FINDING OF SUITABILITY TO TRANSFER (FOST)

FORMER FORT ORD, CALIFORNIA

TRACK 0 PLUG-IN C, TRACK 1 AND TRACK 1 PLUG-IN PARCELS

July 2005

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ATTACHMENTS

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1.0 PURPOSE

The purpose of this Finding of Suitability to Transfer (FOST) is to document the environmental suitability of certain parcels or property (the Property) at the former Fort Ord, California, for transfer to the Fort Ord Reuse Authority (FORA), Monterey County, Monterey Peninsula College (MPC), the Veterans Transition Center, California Department of Parks & Recreation and California Department of Transportation (Caltrans) consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 120(h) and Department of Defense (DOD) and United States Army (Army) policy. In addition, the FOST includes the CERCLA Notice, Covenant, and Access Provisions and other Deed Provisions (Attachment 4) and the Environmental Protection Provisions (EPPs) (Attachment 5) necessary to protect human health or the environment after such transfer.

2.0 PROPERTY DESCRIPTION

The Property proposed for transfer consists of twenty-nine (29) parcels (approximately 1,894 acres) of developed and undeveloped land on the former Fort Ord (Plate 1 [Attachment 1]). The Property is intended to be transferred for a variety of uses, including state park facilities, roads and road improvements, education, habitat management, mixed use and development (Table 1 – Description of Property [Attachment 3]). This is consistent with the intended reuse of the Property as set forth in the Fort Ord Reuse Authority (FORA) Fort Ord Reuse Plan. A parcel location map is provided in Plate 2 (Attachment 1) and detailed site maps of the Property are provided in Plates 3 through 9 (Attachment 1).

Twenty-two (22) of the parcels are within Track 0[1] areas and are adjacent to or overlapped by Track 1[2] munitions response sites (MRS)[3]. The *Final Record of Decision, No Action Regarding*

[1] Track 0 areas at the former Fort Ord are those that contain no evidence of munitions and explosives of concern (MEC) and have never been suspected of having been used for military munitions-related activities of any kind. This definition has been clarified in the *Explanation of Significant Differences, Final Record of Decision, No Action Regarding Ordnance-Related Investigations (Track 0 ROD), Former Fort Ord, California* (*March 2005*) to include areas not suspected as having been used for military munitions-related activities of any kind, but where incidental military munitions have been discovered.

[2] Track 1 sites at the former Fort Ord are those sites where military munitions were suspected to have been used, but based on the RI/FS for each site, it falls into one of the following three categories: Category 1: There is no evidence to indicate military munitions were used at the site (i.e., suspected training did not occur); or Category 2: The site was used for training, but the military munitions items used do not pose an explosive hazard (i.e., training did not involve explosive items); or Category 3: The site was used for training with military munitions, but military munitions items that potentially remain as a result of that training do not pose an unacceptable risk based on site specific evaluations conducted in the Track 1 OE RI/FS. Field investigations identified evidence of past training involving military munitions, but training at these sites involved only the use of practice and/or pyrotechnic items that are not designed to cause injury. In the unlikely event that a live item of the type previously observed at the site is found, it is not expected that the item would function by casual contact (i.e., inadvertent and unintentional contact).

Ordnance-Related Investigation, Former Fort Ord, California (Track 0 ROD; June 19, 2002) addresses selected land parcels and provides a "Plug-In" process to address future land parcels that are considered eligible for inclusion into the Track 0 process. The Track 0 No Action ROD Plug-In process addresses areas of land at the former Fort Ord that have no history of military munitions use and for which No Action is necessary to protect human health and the environment. The portions of these 22 parcels within Track 0 areas have been addressed through the Plug-In process in the *Track 0 Plug-In Approval Memorandum, Selected Parcels – Group C Former Fort Ord, California* dated July 1, 2005. The portions of these 22 parcels within Track 1 sites are addressed by the *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)* (Track 1 ROD; March 10, 2005). The Track 1 ROD also provides a Plug-In process to address future sites that are considered eligible for inclusion into the Track 1 process. No further action related to munitions and explosives of concern (MEC) (explosive munitions items) is required at Track 1 sites because MEC is not expected. Track 1 sites were evaluated through the remedial investigation/feasibility study (RI/FS) process and documented in the *Final Track 1 Ordnance and Explosives, Remedial Investigation/Feasibility Study, Former Fort Ord California* dated June 21, 2004 and the *Track 1 Plug-In Approval Memorandum, MRS-6 Expansion Area, Former Fort Ord, California* dated May 6, 2005 which provided the site-specific rationale for assigning Track 1 status. All 22 Track 0 Plug-In parcels and associated Track 1 sites are listed in Table 2 – Track 0 Plug-In Parcels Associated with Track 1 Sites (Group C) (Attachment 3). The remaining seven (7) parcels are entirely within Track 1 sites. The Track 1 ROD also addresses these parcels, which are listed with associated Track 1 sites in Table 3 – Track 1 Parcels and Associated Track 1 Sites (Attachment 3).

3.0 ENVIRONMENTAL DOCUMENTATION AND SITE INSPECTION

The Army made a determination of the Environmental Condition of the Property (ECP) by reviewing existing environmental and military munitions response-related documents and making an associated visual site inspection. A complete list of the documents reviewed is provided in Attachment 2 and the site inspection was conducted in January and February 2005. For each parcel in the FOST, the specific decision documents that support the determination that the Property is suitable for transfer are listed in Table 4 – Applicable Decision Documents by Parcel (Attachment 3).

4.0 ENVIRONMENTAL CONDITION OF PROPERTY

On the basis of environmental condition, parcels are placed in one of seven Community Environmental Response Facilitation Act (CERFA)/DOD Environmental Condition of Property (ECP) Categories[4]. Only parcels in ECP Categories 1 through 4 are suitable for transfer through

[3] Terminology describing military munitions and related names, places, actions and conditions is presented in Attachment 6.

[4] ECP Category 1: Areas where no release or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent area).
ECP Category 2: Areas where only release or disposal of petroleum products has occurred.
ECP Category 3: Areas where release, disposal, and/or migration of hazardous substances has occurred, but at concentrations that do not require a removal or remedial response.

a FOST. Table 5 – Environmental Condition of Property (Attachment 3) lists the parcels in this FOST, the corresponding ECP Category, and brief descriptions of necessary remedial actions that have been taken. The ECP Categories and the corresponding parcels in this FOST are as follows:

ECP Category 1 Parcels: E11a, E11b.6.2, E15.2, E20c.2.1, L20.13.5, L20.14.1.1, L20.14.2, L20.15, L20.6, L31, S3.1.3, and S3.1.4

ECP Category 2 Parcels: L23.5.1

ECP Category 3 Parcels: E2a, E4.1.2.1, E4.1.2.2, E4.1.2.3, L9.1.1.2, and L9.1.2.2

ECP Category 4 Parcels: E4.3.1.2, E4.3.2.1, E4.6.1, E4.6.2, E8a.1.1.2, L5.6.1, L5.6.2, S3.1.1, S3.1.2, and S4.1.1

ECP Category 5 Parcels: No parcels in this FOST are in this category.

ECP Category 6 Parcels: No parcels in this FOST are in this category.

ECP Category 7 Parcels: No parcels in this FOST are in this category.

A summary of the ECP Categories for the Property is provided in Table 5 – Environmental Condition of Property (Attachment 3).

Community Environmental Response Facilitation Act (CERFA) Report

The Final CERFA Report, Fort Ord, Monterey, California (*April 1994*) summarized the CERFA investigation conducted at the former Fort Ord and classified Fort Ord property as "Uncontaminated," "Qualified[5]," or "Disqualified[6]." Qualified areas were identified based on the potential presence of unexploded ordnance (UXO)[7], radon, radionuclides (contained within products being used for their intended purposes), asbestos (contained within building materials), or lead-based paint (present on building material surfaces). Disqualified areas were identified based on evidence of release, disposal, or storage for more than one year of a CERCLA hazardous substance, petroleum, or petroleum derivative; or a portion of the installation

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ECP Category 4: Areas where release, disposal, and/or migration of hazardous substances has occurred, and all removal or remedial actions to protect human health and the environment have been taken.
ECP Category 5: Areas where release, disposal, and/or migration of hazardous substances has occurred, and removal or remedial actions are underway, but all required actions have not yet been taken.
ECP Category 6: Areas where release, disposal, and/or migration of hazardous substances has occurred, but required actions have not yet been implemented.
ECP Category 7: Areas that have not been evaluated or require additional evaluation.

[5] CERFA parcel with qualifier - A portion of the installation real property for which investigation revealed no evidence of a release or disposal of CERCLA hazardous substances, petroleum, or petroleum derivatives and no evidence of the parcel being threatened by migration of such substances from outside the parcel. The parcel does however contain environmental, hazard, or safety issues, including asbestos contained in building materials or lead-based paint applied to building material surfaces.

[6] CERFA disqualified parcel – A portion of the installation real property for which investigation revealed evidence of a release or disposal of CERCLA hazardous substances, petroleum, or petroleum derivatives or the parcel being threatened by migration of such substances from outside the parcel.

[7] The term "munitions and explosives of concern (MEC)" is not used here because the CERFA Report is specific to UXO (see Attachment 6).

threatened by such release or disposal. The U.S. Environmental Protection Agency (US EPA) concurred with the Army's determination of "uncontaminated" for 60 CERFA parcels at the former Fort Ord in a letter dated April 19, 1994. In this letter, US EPA specifically concurred that parcels having buildings with probable lead-based paint (LBP) could be considered uncontaminated because the information in the CERFA Report did not indicate that there are residual levels of LBP on these parcels presenting a threat to human health or the environment. Under the DOD Authorization Act for 1997, the U.S. Congress expanded the definition of "Uncontaminated Property" to include the storage of hazardous substances, petroleum products and their derivatives provided there was no release or disposal of these materials. Table 5 – Environmental Condition of Property (Attachment 3) includes a list of the Track 1 and Track 0 Plug-in C Parcels, the CERFA classification assigned, and rationale.

Parcels located within areas originally identified as CERFA Qualified or Disqualified, but through additional site investigation were determined to be Uncontaminated (DOD Category 1), are described below.

Parcel E11a

This Track 0 plug-in parcel was categorized as CERFA Uncontaminated; however, portions of the parcel include Munitions Response Sites (MRS)-27Y and MRS-66, which were identified after the completion of the CERFA investigation (Plate 7 [Attachment 1]). MRS-27Y and MRS-66 were categorized as Track 1 sites, evaluated in the Track 1 Ordnance and Explosives Remedial Investigation/Feasibility Study (OE RI/FS) and, in accordance with the Track 1 ROD (*March 10, 2005*), require no further action related to MEC. MRS-27Y and MRS-66 were also evaluated for the potential presence of chemical contamination related to the use of military munitions as part of the Basewide Range Assessment (BRA), as described in the *Comprehensive Basewide Range Assessment Report, Former Fort Ord, California* (BRA Report; March 31, 2005). Under the BRA MRS-27Y was identified as historical area (HA)-157 and MRS-66 was identified as HA-196. In accordance with the findings of the BRA Report, no further action related to chemical contamination is required for HA-157 (MRS-27Y). In accordance with the findings of the BRA Report, no further investigation for chemical contamination is required for HA-196 (MRS-66).

Based on this information Parcel E11a meets the definition of CERFA Uncontaminated property.

Parcel E11b.6.2

This Track 1 parcel was categorized as CERFA Uncontaminated; however, the parcel includes a small portion of the area evaluated as part of the overall investigation of Site 39A, East Garrison Ranges, and a portion of MRS-59A, which was identified after the completion of the CERFA investigation (Plate 8 [Attachment 1]). A release at Site 39A (Interim Action Site 39A) occurred in the target areas of the former small arms ammunition firing ranges approximately 600 feet to the north and northeast and outside of the parcel boundary.

MRS-59A was categorized as a Track 1 site, evaluated in the Track 1 OE RI/FS and, in accordance with the Track 1 ROD, requires no further action related to MEC. MRS-59A was also evaluated for the potential presence of chemical contamination related to the use of military munitions as part of the BRA. Under the BRA MRS-59A was included within HA-189. The

evaluation of HA-189 included a literature search, site reconnaissance, and mapping. In accordance with the findings of the BRA Report, no further investigation for chemical contamination is required for HA-189 (including MRS-59A).

Based on this information Parcel E11b.6.2 meets the definition of CERFA Uncontaminated property.

Parcel E15.2

A portion of this Track 0 plug-in parcel was categorized as CERFA Qualified because it includes MRS-20 (Plate 3 [Attachment 1]). MRS-20 (Recoilless Rifle Training Range) was categorized as a Track 1 site, evaluated in the Track 1 OE RI/FS and, in accordance with the Track 1 ROD, requires no further action related to MEC. Historical research and military munitions sampling conducted at this site found no evidence of past training involving military munitions. As identified on the 1957 Training Facilities Map, some of the boundary of the "Recoilless Rifle Training Area" lies outside of the boundary of MRS-20 delineated in the ASR; however, because of its location, proximity to existing housing, Highway 1 and other developed areas, it is unlikely MRS-20 or additional areas identified on the 1957 Training Facilities Map would have been used for training with military munitions. As discussed in the Track 1 OE RI/FS, training at this site probably involved weapon familiarization, including the proper handling, deployment, and care of recoilless rifles. MRS-20 was also evaluated for the potential presence of chemical contamination related to the use of military munitions as part of the BRA. Under the BRA, MRS-20 was identified as HA-122. In accordance with the findings of the BRA Report, no further action related to chemical contamination is required for HA-122 (MRS-20). A portion of the parcel was categorized as CERFA Qualified because of the presence of asbestos containing material (ACM) and probable lead-based paint (LBP) in buildings that are adjacent to the parcel; however, no buildings are present on Parcel E15.2. The remainder of the parcel was categorized as CERFA Uncontaminated.

Based on this information Parcel E15.2 meets the definition of CERFA Uncontaminated property.

Parcel E20c.2.1 and L31

Track 0 Plug-in Parcel E20c.2.1 was categorized as CERFA Uncontaminated (Plate 3 [Attachment 1]). A portion of Track 0 Plug-in Parcel L31 was categorized as CERFA Uncontaminated and the remainder of the parcel was categorized as CERFA Qualified because of the presence of ACM and probable LBP in buildings that are adjacent to the parcel; however, no buildings are present on Parcel L31. Both parcels include a portion of MRS-49 identified after the completion of the CERFA investigation. MRS-49 was categorized as a Track 1 site, evaluated in the Track 1 OE RI/FS and, in accordance with the Track 1 ROD, requires no further action related to MEC. MRS-49 was also evaluated for the potential presence of chemical contamination related to the use of military munitions as part of the BRA. Under the BRA, MRS-49 was identified as HA-179. In accordance with the findings of the BRA Report, no further investigation for chemical contamination is required for HA-179 (MRS-49).

Based on this information Parcels E20c.2.1 and L31 meet the definition of CERFA Uncontaminated property.

Parcels L20.15, S3.1.3, and S3.1.4

These Track 1 parcels were categorized as CERFA Disqualified because they were included within the area of Installation Restoration Program (IRP) Site 3 (MRS-22) (Plate 5 [Attachment 1]), where there was a release of lead related to range activities and because of the presence of construction debris and vehicle parts within Parcel S3.1.3. Remediation at IRP Site 3 included the excavation of approximately 162,800 cubic yards of impacted soil and spent ammunition; however, none of these three parcels lie within the areas historically used for small arms ranges in IRP Site 3 and did not require remediation.

These three parcels were also categorized as CERFA Qualified because of the presence of ACM, LBP and MRS-22. MRS-22 is categorized as a Track 1 site, evaluated in the Track 1 OE RI/FS and in accordance with the Track 1 ROD, requires no further action related to MEC.

MRS-22 was also evaluated for the potential presence of chemical contamination related to the use of military munitions as part of the BRA. Under the BRA, MRS-22 was identified as HA-124, which includes HA-1 through HA-17[8]. In accordance with the findings of the BRA Report, no further action related to chemical contamination is required for HA-124.

Based on this information Parcels L20.15, S3.1.3 and S3.1.4 meet the definition of CERFA Uncontaminated property.

Parcel L20.6

This Track 1 parcel was categorized as CERFA Uncontaminated; however, the parcel includes MRS-62, which was identified after the completion of the CERFA investigation (Plate 9 [Attachment 1]). MRS-62 was categorized as a Track 1 site, evaluated in the Track 1 OE RI/FS and, in accordance with the Track 1 ROD, requires no further action related to MEC. MRS-62 was also evaluated for the potential presence of chemical contamination related to the use of military munitions as part of the BRA. Under the BRA MRS-62 was identified as HA-192. In accordance with the findings of the BRA Report, no further investigation for chemical contamination is required for HA-192 (MRS-62).

Based on this information Parcel L20.6 meets the definition of CERFA Uncontaminated property.

Parcel L20.13.5

This Track 0 plug-in parcel (Plate 10 [Attachment 1]) was categorized as CERFA Qualified because of its proximity to the former Impact Area; however, this parcel comprises a portion of South Boundary Road and is located outside of the fenced Impact Area. No evidence was observed during the CERFA assessment to indicate storage, release, or disposal of hazardous substances or petroleum products or their derivatives within this parcel; therefore, this parcel meets the definition of CERFA Uncontaminated property.

[8] The designations of the individual ranges at the Beach Ranges complex under the BRA.

Parcels L20.14.1.1 and L20.14.2

These Track 0 plug-in parcels comprise portions of Intergarrison Road and associated right-of-ways. The parcels were categorized as CERFA Uncontaminated; however, the parcels include a portion of MRS-27Y identified after the completion of the CERFA investigation (Plate 7 [Attachment 1]). MRS-27Y was categorized as a Track 1 site, evaluated in the Track 1 OE RI/FS and, in accordance with the Track 1 ROD, requires no further action related to MEC. MRS-27Y was also evaluated for the potential presence of chemical contamination related to the use of military munitions as part of the BRA. Under the BRA MRS-27Y was identified as HA-157. In accordance with the findings of the BRA Report, no further action related to chemical contamination is required for HA-157 (MRS-27Y).

Based on this information Parcels L20.14.1.1 and L20.14.2 meet the definition of CERFA Uncontaminated property.

4.1 Environmental Remediation Sites

There were nine remediation sites located on the Property. The environmental remediation sites on the Property are described below. All environmental soil and groundwater remediation activities on the Property have been completed or are in place and operating properly and successfully; however, portions of the Property have not remediated to levels suitable for unrestricted use. The deeds for these portions of the Property will include restrictions on the use of groundwater as described in the Covenant to Restrict Use of Property – Environmental Restrictions (Special Groundwater Protection Zone) (CRUP). A summary of the environmental remediation sites by parcel is provided in Table 5 – Environmental Condition of Property (Attachment 3).

This section provides a summary of Installation Restoration Program (IRP) activities conducted to date at operable units and CERCLA sites located on the Property. Seven IRP sites are located on the Property in whole or in part within Parcels S3.1.1, S3.1.2 and S3.1.4, (Site 1/FTO-059, Site 2/FTO-012, Site 3 and Outfall 15) (Plates 4 and 5 [Attachment 1]); Parcel E4.3.2.1 (Site 26) (Plate 6 [Attachment 1]); Parcel S4.1.1 (Site 28) (Plate 4 [Attachment 1]); and Parcel E11b.6.2 (Site 39A) (Plate 8 [Attachment 1]). The investigation of the IRP sites was conducted under the Fort Ord Basewide Remedial Investigation/Feasibility Study (RI/FS) program. One Operable Unit is also located on the Property.

4.1.1 No Action Sites

IRP Sites 26 and 28 were categorized as No Action Sites. The No Action Plug-In Record of Decision (ROD) (*February 16, 1995*) for all No Action Sites was signed by the regulatory agencies in the spring of 1995. Documentation that site-specific no action criteria were met is provided in the Approval Memoranda process. The overall process is referred to as the "plug-in" process because the Approval Memoranda plug-in to the No Action ROD. The US EPA and the DTSC concurred that Sites 26 and 28 met the criteria for No Action in letters dated September 25, 1995 and October 10, 1995, respectively.

4.1.2 Interim Action Sites

Three sites (Site 1, Site 39A, and Outfall 15) on the Property were categorized as Interim Action (IA) Sites based on the results of site characterization activities. By definition, IA sites have limited surficial soil contamination that can be addressed by excavation and follow-up confirmation sampling. The selected interim action completed at each site addressed immediate, imminent, and/or significant risks to human health and the environment posed by limited contaminated soil. The *Interim Action Record of Decision, Contaminated Surface Soil Remediation* (IA ROD; February 23, 1994) presented remedial alternatives to be implemented at IA sites. The IA ROD was signed by the DTSC and the US EPA in March 1994. A discussion of the interim actions conducted at these three sites follows.

Site 1. IRP Site 1 (SWMU FTO-059) was investigated during the Basewide RI/FS for hazardous and toxic waste (HTW). Mercury was detected in soil samples collected near a former trickling filter at concentrations exceeding the Preliminary Remediation Goal (PRG). Low concentrations of fecal coliform were also detected. An additional investigation was conducted to address agency concerns about elevated mercury levels within soil at the former trickling facility and to evaluate the suitability of disposing treated sewage residue from the sludge-drying beds at the OU2 Landfills. Soil samples were collected from the sludge drying beds, the holding ponds and from the former trickling filter area. Based on the data from the additional investigation, the soil at the former trickling filter was recommended for removal under the IA ROD (*February 23, 1994*). Approximately 740 cubic yards of soil were removed as part of the IA activities. The cleanup of SWMU FTO-059 is described in Section 4.2.1. The Site 1 IA Confirmation Report was submitted to the regulatory agencies in December 1997. The US EPA and the DTSC concurred that contamination was adequately remediated and no further action was necessary at Site 1 in letters dated April 6, 1998 and April 11, 2005, respectively.

Site 39A. The initial IA at Site 39A (East Garrison Ranges) was completed in 1998 and included the removal of soils in four study areas, which contained lead, arsenic, and polynuclear aromatic hydrocarbons (PAHs) exceeding PRGs. These exceedences resulted from accumulation of expended small arms ammunition, lead shot, and clay target fragments. None of the study areas are located on the Property. The Site 39A IA Confirmation Report for the four study areas was submitted to the regulatory agencies in October 1998. The US EPA concurred that no further action is necessary at Site 39A in a letter dated February 2, 2002. The DTSC withheld concurrence and requested that additional evaluation of accumulations of clay target fragments and lead shot be conducted within a former trap and skeet range, which is not located on the Property. In the summer of 2004, the Army excavated the clay target fragments and lead shot in question and conducted confirmation sampling within this area. The *Final Report, Clay Target Debris and Lead Shot Management, East Garrison Trap and Skeet Range* was submitted to the DTSC in March 2005. The DTSC concurred that no further action is necessary in a letter dated April 11, 2005.

A follow-up IA is proposed at two former small arms ammunition firing ranges located within Site 39A, but also not on the Property. These ranges (historical areas [HA]-80 and HA-85) were identified during the historical literature search performed during the Comprehensive Basewide Range Assessment (BRA). The proposed IA will include the removal of shallow soil containing lead at IA Areas 39A HA-80 and 39A HA-85 (*Approval Memorandum, Proposed Interim Action*

Excavation, IA Areas 39A HA-80 and 39A HA-85, Site 39A, East Garrison Ranges, Former Fort Ord, California, April 2005). The estimated volume of soil to be removed is 900 cubic yards.

Outfall 15 (OF-15). Surface water outfall OF-15 was identified for characterization under the Basewide RI/FS. OF-15 discharges to Parcel S3.1.1. Soil samples were collected at the discharge point and downgradient of OF-15. Based on the results of the characterization sampling removal of soil impacted with total petroleum hydrocarbons, arsenic, lead and dieldrin was recommended for removal under the IA ROD (*February 23, 1994*). Approximately 430 cubic yards of soil were removed as part of the IA activities. The Outfall 15 Confirmation Report was submitted to the regulatory agencies in September 1998. The US EPA and the DTSC concurred that contamination was adequately remediated and no further action was necessary at Outfall 15 in letters dated March 16, 2005 and April 11, 2005, respectively.

4.1.3 Remedial Investigation Sites

Site 2. IRP Site 2 (SWMU FTO-012) was investigated during the Basewide RI/FS for HTW. The primary chemicals of concern detected in soil were low concentrations of metals. A baseline human health risk assessment that included exposure of an onsite worker to soil (ingestion and dermal contact) and dust (inhalation) at the site was performed and risks were below the US EPA's threshold values. Based on the risk assessment no remedial action was proposed for soil at IRP Site 2 in the *Record of Decision, Basewide Remedial Investigation Sites, Fort Ord, California* (Basewide RI Sites ROD; January 13, 1997); however, as described in Section 4.2.1, all sludge remaining in the STP sludge drying beds and evaporation ponds was removed as part of the maintenance and cleanup activities at the STP (SWMU FTO-012). The Basewide RI Sites ROD was signed by the DTSC on January 16, 1997, by the US EPA on January 17, 1997, and by the Regional Water Quality Control Board (RWQCB) on January 22, 1997.

Sites 2 and 12. The Sites 2 and 12 groundwater plume is being remediated by extraction and treatment in accordance with the Basewide RI Sites ROD (*January 13, 1997*). Since installation and start-up of the Sites 2 and 12 groundwater treatment system (*April 1999*), the extent of the plume has been significantly reduced. The Sites 2 and 12 Groundwater Remedy Operating Properly and Successfully Evaluation Report was submitted to the regulatory agencies in November 2001. On July 3, 2002, the Army received concurrence from the US EPA that the pump-and-treat system for remediation of the Site 2 and 12 groundwater plume is in place and operating "properly and successfully."

Site 3. Site 3 (Beach Trainfire Ranges) was investigated during the Basewide RI/FS for HTW. The site was used for small arms training beginning in the 1940s. Spent bullets accumulated on the east-facing (leeward) sides of the sand dunes that formed the "backstops" for the targets and in areas prone to erosion between sand dunes. The Basewide HTW RI/FS evaluated cleanup alternatives for soil containing lead and other metals to protect human health.

The *Interim Record of Decision, Site 3, Beach Trainfire Ranges, Fort Ord, California* (Site 3 Interim ROD; January 13, 1997) described the selected cleanup remedy for Site 3 to address potential risks to human health due to the presence of lead and other metals in soil at the site. The Site 3 Interim ROD was signed by the DTSC on January 16, 1997, by the US EPA on January 17, 1997 and by the RWQCB on January 22, 1997. The selected remedy consisted of the excavation of contaminated soil and spent ammunition. After the cleanup was completed,

post-remediation sampling determined that the remaining site-wide average lead concentration in soil was 161 milligrams per kilogram (mg/kg). The results of the post-remediation human health risk assessment confirmed that the cleanup of the heavy bullet distribution areas was protective of humans assuming future development of Site 3 as a State Park. The DTSC and the US EPA concurred with these findings in letter dated July 21, 2000 and September 20, 2000, respectively.

Following cleanup of the heavy bullet density areas, a Post-Remediation Ecological Risk Assessment was conducted to confirm that the cleanup was protective of plants and animals at the site. Based on the data collected at the site following cleanup, it was concluded that significant risks to populations of plants and animals from exposure to the lead and other metals remaining in soil at the site are not expected.

In accordance with the Track 1 ROD, no further remedial action with monitoring at Site 3 (MRS-22) is required for the following reasons: (1) a substantial portion of bullets and contaminated soil have been removed from the site; (2) data collected before and after cleanup show that the remaining average site-wide concentrations of lead in soil is 161 mg/kg; and (3) the ecological sampling to date has shown that the cleanup appears to be protective of populations of plants and animals at the site and residual contamination in place is not likely to adversely affect the following federally listed species: Western snowy plover, Smith's blue butterfly, sand gilia, Monterey spineflower, Contra Costa goldfields, or Yadon's piperia. The Track 1 ROD was signed by the DTSC on March 30, 2005, by the RWQCB on April 4, 2005 and by the US EPA on April 7, 2005.

Ecological monitoring will be conducted at Site 3 (MRS-22) to confirm the results of the ecological risk assessments and evaluations conducted to date. Monitoring will be conducted pursuant to an approved work plan developed pursuant to Section 8.3 of the Fort Ord FFA (*November 19, 1990*). This data will be evaluated in conjunction with previous ecological risk assessment and evaluation data during the five-year reviews to assess the need for continued ecological monitoring and make sure the decision remains protective of the environment. The next five-year review will occur in 2007.

The DTSC has elected to undertake the following additional precautions at Site 3 (MRS-22): the DTSC will enter into Memorandum of Understanding (MOU) for further surveillance with the California Department of Parks and Recreation, which will be acquiring Site 3 (MRS-22); the DTSC also intends to enter into a Land Use Covenant (LUC) with the California Department of Parks and Recreation to enhance protection of human health. The MOU and LUC will address further monitoring and use of the land at Site 3 (MRS-22).

4.1.4 Operable Units (OUs)

OU2 Landfills. The Fort Ord Landfills (SWMU FTO-002) were used for approximately 30 years for residential and commercial waste disposal. The landfills cover approximately 150 acres and include the inactive main landfill (Areas B through F, south of Imjin Road) and north landfill (Area A, north of Imjin Road). Portions of Parcels E4.6.1, L5.6.1, and L5.6.2 are included within Area A (Plate 6 [Attachment 1]). All of Area A and some perimeter areas of the main landfill were removed and consolidated into the main landfill south of Imjin Road. The selected remedial action included excavation of the Area A landfill refuse and impacted soil, disposal of the material in the main OU2 Landfills, backfilling the Area A excavation, and

installation of an engineered cover system over the main landfill. This soil consolidation action allowed for clean closure of Area A as described in the Remedial Action Confirmation Report and Post-Remediation Risk Evaluation for Area A and the Remedial Action Construction Completion Report for Areas A through F. The RWQCB provided comments on and approval of the reports in a letter dated April 25, 2003. The letter also stated the RWQCB would be changing the OU2 Landfills permitting to reflect its closed status. The draft final document, dated January 31, 2005, was issued on February 2, 2005. The regulatory agencies had no additional comments and the document became final in March 2005 in accordance with the provisions of the Fort Ord FFA (*November 19, 1990*). Additional information regarding the OU2 Landfills is provided in Sections 4.2.1, 4.2.2 and 5.1.

4.2 Storage, Release, or Disposal of Hazardous Substances

There is no evidence that hazardous substances were stored, released, or disposed of on parcels E11a, E11b.6.2, E15.2, E20c.2.1, L20.13.5, L20.14.1.1, L20.14.2, L20.6 and L31 in excess of the 40 Code of Federal Regulations (CFR) Part 373 reportable quantities. The CERCLA 120(h)(4) Notice and Covenant at Attachment 4 will be included in the Deed for these parcels.

Hazardous substances were released on portions of the Property in excess of reportable quantities specified in 40 CFR Part 373. The release of these hazardous substances affects parcels E2a, E4.1.2.1, E4.1.2.2, E4.1.2.3, E4.3.1.2, E4.3.2.1, E4.6.1, E4.6.2, E8a.1.1.2, L20.15, L5.6.1, L5.6.2, L9.1.1.2, L9.1.2.2, S3.1.1, S3.1.2, S3.1.3, S3.1.4, and S4.1.1. All hazardous substance storage operations have been terminated on the Property. Hazardous substances were released in excess of the 40 CFR Part 373 reportable quantities at sites described in Sections 4.2.1, 4.2.2, and 4.2.3 of this FOST. The release of hazardous substances at these sites was remediated as part of the Installation Restoration Program (IRP) in compliance with CERCLA. All necessary response actions have been taken and are described in this section and Section 4.1. A summary of the areas in which hazardous substance releases occurred is provided in Table 6 – Notification of Hazardous Substance Storage, Release, or Disposal (Attachment 3). The CERCLA 120(h)(3) Notice and Covenant at Attachment 4 will be included in the Deed for these parcels.

4.2.1 Solid Waste Management Units (SWMUs)

Three former SWMUs (FTO-002, FTO-012 and FTO-059) are located on the Property. SWMU FTO-002 was identified as a former disposal area and includes portions of Parcels E4.6.1, E4.6.2, E8a.1.1.2, L5.6.1, and L5.6.2; however, a buffer zone with a minimum width of 100 feet has been established around the actual former disposal area (Operable Unit 2 [OU2] Landfills) and no part of the OU2 Landfills is within any of these parcels (Plate 6 [Attachment 1]). FTO-012 and FTO-059 include portions of Parcel S3.1.1. SWMUs FTO-012 and FTO-059 are former sewage treatment plants.

SWMUs FTO-002 and FTO-012 were identified during a 1988 Army Environmental Hygiene Agency (AEHA; reorganized in 1994 as the U.S. Army Center for Health Promotion and Preventive Medicine [USACHPPM]) investigation. In 1996, under the Resource Conservation and Recovery Act (RCRA) and CERCLA integration that occurred as part of base closure, an inspection was completed for all SWMUs identified in 1988. During this inspection, several new SWMUs were identified, including SWMU FTO-059. The following summarizes the investigation activities conducted at the three former SWMUs on the Property.

SWMU FTO-002 (Abandoned Landfill) was identified during the 1988 AEHA investigation. The 1988 AEHA Interim Final Report on SWMUs noted that SWMU FTO-002 was a source of groundwater contamination. Remedial action construction at SWMU FTO-002 has been completed in accordance with the Operable Unit 2 (OU2) Landfills Record of Decision (ROD) (*July 15, 1994*) and as described in the Remedial Action Construction Completion Report. As part of that remedial action landfill material (refuse) buried within Parcels E4.6.1, L5.6.1, and L5.6.2 (Area A), including a portion of MRS-13A, was completely excavated and consolidated in areas of the OU2 Landfills to the south of the parcels. Area A has been identified as a "Special Case" Track 0 Area as described in Section 4.9. This work is summarized in the *Draft Final Remedial Action Confirmation Report and Post-Remediation Screening Risk Evaluation, Area A Operable Unit 2 Landfills, Former Fort Ord, California, April 2001, Revision 0.* The report and screening risk evaluation concluded adverse health effects are unlikely to occur and no further action at Area A is necessary. This document is appended to the Remedial Action Construction Completion Report for the OU2 Landfills. The draft final of this document, dated January 31, 2005, was issued on February 2, 2005. The regulatory agencies had no additional comments and the document became final in March 2005 in accordance with the provisions of the Fort Ord Federal Facility Agreement (FFA; *November 19, 1990*). Additional information regarding the OU2 Landfills is provided in Sections 4.1.4, 4.2.2 and 5.1.

SWMU FTO-012 was the Main Garrison Sewage Treatment Plant (IRP Site 2). The sewage treatment plant (STP) occupies an unpaved area of approximately 28 acres within Parcel S3.1.1 (Plate 4 [Attachment 1]). IRP Site 2 (SWMU FTO-012) was investigated during the basewide RI/FS for hazardous and toxic waste (HTW). A baseline human health risk assessment that included exposure of an onsite worker to soil and dust at the site was performed and risks were below the US EPA's threshold values. Based on the risk assessment no remedial action was proposed for soil at IRP Site 2 in the *Record of Decision, Basewide Remedial Investigation Sites, Fort Ord, California* (Basewide RI Sites ROD; January 13, 1997); however, as part of the maintenance and cleanup activities associated with the closure of SWMU FTO-012, all sludge remaining in the STP sludge drying beds and evaporation ponds was removed. Additional SWMU cleanup activities included the demolition of the asphalt lined drying beds, removal of drying bed conveyance piping and excavation of soils below the drying beds and ponds. Additional discussion of the cleanup of FTO-012 (IRP Site 2) is provided in Section 4.2.2.

SWMU FTO-059 was the Ord Village Sewage Treatment Plant (IRP Site 1). This STP is located within Parcel S3.1.1 in the southwestern portion of the former Fort Ord (Plate 5 [Attachment 1]). IRP Site 1 (SWMU FTO-059) was investigated during the Basewide RI/FS for HTW. The cleanup of SWMU FTO-059 was conducted concurrently with Interim Action (IA) activities at Site 1. As part of the cleanup of SWMU FTO-059 all waste sludge associated with the operation of the STP was removed (approximately 870 cubic yards). Additional SWMU cleanup activities included the removal of an overflow bypass clay pipe; demolition and removal of the concrete footwall associated with a surge reservoir, chlorine building, chlorine contact chamber, and all associated valve pits. Additional discussion of the cleanup of FTO-059 (IRP Site 1) is provided in Section 4.1.2.

4.2.2 Groundwater Contamination

Two groundwater contamination plumes, OU2 Landfills (SWMU FTO-002) and Sites 2 and 12, underlie portions of the Property. The OU2 groundwater plume is the result of a release of hazardous substances from the OU2 Landfills and is being remediated in accordance with the OU2 ROD (*July 15, 1994*). The OU2 ROD was signed by the RWQCB on August 9, 1994, by the DTSC on August 18, 1994, and by the US EPA on August 23, 1994. On January 4, 1996, the Army received concurrence from the US EPA that the pump-and-treat system for remediation of the OU2 groundwater plume is in place and operating "properly and successfully." Additional information regarding the OU2 Landfills is provided in Sections 4.1.4, 4.2.1 and 5.1.

The Sites 2 and 12 groundwater plume is presumed to be the result of releases of hazardous substances associated with activities in the light industrial area of the former Fort Ord (RI Site 12) and is being remediated by extraction and treatment in accordance with the Basewide RI Sites ROD (*January 13, 1997*). The Basewide RI Sites ROD was signed by the DTSC on January 16, 1997, by the US EPA on January 17, 1997, and by the RWQCB on January 22, 1997. Since installation and start-up of the Sites 2 and 12 groundwater treatment system (April 1999), the extent of the plume has been significantly reduced. The Sites 2 and 12 Groundwater Remedy Operating Properly and Successfully Evaluation Report was submitted to the regulatory agencies in November 2001. On July 3, 2002, the Army received concurrence from the US EPA that the pump-and-treat system for remediation of the Site 2 and 12 groundwater plume is in place and operating "properly and successfully."

The Baseline Risk Assessments for the Sites 2 and 12 and OU2 groundwater plumes indicates that the groundwater does not pose a threat to occupants of the buildings on the Property, provided that groundwater from the contaminated aquifers is not used as a drinking water source. Well drilling and use of groundwater will be prohibited. Restriction and notification for groundwater contamination are detailed in the Environmental Protection Provisions (Attachment 5).

4.2.3 Basewide Range Assessment (BRA)

Each of the munitions response sites that lie within the Property were investigated as part of the BRA for small arms and multi-use ranges. For the BRA, the areas of investigation were identified as Historical Areas (HA). The assessment of each HA for potential hazardous and toxic waste-related contamination included a literature search and data review (i.e., review of historical maps, aerial photographs and data generated during sampling investigations, where conducted). Based on this research a determination was made whether site reconnaissance and mapping was warranted. Areas of interest (e.g., training area boundaries, disturbed vegetation areas, and roads) were identified from maps and photographs and their locations (waypoints) uploaded into a Global Positioning System (GPS) unit. The site reconnaissance was conducted by a two-person team that included a military munitions specialist and a second team member trained in munitions recognition. The site reconnaissance included walking portions of the site and navigating to the waypoints using the GPS unit. If evidence of a release was observed sampling for chemical contamination was performed. The US EPA and the DTSC provided comments on the *Draft Comprehensive Basewide Range Assessment Report, Former Fort Ord, California* (BRA Report) and the draft final BRA Report (*March 31, 2005*) was issued in March

2005. The US EPA and the DTSC provided no additional comments and, in accordance with the provisions of the Fort Ord FFA (*November 19, 1990*), the BRA Report became final in April 2005. The following discusses the results of the BRA conducted on the Property.

HA-90 (MRS-1) is included within Parcels E2a, E4.1.2.1, E4.1.2.2, L9.1.1.2, and L9.1.2.2 (Plate 4 [Attachment 1]). The assessment of HA-90 for potential hazardous and toxic waste related to military munitions included a literature search and a review of the information gathered during the assessment and military munitions sampling conducted at MRS-1. Based on the results of the literature search, site history (the area was used for a limited time in the 1950s, and then later graded for housing), and no stained soil was identified, no further action related to chemical contamination is required for HA-90.

HA-96 (MRS-6) is included within Parcels E2a and S4.1.1 (Plate 4 [Attachment 1]). The assessment of HA-96 for potential hazardous and toxic waste related to military munitions included a literature search and a review of the information gathered during the assessment and military munitions sampling conducted at MRS-6. Based on the results of the literature search, and because only one small arms round and one practice mine were found during sampling, no further action related to chemical contamination is required for HA-96.

HA-102 (MRS-13A) is included within Parcels E4.3.2.1, E4.6.1, E4.6.2, L5.6.1, and L5.6.2 (Plate 6 [Attachment 1]). The assessment of HA-102 for potential hazardous and toxic waste related to military munitions included a literature search and a review of the information gathered during the assessment and military munitions sampling conducted at MRS-13A. Based on the results of the literature search and absence of munitions debris observed during military munitions sampling, no further action related to chemical contamination is required for HA-102.

HA-122 (MRS-20) is included within Parcel E15.2 (Plate 3 [Attachment 1]). The assessment of HA-122 for potential hazardous and toxic waste related to military munitions included a literature search and a review of the information gathered during the assessment and military munitions sampling conducted at MRS-20. Based on the results of the literature search and absence of munitions debris observed during military munitions sampling, no further action related to chemical contamination is required for HA-122.

HA-124 (MRS-22) is included within Parcels S3.1.1, S3.1.2, S3.1.3, S3.1.4, and L20.15 (Plates 4 and 5 [Attachment 1]). The assessment of HA-124 for potential hazardous and toxic waste related to military munitions included a literature search and a review of the information gathered during the assessment and military munitions sampling conducted at MRS-22. HA-124 encompasses all of the small arms ammunition firing ranges that were located within MRS-22 (HA-1 through HA-17). Remediation of each of the beach ranges has been completed, and no further action related to chemical contamination is required for HA-124, which includes HA-1 through HA-17.

HA-157 (MRS-27Y) is included within Parcels E11a and L20.14.1.1 (Plate 7 [Attachment 1]). The assessment of HA-157 for potential hazardous and toxic waste related to military munitions included a literature search and a review of the information gathered during the assessment and military munitions sampling conducted at MRS-27Y and adjacent MRS-66. Based on the results of the literature search and absence of munitions debris observed during military munitions sampling, no further action related to chemical contamination is required for HA-157.

HA-179 (MRS-49) is included within Parcels E20c.2.1, L23.5.1, and L31 (Plate 3 [Attachment 1]). The assessment of HA-179 for potential hazardous and toxic waste-related contamination included a data review, site reconnaissance, and mapping of the site. No evidence of military munitions was observed during the site reconnaissance conducted at the HA-179. Three fighting positions were found along a path that runs between Parcel L23.5.1 and HA-179; however, no targets or range features were identified and no further investigation for chemical contamination action is required for HA-179.

HA-189 (MRS-59) is included within Parcel E11b.6.2 (Plate 8 [Attachment 1]). The assessment of HA-189 for potential hazardous and toxic waste related to military munitions included a literature search, site reconnaissance, and mapping of the site. The site reconnaissance of HA-189 was performed in December 2001. Only expended blank small arms ammunition casings were found. No military munitions or evidence of military training were identified during the site walk and no further action related to chemical contamination is required for HA-192.

HA-192 (MRS-62) is included within Parcel L20.6 (Plate 9 [Attachment 1]). The assessment of HA-192 for potential hazardous and toxic waste related to military munitions included a literature search, site reconnaissance, and mapping of the site. The site reconnaissance of HA-192 was performed in November 2001. Only expended blank small arms ammunition casings were found. No military munitions or evidence of military training were identified during the site walk and no further action related to chemical contamination is required for HA-192.

HA-196 (MRS-66) is included within Parcel E11a (Plate 7 [Attachment 1]). The assessment of HA-196 for potential hazardous and toxic waste related to military munitions included a literature search, site reconnaissance, and mapping of the site. The site reconnaissance of HA-196 was performed in December 2001. No military munitions or evidence of military training were identified during the site walk and no further action related to chemical contamination is required for HA-196.

4.3 Petroleum and Petroleum Products

4.3.1 Underground and Aboveground Storage Tanks (UST/AST)

Current UST/AST Sites

There are four aboveground storage tanks (ASTs) on the Property. Two ASTs on the Property (6143 and 8775) are currently used for storage of petroleum products (Table 7 – Notification of Petroleum Product Storage, Release, or Disposal [Attachment 3]) and two ASTs on the Property that were formerly used to store propane that are no longer in use (4367.1 and 4367.2). ASTs 6143 and 8775 are located in Buildings 6143 and 8775, respectively, and are associated with sewage lift station pumps. ASTs 6143 and 8775 and the associated real property were transferred to FORA by deed on October 17, 2002. There is no evidence of petroleum releases from the four tanks.

Former UST/AST Sites

There were eight underground storage tanks (USTs) on the Property used for storage of petroleum products. All eight of the USTs have been removed. Releases of petroleum products occurred at the following USTs: 4362.1, 4362.2, and 2070.1. The release of petroleum products

from these USTs was remediated and closure granted by the Monterey County Department of Health (MCDOH) for all eight of the USTs. A summary of petroleum product storage, including remedial actions and dates of closure, is provided in Table 7 – Notification of Petroleum Product Storage, Release, or Disposal (Attachment 3).

4.3.2 Non-UST/AST Storage, Release, or Disposal of Petroleum Products

Based on a review of existing records and available information, there is no evidence that petroleum products in excess of 55 gallons at one time were stored, released, or disposed of on the Property as the result of non-UST/AST petroleum activities. Accordingly, there is no need for notification regarding non-UST/AST petroleum product storage, release, or disposal.

4.4 Polychlorinated Biphenyls (PCB)

There are no PCB-containing transformers or other PCB-containing equipment, with the exception of possible PCB-containing light ballasts, located on the Property. Based on a review of existing records and available information, PCB-containing light ballasts may be located on the Property. Fluorescent light ballasts manufactured or installed prior to 1978 may contain PCBs in the potting material. PCB-containing light ballasts do not pose a threat to human health and the environment when managed properly.

4.5 Asbestos

Based on the *Asbestos Survey Report, For U.S. Army Corps of Engineers, Fort Ord Installation (April 26, 1993),* asbestos containing materials (ACM) were identified within buildings or structures on the Property. Detailed descriptions of the asbestos type, location, and condition rating (at the time of survey) are provided in the Asbestos Survey Report. A list of the buildings and whether asbestos was identified is provided in Table 1 – Description of Property (Attachment 3).

As noted in the *Asbestos Survey Report*, some of the buildings contain friable ACM in good to poor condition. Friable ACM may pose a health risk if not managed properly. Friable ACM can be effectively managed in place, provided the proper precautions are taken to minimize or eliminate exposure of personnel to airborne asbestos. The Army does not intend to remove or repair the ACM present in the buildings, but discloses its existence and condition. The friable asbestos that has not been removed or encapsulated will not present an unacceptable risk to human health because it will be managed by the Grantee as described in Section 5 of the Environmental Protection Provisions. Any recommended inspection of ACM present in these buildings will be the responsibility of the recipient. Appropriate asbestos notice is given herein and will be included in the deed. The deed will include the asbestos warning and covenant included in the Environmental Protection Provisions (Attachment 5).

4.6 Lead-Based Paint (LBP)

Buildings on the Property known or presumed to contain lead-based paint (LBP) are listed by parcel number in Table 1 – Description of Property (Attachment 3). Parcels E11a, E15.2, E4.1.2.3, E4.6.1, E4.6.2, E8a.1.1.2, L20.13.5, L20.14.1.1, L20.14.2, L20.6, S3.1.1, S3.1.2, S3.1.3, S3.1.4 and S4.1.1 were not used for residential purposes and the transferee does not intend to use these parcels for residential purposes in the future. Parcels E11b.6.2, E2a, L20.15,

and L5.6.1 do not contain any buildings or structures and were not used for residential purposes; however, the transferee intends to use these parcels for development, which may include residential purposes in the future. Parcel E20c.2.1 does not contain any buildings or structures and was not used for residential purposes; however, the transferee intends to use the parcel for residential purposes in the future. Parcel L5.6.2 was used for residential purposes and the transferee does not intend to use this parcel for residential purposes in the future. Parcel L23.5.1 was used for residential purposes and the transferee intends to use this parcel for development, which may include residential purposes in the future. Parcels E4.1.2.1, E4.1.2.2, E4.3.1.2, E4.3.2.1, L31, L9.1.1.2, and L9.1.2.2 were used for residential purposes and the transferee intends to use these parcels for residential purposes in the future. The deed will include the lead-based paint warning and covenant provided in the Environmental Protection Provisions (Attachment 5).

Lead-based paint surveys have been completed within the Patton Park housing areas, which includes Parcels E4.1.2.1, E4.1.2.2, L9.1.1.2, and L9.1.2.2. The first survey, conducted in November 1993 through March 1994, included the sampling of the interior and exterior components (e.g., walls, doorframes, baseboards, windowsills, downsills, downspouts, etc.) of 150 randomly selected housing units in Patton Park. Out of 150 units sampled, at least one component tested positive for lead in 125 of the 150 units.

Additional lead sampling (wipe, paint chip, and soil) was completed in Patton Park in December 2000 as part of a LBP risk assessment. Wipe and paint chip samples were collected from the interior of 148 randomly selected Patton Park housing units. A limited number of windowsill and floor wipe samples had lead dust results exceeding allowable levels for those surfaces. Paint chip samples (466) were collected from locations of paint deterioration. Results of the paint chip sampling confirmed and assessed the LBP associated with the Patton housing units. Four hundred and seventy-nine composite soil samples were collected using random sampling protocol and analyzed for lead. The samples were collected from the housing unit drip lines and mid-yard locations, and from playgrounds associated with the housing areas. With the exception of two mid-yard samples, none of the lead levels in the soil samples exceeded the US EPA, Department of Housing and Urban Development (HUD), or State of California lead criteria. Two of the mid-yard sample results exceeded the State of California allowable lead limits (1,000 mg/kg) for lead in non-play areas.

Due to the previous elevated lead concentrations in two of the soil samples collected as part of a LBP risk assessment conducted at Patton Park housing, seven additional composite soil samples were collected by the Army and seven composite soil samples were collected by the DTSC. The soil samples were collected in March 2002 from drip lines and parallel mid-yard areas where previous soil samples collected in October and November 2000 resulted in high total lead concentrations. The concentration of total lead in the seven composite soil samples collected by the Army from the re-sampled areas ranged from non detect, which is at or below the laboratory reporting limit of 10 parts per million (ppm), to 60 ppm. None of the soil samples exceeded the US EPA, HUD, or State of California lead criteria. The results of the DTSC sampling were similar to those found by the Army. In a letter to the Mayor of the City of Marina dated June 5, 2003, the DTSC stated that, based on the results of the re-sampling of soil by the Army and the DTSC in Patton Park, the housing area was suitable for unrestricted use.

4.7 Radiological Materials

One building on the Property (Building 916, Parcel S3.1.1) was among 230 former Fort Ord buildings that were suspected to have contained/stored radioactive commodities at some point in the past, but for which no documented evidence was found. The use of radioactive commodities at former Fort Ord was limited to those under the control of a specific Nuclear Regulatory Commission (NRC) license, or those managed under Department of the Army authorization. Twenty percent of the 230 buildings were randomly sampled by the U.S. Army Environmental Hygiene Agency (AEHA; reorganized in 1994 as the U.S. Army Center for Health Promotion and Preventive Medicine [USACHPPM]). No radiological health hazards were identified for the twenty percent sampled, and USACHPPM recommended that all 230 buildings be released for unrestricted use (memorandum dated May 2, 1997). In a memorandum dated October 1, 1997, the California Department of Health Services (DHS) released all buildings with documented or suspected use or storage of radioactive commodities (including Building 916) for unrestricted use.

4.8 Radon

Radon surveys were conducted in approximately 2,900 buildings at the former Fort Ord in 1989 and 1990. Radon was not detected at or above the US EPA residential action level of 4 picocuries per liter (pCi/L) in buildings on the Property.

4.9 Munitions and Explosives of Concern (MEC)

A review of existing records and available information, including the Archive Search Report (ASR), ASR Supplement No. 1 and the draft Revised ASR (*December 1993, November 1994 and December 1997*, respectively), the Site 39 Data Summary (*February 1994)*, the Literature Review Report (*January 2000*), the Track 0 ROD (*June 2002*), the Final Track 1 OE RI/FS (*June 2004*), the Track 1 ROD (*March 2005*), the Track 0 Plug-In Approval Memorandum Selected Parcels – Group B (*March 2005*), the Track 0 Plug-In Approval Memorandum Selected Parcels – Group C (*July 2005*), military munitions contractor after-action reports, working maps, Fort Ord Training Facilities Maps, and associated interviews from various ordnance-related community relations activities, indicates that ten former munitions response sites (MRSs) are present on the Property as described below. The ten MRSs (MRS-1, MRS-6, MRS-13A, MRS-20, MRS-22, MRS-27Y, MRS-49, MRS-59A, MRS-62, and MRS-66) were determined to be Track 1 munitions response sites. In addition, the area between MRS-1 and MRS-6, the MRS-6 Expansion Area, was evaluated and determined to meet the Track 1 Plug-In criteria (*Track 1 Plug-In Approval Memorandum, MRS-6 Expansion Area*, dated May 6, 2005). No further action related to munitions and explosives of concern (MEC) is required at Track 1 sites because MEC is not expected. The term "MEC" means military munitions that may pose unique explosives safety risks, including: (A) unexploded ordnance (UXO), as defined in 10 U.S.C. §101(e)(5); (B) discarded military munitions (DMM), as defined in 10 U.S.C. §2710(e)(2); or (C) munitions constituents (e.g., TNT, RDX), as defined in 10 U.S.C. §2710(e)(3), present in high enough concentrations to pose an explosive hazard. The Track 1 ROD was signed by the DTSC on March 30, 2005 and the US EPA on April 6, 2005. Track 1 sites were evaluated through the RI/FS process and documented in the Track 1 OE RI/FS. The Track 1 OE RI/FS provided the site-specific rationale for assigning Track 1 status. The remainders of the parcels that lie outside of the Track 1 site(s) are considered Track 0 areas. The Track 0 No Action ROD Plug-in process

addresses single or grouped areas of land at the former Fort Ord that have no history of military munitions use and for which No Action is necessary to protect human health and the environment. The Track 0 ROD (*June 19, 2002*) was signed by the DTSC on June 25, 2002, and the US EPA on July 2, 2002. The evaluation of the portions of the parcels included in this FOST that lie outside of the Track 1 sites is presented in the *Track 0 Plug-In Approval Memorandum Selected Parcels – Group C, Former Fort Ord California* (Track 0 Approval Memo – Group C), dated July 1, 2005. The US EPA and the DTSC concurred with the determinations of the Track 0 Approval Memo – Group C in letters dated July 19, 2005 and July 22, 2005, respectively.

The following summarizes the results of the Military Munitions Response Program (MMRP) investigations that have been conducted on the Property.

MRS-1. MRS-1 lies within portions of Parcels E2a, E4.1.2.2, L9.1.1.2, and L9.1.2.2 (Plate 4 [Attachment 1]). MRS-1 was evaluated in the Track 1 OE RI/FS. Based on review of existing information, MEC is not expected to be found at MRS-1. MRS-1 meets the Track 1, Category 3[9] criteria because historical research and sampling investigations identified evidence of past training involving military munitions and training at this site involved only the use of pyrotechnic items that are not designed to cause injury. In accordance with the Track 1 ROD, no further action related to MEC is required at MRS-1.

MRS-6. MRS-6 lies within portions of Parcels E2a and S4.1.1 (Plate 4 [Attachment 1]). MRS-6 was evaluated in the Track 1 OE RI/FS. Based on review of existing information, MEC is not expected to be found at MRS-6. MRS-6 meets the Track 1, Category 3 criteria because historical research and sampling investigations identified evidence of past training involving military munitions and training at this site involved only the use of pyrotechnic items that are not designed to cause injury. In accordance with the Track 1 ROD, no further action related to MEC is required at MRS-6.

MRS-6 Expansion Area. The MRS-6 Expansion Area lies within Parcel E2a, between MRS-6 and MRS-1 and overlaps small portions of Parcels E4.1.2.1, E4.1.2.2 and S4.1.1 (Plate 4). The Track 1 OE RI/FS recommended that the boundary of MRS-6 be expanded to the south to include an area identified as a "Mine and Booby Trap Area" on a 1950s era training map. A site walk was conducted in 2004 to evaluate this area. The area walked included MRS-6, a portion of Parcel E2a between MRS-6 and MRS-1 (MRS-6 Expansion Area), and the very northern portion of MRS-1. Munitions debris items found during the site walk included expended practice mine fuzes within MRS-6 and an expended firing device within the portion of Parcel E2a between MRS-6 and MRS-1, which are consistent with both the type of munitions debris items found during previous sampling events and those expected in a practice mine and booby trap training area. The MRS-6 Expansion Area meets the Track 1, Category 3 criteria because historical research and field investigations identified evidence of past training involving military munitions, and training at this site involved only the use of practice and pyrotechnic items that are not designed to cause injury. The MRS-6 Expansion Area was evaluated in the *Track 1 Plug-In Approval Memorandum, MRS-6 Expansion Area*, dated May 6, 2005. Approval of the "Plug-In" of the MRS-6 Expansion Area into the Track 1 ROD was granted by the US EPA on

[9] Category 3: The site was used for training with military munitions, but military munitions items that potentially remain as a result of that training do not pose an unacceptable risk based on site-specific evaluations conducted in the Track 1 OE RI/FS.

June 20, 2005 and by the DTSC on July 29, 2005. In accordance with eligibility criteria for Plug-In sites identified in the Track 1 ROD, no further action related to MEC is required for this area.

MRS-13A. MRS-13A includes portions of Parcels E4.6.1, E4.6.2, L5.6.1, and L5.6.2 (Plate 5 [Attachment 1]). MRS-13A was evaluated in the Track 1 OE RI/FS. Based on review of existing information, MEC is not expected to be found at MRS-13A. MRS-13A meets Track 1, Category 2[10] criteria because historical research and sampling conducted at this site identified evidence of past training involving military munitions items that do not pose an explosive hazard. In accordance with the Track 1 ROD, no further action related to MEC is required at MRS-13A.

MRS-13A overlies a portion of the OU2 Landfills (Area A; Plate 5 [Attachment 1]). The southwestern portion of MRS-13A includes a portion of Area A excavated in 1996 through 1998, as part of the relocation of the landfill material buried in Area A. All landfill disposal areas, including land within the MRS-13A footprint, have been fully excavated and the excavated areas have been backfilled or re-graded. Military munitions items were found and removed from landfill materials excavated from MRS-13A; however, the items are attributed to disposal based on the proximity to the landfill and the type of training identified on historic maps in this area. Accordingly, Area A has been identified as a "Special Case" Track 0 Area as defined in the Track 0 ROD (*June 2002*) and the Track 0 ROD Explanation of Significant Differences (ESD) (*April 5, 2005*). The DTSC and the US EPA signed the Track 0 ROD ESD on April 12, 2005 and April 26, 2005, respectively.

MRS-20. MRS-20 lies within Parcel E15.2 (Plate 3 [Attachment 1]). MRS-20 was evaluated in the Track 1 OE RI/FS. MRS-20 meets the Track 1, Category 1[11] criteria because historical research and sampling conducted at this site found no evidence of past training involving military munitions. In accordance with the Track 1 ROD, no further action related to MEC is required at MRS-20.

MRS-22. MRS-22 includes Parcels L20.15, S3.1.1, S3.1.2, S3.1.3, and S3.1.4 (Plates 8 and 9 [Attachment 1]). MRS-22 was evaluated in the Track 1 OE RI/FS. Based on review of existing information, MEC is not expected to be found at MRS-22. MRS-22 meets the Track 1, Category 3 criteria because historical research and sampling investigations identified evidence of past training involving military munitions and training at this site involved only the use of practice and pyrotechnic items that are not designed to cause injury. In accordance with the Track 1 ROD, no further action related to MEC is required at MRS-22.

As an added precaution, the DTSC and the California Department of Parks and Recreation will enter into a Memorandum of Understanding (MOU) for additional site surveillance activities on MRS-22. The MOU will be implemented to inspect the beach property for the presence of MEC items periodically and after erosion-inducing events. The MOU will also call for proper notification in the case of any discovery of MEC items (or potential MEC items) during these inspections.

[10] Category 2: The site was used for training, but the military munitions items used do not pose an explosive hazard.
[11] Category 1: There is no evidence to indicate military munitions were used at the site.

MRS-27Y. MRS-27Y lies partially within Parcels E11a, L20.14.1.1, and L20.14.2 (Plate 6 [Attachment 1]). MRS-27Y was evaluated in the Track 1 OE RI/FS. Based on review of existing information, MEC is not expected to be found at MRS-27Y. MRS-27Y meets the Track 1, Category 3 criteria because historical research and sampling investigations identified evidence of past training involving military munitions and training at this site involved only the use of pyrotechnic items that are not designed to cause injury. In accordance with the Track 1 ROD, no further action related to MEC is required at MRS-27Y.

MRS-49. MRS-49 lies partially within Parcels E20c.2.1, L23.5.1 and L31 (Plate 3 [Attachment 1]). MRS-49 was evaluated in the Track 1 OE RI/FS. Based on review of existing information, MEC is not expected to be found at MRS-49. MRS-49 meets the Track 1, Category 3 criteria because historical research and site walks conducted at this site identified evidence of past training involving military munitions and training at this site involved only the use of practice and pyrotechnic items that are not designed to cause injury. In accordance with the Track 1 ROD, no further action related to MEC is required at MRS-49.

MRS-59A. MRS-59A includes Parcel E11b.6.2 (Plate 7 [Attachment 1]). MRS-59A was evaluated in the Track 1 OE RI/FS. Based on review of existing information, MEC is not expected to be found at MRS-59A. MRS-59A meets the Track 1, Category 3 criteria because historical research, site walks, and surface sampling conducted at this site identified evidence of past training involving only the use of pyrotechnic items that are not designed to cause injury. In accordance with the Track 1 ROD, no further action related to MEC is required at MRS-59A.

MRS-62. MRS-62 includes Parcel L20.6 (Plate 10 [Attachment 1]). MRS-62 was evaluated in the Track 1 OE RI/FS. Based on review of existing information, MEC is not expected to be found at MRS-62. MRS-62 meets the Track 1, Category 3 criteria because historical research and sampling investigations identified evidence of past training involving military munitions and training at this site involved only the use of pyrotechnic items that are not designed to cause injury. In accordance with the Track 1 ROD, no further action related to MEC is required at MRS-62.

MRS-66. MRS-66 lies partially within Parcel E11a (Plate 6 [Attachment 1]). MRS-66 was evaluated in the Track 1 OE RI/FS. Based on review of existing information, MEC is not expected to be found at MRS-66. MRS-66 meets the Track 1, Category 3 criteria because historical research and sampling investigations identified evidence of past training involving military munitions, and training at this site involved only the use of practice and pyrotechnic items that are not designed to cause injury. In accordance with the Track 1 ROD, no further action related to MEC is required at MRS-66.

As specified in the Track 1 ROD and the Track 1 Plug-In Approval Memorandum for the MRS-6 Expansion Area, the Army recommends construction personnel involved in intrusive operations at the following sites attend the Army's "ordnance recognition and safety training," MRS-1, MRS-6, and the MRS-6 Expansion Area, MRS-13A, MRS-22, MRS-27Y, MRS-49, MRS-59A, MRS-62, and MRS-66.

Site Reconnaissance of Parcels E20c.2.1, L23.5.1, L31, E11b.6.2, L20.6, and E11a

As part of the BRA, a site reconnaissance was performed over portions of Parcels E20c.2.1, L23.5.1, L31, E11b.6.2, L20.6, and E11a. No MEC or munitions debris items were found within these parcels during the BRA site reconnaissance. Additional information on the BRA investigation is provided in Section 4.2.3.

Site Walk of Parcel E2a

A site walk was conducted in 2004 to address gaps in information collected during previous sampling efforts in the vicinity of MRS-1 and MRS-6. The site walk was conducted by a UXO Safety Specialist using a magnetometer to detect buried anomalies. The area walked included MRS-6, a portion of Parcel E2a between MRS-6 and MRS-1, and very northern portion of MRS-1. The only munitions debris items found during the site walk were two expended practice mine fuzes and an expended firing device (M1-type), which are consistent with the type of munitions debris found at MRS-1 and MRS-6 during the sampling conducted at those sites.

Military munitions response program investigations indicate that it is not likely that MEC are located on the Property; however, there is a potential for MEC to be present because military munitions were used throughout the history of Fort Ord. The deed will contain a notice of the potential for the presence of MEC as stated in the Environmental Protection Provisions (Attachment 5).

4.9.1 Incidental Military Munitions

Incidental military munitions items were found in seven parcels that are in this FOST. These items are considered to be "incidental" because their presence was anomalous and not indicative of past military munitions training activities on these parcels. Accordingly, the definition of "Track 0" has been clarified in the *Explanation of Significant Differences, Final Record of Decision, No Action Regarding Ordnance-Related Investigations (Track 0 ROD), Former Fort Ord, California* (*April 5, 2005*) to include areas not suspected as having been used for military munitions-related activities of any kind, but where incidental military munitions have been discovered. A description of the discovery of incidental military munitions at each parcel is provided below.

Parcels E4.3.1.2, E4.6.1, E4.6.2, L5.6.1 and L5.6.2 – During the excavation and placement of underground piping associated with the OU2 Landfills groundwater treatment system munitions debris items and MEC items were found on Parcels E4.3.1.2, E4.6.1, E4.6.2, L5.6.1, and L5.6.2. With the exception of one of the items (an inert 3.5-inch rocket motor), all were found within or adjacent to the landfill excavation boundaries during construction activities. As documented in the *Technical Memorandum, Support Documentation, Potential OE Issues, Parcel E4.3.1, Finding of Suitability for Early Transfer, Housing Areas and Former East Garrison Parcels, Former Fort Ord, California, May 2, 2001*, available documentation indicates these items were discarded in the former OU2 Landfills (Area A) during previous landfill operations and are not associated with any training in this area. The inert 3.5-inch rocket motor was found along Imjin Road, within Parcel E4.6.2, at a depth of 2 feet below the ground surface and may have been buried during grading activities.

The intended reuse of Parcel E4.3.1.2 is residential development, and as part of construction activities for this development the OU2 Landfills groundwater treatment system piping and other utilities within the parcel will be excavated and relocated. A representative of the Army trained in MEC recognition will observe initial grading and excavation activities that are within Parcel E4.3.1.2, associated with the system piping and utility relocation, and part of the initial planned development occurring within the parcel after its transfer. In accordance with the Environmental Protection Provisions (Attachment 5), if the Army representative or any other person should find suspected MEC during these activities, they will immediately stop any intrusive or ground-disturbing work in the area or in any adjacent areas and will immediately notify the appropriate authority so that explosive ordnance disposal personnel can be dispatched to address such MEC, as required under applicable law and regulations.

Parcel E8a.1.1.2 - Several military munitions items have been discovered within this parcel. The items were primarily expended practice items (munitions debris) and found scattered mostly in the northwestern portion of the parcel. Three MEC items (practice antitank mine, grenade fuze, and a practice grenade) were also found. These items are considered to be associated with disposal at the OU2 Landfills and not with any training in this area.

To address regulatory agency concerns regarding the occurrence of incidental military munitions observed on Parcel E8a.1.1.2, a site walk was performed to provide additional information. On June 15, 2005, a USACE UXO Safety Specialist conducted a site walk with a Schonstedt GA-52CX magnetometer, while a Global Positioning System operator recorded the path walked. All anomalies were intrusively investigated. No MEC or munitions debris items were found during the walk; brass casing from small arms ammunition were observed. Therefore, presence of the incidental items found previously on this parcel are not indicative of past training and this parcel meets the definition of Track 0 as defined in the Track 0 ESD.

Parcel L20.13.5 - In March of 2002, staking and surveying activities were being conducted along South Boundary Road to support widening of the road from General Jim Moore Boulevard to York Road. During this activity, the cartridge case from a 40mm multi-projectile with a live primer (MEC) was discovered adjacent to the road on Parcel L20.13.5. The item was reported to the on-call UXO Safety Officer who responded to the incident. The item was inspected and deemed safe to remove (cartridge case was damaged and the projectiles were missing), and transported to a safe holding area for later disposal. No other evidence of military munitions was discovered during the South Boundary Road widening project. Because the cartridge case was damaged and found lying adjacent to South Boundary Road, it is believed to have been discarded at this location and not present as the result of training activities.

4.9.2 Findings and Recommendations

The potential exists for MEC to be present on the Property because they were used throughout the history of Fort Ord. An appropriate MEC notice is given herein and will be included in the deed. The deed will include the MEC warning and covenant included in the Environmental Protection Provisions (Attachment 5, Section 3).

The Army cannot guarantee that all MEC have been removed; therefore, the Army recommends reasonable and prudent precautions be taken when conducting intrusive operations on the Property and will, at its expense, provide construction worker MEC recognition training.

Pursuant to an agreement with the DTSC, the Cities of Marina, Seaside, and Del Rey Oaks have adopted City Ordinances that address the potential MEC risk by requiring permits for certain excavation activities. The Cities of Seaside, Marina, and Del Rey Oaks have designated all real property within their respective land use jurisdictions, which was formerly part of Fort Ord and identified as the possible location of MEC, as an "Ordnance Remediation District" ("District").

4.10 Installation-Wide Multispecies Habitat Management Plan

In accordance with the Installation-Wide Multispecies Habitat Management Plan (HMP), parcels in this FOST are categorized as follows:

Development Parcels – E15.2, E20c.2.1, E4.1.2.1, E4.1.2.2, E4.1.2.3, E4.3.1.2, E4.3.2.1, E4.6.1, E4.6.2, L5.6.1, L5.6.2, L9.1.1.2, L9.1.2.2, L20.13.5, L20.14.1.1, L20.14.2, L20.15, L20.6, L23.5.1, L31, and S3.1.4.

Habitat Reserve Parcels – E11a, E11b.6.2, and S3.1.2.

Development with Reserve Areas or Development with Restrictions Parcels – E2a, E8a.1.1.2, S3.1.1, S3.1.3, and S4.1.1.

The resource conservation and management requirements for Habitat Reserve Parcels and Development with Reserve Areas or Development with Restrictions Parcels are described in the April 1997 HMP and in the *Assessment East Garrison – Parker Flats Land Use Modifications, Fort Ord California, May 1, 2002.*

The parcels identified as HMP Development Parcels have no HMP resource conservation or management requirements; however, the HMP does not exempt the Grantee from complying with environmental regulations enforced by federal, State, or local agencies. These regulations may include obtaining permits from the U.S. Fish and Wildlife Service (USFWS) as required by the Endangered Species Act (ESA); complying with prohibitions against the removal of listed plants occurring on federal land or the destruction of listed plants in violation of any state laws; complying with measures for conservation of state-listed threatened and endangered species and other special-status species recognized by the California ESA, or California Environmental Quality Act (CEQA); and complying with local land use regulations and restrictions. The deed will include the "Notice Of The Presence Of Threatened And Endangered Species" provided in the Environmental Protection Provisions (Attachment 5).

4.11 Other Property Conditions

Clean Air Act General Conformity Rule requirements for this transfer were satisfied by a Record of Non-Applicability based upon an exemption for property transfers or leases where the proposed action will be a transfer of ownership, interest and title in the land, facilities, and associated real and personal property.

5.0 ADJACENT PROPERTY CONDITIONS

The following other potentially hazardous conditions exist on adjacent property:

5.1 Operable Unit 2 (OU2) Landfills

Portions of the Property (Parcels E4.3.1.2, E4.3.2.1, E4.6.1, E4.6.2, E8a.1.1.2, L5.6.1, and L5.6.2) are located within 1,000 feet of the Operable Unit 2 (OU2) Landfills (Plate 6 [Attachment 1]). Parcel E8a.1.1.2 is located immediately to the south of and adjacent to the OU2 Landfills (Area E) (Plate 6, Attachment 1). The selected remedial action presented in the OU2 Landfills ROD (*July 15, 1994*) included placement of an engineered cover system over buried refuse at the OU2 Landfills. Placement of the engineered cover system at the OU2 Landfills was completed in December 2002.

California Integrated Waste Management Board (CIWMB) regulations (Title 27 California Code of Regulations [CCR]), require that methane concentrations do not exceed the lower explosive limit (LEL) of five percent at the landfill boundary. In addition, trace gases must be controlled to prevent adverse acute and chronic exposure to toxic and/or carcinogenic compounds. To evaluate methane levels and trace gases in soil adjacent to the OU2 Landfills in accordance with CIWMB requirements, permanent monitoring probes were installed within the OU2 Landfills and around the OU2 Landfills perimeter at a spacing of 1,000 feet or less. The Army has conducted quarterly monitoring at perimeter probes since June 2000, as described in the Landfill Gas Perimeter Probe Monitoring Reports (February 2002, October 2002, April 2004 and November 2004). The latest available results from the quarterly methane monitoring (March through December 2003) showed methane concentrations to be below the five percent standard at the landfill boundary. It is expected that the concentrations of methane will decline in the future as the waste ages and the rate of biological degradation decreases. Results from the 2003 annual monitoring for volatile organic compounds (VOCs) indicates VOCs were mostly non-detectable to the reporting limit. The VOCs most frequently detected since June 2000 include vinyl chloride, benzene, Freon 11, Freon 12, Freon 113, and Freon 114. Permanent perimeter probes are located on Area E of the OU2 Landfills adjacent to Parcel E8a.1.1.2 (SGP-1E, SGP-2E and SGP-3E) and within Parcel E8a.1.1.2 (SGP-5E and SGP-6E). These probes are monitored quarterly for methane. Historically, methane has been detected in SGP-1E and SGP-2E, but not in SGP-3E, SGP-5E or SGP-6E. SGP-2E and SGP-5E are also monitored annually for VOCs. In 2003, acetone, carbon disulfide, Freon 114, Freon 12 and Tetrachloroethene were detected in both probes. Additionally, Freon 11 was detected in SGP-5E. To monitor for potential impacts of toxic and/or carcinogenic trace gases contained in landfill gas (LFG), the Army also conducted ambient air monitoring in 2000, 2001, 2002, and 2003 for VOCs as reported in the *Draft Final Report, 2003 Ambient Air Monitoring and Human Health Risk Assessment, Operable Unit 2 Landfills, Former Fort Ord, Calif*ornia (Revision 0, March 2005). The results of the Human Health Risk Assessment (HHRA) are described below.

In June 2001, the Army implemented a LFG extraction and treatment system along the eastern side of the OU2 Landfills Area F adjacent to the existing California State University Monterey Bay (CSUMB) housing. This system has reduced and maintained methane concentrations along the fence line adjacent to the eastern side of Area F to less than the five percent standard. To further reduce potential migration of VOCs from the OU2 Landfills to the underlying groundwater and potential emissions of VOCs to the atmosphere, the Army is expanding the network of LFG extraction wells to include the northern, western and southern perimeters and interior of Area F. The new system will extract and treat both methane and VOCs through use of a thermal treatment unit. In its current configuration, the treatment system uses granular

activated carbon and potassium permanganate to treat VOCs; however, this is not effective for removing methane. The system expansion is described in the *Draft Final Work Plan, Landfill Gas System Expansion, Operable Unit 2 Landfills, Former Fort Ord, California* (Revision 0, March 2005). The Army estimates construction will be complete and the expanded system brought on line by January 2006.

To decrease the potential for LFG migration to surrounding property, a buffer zone was added extending 100 feet beyond the perimeter fencing for most of the OU2 Landfills Areas (Plate 6 [Attachment 1]). Future landowners should refer to Title 27, Section 21190 CCR, which identifies protective measures for structures built on or within 1,000 feet of a landfill.

The Army conducted a screening human health risk assessment (HHRA) to evaluate the potential health risks associated with potential residential exposure to VOCs in ambient air in the vicinity of the OU2 Landfills. Ambient air monitoring data collected in 2000, 2001, 2002, and 2003 was used in the HHRA. Based on the results of the HHRA, it was determined that no further corrective action was necessary to address risks or hazards from VOCs potentially emanating from the OU2 Landfills (SWMU FTO-002). The US EPA provided comments to the Draft HHRA in a letter dated November 8, 2004, in which it was concurred that the OU2 Landfills are not contributing significantly to VOC concentrations in ambient air downwind of the OU2 Landfills. The DTSC provided comments in a memorandum dated November 17, 2004, in which the DTSC concurred that risks upwind and downwind of the OU2 Landfills are approximately equal.

Site closure has been recommended for the OU2 Landfills. Documentation required for the regulatory agencies to approve site construction completion and site completion as defined under CERCLA was provided in the *Draft Remedial Action Construction Completion Report, Operable Unit 2 Landfills, Areas A through F, Former Fort Ord, California, March 2003, Revision C.* The California Regional Water Quality Control Board, Central Coast Region (RWQCB) provided comments on and approval of the report in a letter dated April 25, 2003. The letter also stated the RWQCB would be changing the OU2 Landfills permitting to reflect its closed status. On January 10, 2005, the US EPA and the DTSC gave verbal approval to issue the Draft Final Remedial Action Construction Completion Report in accordance with the Federal Facilities Agreement schedule. The draft final document, dated January 31, 2005, was issued on February 2, 2005. The regulatory agencies had no additional comments and the document became final in March 2005 in accordance with the provisions of the Fort Ord FFA (*November 19, 1990*). Additional information regarding the OU2 Landfills is provided in Sections 4.1.4, 4.2.1, and 4.2.2.

5.2 Munitions and Explosives of Concern (MEC)

MRS-2, MRS-24B, MRS-31, MRS-44EDC, MRS-45, MRS-50EXP, and MRS-59 lie adjacent to the Property. A summary of the investigation conducted at each of the adjacent sites is provided below.

MRS-2. MRS-2 lies approximately 100 feet west of Parcel E4.6.1 (Plate 5 [Attachment 1]). MRS-2 was identified in the ASR as a chemical training area and a landmine warfare training area. Results of the ASR indicate that MRS-2 was not an impact area. During the archives search it was reported that Chemical Agent Identification Sets (CAIS) might have been buried in

the site vicinity along Imjin Road. MRS-2 was sampled for munitions and explosives of concern (MEC) in 1994 and two munitions debris items were found. A portion of MRS-2 overlaps IRP Site 16 and is adjacent to IRP Site 17. During the investigation and remediation of IRP Sites 16 and 17, 468 2.36-inch inert practice rockets were removed from burial pits located in former landfill areas within Sites 16 and 17. Landfill areas within MRS-2 were fully excavated in 1997. Although munitions debris items were found at MRS-2, the items were buried in disposal pits and were not associated with military munitions use. No evidence of CAIS kits was found during sampling. The burial area within MRS-2 has been excavated, backfilled and re-graded. As discussed in the Track 0 ROD (*June 19, 2002*), the portion of MRS-2 that has been excavated, backfilled and re-graded (Pete's Pond) is a Special Case Track 0 area. The Track 0 ROD approved No Action regarding munitions response for this Special Case Track 0 area. The Special Case Track 0 area included the former landfill within MRS-2 where munitions debris was found buried with refuse. No military munitions-related activities occurred in the area, and the munitions debris and the refuse were entirely removed.

MRS-2 was categorized as a Track 1 site, which are sites suspected to have been used for military training with military munitions. Historical research and sampling conducted at this site found no evidence of past training involving military munitions. The adequacy of the sampling conducted at MRS-2 was evaluated in the Track 1 OE RI/FS. The Track 1 OE RI/FS recommended that MRS-2 should be retained in the Track 1 process. Therefore, MRS-2 will be considered as a candidate site for the Track 1 Plug-in process in accordance with criteria identified in the approved Track 1 ROD.

MRS-5. MRS- 5 lies adjacent to Parcel Ellb.6.2 (Plate 7 [Attachment 1]). MRS-5 was evaluated in the Track 1 OE RI/FS. Based on review of existing information, MEC is not expected to be found at MRS-5. MRS-5 meets the Track 1, Category 3 criteria because historical research and surface sampling conducted at this site identified evidence of past training involving only practice and pyrotechnic items that are not designed to cause injury. In accordance with the Track 1 ROD, no further action related to MEC is required at MRS-5.

MRS-13A. MRS-13A lies adjacent to Parcels E4.3.1.2 and E8a.1.1.2 (Plate 5 [Attachment 1]). MRS-13A was evaluated in the Track 1 OE RI/FS. Based on review of existing information, MEC is not expected to be found at MRS-13A. MRS-13A meets the Track 1, Category 2 criteria because historical research and sampling conducted at this site identified evidence of past training involving military munitions items that do not pose an explosive hazard. In accordance with the Track 1 ROD, no further action related to MEC is required at MRS-13A.

MRS-24B. MRS-24B lies approximately 300 feet southwest of Parcel E20c.2.1 (Plate 3 [Attachment 1]). MRS-24B was evaluated in the Track 1 OE RI/FS. Based on review of existing information, MEC is not expected to be found at MRS-24B. MRS-24B meets the Track 1, Category 3 criteria because historical research and sampling investigations identified evidence of past training involving military munitions, and training at this site involved only the use of practice and pyrotechnic items that are not designed to cause injury. In accordance with the Track 1 ROD, no further action related to MEC is required at MRS-24B.

MRS-31. MRS-31 is separated from Parcel E8a.1.1.2 by Inter-Garrison Road and lies adjacent to Inter-Garrison Road Parcel L20.14.2 (Plate 6 [Attachment 1]). MRS-31 is a general area where training occurred and encompasses several munitions response sites including MRS-4C,

MRS-7, MRS-8 and MRS-18. The boundary of MRS-31 was established to correspond to the transfer parcel boundary and to include each of the munitions response sites. HFA completed the initial investigation of MRS-31 in 1994. Removals of military munitions to three and four feet below ground surface have been conducted throughout MRS-31. MEC and munitions debris items found during the military munitions removal actions conducted at these sites included rifle-fired smoke grenades, fuzes, firing devices, blasting caps, simulators, illumination signals, practice hand and smoke grenades, practice mines, projectiles, and practice rockets. Site MRS-31 will undergo additional evaluation in the ongoing former Fort Ord Military Munitions Response Program

MRS-44EDC. MRS-44EDC lies approximately 400 feet southeast of Parcel E20c.2.1 (Plate 3 [Attachment 1]). MRS-44EDC was established based on the presence of fragmentation from 37mm HE projectiles found during a site reconnaissance conducted by a USACE UXO Safety Specialist. An investigation of MRS-44EDC was conducted to determine whether a removal action was warranted. The investigation included the sampling of grids randomly distributed throughout the site. Several MEC items were found during sampling at MRS-44EDC; however, none of the MEC items found are penetrating by design and would therefore typically be found on or near the ground surface unless intentionally buried. MRS-44EDC will undergo additional evaluation in the ongoing former Fort Ord Military Munitions Response Program.

MRS-45. The site, approximately 400 acres, lies adjacent to Inter-Garrison Road Parcels L20.14.1.1 and L20.14.2 (Plate 6 [Attachment 1]). CMS Environmental, Inc. (CMS) conducted sampling of MRS-45 in 1997. Two hundred and twenty-five munitions debris items were removed. With the exception of a fragment from a fragmentation hand grenade, all of the munitions debris items were pyrotechnic or training related and included rifle-fired smoke grenades, two 40mm projectile signals, practice, illumination, and smoke hand grenades, illumination signals, practice mines, hand grenade fuzes, booby trap firing devices, and a smoke pot. Twelve MEC items (all pyrotechnic or training related items) were found during sampling of the site. No evidence was found during sampling to indicate that this site was used as an impact area and no further military munitions investigation was recommended. MRS-45 will undergo additional evaluation in the ongoing former Fort Ord Military Munitions Response Program.

MRS-46. This site lies immediately adjacent to South Boundary Road Parcel L20.13.5 (Plate 8 [Attachment 1]). The boundary of MRS-46 is based on transfer parcel delineation and not on evidence of munitions use. Sampling of MRS-46 was initially conducted as part of the investigation of the adjacent impact area. During the sampling two MEC items (2.36-inch rockets) were found on the ground surface. The contractor conducting the sampling concluded that the two rockets were discarded military munitions (DMM); however, sampling of the entire site was conducted. No MEC were found during this sampling effort. Ten munitions debris items (various portions of practice rifle grenades) were found and removed. Because a portion of MRS-46 was to be leased to York School for the construction of an athletic field, the entire lease area was re-evaluated (sampled) using digital geophysical equipment. No MEC or munitions debris were discovered and no further action was recommended. A digital geophysical evaluation (sampling) was also performed to the south of MRS-46 between South boundary Road and the former Fort Ord installation boundary (Plate 8). This area was identified as the York School South Area. The investigation included a visual sweep and subsurface investigation

using digital geophysical equipment. No MEC was found during sampling. Three munitions debris items (pieces of practice rifle grenades) were found and removed. Based on these results, no further action was recommended. MRS-46 and the York School South Area will undergo additional evaluation in the ongoing Fort Ord Military Munitions Response Program.

In 2002, York School completed construction of an athletic field and installation of an irrigation well within the portion of MRS-46 leased to them by the Army. The construction of the athletic field and installation of an underground irrigation system involved significant earth moving and grading. No military munitions were found during the athletic field construction, or installation of the irrigation well and irrigation system.

MRS-50EXP. MRS-50EXP is located approximately 500 feet west of Parcel L23.5.1 (Plate 3 [Attachment 1]). MRS-50EXP was not initially identified as a MRS in the ASR, but was created due to the expansion of the removal area associated with MRS-50. MEC and munitions debris were found at the boundary of MRS-50, which warranted an expansion of the investigation area in all directions. MRS-50EXP and the adjacent sites now comprise the Parker Flats munitions response area (Parker Flats MRA). The investigation of MRS-50 and its expansion areas included a removal action conducted over the entire site to a depth of 4 feet below ground surface. During the removal, 425 MEC items were found and removed from MRS-50EXP. No high explosive or penetrating military munitions were found within approximately 900 feet of Parcel L23.5.1. Approximately 500 hundred feet of open space and Parker Flats Road separates Parcel L23.5.1 from MRS-50EXP. Five military munitions items were found within MRS-50EXP approximately 600 feet from the eastern boundary of Parcel L23.5.1. The items, two practice hand grenade fuzes (MEC), a 40mm smoke projectile (MD), a rifle-fired parachute signal (MD), and a grenade fuze (MD), were found during the sampling of MRS-50EXP grids located on the east side of Parker Flats Road. The practice hand grenade fuzes were classified as discarded military munitions (DMM) items by the contractor conducting the military munitions sampling and removal. Because the MEC items found adjacent to Parker Flats Road were determined to be DMM further sampling on the west side of Parker Flats Road was not warranted. The Parker Flats MRA is currently being evaluated in the Track 2 Munitions Response Remedial Investigation/Feasibility Study.

MRS-59. MRS-59 lies adjacent to Parcel E11b.6.2 (Plate 7 [Attachment 1]). MRS-59 was identified during interviews conducted during the PA/SI phase of the Fort Ord Archives Search and was reported to have included a 2.36-inch rocket range in the early 1940s. A portion of MRS-59 was transferred to the Bureau of Land Management (BLM) in 1996 and the remainder was retained by the Army. The remaining portion was re-named as MRS-59A. The reconnaissance of MRS-59 involved walking a portion of the site and sweeping the path walked using a magnetometer. Two pieces of mortar fragments from the incomplete detonation of a 60mm mortar were found on the far west side of MRS-59 approximately 3000 feet from Parcel E11b.6.2. Expended pyrotechnic items were also found. Based on the reconnaissance performed, the ASR recommended further site investigation and random sampling at MRS -59. MRS-59 will undergo additional evaluation in the ongoing former Fort Ord Munitions Response Program.

Portions of MRS-59 were investigated as part of the BRA for small arms and multi-use ranges. The assessment of MRS-59 for potential hazardous and toxic waste-related contamination

included a data review, site reconnaissance, and mapping of portions of the site. Under the BRA MRS-59 was identified as HA-189. Additionally, Portions of MRS-59 were included within two other historical areas, HA-77 and HA-88; however, only walks associated with HA-77 occurred within MRS-59. No MEC items were found and no evidence of military training was observed during the site reconnaissance conducted at HA-77 and HA-189 (MRS-59A). No further investigation for chemical contamination was recommended for HA-189 (MRS-59) under the Fort Ord BRA.

MRS-DRO.1 and MRS-DRO.2. These sites lie on the north side of South Boundary Road and are in close proximity to Parcel L20.13.5 (Plate 8 [Attachment 1]). The boundaries of MRS-DRO.1 and MRS-DRO.2 are based on transfer parcel delineation and not on evidence of munitions use. The investigation of these sites included one hundred percent (100%) grid sampling, a removal action, and a 100% geophysical investigation to support the early transfer of these parcels. Items found and removed included expended practice rockets, practice projectiles, and practice grenades. MRS-DRO.1 and MRS-DRO.2 will undergo additional evaluation in the ongoing former Fort Ord Military Munitions Response Program.

MRS-MOCO.1. This site lies on the north side of South Boundary Road and is adjacent to Parcel L20.13.5 (Plate 8 [Attachment 1]). The boundary of MRS-MOCO.1 is based on transfer parcel delineation and not on evidence of munitions use. One hundred percent (100%) grid sampling was performed at MRS-MOCO.1 and no MEC or munitions debris were found. Based on these results no further action was recommended. MRS-MOCO.1 will undergo additional evaluation in the ongoing former Fort Ord Military Munitions Response Program.

6.0 ENVIRONMENTAL REMEDIATION AGREEMENTS

The following environmental remediation orders and agreements are applicable to the Property: The Fort Ord MR RI/FS and the Fort Ord Federal Facility Agreement (FFA; *November 19 1990*). All remediation activities on the Property required by the FFA are completed or in place and operating properly and successfully (OPS). The Environmental Protection Provisions (Attachment 5) and deed will include a provision reserving the Army's right to conduct remediation activities and the regulators' right of access.

7.0 REGULATORY/PUBLIC COORDINATION

The US EPA Region IX and the DTSC were notified of the initiation of this FOST. The 30-day review period was from May 31, 2005 to June 30, 2005. Regulatory/public comments received during the public comment period were reviewed and incorporated, as appropriate. A copy of the regulatory/public comments and the Army Response are included in Attachments 7 and 8, respectively. Certain comments from US EPA (Attachment 7) remain unresolved and are identified as such in the Army Response (Attachment 8).

8.0 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) COMPLIANCE

The environmental impacts associated with the proposed transfer of the Property have been analyzed in accordance with the National Environmental Policy Act (NEPA). The results of this analysis are documented in the *Final Environmental Impact Statement Fort Ord Disposal And Reuse* (*June 1993*), associated Record of Decision (*December 1993*), *Supplemental*

Environmental Impact Statement Fort Ord Disposal And Reuse (*June 1996*) and associated Record of Decision (*June 1997*). Encumbrances[12] identified in the NEPA analysis as necessary to protect human health or the environment are summarized in Table 8 – Disposal (Army Action) Impacts and Mitigation Measures (Attachment 3).

9.0 ENVIRONMENTAL PROTECTION PROVISIONS

Based on the above results from the CERFA Report and other environmental studies, and in consideration of the intended use of the Property, certain terms and conditions are required for the proposed transfer. The terms and conditions are set forth in the Environmental Protection Provisions (Attachment 5) and will be included in the deed/easement.

9.1 Covenants to Restrict Use of Property – Environmental Restrictions

A portion of the former Fort Ord installation lies within a "Special Groundwater Protection Zone" as defined by Monterey County Ordinance 04011. Use of groundwater is prohibited on portions of the Property as described in the Covenant to Restrict Use of Property – Environmental Restrictions (Special Groundwater Protection Zone) (CRUP). Provided the restrictions of the CRUP, to be entered into by the Army and the State of California, are adhered to, no actual or potential hazard exists on the surface of the Property from groundwater contamination or from possible soil gas volatilization resulting from groundwater contamination underlying the Property.

9.2 School Properties

Should this Property be considered for the proposed acquisition and/or construction of school properties utilizing State funding, a separate environmental review process in compliance with the California Education Code 17210 et. Seq. will need to be completed and approved by the DTSC.

10.0 FINDING OF SUITABILITY TO TRANSFER

For ECP Category 1 Parcels:

Based on the information above, I conclude that the portion of the Property in ECP Category 1 qualifies as CERCLA §120(h)(4) uncontaminated property and is transferable under that section. In addition, all Department of Defense requirements to reach a Finding of Suitability to Transfer have been met, subject to the terms and conditions in the Environmental Protection Provisions that shall be included in the deed for the property. The deed will include the CERCLA 120(h)(4) Notice, Covenant, and Access Provisions and Other Deed Provisions, including a clause granting the US EPA and the DTSC access to the Property in any case in which a response or corrective action is found to be necessary after the date of transfer. Whereas no hazardous substances or petroleum products were stored for one year or more, known to have been released, or disposed of on the parcel, a hazardous substance or petroleum notification is not required.

[12] For the purposes of the FOST, "encumbrances" include mitigations (to be implemented by the Army) necessary to protect human health and the environment from impacts associated with the disposal of property at the former Fort Ord.

For ECP Category 2 Parcels:

The portion of the Property in ECP Category 2 has been identified as real property on which no hazardous substances were released or disposed of, but on which petroleum products or their derivatives are known to have been released or disposed of. Notice is hereby provided that diesel fuel was released from a 4,000-gallon underground storage tank on the Property, which was operated from approximately 1976 to 1990.

Based on the above information, I conclude that all response actions necessary to protect human health and the environment with respect to any petroleum product remaining on the Property have been taken prior to the date of this conveyance. In addition, all Department of Defense (DOD) requirements to reach a Finding of Suitability to Transfer have been met for the Property, subject to the terms and conditions set forth in the Environmental Protection Provisions (Attachment 5) that shall be included in the deed for the Property. The deed will also include the Notice of Release or Disposal of Petroleum Products, Covenant, and Access Provisions and Other Deed Provisions, including a clause granting the US EPA and the DTSC access to the Property in any case in which a response or corrective action is found to be necessary after the date of transfer. Finally, the petroleum product notification (Table 7 – Notification of Petroleum Product Storage, Release, or Disposal [Attachment 3]) shall be included in the deed as required under DOD FOST Guidance.

For ECP Category 3 and 4 Parcels:

Based on the above information, I conclude that all removal or remedial actions necessary to protect human health and the environment have been taken and the portion of the Property in ECP Categories 3 and 4 is transferable under CERCLA section 120(h)(3). In addition, all Department of Defense requirements to reach a Finding of Suitability to Transfer have been met for the Property, subject to the terms and conditions set forth in the Environmental Protection Provisions (Attachment 5) that shall be included in the deed for the Property. The deed will also include the CERCLA 120(h)(3) Notice, Covenant, and Access Provisions and Other Deed Provisions, including a clause granting the US EPA and the DTSC access to the Property in any case in which a response or corrective action is found to be necessary after the date of transfer. Finally, the hazardous substance notification (Table 6 – Notification of Hazardous Substance Storage, Release, or Disposal [Attachment 3]) shall be included in the deed as required under the CERCLA Section 120(h) and DOD FOST Guidance.

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Thomas E. Lederle
Director, Hampton Field Office
Army BRAC