



Canal Lining Projects



DIVERSIFICATION Enhancing Water Supply Reliability

Overview

In October 2003, the San Diego County Water Authority, Coachella Valley Water District, Imperial Irrigation District, 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 Colorado River Quantification Settlement Agreement, 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. The agreements also help the state's largest urban regions avoid economically damaging reductions in water use.

Authority obtained the rights to conserved water from the canal linings, approximately 80,000 acre-feet per year for 110 years. The lining projects conserve water lost due to seepage and help California reduce its overdependence on Colorado River water.

The lining projects also provide San Diego County with a highly reliable water supply for generations to come.

The Canal System

The 82-mile All-American Canal is in the southeastern corner of California, conveying water from the Colorado River to California's Imperial Valley. The 123-mile Coachella Canal 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 leakage and allowing conserved water to be put to use.

The Parties

The following organizations were responsible for completing the canal lining projects:

- San Diego County Water Authority
- Coachella Valley Water District
- Imperial Irrigation District
- State of California
- U.S. Bureau of Reclamation
- San Luis Rey Indian settlement parties

AF = acre-foot

One acre-foot is approximately 325,900 gallons, enough to supply 2.5 single-family households of four for a year.

The All-American and Coachella Canals



The All-American and Coachella canal lining projects are critical components of the Quantification Settlement Agreement. As part of these agreements, the Water

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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 the agreement, the Water Authority receives approximately 80,000 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 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 17 percent of the Water Authority's water supply in 2019. Over the 110-year term of the agreement, 8.5 million acre-feet will flow to San Diego County. This project is a critical component of the agency's water supply diversification efforts.

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 on the



Lining the All-American and Coachella canals conserves approximately 80,000 acre-feet of water annually for use by the Water Authority.

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 habitats in Dos Palmas Oasis, as well as restoring 352 acres of desert riparian habitat.

State Investment

Recognizing the importance of the Quantification Settlement Agreement's goals of conserving water and reducing overall water demand, the State of California helped pay for the canal lining projects. The California Water Code authorized and appropriated \$200 million for the projects under the General Fund's Colorado River Management Account. Each project also received \$9.65 million from Proposition 50, and the All-American Canal Lining Project also received \$34.74 million from Proposition 84.

Project Status

The Coachella Canal Lining Project was completed in 2007. The All-American Canal Lining Project was finished in 2010.

Summary

The All-American and Coachella canal lining projects have provided a new and highly reliable, 110-year water supply for San Diego County. The projects are a vital component of the Water Authority's efforts to diversify and improve the reliability of San Diego County's water supply. ■



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