

Ortega Well Treatment Plant

HIGHLIGHTS

Identification of the optimum treatment alternative that will allow use of the aquifer and five wells contaminated with iron, manganese, and hydrogen sulfide.

Study conducted in three phases: preliminary investigation, pilot testing, and design.

Carollo was selected to identify the optimum treatment alternative that will allow use of the aquifer, specifically the use of five wells located in the Downtown Wellfield. The wells are mainly contaminated with iron, manganese, and hydrogen sulfide. As a result, the existing Ortega Well Treatment Plant which incorporates a Green-sand filtration process has been shut down for several years. The study will be conducted in three phases: Preliminary Investigation, Pilot Testing, and Design.

During Phase I Investigation and Preliminary Analysis, the following issues will be addressed:



Corporation Yard Well located at the City of Santa Barbara yard.

- ▶ Assess the condition of the existing wells. This task includes video well monitoring and production testing to verify the yield.
- ▶ Overview of water quality in the wells with respect to current and upcoming regulations. Both Radon and TCE are of concern.
- ▶ Evaluate the current situation of the Ortega Water Treatment Plant which has been shut down since 1991.
- ▶ Conduct additional water quality testing, including emerging chemicals.
- ▶ Identify design flows, conduct modeling of several blends of water, and analyze the treatment alternatives and their impact on the distribution system.

During Phase II Pilot testing, one or more candidate treatment alternatives will be tested at pilot-scale to verify the design parameters and generate cost data. One or several wells will be subjected to the treatment alternatives.

Phase III will result in the preparation of plans and specifications to implement the recommended alternative. The design will use City standards project steps that Carollo has recently used for the Cater Water Treatment Plant improvements design. Features include:

- ▶ Scheduled progress meetings and review submittals.
- ▶ Preparation of construction cost estimates at the 50 and 90 percent design levels.
- ▶ Full discipline services.