Appendix L
Comments and Responses

L COMMENTS AND RESPONSES

COMMENTS ON DRAFT (SECTIONS L.1 THROUGH L.6)

L.1 U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DIVISION – LEW HUNTER, 20 JUNE 2006

Comment 1: Cite advanced processing white paper and include in appendix.
Response: The draft final incorporates the processing white paper as an appendix, and the text of Section 6.1.4.3 now mentions that Appendix C presents the white paper that explains the approach in detail.

Comment 2: The statement "*…sifted soil was returned to the scraped areas to approximate the original configuration of the site*." is inaccurate and misleading. Sifting spoils were stockpiled at the north and south ends of Range 45 and these stock piles were re-contoured at the end of the project. The spoils were NOT redistributed across Range 45 to approximate the original contours. This statement needs to be changed to reflect the current condition of the site and I assume there must have been a WVN to document this change. Such a WVN needs to be included in Appendix H.
Response: Parsons concurs that although soil was stockpiled and then recontoured, not all of the soil went back to its original location. However, the Army agreed during field activities that grading all of the soil back to a relatively flat (original) terrain contour would be senseless, since Range 45 is not habitat but slated for development. Most of the top 5 to 30 feet of soil, depending on varying plans that were made available through the course of work, is expected to be removed by the ultimate development of the Range 45 property, thus obviating the need to return the contour to that matching the original. The text has been revised to reflect this. No WVN was needed or created for this decision.

L.2 U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DIVISION – JENNIFER PAYNE, 27 JUNE 2006

Comment 1: Section 13.1.2, page 13-1: The third paragraph of this section states that the UXO teams recovered 99 of the 122 QC items during the analog removal. This is not consistent with Section 9.2.1, which states that 98 of the 121 QC items were recovered during the analog removal. Please resolve this inconsistency.
Response: Section 13.1.2 has been corrected to state that 98 of the 121 QC items were recovered during the analog removal.

L.3 FORT ORD ENVIRONMENTAL JUSTICE NETWORK, INC. (FOEJN), 20 JULY 2006

Comment in Cover Letter from FOEJN (LeVonne Stone): Community members want to express their concern about the Army adequately communicating problems with the Superfund clean-up process at Fort Ord. Ranges that have already been burned have not been cleared of munitions and debris which is lying around to be easily accessed by the public. Since this area has already been burned the removal of munitions should have taken place. It is a health [threat] to leave the UXO lying in the open, and a human health threat to burn the vegetation. We are willing to look at available technologies as a possible solution and help to choose the method best suited to our communities.

Response: The Army provides opportunities for community members to express their concerns about the environmental cleanup of the former Fort Ord through the Community Involvement Workshop program, community interest surveys, and the (800) 852-9699 telephone line.
A removal of munitions and explosives of concern (MEC) on the surface has been completed on all munitions response sites (MRSs) of the former Fort Ord where the vegetation has been burned either by prescribed burning or wildfires. This action removes MEC from the surface of the ground and significantly reduces the possibility of casual contact by the public. The Army has also completed MEC removal from the subsurface in 272 acres of the Ranges 43-48 site. Subsurface removal in some areas of Ranges 43-48 was not possible with the available resources and technologies. The Army will use information developed during the remedial investigation and feasibility study (RI/FS) to examine alternatives to address the areas where subsurface MEC is suspected to remain.

Data collected during recent prescribed burns on the former Fort Ord indicates that the smoke generated by these events is not a threat to healthy local residents nor those with respiratory or other illness provided that they take reasonable precautions when smoke is in the air. The Army makes every effort to reduce the impact of smoke from prescribed burns on the residents of local communities. The Army will not conduct prescribed burns unless optimal conditions for good smoke management are determined to be present.

The Army remains interested and receptive to input from community members concerning innovations that will allow the most effective and efficient environmental cleanup of the former Fort Ord.

Comments Prepared by Environmental Stewardship Concepts (ESC) for FOEJN

General Comments

Comment 1: ESC agrees with Parsons that removal operations in 225.4 acres where analog removal actions have not taken place should continue. However, we urge that these actions be funded and undertaken as soon as possible rather than waiting for the review of the RI/FS as suggested. As long as these munitions are present there is a public safety concern due to poor site security. This is demonstrated by the June 2005 unauthorized access to the site that resulted in the destruction of a mechanical sifter's electrical control trailer, a pickup truck on site, and the extensive repairs required for the armored front-end loader that caused the havoc described above. Parsons cited the large amount of debris in these areas as one reason that removal actions have not been completed. There is a very real possibility that lives could be lost in addition to loss of property as a result of future trespassing. Because preventing future trespassing will be difficult, the most logical solution to this hazard is the immediate removal of these items.
Response: The Army remains committed to the expeditious removal of MEC items from the MRSs of the former Fort Ord, and the Military Munitions Response Program is progressing as quickly possible. The applicable RI/FS review process is necessary to ensure that timely and appropriate actions are taken in regard to prioritization and the application of removal techniques and technologies.

The Fort Ord MRS security program is a system of administrative and engineering controls, law enforcement, and community education. It has been described by a national public interest group that examines issues surrounding military range cleanup as “an example of a comprehensive program to address public safety.” The June 2005 trespass incident involved heavy earth moving equipment stolen from a civilian construction company not associated with the Fort Ord cleanup,

which was used to break down the Fort Ord impact area perimeter fence. The fact that the 12-mile perimeter of the impact area is surrounded with a barrier which cannot withstand a deliberate assault by criminals using heavy earth moving equipment is not considered a weakness in the design or implementation of the MRS security program. The Fort Ord MRS Security Program continues to protect law-abiding citizens from inadvertent contact with MEC.

The large amount of debris detected in some areas of Ranges 43-48 interfered with the contractor's ability to distinguish individual anomalies. To attempt a subsurface removal in these areas using the current field technologies would have violated habitat protection agreements currently in place and would have placed removal workers in unnecessary danger. While the possibility exists that a person may be injured or killed as the result of simply trespassing on portions of the Fort Ord Impact Area, there is no record of such an occurrence. Injuries and deaths related to MEC from Fort Ord have regularly involved, in addition to trespass, theft of government property and the criminal use of government explosives. The Army agrees that MRS security alone is not the best solution to protect the public from MEC. The Army will continue to act as quickly as possible to effectively address MEC that presents a hazard to public safety.

Comment 2: To continue providing for the public's safety, the Army should also delay all planned prescribed burns and major removal actions until these areas have been cleared of all munitions. Future burns would expose even more MEC to trespassers. In addition to posing a risk on-site, these munitions could potentially be taken off site and put even more people at risk. Part of the Army's security plan at Fort Ord should include minimizing the opportunities for trespassers to encounter exposed MEC in both the long and short term. Clearing more brush while literally hundreds of acres of Fort Ord that have already been burned still have high densities of MEC would not meet this goal.
Response: In areas of the former Fort Ord where MEC is suspected or known to remain on the surface, the vegetation that covers that MEC must be removed before an effective MEC removal can be accomplished. Trespassers who acquire munitions virtually always take those exposed on the ground surface. Burning allows UXO teams to safely enter the areas cleared of vegetation to perform surface removal, thereby eliminating the greatest source of munitions illegally acquired by trespassers. All areas in the former Fort Ord Impact Area that have been cleared of vegetation, as with prescribed burns, have been immediately subject to removal of all MEC items and munitions debris from the surface because these items pose the greatest risk. The Army's MRS security program addresses short-term hazards to public safety that result from the potential exposure to MEC. This program must eventually be supplanted by the application of long-term solutions to public exposure to MEC.

The Army is taking every opportunity to address the risk of public exposure to MEC. Removing vegetation that hides the surface and then removing the exposed MEC are significant and effective measures in achieving this goal.

Comment 3: Despite the vegetative clearance resulting from the prescribed burn, $843,911 was still spent on manual and mechanical vegetation clearance, according to Table 12-1 in this report. The 2002 ROD evaluation of vegetation clearance alternatives estimated that it would cost slightly less to clear Ranges 43-48 mechanically than a prescribed burn, or approximately 1.4 million dollars versus 17.7 million. The additional vegetation clearance expenditures listed in Table 12-1 were needed to "mechanically and manually cut the unburned brush and leftover standing burnt stems and branches from the surface cleared grids" to make it accessible to

geophysical instrument operators. These costs appear to be unavoidable in the context of a prescribed burn, regardless of how successful it was. In short, the mechanical clearance of vegetation is required even if a prescribed burn is originally used. This report makes it clear that the Army did not accurately estimate the costs of a prescribed burn, underestimating it by nearly 50%. The mechanical clearance of vegetation is actually significantly less expensive and more efficient than burning as it prevents such repetitive actions. There is therefore no justification to continue risking public health and property by continuing prescribed burns at the former Fort Ord.

Response: To conduct survey and geophysical processes linked to subsurface MEC removal, some mechanical cutting in the protected habitat portions of the Interim Action MRS of the former Fort Ord, such as MRS Ranges 43-48, is frequently necessary due to the characteristics of the vegetation after it is burned. For example, cutting of burned vegetation was essential before conducting digital mapping and excavation operations. In most areas, such cutting is appropriate only after burning the vegetation. Approximately 28 of the 499.5 acres of the MRS Ranges 43-48 were cut without prior burning. This acreage was determined to contain insufficient fuel (vegetation) to carry a fire (burn by itself) or was otherwise disposed in manner that precluded further burn attempts (loss of weather prescription, too small, etc.).

Mechanical and manual cutting impose greater danger to workers and damage to the fire-adapted CMC habitat than does burning (a prescribed burn allows native foliage to regenerate itself; mechanical and manual cutting of remaining stubs and stalks after burning makes the area accessible). Cost was not the primary factor in determining the preferred process for the removal of vegetation in IA OE RI/FS. Cutting alone as a vegetation removal technique is contrary to biological and conference opinions issued by the United States Fish and Wildlife Service (USFWS) in 1993, 1999, and 2004 in accordance with the Endangered Species Act (ESA). The ESA is one of the Applicable or Relevant and Appropriate Requirements (ARARs) that MEC removal actions must comply with. Also, cutting after the prescribed burn minimizes impacts on the rare species and habitat, since the fire has treated the seedbank, allowing the habitat to naturally recover. All post-burn cutting of vegetation was conducted in a manner consistent with the HMP.

Comment 4: The technical report should also include more information regarding the depth of MEC encountered when available. These data are important to make future removal actions more effective. It also prevents any discussion about the effectiveness of the operations detailed in this report. Deeper munitions still present a threat to public safety, particularly in areas slated for redevelopment. The report also does not discuss the limitations of the Schonstedt magnetometer. This equipment has difficulty detecting objects at any significant depth. No mention of this is made in the text and QA/QC sampling did not seed any MEC at a depth greater than 24 inches. Other reports have noted the deficiency of the Schonstedt to locate items at depths greater than two feet. This report should as well.

Response: Appendix A: Detail of MEC Encountered in the draft included depths at which all MEC items were encountered. While many tables in the draft TIP repeated this information for readers' convenience, it was inadvertently omitted from three others. The draft final adds depth information to Tables 5-2, 6-2, and 7-1. The depth information for analog removal shows items that were detected by the Schonstedt and removed from depths well in excess of two feet. As now explained in draft final Section 1.3, the SSWP specifies that subsurface removal use the Schonstedt for analog detection and removal followed by digital mapping and excavation using

EM61-MK2s. All grids accepted by the Army received both analog removal using Schonstedt magnetometers and digital removal using EM61-MK2 electromagnetic sensors. This two-stage approach takes advantage of the various strengths of these two instruments, both of which were selected as the best available instrument for the work they do. Typical maximum seeding depths are based on Table 7.3 of EM1110-1-4009.

Comment 5: Regardless of the above issues, overall the report is well organized and well written. This is critical to successful community involvement, as it aids in making information more accessible and understandable to technical reviewers and the public in general. We look forward to reviewing more documents of the same quality.
Response: No response needed.

Specific Comments

Comment 1: Section 4.3, page 4-2: What was the rough percentage of the area burned that required vegetation clearance of any kind afterwards? This information would aid in better assessing the costs of future burns.
Response: All acreage burned during the October 2003 prescribed burn received follow-up mechanical or manual cutting. Please also see response to general comment 3.

Comment 2: Section 5.3.1. Table 5-1: This table should include the average depth of each item found as done in previous tables.
Response: Table 5-2 in the draft final, which shows information about the same items listed in Table 5-1, now includes the range of depths at which the items were found.

Comment 3: Section 6.3.1, Table 6-1: This table should also include the average depth of each type of MEC item excavated.
Response: Table 6-2 in the draft final, which shows information about the same items listed in Table 6-1, now includes the range of depths at which the items were found.

Comment 4: Section 7.2.1, page 7-4, third paragraph: The vandalism involving the armored front-end loader was apparently not reported to the press. This was a major breach of security that should have been disclosed, particularly given the dangerous nature of the site. Have any improvements been made to site security to prevent such an occurrence from happening again?
Response: Local coverage of the vandalism appeared in the 16 June 2005 issue of the Monterey Herald. Salinas television station KSBW aired an interview with Lyle Shurtleff of the former Fort Ord BRAC office on the evening news shortly after the incident. In addition, the Army covered this incident at its annual Site Security Update at the April 12, 2006 Community Involvement Workshop (attended by a representative of the FOEJN) and the April 13 Technical Review Committee as well as in the publicly distributed Former Fort Ord MMRP Fact Sheet for summer 2005. The Army has no record of coverage on a regional or national scale. As stated in the draft document, as a result of the incident, the Army modified security barriers around the site and added patrols by a private security firm, First Alarm. See also response to general comment 1.

Recommendations

- Fund and continue work in all of the special case areas (SCAs) cited by Parsons
- Provide more data detailing the depth of MEC removals when available

- Delay any future prescribed burns and major removal actions until the 225.4 acres of Ranges 43-48 where analog removal could not be completed are cleared of unexploded ordnance and munitions related debris
- Include the costs of mechanical and manual clearance of vegetation in the cost of future prescribed burns
- The Army needs to address site security to prevent any more occurrences similar to the incident in June 2005.

Response: See responses above.

L.4 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA), 21 JULY 2006

General Comments

Comment 1: The presence of fired 3-inch common and 76mm gun projectiles within the Ranges 43-48 complex may indicate the presence of an unidentified tank firing range at the former Fort Ord. These items are noted in Appendix A, Items Encountered, on pages A-5 and A-6. While the 3-inch common projectile may predate the World War II time period, the 76mm projectiles were used during that period and the Korean Conflict period (and around 10 years thereafter) as well. Tanks/Gun Motor Carriages armed with these weapons were generally lightweight and were organic to the Tables of Organization and Equipment (TOEs) of the units stationed at the former Fort Ord during its operational existence. The potential presence of an unidentified tank firing range at the installation raises munitions and explosives of concern (MEC) issues as to its location, direction of fire, and target area. Please supply these parameters in the Draft MRS-Ranges 43-48 Interim Action Technical Information Paper (hereinafter referred to as the Draft MRS-Ranges 43-48 IA TIP). In addition, please identify any previous discoveries of fired Tank/Gun Motor Carriage projectiles at the former Fort Ord.

Response: Surface and subsurface activities at Ranges 43-48 recovered one M339 76mm armor piercing tracer projectile (munitions debris), seven M352 76mm high-explosive projectiles (six MEC and one munitions debris), and one three-inch common steel-shell projectile (munitions debris) from December 2003 to January 2005. Earlier removal activities elsewhere in the Impact Area found three M363 76mm canister projectiles in December 1997 (munitions debris), one M339 76mm armor piercing tracer projectile in January 1998 (munitions debris), another M363 76mm canister projectile in January 1999 (munitions debris), and one M352 76mm high-explosive projectile in February 2000 (munitions debris). Although these munitions can be associated with tanks and gun motor carriages, the items found to this point provide insufficient information to conclude whether a tank firing range existed at the former Fort Ord. No other information or records show that such a range existed. The small number and distribution of these projectiles may indicate that they could be the results of capability exercises (CAPEX), firepower demonstrations, or other one-time-use activities.

Comment 2: The work done at MRS-Ranges 43-48 that is described in the Draft MRS-Ranges 43-48 IA TIP was an interim action. The results of this interim action should not be used as a basis to suggest transfer of any of the property located within the boundaries of the MRS until the Remedial Action Objectives of the Interim Action Record of Decision are achieved, or accomplished through another CERCLA action. The nature of many of the munitions items used inside the boundaries of this MRS are such that transfer of parcels adjacent to the SCAs would serve to increase the proximity of persons using the transferred parcels to some of the more hazardous munitions used at the former Fort Ord. Further, Range 45 is intended for reuse under

ESCA by Monterey Peninsula College as a firing range. The recommendations should discuss the safety of reuse of the surrounding area which includes SCAs and what Land use controls might be necessary to protect future users of range 45 and the buffer zone around it.
Response: In accordance with the IA ROD for interim actions at Ranges 43-48, Range 30A, and Site OE-16, the operations described in this TIP are selected interim remedial actions for reducing immediate hazards from MEC at these sites while a comprehensive study of long-term cleanup needs for MEC at the former Fort Ord is conducted under the basewide MR RI/FS program. The interim cleanup goals for these sites are to (1) take quick action to protect human health from an immediate threat and/or (2) institute temporary measures to stabilize the interim action sites in the short term until the Army develops a final remedial solution.

Subsurface removal was completed in the Range 45 area where the anticipated reuse includes a firing range for Monterey Peninsula College, with the exception of 1.2 acres (the Range 45 trench). A portion of MRS-Ranges 43-48 immediately adjacent to the area proposed for the firing range will be maintained as habitat reserve; the TIP identifies areas where subsurface removal was not completed. For the portion of the Ranges 43-48 where subsurface removal was not completed, U.S. Army Corps of Engineers, Sacramento District will outline safety precautions required for any interim use in a separate document.

(The following text is modified in accordance with USEPA Specific Comment 3 from December 2006, on page L-20 and L-21. The gray text replaces the strikethrough text.)

Some areas within MRS-Ranges 43-48 were designated as SCAs because operational constraints prevented the completion of a subsurface removal action in those areas. The designation of such an SCA may not confirm MEC hazard within but indicates that the potential for MEC hazard has not been addressed via the completion of a planned removal action to depth in the designated area. The Army will continue to implement public safety protection measures described in the *Fort Ord Munitions Response Sites (MRS) Security Program (Formerly Ordnance And Explosives [OE] Site Security 2002 Program Summary) Former Fort Ord, April 2005* for the entirety of MRS-Ranges 43-48 until alternative public safety protection measures have been identified through a careful evaluation of changes to risk that may result from the interim use or transfer of any parcels or areas within or adjacent to that MRS and those measure have been addressed with the Agency in detail.

~~The assumption that proximity between SCAs and transferred parcels within MRS Ranges 43-48 increases the proximity of persons using the transferred parcels to some of the more hazardous munitions used at the former Fort Ord assumes that all subject SCAs likely contain such munitions. However, many areas within MRS Ranges 43-48 were designated SCAs for reasons other than the hazardous nature of probable munitions within. Those SCAs, such as the fence line, have remained within close proximity of publicly used roadways for years without incident.~~

Comment 3: The Technical Information Paper (TIP) should include the Remedial Action Objectives specified in the Interim Action Record of Decision. The conclusions of the TIP should state what RAO's were achieved and what remain to be completed and discuss the Army's proposed approach for how the remaining areas will be addressed under CERCLA.
Response: Section 1.2 of the draft final now includes the following text: “The IA ROD Section 2.10 presents the interim remedial action objectives (RAOs) for Ranges 43-48: ‘Interim RAOs are to reduce risks to human health and the environment associated with OE and comply with federal and state ARARs.’”

The conclusion in the draft final now includes the following text:

> The IA ROD states that the interim RAOs for the Ranges 43-48 removal action are to reduce risks to human health and the environment associated with ordnance and explosives and to comply with federal and state ARARs [Ref. 2]. The IA ROD selected surface and subsurface MEC removal as the interim remedy, while the specific technical approach for subsurface removal (removal depth) was deferred to the site-specific work plan. The final Ranges 43-48 Site Specific Work Plan (SSWP), Former Fort Ord, August 2003, identified the MEC removal process to be implemented in MRS-Ranges 43-48 as surface removal, followed by detection and investigation of subsurface anomalies, followed by QC. The SSWP also provided that "portions of the site where this approach cannot be implemented will be delineated as special-case areas and addressed in the future" (Sec.1.5.1). This anticipated that subsurface removal might not be feasible using the general subsurface removal technique in areas with high anomaly density, which the MR BCT recognized at the time of the work plan development. The process for delineating and addressing these areas is further discussed in Sec. 2.3.8.2 of the Final SSWP.
>
> The interim remedial action at Ranges 43-48 did not accomplish the Interim Action ROD selected remedy in some parts of the site. In some areas, only surface removal was completed. Although the risks were substantially reduced by completing surface MEC removal, these areas are not protective for unrestricted reuse. Site security measures (fences, signs, perimeter controls, etc.) will remain in place to provide continuing protection, and these areas will be further evaluated and addressed in a subsequent CERCLA decision document. In a separate document, U.S. Army Corps of Engineers, Sacramento District will outline safety precautions required for any interim use.

Specific Comments

Comment 1: Section 2.2.3, Accessibility, Page 2-5: The last two sentences of the last paragraph of this section read, "In previous cases, children have trespassed on Range 45, picked up 40 millimeters (mm) practice grenades (projectiles), brought them home or to school, and threw them against walls. Fortunately, the rounds were non-explosive, although items encountered on the surface can be live and cause property damage, serious injury, or even death when encountered." The first sentence has some tense changes that make it difficult to understand. Also, the word "millimeters" should be changed to "millimeter." The second sentence refers to the 40mm grenades as "rounds," which is incorrect usage of that term. If the items thrown against the wall were complete rounds (cartridges), they should have been referred to as such in the first sentence. Please revise the cited sentences as noted.
Response: The sentences in the draft final now read, "In previous cases, children trespassed onto Range 45, picked up 40-millimeter (mm) practice grenades (projectiles), brought them home or to school, and threw them against walls. Fortunately, the projectiles were non-explosive, although items encountered on the surface can be live and cause property damage, serious injury, or even death when encountered."

Comment 2:. Section 2.3.2.3, Range 44 Grid Sampling, Page 2-8: The last sentence in this section states that, "No items were encountered during this sampling activity [Ref. 12]." Please

insert the acronym "MEC" between the words "No" and "items" in the sentence to better reflect what was not found during the sampling.
Response: The sentence in the draft final now reads, “No MEC items or munitions debris were encountered during this sampling activity.”

Comment 3: Section 2.3.2.12, Surface TCRA, Page 2-11: The second paragraph of this section lists some of the MEC encountered during the Surface TCRA. A spot comparison of these numbers with those found in Appendix A, Items Encountered, reveals a number of discrepancies. In one of these (90mm projectiles) the number stated in Section 2.3.2.12 is more than the total in the summary listing. If the initial listing in Appendix A (Summary of Items Encountered) is a listing of only the items discovered during the subsurface removal, please so state. However, if it includes all of the items removed during both the surface and subsurface removals, this should be stated as well. Any discrepancies between the cited section and the listings in Appendix A should be corrected. Please make the cited evaluation and correct any titles, references, and numbers as necessary.
Response: As in previous reports, the Items Encountered appendix lists only those items encountered during the site investigation that is the subject of the report. Section 2.3.2 Previous Site Investigations/Activities provides brief synopses of operations on Ranges 43-48 that occurred before those discussed in this TIP, along with references to guide readers to the documents or databases for additional information about a given previous operation. For example, Subsection 2.3.2.12 refers TIP readers to the Fort Ord Military Munitions Response Program Database and to the Final Technical Information Paper, Surface Removal, Ordnance and Explosives Site Ranges 43-48, produced by Parsons and distributed in February 2002. Using the most current Fort Ord Military Munitions Response Program Database, Section 2.3.2.12 of the draft final for this TIP updates the number of 60mm M49 series HE projectiles classified as MEC items and the number of rocket motors from M222 Dragon guided missiles classified as munitions debris (OE scrap in the terminology of the surface removal TIP).

Comment 4: Section 3.2.2, Debris Removed, Page 3-11: The first paragraph of this section states that, "MEC was identified as acceptable to move and was then hand-carried to the locations of other suspected MEC awaiting demolition on MRS-Ranges 43-48, or it was identified as a blow-in-place (BIP) item. All identified BIP items were safely moved with armored equipment to a safe holding area for later demolition in accordance with the demolition SOP of the PWP [Ref. 4]." However, on the next page, Section 3.3, Demolition Operations, states that, "The MEC items and suspected MEC items (items later determined to be MD-E) were identified as either acceptable or unacceptable to move based on their explosive filler, fuzing, and condition. The unacceptable-to-move items were too sensitive to move and thus detonated in the location where they were found (BIP). The acceptable-to-move items were hand-carried a short distance to the locations of other identified MEC awaiting demolition and then destroyed (referred to as a consolidated demolition shot)."

It appears that the process for dealing with unacceptable-to-move (BIP) items is markedly different in these two sections. The first listed section states that BIP items will be moved to a holding area using an armored vehicle, while the second section states that they will be detonated where they are found. Please review the two cited sections and revise them as necessary to reflect a consistent process for handling the items determined to require detonation in place (unacceptable to move). Ensure that the revised process is the one actually used during the MRS-Ranges 43-48 removal actions.

Response: Except for the Range 45 sifting operation (discussed in Chapter 7), BIP items were detonated where found. The draft final corrects the first paragraph of Section 3.2.2 to read, "MEC items were either identified as acceptable to move and were then hand-carried to the locations of other suspected MEC awaiting demolition on MRS-Ranges 43-48 or were identified as blow-in-place (BIP) items too sensitive to move and thus detonated in the location where found, in accordance with the demolition SOP of the PWP."

Comment 5: Section 4.5, Geophysical Walk-Through, Page 4-7: The last sentence in the subsection indicates that, "Grenade fuzes, illumination signals, and other nonferrous components are detectable with an EM61-MK2 but not with a G-858." This statement is somewhat inaccurate. It is true that an EM61-MK2 will detect nonferrous items and a G-858 will not. However, a G-858 will detect grenade fuzes with the safety lever and safety pin attached. It will also detect some illumination signals due to their ferrous content. It is also true that the G-858 will not detect them at the same depth as the EM61-MK2. While it is believed that the best instrument was selected for the work to be done, the non-detect statement concerning the G-858 is incorrect. Please revise the cited sentence to correct it as necessary.
Response: The draft final revises the sentence to read, "Unlike the G-858, the EM61-MK2 can detect nonferrous items, and the EM61-MK2 can also detect ferrous items at a greater depth than the G-858 can. Because of these capabilities, the EM61-MK2 can detect grenade fuzes without the safety lever and safety pin attached and can detect certain illumination signals that the G-858 cannot."

Comment 6: Map 4-2, MRS-Ranges 43-48 Anomaly Density Estimate Based on Geophysical Transect Sampling: The map shows a number of grids within the boundaries of MRS-Ranges 43-48 that are not filled in with any of the colors describing anomaly density for the grid. Please revise the map legend to include a statement as to what the absence of an anomaly density color indicates (i.e., no survey conducted).
Response: A note added to Map 4-2 in the draft final now explains that unshaded grids either had an anomaly density of zero or had undergone analog removal before the geophysicist performed geophysical transect sampling collected density data.

Comment 7: Chapter 5, Analog Removal, Page 5-1: In the introductory statements found preceding Section 5.1, it is stated that, "The analog removal consisted of two major operations: 1) sweeping the ground surface with Schonstedt magnetometers to detect and remove subsurface MEC (by detonation) and MD and 2) identifying special-case areas (SCAs)" but it is unclear what the statement "...remove subsurface MEC (by detonation)..." implies. While it is very unlikely that the subsurface MEC items were removed by detonation without having been first excavated, the statement does not specifically state this. As a result, individuals that do not have a MEC removal background may read the statement and incorrectly infer that the MEC was removed by detonation without first excavating the item. Please revise the cited text to eliminate this potential misinterpretation.
Response: The draft final omits "(by detonation)" from the sentence.

Comment 8: Section 6.3.1, Intrusive Investigation Results, page 6-8: The first sentence states that the anomaly excavations produced 440 MEC items. Other parts of the document (Tables 6-1 and 6-2, §13.1.3) indicate that 409 MEC items were excavated during the digital mapping anomaly excavations. Please check the values and revise the text as appropriate.
Response: The draft final corrects 440 MEC items to 409 MEC items.

Comment 9: Figure 6-2, Digital Mapping Anomaly Excavation Results, page 6-13: There are no MEC items identified on this graph. Section 6 indicates that more than 409 MEC items were excavated during the digital mapping excavations. Either include MEC in this figure or change the title to indicate it represents non-MEC excavated items.
Response: To better reflect the figure's intention, the title now reads, "Results for Digital Mapping Anomaly Excavations Not Producing MEC Items"

Comment 10: Section 8 and Section 13: This section discusses Pending Actions and Special Case Areas. However, there is no definition of what differentiates a Pending Action from a Special Case Area (SCA). Is there a difference? If so, please provide a definition. Additionally in Chapter 13, on page 13-2 a new term is introduced: "low priority areas", which appears distinct from Special Case Areas or Pending Actions. Please use the same terminology for describing the yet to be completed areas. Also as SCAs were not remediated to depth as the interim action ROD selected remedy requires, the Army should respond with specific plans as to how the SCAs will be resolved under CERCLA. Will the interim action ROD be amended or will the changes be captured in the Track 3 RI/FS, proposed plan and ROD? The BCT should discuss this issue further.
Response: The draft final now uses the term "non-completed area" rather than "pending action area" or "low-priority area." The definitions following the table of contents now explain that for this site, a non-completed area is "an area in which MEC removal was not completed within the scope of work due to money or time constraints. This became necessary because higher-than-expected anomaly densities in Ranges 43-48 made it impossible to complete the subsurface removal over the entire site within the time and funding constraints of the contract. As a result, USACE prioritized the subsurface removal work in portions of Ranges 43-48 based on which areas most enhanced public and personnel safety and enabled reuse of the land." This differs from an SCA, which is "An area in an MRS in which MEC removal cannot be completed within the scope of work due to metallic clutter or obstructions that compromise instrument performance or technician safety or because the removal process would cause a serious adverse impact to the habitat."

The Army will assess the site conditions and evaluate alternatives to address remaining risks associated with SCAs and non-completed areas in accordance with the CERCLA RI/FS program. For example, the southern portion of MRS-Ranges 43-48 that is part of the transfer parcel F1.13 is included in the RI/FS evaluation for the majority of the former Impact Area. Please see *Draft Track 3 Impact Area Munitions Response Area, Munitions Response RI/FS*, dated August 8, 2006.

Please also see the response to General Comment 3.

Comment 11: Section 9.5.3, Digital Quality Assurance, Page 9-10: This section notes that, "The USACE project geophysicist conducted independent digital geophysical surveys with an EM61-MK2, interpreted the data collected and selected anomalies for the USACE OESS to intrusively investigate. The results of these activities can be found in the digital QA report, which will be included in the draft final version of this report." The EPA will review this report when it is provided and will provide comments as to the effectiveness of the US Army Core of Engineers Quality Program at that time.
Response: No response needed.

Comment 12: Section 9.5.3, Digital Quality Assurance, page 9-10: This section notes that, "The USACE project geophysicist conducted independent digital geophysical surveys with an EM61-MK2, interpreted the data collected and selected anomalies for the USACE OESS to intrusively investigate. The results of these activities can be found in the digital QA report, which will be included in the draft final version of this report." The EPA will review this report when it is provided and will provide comments as to the effectiveness of the COE Quality Program at that time.
Response: No response needed.

L.5 CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC), 1 AUGUST 2006

General Comments

Comment 1: The work was conducted in accordance with the selected remedy documented in the Record of Decision Interim Action for Ordnance and Explosives at Ranges 43-48, Range 30A and Site OE-16. The surface and subsurface removal entailed visually searching for and removing Munitions and Explosives of Concern (MEC) from the surface (Chapter 3), operating geophysical detection equipment to locate and remove MEC in the subsurface (subsurface removal work was divided into analog and digital operations). The analog work involved detecting anomalies (metallic items potentially representing MEC in the subsurface) with a Schonstedt GA-52/Cx magnetometers and then digging each anomaly location until the source of the anomaly was removed (Chapter 5). The digital operations consisted of mapping the post-removal site conditions with both the individually operated and towed-array EM61-MK2 electro-magnetometers and then investigating and resolving all anomalies detected by the instruments (Chapter 6). Quality control and quality assurance (QC/QA) inspections were conducted to verify that detectable items had been removed and that the Interim Action was performed completely, effectively, and in accordance with the Fort Ord programmatic work plan (PWP) and the MRS-Ranges 43–48 site-specific work plan (SSWP) [Refs. 4 and 5] (Chapter 9).
Response: Comment acknowledged.

Comment 2: The project Remedial Action Objectives (RAOs) were not completed, (approximately half of the intended area was completed). An Interim Action was needed to protect human health from the imminent threat posed by MEC. The remaining area consists of 1100 grids which did not go through QC/QA or were designated as Special Case Areas (SCAs); therefore, a threat still exists to human health within Ranges 43-48. The visual surface clearance operation removed a total of 4563 MEC items. The surface sweep recovered over 600 high explosive projectiles (543 items designated as dangerous to move and were blow-in-place). The amount of dangerous MEC recovered during the surface clearance indicates a significant surface hazard existed and has been removed. The analog instrument subsurface removal recovered 3242 MEC items. Please explain the decision process or rationale for not completing the RAOs. In addition, the RAO's should be clearly stated at the beginning of the document.
Response: Section 1.2 of the draft final now contains the following text: "The IA ROD Section 2.10 presents the interim remedial action objectives (RAOs) for Ranges 43-48: 'Interim RAOs are to reduce risks to human health and the environment associated with OE and comply with federal and state ARARs.'"

Surface removal reduced the immediate surface threat. As stated in Chapter 8 and Sections 5.4, 13.1, and 13.2 of the draft and draft final, the unexpected and unusually high density of anomalies encountered in Ranges 43-48, the probability of extensive environmental impact if

large-scale excavations were to be performed to complete removal to depth, and limited time and money prevented completion of the subsurface removal in parts of Ranges 43-48. Please also see the response to EPA General Comment 3.

Comment 3: The digital intrusive investigation recovered an additional 440 MEC items that were not detected by the surface and or analog subsurface investigation. A significant number of large ordnance was left unrecovered by the analog subsurface removal. It is significant that an analog subsurface clearance left behind 40mm grenades, 60mm and 81mm mortars, 57mm-155mm HE projectiles. The inability to detect many of the MEC items was often times attributed to areas of high metallic debris or procedures not followed by the Unexploded Ordnance (UXO) technicians. This is of particular concern, since other areas of the former Fort Ord have MEC removals completed by only analog instrumentation. The detection capabilities and limitations of the Schonstedt GA-52/CX should be discussed and evaluated for effectively locating all MEC identified during the Ranges 43-48 removal.
Response: Section 1.3 of the draft now includes the following text:

> Earlier subsurface removal work at the OE-15 Del Rey Oaks site and the MRS Seaside site showed that reliance on the single best available technology, whether analog or digital, for a given area was less effective than a two-stage process using first analog and then digital instruments. As a result of this experience, the Ranges 43-48 SSWP specified that subsurface removal would involve (1) detecting and removing subsurface OE to depth with Schonstedt GA-52Cx magnetometers (analog) and then (2) digitally mapping the post-removal conditions with an EM61-MK2 metal detector or a G-858 magnetometer followed by investigating and resolving any remaining items detected during the mapping process. As discussed in section 4.5 of this TIP, the geophysical walkthrough demonstrated that for the conditions present at Ranges 43-48, the EM61-MK2 provided better follow-up to the Schonstedt GA-52Cx than did the G-858.

Quality control (QC) was conducted after completing the analog process and again after the digital process. One grid failed QC; the grid was resurveyed and subsequently passed QC. All other subsurface removal grids passed QC-3 inspection. All grids that passed QC passed Government quality assurance (QA) inspection.

Comment 4: As a QC check on the analog removal process, 121 blue-painted, inert ordnance items were planted at various locations and depths below ground surface (bgs) before the analog removal. The QC analog check recovered 98 of the 121 QC seeds planted. The report indicates that of 23 non-recovered items, 12 were determined to be non-detectable and 11 were missed by the analog removal process. Non-detectable seeds are seed items that were placed and checked by the QC department and were detectable at the time they were placed. Non Conformance Reports (NCRs) were issued for the 11 missed QC seeded. There are a high number of non-detectable seeds which may be a result of improper seeding methods, seeds, and changing geophysical equipment. QC checks utilizing inert seeds are an invaluable tool in determining the validity of MEC removal. Please provide additional information as to the reason for this discrepancy.
Response: The QC seed process separately evaluates the two steps of the removal procedures: 1) analog detection and removal and 2) digital mapping and excavation. At the time of placement, all seeds were checked and detectable. However, changing environmental conditions and removal operations in nearby large fields of debris items can affect local electromagnetic fields,

which in turn affects signals from seed items. This apparently affected some QA seeds as well as some QC seeds.

Of the 121 seed items placed to evaluate the analog removal process, 12 were later found to be non-detectable. For the 123 placed seed items for the digital removal process, nine were non-detectable. Of all seeded items placed, only two were non-detectable by both processes.

Comment 5: As a QC check on the digital survey and removal process, 123 blue-painted, inert ordnance items were planted at various locations and depths bgs before the digital survey. The QC digital check recovered 111 or the 123 QC seeds planted. The report indicates that of the 12 non-recovered items, 9 were determined to be non-detectable and 3 were missed by the digital survey and removal process. Non-detectable seeds are seed items that were placed and checked by the QC department and were detectable at the time they were placed. NCRs were issued for the 3 missed QC seeded items. There are a high number of non-detectable seeds which may be a result of improper seeding methods, seeds, and changing geophysical equipment. QC checks utilizing inert seeds are an invaluable tool in determining the validity of MEC removal. Please provide additional information as to the reason for this discrepancy.
Response: Please see the response to General Comment 4.

Comment 6: The USACE geophysicist conducted QA seeding, digital geophysical mapping and excavations. A report detailing the digital QA activities and seeded item results will be included in the draft final version of the MRS-Ranges 43-48 IATIP. DTSC will provide comments on this report when available as to the effectiveness of the U. S. Army Corps Quality Assurance Program.
Response: No response needed.

Comment 7: The areas which posed a significant impact to habitat, project time and funding were deemed a Special Case Areas or Pending Area. These areas require evaluation as to whether the present condition impacts public safety and complies with the Ranges 43-48 IAROD. The document explains that the actions exceeded the scope of funding and time available in the contract. Further intrusive activities should not be allowed within the areas without practicing UXO avoidance. The surface clearance likely mitigated most of the surface hazard, except in the areas masked by the fence. A significant hazard to the public may exist in areas paralleling the roads and metallic fences. A significant subsurface hazard exists within some of the SCA and pending areas. Please provide information regarding how these SCAs or Pending areas will be addressed and deemed safe for reuse.
Response: Section 13.3 Recommendations in the draft final now reads, "The basewide MR RI/FS program should evaluate the remaining explosive risks and the IA work completed at MRS-Ranges 43-48. This evaluation should include future reuse of and activities in the SCAs and non-completed areas." Surface removal was completed in the entire MRS-Ranges 43-48, including the area adjacent to the perimeter fence. For further discussion, please see the responses to EPA General Comments 2 and 3.

Specific Comments

Comment 1: The provided quality forms do not have the QC inspectors name and signature. Most NCRs were initiated by the Quality Control Manager. This appears to deviate from procedures utilized previously. Please provide information and rationale for this change in procedure.

Response: Appendix H contains copies of the NCRs signed by the Parsons operations manager, the QC manager, and the program manager. Initiation by the QC manager is part of the NCR process: On determination by the QC department of nonconformance, the QC manager files an NCR stating the area affected and the nonconformance observed. The NCR is forwarded to the field operations manager and the senior UXO supervisor, who propose a corrective action for the nonconformance. The QC manager approves or disapproves the proposed corrective action. Once approved, the correction action is implemented, after which the QC department inspects for compliance. If no further noncompliance is found, the area passes QC inspection; if re-inspection finds additional nonconformances, the area fails and undergoes corrective action until it passes.

Comment 2: QC documentation of inspections was not provided. Please provide information or reference the documentation.
Response: QC documentation was electronically filed in the field on PDAs, and the grid operations records were subsequently downloaded onto the Fort Ord Military Munitions Response Program Database, where it is currently stored.

Comment 3: Each non-detectable seed should have a corresponding NCR. The cause for every missed seed should be listed. All NCRs need to be reviewed for project impact. Please provide the missing NCRs.
Response: NCRs have been used, among other things, to document failure by UXO teams to recover detectable items; NCRs have not been used for non-detectable seed items because such items do not constitute a nonconformance or failure. The Army allows contractors to propose their own QC processes in the site-specific work plans, and considers specific suggestions during development of those plans.

Comment 4: A significant number of 40mm HE grenades were found and missed during various operations. What is the detection capability of the Schonstedt and EM-61 MK2 as it relates to 40mm grenades?
Response: Due to the large proportion of nonferrous metal and the minimal amount of ferrous metal in 40mm grenade projectiles, the Schonstedt has difficulty detecting these items. However, the EM61-MK2 proved to be very effective at detecting and locating these items. The dual-technology removal process used at the Ranges 43-48 site takes advantage of the various strengths of these two instruments. During the subsurface removal using EM-61 over 272.4 acres, six high explosive 40mm MEC items were recovered. During the digital process within the Range 45 excavation area, an additional six high explosive 40mm MEC items were recovered. All grids accepted by the Army received both analog removal using Schonstedt magnetometers and digital removal using EM61-MK2 electromagnetic sensors.

COMMENTS ON DRAFT FINAL (SECTIONS L.6 THROUGH L.8)

L.6 FORT ORD ENVIRONMENTAL JUSTICE NETWORK, INC. (FOEJN), 6 DECEMBER 2006

Comments in Cover Letter from FOEJN (LeVonne Stone):

Comment 1: The FOEJN community wants Ranges 43-48 completely funded and cleared of any munitions and debris, since the burning has already taken place that put entire communities at risk.
Response: The documented action is an interim action to address a risk to public safety resulting from the presence of munitions and explosives of concern (MEC) on the subject ranges.

Due to technical, contractual, and resource constraints, a subsurface removal was not completed on portions of the planned area. However, a removal of surface MEC and debris was completed over the entire area where vegetation was removed using a prescribed burn. The Army will assess the constraints to a subsurface removal action in the remaining areas as part of a Track 3 Remedial Action and Feasibility Study (RI/FS) or another RI/FS by the Fort Ord Reuse Authority prior to initiating additional subsurface work.

Comment 2: Burning should be discontinued and alternative vegetation clearing sought in order to stop additional health risk to residents.
Response: Prescribed vegetation burning is the preferred method for the preservation of the habitat that covers the area within Ranges 43-48. A study of alternative vegetation removal techniques confirmed that prescribed burning best addresses habitat preservation requirements and worker safety without significant risk to the health of local residents. Future prescribed burning conducted by the Army in preparation for MEC removal will be designed to minimize the impact to local communities. Collected data indicate that smoke resulting from burns on Fort Ord is no different than smoke from any burn of similar vegetation and data, as assessed by the Agency for Toxic Substances and Disease Registry (ATSDR); this indicates that any effects from the Ranges 43-48 prescribed burn would have been minor and transitory.

Comment 3: FOEJN members have also stated in the past, that new technologies with greater depth detection should be used.
Response: The Army continues to research MEC detection technologies to ensure that the most effective and efficient technologies are applied to specific removal actions.

Comments Prepared by Environmental Stewardship Concepts (ESC) for FOEJN

General Comments

Comment 1: The revised draft is significantly improved over the previous version; the Army has responded well overall to comments and made changes that make the document both more accessible and informative. These efforts are greatly appreciated, and hopefully the Army will continue to be this responsive in the future.
Response: Acknowledged.

Comment 2: Particularly appreciated is the greater attention to site security. The response to comments Section L.4 notes areas where site security has improved through the addition of modified security barriers and patrols by First Alarm. Comments previously submitted by ESC on the previous draft made particular note of an incident where trespassers used a front end loader to damage equipment during cleanup operations. Initial reviews of news publications found no mention of the incident, and the original text in the report did not note that the trespassers gained access to the site by using off site construction equipment.

However, the Army continues to overlook one method to improve overall security and safety at the site. Recent risk assessments for Track 3 sites have noted that risks to surface receptors in uncleared areas are unacceptable. The clearance of vegetation without removing UXO leaves an incredibly dangerous environment by making UXO more accessible. Trespassers could inadvertently detonate or intentionally take exposed UXO offsite to put the general public at risk. The simplest method for minimizing these risks is to not clear vegetation on one Munitions Response Site until cleanup operations on all others are completed. This decreases the area that security personnel need to focus attention on, and could also decrease the interest of individuals

considering trespassing on the site. Resources are already limited, and this would be a good way of conserving them.

Response: The Army completed a surface removal of munitions and explosives of concern (MEC) on MRS-Ranges 43-48 as soon as it was determined safe for workers to do so. Vegetation is not removed from an MRS using prescribed burning unless a follow-on systematic surface MEC removal can be accomplished on the entire burn area. Munitions response sites (MRSs) remain fenced, posted, and patrolled throughout the MEC removal process. Vegetation removal actions may be conducted on more than one MRS simultaneously to take advantage of resulting economies and to ensure that the removal of MEC from the MRS is conducted as swiftly as possible.

Comment 3: Despite the above improvements, ESC still maintains that prescribed burning should not be the preferred method of vegetation clearance at Fort Ord. The Army continues to disregard the concerns of local residents near Fort Ord. It still hasn't explained why it failed to include nearly one million dollars of expenditures for additional manual clearance in its estimates for the costs of clearing vegetation through prescribed burning. It is interesting that the primary argument made to the public before this issue was raised was how much more efficient and safe burning was than mechanical clearance, but now that these two assumptions have been proven wrong by actual events (the escape of the 2003 burn, the need for manual clearance in some areas burned by that same fire), the Army has fallen back on habitat management as the primary rationale for burns.

Response: The Army included the costs for cutting remaining vegetation subsequent to prescribed burning on MRS-Ranges 43-48 within the subject document (Page 12-1). In such actions, the actual cost for vegetation cutting depends on the results of the prescribed burn and therefore is subject to deviation from initial estimates. The cost of cutting remaining vegetation does not negate the requirement to best preserve the habitat of the MRS through prescribed burning. Cutting of vegetation after a prescribed burn on an MRS is necessary for the safety of workers and for the effective operation of detection and removal equipment. The combination of the type and amount of vegetation and suspected MEC on MRS-Ranges 43-48 resulted in a requirement to conduct prescribed burning to remove covering vegetation. Cutting the vegetation would have been unsafe for workers, violated the requirements of the Basewide Habitat Management Plan (HMP), and resulted in conditions unsuitable for the application of the best available technology for the detection and removal of suspected MEC.

The Army included the concerns of local residents in considering the use of prescribed burning to remove vegetation on MRS Ranges 43-48. A significant portion of the cost of prescribed burning on the MRS went for expenses to minimize the impact of the prescribed burn on local residents. Monitoring of the burn and post-burn conditions, analyzing collected data, and coordination with local public agencies will be used to best reduce the impact on local residents of future prescribed burning.

Comment 4: While this approach may be appropriate in sparsely populated areas, it is not acceptable adjacent to urban areas, particularly given the risks associated with escaped fires. There is also no evidence that a mechanically cleared area of chaparral cannot recover, they only recover more slowly. After the MRS 43-48 burn went out of control in 2003, it is next to impossible for the community to accept the Army's assurances that it will never happen again. The risk of one of these prescribed burns escaping and causing harm to persons or property is very real, and the slower recovery of chaparral is worth the reduction of these risks.

Response: Evidence cited by the U.S. Fish and Wildlife Service in consultations with the Army described the recovery of the Central Maritime Chaparral plant community as incomplete when subjected to cutting alone as a method of vegetation removal without a carefully timed pre- or post-burn event. While additional data continues to be collected at test sites and subsequent to vegetation removal actions on the former Fort Ord, the Army is responsible for the management of the habitat under its stewardship. To comply with the Endangered Species Act, the Army must consider the position of the U.S. Fish and Wildlife Service (the regulatory agency for these matters), included in Fort Ord's biological opinions, in regard to "best management practices" in preparing vegetation removal actions in accordance with the HMP.

The Army considers the health and safety of the local community the highest priority during the preparation of environmental cleanup work plans that include prescribed burning. Contingency plans including secondary and tertiary safeguards are included in planning prescribed burning to protect property and residents. The lessons learned from the Ranges 43-48 prescribed burn in 2003 were used in planning the fully controlled and successful prescribed burn on MRS-16 in 2006.

Comment 5: The Army continues to deny the risk that it placed local communities in during the execution of that burn. This is not limited to the health concerns FOEJN and ESC have been noting for literally years, but also includes the direct physical harm from the fire. The Army's own technical evaluations have determined that given the weather conditions on the day in question, hot embers could have easily blown over the firebreak to expand the fire into residential areas (MRS-16 evaluation). It is discouraging to see the Army taking the risks posed to local communities so lightly.

Response: One of the goals of Army technical evaluation of planned, prescribed burning is to identify risks so that work plans can include safeguards and contingency actions to address those risks. Every identified risk to the health and safety of the local community was seriously considered in planning the prescribed burn on MRS-Ranges 43-48. The lessons learned from the wildfire resulting from the prescribed burning on MRS-Ranges 43-48 will be incorporated into future plans.

Comment 6: The Army should work to develop a solution to the problem of vegetation clearance that is acceptable to local communities. This discussion should include the TAG advisor to FOEJN, representatives from USFWS, state and local air regulatory agencies, the EPA and the Army. The primary goal of these discussions should be to develop a method that is both protective of human health and allows for adequate rehabilitation of chaparral. Burning is not the only option, and other alternatives exist that may be more acceptable to all parties.

Response: The Army continues to work within the Comprehensive Environmental Response, Comprehensive, and Liability Act (CERCLA) process to develop environmental cleanup actions that provide for the health and safety of the public, meet legal and regulatory requirements, and include public acceptance as an integral element of the decision process. Alternative vegetation removal techniques for MRS-Ranges 43-48 and other interim action sites were evaluated in the Interim Action Ordnance and Explosives Remedial Investigation and Feasibility Study. During that process, the Army coordinated with interested community members as well as the USF&WS, MBUAPCD, CARB, BLM, and local fire protection agencies. Considering the alternatives, prescribed burning was determined to be the best available method for vegetation removal on MRS-Ranges 43-48. The Army remains open to applicable alternative techniques

for the removal of vegetation in protected habitat that meet CERCLA and habitat preservation requirements.

L.7 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA), DECEMBER 2006

General Comments

Comment 1: The Draft Final MRS-Ranges 43-48 Interim Action Technical Information (hereinafter referred to as the Draft Final MRS-Ranges 43-48 IA TIP) does not adequately address the protective measures to be employed to prevent/control human access in the areas where the removal objectives were not accomplished. This is of particular concern in those areas of the site where ordnance with piezoelectric fuzing and 40mm grenades may have impacted and were not removed (particularly Ranges 44, 45, and 47, and the areas surrounding them where these munitions have been detected/removed or are suspected to be located). This concern is due to the noted ordnance sensitivity to physical stimuli (i.e., human contact). While these areas may be fenced and access may be controlled, any development or other actions in the surrounding and/or adjacent areas that would increase actual or potential human proximity to these uncleared areas must be carefully evaluated in light of the residual hazards present therein. However, the USEPA recognizes that the Draft Final MRS-Ranges 43-48 IA TIP may not be the most appropriate vehicle for addressing this issue.
Response: The Army recognizes that a potential hazard remains to certain human activities in the areas of MRS-Ranges 43-48 where subsurface removal was not completed. The transfer or development of those or adjacent areas will be conditional on a careful evaluation of the risk related to the transfer, in consultation with the regulatory agencies, of specific measures to mitigate the hazards identified in those evaluations.

Comment 2: It is also noted that Section 1.2 of the Draft Final MRS-Ranges 43-48 IA TIP states that, "Site security measures (fences, signs, perimeter controls, etc.) will remain in place to provide continuing protection, and these areas will be further evaluated and addressed in a subsequent CERCLA decision document. In a separate document, U.S Army Corps of Engineers, Sacramento District will outline safety precautions required for any interim use." While these general steps are applauded, the fact remains that the protective measures to be employed to prevent/control human access in the areas where the removal objectives were not accomplished must be addressed in detail to the agency's satisfaction prior to the transfer or leasing of the surrounding and/or adjacent areas. Also, what is the subsequent CERCLA decision document referred to in Section 1.2 of the TIP as noted above? Please provide the USEPA with documentation of the details of the measures to be employed to prevent/limit human access to the noted uncleared areas and the areas in close proximity, as well as the proposed vehicle(s) for the implementation and enforcement of these measures. Also, please explain what potential "interim use" may be planned for any portion of MRS-Ranges 43-48 and the expected changes in human proximity to residual risks that will result from these interim uses.
Response: The Army will address to the USEPA, in detail, the MEC safety precautions identified as a result of a careful evaluation of the risk as well as the measures to be employed to prevent/limit subsequent human access to areas where a subsurface removal action has not been completed. The Army will use the current site security program and require a similar program to be implemented under the ESCA and Track 3 to implement and enforce site security measures protective of the public upon interim use, transfer, or lease of that property. The Army will

explain to the USEPA planned interim uses of areas within MRS-Ranges 43-48, and the planned measures to mitigate the identified risk as planned interim uses are identified.

Comment 3: Finally, if possible, the Army should consider fencing the high density and high hazard areas that were not fully remediated and restrict access to them as much as possible until these areas can be cleared of MEC. EPA is particularly concerned about any pending, non-completed or SCAs in the parcels proposed for transfer under ESCA/privatization. How will those reusers be protected from MEC that is remaining?
Response: The Army will carefully evaluate the potential residual hazards of subsurface MEC in MRS-Ranges 43-48 areas where a subsurface removal has not been completed. The Army will address to the USEPA, in detail, the MEC safety precautions identified as a result of this evaluation as well as the measures to be employed to mitigate those potential hazards prior to the transfer of associated parcels under ESCA/privatization.

Specific Comments

Comment 1: Maps 2-2, 3-1, 4-1, 4-2, 5-1, 6-2, 7-4, 7-5, 7-6, 9-1 and 9-2: The scale on these maps shows one inch to equal approximately 16,000 feet on each listed map. If this is correct, the Range 45 area sifted would be approximately five miles wide and twenty seven miles long and consist of an approximate area of 135 square miles on Maps 7-4, 7-5, and 7-6, and would have an area of approximately 15 square miles on Maps 9-1 and 9-2. This cannot be correct. Please review the scales on all of the cited maps and correct them as necessary.
Response: The cited maps each include in the bottom left corner a small panel presenting a map showing the location of MRS-Ranges 43-48 within the former Fort Ord. In the Draft TIP and the Draft Final TIP, the legends for the cited maps mistakenly showed the scale for the location map in the small panel rather than the scale for the cited map. The legends for these maps in the Final TIP show the scales for the cited maps rather than the scales for the location maps in the small panels.

Comment 2: Appendix L, Section L5, United States Environmental Agency (USEPA), 21 July 2006, page L-9: The title of this section is incorrect and should be revised to read: "United States Environmental Protection Agency (USEPA), 21 July 2006." Please make this correction.
Response: The Final TIP corrects the section title as requested.

Comment 3: Appendix L, Section L5, Comment 2, page L-10: The Army response to this comment (EPA General Comment 2) contains a sentence that reads, "Those SCAs, such as the fence line, have remained within close proximity of publicly used roadways for years without incident." While this is likely a correct statement, it has little or no relevancy to the potential risk posed by the SCAs where hazardous munitions are, or may be, located, or those SCAs designated as such for reasons other than the munitions suspected to be located therein. The EPA believes that any increase in the number of persons having access to any areas in proximity to, or inside of, the outer perimeter of MRS-Ranges 43-48 has a direct impact on the probability that the SCAs will be trespassed upon and someone will be potentially exposed to uncleared munitions.

It should be noted that the positioning of the sentence cited above is immediately subsequent to a statement which reads, "However, many areas within MRS Ranges 43-48 were designated SCAs for reasons other than the hazardous nature of probable munitions within." As such, the first cited sentence appears to be in support of the implied benign nature of some of the SCAs presented in the second cited sentence. As this benign nature has not been proven by

investigation, the assumption that this is the case is preliminary, and is potentially dangerous, until an investigation confirms that no hazard exists. Please delete the first cited sentence. In addition, please reconsider the intent of the supporting sentence and revise/relocate/delete it as deemed appropriate.
Response: The first cited sentence will be deleted. The supporting sentence will be revised as follows: "Some areas within MRS-Ranges 43-48 were designated as SCAs because operational constraints prevented the completion of a subsurface removal action in those areas. The designation of such an SCA may not confirm MEC hazard within but indicates that the potential for MEC hazard has not been addressed via the completion of a planned removal action to depth in the designated area. The Army will continue to implement public safety protection measures described in the *Fort Ord Munitions Response Sites (MRS) Security Program (Formerly Ordnance And Explosives [OE] Site Security 2002 Program Summary) Former Fort Ord, April 2005* for the entirety of MRS-Ranges 43-48 until alternative public safety protection measures have been identified through a careful evaluation of changes to risk that may result from the interim use or transfer of any parcels or areas within or adjacent to that MRS and those measure have been addressed with the Agency in detail."

Comment 4: Appendix L, Section L5, Comment 3, page L-11: The Army response to this comment (EPA General Comment 3) contains two sentences that read, "The interim removal action at Ranges 43-48 did not accomplish the Interim Action ROD selected remedy in some parts of the site. In some areas, only surface removal was completed." These sentences were inserted in Section 13.2 in the revised text of that section. While this information is helpful, no specific identification of these incomplete locations is provided in this section. It would be helpful if a reference to the listing and discussion of these sites that is found in Chapter 8, Special-Case Areas and Non-Completed Areas, were referenced in the Section 13.2 narrative following the cited sentences. Please make this change.
Response: As requested, the Final TIP Section 13.2 includes a sentence referring readers to Chapter 8 for a listing and discussion of these areas.

L.8 CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC), DECEMBER 2006

General Comments

Comments 2 and 7: DTSC agrees that the surface removal in the SCAs reduced the immediate threat; however, an imminent threat continues to exist. Please refer to the attached letter from DTSC's UXO contractor. If the Army will not completely remediate these areas, the Army must provide additional security measures. The Army is currently negotiating an Environmental Services Cooperative Agreement (ESCA) which would include the SCAs. Will the Army fund the additional work, through ESCA, to remediate the SCAs? Provide discussions on how security (active and passive) will be enhanced around the SCAs.
Response: The Army will fund work to complete the CERCLA process for MRS-Ranges 43-48 through the ESCA. The Army recognizes that MEC risk remains to certain human activities in the areas of MRS-Ranges 43-48 where a subsurface removal action was not completed (SCA). Many of those areas are included in the ESCA. The transfer of those areas will be conditional on acceptance by the recipient of responsibility for appropriate security to protect the public until the CERCLA process is completed. The Army will continue to implement the current site security program for MRS-Ranges 43-48 property until the ESCA is accepted and thereafter for

those areas adjacent to transferred property where a subsurface removal action has not been completed until that property has been transferred.

EcoMunition Corporation, 11 December 2006 (from letter prepared for DTSC)

Comment 1: Based on the presence of the 40 millimeter (mm) high explosive (HE) grenades and other HE projectiles recovered during the Corps of Engineer's previous response action at Ranges 43-48, and the likelihood that HE rounds remain, it is EcoMunition's opinion that significant MEC risks do exist within the subject SCA. While these risk are applicable to all those who access the property, it is EcoMunition's opinion that additional risks will occur to Bureau of Land Management (BLM) employees or their contractors if any intrusive work is performed such as digging, plant or debris removal or other soil disturbance activity.
Response: The Army recognizes that a risk remains to certain human activities in the areas of MRS-Ranges 43-48 where a subsurface removal action was not completed (SCA). The transfer or development of those or adjacent areas will be conditional on a careful evaluation, with the regulatory agencies, of the effects of remaining risk and the development of specific security or other measures to mitigate the hazards identified in those evaluations. The Army continues to coordinate with the BLM to ensure that suitable safety measures are in place to allow access for habitat management in all areas of MRS-Ranges 43-48.

Comment 2: As a result of the sensitivity these (40mm) HE rounds exhibit and the potential for rounds to be masked by vegetation, soil, and debris, even those who access the property without performing intrusive work will be subject to significant risks from surface or near-surface MEC.
Response: The Army recognizes that a risk to certain human activities in the areas of MRS-Ranges 43-48 remains where a subsurface removal action was not completed (SCA). The Army continues to implement a site security program to control access to those areas. Prior to transfer of parcels within or adjacent to those SCAs, the actions required by the recipient to implement the planned reuse will be carefully evaluated with the regulatory agencies, and specific measures to mitigate the hazards associated with those actions will be identified prior to transfer. The transfer of parcels within or adjacent to SCAs within MRS-Ranges 43-48 will be contingent upon agreement by the Army and the recipient as to the type and timing of implementation of those measures to protect the safety of the recipient and the public.

Comment 3: The areas within the SCAs have not gone through the complete QC and QA process because further actions are still required to investigate and remove MEC. Little to no QC and QA was performed during many surface clearances. SCAs are established because the areas are not compliant with the QC/QA requirements of the work plans.
Response: Acknowledged.

Comment 4: There is an elevated risk of exposure to UXO within SCAs. The areas within the SCAs have undergone various levels of MEC clearance and quality scrutiny. Some SCAs, however, have received little to no examination. The level of MEC clearance is not readily apparent to field workers which may stray from cleared to uncleared areas.
Response: The Army considers the designation of areas within Ranges 43-48 as SCAs under the work plan insufficient to cause an elevation of the level of risk of exposure to UXO in those areas. The Army recognizes that a risk remains to certain human activities in the areas of MRS-Ranges 43-48 where subsurface removal was not completed. The Army continues to implement a site security program to control access to those areas. The transfer or development of those or

adjacent areas will be conditional on the development of specific measures to mitigate the remaining risk.

Comment 5: The overall answer would be no. Sympathetic detonations may occur if the HE cases are in direct contact and the initial detonation propagates efficiently to the HE filler of the other items. Multiple MEC items are usually separated by soil or debris which denies detonation propagation between items. The detonation of one MEC item of several would most likely 'kick-out' and expose the other MEC items without sympathetic detonations. With the sporadic HE distribution within the SCAs, it is very unlikely sympathetic detonations would occur.
Response: Acknowledged.

Comment 6: The sensitivity and risks presented by the 40mm HE rounds is further substantiated by the Department of Defense's (DoDs) Munitions Response Site Protocol (MRSPP) promulgated by DoD in the October 5, 2005 Federal Register. Within MRSPPs Explosive Hazards Evaluation (EHE) Module, 40mm HE grenades are listed in the highest scoring category used in part to assigning a relative risk.
Response: Acknowledged.

Comment 7: Overall, the SCAs appear to exist mainly because MEC cannot be adequately investigated and removed due to limitations of access, planning, capability, or funding. All SCAs exhibit some degree of MEC risk. However, from review of existing data, EcoMunition has concluded the SCAs established within Ranges 43-48 present a significant risk to those who access these properties without utilizing proper UXO escort and avoidance protocols.
Response: The Army has requested USACE to provide a description of applicable restrictions to human activity in those areas where a subsurface removal has not been completed. The Army considers the designation of areas within Ranges 43-48 as SCAs under the work plan insufficient to specify the level of risk of exposure to UXO in those areas. Information about restrictions to specific human activities on those areas where a sub surface removal has not been accomplished will be included in property transfer documentation. The Army continues to implement a site security program to control access to those areas. The transfer or development of those or adjacent areas will be conditional on a careful evaluation, with the regulatory agencies, of the effects of remaining risk and the development of specific security or other measures to mitigate the hazards identified in those evaluations.