
Superfund Proposed Plan

No Further Action is Proposed for Munitions Response Site 34, Track 2 Munitions Response Remedial Investigation, Former Fort Ord, California

United States Department of the Army

May 28, 2013

INTRODUCTION

The United States Department of the Army (Army) is presenting this **Proposed Plan**¹ for the public to review and comment on regarding cleanup of **Munitions Response Site 34 (MRS-34)**, one of the Track 2 sites evaluated as part of the Munitions Response **Remedial Investigation/Feasibility Study (MR RI/FS)** program at the former Fort Ord Army base in Monterey County, California (**Figure 1**). A removal action has been conducted within MRS-34, and all detected **Munitions and Explosives of Concern (MEC)** on and below ground surface were removed. The site was investigated again using a different technology and no MEC was found. The Army recommends **No Further Action** related to munitions response because MEC is not expected.

MRS-34 is within the former Fritzsche Army Airfield (FAAF) property that was transferred to the City of Marina in 2001. The suitability of the property for transfer was described in the Finding of Suitability for Early Transfer (Army, 2000). The *Final Track 2 Munitions Response Remedial Investigation, Munitions Response*

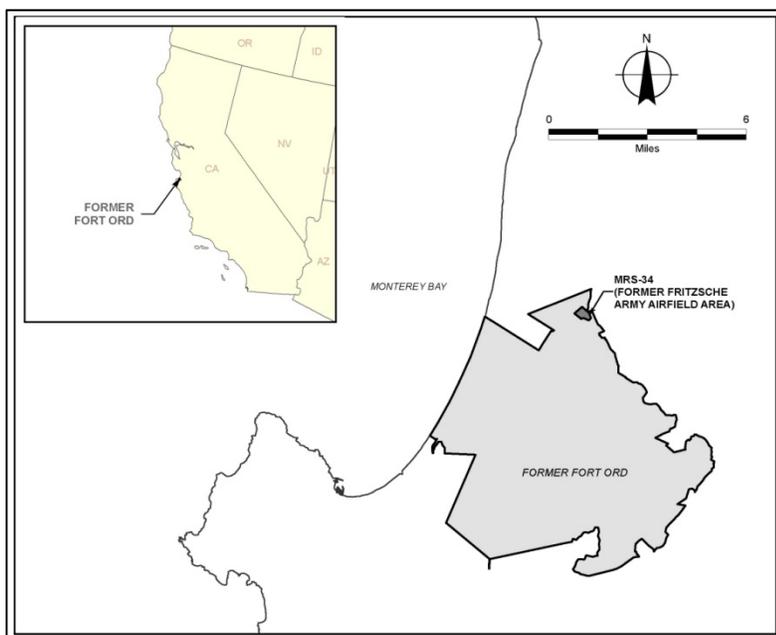


Figure 1. Fort Ord Location Map

Dates to remember:

PUBLIC COMMENT PERIOD:
May 31 through July 1, 2013

Comments on the Proposed Plan

PUBLIC MEETING:
June 11, 2013 6-8 pm
at the Marina Library
190 Seaside Circle
Marina, California 93933

The Army will hold a public meeting to explain the Proposed Plan, receive comments, and answer questions. Oral and written comments will also be accepted at the meeting.

Written comments may be sent to:
Department of the Army
Fort Ord Base Realignment and Closure (BRAC) Office
Attn: William K. Collins
BRAC Environmental Coordinator
P.O. Box 5008, Monterey, CA
93944-5008

¹ The terminology used in this Proposed Plan that first appears in **bold letters** is defined in the **Glossary** found at the back of this document on **pages 8 and 9**. References to **Figures, Tables, and page numbers** also appear in **bold letters**.

Site 34, Former Fort Ord, California (MRS-34 RI; ITSI, 2012) was prepared in 2012 to complete the **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)** (or **Superfund**) process for the site. If the proposed remedy, No Further Action, is selected, the property would no longer require a use restriction with regard to MEC, and the restriction established at the time of property transfer could be removed.

This Proposed Plan is based on information presented in the MRS-34 RI (ITSI, 2012), as well as other documents in the Fort Ord **Administrative Record**. The Administrative Record contains documents used in making decisions for environmental cleanup projects at the former Fort Ord. The Army encourages members of the local community and other interested parties to review these documents and make comments on this Proposed Plan.

Public comments will be considered before any action is selected. Information on how to comment on this document and the location of the Administrative Record are provided on **pages 6 and 7** of this Proposed Plan.

What is a Track 2 Site?

Track 2 sites are those sites where MEC was found and a MEC removal action was conducted. The Track 2 site known as MRS-34 was suspected to have been used for military training with **military munitions**. MRS-34 was investigated and all detected MEC was removed.

THE DECISION-MAKING PROCESS

The purposes of this Proposed Plan are to:

- Provide background information about MRS-34.
- Explain the reasons for No Further Action at MRS-34.
- Solicit public review of and comment on the Proposed Plan.
- Provide information on how the public can be involved in the proposed No Further Action decision for MRS-34.

The flow chart shown on **Figure 2** summarizes the MRS-34 decision-making process that includes public and regulatory agency involvement and approval of the proposed no further action.

The Army is the responsible party and lead agency for investigating, reporting, making cleanup decisions, and implementing cleanup actions at the former Fort Ord. This Proposed Plan for MRS-34 is part of the Army's community relations program, a component of the requirements of Section 117(a) of CERCLA, and follows U.S. Environmental Protection Agency (EPA) guidance (EPA, 1989).

Public comments on this Proposed Plan will be accepted during a public meeting and during the 30-day public review and comment period. These comments will be considered when the Army and/or the EPA, in consultation with the California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC), make a final decision in a **Record of Decision (ROD)**. Army responses to public comments on this Proposed Plan will appear in the "Responsiveness Summary" section of the ROD. The flow chart shown on **Figure 2** summarizes the development and approval process for MRS-34 Track 2 ROD.

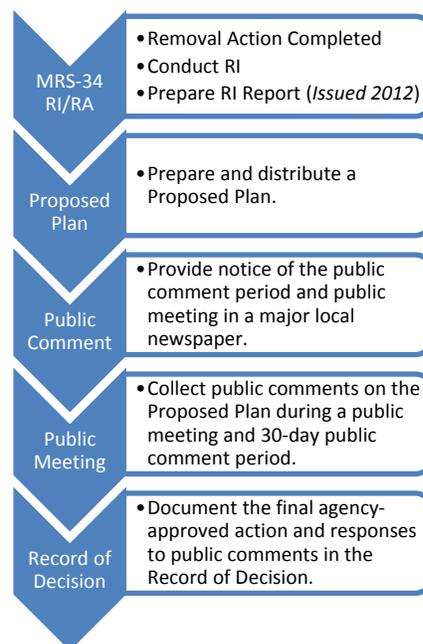


Figure 2. MRS-34 Decision Process

BACKGROUND

The former Fort Ord is located in northwestern Monterey County, California, approximately 80 miles south of San Francisco (**Figure 1**). The former Army base is made up of approximately 28,000 acres of land next to Monterey Bay and the cities of Seaside, Sand City, Monterey, and Del Rey Oaks to the south and Marina to the north. Laguna Seca Recreation Area, Toro Park, and Highway 68 border former Fort Ord to the south and southeast.

Since it was established in 1917, Fort Ord served primarily as a training and staging facility for infantry and cavalry troops. From 1947 to 1975, Fort Ord was a basic training center. After 1975, the 7th Infantry Division was based at Fort Ord. Fort Ord was selected for closure in 1991. The majority of the soldiers were reassigned to other Army posts in 1993. The Army has retained a portion of former Fort Ord property as the Ord Military Community (OMC) and U.S. Army Reserve Center. The remainder of Fort Ord was identified for transfer to federal, state, and local government agencies and other organizations for reuse.

Because cavalry, field artillery, and infantry units used portions of the installation for training, maneuvers, and other purposes, MEC may be present on lands at the former Fort Ord. Military munitions typically used during these activities include artillery and mortar projectiles; rockets and guided missiles; rifle and hand grenades; land mines; pyrotechnics; bombs; and demolition materials.

Fort Ord was placed on the National Priorities List (NPL) of Superfund sites by the EPA on February 21, 1990, due to evidence of contaminated soil and groundwater. A Federal Facility Agreement (FFA) was signed in July 1990 by representatives of the Army, EPA, and agencies that are part of Cal/EPA (the DTSC and Regional Water Quality Control Board (RWQCB)). The FFA established schedules for conducting investigations and requires the cleanup process be conducted as expeditiously as possible. In 1991, the basewide RI/FS for soil and groundwater contamination (hazardous and toxic waste or HTW) began.

Since 1993, MEC-related field investigations, sampling, and removal activities have been conducted at many former Fort Ord sites by the Army's munitions response contractors. This investigation and removal work was focused on addressing explosive safety. During the investigations, any MEC that was identified was removed and destroyed. A basewide Ordnance and Explosives (OE) RI/FS Work Plan was developed for the former Fort Ord in 1999. As part of the basewide OE RI/FS – now called the basewide Munitions Response RI/FS—program, the Army reviewed all available historical facility maps, range control files, aerial photographs, and real-estate records for all of the former Fort Ord lands. The purpose of this "Literature Review" was to look for any information regarding past military munitions use at former Fort Ord (HLA, 2000a). For MRS-34, the Army also reviewed documentation of past MEC-related investigations, sampling, and removal activities. This evaluation was conducted in accordance with a process identified in the Final Plan for Evaluation of Previous Work (HLA, 2000b) and took into account the quality and quantity of the available data, the work completed, and the intended future land uses. Based on this review, it was determined that MRS-34 was used as a "Bazooka & Rifle Grenade Practice" area in the 1940s and early 1950s where practice versions of 2.36-inch rockets and rifle grenades were employed.

MRS-34 SITE CHARACTERISTICS

MRS-34 is 70.5 acres. The site is in the northwestern portion of the former Fort Ord, in what was formerly the FAAF and is now the Marina Municipal Airport (**Figure 3**). The former practice range comprising MRS-34 is north of the current airport runways in undeveloped open grasslands. The land that includes MRS-34 was purchased by the government in 1940, and was available for military training until base closure in 1994.

MRS-34 was used for training as

- a range where practice versions of the 2.36-inch rocket and rifle grenades were employed (1940s through mid-1950s),
- “Ranging Area” used for tank gun sight calibration (not believed to have involved use of munitions) (1956), and
- driver training (1957 through early 1960s).

As described in the MRS-34 RI (ITSI, 2012), MRS-34 was identified through the Archives Search process that included reviews of historical maps and other documents, as well as interviews with current and former Fort Ord personnel.

In 1994, the FAAF area was surveyed to identify the range boundaries. Site boundaries were established using magnetometers and visual observations regarding the relative density and distribution of **munitions debris (MD)** at the site. A 3-foot below ground surface (bgs) removal action was conducted in the site and all detected MEC were removed and destroyed. There is insufficient documentation to ascertain whether the items reported as M6 (high explosive) rockets during the 1994 removal were actual M6 rockets, or were M7 practice rockets that could not be positively identified and were therefore assumed to be M6s and destroyed in place. A digital geophysical survey in 8% of the site was performed in 1999 as part of EPA’s oversight of environmental cleanup and closure of Fort Ord. Based on the discovery of two MD items related to practice rockets during this survey, a resurvey of the site was performed by the Army in 1999 using digital instrumentation. All anomalies were investigated, and no MEC was found. Detailed Quality Control and Quality Assurance procedures were included as part of the 1994 removal action and 1999 digital survey investigations. Therefore, the remedial investigation concluded that MEC is not expected to remain at MRS-34. The uncertainties associated with geophysical instrument detection indicate the possibility of MEC to remain cannot be ruled out. A risk assessment conducted as part of the 2012 remedial investigation concluded the risk expected at MRS-34 is the lowest possible risk.

PROPERTY TRANSFER STATUS

The City of Marina requested an early transfer of the property (Parcel L5.1.1) as a public benefit conveyance (PBC) through the Federal Aviation Administration. On the basis of completed MEC removals that had been performed, the Finding of Suitability for Early Transfer for property including L5.1.1 (Army, 2000) was approved by EPA, and the property was transferred in 2001 for airport purposes. The deed restricts the use of the property as follows: “The Property is suitable only for the intended use as resort hotel, golf course, business park, airport support, and related infrastructure modifications. In addition, the following uses as hereinafter described shall be allowed provided that they

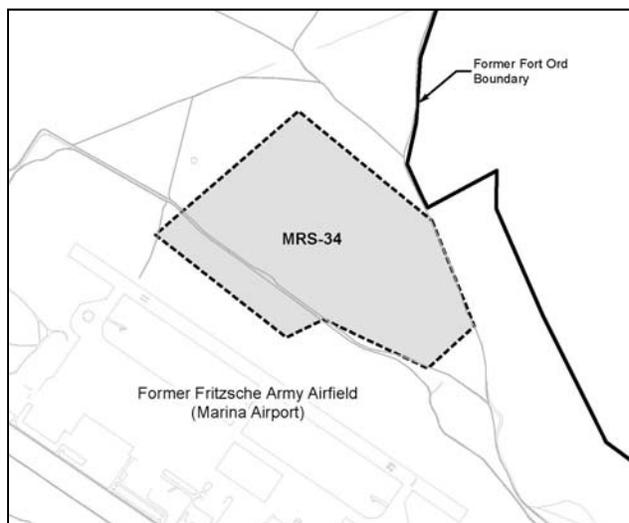


Figure 3. MRS-34 Location

do not include private landscaping or unsurfaced yard areas: timeshare and vacation club rooms, spa, health, athletic and related facilities, commercial recreation, employee recreational facilities, day care facilities and nurseries, caretaker units, and airport loft living units.” Similar restrictions were documented in the Covenant to Restrict Use of Property (CRUP), a California state land use covenant. Further, in consideration of former site use and the potential for encountering MEC at the site, the City of Marina voluntarily adopted an ordinance (City Ordinance 98-04, Municipal Code Chapter 15.56) regarding construction activity in the area that requires acquisition of permits that specifically address appropriate precautionary measures and notifications.

SUMMARY OF SITE RISKS

As part of the 2012 remedial investigation, qualitative risk assessment was performed to evaluate the risk associated with the post-MEC removal (current) site conditions. The risk assessment was performed using the Fort Ord Ordnance and Explosives Risk Assessment Protocol (Malcolm Pirnie, 2002) that was developed to evaluate the risk to future land users of the property from any MEC potentially remaining at the site in terms of an “Overall MEC Risk Score”. The Overall MEC Risk Scores are expressed in letters A through E, with A representing the lowest risk and E representing the highest risk.

Receptors evaluated in the risk assessment included a recreational user, an indoor worker, a construction worker, an outdoor maintenance worker, and an adult or child resident as described in MRS-34 Risk Assessment (ITSI, 2012). All receptors evaluated received a score of “A,” the lowest risk. It should be noted that, because of uncertainties identified in the risk assessment, it is not possible to confirm that all MEC has been removed from the site; therefore it is possible that an intruding receptor (i.e., the outdoor maintenance worker and construction worker) could encounter a MEC item. However, the potential that MEC will be encountered in the future is highly unlikely (ITSI, 2012).

RATIONALE FOR RECOMMENDING NO FURTHER ACTION

The Army proposes No Further Action for MRS-34. Two subsurface MEC removals were performed at MRS-34. All MEC and MD detected were investigated and removed, therefore, MEC are not expected to be present at the site. The risk assessment found potential risk to subsequent site users from MEC is at the lowest risk level, and primarily limited to those involved with subsurface intrusive activity. Furthermore, the Army’s Community Relations Plan (Army, 2006) and Munitions Response Site Security Program (Army, 2011) describe the available community support programs relative to MEC issues.

According to CERCLA guidance (EPA, 1989), the results of the risk assessment should help establish acceptable remediation levels for use in developing remedial alternatives; however, all detected MEC/MD have already been removed and the lowest risk levels for the site have already been achieved as indicated by the risk assessment results. Therefore, all reasonable remedial criteria for the site have already been achieved. On the basis of the RI and risk assessment as presented in the Track 2 Munitions Response RI for MRS-34 (ITSI, 2012), no actionable risk was identified at the site, and no further action is recommended. If the proposed remedy, No Further Action, is selected, the property would no longer require a use restriction with regard to MEC, and the restriction established at the time of property transfer could be removed.

HOW TO MAKE COMMENTS

The Army is the responsible party and lead agency for investigating, reporting, making cleanup decisions, and implementing cleanup actions at the former Fort Ord. The Army, as lead agency, is soliciting public comments on proposed No Further Action for munitions response at MRS-34 described in this Proposed Plan. The MRS-34 RI (ITSI, 2012) provides a detailed site report that describes the information gathered during the literature review and site investigations, as well as a more detailed description of the reasons for the Army's recommendation of No Further Action. These reports are available for inspection at the Information Repositories and the Administrative Record listed on **page 7**.

Public comments will be considered before any action is selected. Written and oral comments on this MRS-34 Proposed Plan will be accepted at the public meeting scheduled on June 11, 2013 from 6:00 p.m. to 8:00 p.m. at the Marina Library, Marina, California. Representatives from the Army, EPA, and DTSC will be present at this meeting to explain the MRS-34 Proposed Plan, answer questions, and accept public comments.

Written comments will be accepted at the public meeting and throughout the 30-day public comment period from May 31 through July 1, 2013. Correspondence should be postmarked no later than July 1, 2013 and sent to the attention of the U.S. Army representative at the following address (*Please reference MRS-34 Proposed Plan in your correspondence*):

Department of the Army
Fort Ord Base Realignment and Closure (BRAC) Office
ATTN: William K. Collins
BRAC Environmental Coordinator
P.O. Box 5008
Monterey, California 93944-5008

INFORMATION ACCESS

U.S. Army Representative

Department of the Army

Fort Ord Base Realignment and Closure (BRAC) Office
P.O. Box 5008
Monterey, California 93944-5008
Contact: William K. Collins, BRAC Environmental Coordinator
(831) 393-1284 FAX: (831) 393-9188
Hours: 8:00 am - 5:00 pm

Regulatory Representatives

U.S. Environmental Protection Agency, Region IX

Superfund Federal Facilities Cleanup Branch
75 Hawthorne Street, Mail Code SFD-8-3
San Francisco, California 94105
Contact: Lewis Mitani, Remedial Project Manager
(415) 972-3032
Hours: 8:00 am - 5:00 pm

Cal/EPA Department of Toxic Substances Control, Region 2

Brownfields and Environmental Restoration Program
8800 Cal Center Drive
Sacramento, California 95826
Contact: Ed Walker, Remedial Project Manager
(916) 255-4988
Hours: 8:00 am - 5:00 pm

Administrative Record

Fort Ord Administrative Record (www.fortordcleanup.com)
Building 4463 Gigling Road, Room 101
Ord Military Community, California 93944-5008
(831) 393-9693
Hours: Mon-Fri 9:00 am-4:00 pm. Other hours by appointment. Closed daily, 12:00 pm-1:30 pm and Federal holidays.

Information Repositories

California State University Monterey Bay (CSUMB) Tanimura & Antle Family Memorial Library
Divarty Street, CSUMB Campus (Please park in lot # 508)
Seaside, California
(831) 582-3733
For current library hours, call or visit <http://library.csumb.edu/>

Seaside Branch Library
550 Harcourt Avenue
Seaside, California 93955
(831) 899-2055
Hours: Mon-Thurs 10:00 am-8:00 pm; Fri/Sat 10:00 am-5:00 pm

REFERENCES²

- Harding Lawson Associates (HLA), 2000a. *Draft Final Literature Review Report, Ordnance and Explosives Remedial Investigation/Feasibility Study, Former Fort Ord, California*. January 4. [OE-0245H]
- HLA, 2000b. *Final Plan for Evaluation of Previous Work, Ordnance and Explosives Remedial Investigation/Feasibility Study, Former Fort Ord, California*. September 8. [OE-0283G]
- ITSI Gilbane, 2012. *Final Track 2 Munitions Response Remedial Investigation, Munitions Response Site 34, Former Fritzsche Army Airfield Area, Former Fort Ord, California*. September. [OE-0768B]
- Malcolm-Pirnie, 2002. *Final Fort Ord Ordnance and Explosives Risk Assessment Protocol*. October. [OE-0402G]
- U.S. Department of the Army (Army), 2000. *Finding of Suitability for Early Transfer (FOSET) with a CERCLA 120(h)(3) Covenant Deferral, Fritzsche Army Airfield Phase II Parcels and Restriction and Covenant to Restrict Use of Property, Environmental Restriction re: Fritzsche Army Airfield*. August. [FOSET-001J]
- _____, 2006. *Final Community Relations Plan, Update Number 3, Fort Ord, California*. June 23. [BW-2364L]
- _____, 2011. *Munitions Response Site (MRS) Security Program, Former Fort Ord, California (2011 Site Security Program)*. June 23. [OE-0422K]
- United States Environmental Protection Agency (EPA), 1989. *Guidance for Conducting Remedial Investigation/Feasibility Studies Under CERCLA. Interim Final*. EPA 540/G-89/001. October.

GLOSSARY

Administrative Record – A compilation of all documents relied upon to select a remedial action pertaining to the investigation and cleanup of Fort Ord.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, otherwise known as Superfund) – A federal law that addresses the funding for and cleanup of abandoned or uncontrolled hazardous waste sites. This law also establishes criteria for the creation of key cleanup documents such as the Remedial Investigation (RI), Feasibility Study (FS), Proposed Plan, and Record of Decision (ROD).

Feasibility Study (FS) – An evaluation of potential remedial technologies and treatment options that can be used to clean up a site.

Military Munitions Response Program (MMRP) – U.S. Department of Defense (DoD)-established program to manage the environmental, health and safety issues presented by MEC.

Military Munitions – Military munitions means all ammunition products and components produced for or used by the armed forces for national defense and security, including ammunition products or components under the control of the DoD, the Coast Guard, the Department of Energy, and the National Guard. The term includes confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar

² Administrative Record numbers are provided for those documents contained in the Administrative Record.

rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components thereof. The term does not include wholly inert items, improvised explosive devices, or nuclear weapons, nuclear devices, and nuclear components, other than non-nuclear components of nuclear devices that are managed under the nuclear weapons program of the Department of Energy after all required sanitization operations under the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) have been completed. (10 U.S.C. 101(e) (4)).

Munitions Debris – Remnants of munitions (e.g., fragments, penetrators, projectiles, shell casings, links, fins) remaining after munitions use, demilitarizations, or disposal.

Munitions and Explosives of Concern (MEC) – Distinguishes specific categories of military munitions that may pose unique explosives safety risks, such as: unexploded ordnance (UXO), as defined in 10 U.S.C. 101 (e) (5); discarded military munitions (DMM), as defined in 10 U.S.C. 2710 (e) (2); or munitions constituents (MC, e.g., TNT, Cyclotrimethylene trinitramine [RDX]), as defined in 10 U.S.C. 2710 (e) (3), present in high enough concentrations to pose an explosive hazard. For the purposes of the Military Munitions Response Program being conducted for the former Fort Ord, MEC does not include small arms ammunition .50 caliber and below.

Munitions Response Area (MRA) – Any area on a defense site that is known or suspected to contain UXO, DMM, or MC. A munitions response area is made up of one or more munitions response sites.

Munitions Response Site (MRS) – A discrete location within a MRA that is known to require a munitions response.

No Further Action – Determination following a remedial investigation or action that a site does not pose a significant risk and so requires no further activity under CERCLA.

Proposed Plan – A plan that identifies the preferred alternative for a site cleanup, and is made available to the public for comment.

Record of Decision (ROD) – A report documenting the final action, approved by the regulatory agencies, that is required at Superfund sites.

Remedial Investigation (RI) – Exploratory inspection conducted at a site to define the nature and extent of chemicals, and in this case, MEC present.

Superfund – See Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) above.

Unexploded Ordnance (UXO) – Military munitions that: (A) have been primed, fuzed, armed, or otherwise prepared for action; (B) have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or materials; and (C) remain unexploded either by malfunction, design, or any other cause. (10 U.S.C. 101(e)(5)).