

19th Street Wells

HIGHLIGHTS

Groundwater contamination at potable water supply wells.

Air stripping not visually acceptable.

Eight GAC contactors were specified, including installation of a treated water pumping system and a chlorination system.

Carollo was selected to recommend a process and design facilities for treating groundwater contamination found at the San Bernardino Municipal Water Department 19th Street potable water supply wells.

It was found that conventional air stripping would create a visual nuisance to the surrounding neighborhood and would require costly treatment of emissions to meet stringent VOC emission standards. For these reasons, Carollo selected granular activated carbon (GAC) to remove the groundwater contaminants. Eight GAC contactors were specified for treatment of up to 5,600 gpm (8.0 mgd) of raw water. Each contactor has a capacity of 20,000 pounds of GAC. The raw water contains up to 20 parts-per-billion (ppb) of TCE, PCE, and Freon 11 and 12. The project included site improvements, including utilities and foundation structures. The City was responsible for all onsite construction and installation of the carbon contactors and process piping.

The project also included installation of a treated water pumping system and a chlorination system. This system included gaseous chlorine disinfection together with leak detection and scrubbing equipment.



Carollo selected granular activated carbon to treat groundwater contamination in potable water supply wells.