



Friant-Kern Canal

Overview

As part of the Central Valley Project, the 152-mile Friant-Kern Canal delivers water to 1 million acres of some of the most productive farmland in the country and provides drinking water to thousands of San Joaquin Valley residents. The canal begins at Friant Dam and conveys water from Millerton Lake, a reservoir on the San Joaquin River, south to its terminus at the Kern River in Bakersfield. Friant-Kern Canal was designed as a gravity-fed facility and does not rely on pumps to move water.



The Friant-Kern Canal near Millerton Lake

Subsidence and Canal Operations

Completed in 1951, Friant-Kern Canal was constructed to have a capacity of 5,000 cubic feet per second (cfs) that gradually decreases to 2,000 cfs at its terminus (one cubic foot of water is about 7.5 gallons). The canal is built in both concrete-lined and unlined earth sections. Subsidence in the area, caused by pumping groundwater faster than it can be recharged, has caused parts of the canal to sink. This negatively affects the canal's ability to convey water, reducing the canal's capacity. When the land elevation lowers, the canal must be operated at a reduced flow to ensure that water does not overflow banks, thereby restricting the ability to make full water deliveries.

The diminished capacity in the canal has resulted in as much as 300,000 acre-feet of reduced water deliveries in certain water years with effects most prominent in the middle reach of the canal (milepost 88 to milepost 121).

Middle Reach Capacity Correction

To address the canal's capacity loss, Reclamation and the Friant Water Authority are implementing the Friant-Kern Canal Middle Reach Capacity Correction. The project will restore capacity in the 33-mile section of the middle reach where it is most restricted. When the multi-phased project is complete, the canal's conveyance capacity will be restored from the current 1,600 cfs to the original 4,000 cfs. Construction of the \$500 million project kicked off in January 2022 with Phase 1, which includes constructing 10 miles of new concrete-lined canal to replace one of the worst pinch points of the subsiding canal sections. Phase 1 was largely completed in early Spring of 2024. The project is funded by Reclamation, Friant Water Authority, and California Department of Water Resources. A \$22.2 million investment from the Bipartisan Infrastructure Law was announced in March 2023.



More information on the project can be found here:
<https://www.usbr.gov/mp/friant/>