

GROUNDWATER MANAGEMENT PROGRAM NEW IRVINGTON TUNNEL

BASELINE Key Staff

Bruce Abelli-Amen, Project Manager

William Scott, Field Team Leader and Liaison
to Property Owners

Monika Krupa, Field Support and Data
Management

Cem Atabek, Field Support and Close-Out
Management

Status

Completed in 2017

Total Budget to Date

\$2.4 million



The project consisted of the construction of a 3.5-mile long, 8.5- to 10.5-foot-diameter water supply tunnel between Sunol Valley and Fremont in an unincorporated area of Alameda County and the City of Fremont. During the construction of the original Irvington Tunnel in the 1930's, severe groundwater inflows and impacts to surrounding groundwater resources were documented. It was anticipated that dewatering during construction of the new tunnel would also impact the surrounding groundwater levels; and therefore would impact property owners relying on groundwater resources. Baseline worked closely with the San Francisco Public Utilities Commission (SFPUC) to coordinate with potentially affected property owners and enroll the property owners in a Groundwater Management Program (GMP). Baseline began implementation of the GMP before tunneling was initiated to identify and monitor resources dependent on groundwater near the tunnel alignment and document pre-construction water supply conditions. The resources dependent on groundwater included over a hundred water supply wells, springs, and ponds that were used for domestic, biological and/or agricultural purposes. Baseline developed and implemented Groundwater Management Plans for each affected property to ensure that impacts to water resources would be mitigated through retrofitting water supply wells, providing additional water storage tanks and pumps, delivering potable water to properties, and piping dewatering effluent to properties for irrigation use.



The tunnel construction coincided with a severe drought period, and impacts to groundwater levels were more significant and widespread than expected. Ultimately new wells and water treatments systems were installed at several properties where the water supply did not readily return to pre-construction conditions. Baseline's dedicated staff worked closely with property owners and SFPUC's contractors to ensure that water supplies were consistently maintained for the surrounding properties, which helped SFPUC greatly in gaining the trust of property owners and avoiding litigation.