



The covered clearwater reservoir protects treated drinking water from outside contamination prior to its delivery to customers.

# San Luis Obispo County Flood Control & Water Conservation District, Zone 3

## Lopez Water Treatment Plant

### *Improvements & Updates*

Consistently providing safe and clean drinking water to ensure the health and safety of over 45,000 customers daily.

### *Contact Information*

Additional information or questions regarding the Lopez Project can be found at:

County of San Luis Obispo  
Department of Public Works

**Phone:**  
(805) 781-5252

**Website:**  
[www.slocounty.ca.gov/pw.htm](http://www.slocounty.ca.gov/pw.htm)

**Mail:**  
Department of Public Works  
Room 207  
County Government Center  
San Luis Obispo, CA 93408



Multiple sludge beds are used to separate materials removed during the various treatment processes.





Lopez Reservoir provides recreational opportunities including boating, water-skiing, and recreational fishing.



Multiple racks of pressurized membrane filters ensure the removal of all particles and organisms prior to delivery to customers.

San Luis Obispo County is located on the Central Coast of California between Monterey County, Santa Barbara County and Kern County. The County encompasses 3,300 square miles of land, 1,100-miles of coastline, and has over 260,000 residents. Agriculture, tourism, and recreation are the principal sectors of the local economy. The County was formed in 1850 as one of California's original counties.

### *Flood Control Zone 3*

Flood Control Zone 3 (Lopez Project), located in San Luis Obispo County, was established to operate the Lopez water supply system, and is a wholesale supplier. The contractors in Zone 3 include the communities of Oceano, Grover Beach, Pismo Beach, Arroyo Grande, and CSA 12 (including the Avila Beach area).

The Lopez Dam was built to supplement the local groundwater supply. Flood Control

Zone 3 is part of the County's Flood Control and Water Conservation District, which is housed in the County's Public Works Department.

The San Luis Obispo County Flood Control and Water Conservation District, Zone 3 operates Lopez Reservoir, in the Arroyo Grande Creek watershed (Figure 1-1), for municipal and agricultural water supplies. Lopez Reservoir provides recreational opportunities including boating, water-skiing, and recreational fishing. The Arroyo Grande Creek watershed provides habitat for fish and wildlife species including anadromous steelhead and California red-legged frogs.

### *The Lopez Project*

The Lopez Project consists of Lopez Lake, Lopez Dam, and a three mile 20-inch diameter buried steel transmission line for conveyance of raw water to the Lopez Terminal Reservoir and subsequently to

the Lopez Water Treatment Plant. Lopez Reservoir has a capacity of 49,388 acre-feet and provides both water supply and recreational uses. The reservoir project area consists of about 164,000 acres, and is located primarily within the Arroyo Grande Creek drainage area.

The Dam and Reservoir were constructed at the confluence of Arroyo Grande and Lopez Creeks, approximately 6 miles upstream from the community of Arroyo Grande. Construction on the project started in May 1967, and was completed in January 1969. The dam is constructed of select fill materials with a length of 1,120 feet, and a vertical height of 166 feet. A \$26 million earthquake retrofit of the dam was completed in 2002 in order to prevent failure of the earthen dam in the event of a major seismic event.

### *Lake Lopez Water Treatment Plant*

A 3 mile transmission line carried water from the dam to the 424 acre terminal reservoir. From the terminal reservoir, the water is processed by a 6.7 million per day treatment plant. The finished water from the plant is then conveyed by a 22 mile distribution water line to the Five Cities Communities as drinking water for over 45,000 residents.

The Lopez Water Treatment Plant was originally constructed as a gravity flow, mixed media treatment facility before it underwent a major \$26 million conversion to a pressure membrane filtration system with Dissolved Air Flotation (DAF) from 2006 to 2008.

This new membrane system is very effective in reducing the amount of THMs found in the raw water from Lopez Lake.

### *Lopez Project Operations Include:*

- Operation of a municipal water treatment plant, including filter backwash water disposal and water sampling activities;
- Seasonally varying water releases to Arroyo Grande Creek for agricultural water supply and environmental needs.
- Operation of the Arroyo Grande Creek stream gaging station.

### *Arroyo Grande Creek Water Releases*

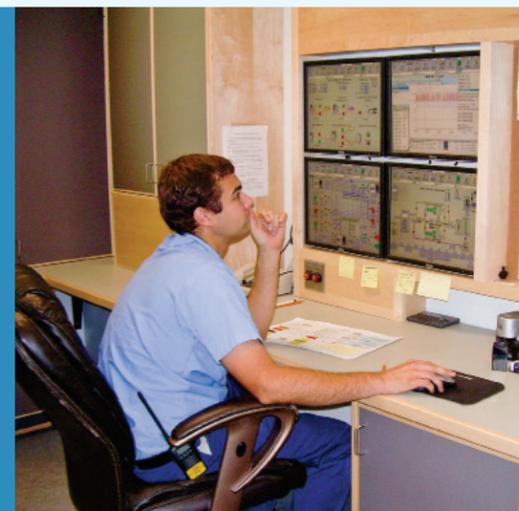
Entitlements to Lopez water are based on a percentage of the safe yield of the reservoir. The reservoir's safe yield is 8,730 acre-feet per year (AFY), of that amount, 4,530 AFY are for pipeline deliveries and 4,200 AFY are reserved for downstream releases.

This means that more than 50% of the safe yield is delivered to communities

in Zone 3, and the remaining supply is released downstream as necessary to maintain flows in Arroyo Grande Creek. Historically, not all of the water set aside for the downstream releases was actually released since excess water would have flowed into the ocean. In years past, allowing flows to the ocean was considered a waste of water and was therefore discouraged throughout the State. Releases were limited to what was needed to maintain flow in the creek to provide adequate ground water recharge for the agricultural interests along Arroyo Grande Creek. Any surplus water was banked for the following year, when it could be sold to the Zone 3 communities requesting it. During droughts, Zone 3 communities whose deliveries from other sources were short were able to purchase surplus Lopez Water. In addition to Lopez supplies, local communities have used groundwater as a back-up supply.



The no body contact Lopez Terminal Reservoir provides an additional method for virus removal.



Ultra-modern computerized control systems are used to operate the plant on a daily basis.