



Project: Surge Tank Replacement

Description

This project includes the replacement of one of the 500,000-gallon surge tanks on the Fort Hood Military Reservation. The contractor selected to construct the 48-inch parallel line segment shall install fittings to connect the new surge tank concurrent with the 48-inch tie in to eliminate multiple shut-downs of the 48 inch section. Each shut down of the 48-inch pipeline represents significant water usage impacts to our customers.

Purpose

The Bell County Water Control and Improvement District No. 1 owns an existing system comprised of a High Service Pump Station (HSPS) and 48-in/54-in diameter concrete steel cylinder finished water transmission main between the HSPS and a connection to its Customers' water systems. The overall 48-in/54-in transmission main is approximately 15 miles long, with the first section between the HSPS and intermediate Ground Storage Tanks (GSTs), referred to as the Surge Tanks, located at a high point being approximately 8.8 miles long, and the second section after the Surge Tanks being approximately 6.2 miles long.

The existing two 0.5 million-gallon (MG) Surge Tanks are steel tanks constructed in the 1970's and need rehabilitation or replacement. At one point the original steel roofs were replaced with aluminum dome covers. In addition, as noted in Master Plans, the capacity of these tanks is not adequate for proper hydraulic operation of the pipeline and tank system. The preliminary plan is to demolish one of the 0.5 MG Surge Tanks and construct a new 3.0 MG 130-foot diameter prestressed concrete GST on an expanded site at the same location.

The Engineer shall perform preliminary design services for the new 3.0 MG Surge Tank. The effort will include surveying and mapping, geotechnical engineering, environmental assessments, and the preparation of permanent easement drawings for the larger tank site.

Cost Estimate

\$5,300,000

Status

The engineering design provided by CDM Smith is near 90% complete.

Look Ahead Schedule and Activities

A meeting will be scheduled with Fort Hood Department of Public Works to discuss the preliminary design. Next steps will be to seek formal approval from Fort Hood and the US Army Corps of Engineers Real Estate Section. Each participating entity has been informed of the progress and asked to fund this project in the Fall of 2023.

Participation

All the WCID 1 entities except for Belton have capacity interest in the "Killeen Transmission System". Participation for infrastructure replacement is based on each entity's capacity interest.