

## Arsenic Mitigation Study

### HIGHLIGHTS

Four wells (total capacity of 8 mgd) were evaluated to determine the most appropriate arsenic mitigation strategy.

Mitigation strategies ranged from blending to wellhead treatment.

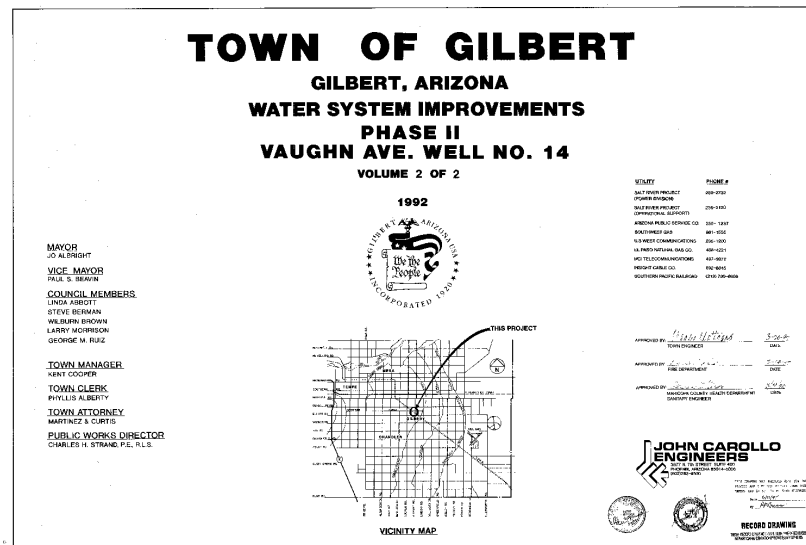
Arsenic specific media was estimated to reach exhaustion in about 1 year.

Carollo was hired by the Town of Gilbert to evaluate arsenic treatment options for several area wells and determined a plan that would ensure compliance with the Arsenic Rule. Historic water quality data from 1994 to 2003 was collected, evaluated, and summarized for each well site.

Arsenic levels ranged between 6 and 33 ppb, indicating that some “cleaner” wells could be used as blending wells. Total production capacity for the wells examined was approximately 8 mgd. Groundwater supplies are critical to the Town of Gilbert, in order to meet peak summer demands and also winter demand when surface water (from canals) is no longer available.

Wells were prioritized in terms of system flow and pressure requirements. Then, a desktop analysis was performed to determine the most appropriate arsenic mitigation option. Costs were developed for each well once a mitigation strategy had been selected. Strategies for arsenic mitigation ranged as follows:

- ▶ Well rehab (e.g., new casing and/or well depth).
- ▶ Blending of high arsenic wells with low arsenic wells.
- ▶ Complete wellhead treatment (e.g., coagulation/filtration or arsenic specific medias).



*In 1992, Carollo provided design services to upgrade Well No. 14. In 2003, Carollo followed up by providing site evaluation for this well and several other wells in regards to an arsenic mitigation study.*