

# CANAL LINING PROJECTS CONSERVED WATER SUPPLIES

In October 2003, the San Diego County Water Authority, Coachella Valley Water District (CVWD), Imperial Irrigation District (IID), Metropolitan Water District of Southern California, State of California, and U.S. Department of the Interior completed an ambitious and complex set of agreements to conserve and transfer Colorado River water.

One of the key agreements, known as the Quantification Settlement Agreement (QSA), settled decades of dispute over Colorado River water use and provided a means for California to live within its 4.4 million acre-foot of basic annual apportionment of water from the Colorado River by creating important conservation programs on the river, including the agricultural to urban water transfers and allowing for the concrete lining of the All-American and Coachella canals. The agreements also help the state's largest urban regions avoid economically damaging reductions in water use.

The All-American and Coachella canal lining projects are critical components of the QSA through which conserved water previously lost to seepage will continue to provide the San Diego Region with a highly reliable water supply for generations to come.

## THE PARTIES

The canal lining projects moved forward as part of the QSA under a related allocation agreement requiring the commitment and combined efforts of these organizations:

- San Diego County Water Authority
- Coachella Valley Water District
- Imperial Irrigation District
- Metropolitan Water District of Southern California
- State of California
- U.S. Department of the Interior
- San Luis Rey Indian settlement parties

## THE CANAL SYSTEM

The 82-mile All-American Canal, operated by IID, is in the southeastern corner of California, conveying water from the Colorado River to California's Imperial Valley. The 123-mile Coachella Canal, operated by CVWD, is a branch of the All-American Canal that delivers water to California's Coachella Valley. Under the canal lining projects, approximately 23 miles of parallel, concrete-lined canal were constructed next to the original All-American Canal, and 35 miles of parallel, concrete-lined canal were constructed next to the original Coachella Canal.

Water flows were then diverted into the concrete-lined sections, significantly reducing the amount of water loss through seepage.



## BENEFITS

Constructing concrete-lined canals alongside the existing earthen canals resulted in an annual savings of 93,700 acre-feet of water – 67,700 acre-feet on the All-American Canal and 26,000 acre-feet on the Coachella Canal. Under an allocation agreement, the Water Authority receives 77,700 acre-feet of conserved water per year for 110 years. The rest of the conserved water from the projects belongs to several bands of Mission Indians in northern San Diego County – known as the San Luis Rey Indian settlement parties – to settle a water rights dispute with the federal government and decades of litigation. The canal lining projects have helped the Water Authority achieve its goals of water supply diversification and improved water supply reliability.

The canal lining water made up 19 percent of the Water Authority's water supply in 2024. Over the 110-year term of the agreement, 8.5 million acre-feet will flow to the San Diego region.

## INVESTMENT IN RELIABILITY

Recognizing the importance of the QSA's goals of conserving water and reducing overall water demand while increasing reliability, the Water Authority together with the state funded the canal lining projects. The Water Authority invested approximately \$42 million in concrete lining sections of the Coachella Canal and \$149 million in the All-American Canal project. The state, through its General Fund and Proposition 50 funding, provided the additional \$87 million and \$170 million, respectively, needed to complete these projects.



**MORE INFO**

## MITIGATION

The canal lining projects required extensive environmental mitigation, some of which is ongoing. As part of the fishery mitigation requirement, fish were relocated from the canal systems into nearby lakes, and a 50-acre Sports Fishery Pond was constructed in the Wister Waterfowl Management Area that is owned by the California Department of Fish and Wildlife. Additionally, 17 acres of marsh were constructed in the Dos Palmas Area of Critical Environmental Concern, providing new habitat for wildlife. Ongoing mitigation efforts include upgrading, maintaining and monitoring various habitats in Dos Palmas Oasis, as well as restoring 352 acres of desert riparian habitat.

## PROJECT STATUS

The Coachella Canal lining project was completed in 2007. The All-American Canal lining project was finished in 2010. Both canals have been delivering water to the San Diego region since their completion and will continue to do so through 2112.

In 2024, work was completed on the Coachella Mid-Canal Storage Project, which made critical upgrades to a section of the Coachella Canal. The project is expected to save the San Diego region about \$12 million in long-term repair costs to the Coachella Canal.



**APRIL 2025**

[sdcwa.org](https://sdcwa.org)  
[waternewsnetwork.com](https://waternewsnetwork.com)



@sdcwa