# Fact Sheet

## The City of San Diego

## **Public Utilities Department**

**Scope of Water** Infrastructure and **Resources:** 

- 9 impounding reservoirs with a combined capacity of nearly 416,000 acre-feet: Barrett, El Capitan, Hodges, Miramar, Morena, Murray, Lower Otay, San Vicente and Sutherland. One additional reservoir, Upper Otay, is used solely for recreation.
- 3 water treatment plants: Alvarado, Miramar and Otay
- 49 pump stations
- 3,253 miles of pipeline
- 288,578 metered service connections (2 inches and smaller)
- 33,826 metered service connections (3 inches and larger)
- 631 domestic fire services (service lines connected to fire sprinkler systems)
- 25,000 fire hydrants
- In 2009, approximately 221,000 acre feet of water was treated by the three plants combined (one acre foot of water equals 325,851 gallons of water)

**Our Vision:** We are an industry leader in the delivery of water, wastewater and recycled water services

THE CITY OF SAN DIEGO



The second largest city in California and eighth largest in the United States, San Diego is a city of villages defined by the ocean, mountains, canyons, and mesas. The City covers 342.5 square miles and stretches nearly 40 miles from north to south. There are 93 miles of shoreline including bays, lagoons and the Pacific Ocean. Elevations mostly range from



San Diego skyline

sea level to 600 feet. The city's varied topography composed mostly of mesas intersected by canyons warrants sophisticated and innovative water and wastewater systems.

The City of San Diego has one of the largest and most complex water storage, treatment, and delivery systems in the world. The Public Utilities Department is tasked with securing imported water supplies

for more than 1.3 million city residents while continuing to both manage demand through water conservation initiatives and researching alternative water supplies such as recycled water, groundwater, and indirect potable reuse. In addition to supplying water, the Department also manages a regional wastewater system that serves 2.2 million residents in San Diego County.



With over 1,600 employees and a budget of more than \$800 million, the Public Utilities Department is committed to ensuring quality, reliability,

Alvarado Water Treatment Plant

and sustainability of water, wastewater and recycled services for the benefit of the ratepayers and residents served.

## Water Supply:

Sacramento

Bay Delta

CALLEO.

STRIE WATER

ROUEDUCT

San Diego

PROJECT

Los Angele

San Francisco

Located in the semi-arid desert region of the southwestern United States where rainfall averages only 10 inches per year on the coast, San Diego's local water availability has always been an issue. On average, San Diego must import 85-90 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



COLORADO

AQUEDUCT

RIVER



California Aqueduct

Public Information Office 11/4/10

Scope of Wastewater Infrastructure and Resources:

Municipal Sub-System consists of:

- service to approximately 275,000 customers
- approximately 3,000 miles of pipelines
- 79 pump stations
- Conveys approximately 110 million gallons per day of wastewater

Metropolitan Sub-System consists of service to the City of San Diego and 15 other cities and districts:

- 1 wastewater treatment plant (Point Loma)
- 2 ocean outfalls
- 1 biosolid center
- 4 pump stations

Scope of Recycled Water Infrastructure and Resources:

North City Water Reclamation Plant Wastewater treatment design capacity: 30 MGD\*

Distribution System Facilities:

- 83 miles of pipeline
- 9 million gallon reservoir
- 3 million gallon reservoir
- 3 pump stations

\*MGD = one million gallons per day

South Bay Water Reclamation Plant:

Wastewater treatment design capacity: 15 MGD

Distribution System Facilities:

- 4,500 feet of 30 inch pipeline
- 750,000 gallon storage tank
- 1 pump station

## **Alternative Water Sources:**

With a prolonged drought in the Colorado River basin, reduced snowpack and runoff in Northern California and court-ordered pumping restricting on the State Water Project in the bay/delta area of Northern California, San Diego is experiencing a water supply crisis. The City of San Diego is proactively seeking to develop alternative local supplies through the study of potential groundwater development, expansion of recycled water use and the continuation of a comprehensive water





San Vicente, the region's largest reservoir

supplement the City's water supply for future generations include the Water Purification Demonstration Project. The project is examining the use of advanced water purification technology to provide safe and reliable water for San Diego's future. As the second phase of a process evaluating ways for the City to increase its use of recycled water, the Demonstration Project will determine if reservoir augmentation is a feasible option for San Diego.

City seeks to expand use of recycled water

## Water Operations:

In addition to supplying more than 280,000 metered service connections within its own incorporated boundaries, San Diego conveys and sells 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



Miramar Water Treatment Plant

Poway Municipal Water District, and Otay Water District, the California American Water Company, and the Sweetwater Authority.

## Wastewater Operations:

The City of San Diego's overall wastewater system has been designed to provide service for a regional population in excess of 2.5 million and has a service area which covers approximately 450 square miles. The wastewater system is composed of two sub-systems: the Municipal Sub-System and the Metropolitan Sub-System. An average of 180 million gallons of wastewater is treated every day of the year.



North City Water Reclamation Treatment Plant



Point Loma Wastewater Treatment Plant