

# LONE STAR ARMY AMMUNITION PLANT

Superfund Site

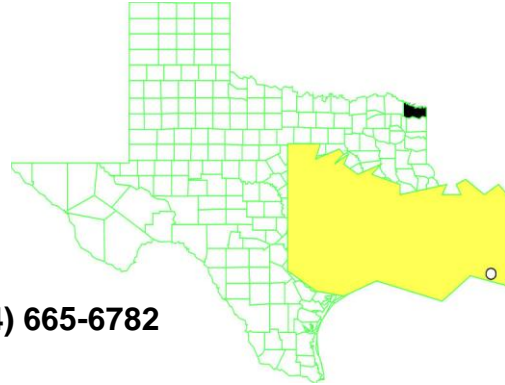
Texarkana, Bowie County, Texas

EPA Region 6

EPAID: TX7213821831

Site ID: 0603609

State Congressional District: 04



Contact: Shawn Ghose M.S.,P.E., ASME ( 214) 665-6782

Updated: Last revised 11/2011

(Mar 2012)

## Background

The Site is owned by the U.S. Army and operated by Day and Zimmerman, Inc.

The Plant began operations in 1942.

Industrial operations include loading, assembling, and packaging of munitions components.

After adding the Lone Star Army Ammunition Plant (LSAAP) Site to the National Priorities List (NPL), the EPA assessed Site conditions and determined that no other immediate actions currently are necessary to protect public health and the environment.

During 1993 and 1994, it was determined that there exists an additional lower aquifer. An additional investigation began in the summer of 1995 to determine the nature and extent of contamination and is ongoing. The Final Sampling and Analysis Plan was submitted to EPA on April 26, 1996; it has been reviewed, and approved with comments.

The Remedial Investigation (RI)/Risk Assessment (RA) Report was submitted to the EPA on March 18, 1997. EPA concurred on the Final RI/RA Report in January 1998.

The Army submitted the Draft Focused Feasibility Study (FFS) for the ODA to EPA on December 30, 1997. The Draft FFS proposed a Presumptive Remedy for Municipal/Military Landfills, which utilizes containment technologies including landfill cover system, erosion control measures, institutional controls, Clearing exposed surficial source materials.

The Superfund site at LSAAP is in the Old Demolition Area (ODA) . The ODA is located in the south-central part of the larger LSAAP facility.

The components of the Remedy in the August 1999 ROD were:

- Regrading, leveling, and placing a soil cover over the Old Demolition Area (ODA)
- Constructing erosion control berms along the northern and eastern ODA perimeters
- Revegetating the soil cover and the berms
- Periodic inspection and maintenance of the soil cover and the berms
- Installing additional monitor wells
- Performing ground water and surface water monitoring
- Implementing land use restrictions, access restrictions, posting warning signs and restrictions on the extraction and use of groundwater from the study area
- Evaluating the effectiveness of the selected remedy every five years

The requirements of the ROD were satisfied by the Remedial Action which started in August 2001 and completed in May 2002.

Monitoring began August 2003. The First Five Year Review was completed in August 2006 and found the executed remedy to be protective of the human health and the environment

## **Current Status**

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No A Direct Final Notice of Deletion (DFND) was sent to Texas Commission on Environmental Quality (TCEQ). The TCEQ concurrence is awaiting resolution of land transfer to a redevelopment authority by the Army (BRAC). The ODA land use issue will be resolved by means of an Explanation of Significant Difference (ESD) or construction of a fence. The ODA at LSAAP was pulled out of the early transfer to Red Rivers Authority. The early transfer FOSET was signed by Gov Perry on October 1, 2010. BRAC (Army) has drafted an ESD to show the changing condition due to transfer of property and the ICs required to protect Human Health. As per BRAC the ODA property will transfer to the Red River Authority after the Site has been Deleted. EPA received an ESD from BRAC in December 2010. **The ESD is being reviewed** BRAC was reminded to prepare the 2<sup>nd</sup> Five Year Review in 2011.

The Army contractors have completed the remedial action and issued the engineers reports. The Preliminary Close-out Report was issued on September 24, 2002. In FY 2006, the site's first 5yr review was completed. Annual Monitoring report of Sept 2009 shows that compliance goals for human health and the environment were met during the sampling event.

The ODA annual ground water monitoring report was received on July 24, 2011.

The Annual Report showed all COPECS to be below below Sample Detection Limits (SDLs)

**The 2<sup>nd</sup> Five Year Review was completed on September 27, 2011.**

## **Benefits**

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The 19-Acre ODA lies within a surface water drainage basin of approximately 360 acres. Two intermittent drainages are located down gradient of the ODA and discharges to the confluence with East Fork Elliot Creek. East Fork Elliot Creek flows in a southerly direction for approximately 1.2 miles before exiting LSAAP; then flows 3.9 miles to the confluence with Wright Patman Lake (a recreational lake), about 5 miles south of the ODA.

The selected remedy will eliminate direct dermal exposure to source material, provide soil erosion control to prevent future superficial exposure of source materials, and minimize infiltration and resulting leaching of source material chemicals to groundwater.

The integrity of the selected remedy is safeguarded by the performance of continuous maintenance, installation of additional monitoring wells, and performing groundwater and surface water monitoring. The re-use of the ODA is its continued incorporation as restricted public access Army controlled property. A change in current use or transferring the property outside of military control will trigger a re-evaluation of risk and remedial objectives. Formal evaluations of the effectiveness of the selected remedy will be performed at least every 5 years for as long as hazardous wastes continue to be contained on-site.

## **National Priorities Listing (NPL) History**

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### **NPL LISTING HISTORY**

**Site HRS Score: 31.85**

Proposed Date: 10/01/84

Final Date: 7/22/87

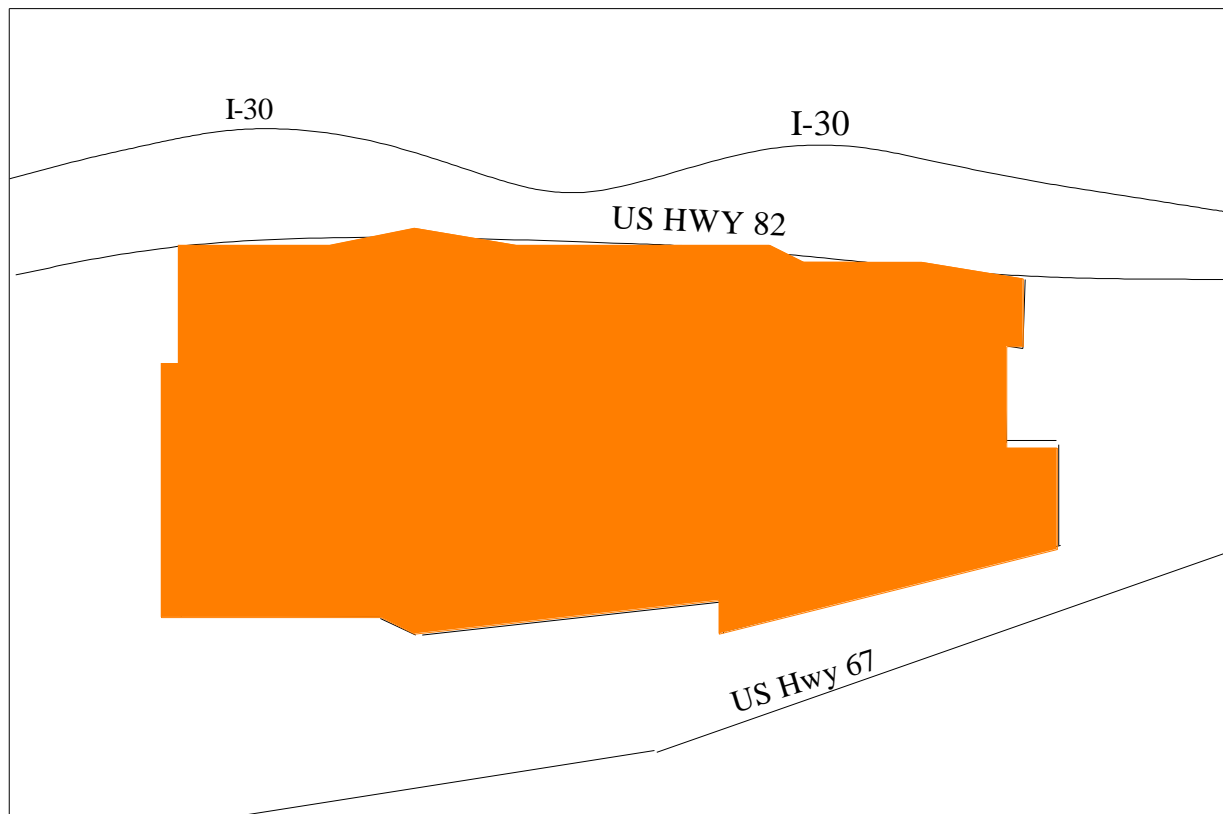
NPL Update: No. 2

The U.S. Army contested the Hazardous Ranking System score based on new sampling results indicating lower concentrations of contaminants. The EPA noted that the MITRE (Site assessment) model does not reflect concentrations, and did not re-score the site.

## Site Description

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- Location:** The Site is located in Bowie County, approximately 12 miles west of Texarkana.
- Population:** The Site is located in a sparsely populated, rural area.
- Setting:** Old demolition area (ODA) covers approximately 19 acres. The Site was used for disposal of explosives by detonation. Elevated levels of explosives and heavy metals were found in the soil and groundwater. There are Domestic water wells located outside northern and southern boundaries.
- Hydrology:** The installation is situated on a ridge, causing drainage to the north and south. The ground water table is shallow, and drainage is to nearest creek. The old demolition grounds are 800 feet from East Fork Elliot Creek. Contamination has been indicated in creek.



Lone Star Army Ammunition Plant

## Wastes and Volumes

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The principal pollutants at the plant are Tetryl (an explosive) in the soil at concentrations up to six parts per million (ppm); mercury, 7.4 parts per billion (ppb); chromium, 537 ppb; and lead, 770 ppb in the ground water beneath the Site.

No documentation exists for estimation of waste volumes.

## Health Considerations

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The contaminants of concern include explosives and heavy metals, which have been detected in the soils and groundwater. No contaminants of concern have migrated off base. Potential toxicity risks exist for base employees via ingestion through direct contact with contaminated soils and groundwater. Safety risks exist via exposure to unexploded ordnance, making excavation infeasible. Human health risk minimization efforts under investigation by the Army are containment oriented. Off-site, several domestic wells are located nearby.

The East Fork Elliot Creek drains into Wright Patman Lake, a major recreational lake

## Record of Decision (ROD)

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ROD Signed: August 31,  
1999

The component of this ROD includes:

- Clearing exposed surficial source materials.
- Regrading, leveling, and placing a soil cover over the Old Demolition Area (ODA)
- Constructing erosion control berms along the northern and eastern ODA perimeters
- Revegetating the soil cover and the berms
- Periodic inspection and maintenance of the soil cover and the berms
- Installing additional monitor wells
- Performing ground water and surface water monitoring
- Implementing land use restrictions, access restrictions, posting warning signs and restrictions on the extraction and use of groundwater from the study area
- Evaluating the effectiveness of the selected remedy every five years

The estimated cost for the selected remedy, periodic inspection and operation and maintenance is \$1,664,650.

Selection of the source containment remedy for the ODA is based on continued Army control of the LSAAP, and therefore, limited public access; land use at LSAAP remaining commercial and/or industrial; and the land remaining in control of the Army until LSAAP is closed completely (no partial transfers of land). The EPA, the TCEQ and the Army agreed that should any of the listed conditions change, the ROD would be re-opened and the ODA risk assessment would be re-evaluated for appropriate receptors. Therefore, the selected remedy is protective of human health, welfare, and the environment, complies with the Federal and State requirements that are legally applicable or relevant and appropriate to the remedial

actions, and is cost effective.

## **Site History**

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The Remedial Investigation/Feasibility Study (RI/FS) Phase for the ODA was finalized in December 1997.

The Focused Feasibility Study for the ODA was finalized in March 1998.

The Proposed Plan was finalized in June 1998.

A Public Meeting addressing the Proposed Plan for the ODA was held on July 7, 1998. The Public Comment Period extended from June 25, 1998 through August 7, 1998.

The submitted a draft ROD to EPA and Texas Commission on Environmental Quality (TCEQ; Formerly TNRCC-Texas Natural Resource Conservation Commission) on September 22, 1998.

The EPA Region 6 Administrator signed the final ROD for the ODA on August 31, 1999.

The facility Commander signed the Installation Action Plans.

The facility issued the final bid package and awarded the remediation contract.

## **Contacts**

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Region 6 Public Liaison (EPA):	Donn R. Walters, (214) 665-6483
Military Contact:	Ross Ramsauer LSAAP, (903)334-2594
EPA Toll Free Telephone Number	1-800-533-3508

## **Community Involvement**

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Community Involvement for this Federal Facility Site is the responsibility of the U.S. Army. The RI, FFS, Proposed Plan and ROD for the LSAAP ODA were released to the public in January 1997, March 1998, May 1998 and September 1999, respectively. These documents are available to the public in the administrative record at LSAAP and at information repositories maintained at the Texarkana Public Library and Maud Public Library. Number of Citizens on EPA mailing list: 30. Site Repository: Texarkana Public Library.

## Site Map

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