

Proposed Plan for Lakehurst Former Submarine Bombing Target Munitions Response Site (ZZ001)

January 2022



For More Information

Attend the Public Meeting on: February 17, 2022

Details of the virtual public meeting will be advertised in the Asbury Park Press, Burlington County Times, and Pine Barrens Tribune.

For questions and comments, contact:
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OVERVIEW

The Air Force at Joint Base McGuire-Dix-Lakehurst (JBMDL) has released a Proposed Plan for the Former Submarine Bombing Target referred to as Munitions Response Site (MRS) ZZ001 at the Lakehurst Area of JBMDL. The Proposed Plan summarizes previous investigations completed and identifies the preferred remedy for the site. Public comment is welcome during the comment period extending from February 12, 2022 to March 14, 2022. A virtual public meeting will be held by the Air Force to provide information on the Proposed Plan and solicit public comment (see sidebar for details).

LOCATION, HISTORY, AND ENVIRONMENTAL CONDITIONS

MRS ZZ001 is approximately 13 acres in size and is located in the southeastern portion of the Lakehurst Area of JBMDL. The long-term planned use for MRS ZZ001 is undeveloped land. There are no buildings onsite, and the site is not currently in use. Much of the site has reverted to a natural, forested condition.

The site included a target in the shape of a German U-boat which was used by military aircraft to drop practice or explosive bombs. The target was used from approximately 1933 to 1945. Pilots also released miniature bombs from airships for training purposes. The site may have also received smoke flares, signal flares, illuminating flares, miniature training bombs, and other practice bombs. Drops were also conducted to test the experimental X7 40M depth bomb.

Munitions of explosive concern (MEC) and munitions debris (MD) have been found in soil down to a depth of 48 inches. MEC and MD recovered include: MK15 Mod 2, 100-lb practice bombs; MK23, 3-lb practice bombs; and MK5, practice bombs.

Aluminum, chromium, and lead have been detected in soil and aluminum, arsenic, and iron were detected in groundwater above screening levels. However, it was determined that all metals concentrations were below background values and representative of naturally occurring concentrations. No other explosives or munitions constituents have been detected in soil or groundwater at MRS ZZ001.

ENVIRONMENTAL CLEANUP REGULATION

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation and Liability Act (also called CERCLA) to respond to environmental conditions that may pose a threat to human health, welfare, and the environment. The Act is administered by the U.S. Environmental Protection Agency (EPA) and established a process for evaluating and restoring contaminated sites as shown below. The U.S. EPA and New Jersey Department of Environmental Protection (NJDEP) have reviewed and concurred with the Proposed Plan. The Air Force, in conjunction with the U.S. EPA and in consultation with NJDEP, will select a final remedy after public comments are reviewed.

Preliminary Assessment

Site Inspection

Remedial Investigation

Feasibility Study

Proposed Plan

Record of Decision

Remedial Design

Remedial Action

Long Term Management



For More Information

JBMDL maintains an
Information Repository at:

Ocean County Library
101 Washington Street
Toms River, NJ 08753

The full Administrative
Record can be found
online at:

[https://ar.afcec-
cloud.af.mil/](https://ar.afcec-cloud.af.mil/)

The Proposed Plan and
other information about
the JBMDL Environmental
Restoration Program can
be found online at:

[www.envirorestore
jbmdl.com](http://www.envirorestore
jbmdl.com)

FEASIBILITY STUDY ANALYZED FOUR POTENTIAL REMEDIES

The Proposed Plan was developed based on an analysis of remedial alternatives conducted in the Feasibility Study (FS). The FS fully developed four potential remedies to address any remaining MEC at MRS ZZ001, which are summarized below:

Alternative 1: No Further Action. Cost: \$0

Alternative 2: Land Use Controls (LUCs). LUCs in the form of engineering, administrative, and educational controls would be implemented. Annual LUC inspections and CERCLA five-year reviews would also be conducted. Cost: \$237,221

Alternative 3: LUCs with MEC Surface Clearance. LUCs would be implemented as well as recurring (every 5 years) MEC surface clearance. MEC surface clearance activities would include limited vegetation removal; visual and instrument guided MEC detection and geospatial positioning; surface MEC removal by hand excavation; and proper destruction of MEC and subsequent off-base disposal. Annual LUC inspections and CERCLA five-year reviews would also be conducted. Cost: \$816,230

Alternative 4: MEC Surface and Subsurface Clearance with LUCs. LUCs would be implemented as well as a single MEC subsurface clearance event. MEC subsurface clearance activities would include vegetation removal; visual and instrument guided MEC detection and geospatial positioning; subsurface MEC removal by hand excavation, or by mechanical excavation for deeper items to within 12 inches of MEC, followed by hand excavation; proper destruction of MEC and subsequent off-base disposal; and ground surface and vegetation restoration. In addition, annual LUC inspections, recurring (every 5 years) MEC surface clearance, and CERCLA five-year reviews would also be conducted. Cost: \$1,626,339

Each of the alternatives were evaluated against nine criteria established for CERCLA sites: overall protection of human health and the environment; compliance with Federal and state regulations and requirements; long-term effectiveness and permanence; reduction of toxicity, mobility, or volume of contaminants through treatment; short-term effectiveness; implementability; and cost. Two criteria (State and community acceptance) are evaluated after the public comment period.

PREFERRED ALTERNATIVE

The preferred alternative for MRS ZZ001 is Alternative 3, LUCs with MEC Surface Clearance. Alternative 3 provides a medium to high level of protection to human health and a medium level of reduction of explosive hazards by eliminating or reducing the amount of surface MEC. Subsurface MEC would not be eliminated but would be managed by implementing LUCs. Higher cost than Alternative 2, but it would provide a more permanent reduction of risk to human health and the environment. Reliability significantly reduces uncertainty for cost and long-term effectiveness and permanence as compared to Alternative 2, which does not include MEC removal. Readily implementable and includes limited vegetation removal and more feasible technology than Alternative 4.

OPPORTUNITIES FOR PUBLIC COMMENT

The public is encouraged to review the 2006 Preliminary Assessment, 2011 Light Detection and Ranging (LiDAR) Survey Data, 2012 Site Inspection Report, and 2017 Remedial Investigation Report, along with other supporting documents, which can be assessed online at the Administrative Record website. Public comments are welcome at the virtual public meeting or in writing during the public comment period extending from February 12, 2022 to March 14, 2022. Comments can be emailed, faxed, or mailed to Mr. James Richman (see sidebar on Page 1). Mailed comments must be postmarked by March 14, 2022. The Air Force will keep the community informed of the final selected remedy through newspaper notice and presentations at Restoration Advisory Board meetings. Information about Restoration Advisory Board meetings can be found on the web site at www.envirorestorejbmdl.com.