

Collaborating to Enhance Reliability at the Perris Facilities

The Perris Pumpback facility is key to our reliability when the State Water Project flow from the east branch through Devil Canyon is not available or when SWP supplies are low during drought. Recently, a shutdown was completed to install pipe reinforcements at the facility to ultimately increase pumping capacity when delivering water from Lake Perris to the Mills plant. The 36-day planned shutdown was completed 12 days ahead of schedule.

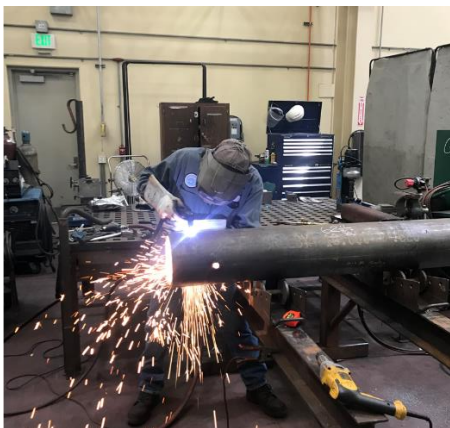


Pipe reinforcements fabricated by the La Verne Shops for the Perris Pumpback facility shutdown

While planning for the shutdown, WSO (involving MSU, CSU, C&D, SRS, WOP, and others) and Engineering Services staff had many meetings to discuss innovative design concepts, value engineering, and constructability of pipe reinforcements. Even during early planning stages, all parties were highly invested in the project's success.

During the shutdown, staff installed custom-designed and fabricated reinforcements at joints within the facility's piping system. These reinforcements, manufactured in-house at the La Verne Shops, allow the piping system to withstand higher pump surge pressures from a sudden loss of power at the facility. After the pipeline was dewatered, a large 54-inch butterfly valve was removed allowing staff access to install structural supports which ranged between four and eight feet in height. Once installed, crews inspected the piping and performed mortar lining repairs at 40 locations.

The project's successful, early completion was a result of strong collaboration and communication across multiple areas of the organization. From initial planning through implementation, the ability to suggest new ideas, solve problems, and work together on a common goal helped to make this project a true success.



Fabricator/Welder Paul Jimenez (MSU) fabricating reinforcement pipe for the Perris Pumpback facility



Welder/Fabricator Dave Paul (MSU) rolling top gusset for pipe reinforcement at the Perris



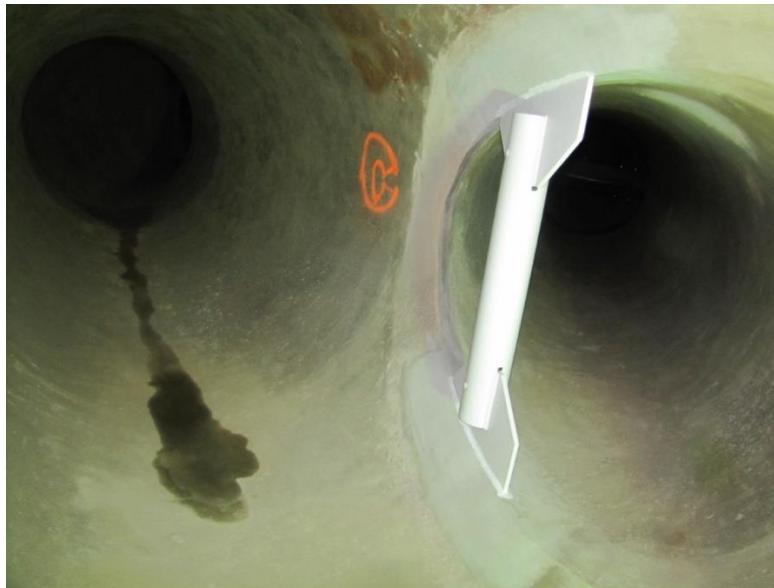
Juan Sandoval (C&D) removing a large valve to allow for pipe access at the Perris Pumpback facility



Chad Stone (right) and Daniel Finn (CSU) building scaffolding for pipeline coating removal at the Perris Pumpback facility



Dave Guerrero (C&D) welding prefabricated reinforcements into place at the Perris Pumpback facility



Successfully completed reinforcements at pipe joints at the Perris Pumpback facility