased by 80 million gallons a day (pending DHS certification)
- Earl Thomas reservoir, largest, pre-stressed concrete drinking water reservoir in the world completed

Stringent federal drinking water standards to be met

Over 60 projects remaining

About 190 miles of cast iron pipes left to replace.

Cast iron is 10% of water system and accounts for 60% - 80% of main breaks

Focus on upgrading and extending the service life of our existing water storage facilities

An additional 75mgd capacity to be added to meet demands

Additional upgrades needed at San Diego water treatment plants

