

# Fort Huachuca

## [Department of Defense \(DoD\) Site](#)

### Boundaries:

[Fort Huachuca](#) is located west of the town of Sierra Vista in southeastern Arizona on the western flank of the San Pedro River Valley and consists of an irregularly shaped area of 115 square miles bisected by Arizona State Highway 90. The installation is divided into the East Range, West Range and the South Range.

### Site Status Update:

The Army [Military Munitions Response Program](#) (MMRP) began a [remedial investigation \(RI\)](#) in 2009 of the practice mine field site near the airport (FTHU 007) and the eastern artillery buffer zone range (FTHU 013) also known as EAA Range 2. The remedial investigation involves walking the site completing geophysical transects, selecting grids for further subsurface investigation and incremental sampling of the soil for munitions constituents.



**Geophysical Investigation and Incremental Sampling of the Surface Soil**

One Installation Response Program (IRP) site remains under long term monitoring. The South Range Landfill (FTHU 010) has three groundwater [monitoring wells](#) and two [leachate](#) wells that are sampled annually. Recently, two of the wells have gone dry and were not able to be sampled. No contaminants above the [Aquifer Water Quality Standards](#) (AWQS) have been detected during the previous sampling history from the two leachate wells and three groundwater monitor wells.

A Decision Document supporting the change in monitoring status and summarizing the remedial investigation history at the South Range Landfill was drafted in 2008, but has not been finalized. The document includes tables of contaminant monitoring and figures from the investigation.

A draft Final Five-Year Review (FYR) for all of the Environmental Restoration Program sites, UST sites and Military Munitions Response sites was submitted to the Arizona Department of

Environmental Quality (ADEQ) in April 2010. ADEQ commented and has not received the Final FYR report as of December 2010.



**South Range Landfill**

### **Community Involvement Activities:**

No community involvement activities are planned at this time.

### **Site History:**

**1877 to present:** [Fort Huachuca](#) has been an active U.S. Army Post since 1877. In 1971 the post became home of the U.S. Army Intelligence Center and School. The Strategic Communications Command became the U.S. Army Communications Command in 1973, changing to the U.S. Army Information Systems Command in 1984. In 1990, the U.S. Army Training and Doctrine Command ran the post. Now the [U.S. Army Intelligence Center](#) operates the post. The current primary mission is intelligence training and activities involving electronic and communication signals. Fort Huachuca is not a federal Superfund site. Funding for the [Comprehensive Environmental Response, Compensation, and Liability Act](#) (CERCLA) cleanup comes from the Army [Environmental Restoration Program](#) (ERP) formally called the Installation Restoration Program (IRP).



**Old Post Barracks at Ft. Huachuca**

**1940-1975:** The South Range Landfill (FTHU 010) consists of two trenches that were used intermittently from 1940 to 1975. The South Range Landfill is located along Garden Canyon Road approximately 1.5 to two miles west of Sierra Vista and two miles south of Winrow Avenue. It is believed that while it was in use, pesticides and herbicides were deposited in the landfill along with other household garbage.

**1990's:** Initial environmental assessments in the early 1990's identified 36 sites for further investigation under the [DoD IRP](#) program.

**1992:** Two leachate wells were drilled at the South Range Landfill in 1992 and have been sampled continuously

**1999:** An investigation into the groundwater began with the installation of a groundwater monitor well in September 1999 at the South Range Landfill.

**2000:** A decision document closing out six sites was signed off by ADEQ in October 2000 including the Tank Trail Dump Site-FTHU-64, TMP Automatic Washrack-FTHU-68, TMP Aboveground Waste Oil Tank-FTHU-69, Steam Cleaning Facility-FTHU-70, Building #30033 Pesticide Mix-FTHU-74, and the AMSA Washrack-FTHU-41 and 75. Confirmation sampling showed that none of the concentrations of contaminants detected exceeded the Arizona [soil remediation levels](#) or any regulatory requirements.

**2001-2002:** Two additional groundwater monitoring wells were installed at the South Range Landfill in February 2001, and a fourth in March 2002. Groundwater monitoring well MW4 was placed in a [perched aquifer](#) and is no longer being monitored. Sampling of the groundwater has not detected contaminants above the Aquifer Water Quality Standards.

**2002:** A decision document was signed by ADEQ in March 2002 closing out four more IRP sites including the Libby Army Airfield Fire Training Area-FTHU-52, Vehicle Paint Booth-FTHU-66, and the TMP Drum Storage Area-FTHU-67. Other IRP sites were either transferred to the [ADEQ Leaking Underground Storage Tank Program](#) (USTs) or were closed out due to lack of any required remediation. The [ADEQ Hazardous Waste Program](#) oversees the permit at the East Range Open Burn/Open Detonation area.

**2004:** The East Range Mine Shaft was monitored by three groundwater monitor wells and is currently undergoing FYRs. No detections of [volatile organic compounds](#) (VOCs) have been reported in groundwater samples from this site at any time during monitoring. A decision document summarizing the remedial investigation history and the change of status to FYRs was signed by ADEQ on November 15. Inspections of the East Range Mine shaft are ongoing and conducted annually to ensure that the landfill liner cap and fence are still in place.

The East Range Mine Shaft is located in a remote area of the East Range approximately 3 miles north of Sierra Vista. The shaft is believed to be approximately 200 feet deep and is now filled to grade with soil. A polyethylene liner was placed over the Mine Shaft in November 2000 and covered by 18 inches of dirt. Material believed to be dumped into the shaft includes, but is not limited to petroleum based fuels, small aircraft/drone bodies and unexploded munitions. Waste was disposed of by depositing material into the shaft and burning it by adding gasoline and diesel fuel, until the practice was stopped in about 1980. Because of the potential for waste-derived contaminants to migrate to the regional aquifer, three groundwater monitor wells were installed at the site and sampled from 1990 to 2004.

**2005:** Fort Huachuca began a site investigation of eighteen closed or transferred ranges under the MMRP. A kick-off meeting was held on September 21.

**2008:** The MMRP site investigation at closed and/or transferring ranges was completed in January. The only remaining MMRP concerns were at the mine field near the airport (FTHU 007) and the Eastern Artillery Range II (FTHU 013) where munitions debris in the form of metal fragments on residential property near the active East range have been found.

**2009:** An RI was begun of the practice mine field site near FTHU 007 and FTHU 013 also known as EAA Range 2.

**2010:** The RI for the East Artillery Range 2 has not been completed due to issues with resampling for explosives using Incremental Sampling and transect spacing. A draft FYR report for all of the ERP sites including USTs and munitions sites was completed in April 2010.

### **Contaminants:**

The contaminants of concern in soils at the South Range Landfill and East Range Mine Shaft include [organochlorine pesticides](#), several metals, several VOCs, [munitions](#) constituents, and [petroleum hydrocarbons](#). Contaminants of concern may change as new data become available.

### **Public Health Impacts:**

Groundwater monitor wells at the landfill are monitored annually. Contamination is limited to the subsurface soil. Groundwater has not been impacted. There are no known health risks from this site.

### **Site Hydrogeology:**

The Fort Huachuca Army Post lies on the west side of the San Pedro River Valley Basin. The basin is formed by northwest-trending mountain blocks, and bounded to the west by the Huachuca Mountains. [Alluvial](#) deposits from the basin are derived from the adjacent mountains and are generally composed of a mixture of conglomerate, sandstone, gravel, sand, silt, and clay. The basin fill has a thickness up to 350 feet, subdivided into upper and lower units, and overlies the Pantano Formation. The Pantano Formation is comprised of well cemented gravel, conglomerate, sandstone and siltstone and has a very low permeability.

The regional aquifer is reported by the [United States Geological Survey](#) and the [Arizona Department of Water Resources](#) to be approximately 300-500 feet below the land surface. The general direction of regional groundwater flow is to the east towards the San Pedro River.

**Contacts:**

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\*In Arizona, but outside the Phoenix area, call toll-free at (800) 234-5677.

**Information Repository:**

Interested parties can review site information at the ADEQ Main Office located at 1110 W. Washington Street in Phoenix. Please contact (602) 771-4380 or (800) 234-5677 to schedule an appointment with 24-hour notice to review these documents. Once all documents requested have been collected, you will be contacted for a review Monday through Friday from 8:30 a.m. to 4:30 p.m. at the ADEQ Records Management Center, 1110 W. Washington Street in Phoenix, AZ.