

DRINKING WATER STATE REVOLVING FUND



STORAGE TANKS

State Program:

California Drinking Water State Revolving Fund

Assistance Recipient:

Valley Center Municipal Water District

Project Name:

Cool Valley Reservoir Cover/Liner Replacement

Initial Agreement Date:

2022



Project Description

The Cool Valley Reservoir (the Reservoir) was constructed in 1975, and the Hypalon floating cover was installed in 1992. Due to wear and tear, the Reservoir's concrete liner was showing signs of movement and cracking at the expansion joints, as well as leakage through the underdrain system. The concrete liner also served as a medium for bacterial growth, increasing chlorine demand, along with chemical and operational costs. Furthermore, the Reservoir's floating cover had reached the end of its service life, and tears in the cover could no longer be repaired. Due to health and safety concerns, the Reservoir sat idle.

The Valley Center Municipal Water District (the District) understood the urgency of constructing a replacement liner and floating cover, as the Reservoir constituted more than 40 percent of the total finished water storage capacity. **This project, funded by a \$8.5 million DWSRF loan, included designing and installing a geomembrane liner with a geotextile underlayment and replacing the Hypalon floating cover with a new chlorosulfonated polyethylene (CSPE) floating cover.** The new liner will prevent leakage from the Reservoir and reduce bacteria by creating a barrier between the finished drinking water and the concrete liner. This will reduce chemical and energy use to maintain chlorine residuals. The new liner and cover were designed to have a service life of more than 20 years.



DWSRF Assistance Provided

\$8.5M

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This case study comes from the [AQUARIUS 2019 Compendium](#).