

West Valley Feeder No. 1 Shutdown

Doing What it Takes to Ensure Reliability of our Infrastructure



Carlos Marquez, Adam Guzman, and James Espinosa (C&D) removing a pipeline flange

In the early 1960s, the Calleguas Municipal Water District constructed a pipeline called “The Calleguas Conduit.” In 1969, Metropolitan acquired this pipeline and connected it with the Sepulveda Feeder in the northern San Fernando Valley. From the Sepulveda Feeder Interconnection east to the Santa Monica Feeder, the pipeline was renamed the “East Valley Feeder”; and from the Sepulveda Feeder Interconnection west to the Santa Susana Tunnel, it was renamed the “West Valley Feeder No. 1”.

The West Valley Feeder No. 1 was constructed using pre-stressed concrete cylinder pipe (PCCP) that was a popular pipeline material in that era but requires attention as it ages. PCCP pipelines are monitored through periodic inspections under Metropolitan’s PCCP Rehabilitation Program. Combining the pipeline inspection with replacement of the 57-year old butterfly

valve (located on Rinaldi Street in Chatsworth) allowed maintenance and repairs within a single shutdown window, minimizing impacts to member agencies. C&D staff isolated, dewatered, and prepared the pipeline for Engineering staff to inspect and perform an electromagnetic scan of the 8-mile-long PCCP.

As we’ve learned during shutdowns, it’s important to always be prepared for the unexpected. Just four weeks prior to the shutdown, it was learned that the contractor would not be able to complete the valve replacement. Our own CSU forces quickly responded—rescheduling other duties to plan and perform replacement of the De Soto valve. Valves like the one at De Soto are ideal for our distribution system but are very difficult to find these days. To keep the same operational flexibility, the De Soto valve was replaced with a sectionalizing butterfly valve and a new multi-orifice control valve just downstream of the sectionalizing valve in the same vault. The new butterfly valve provides positive isolation for future pipeline inspections and maintenance, and the new multi-



Luis Cortez welding a 42-inch flange

orifice valve regulates flow to support flexible operations including an interconnection with LADWP. During this outage, C&D also repaired or replaced other valves on the pipeline that were of similar vintage.



Paul Gonzalez installing the multi-orifice valve



Mario Salgado (CSU) guiding in the multi-orifice valve

C&D and CSU forces worked around the clock for 12 days to shut down, dewater, perform valve replacements, inspect, and refill 8.2 miles of the pipeline, removing 40 pipeline flanges along the way. The La Verne Shops fabricated valve mounts and supports for the installation. Throughout the planning and shutdown periods, WSO staff worked closely with the member agencies to ensure a successful outcome. The pipeline was returned to service on time with no reported injuries. This shutdown is another example of the adaptability of WSO staff, as well as the collaboration across groups and with our member agencies, to do what it takes to ensure reliability of our system and meet our customer expectations.



Dan Conover (CSU) mans the tag line while, Crane Operator David Jenkins (CSU) pulls out the old butterfly valve