

Washrack, Wood Dump, Farm Fuel, and Former Army Landfill Sites

Former U.S. Disciplinary Barracks (USDB),
Lompoc, California

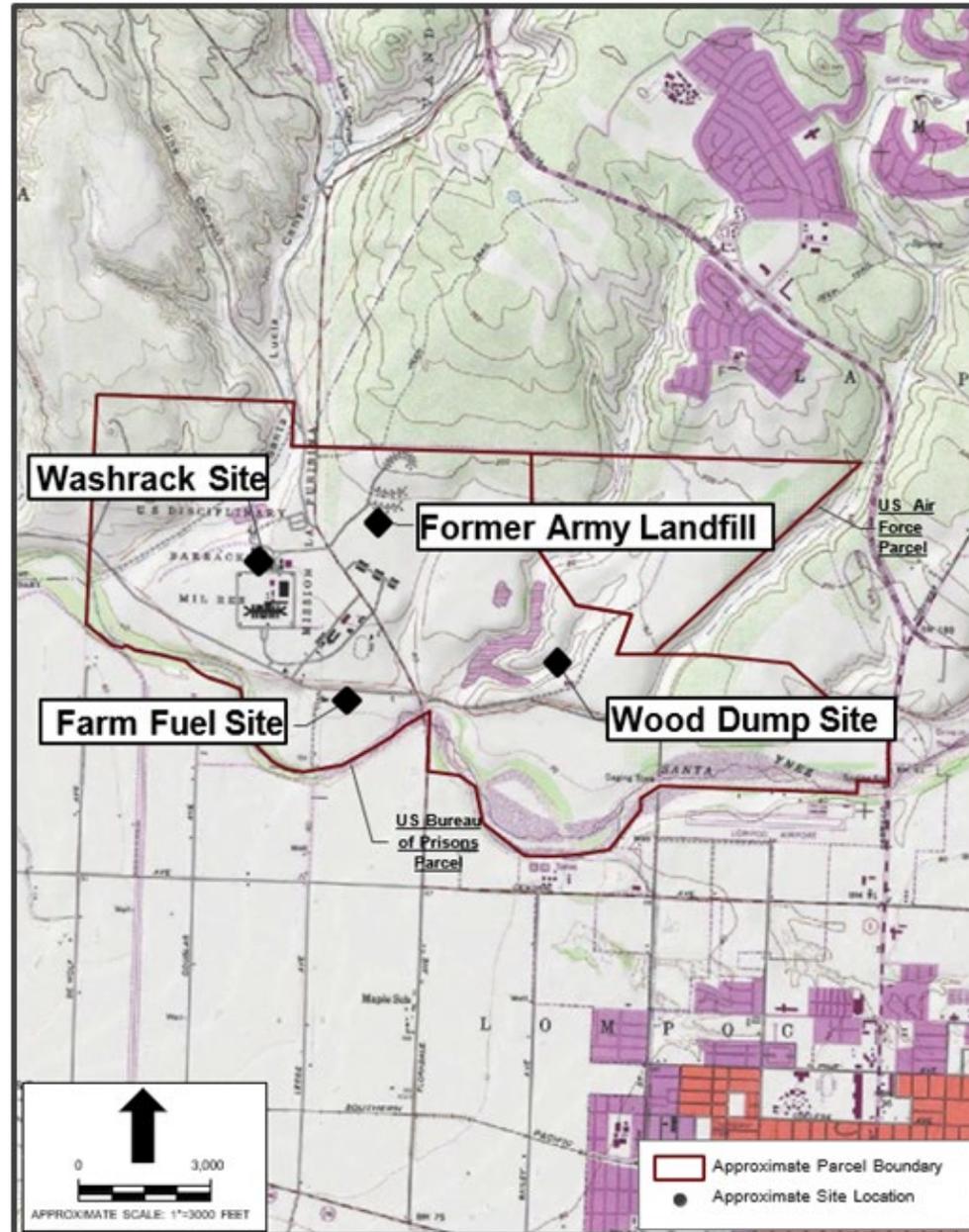
September 10, 2024

PREPARED ON BEHALF OF THE U.S. ARMY CORPS OF ENGINEERS

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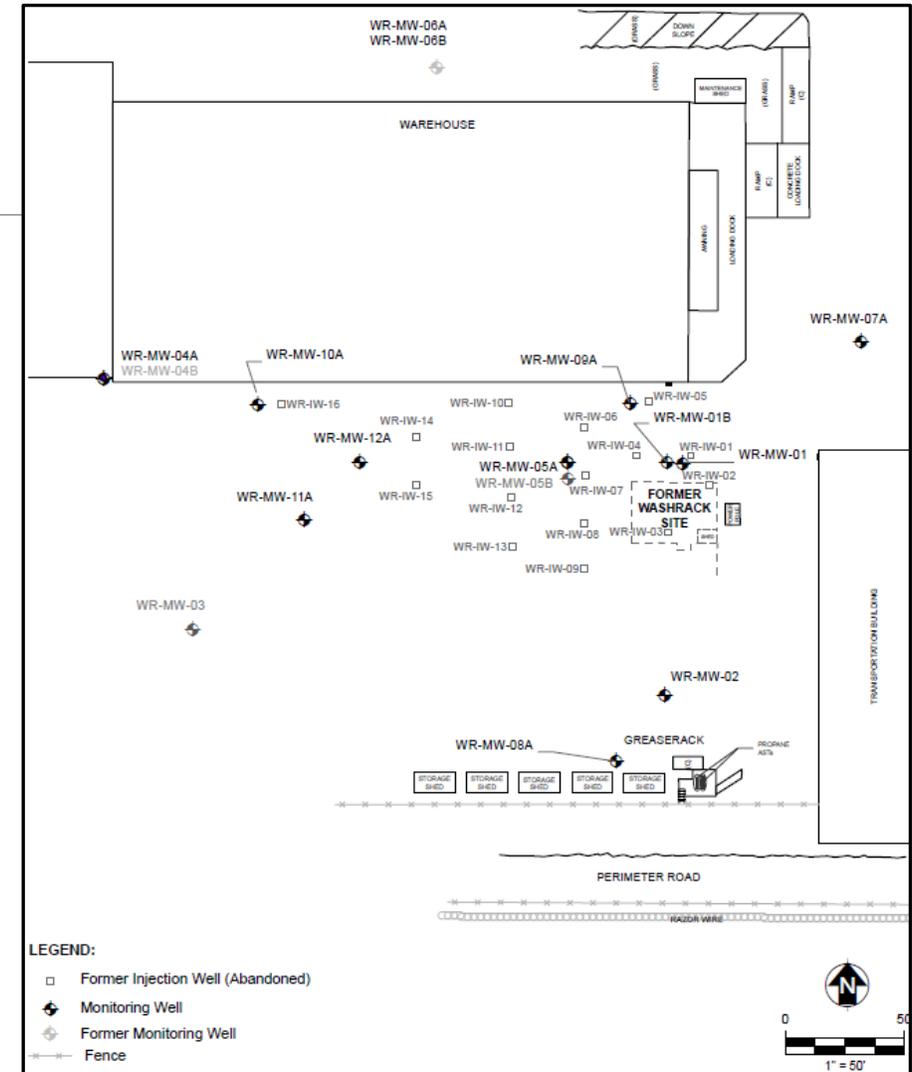
Location and Land Use

- USDB Lompoc is a former Army disciplinary barrack within the city limits of Lompoc, Santa Barbara County, California, approximately 2.5 miles from the central business district.
- The U.S. Bureau of Prisons (BOP) and U.S. Air Force are the landowners of the former USDB. Currently the U.S. Bureau of Prisons operates the onsite Federal Correctional Complex (FCC).
- The Washrack Site is immediately adjacent to the fence line of the high-security penitentiary. The Wood Dump Site, located in the southeast portion of the Facility boundary, is a former wood products disposal site. The Farm Fuel Site is located south of the Federal Correctional Institution. The Former Army Landfill is located south of the Capehart Housing Complex.
- The BOP controls land use at the sites, and the sites are expected to remain under the FCC's control, with limited public access. Adjacent land uses are primarily agricultural, undeveloped, or light industrial.

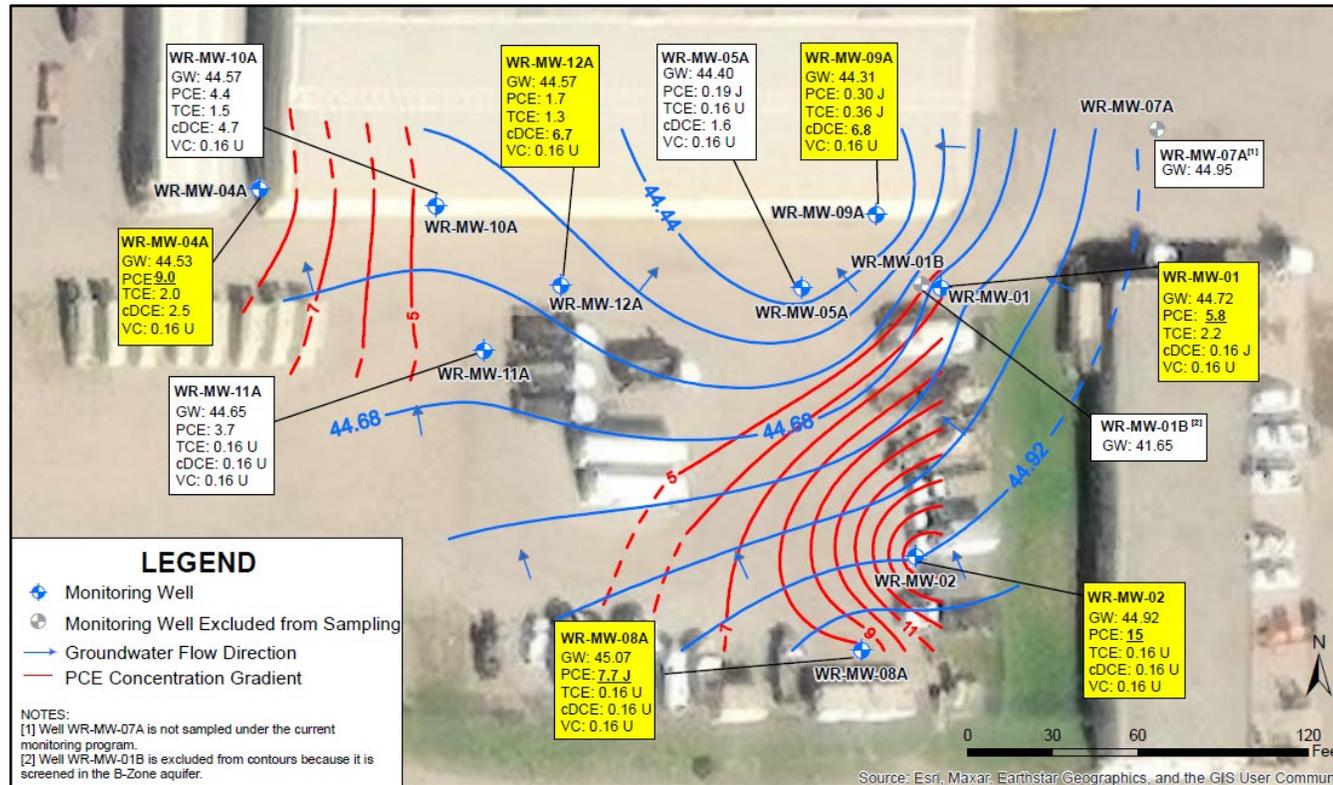


Washrack Site History

- From the 1940s to the 1990s, the Washrack Site was used for cleaning and servicing USDB and BOP vehicles.
- Chlorinated solvents used as cleaning and degreasing agents lead to groundwater contamination between the warehouse and penitentiary fence line.
- In 2002, a Time Critical Removal Action was initiated to treat the contaminant plume using a process referred to as enhanced reductive dechlorination (ERD).
- ERD involves injecting a biodegradable organic carbon source to create an anaerobic subsurface environment to degrade the volatile organic compounds (VOCs).
- The ERD program effectively reduced contaminant concentrations. However, groundwater monitoring data show that contaminants still exist at concentrations above the federal and California Maximum Contaminant Levels (MCLs).



Nature and Extent of Contamination



The primary COCs at the Washrack Site are in groundwater and include chlorinated solvents such as tetrachloroethene (PCE) and trichloroethene (TCE), and its daughter product, cis-1,2-dichloroethene (cis-1,2-DCE).

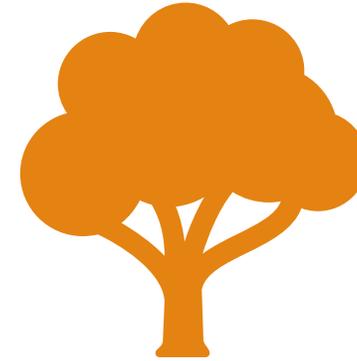


Groundwater at the Site is about 45 feet below the ground surface. The contaminant plume is approximately 200 feet long and extends northwest toward the onsite warehouse.

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Based on the nature of the contamination, current land use conditions, and expected future use of the site, there are no exposure pathways for humans to encounter contaminated groundwater.



No ecological receptors (protected plants and animals) are identified at the site.

Human and Ecological Pathways

Summary of Alternatives

Alternative 1 – No Action; Cost: \$0

- Assumes no action would be taken related to the Washrack Site. The No Action Alternative is required by CERCLA to serve as a baseline for comparison with other remedial alternatives.

Alternative 2 – Groundwater Extraction and Treatment; Cost: not previously evaluated

- This remedial alternative involves installing an extraction and treatment system to capture and treat the contaminant plume and minimize migration. Hydrogeology and the amount of VOCs absorbed in the soil would greatly affect its effectiveness in reducing contaminant concentrations to near or less than MCLs. Installation and operation of the extraction and treatment system could lead to increased security risks near prison boundaries and inmates.

Summary of Alternatives

Alternative 3 – Enhanced Reductive Dechlorination (Previously Implemented Remedial Alternative); Cost: \$1.5 Million at time of implementation in 2002

- Remedial Alternative 3 has already been implemented at the Site through the TCRA and has successfully reduced COC concentrations to levels near MCLs. The TCRA was implemented with minimal security risks compared to Remedial Alternative 2 due to minimized time and frequency of contact with prison inmates. This remedial alternative was easy to implement and more cost-effective than the groundwater extraction and treatment remedial alternative.

Washrack Site Preferred Remedial Alternative

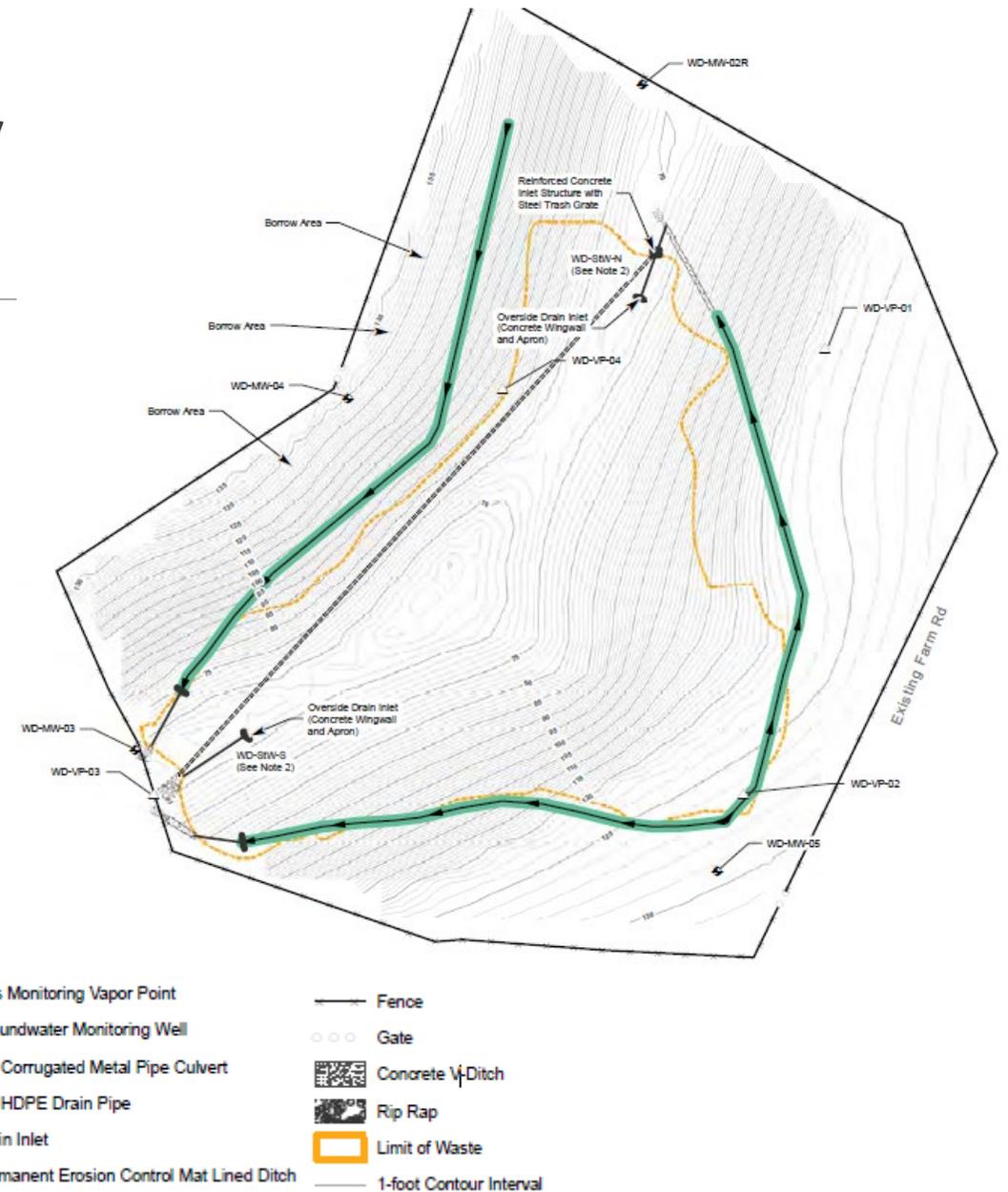
- The preferred final remedial alternative is to re-implement Remedial Alternative 3, involving additional ERD injections and monitored natural attenuation with long-term monitoring (LTM). The estimated cost for additional injections is approximately \$2M. However, the ERD injections are expected to reduce contaminants of concern (COC) concentrations in groundwater to levels below the MCLs in a timely and cost-effective manner.
- Groundwater LTM is necessary to confirm that the remedy is functioning as intended and the remedial action objectives are met.



Image Source: KERAMIDA

Wood Dump Site History

- The Wood Dump was created by infilling a southwest-flowing 60- to 70-foot-deep drainage with wood products and other wastes between 1967 and 1978.
- In 2004, Site mitigation was performed as a Non-Time Critical Removal Action and included culvert rehabilitation, an engineered soil cover (cap), an erosion/drainage control berm to stabilize the cap, and enhanced drainage infrastructure under the landfill.
- After completion of the mitigation actions, a Post Site Mitigation Maintenance and Monitoring Plan for the Wood Dump Site was developed to address groundwater, landfill gas, and stormwater monitoring; soil cover inspections and repairs; vegetation and surface water controls; site security features; and the reporting requirements.
- Maintenance and monitoring is currently on-going under the Post Site Mitigation Maintenance and Monitoring Plan as amended in 2014.



Nature and Extent of Contamination



There are no COCs in ambient air, soil, sediment, or groundwater.



Site investigations and monitoring data indicate that the Wood Dump mitigation activities were successful in preventing exposure to buried waste, and there is no unacceptable risk to human health or the environment.



The Site does not support unlimited use/unrestricted exposure (UU/UE) because buried waste remains in place. Primarily construction debris (wood, bricks, concrete) and some organic matter (i.e. grasses)



Summary of Alternatives

Alternative 1 – No Action; Cost: \$0

- Assumes no action would be taken related to the Wood Dump Site. The No Action Alternative is required by CERCLA to serve as a baseline for comparison with other remedial alternatives.

Alternative 2 – Excavation; Cost: \$10.5 Million

- This remedial alternative includes excavating and removing all waste material from the Wood Dump Site. The excavated material would be transferred and disposed of at a permitted waste disposal facility. The Site would then be graded to match the surrounding topography and re-vegetated. This alternative would achieve site closure.

Summary of Alternatives

Alternative 3 – Soil Cover and Drainage System Improvements (Previously Implemented Remedial Alternative); Cost: \$700,000 at time of implementation in 2004

- Mitigation actions associated with Remedial Alternative 3 have been implemented through the NTCRA to address solid waste concerns and complete site restoration at the Wood Dump. Mitigation involved supplementing the existing landfill cover with an engineered soil cap, installing surface water controls, and maintaining and monitoring the Site for long-term protectiveness.

Alternative 4 – Long-term Monitoring via Mitigation and Monitoring Plan Cost: \$250,000

- This remedial alternative includes long-term monitoring following the Post Site Mitigation Maintenance and Monitoring Plan, as amended in May 2014, LUCs (Institutional Controls and Engineering Controls).

Wood Dump Site Preferred Remedial Alternative

- The NTCRA and the Post Site Mitigation Maintenance and Monitoring Plan implementation addressed the potential contaminant exposure pathways at the Wood Dump Site, and there are no current risks associated with the buried debris. The updated Preferred Remedial Alternative (Remedial Alternative 4) for the Wood Dump Site is long-term monitoring following the Post-Site Mitigation and Monitoring Plan, as amended in May 2014, and adoption of Land Use Controls (LUCs).

Farm Fuel Site History

- The Farm Fuel Site contained three underground storage tanks (USTs) installed in the 1950s and used to store unleaded gasoline, regular gasoline, and waste oil.
 - The USTs were removed in 1990, with subsequent site investigations and a soil removal action performed over the next decade. Post-removal action results identified one VOC in groundwater (1,2-dichloroethane [DCA]) as the only Site COC.
 - A TCRA that included ERD was performed at the Farm Fuel Site in 2002, and by 2008, it had successfully reduced VOCs in groundwater to below MCLs.
 - The remaining contaminants above MCLs in groundwater include arsenic, iron, and selenium (all considered background or by-products of the ERD progress).
 - In 2009, the Central Coast Water Board approved the closure of the Farm Fuel Site under state regulations.
 - The 2009 Closure Documents served as a form of LUC for the Site because minor waste concentrations remain in groundwater. LUCs are also outlined in the Complex Supplement for the FCC Lompoc property.
- The preferred final remedial alternative to memorialize the LUCs that explicitly prohibit future use of groundwater or the installation of shallow zone wells at the Farm Fuel Site.

Former Army Landfill Site History

- The U.S. Army constructed and used the FAL as a sanitary landfill from the early 1940s to the late 1950s when the Capehart housing was constructed.
- Site investigations were performed from 1998 to 2000 and included a geophysical survey, soil gas survey, soil sampling, and groundwater sampling.
- The investigations concluded that chemical concentrations (primarily arsenic in soil) were greater than residential risk-based screening levels, but less than screening levels for future construction workers (the most likely to be impacted in the future).
- In 2000, the site received a No Further Action (NFA) designation with the condition the site would be periodically reviewed for changes in site conditions.
- During a 2004 periodic inspection, rodent burrowing activity was observed, which resulted in buried waste material being brought to the surface. This prompted the expansion of the maintenance and monitoring program.
- In 2005, ground squirrel burrows were backfilled using the waste materials brought to the surface and adjacent soil, and an 8-foot-tall chain link perimeter fence with locking gate and “no trespassing” signs were installed.
- The maintenance and monitoring program was formalized in the 2006 Technical Memorandum on Restoration of Site Conditions and is ongoing.
- Recent repairs in 2024 include re-seeding the landfill and the installation of owl boxes for rodent control.

Nature and Extent of Contamination



The landfill encompasses about 2 acres and contains waste buried at a depth of approximately 7.5 feet below ground surface.



The 2000 Site Investigation Report determined the excess risk at the Site for residential receptors is almost entirely attributable to the arsenic and lead concentrations in one subsurface sample at 5 feet below ground surface; no risk screening criteria were exceeded for the construction worker/industrial use scenario.

Former Army Landfill Preferred Remedial Alternative

- Currently, the Former Army Landfill Site is designated as NFA with waste containment by soil capping. The preferred final remedial alternative to memorialize the post-NFA Mitigation and Monitoring Plan outlined in the 2006 Technical Memorandum on Restoration of Site Conditions and LUCs to restrict residential land use of the area.



For Additional Information

For electronic versions of the Proposed Plan and other relevant site-specific documents in the Administrative Record, please contact Kyle.Russell@calibresys.com

or visit the Lompoc Public Library website:

[Former U.S. Disciplinary Barracks Lompoc, CA | Lompoc, CA \(cityoflompoc.com\)](#)

Hard copies are also available at the Lompoc Public Library located at 501 E North Ave, Lompoc, CA 93436



Open Forum for Public Comment



The Army invites you to comment on the Proposed Plan for the Washrack, Wood Dump, Farm Fuel, and Former Army Landfill Sites.

Oral comments received during this meeting will be recorded and official responses will be provided in the forthcoming Decision Document.

Written comments may also be submitted to:

Attn: Kyle A. Russell
BRAC Environmental Coordinator
CALIBRE Systems
150 West Park Loop, Ste 330
Huntsville, AL 35806-3073
Kyle.Russell@calibresys.com

The 30-day public comment period ends on October 5, 2024. All written and email comments must be postmarked or received by email no later than 11:59 PM on October 5, 2024.