

Sitewide Groundwater (Operable Unit [OU] 5): Groundwater contaminants were initially released in the environment at numerous locations at Lowry Air Force Base. The primary origin of contaminant release was into the storm sewers from several on-base facilities including an auto hobby shop. Other likely sources of contamination include:

- accidental spills or leaks of solvents around firing range facilities
- disposal of solvents into septic systems at the firing range
- leakage from a storm sewer in the Headquarters area
- accidental spills or leaks at the fuel storage area in the vicinity of Uinta Street
- releases related to fire training activities
- leakage from fuel tanks at the Yosemite Street Gate Site

All of the impacted groundwater was grouped into one unit. Operable Unit 5 (OU 5) is defined as all areas within and adjacent to Lowry Air force Base where groundwater has been impacted by Air Force activities. The Operable Unit 5 groundwater contamination includes two plumes:

- Main Trichloroethylene (TCE) Plume, originating at the former auto hobby shop and Building 1432 in the north central portion of the Base; four leaking underground storage tanks (USTs) were removed from the north side of former Building 1432 in 2002
- Tributary Outdoor Firing Range Trichloroethylene Plume, originating in the old firing range facilities near the eastern Base boundary

In 2002, the Air Force privatized most of the environmental cleanup efforts, turning management over to the Lowry Redevelopment Authority and its contractor, Lowry Assumption, LLC. Remedies to accelerate groundwater cleanup include:

- injecting oxidizing reagents to destroy chlorinated solvents
- injecting a potassium permanganate solution throughout the entire plume, both on- and off-base
- ongoing groundwater monitoring

Trichloroethylene cleanup began in October 2004, and a state environmental covenant was issued in January 2006. While the ongoing, aggressive groundwater treatment is the best way to mitigate the long-term concerns, the Colorado Department of Public Health and Environment requires that all new construction built over the groundwater plume include sub-slab depressurization systems to further reduce any potential for exposure.

Monitoring indicates that concentrations in the plumes have been significantly reduced and it appears that contamination moving from the source areas to the downgradient plumes has been limited. These concentration reductions are likely the result of a combination of all remedial efforts to date, as well as natural attenuation processes.