

1769

First mission in California established

1800

1813 1821

Mexico wins independence from Spain  
Old Mission Dam completed

# The Past The Present THE FUTURE



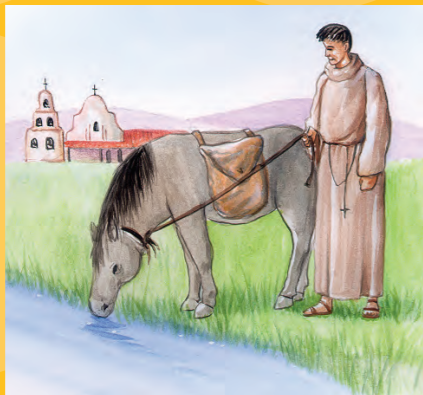
Native Americans, such as the Kumeyaay and Luiseño tribes, lived here first. **They lived their lives very differently than people do today.**

This region experienced droughts. Years could go by with very little rainfall. Local tribes learned how to get the most out of their limited water supply. During

the winter, they would move toward the coast. They knew the winter months brought rain that filled coastal streams and watered plants. But as the summer months approached, the streams dried, the plants withered and the tribes headed to the mountains for water and food.

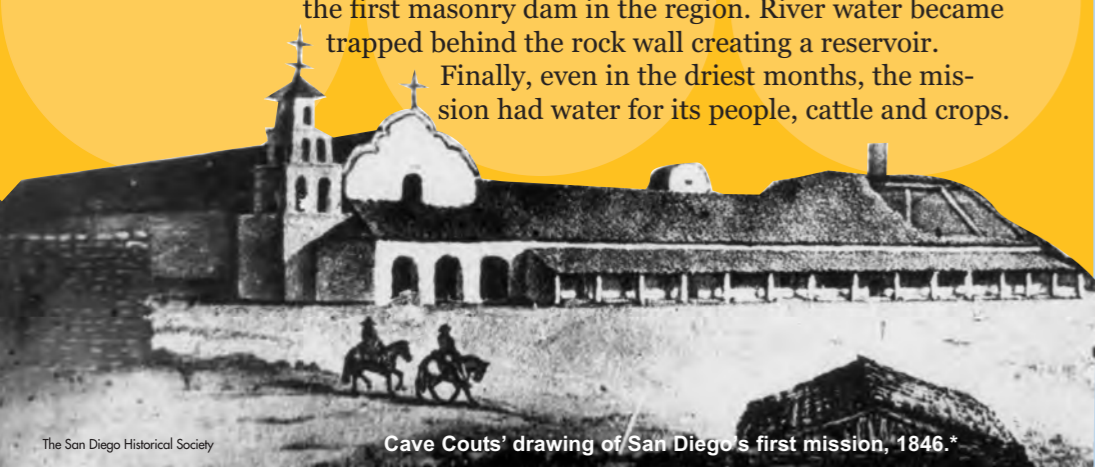
Local natives did more than follow the water. In the driest locations, they stored water in large clay pots. They laid rocks to direct **runoff** (see glossary) to where they needed it. They grew food on land close to a water source and chose crops that used little water.

**In 1769, Spanish missionaries came to San Diego County and built the first California mission on Presidio Hill near Old Town.** Finding a reliable supply of water proved to be one of their biggest challenges. Water had to be carried up the hill to the mission in animal hides.



To make matters worse, the San Diego River could run dry one year and flood the next, destroying their crops. Having had enough, the missionaries packed up and moved the mission further into the valley. But something still had to be done about the river that often dried up. The solution was to build a dam. In 1813 soldiers and Kumeyaay living at the mission built the first masonry dam in the region. River water became trapped behind the rock wall creating a reservoir.

Finally, even in the driest months, the mission had water for its people, cattle and crops.



Cave Coutts' drawing of San Diego's first mission, 1846.\*

1846 1848 1850

U.S.-Mexican War begins  
California becomes the 31st state  
Gold discovered on Sutter's Mill



San Diego street scene—Fifth Street south of Broadway

In 1821 Mexico won independence from Spain and this area came under **Mexican control**. Mexico divided Spanish land holdings into large **ranchos**. And what did Mexico expect from the ranchos? Cattle. Mexico envisioned a hide-trade industry.



It worked like this: The ranchos raised cattle and shipped their hides to Boston shoemakers, who then turned the hides into shoes. These ranchos have since become communities like Rancho San Diego, Rancho Penasquitos and Rancho Santa Fe. Maybe you live on one today.

Mexico's reign didn't last long. In 1850, two years after the Mexican-American war ended, **California became the 31st state**. About this time, San Diego experienced a change as many people moved to town to work and live.

Most of the population lived in the Old Town and New Town (downtown) areas, and they needed water. Wells pumped up dirty and foul-tasting water from under the ground. Residents joked, "we boiled it, we screened it, we boiled it again, and then we drank something else." To make matters worse, the wells often dried up. As more and more people moved to San Diego County, something had to be done. Like the missionaries before them, building dams became the solution. The dams created **reservoirs** and the reservoirs stored water for the dry months. Over the years, they built many dams to capture as much water as possible.



In the 60's, 72-inch pipes were commonly used. Today they're even bigger!



# The Past The Present THE FUTURE

Eventually, the region's seven major rivers ran short of space to build more reservoirs. Planners had to find water somewhere else. Hundreds of miles to the east stood a large source of water, **the Colorado River**

By the 1930s the population around Los Angeles increased to the point where people living there needed Colorado River water. A newly formed

1900

San Diego County population 35,090

1941 1944 1947

U.S. enters WWII  
Colorado River Aqueduct opens  
Water Authority formed  
San Diego Aqueduct completed

1978

California Aqueduct opens

water agency called the Metropolitan Water District took on the massive project to move Colorado River water to Los Angeles. It included building a large canal, called an **aqueduct**, that would carry water from the Colorado River to thirsty cities around Los Angeles. When completed, **the aqueduct looked like a cement-lined river snaking across the desert**. Machines called pumps lift the water from the river into the aqueduct, which travels 242 miles to Lake Mathews in Riverside County.

**World War II began** as construction on the aqueduct was being completed. Military bases across San Diego County swelled with Marines and Navy personnel preparing for war. Others came to work here to support the war effort. But they didn't come alone. They brought their families with them. **In two years, the county's population doubled in size.** The amount of water used



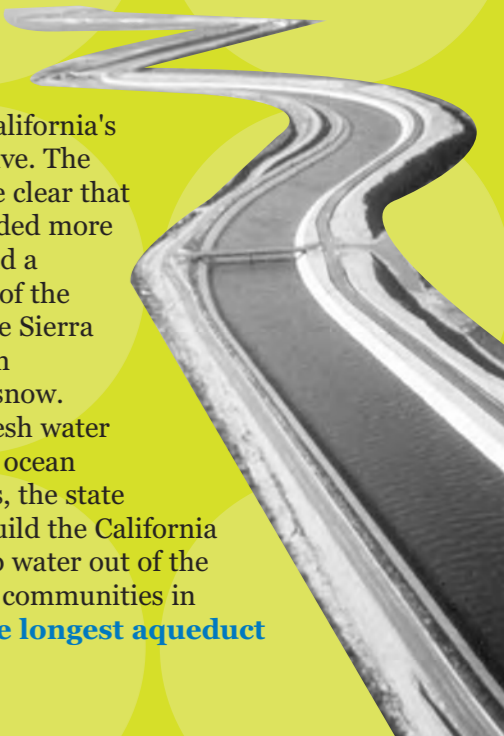
California Aqueduct

doubled as well. The county needed water and needed it quickly.

City planners wanted to build a canal from the Colorado River to San Diego. But that would take too much time. The military quickly decided that building a large pipe from the Colorado River Aqueduct in Riverside County south to San Diego would solve the problem. However, the war ended before the military could complete the pipeline. The San Diego County Water Authority, formed by local water agencies, finished the job.

**It completed the pipeline, known as the first San Diego Aqueduct, in 1947.** Over the years, the Water Authority added pipelines to the aqueduct to meet the needs of a growing population. Today, the Water Authority's five pipelines supply most of the water to San Diego County.

Planners predicted that once the war ended, people would return to their hometowns. They didn't. Southern California's sunshine and jobs proved too attractive. The growth continued and it soon became clear that Southern California's population needed more water. While Southern California had a large population, the northern part of the state had the water. Each winter, the Sierra Nevada mountain range in Northern California receives large amounts of snow. In the spring, the snow melts. The fresh water flows down into rivers and out to the ocean through the **Bay-Delta**. In the 1960s, the state stepped in with a **colossal** plan to build the California Aqueduct. The aqueduct would pump water out of the Bay-Delta in the north and send it to communities in the south. At 450 miles long, **it is the longest aqueduct in the world.**





Since the California Aqueduct ends at Lake Perris in Riverside County, water from Northern California still has to make its way to San Diego County. But how? Remember those pipelines built by the Navy and the Water Authority? That's how. Large pipes, big enough for an adult to stand up and walk through, deliver water from both the California and Colorado River aqueducts through the county to reservoirs.

But it doesn't end there. Before delivering water to your home, your local water agency must clean and test it to ensure it's safe to drink. Large tanks in your neighborhood store the water. Then it travels through smaller pipes, under the street, to your home and out the tap. What a journey!



## The Past The Present THE FUTURE

Today almost all of the water used in San Diego county (82%) comes from the Colorado River and California aqueducts. But where will we find enough water for all the people who will live here in the future? Planning ahead is the key.

Water Agencies have plans for future water supplies that seem right out of science fiction. Take reclamation as an example. Water used in your house can be cleaned up and used again on lawns and plants. Another process, called desalination, takes ocean water or **brackish water** from underground and removes the salts and minerals. The result is safe, fresh drinking water.

Building new pipes and pumps will help to keep the water flowing around the county. Adding new sites to treat water and make it clean and safe for drinking is also important. Adding places to store water in the county will help if there is ever an emergency, such as a large earthquake.



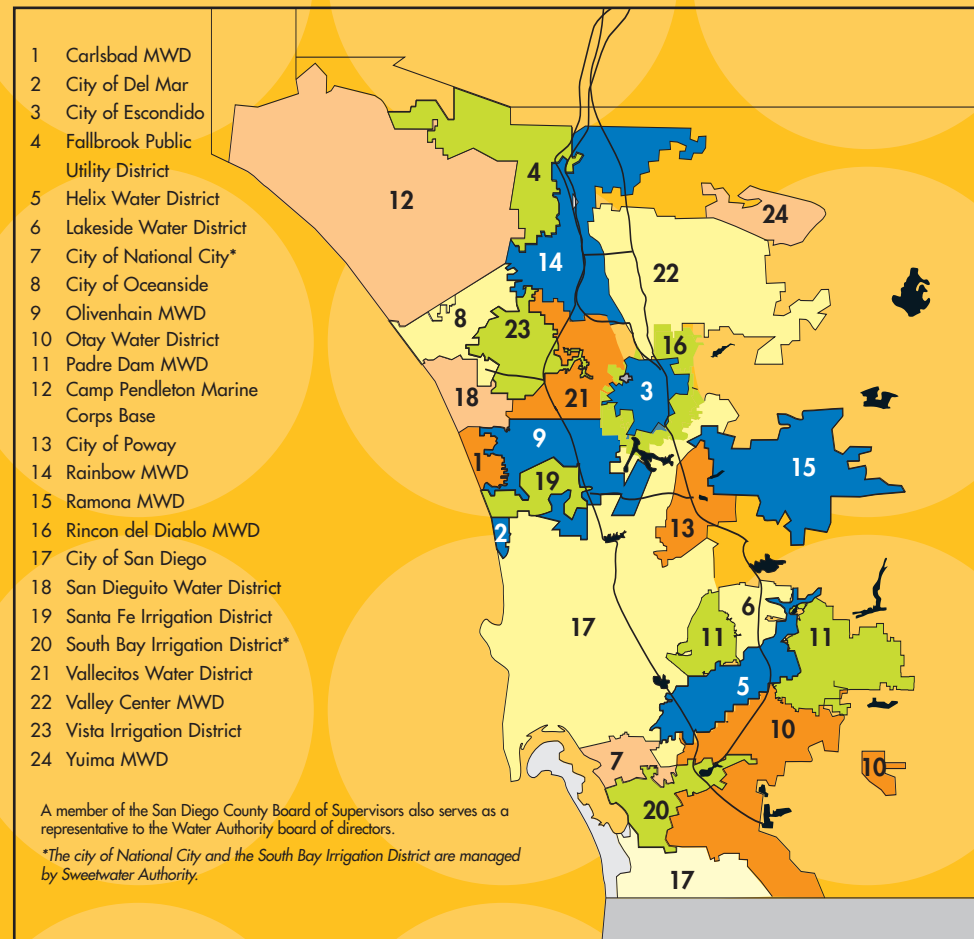
Because we live in an **arid** region, it also makes good sense to use water carefully. Saving water, or **conservation**, is a good start. You can make simple choices, such as turning off the water when you brush your teeth. Take shorter showers. Remember not to leave the hose running. Watch out for leaky faucets and get them fixed. Water agencies can also help people

and businesses save water by paying for devices such as water saving toilets and showerheads.

San Diego's water supply "story" includes many twists and turns. Water agencies are working to provide a safe and reliable supply for generations to come. Our water future includes you. **Make a promise to always use water wisely.**

## THE GLOSSARY

|                             |   |
|-----------------------------|---|
| <b>AQUEDUCT</b>             | A large channel or pipe that carries water over a long distance.  |
| <b>ARID</b>                 | Getting very little rain; dry.  |
| <b>BRACKISH WATER</b>       | A mixture of seawater and fresh water.  |
| <b>COLOSSAL</b>             | Very large; gigantic; enormous.   |
| <b>BAY-DELTA</b>            | The area where rivers from the Sierras enter the San Francisco Bay. The deposits from the rivers form a maze of channels and islands.   |
| <b>RESERVOIR</b>            | A place where water is stored.  |
| <b>RANCHO</b>               | Mex. Sp., ranch. A large area of land granted by Mexico for raising cattle.   |
| <b>RUNOFF</b>               | Water, usually rainfall or snowmelt, that flows downhill.   |
| <b>SPANISH MISSIONARIES</b> | Franciscan priests sent by Spain to establish missions throughout California. Their purpose was to spread Christianity to Native Americans and protect Spain's interests in Mexico. |



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Drought-tolerant plants keep us green

## The Past The Present THE FUTURE



The environmentally-sensitive



Two women viewing Sweetwater Dam, 1895



San Diego County  
Water Authority

### A tale of San Diego County's water

If you had to describe San Diego's weather, you probably would use words like sunny and dry — not rainy. Normally, the coast gets less than 10 inches of rain a year while the mountains get up to 35 inches. Many people live here because they like the sunshine. But having enough water for such a dry place poses challenges. This is the story of San Diego County's water supply.

