

APPENDIX A

RESPONSES TO COMMENTS

Responses to Comments

On the Track 1, Plug in Approval Memorandum, Multiple Sites, Group 1-5,
Former Fort Ord, California; July 5, 2006

May 31, 2006

Review of the United States Environmental Protection Agency (USEPA)

General Comments:

Comment 1: During the comparison with FOST 10, it was noted that Parcel E29b.2, which is primarily located in MRS-15MOCO.1 (Group 4 of the Track 1 Plug-in Approval Memorandum), slightly overlaps MRS-15DRO.2. A non-time critical removal action (NTCRA) was previously conducted in MRS-15DRO.2. As a result, this makes the portion of Parcel E29b.2 that is in MRS-15DRO.2 fit the Track 2 definition better than the Track 1 definition. This situation is not explained in the Track 1 Approval Memorandum, as Parcel E29b.2 is not discussed there. This issue was presented in EPA's comments on FOST 10 and on the phone with Army staff today. EPA suggests that the small sliver of Parcel E29b.2 overlapping into MRS-15DRO.2 be referred to as a special case Track 1 plug-in site or something similar which explains how the site is still OK to plug-in to Track 1 despite having some Track 2 characteristics. The approval memo text should provide additional detail in the Group 4 write-up about the history of MRS-15DRO.2 and how the small sliver of E29b.2 in the southern portion of MRS-15DRO.2 meets the criteria for plug-in in Track 1 despite a removal action having been conducted elsewhere on MRS-15DRO.2.

Response 1: The boundary of MRS-15 MOCO 01 was intended to be coincident with Parcel E29b.2; however, as noted in the comment, a small portion of Parcel E29b.2 is within MRS-15 DRO 02. This was due to a mapping error. Based on sampling and other information, the Army determined that a non-time critical removal action was appropriate within a portion of MRS-15 DRO 02 as documented in the *Notice of Intent, Removal Action at Sites OE-15DRO.2 and OE-43, Former Fort Ord, California*. A specific "removal area" was delineated based on an imminent and substantial threat. The removal area included approximately 14 acres in the northern portion of MRS-15 DRO 02, but did not include the portion of Parcel E29b.2 that is within MRS-15 DRO 02. Because the parcel to the north of Parcel E29b.2 was being considered for early transfer (Parcel E29b.1), the Army conducted a digital geophysical investigation over all of MRS-15 DRO 02 to support the early transfer of Parcel E29b.1. As a result, the digital geophysical survey included the portion of Parcel E29b.2 within MRS-15 DRO 02. All subsurface anomalies were intrusively investigated, and no munitions and explosives of concern (MEC) or munitions debris were found in the portion of MRS-15 DRO 02 that overlaps Parcel E29b.2.

That portion of Parcel E29b.2 within MRS-15 DRO 02 will become a new site called MRS-15 DRO 02A and will be documented in the Track 1 Plug-In Approval Memorandum as a variant Track 1 site. MRS-15 DRO 02A does not fit the strict definition of a Track 1 site because a digital geophysical investigation was conducted at MRS-15 DRO 02A; however, the digital geophysical investigation was conducted to

support the early transfer of property and not based on evidence of the use military munitions. Additionally, no MEC or munitions debris were found at MRS-15 DRO 02A.

Comment 2: The write-up for MRS-46 in Group 4 is lacking detail on the history of remedial work conducted prior to and thus in support of the plug-in approval memo. Please provide additional information about previous investigations at MRS-46 in the Group 4 write-up. Much is spent discussing the ODDs but little is said about the history of remedial work on Group 4 sites such as MRS-46. There is more information in the executive summary of the September 2000 AAR, in the February 2002 surface removal TIP for OE-46 and in the March 2001 lease for York school than in the current write-up Group 4 portion of the plug-in approval memo. In addition, MRS-46 appears to have been subjected to a removal action. As noted in comment 1 above, this makes the portion of Parcel L3.2 that includes MRS-46 outside fit the Track 2 definition better than the Track 1 definition. This situation is not explained in the Track 1 Approval Memorandum. EPA suggests that MRS-46/Parcel L3.2 be referred to as a special case Track 1 plug-in site or something similar which explains how the site is still OK to plug-in to Track 1 despite having some Track 2 characteristics.

Response 2: The MRS-46 write-up will be reorganized and detail will be added as necessary to clarify the discussion.

MRS-46 is coincident with Parcel L3.2. A portion of Parcel L3.2 was leased to York School for construction of an athletic field. To support the construction of the athletic field the Army performed a digital geophysical investigation over the portion of Parcel L3.2 where the athletic field was to be constructed (31 acres). All subsurface anomalies were intrusively investigated, and no MEC or munitions debris were found. Because a removal was performed over a portion of MRS-46 this site will be documented in the Track 1 Plug-In Approval Memorandum as a variant Track 1 site. MRS-46 does not fit the strict definition of a Track 1 site because, though not based on the use of military munitions, a digital geophysical investigation was conducted to support the construction of the athletic field. Additionally, no MEC or munitions debris were found within the lease area during the investigation.

Comment 3: The plates should show all parcels and MRSs. In addition, all markings should be explained in the plate legends. For example, Plate G4-5 does not label parcel L3.2 and is lacking an explanation for the black squiggly lines shown throughout the parcel (they show the path of a surface clearance conducted in 2002).

Response 3: The plates have been revised for clarity as suggested. Please note that the first plate included for each group identifies all parcels associated with the Track 1 Plug-In sites.

Comment 4: As noted in EPA's comments on FOST 10, in the future, parcels should not be established that overlap different Track Categories, or that are not entirely located inside or outside of the boundaries of a specific MRS. Plug-In Approval Memoranda and related FOSTs should use the same terminology in referring to each land area being considered for transfer.

Response 4: The Army understands that terminology used in the Approval Memorandum and FOST 10 should be made consistent where possible and will make every effort to do so. As discussed with the USEPA by telephone on June 29, 2006, for future approval memos supporting FOSTs, the Army will add information to clarify the relationship between sites being evaluated and transfer parcels.

Comment 5: Throughout the document's recommendation sections it is noted that for Track 1 sites, per the ROD, it is recommended that construction workers that will conduct intrusive activities receive ordnance recognition and safety training. In addition, please note in these sections that the ordnance recognition and safety training is available for all reusers of former Fort Ord property upon request of the Army.

Response 5: Paragraph two of the recommendations section currently states that "As a basewide effort to promote safety, and because of Fort Ord's history as a military base, the Army provides "ordnance recognition and safety training" to anyone who requests that training." Additionally, the following sentence has been added to the third paragraph of the recommendations section, "The Army will request notice from future landowners of planned intrusive activities, and in turn will provide ordnance recognition and safety training to construction personnel prior to the start of intrusive work."

Review of the Environmental Stewardship Concepts on Behalf of the Fort Ord Environmental Justice Network

These comments were prepared at the request of the Fort Ord Environmental Justice Network (FOEJN) to provide technical comments to the Army regarding the cleanup of ordnance and munitions at the former Fort Ord. FOEJN represents the affected community in the greater Fort Ord area in the clean up of contamination and ordnance related waste.

Comments and Recommendations:

- The sites contained in Groups 3, 4, and 5 do not represent a threat to human health from munitions and ordnance and do not require further action.
- Additional surveying should be undertaken in areas of Group 1 because chemical awareness and identification sets are potentially buried in unsurveyed locations along Imjin Road.
- There is insufficient data regarding sites in Group 2 to make the assertion that No Further Action is Required, and more geophysical surveying should be conducted.
- The Army should consolidate descriptions of Schonstedt Magnetometers and risks related to the various types of munitions likely to be discovered at the site in appendixes rather than repeating them for each group.
- The Army should include a description or definition of the various classifications for sites from Track 0 to Track 3.

Document Summary

This document reviews information from archival record searches, interviews with former Fort Ord personnel, and previous site investigations to determine the next course of action regarding explosives and munitions of concern for the five groups of sites designated as “Track 1” sites. These are locations where military munitions were suspected to have been used, but are suspected to no longer pose a threat because of the nature of the explosives, a lack of evidence of their use, or training is believed to have only involved non-explosive items. Based on this information, the Army has made recommendations for either further investigation or no further action for each group of Track 1 sites.

General Comments

Comment: Overall the document is well written and easy to read. The placement of tables and figures for each group in close proximity to the text makes the text easier to understand and is most appreciated. In the interests of making the document more accessible to the general public, it is recommended that a description or definition of each Track classification (0 through 3) be included for comparative purposes. These could be included either in an appendix or possibly even the glossary. Without this clarification a reader unfamiliar with the Army’s process of MEC remediation may believe that the threat posed from these sites is just as great as Track 2 or 3 sites.

There are also portions of the text for each group that are redundant, particularly discussions of the Schonstedt magnetometers and the Ordnance Detection and Discrimination Study (ODDS) used to evaluate them. Because this equipment was used in the investigations for each group, it may be more appropriate for text describing the magnetometers and their effectiveness to be included as an appendix rather than repeated in the text for each group.

This would allow for more in depth discussion of the effectiveness and limitations of the equipment such as its ineffectiveness at identifying anomalies at depths greater than 3 to 4 feet that are most relevant to the investigations described in this report. It may also be useful to consolidate the descriptions under “Potential Exposure Routes” for the various munitions expected to be found at Ford Ord in a similar fashion.

Response: Please note that the definitions for each of the Tracks (0 through 3) were included in the introduction on pages 1-4 to 1-5.

Although some of the information provided within each group write-up is redundant, the Approval Memorandum is arranged such that the pertinent information applicable to each of the groups of sites is presented together.

Group 1: MRS-2 Pete’s Pond and Extension

Comment: ESC agrees with the conclusion that conventional munitions and explosives of concern (MEC) are generally not a threat to human health and safety at the Group 1 sites. This is primarily because of the non-explosive nature of the munitions recovered (e.g., practice rockets and smoke grenades), previous removal actions, and the relatively non-intrusive nature of future activities in the area. However, a number of concerns remain which prevent ESC from concurring with the Army that No Further Action is Required at the Group 1 sites.

The Army should further investigate the possibility of contamination from chemical warfare agents in this group of sites based on the known use of the chemical agent identification sets (CAIS) at the base and the interview with Staff Sergeant Davis indicating that a number of these sets were disposed of at MRS-2. Additional investigation is required because attachment G1-2 notes that many of these sets were manufactured in wooden rather than metal boxes, and could therefore escape detection with magnetometers. Even if the CAIS boxes were contained in metal boxes, they may have been buried at depths greater than the effectiveness of the Schonstedt magnetometer because of the nature of their contents, and the standard operating procedure for chemical agents at other military sites was to bury them to a depth of six feet. Grid sampling also did not extend to the eastern boundaries of MRS-2, particularly along Imjin Road which was identified by SSG Davis as the location where the CAIS were buried. Before this group can be safely recommended for No Further Action, additional geophysical surveying should be undertaken in areas along Imjin Road that have not been examined in addition to taking core samples to test soils for indicator compounds of chemical warfare agents such as arsenic and thiodiglycol.

Response: As noted in the 5th bullet on page 2-7 of the Approval Memorandum, the burial of the CAIS kits was not known to Staff Sergeant Davis personally and the report could not be verified. No other information gathered during the literature review including the review of interview records and the review of range control files was able to substantiate the burial of CAIS kits at MRS-2. As noted in the recommendations for MRS-2, the Army recommends construction personnel

involved in the intrusive operations at MRS-2 attend the Army's ordnance recognition and safety training. The Army will request notice from future land owners of planned intrusive activities, and in turn will provide ordnance recognition and safety training to construction personnel prior to the start of intrusive work.

Although CAIS kits were shipped in either wooden or metal shipping containers, the vials themselves were packaged in metal canisters or cardboard tubes with metal lids. The CAIS kits found previously at the former Fort Ord were packaged in metal canisters and were found using hand held geophysical instruments (Schonstedt magnetometers). Additionally, the two CAIS kits found previously were intentionally buried (burial pits) at depths of 12 inches and 18 inches below the ground surface.

Group 2: MRS-27F (Bivouac Area), MRS-45A (Tactical Training Area), and MRS-59B

Comment: While previous investigations have not identified this group of sites to be of particular concern, there are still too many data gaps and too much uncertainty regarding these data to recommend with any confidence that No Future Action be taken. The report notes that there were substantial problems with the statistical methods used in the evaluation of MRS-45A, in addition to differences between the sampling efforts used at the range and current requirements for the sampling of MEC. Considering the lack of data and the resulting uncertainties regarding MEC at MRS-45A, it cannot be assumed that only low risk items such as practice mines and grenades are present within the area.

It is not acceptable for the Army to accept results from sampling that did not meet these revised requirements, as those guidelines were updated to provide the most accurate representation of MEC at the site. Other sites contained within this group also suffer from a significant lack of data which should prevent them from being recommended for No Further Action.

Sites MRS-27F and MRS-59B have not been adequately investigated to determine if further action is necessary. The report notes that these areas have only undergone site walks, and no geophysical investigations occurred at these sites. A substantial number of the munitions and munitions fragments that have been found at the former Fort Ord have been recovered from beneath the surface where they would not be visible during recreational use, it is vital that areas off of well known paths are surveyed to insure public safety. Without these additional investigations, MRS-45A, MRS-27F, and MRS-59B should not be considered as candidates for No Further Action.

Response: Although the SS/GS sampling methodology used at MRS-45A and adjacent MRS-45 are not used at the former Fort Ord today, the data generated are useful in identifying the type of training that occurred in the area. The military munitions items found within MRS-45 adjacent to MRS-45A included practice mines, practice hand grenades, practice hand grenade fuzes, and smoke grenades. The munitions debris items found within MRS-45A included small arms ammunition clips and links and hand grenade safety levers. Additionally, the

review of historical information (including the review of training maps, range control files and interview records) indicates that the Group 2 sites were used for general training, maneuvers, and as a bivouac area.

The site walks that were conducted as part of the Archives Search included the use of the Schonstedt geophysical instrument. As part of the Archives Search, a portion of MRS-27F and the surrounding areas were walked. No evidence of past training involving the use of military munitions other than practice and pyrotechnic items were found in the vicinity of MRS-27F and MRS-59B. Also, site walks have been conducted at MRS-27F and MRS-59B as part of the Basewide Range Assessment (BRA). Geophysical instruments were used during the BRA in areas that were identified for sampling for munitions constituents and/or areas with bullet accumulations. No evidence of military munitions were observed in MRS-27F or MRS-59 during the BRA investigation and no sampling was performed. Additionally, the review of historical information (including the review of training maps, range control files, and interview records) indicates that MRS-27F and MRS-59B were used as a bivouac area and for general training and maneuvers.

Group 3: Parcel L23.5.2, Portion of FBTA

Comment: Based on the results of the site walk and the location of officers' quarters at this site, ESC is reasonably confident that MEC do not represent a significant risk to public safety at sites within Group 3. However, because of the unknown nature of activities in this area prior to 1940 and the possibility that the area was used to train artillery units, the presence of MEC should not be completely discounted at these sites. Because of this, the Army should include artillery and mortar rounds commonly used at Fort Ord prior to the 1956 construction of the Officers' Quarters on Welch Ridge in Section 4.5.4, Potential Exposure Routes. The Army should also enforce strict institutional controls in this and other areas at Fort Ord.

Response: As described in Section 4.4 of the Approval Memorandum, a site walk was conducted at Parcel L23.5.2 by an Unexploded Ordnance (UXO) Quality Control (QC) person and a UXO technician. The team checked the path walked using an EM-61 MKII geophysical instrument. All anomalies identified were investigated. No evidence was found to indicate that Parcel L23.5.2 was used as an impact area for artillery or mortar projectiles (e.g., no impact craters, projectile fragmentation, fuzes, ignition cartridges, or subcaliber training devices were observed on the ground surface or found during the excavation of the anomalies identified).

Based on the results of Track 1 evaluations, MEC is not expected at the Track 1 Plug-In sites and these sites do not pose an unacceptable risk to human health or the environment from previous military munitions-related activities (*Record of Decision, No Further Action Related to Munitions and Explosives of Concern – Track 1 Sites, No Further Remedial Action with Monitoring for Ecological Risks from Chemical Contamination at Site 3 [MRS-22], Former Fort Ord, California*, March 10, 2005). The Approval Memorandum indicated that for some Track 1 Plug-In sites, digging or underground “intrusive” activities are planned for the proposed site reuse and development. Because the Track 1 Plug-In sites do not

pose an unacceptable risk to human health or the environment, no institutional controls are required. However, in the interest of safety, reasonable and prudent precautions should be taken when conducting intrusive operations at the sites. As a basewide effort to promote safety and because of Fort Ord's history as a military base, the Army provides "ordnance recognition and safety training" to anyone who requests that training. Construction personnel involved in intrusive operations at the former Fort Ord may attend the Army's "ordnance recognition and safety training" to increase their awareness of and ability to identify MEC items. Trained construction personnel will contact an appropriate local law enforcement agency if a potential MEC item is encountered. The local law enforcement agency will arrange a response by the Army.

For specific Track 1 Plug-In sites or areas (MRS-2, MRS-27F, MRS-45A, MRS-46, MRS-59B, Parcel L23.5.2, and Parcel E20c.1.1.1), the Army recommends construction personnel involved in intrusive operations at these sites attend the Army's "ordnance recognition and safety training." To accomplish that objective, the Army will request notice from future landowners of planned intrusive activities, and in turn will provide ordnance recognition and safety training to construction personnel prior to the start of intrusive work. The Army will provide ordnance recognition and safety refresher training as appropriate.

For the Track 1 sites or areas where ordnance recognition and safety training is recommended (MRS-2, MRS-27F, MRS-45A, MRS-46, MRS-59B, Parcel L23.5.2, and Parcel E20c.1.1.1), at the time of the next five-year review (2007), the Army will assess whether the education program should continue. If information indicates that no MEC items have been found in the course of development or redevelopment of the site, it is expected that the education program may, with the concurrence of the regulatory agencies, be discontinued, subject to reinstatement if a MEC item is encountered in the future.

Group 4: MRS-43A, MRS-15 MOCO 01, MRS-46, MRS-15 DRO 01A, and L6.1

Comment: Due to extensive surveying and removal actions, ESC agrees with the Army that the sites within Group 4 should be recommended for No Further Action. However, the text for this group should include descriptions of 2.36 in. rockets and 37 mm projectiles under Section 5.5.4, Potential Exposure Routes. These types of munitions were used extensively at sites within this group, and if any MEC are found there is a good chance that it could be one of these items. The Army should also require institutional controls such as those used during the construction support activities undertaken during the construction of the York School athletic fields.

Response: While it is true that evidence of the use of 2.36-inch rockets and 37mm projectiles was found during the investigation of sites adjacent to the Group 4 sites, the comment that 2.36-inch rockets and 37mm projectiles were used extensively at sites within Group 4 is not accurate. No evidence of 37mm projectiles was found within the Group 4 sites and the unfired 2.36-inch rockets found on the ground surface by the UXO contractor while conducting the investigation of MRS-46 are believed to be discarded military munitions (DMM).

For Track 1 Plug-In site MRS-46, the Army recommends construction personnel involved in intrusive operations at these sites attend the Army's "ordnance recognition and safety training." To accomplish that objective, the Army will request notice from future landowners of planned intrusive activities, and in turn will provide ordnance recognition and safety training to construction personnel prior to the start of intrusive work. The Army will provide ordnance recognition and safety refresher training as appropriate.

Group 5: Parcel E20c.1.1.1

General Comments: Because of the proximity of these sites to residential areas while the base was operational, the nature of the identified training exercises, and previous removal actions, ESC agrees with the Army that No Further Action is required for sites within Group 5.

Response: No response necessary.