

Construction Method: Horizontal Directional Drilling

Project: Tulalip Water Pipeline,
Tulalip Tribes and City of
Everett

Location: Everett, Washington

Project Description:

STC provided design services for a major water transmission pipeline to deliver approximately 36 mgd from the City of Everett, Washington, to the Tulalip Tribes located near Marysville, Washington. The pipeline is over 7 miles in length and traverses highly sensitive areas including wetlands, sloughs and rivers that could not be crossed with open-cut construction. A number of trenchless construction alternatives were considered during the design of the crossings of the Snohomish River, Steamboat, Union and Ebey Sloughs, and Quil Ceda Creek. After an extensive risk- and cost-based analysis, horizontal directional drilling was chosen as the preferred construction method for the pipeline installation.

STC designed four 36-inch bores for the project, totaling approximately 10,000 feet of drilling through challenging geotechnical conditions including very soft soils and open-graded river gravels, and within close proximity to bridge piles. Individual drilling lengths are 3,800 feet, 2,800 feet, 2,200 feet, and 1,200 feet. The design included substantial mitigation measures to minimize drilling risks.



Job Scope:

- ❖ Trenchless Feasibility Study
- ❖ HDD Alignment Study and Profile
- ❖ Pullback and Stress Calculations
- ❖ Cost Estimates
- ❖ Construction Schedules
- ❖ Specialized Construction Inspection



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