



## South Tani Reservoir

Interstate 76 and Dahlia Street  
Thornton, Colorado

GROUND Engineering provided quality control construction observation and materials testing services for the improvements made to the South Tani Reservoir in Thornton, Colorado. The South Tani Reservoir Dam/East Gravel Lakes Reconfiguration Project was a major construction project, which provided the City of Thornton with additional raw water storage capacity and other operational improvements by reconfiguring the existing East Gravel Lakes Nos. 1, 2 and 3 into a larger South Tani Reservoir with appurtenant facilities. The project included the construction of an embankment dam extending approximately 14,000 lineal feet; the embankment construction included the placement of approximately 1,200,000 cubic yards of compacted fill.

Key elements of the construction project included constructing a concrete lined bypass ditch and related hydraulic structures to maintain conveyance of the Burlington Ditch diversion flows to Lake No. 4 while allowing dewatering of Lake Nos. 1, 2 & 3 for construction and the excavating the interior berms dividing Lake Nos. 1, 2 & 3, and excavating and shaping the sides and bottoms to create one combined lake. Associated construction included new and modified hydraulic structures, interconnecting pipelines, pump stations and inlet works, a sedimentation basin, and the construction of access roads and site improvement.

GROUND provided geotechnical engineering services and laboratory and field testing of materials for the project included soil density testing of the embankment and associated earthen structures. We also provided a variety of material quality, mix design and strength testing for both conventional concrete, shotcrete and stabilized soils.