

## Treatment Technology Review

### HIGHLIGHTS

Desktop evaluation of arsenic treatment technologies, including C/F, IX, AA, ASM, and RO.

Site-specific arsenic treatment evaluations for 18 City wells.

Preliminary design, including cost analysis and site layouts.

The City of Hanford retained Carollo in 1989 and then again in 2004 to examine ways to reduce arsenic in the drinking water. Over the last decade, advances in water treatment technology have brought forth new products at reduced costs (e.g., arsenic-specific medias and membranes). In addition to developing cost data-specific to the City's treatment needs, non-economic criteria will also be developed in the event that one or more technologies appear equal in terms of costs. At times, these non-economic criteria (e.g., availability of operator staffing, operator certification requirements, open tanks at treatment site) can be significant concerns and more important than the economic considerations. Carollo is currently assessing treatment alternatives for the City and will include the following in a final report:



*Carollo worked with the City in 1989 to evaluate arsenic removal processes and was selected again in 2004 to re-examine the issue in light of newly developed products and technology.*

- ▶ Treatment design criteria.
- ▶ Process schematics (P&IDs).
- ▶ Equipment databases.
- ▶ Operation and maintenance needs.
- ▶ Preliminary costs.
- ▶ Typical site layout.
- ▶ Project schedule and funding options.