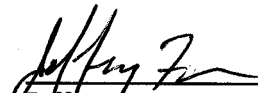


**Track 0 Technical Memorandum
Ordnance and Explosives
Remedial Investigation/Feasibility Study
Former Fort Ord, California**

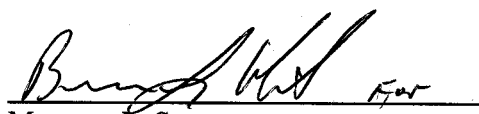
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Track 0 Technical Memorandum
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APPENDIXES

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DISTRIBUTION

1.0 INTRODUCTION

The former Fort Ord is located near Monterey Bay in northwestern Monterey County, California. Since 1917, portions of Fort Ord were used by cavalry, field artillery, and infantry units for maneuvers, target ranges, and other purposes. Ordnance and explosives (OE) were fired into, fired upon, or used on the facility in the form of artillery and mortar projectiles, rockets and guided missiles, rifle and hand grenades, land mines, pyrotechnics, bombs, and demolition materials. OE is present at Fort Ord as either unexploded ordnance (UXO) or ordnance scrap.

This Track 0 Technical Memorandum addresses areas at Fort Ord that are known to be non-OE areas based on current knowledge outlined in the Fort Ord Ordnance and Explosives Remedial Investigation/Feasibility Study (OE RI/FS) Literature Review (HLA, 2000). The specific parcels or groups of parcels that have been identified for Track 0 require No Action regarding investigation and remediation of ordnance-related activities. The Track 0 process addresses single or grouped areas of land at Fort Ord that have no history of OE-related use and on which No Action is necessary to protect human health and the environment. These areas consist largely of land that has been developed for commercial or residential uses throughout Fort Ord's history and areas that have no physical or documented evidence of OE-related training. The No Action determination for these areas will be documented through the Track 0 Proposed Plan and Record of Decision (ROD), which will be prepared subsequent to this Technical Memorandum.

This Technical Memorandum serves as a companion document to the Track 0 Proposed Plan. Associated OE RI/FS documents have been and will be prepared in cooperation with the regulatory agencies and will be reviewed and approved by the U.S. Environmental Protection Agency (EPA) and California Environmental Protection Agency Department of Toxic Substances Control (Cal/EPA DTSC). The

documents also will be available for public review and comment. Harding Lawson Associates (HLA) assisted in the preparation of this Track 0 Technical Memorandum on behalf of the U.S. Army Corps of Engineers (USACE), Sacramento District, U.S. Department of the Army (Army). This report has been prepared in accordance with the USACE Scope of Work (SOW) dated March 23, 1999, Delivery Order 0056, Contract DACA05-96-D-0007.

1.1 Background

Since the base was selected in 1991 for base realignment and closure (BRAC) and was officially closed in September 1994, site visits, historic and archival investigations, OE sampling, and removal actions have been performed and documented in preparation for transfer and reuse of Fort Ord property. The Presidio of Monterey (POM) Annex, located within the Main Garrison portion of Fort Ord, will be retained by the Army. Since base closure in September 1994, lands outside the POM Annex have been subjected to the reuse process. Some of the property on the installation has been transferred. A large portion of the Inland Training Ranges was assigned to the Bureau of Land Management (BLM). Other areas on the installation have been or will be transferred to federal, state, local, and private entities through economic development conveyance, public benefit conveyance, negotiated sale, or other means.

The reuse of Fort Ord following transfer to the above entities increases the possibility of the public being exposed to explosive hazards. In November 1998, the Army agreed to evaluate OE at Fort Ord in an OE RI/FS under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The Army is preparing the OE RI/FS for Fort Ord to address OE-related hazards, which will include input from the community and require regulatory agency review and approval. The OE RI/FS will review and evaluate past

investigative and removal actions, as well as recommend future response actions deemed necessary to protect human health and the environment on the basis of proposed reuses specified in the Fort Ord Reuse Authority (FORA) Reuse Plan.

Information will be gathered and evaluated during the OE RI/FS to categorize all areas of Fort Ord according to actions that have been taken or future remedial actions that are identified as necessary to mitigate explosive safety hazards associated with OE. The information will be evaluated with regard to site knowledge, the quality of the available information, work completed, and intended future land uses.

The OE RI/FS for Fort Ord will consider all property at the base in terms of past OE-related use and potential future explosive safety hazards as described in the OE RI/FS Work Plan (HLA, 1999). The OE RI/FS is organized as a “tracking” process whereby sites with similar characteristics will be grouped to expedite cleanup, reuse, and/or transfer based on current knowledge.

This technical memorandum addresses areas on Fort Ord that have been identified as requiring no OE-related action to protect human health and the environment, and are herein referred to as Track 0 areas. Other Track (1 through 3) areas will be addressed separately for the other lands that have or are suspected to have a history of OE-related use. The track assigned to a given area varies according to the level of OE investigation, sampling, or removal conducted to date as described in the OE RI/FS Work Plan (HLA, 1999).

1.2 Purpose and Objectives

The purpose of this Track 0 Technical Memorandum is to address areas of land at Fort Ord that have no history of OE-related use, and where no OE-related action is necessary to protect human health and welfare and the environment. As part of the OE RI/FS, a literature review (HLA, 2000) was performed to evaluate OE-related activities at Fort Ord. Based on the results of the literature review

areas where OE-related activities have not occurred were identified. These areas have been categorized as Track 0 (No Action).

The objectives of this Technical Memorandum are to do the following:

1. Describe the Track 0 Process for Fort Ord
2. Identify the “Plug-In” process for identifying and managing the documentation process for future Track 0 (No Action) areas identified during the OE RI/FS
3. Identify the areas to date that have been categorized as Track 0 areas
4. Summarize the background, site investigation history, and rationale for assigning each area to Track 0
5. Describe the documentation and management process for Track 0 areas.

1.3 Report Organization

This Technical Memorandum is organized as follows:

- **Section 1** provides the background and history of the OE and Tracking processes at Fort Ord.
- **Section 2** provides a description of Track 0 areas and the decision criteria for entering areas into the Track 0 process.
- **Section 3** provides a summary of the documentation and management procedures that will be followed for Track 0 areas. This section also describes the “Plug-In” process for future Track 0 areas that may be identified after this Technical Memorandum is approved during the OE RI/FS process.
- **Section 4** contains descriptions of each area’s OE-related background, site investigation results, and rationale for Track 0 designation.
- **Section 5** contains a list of referenced documents.

2.0 DESCRIPTION OF TRACK 0

This section describes the Track 0 areas, how they are categorized, and what qualifies them for inclusion in the Track 0 process.

2.1 Definition of Track 0 Areas

Track 0 areas at Fort Ord are those that contain no evidence of OE and are not suspected as having been used for OE-related activities of any kind. These areas consist largely of land that has been developed for commercial or residential uses throughout Fort Ord's history and areas that have no physical or documented evidence of OE-related training. The locations of the Track 0 areas described in this Technical Memorandum are listed in Table 1 and shown on Plate 2. All Track 0 areas addressed herein will be eliminated from further investigation under the OE RI/FS, and a No Action determination will be documented through the Proposed Plan and the ROD.

The decision for entering areas into the Track 0 process was based on the results of the literature review and documents referenced therein. The main sources of information relied upon in evaluating an area's eligibility for Track 0 status included the following:

- The Literature Review Report (*HLA, 2000*),
- The Revised Archives Search Report (ASR) (*USAEDH, 1997b*)
- The Community Environmental Response Facilitation Act (CERFA) Report (*Little, 1994*)
- The Basewide Remedial Investigation/Feasibility Study (Basewide RI/FS) (*HLA, 1995d*).

The literature review process included gathering and searching files from multiple sources. Previous investigations at Fort Ord that documented OE-related activities were reviewed

along with historical records. Historical records reviewed included range control files, historical maps, aerial photographs, historical film footage, real estate records, and newspaper articles. Interviews were conducted with retired military personnel, active Corps of Engineers employees, active enlisted and civilian personnel that served at Fort Ord, and current OE contractors. Other factors considered included physical location of an area, development history, and the results of the remedial investigation and excavation activities at Installation Restoration Program (IRP) sites.

The Archives Search investigation involved extensive records search of Fort Ord related ordnance documentation and a visual inspection of ordnance sites identified. Records reviewed included aerial photographs, National Archives records, local government and historical records, and Fort Ord fire department records. The Archives Search also included interviews with current and former employees.

In general, the CERFA investigation included a search of government records, a review of recorded chain of title documents, a review of aerial photographs reflecting prior uses, a visual inspection of Fort Ord, physical inspection of and review of information for adjacent properties and interviews with current or former employees.

The Basewide RI/FS included a review of previous investigations at Fort Ord and extensive field investigation activities at several of the Track 0 areas. RI/FS documentation was reviewed and utilized in the delineation of the Track 0 areas.

2.1.1 Track 0 Area Boundaries

Because of the base's large size, long history, multiple uses, and myriad of programs under which records have been kept, one of the main goals of the OE RI/FS process has been to

assemble information from numerous sources regarding land use. Hundreds of records, maps, and aerial photographs spanning approximately 80 years were consulted regarding the multiple uses of Fort Ord lands. From these sources, Track 0 areas were given their current boundaries. The areas and their boundaries could have been given various designations depending on the type of information consulted and its place in the base's history; therefore, area and boundary titles may not be consistent in Track 0 related literature. In addition, early records, maps, and photographs that were used to define original area boundaries may be superceded by newer information or more accurate mapping made available by recent technological advances and tools. Although the OE RI/FS will consider all of these sources of information equally, some earlier boundary and use definitions may need to be reevaluated and refined in light of more recent data, research, and site reconnaissance to develop a consistent approach to defining OE areas in the RI/FS.

2.2 Track 0 Plug-In Areas

Other areas or groups of areas may be identified in the future as being eligible for Track 0 after further research has been completed and boundary locations have been clarified in the OE RI/FS. The Proposed Plan and ROD will describe the process for documenting No Action determination for these other area(s). In summary, these area(s) will be proposed for Track 0 through a "plug-in process" by which an Approval Memorandum will be prepared that presents rationale for designating the area(s) as Track 0. When approved by the regulatory agencies, the Approval Memorandum will become the decision document for the specific area(s). Section 3.0 summarizes the documentation and management procedures to be followed during the plug-in process.

Track 0 areas and their boundaries may be redefined under several different scenarios in the future and thereby qualify for inclusion in the plug-in process. Three of these scenarios, Reevaluation of OE Site Boundaries, Redefinition of Transfer Parcel Boundaries, and

Redefinition of Non-Firing Areas, are discussed in Sections 2.2.1 through 2.2.3.

2.2.1 Reevaluation of OE Site Boundaries

Many areas at Fort Ord that were known or suspected to have been areas of OE-related activities (OE sites) have been investigated and/or sampled for the presence of OE or have undergone OE removal actions under previous programs based on historical information as described in the Literature Review (*HLA, 2000*) and previous documents. The OE site boundaries are based on information provided in the draft Revised ASR. Preliminary surveys, including the ASR and ASR Supplement No. 1 (which included interviews with former Fort Ord Employees), resulted in identification of a number of potential OE sites. Some of the sites were identified by more than one source, resulting in multiple site boundaries for many of the potential OE sites. Subsequently, the Army conducted additional focused studies including, OE sampling, mapping, global positioning system (GPS) surveys, OE removal actions, and the expanded ASR process that was performed as part of the Phase 1 Engineering Evaluation and Cost Analysis (EE/CA). These additional studies resulted in a refinement of the boundaries of the potential OE sites.

These OE sites will be managed under Tracks 1 through 3 as described in the OE RI/FS Work Plan (*HLA, 1999*). If research from the OE RI/FS indicates that these sites were artificially expanded by sampling grid locations where no OE was subsequently found, their boundaries will be reevaluated. For instance, if OE was found near an OE site boundary bordering a non-OE area, OE sampling protocols required expansion of the OE site boundary to include the sampling grid, even if no OE was found within the grid in the neighboring non-OE area. This protocol was implemented to keep track of all OE-related investigation work conducted for a given OE site, but at the same time inadvertently expanded OE sites by including portions of non-OE areas where no OE was found. The OE RI/FS will reevaluate OE site boundary

expansions created due to the presence of additional sampling grids and determine whether OE site boundaries are still valid. If they are not, these areas will be eligible for the Track 0 plug-in process.

2.2.2 Redefinition of Parcel Boundaries

The OE RI/FS process may identify the need for further site reconnaissance in some areas of Fort Ord where current data are not adequate for a complete evaluation of explosive safety hazards associated with OE. On the basis of results of future OE-related information that may be collected, parcel boundaries and OE sites may need to be redefined. For instance, an OE site may be considered to lie within more than one transfer parcel when minimal OE-related information is available. If further site investigations indicate that one of the transfer parcels has OE on it and the other does not, the transfer parcel boundaries may be redefined accordingly.

The OE RI/FS will reevaluate OE site data and determine whether additional fieldwork is necessary. If new data are collected that indicate transfer parcel boundaries should be redefined to isolate non-OE areas, the new non-OE areas will be eligible for the Track 0 plug-in process.

2.2.3 Redefinition of Non-Firing Areas

The Track 0 process was defined for areas at Fort Ord where no OE-related activities were known or suspected to have occurred. The term "OE-related activities" was given an intentionally broad definition to take a conservative approach in evaluating all available information and considering which areas at Fort Ord may have possibly been used for any military activities where OE could have been used. Therefore, areas used for any military training purposes have been categorized initially as OE sites and are not eligible to be included in Track 0. Some of these areas include non-firing training areas where Army personnel were given preliminary training in the use of weapons, but the weapons were never fired.

These areas will be researched thoroughly in the OE RI/FS for information relating to the occurrence of live fire activities. If site conditions clearly indicate no live fire was conducted at a given area (e.g., buildings are nearby; range fans necessary for safely conducting live fire practice are absent), these areas will be eligible for the Track 0 plug-in process.

3.0 TRACK 0 DECISION-MAKING PROCESS

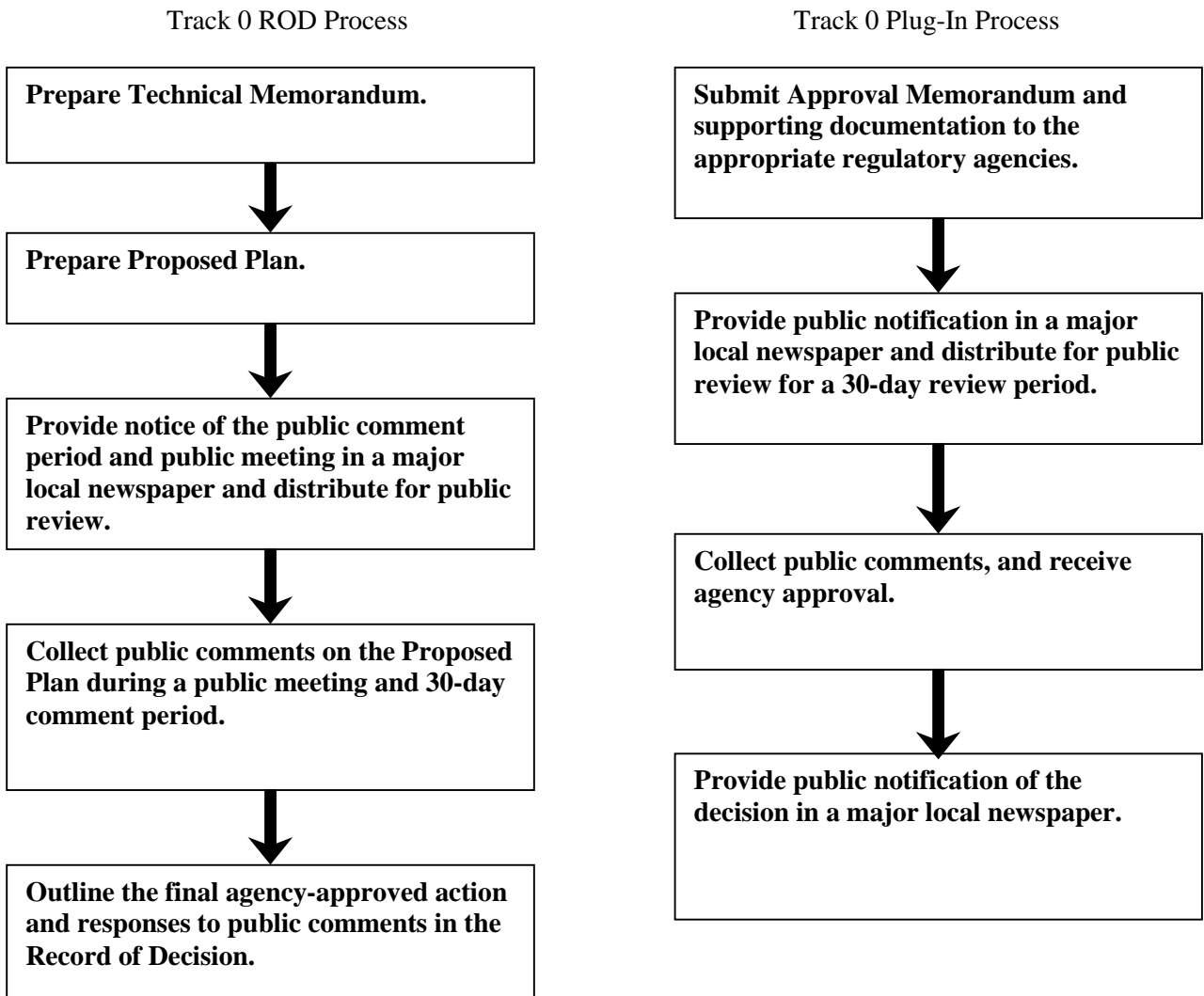
This section summarizes the documentation and management procedures that will be followed for Track 0 areas.

3.1 Track 0 ROD Process

Subsequent to this Technical Memorandum, the Track 0 Proposed Plan will present the No Action decision for the Track 0 areas as described in Section 4.0 of this Technical Memorandum (Figure 1). Consistent with the

requirements of CERCLA, notification about the proposed decision will be published in a major local newspaper and distributed for public review. A 30-day public comment period and a public meeting will be held. Subsequently, a ROD outlining the action will be prepared by the Army for review and approval by the EPA and DTSC. After the agency review period, the final agency-approved action and responses to public comments will be issued and made available to the public.

Figure 1 – Track 0 ROD Process and Track 0 Plug-in Process



Also described in Section 4.0 are Special Case areas (Sections 4.4 and 4.9), where OE has been found that is not related to OE use at that location. An example is an OE disposal area within a landfill, where the landfill material including OE has been entirely removed. Because OE was found in the area, it did not fit the Track 0 definition; however, because the OE was not related to site use and has been entirely removed, the area met Track 0 conditions and was considered for inclusion in the Track 0 process.

3.2 Track 0 Plug-In Process

The Proposed Plan will also present the plug-in process for other areas that may be identified in the future for Track 0 (Figure 1). After the ROD is signed, No Action decisions for these future Track 0 areas will be proposed and documented in Approval Memoranda that describe the rationale for Track 0 designation.

The Approval Memorandum for each future Track 0 area will include the following:

1. A description of the area
2. A description of the historical use of the area
3. A rationale for the designation of an area as Track 0
4. A map of the area detailing location and any pertinent available OE-related information.

Each Approval Memorandum will be made available for a 30-day public review period. Subsequently, when the Approval Memorandum is approved by regulatory agencies, a public notice will be posted in a local newspaper. Completed and planned No Action site determinations will also be described in the newsletter, the *Advance*, prepared by the USACE for local residents. When approved by the regulatory agencies, an Approval Memorandum for a specific Track 0 area will become the decision document for that area.

The Proposed Plan, ROD, and all Approval Memoranda will be placed in the Fort Ord Administrative Record and the local information repositories.

4.0 DESCRIPTION OF TRACK 0 AREAS

This section provides the background, investigative summaries, and rationale for designation of each area as a Track 0 (No Action) area. Areas were grouped geographically: e.g., all non-OE land in the Main Garrison was grouped and discussed together as one area. The Army subdivided Fort Ord into parcels of land for the purposes of property transfer. The parcels were assigned numbers for identification. To supplement future property transfer, descriptions of the Track 0 areas include discussions of the parcels that occupy the same geographical areas.

4.1 Parcels S4.1.2.1, S4.1.2.2, S4.1.3, S4.1.4, and S4.1.5 – Highway 1 Area

4.1.1 Background

These parcels consist of Highway 1 and the associated Highway 1 easements from the northern to southern Fort Ord boundary. The combined parcel area is approximately 161 acres (Plate 3). Highway 1 has been in roughly the same position since the Army began acquisition of adjacent land in 1917. The land upon which these parcels now lie was purchased by the Army in 1940. Significant construction occurred to the highway with the purchase of the property and included an expansion to 4 lanes and the re-location of the adjacent rail line.

4.1.2 Site Investigation

Based on the results of the Archives Search investigation, the Literature Review, the Site 39 Data Summary and Work Plan and the CERFA investigation, no OE sites were identified on the parcels. Two sites (OE Sites 20 and 22) lie immediately adjacent to the Track 0 parcels (Plate 3). OE Site 20 (a recoilless rifle training area), was identified through the archives search. The boundary of the OE site is based on the delineation of the training area on a Fort Ord

training facilities map from 1957. An OE contractor completed sampling of the site and no evidence of OE was found (HFAI, 1994).

OE Site 22, the Beach Ranges, were small arms ranges located along the Fort Ord beachfront. Firing at the ranges was toward the west away from the Track 0 parcels. Sampling of OE Site 22 was performed in 1993-1994. Numerous live small arms and two OE scrap items (inert training grenade and expended smoke grenade) were found (HFAI, 1994). Additional sampling (Gridstats/Sitestats) was completed in 1997 and one scrap item (unfuzed Japanese knee mortar) was found (USA, 1999d). No live OE was found during either sampling effort.

One former training area, a machine gun square, overlaps a portion of Parcel S4.1.2.1 near the former Fort Ord main entrance. No evidence has been found that would support the use of OE at the machine gun squares (HLA, 2000). The machine gun squares were located within developed areas of Fort Ord, adjacent to main roads, military housing, and other military facilities.

4.1.3 Rationale

OE is not likely to be present on these parcels for the following reasons:

- Highway 1 has been in the same location since the property was purchased in 1940
- A review of Fort Ord ordnance related investigations including the Archives Search Reports, the Literature Review, the Site 39 Data Summary and Work Plan and the HFAI OEW Sampling OEW Removal Action Final Report for OE Site 20, indicates the parcels were not used for ordnance training
- OE sampling at OE Site 20 found no evidence of OE

- Expansion of Highway 1 to four lanes involved significant grading and earth movement, and no record of OE exists
- OE sampling at OE Site 22 identified only 3 scrap items.

4.2 Parcel F2.7.2 – Golf Course Maintenance Area

4.2.1 Background

This parcel consists of approximately 2 acres in the maintenance area of former Fort Ord golf courses (Plate 4). The property includes two buildings (4110 and 4109) used for general maintenance and storage to support the golf course. The Army purchased the property in 1940, and the golf course was constructed in 1953. Prior to construction of the golf course the parcel lay on undeveloped land.

4.2.2 Site Investigation

No evidence of ordnance use was identified on this parcel during the Archive Search, the Literature Review, the Site 39 Data Summary and Work Plan and the CERFA investigation.

In 1993 the parcel was included in a remedial investigation for pesticides and PCBs related to past activities occurring at the maintenance facility. The investigation included the completion of 8 soil borings to depths of 5 to 10 feet. In 1994 an area within the parcel of approximately 1,870 square feet was excavated to depths ranging from 1 to 41 feet below ground surface (bgs) as part of an underground storage tank (UST) investigation adjacent to Building 4110 (*HLA, 1997d*). Field personnel trained in ordnance recognition supervised the excavation of the former UST site. No evidence of OE was found during the remedial investigation or the UST investigation at this parcel.

Other investigations have involved site walks of the parcel including the Solid Waste Management Unit (SWMU) investigations in

1995 and 1996, and a 1997 site visit supporting the proposed real estate transfer of this parcel in 1997. No evidence of OE was observed during these site visits. Field personnel trained in ordnance recognition performed the site walk for the real estate transfer.

4.2.3 Rationale

OE is not likely to be present on this parcel for the following reasons:

- A review of Fort Ord ordnance related investigations including the Archives Search Reports, the Literature Review and the Site 39 Data Summary and Work Plan indicates the parcel was not used for ordnance training
- The results of the Fort Ord CERFA investigation included a site walk, inspection of the buildings on the parcel, and a review of Fort Ord related documentation including documents pertaining to ordnance use, and found nothing to indicate the presence of OE
- Investigations completed under the Basewide RI/FS and UST programs, which included intrusive activities, found no evidence to indicate the use of ordnance on the parcel
- No evidence of OE use was found during several site walks of the parcel.

4.3 Parcel L27 – Brostrom Park Area

4.3.1 Background

This parcel, approximately 52 acres, lies in the southwest portion of the former Fort Ord adjacent to the city of Seaside (Plate 4). The parcel currently includes the Brostrom Park housing area. The property was purchased by the Army in 1940. Housing (Ord Village) was constructed on this parcel and on adjacent Army property in 1941 and 1942. The Hayes Park housing area was built immediately north of Parcel L27 in 1952. Based on a review of aerial photographs, Ord village was demolished in the

early 1960s and with the exception of the construction of a baseball field in the mid 1960s, the parcel lay undeveloped until 1984 when the Brostrom Park housing area was constructed. After the demolition of the Ord Village housing area, Seaside High School was constructed on adjacent Army property that had also previously contained a portion of the Ord Village housing area.

4.3.2 Site Investigation

No evidence of ordnance use was identified on this parcel during the Archives Search investigation, the Literature Review, the Site 39 Data Summary and Work Plan and the CERFA investigation.

A portion of Parcel L27, Installation Restoration Program (IRP) Site 37 underwent an investigation related to a reported chemical release, under the Remedial Investigation/Feasibility Study (RI/FS) program. No evidence of OE was reported during the site investigation activities that included a site walk, soil boring installation and sampling. Additionally, a site walk was performed on Parcel L27 in 1996 in support of the proposed transfer of this parcel. No evidence was found during the site walk that would indicate the use of ordnance on this parcel.

4.3.3 Rationale

OE is not likely to be present on this parcel for the following reasons:

- A review of Fort Ord ordnance related investigations including the Archives Search Reports, the Literature Review, and the Site 39 Data Summary and Work Plan indicates that the parcel was not used for ordnance training
- A housing area, adjacent to the City of Seaside, was constructed on this parcel immediately after purchase of the property by the Army
- The results of the Fort Ord CERFA investigation, which included a site walk of

the Brostrom Park housing area and a review of Fort Ord related documentation including documents pertaining to ordnance

- Investigations completed under the Fort Ord RI/FS program that included intrusive activities found no evidence to indicate the use of ordnance on the parcel.
- No evidence of ordnance use was found during several site walks of this parcel.

4.4 Parcels E2c.1, E4.1.1, E4.2, E4.3.1, E4.5, E5a, and portions of L5.6.1 and L5.6.2 – Patton/ Abrams Park Housing Area

4.4.1 Background

These parcels lie in the northwest corner of the former Fort Ord and consist of the Patton Park housing area (Parcels E4.1.1 and E4.2), the Abrams Park housing area (Parcels E4.3.1, L5.6.1, and L5.6.2), a water treatment and storage facility (Parcel E4.5), and an adjacent open field (Parcel E5a). These parcels were included in property that was purchased by the Army in 1940. Water supply wells were constructed within Parcel E4.1.1 beginning in 1940. The Patton Park housing area was constructed between 1962 and 1969. The Abrams Park housing area was constructed between 1978 and 1982. Portions of Parcels E4.3.1, L5.6.1, and L5.6.2 were used as sanitary landfill areas from 1956 to 1966 (*HLA, 1990*). The combined parcel area is approximately 488 acres (Plate 5). A review of Fort Ord training facilities maps and ordnance related documentation indicates that a portion of one OE site and several non-OE training areas were present within some of the parcels (*HLA, 2000*).

4.4.2 Site Investigation

Based on the results of the Archives Search investigation, the Literature Review, the Site 39 Data Summary and Work Plan and the CERFA

investigation, one OE site (13A) and three training areas were identified on the parcels.

The boundary of OE Site 13A as identified in the ASR is partially within the current Abrams Park housing area. No evidence of OE was found during the construction of this housing area (HLA, 2000). OE Site 13A was identified as a practice mortar range through the Archives Search process based on the review of Fort Ord training facilities maps. The boundary of OE Site 13A overlies Parcels L5.6.1 and L5.6.2. As discussed above, all of Parcel L5.6.1 and a portion of Parcel L5.6.2 were used as a sanitary landfill in the 1960s. Excavation of landfill material within Parcel L5.6.1 and L5.6.2 were conducted in 1996 through 1998 as part of the relocation of OU 2 landfill Area A. The excavation area included the entire limits of OE Site 13A that falls within Parcel L5.6.1, and portions of the OE area within Parcel L5.6.2. During the excavation numerous OE items were found. The items were either removed or destroyed in place (IT, 1999c), however no live OE was found. All landfill disposal areas, including land within the OE footprint, have been excavated. The excavated areas have been backfilled and re-graded. The excavated areas within Parcels L5.6.1 and L5.6.2 are considered Special Case Track 0 areas. Although OE items were found within landfill materials excavated from Parcels L5.6.1 and L5.6.2, the items were related to disposal within these parcels and were not associated with ordnance use at OE Site 13A.

Sampling for OE at Site 13A is complete. An OE contractor completed the initial sampling of the site in 1994 and found no evidence of OE use (HFAI, 1994). Based on the intended future land use of OE Site 13A, the Phase 1 EE/CA recommended additional confirmatory sampling. In 1997 an OE contractor resurveyed a portion of the 1994 sample grids and the OE site boundary using current GPS technology. Two additional confirmatory sample grids were established and sampled. Because twenty grids within the site had already been sampled and the western end of the site (landfill) was being excavated, the two grids were located just

outside of the OE site at its eastern end. Two OE scrap items (expended grenade fuze and an expended illuminating signal) were found in one of the two sample grid locations. The two grids were not located in Track 0 areas. As shown on Plate 5, developed land separates OE Site 13A and adjacent Track 0 Parcel E4.3.1.

OE Site 1 is located adjacent to Track 0 Parcels E4.1.1 and E2c.1. OE Site 1 was identified as a flame thrower range on Fort Ord training facilities maps from the late 1950s and early 1960s. An OE contractor completed sampling of OE Site 1 in 1994 and found one inert practice mine (OE scrap) (HFAI, 1994). Eight additional grids were sampled in the area between OE Site 1 and adjacent OE Site 6 and four inert practice mines (OE scrap) were found. In accordance with recommendations in the Phase 1 EE/CA, confirmatory sampling was conducted. In 1997 the OE contractor resurveyed the OE Site 1 grid locations and the site boundary. In February 1998 three additional grids were sampled and no evidence of OE was found (USA, 1999b). Expanded site boundaries for OE Site 1 were established through the Archives Search Report dated 1997, and four additional grids were sampled in open areas within the expanded site. Three OE scrap items, expended practice mine fuzes and an expended flame thrower ignition cartridge, were found. As shown on Plate 5, developed land separates OE Site 1 and adjacent Track 0 Parcels E4.1.1 and E2c.1.

Proficiency Testing Area 2, located within Parcel E4.1.1, was identified on a circa 1954 training facilities map. An interview with a former range control officer indicated that proficiency test areas were used to test a soldier's proficiency in breaking down and setting up weapons. According to the former range control officer, the proficiency test areas were not used for live firing exercises (HLA, 2000). No evidence has been found that supports the use of live ammunition in the proficiency test areas.

A mortar square was located within Parcel E4.1.1. The mortar square was identified on

training facilities maps from the 1950s and 1960s. No evidence has been found that would support the use of live ordnance at the mortar squares (HLA, 2000).

The Wire Entanglement Area, a physical training area, was shown on 1945 and 1946 Fort Ord Master Plan maps. The Wire Entanglement Area was located in the northern portion of Parcel E4.2. No further information regarding its use was available.

The three training areas described above were located adjacent to developed areas of Fort Ord near housing areas and actively used roads. No range fans, typically associated with live fire areas, were shown on the historic maps associated with the three training areas. Additionally, all three training areas are within an area designated on 1945 and 1946 Fort Ord Master Plan Maps as a "Well Area, No Artillery Firing Or Demolitions."

The Site 39 Data Summary and Work Plan identified an area, 75mm Pack Howitzer Firing Area, which overlaps Track 0 Parcel S4.1.1. The identification of this area is based on the results of an interview with a retired Fort Ord military engineer (HLA, 1994b). The engineer stated that he had heard that this area was used in the early 1900s by cavalry stationed at the Presidio of Monterey. No evidence to support the use of this area for Howitzer firing was found during the archive search and the literature review. The land was not purchased by the Army until 1940. Two OE Sites (1 and 6) fall within the area delineated as the 75mm Pack Howitzer Firing Area. Field investigations in and around OE Sites 1 and 6, which included site walks, a GPS survey of the OE site boundaries and OE sampling, turned up no evidence of 75mm Howitzer use (HFAI, 1994; USACE, 1999).

A suspect training area was identified on a 1949 aerial photo within Parcel E5a (SCS, 1949). None of the previously completed OE historical searches identified a training area in this vicinity at that time. A light vehicle driving course had been established on the eastern side of Parcels E5a by 1961 (USACE, 1961). Parcel E5a was

inspected for the presence of small arms ammunition by personnel trained in ordnance recognition and no evidence of OE was found.

4.4.3 Rationale

OE is not likely to be present on these parcels for the following reasons:

- A review of Fort Ord ordnance related investigations including the Archives Search Reports, the Literature Review, and the Site 39 Data Summary and Work Plan indicates that these parcels were not used for ordnance training
- OE sampling was completed at OE Site 1 and only OE scrap items were found
- OE sampling at OE Site 13A found no evidence of an impact area
- Developed land separates the boundaries of OE Sites 1 and 13A from nearby Track 0 parcels
- Training areas identified within the parcels were located adjacent to developed areas on Fort Ord, as well as the nearby City of Marina
- The majority of the area was graded as part of the construction of the housing areas and no evidence of OE was found
- Water supply well construction began within portions of the parcels at the time of initial land purchase in 1940 continuing into the 1950s. Approximately half of the area is located within an area identified on 1945 and 1946 Fort Ord Master Plan maps as a "Well Area, No Artillery Firing Or Demolitions
- Those portions of the Track 0 areas within OE Site 13A that contained landfill have been entirely excavated
- No evidence of OE use was found during the Fort Ord CERFA investigation, which included a site walk, inspection of the buildings on the parcels, and a review of

Fort Ord related documentation (including documents pertaining to ordnance use).

- 4.5 Parcels E15.1, L33.1, L33.2 and S1.4 – Open Space, Main Entrance Area

4.5.1 Background

These parcels lie in the west-central portion of Fort Ord near the former main entrance. The parcels include open space and developed areas that were formerly used as an airstrip, parade grounds, physical training and weapons training areas, and the post engineering facility. The combined parcel acreage is approximately 201 acres (Plate 6). Initial development on these parcels began at the time of property purchase in 1940 and included the construction of a review field (South Parade Ground) on Parcels L33.1 and L33.2 (*Army, 1940a*). A portion of the South Parade Ground was converted to an airstrip in the late 1940s. Development also included the post engineering facility (Directorate of Engineering and Housing), a motor pool, and maintenance and support buildings (Parcels L33.1 and S1.4) in 1941-43. An athletic stadium was constructed immediately north of the South Parade Grounds in 1951 (*FASI, 1951*).

All four parcels lie within an area designated as a “Well Area, No Artillery Firing Or Demolitions” as shown on the 1945 Fort Ord Training Facilities map (*Army, 1945*). Development continued during the 1960s through the 1980s with the construction of a bank, bowling alley, athletic fields, a running track, and the current main entrance and road. Areas used for weapons training included rifle instruction circles and machine gun squares established in Parcels E15.1 and S1.4.

4.5.2 Site Investigation

In 1993, a 100-pound concrete-filled, unfuzed training bomb was found at OE Site 18 approximately 4,000 feet to the east of Parcel S1.4. The training device was found in

an area that was used previously for emergency and EOD training (*HLA, 1994b*). Fourteen sample grids were established in and around Parcels S1.4, L33.1, and E15.1 in 1994 by an OE contractor, to investigate the potential presence of additional bombs related to the former airfield on Parcel L33.1 and L32.2. The grids were sampled, and no evidence of OE or OE-related scrap was found (*HFAI, 1994*).

Extensive field work including site walks, soil boring investigations, geophysical surveying, trenching and soil excavations at Installation Restoration Program (IRP) Sites 20, 23, and 24 have taken place within portions of the parcels. These areas were investigated for the presence of chemical contamination under the Basewide Remedial RI/FS program. Trenching activities completed to investigate geophysical anomalies identified through the site characterization of IRP Site 20 were completed within Parcel E15.1 (*HLA, 1995a*). The trenches were excavated by unexploded ordnance specialists. No evidence of OE was found during this investigation.

The IRP Site 23 investigation focused on the motor pool located in the northern portion of Parcel S1.4. The investigation included site walks and the installation of several soil borings (*HLA, 1997c*). No evidence of OE was found during this investigation.

The IRP Site 24 investigation focused on the former Directorate of Housing and Engineering (DEH) yard and included soil borings, geophysical survey, trenching and soil excavations (*HLA, 1997b*). Trenches excavated to investigate geophysical anomalies identified through the site characterization of IRP Site 24 were completed within Parcels L33.1 and S1.4 (*HLA, 1996c*). The trenches were excavated by unexploded ordnance specialists. No evidence of OE was found during this investigation. Site characterization activities identified three interim action (IA) areas requiring further investigation. Four soil excavations totaling approximately 13,160 square feet were completed within IRP Site 24 (Parcels L33.1 and S1.4). Field personnel trained in ordnance recognition supervised the completion of the

excavations. No evidence of OE was found during this investigation.

Additionally, an approximately 1,980-square-foot excavation located in Parcel L33.1 related to the investigation and remediation of a hydrocarbon release associated with underground storage tank (UST) 3803 was completed (*HLA, 1997a*). Field personnel trained in ordnance recognition supervised the excavation of the former UST site. No evidence of OE was found during the UST excavation.

Investigations involving the Fort Ord SWMU program and property transfer included site walks of the property. No evidence has been found to indicate the use of ordnance on these parcels.

4.5.3 Rationale

OE is not likely to be present on these parcels for the following reasons:

- A review of Fort Ord OE-related investigations including the Archives Search Reports, the Literature Review, the Site 39 Data Summary and Work Plan and the OE Sampling, and the HFAI OEW Sampling, OEW Removal Action Final Report, indicates the parcel was not used for ordnance training
- OE sampling on Track 0 Parcels S1.4, L33.1, and E15.1 found no evidence of OE
- Construction/development began on portions of the parcels immediately after purchase of the property by the Army
- The results of the Fort Ord CERFA investigation included a site walk on the developed portions of the parcels and a review of Fort Ord related documentation including documents pertaining to ordnance use, and found nothing to indicate ordnance use
- No evidence of ordnance use was found during several site walks of this parcel

- Investigations completed under the Basewide RI/FS program that included geophysical surveys, trenching and excavations, found no evidence to indicate the use of ordnance on the parcel
- The area has been in use since it was purchased in 1940 and no evidence of OE has been found.

4.6 Parcels L1.1, L19.2, L19.3, L19.4, L32.2.1, L32.2.2, L32.3, L32.4.1, L32.4.2, L23.6, L36, L37, L15.1, L7.8, L7.9, L2.4.2, L2.4.3.1, L2.4.3.2, S1.3.1 – Surplus II Area

4.6.1 Background

These parcels are located in the central and eastern portion of the Main Garrison (Plate 7). These parcels include former barracks, support facilities, motor pools, and recreational facilities. The combined parcel area is approximately 175 acres. This property was purchased by the Army in 1940. All the parcels appear to lie within an area designated as a “Well Area, No Artillery Firing or Demolitions” as shown on the 1945 Fort Ord Training Facilities map (*Army, 1945*). Development began in the mid 1950s with some buildings dating back to 1954. Review of 1951 aerial photographs indicated that the area was undeveloped prior to the mid 1950s. Review of the 1956 aerial photograph indicated barracks were present in portions of Parcel L32.2.2 and L7.8 and L7.9, along with several other buildings (Parcel L19.4). Construction of the motor pool east of the barracks, Parcel S1.3.1, was also started in 1956. Two training areas, a rifle instructional circle and a machine gun square, were present in the southeastern portion of this area, Parcels L32.2.1 and S1.3.1, in 1956. Review of aerial photographs and training maps from the 1960s and early 1970s (*SCS, 1966; USACE, 1974; Army, 1964, 1967*) indicate that the area west of the barracks was mostly open space and the area

east of the barracks (Parcels L32.2.1 and S1.3.1) was used for training. Several areas are labeled as physical training areas on 1960s training maps. Development of this area continued in the 1970s and 1980s with the construction of additional support buildings and recreational facilities.

4.6.2 Site Investigation

Four OE sites have been identified in the vicinity of this area, OE Sites 4A, 13B, 31, and 39. OE Site 4A was identified as a Chemical, Biological, and Radiological (CBR) Training Area on historical maps. Sampling of this site resulted in the discovery of 1 rifle grenade, 2 illumination signals, as well as 67 grenade fuzes found in a burial pit. On the basis of the sampling results, the site received a 4-foot-deep removal. One OE item (illumination signal) was found and removed during the removal action (*USA, 1999c*). As shown on Plate 7, an undeveloped area separates the northern boundary of OE Site 4A and Track 0 Parcels L2.4.3.1, L2.4.2 and L32.4.1.

OE Site 13B was identified in the Archives Search Report (*USAEDH, 1997b*) as a practice mortar range. The site was identified on training facilities maps in the 1950s. The boundaries of the site were defined and OE sampling was performed. Sampling of the site confirmed that the site had been used extensively as an OE training area. On the basis of the sampling results a removal action over the entire site was performed. OE items found included pyrotechnics, smoke grenades and projectiles of various sizes. During the removal action two partial Chemical Agent Identification Sets (CAIS) were found. Two cardboard tubes containing intact glass vials were discovered inside of metal canisters buried at depths of 1 and 1.5 feet. The sets were removed by the Technical Escort Unit of Tooele Utah and transferred to their facility (*USA, 2000*). Based on the presence of established developed areas from the 1950s west of the site, it is expected that any live firing occurring on the site would have been directed toward the east away from

the developed area. OE Site 13B is separated from the adjacent Track 0 parcels by a road.

OE Site 31, CSU Footprint, was identified as the result of impending Base Realignment and Closure (BRAC) action and encompasses Sites OE-7, OE-8, OE-4C, OE-18, and a portion of OE-13B. Three and four foot removals have been completed throughout the OE sites. Although several burial pit caches of ordnance were found and removed, the ordnance actually fired at the CSU Footprint was apparently limited to rifle grenades. OE items found during the OE removal actions included smoke grenades, fuzes, pyrotechnics (e.g., flares), and practice mines (*HFAI, 1994*). Based on the presence of established developed areas west of the site it is expected that any live firing would have been toward the east away from the developed areas. OE Site 31 is separated from the adjacent Track 0 parcels by a road.

OE Site 39 is located to the south of Track 0 Parcel L32.4.1. OE Site 39 was identified in the Archive Search Report (*USAEDH, 1997b*) as a mine and booby trap training area. The boundary of the OE site was established based on the delineation of a training area on Fort Ord training facilities maps from the 1950s. The training area was identified as an area for further investigation. An ordnance removal contractor established sample grids within the site and sampling was performed. No evidence of OE was found and no further action was recommended (*USA, 1999a*). As shown on Plate 7, developed land separates the OE Site 39 boundary and Track 0 Parcel L32.4.1.

Extensive field work including site walks, soil boring investigations and soil excavations at Installation Restoration Program Sites (IRP) Site 22 has taken place within portions of Parcel S1.3.1. This area was investigated for the presence of chemical contamination under the Fort Ord Basewide Remedial Investigation Feasibility Study (RI/FS) program. No OE items were encountered during completion of these investigations.

Additionally, an approximately 8,000 square foot excavation located in Parcel S1.3.1 related

to the investigation and remediation of hydrocarbon releases associated with UST 4534 and Grease Rack 4532 was completed. Field personnel trained in ordnance recognition supervised the excavation of the former UST site. No evidence of OE was found in the excavation.

4.6.3 Rationale

OE is not likely to be present on these parcels for the following reasons:

- A review of Fort Ord related investigations including the Archives Search Reports, the Literature Review, and the Site 39 Data Summary and Work Plan indicates that these areas were not used for ordnance training
- OE sampling at nearby OE Site 39 found no evidence of OE
- OE removal actions have been completed at nearby OE Sites 4A, 13B and 31
- OE Sites 4A, 13B, 31, and 39 are separated by roads, open space or developed areas, from the Track 0 parcels
- The areas have been developed since the 1950s and no evidence of OE has been found
- The results of the Fort Ord CERFA investigation which included a site walk on the developed portions of the parcels and review of Fort Ord related documentation including documents pertaining to ordnance use, found nothing to indicate ordnance use
- Investigations completed under the Fort Ord Basewide RI/FS program that included excavations and intrusive activities, found no evidence to indicate the use of ordnance on the parcels.
- No evidence of ordnance was found during several site walks of this parcel.

4.7 Parcels S2.1.2, S2.1.3, S2.1.4.1, S2.1.4.2, L5.1.2, L5.1.3, L5.1.4, L5.1.5, L5.1.6, L5.1.7, L5.1.8, L5.1.9, L5.1.10, L5.2, L5.3 F7.1, F7.2 – Fritzsche Army Airfield Area

4.7.1 Background

These parcels have a combined area of approximately 91 acres (Plate 8). The City of Marina is adjacent to the southeast. With the exception of L5.3, the parcels lie in the northeastern portion of the former Fort Ord, north of Reservation Road and in and around the former Fritzsche Army Airfield (FAAF). L5.3 lies offsite, about 2 and ½ miles east of the eastern boundary of the East Garrison. The parcels in this group were included in the 1940 land purchase. They include support buildings related to the FAAF, water supply wells, and open space areas associated with the OU 1 treatment system.

Historical maps show no structures on the area north of Reservation Road until the late 1960s, when the FAAF airstrip, navigational beacons, and support buildings are evident. Earlier maps show the airfield but no support buildings. In 1946, the area had a practice bazooka and rifle grenade area linked by access road to Reservation Road (then known as New County Road) (*USACE, 1946*). Maps from the 1950s show the area assigned for training by the 41st Signal Battalion (1953) as: (1) a Ranging Area, (2) a Demonstration Area, (3) a Tank Driving Area used by the 759th Tank Battalion (*Army, 1956*), (4) a Basic Driving Area (1957), and (5) a Field Communication, Crewman's Course, and Leased Area (1958). Lack of suitable terrain for tank firing practice, no evidence of tank targets, and no evidence of ordnance use in the area indicate the training in the area was not OE related (*HLA, 2000*).

4.7.2 Site Investigation

In 1998, Parcels L5.1.2 through L5.1.10, L5.2, and L5.3 were the subject of a Finding of Suitability to Transfer (FOST) conducted by the Army (*Army, 1998b*). The FOST reviewed the Environmental Baseline Survey (EBS) for the FAAF parcel (January 1995), the final Community Environmental Response Facilitation Act (CERFA) report (April 1994), EPA Region IX's concurrence with the CERFA report (April 19, 1994), various RI/FS documents, remedial action reports, and subsequent approval memoranda. A site walk was conducted in June 1997. The FOST reported the following information for the parcels as documented in the various sources:

- Parcels L5.1.2, L5.1.4, and L5.1.5 are included in Installation Restoration Program (IRP) Site 40. The site was the FAAF Defueling Area. L5.1.4 and L5.1.5 are Interim Action (IA) Sites 40C and 40A, respectively. The parcels were subject to IA investigation activities in June 1996 that included soil excavation, soil sampling, and excavation backfilling. The Site 40 IA Confirmation Report submitted to regulatory agencies in January 1997 was approved by the EPA (January 31, 1997) and DTSC (July 23, 1998). No further remedial action was deemed necessary at the site.
- Parcel L5.1.3 is a 200-gallon propane tank no longer in use
- Parcel L5.1.6, L5.1.7, L5.1.9, and L5.1.10 are included in IRP Site 34. The parcels are Wash Aprons 534 and Buildings 534 and 538; Wash Apron 525; Wash Apron 512; and Wash Apron 517. The four wash aprons were used for cleaning vehicles on the property. The buildings on these parcels were used by the Army for aviation operations and navigation. Investigations on the property include a 1993 asbestos survey conducted on Buildings 534 and 538 (Parcel L5.1.6).
- Parcel L5.1.8 is IRP Site 36 (FAAF sewage treatment plant and Building 550C). This

building has been used to house navigational equipment for Marina Municipal Airport. Building 550C was investigated during the facility-wide asbestos survey in 1993. The building was also the site of an underground storage tank (UST), which was removed in March 1996 and granted Monterey County Department of Health (MCDOH) closure in a letter dated April 6, 1994.

- Parcels L5.2 and L5.3 are former aviation navigational beacons. Parcel L5.2 also contains Building 550B, which was investigated during a facility-wide asbestos survey in 1993. The building was also the site of a UST, which was removed in April 1992 and granted MCDOH closure in a letter dated January 6, 1996.

The FOST indicated no OE or evidence of OE use in any of the above parcels. The FOST did find evidence of OE use in adjacent Parcel L5.1.1, identified from a 1946 facilities training map as a practice bazooka and rifle grenade area (*USACE, 1946*).

The remaining parcels, S2.1.2, S2.1.3, S2.1.4.1, and S2.1.4.2, have been investigated as follows:

- Parcel S2.1.2 is in an area that the Army has been investigating extensively for OU 1 remedial operations since October 1984 (*HLA, 1999*). Ongoing field work has included travel throughout the area by foot and by vehicle, intrusive activities to sample soil and groundwater, and drilling for monitoring well installation (*HLA, 1998b*). No OE has been encountered during the Army's OU 1 investigations.
- Parcel S2.1.3 is IRP Site 35, the FAAF Aircraft Cannibalization Yard, which underwent site characterization from 1993 to 1995 (*HLA, 1995c*). Activities for the investigation included clearing sampling locations for sensitive habitats, conducting a soil gas survey, and drilling three soil borings. No OE was found during these activities.

- Parcels S2.1.4.1 and S2.1.4.2 are included in IRP Site 34, in an area that encompasses Wash Apron 516 and Building 509. The parcels underwent soil investigations for IA activities conducted between 1995 and 1997 (*Uribe & Associates, 1998*). No OE was found during these activities.

One OE area, OE-34, is near the parcels for this group. OE-34 is approximately 30 meters northwest of L5.1.8 and 250 meters northeast of L5.1.4. The deepest penetrating item found on OE-34 was a 2.36-inch rocket (*HLA, 2000*). As of September 1999, removal of OE from OE-34 was deemed to be complete, pending additional site evaluation by the Army. As shown on Plate 8, developed and undeveloped land separates the boundary of Site 34 and the Track 0 parcels.

4.7.3 Rationale

OE is not likely to be present on the parcels for the following reasons:

- A review of Fort Ord related investigations including the Revised Archives Search Report, the Literature Review and the Site 39 Data Summary and Work Plan indicates the parcels were not used for ordnance training
- Developed and undeveloped land separates the boundary of OE Site 34 and the Track 0 parcels
- All parcels lie within an area with no evidence of OE use or history of OE items identified in incident reports. An adjacent OE site, OE-34, has undergone complete OE removal
- The Fort Ord CERFA investigation found no evidence of ordnance use on these parcels
- No evidence of ordnance was found during a site walk performed in support of the real estate transfer of these parcels
- Investigations completed under the Fort Ord Basewide RI/FS program that included

excavations and intrusive activities, found no evidence of ordnance use on the parcels.

4.8 Parcels E11b.1, E11b.2, E11b.3, E11b.4, L23.3.1, L23.3.2.1, L35.3, L35.6, L35.7, and L35.8 – East Garrison Area

4.8.1 Background

These parcels are within the earliest developed portions of Fort Ord and include the East Garrison (including buildings and infrastructure), the East Garrison sewage treatment plant, a former skeet range, a small family cemetery and some undeveloped property. The combined parcel area is approximately 211 acres (Plate 9). The property was purchased by the Army in 1917 and was used as an encampment for artillery and cavalry units stationed at the Presidio of Monterey. Construction of permanent facilities began in 1940 and included mess halls and latrines (Parcel L23.3.2.1), a mule corral and sewage treatment facility (Parcels E11b.2 and E11b.3, respectively), a truck and gun parking area (Parcels L23.3.1 and E11b.1), and storage buildings (Parcels L23.3.1 and L23.3.2.1) (*TSCRRC, 1993*). Little development has occurred on these parcels since this time. The Leadership Reaction Course (LRC) was established in 1960s in the southern portion of Parcel L23.3.2.1.

4.8.2 Site Investigation

The LRC was used to test and evaluate leader practices and problem solving (*Army, 1992*). According to a former Range Control Officer, the LRC was an obstacle course and no live firing of any kind was allowed (*Stickler, 1999*). A skeet range was established in the southern half of Parcel L23.3.1 sometime after 1964 and prior to 1968 (*HLA, 1994c*). A heavy vehicle driver training course was built within the northern portion of Parcel L23.3.1 in 1971. An area utilized for the storage of hazardous waste

prior to disposal or recycling, was established within in Parcel L23.3.2.1 by the Fort Ord Defense Reutilization and Marketing Office (DRMO) in the early 1970s (HLA, 1994a).

The only training involving the use of weapons in the immediate area occurred within nearby small arms ranges located on adjacent parcels. Firing at the small arms ranges was toward the south away from the East Garrison (Army, 1940b). The northern boundary of OE Site 5 is located to the south of the East Garrison area. OE Site 5, south of East Garrison, was established as the result of the finding of a 3.5” rocket motor in the branches of an oak tree in the area (USAEDH, 1997b). No known range for rocket firing was located in this area. An ordnance removal contractor sampled this site for OE and did not find evidence of ordnance use (HFAI, 1994). As shown on Plate 9, undeveloped land separates the northern boundary of OE Site 5 and Track 0 Parcels L23.3.1, L23.3.2.1, L35.6 and E11b.1.

Extensive field work including site walks, soil boring investigations, trenching and soil excavations at Installation Restoration Program (IRP) Sites 29, 30, 32 and 39A have taken place within the developed and undeveloped portions of most of the parcels. These areas were investigated for the presence of chemical contamination under the Basewide RI/FS program. No OE was encountered during any of the IRP investigations.

4.8.3 Rationale

OE is not likely to be present on these parcels for the following reasons:

- A review of Fort Ord ordnance related investigations including the Archives Search Reports, the Literature Review, the Site 39 Data Summary and Work Plan and the OE Site 5 Sampling and Removal Action Final Report, indicates that the parcels were not used for ordnance training
- OE sampling at nearby OE Site 5 found no evidence of OE

- OE Site 5 is separated by undeveloped land from the Track 0 parcels
- This area was the one of the first to be established and developed as a troop encampment at Fort Ord
- No evidence of OE use was found during the Fort Ord CERFA investigation, which included site walks of the developed and undeveloped parcels and a review of Fort Ord related documentation
- Investigations completed under the Fort Ord RI/FS and UST programs, which included intrusive activities, found no evidence to indicate the use of ordnance on the parcels
- No evidence of OE use was found during several site walks of the parcels.

4.9 Parcels E2b.1.1.1, E2b.1.2, E2b.1.1.2, E2b.1.3, E2b.1.4, E2b.1.5, E2b.2.1, E2b.2.2, E2b.2.3, E2b.2.4, E2b.3.1.1, E2b.2.5, E2c.2, E2c.3.1, E2c.3.2, E2c.3.3, E2c.4.1.1, E2c.4.2.1, E2d.1, E2d.2, L2.1, L12.2.2, L12.2.3, L12.3, L23.1.1, L23.1.2, L23.1.3, L23.1.4, L23.1.5, L35.1, L35.2, L20.16.1, L20.16.2, L20.16.3, S1.5.1.1, S1.5.1.2, S1.5.2, L23.4, L2.2.1, L5.8.1, L5.8.2, L20.17.1 – Main Garrison Area

4.9.1 Background

These parcels are within the former Fort Ord Main Garrison and include the earliest and most heavily developed portions of the former

Fort Ord. Most of the property containing these parcels was purchased in 1940, however, these parcels also include land originally purchased by the Army in 1917 (*Little, 1994*). The majority of the development on these parcels occurred in 1940 and 1941 and included the construction of troop barracks, motor pools, horse stables and corrals, support and maintenance facilities, a hospital and recreation areas and the installation of water supply wells (*Army, 1940a*). The combined area includes 39 parcels that encompass approximately 568 acres (Plate 10).

4.9.2 Site Investigation

A few locations within these parcels were utilized for weapons training and include a mortar square location and rifle instruction circles. The mortar square was formerly located on Parcel S1.5.1.1 within a motor pool (*Army, circa 1954*). As discussed previously, mortar squares were used for the practice of setting up and aiming of weapons or dry fire (*HLA, 2000*). The former locations of three rifle instruction circles were identified on these parcels. Two of three former locations lie on Parcel S1.5.1.1 in an area that had previously contained as horse corrals (*U.S Engineer Office, 1946*). The third rifle instruction circle was located in an open area partially within the boundary of Parcel S1.5.2 (*FASI, 1951*). All of the Main Garrison Track 0 parcels lie within an area identified on a 1945 Training Facilities map as a “Well Area, No Artillery Firing Or Demolitions” (*Army, 1945*). In 1993 an inert land mine was found in a storage yard within Parcel L35.1. The device was apparently left at the location was not related to any training activities in this area (*HLA, 1994b*).

One OE site is adjacent to these parcels. OE Site 2, Pete’s Pond is located adjacent to Parcels S1.5.1.1, S1.5.1.2, and L5.8.1 and a portion of OE Site 2 overlies Parcel L5.8.2 (Plate 10). OE Site 2 was identified as a chemical training area and a landmine warfare training area (*USAEDH, 1997b*). OE Site 2 was sampled for OE in 1994 and two inert OE items were found (*HFAI, 1994*). A portion of OE Site 2 overlaps Installation and Restoration Program (IRP)

Site 16 (Parcel L5.8.2) and is adjacent to IRP Site 17 (Parcel S1.5.1.2). 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 Parcels L5.8.2 and S1.5.1.2 (*IT, 2000*) (Plate 10). Landfill areas within Parcels S1.5.1.2 and L5.8.2 were fully excavated in 1997. This area is considered a Special Case Track 0 area. Although ordnance was found on Parcels S1.5.1.2 and L5.8.2, the items were buried in disposal pits within these parcels and were not associated with ordnance use in these areas. The land within the OE footprint has been excavated, backfilled and re-graded. Any ordnance that might not have been located through excavation would most likely have been found during the re-grading process.

Several other investigations related to the potential presence of chemical contamination occurred on these parcels. The investigations were performed under the Fort Ord RI/FS program. Investigations occurred at IRP Sites 12, 13, 14, 18, 19, 28, and 38. These investigations included literature reviews, site walks and monitoring well and soil boring installation. Additional intrusive activities (trenching and excavating) occurred at IRP Sites 12 and 14. The investigation at IRP Site 12 (Parcel E2b.2.1) included the excavation and removal of contaminated soil at two locations, including the removal of debris within a large disposal area. No evidence of ordnance was found during the excavation of the two areas associated with IRP Site 12 (*IT, 1999b*). The investigation at IRP Site 14 (Motor Pool) included the excavation of contaminated soil associated with grease racks located on Parcels L5.8.1, S1.5.1.1 and S1.5.2. Four small excavations were completed and no evidence of ordnance was found (*HLA, 1996a*).

Site walks of these parcels have occurred in support of proposed real estate transfers of these parcels. No evidence of ordnance use was observed during these site walks (*HLA, 1997e*).

4.9.3 Rationale

OE is not likely to be present on these parcels for the following reasons:

- A review of Fort Ord ordnance related investigations including the Archives Search Reports, the Literature Review, the Site 39 Data Summary and Work Plan, indicates that the parcel was not used for ordnance training
- Construction/development began on most of the parcels immediately after purchase of the property by the Army
- OE sampling at adjacent OE Site 2 only identified two OE scrap items
- The results of the Fort Ord CERFA investigation which included a site walk on the developed portions of the parcels and a review of Fort Ord related documentation including documents pertaining to ordnance use, found nothing to indicate ordnance use
- Investigations completed under the Fort Ord RI/FS program that included trenching and excavations, found no evidence to indicate the use of ordnance on the parcel
- The landfill areas within Parcels S1.5.1.2, L5.8.2 and L20.17.1 that were found to contain buried inert rockets were fully excavated. Additionally, the remaining non-landfill areas of Parcels L5.8.2 and L20.17.1 that lie within the OE Site 2 boundary were completely re-graded
- No evidence of ordnance use was found during several site walks of these parcels.

4.10 Parcels E2e.1, E2e.2, S1.3.3, S2.5.1.1, S2.5.1.2, S2.5.2.1, S2.5.2.2 and a Portion of E8a.1 – OU 2 Landfill Area

4.10.1 Background

These parcels lie in the north central portion of the former Fort Ord and include undeveloped land adjacent to, but excluding, areas overlying the former Fort Ord landfill, a portion of Inter-Garrison Road, the 8th Avenue Cut-Off, 6th Street between the 8th Avenue Cut-Off and Imjin Road and their associated right of ways (ROWs). The parcels in this group were included in the 1940 land purchase. The parcels include several roads used to access the landfill. The combined parcel area is approximately 226 acres (Plate 11).

4.10.2 Site Investigation

Portions of these parcels were used for various non-ordnance training activities from 1940 until approximately 1987. Non OE training activities occurring on the parcels included a camouflage area, Proficiency Test Area, obstacle course and Field Communication Course. No training areas are shown on these parcels on Fort Ord training facilities maps dated after 1987. Construction of a landfill began in areas within Parcel E8a.1 in 1960 and remained active into the late 1980s (*HLA, 1990*). Housing was constructed (Fredricks Park and Schoonover Park) on adjacent property beginning in 1981. Housing and recreation areas were developed to the north of the parcels in the late 1970s (*Little, 1994*).

Three known or suspected ordnance sites are located adjacent to the parcels. OE Sites 2, 13A, and 31. OE Site 2, Pete's Pond, was identified as a chemical training area (*USAEDH, 1997b*). Four hundred sixty-eight 2.36-inch practice rockets have been removed from disposal pits located in former landfill areas within Parcels S1.5.1.2 and L5.8.2. Results of the Archives

Search Report (ASR) indicate that OE Site 2 was not an impact area.

OE Site 13A was identified in the ASR as a practice mortar range and it is believed that practice mortars, inert training devices, were used here (*USAEDH, 1997b*). No evidence of mortar firing was found during OE sampling activities at OE Site 13A (*HFAI, 1994*). The practice mortar range is shown on Fort Ord Training and Facilities maps dating from 1954 to 1958. On the basis of the location of the bleachers located at OE Site 13A, firing of practice mortars at this site would have been toward the northeast roughly parallel to Parcel E8a.1 (Plate 10).

OE Site 31, CSU Footprint, was identified by the Base Realignment And Closure (BRAC) office as a disposal parcel. The site boundary is based upon transfer parcel delineation and not on evidence of OE. Several OE sites lie within the OE Site 31 boundary including OE Sites 4C, 7, 8 and 18. Three and four foot OE removal have been completed throughout the site. Although several burial pit caches of ordnance were found and removed, the ordnance actually fired at the OE site was apparently limited to rifle grenades. The type of training activities that occurred at nearby OE Sites 4C, 7, 8 and 18 would not have impacted the Landfill parcels (*USAEDH, 1997b*). OE items found during the OE removal actions at Sites 4C, 7, 8, and 18 included smoke grenades, fuzes, pyrotechnics (e.g., flares), and practice mines (*HFAI, 1994*).

4.10.3 Rationale

OE is not likely to be present on these parcels for the following reasons:

- A review of Fort Ord ordnance related investigations including the Archives Search Reports, the Literature Review and the Site 39 Data Summary and Work Plan, indicates that the parcels were not used for ordnance training
- OE removal action was completed at adjacent OE Site 31

- OE sampling was completed at OE Sites 2 and 13A and only OE scrap was found
- No OE was identified in Parcel S2.5.1.1 during remediation activities conducted at Sites 16/17 and OU2
- Portions of Parcel E8a.1 were used as a sanitary landfill beginning in 1960. Housing was constructed immediately to the north of the parcels in the late 1970s and to the immediate east in 1981. No reports of OE being found during construction were reported
- Inter-Garrison Road (Parcels E2e.2 and S1.3.3) has been in its present location since at least 1943.

4.11 Parcels L5.10, L20.10.1, L20.10.2, and L20.10.3 – Reservation Road Area

4.11.1 Background

These five parcels are rectilinear areas that extend along and include Reservation Road in the northeastern portion of Fort Ord. The road lies southwest of and runs roughly parallel to the Salinas River from Highway 1 through Fort Ord to the East Garrison area. Parcel L5.10 is the farthest west of the four parcels along the road, followed by L20.10.1, L20.10.2, and L20.10.3 in respective order moving southeast (Plate 12). Portions of the road between the parcels are excluded from consideration in this plan because they are not on Fort Ord property. This parcel group area totals approximately 55 acres.

Historical maps of the area dating from as early as 1913 show sections of the road as part of an unnamed, unimproved track. Maps dating from the 1940s and 1950s show the road as New County Road or County Road (*USACE, 1946; Army, 1956*). Later the road was improved, widened, and renamed Reservation Road (*USACE, 1976*).

Parcel L5.10 and the northwest 2/3 of Parcel L20.10.1 lie within lands acquired by the Army in 1940. The southeast 1/3 of L20.10.1, as well as Parcels L20.10.2 and L20.10.3 lie within lands acquired by the Army in 1917. The parcels border Parcels E5, E11.b.2, F7.2, L23.3.2.1, and S2.1.4.1, also under consideration in this plan because of their non-OE histories. Areas that do not border the aforementioned parcels, with the exception of L20.10.3, lie in an area with no evidence of OE use or history of UXO items identified in incident reports (*HLA, 2000*). Parcel L20.10.3 borders a non-OE area as well, except for adjacent site OE-33 (OE Cache), that has undergone complete OE removal (*HLA, 2000*).

4.11.2 Investigation Summary

In 1998, the parcels were the subject of a Finding of Suitability to Transfer (FOST) conducted by the Army (*Army, 1998b*). The FOST reviewed the final Community Environmental Response Facilitation Act (CERFA) report (April 1994), EPA Region IX's concurrence to the CERFA report (April 19, 1994), various RI/FS documents, remedial action reports, and subsequent Approval Memoranda. No evidence of OE was reported during the FOST investigation, which included a site walk conducted on January 27, 1997 (*Army, 1998b*). Field personnel trained in ordnance recognition performed the site walk. No evidence of OE was found during the site walk.

OE Site 33 lies adjacent to Track 0 Parcel L20.10.3. OE Site 33 (OE Cache) was identified by the Fort Ord Federal Police (*UXB, 1995*). The Federal Police located a foxhole containing small arms ammunition and a 40mm cartridge. A 4 foot removal was performed and additional small arms and 40mm cartridges were removed.

4.11.3 Rationale

OE is not likely to be present on these parcels for the following reasons:

- A review of Fort Ord ordnance related investigations including the Revised Archives Search Report, the Literature Review, the Site 39 Data Summary and Work Plan, and the UXB Removal Action Report for OE Site 33 indicates the parcels were not used for ordnance training
- All parcels except one lie within an area with no evidence of OE use or history of UXO items identified in incident reports. The exception is L20.10.3, which borders OE-33, the OE Cache, a site that has undergone complete OE removal
- According to historical records, the roadways and shoulders have been used since at least 1913 for vehicular traffic
- The Fort Ord CERFA investigation found no evidence of ordnance use on these parcels
- No evidence of ordnance was found during a site walk performed in support of the real estate transfer of this parcel.

5.0 REFERENCES

- Brown, Sargent First Class, 1999. 1st Battalion, 149th Armory. Telephone call with Jeff Fenton, Harding Lawson Associates. July 1.
- Curtis, Sargent First Class, 1999. U.S. Army, Fort Knox, Kentucky. Telephone call with Jeff Fenton, Harding Lawson Associates. July 7.
- Fairchild Aerial Surveys, Inc. (FASI), 1951. Aerial photograph set of Main Garrison, East Garrison, Intergarrison and North-South Road Areas to Inland Ranges. Photographs 2-10, 2-12, 2-14, 2-16, 2-18, 2-20, 2-22, 2-24, 2-26, 2-28, 2-31, 2-33, 2-35, 2-37, 2-39, 2-41, 2-43, 2-45, 2-47, 2-49, 2-51, 2-53 through 2-80, 3-1 through 3-25. June 23 and July 3.
- Harding Lawson Associates (HLA), 1990. *Fort Ord Landfills Preliminary Hydrogeologic Investigation, Fort Ord, California.* April.
- _____, 1994a. *Draft Final Site Characterization, Site 29 – Defense Reutilization and Marketing Office, Fort Ord, California.* April 29.
- _____, 1994b. *Draft Final Data Summary and Work Plan, Site 39 – Inland Ranges, Fort Ord, California.* May 17.
- _____, 1994c. *Draft Work Plan Site Characterization, Site 39A – East Garrison Ranges, Fort Ord, California.* November 3.
- _____, 1995a. *Draft Final Site Characterization, Site 20 – South Parade Ground, 3800 And 519th Motor Pools, Fort Ord, California.* May 1.
- _____, 1995b. *Environmental Baseline Survey, Fritzsche Army Airfield (FAAF) Parcel, Version 2.0.* January 24.
- _____, 1995c. *Draft Final Site Characterization, Site 35 – Fritzsche Army Airfield, Aircraft Cannibalization Yard, Fort Ord, California.* February 14.
- _____, 1995d. *Final Basewide Remedial Investigation/Feasibility Study, Fort Ord, California.* October.
- _____, 1996a. *Confirmation Report, Site 14 – 707th Maintenance Facility, Fort Ord, California.* February 12.
- _____, 1996b. *Interim Action Confirmation Report, Site 22 – 4400/4500 Motor Pool, West Block, Fort Ord, California.* May 22.
- _____, 1996c. *Draft Final Site Characterization, Site 24 – Old DEH Yard, Fort Ord, California.* March 22.
- _____, 1997a. *Draft Final Site Investigation Report, Buildings 2253, 3803, 4362, and 4534, Former Fort Ord, California.* March 4.
- _____, 1997b. *Interim Action Confirmation Report, Site 24 – Old DEH Yard, Fort Ord, California.* January 23.
- _____, 1997c. *Draft Final Site Characterization, Site 23 – 3700 Motor Pool Complex, Fort Ord, California.* May 16.
- _____, 1997d. *Draft Final Site Investigation Report, Buildings 4107, 4110, and 4590 and Facility 2754, Former Fort Ord, California.* February 27.
- _____, 1997e. *Environmental Baseline Survey, Main Garrison Parcels, Former Fort Ord, California.* September 26.
- _____, 1998a. *Groundwater Well Management Plan Update, Former Fort Ord, California. Volume I – Text, Tables, Plates, and Attachments.* January 16.
- _____, 1998b. *Volume I – Site Investigation, Operable Unit 1 Plume Delineation, Former Fort Ord, California, and Volume II – Draft Work Plan for Preliminary Remediation Evaluation, Operable Unit 1 Plume Delineation, Former Fort Ord, California.* April 29.

- _____, 1999. *Five-Year Status Report and Effectiveness Evaluation, OU 1 Groundwater Treatment System, Fort Ord, California*. June 29.
- _____, 2000. *Draft Final Literature Review Report, Ordnance and Explosives, Remedial Investigation/Feasibility Study, Former Fort Ord, California*. January 4.
- Human Factors Applications, Inc. (HFAI), 1994. *Volume I, OEW Sampling and OEW Removal Action, Fort Ord Final Report, Fort Ord, California*. December 1.
- International Technology Corporation (IT), 1999a. *Remedial Action Confirmation Report and Post-Remediation Health Risk Assessment, Sites 16 and 17 Remedial Action, Basewide Remediation Sites, Former Fort Ord, California*. Draft final. April.
- _____, 1999b. *Confirmation Report and Post-Remediation Health Risk Assessment, Site 12 Remedial Action, Remediation Sites, Fort Ord, California*. Draft final. June.
- _____, 1999c. *Draft Remedial Action Confirmation Report, Area A, Operable Unit 2 Landfills, Former Fort Ord, California*. March.
- Little, A.D., 1994. *Community Environmental Response Facilitation Act (CERFA) Report, Fort Ord, Monterey, California*. Prepared for U.S. Army Environmental Center Aberdeen Proving Ground, Maryland. April.
- Stickler, L., 1999. Former Range Control Officer, U.S. Department of the Army. Interview with Jeff Fenton, Harding Lawson Associates. July 29.
- Tri-Services Cultural Resources Research Center (TSCRRC), 1993. *Historical and Architectural Documentation Reports for Fort Ord, California*. September. (Conducted for the Office of Directorate of Environmental Programs Conservation Division.)
- Uribe & Associates, 1998. *Interim Action Confirmation Report, Site 34 – Fritzsche Army Airfield Fueling Facility, Former Fort Ord, California*. September.
- USA Environmental Inc. (USA), 2000. *Draft OE Removal Action After Action Report, Site OE-13B, Volumes I & II Inland Range Contract, Former Fort Ord, California*. January 6.
- _____, 1999a. *Draft After Action Report Sitestats/Gridstats OE Sampling, Site 24B-E and OE-39, Inland Range Contract, Former Fort Ord, California*. December 30.
- _____, 1999b. *Draft OE Sampling After Action Report Site OE-1, Inland Range Contract, Former Fort Ord, California*. August 26.
- _____, 1999c. *Draft Sampling and Removal After Action Report, Site OE-4A, Inland Range Contract, Former Fort Ord, California*. January 28.
- _____, 1999d. *Draft Sampling/Characterization After Action Report, Site OE-22 (Beach Ranges), Inland Range Contract, Former Fort Ord, California*. January 7.
- U.S. Army Corps of Engineers (USACE), 1946. *Master Plan, Fort Ord, California*. Volume I. Sheet No. 2, Drawing No. 53-1-9: Reservation Boundary and Land Use Map. U.S. Engineer Office: San Francisco.
- _____, 1961. *Master Plan, Fort Ord, California*. Drawing No. 2B: Map of Basic Information, Training Facilities. June 30.
- _____, 1968. *Master Plan, Basic Information Maps*. Sheet 5 of 5, Drawing No. 18-02-27: Training Facilities Map. March.
- _____, 1974. Aerial photograph set of portion of Fritzsche Army Airfield, Intergarrison Area, Main Garrison, and Inland Ranges. Photograph 186-1 through -17 and 186-1 through -4. May 10 and October 18.
- _____, 1976. *Master Plan, Future Development Plans, Training Facility Plan*. Drawing No. 18-04-128. December 1.

- _____, 1999. *Ordnance and Explosives, Remedial Investigation/Feasibility Study Work Plan, Former Fort Ord, Monterey County, California*. July 30.
- U.S. Army Engineer Division, Huntsville (USAEDH), 1997a. *Engineering Evaluation/Cost Analysis—Phase 1, Former Fort Ord, Monterey County, California*. Final. September.
- _____, 1997b. *Revised Archives Search Report, Former Fort Ord, California, Monterey County, California*. Prepared by U.S. Army Corps of Engineers St. Louis District.
- U.S. Department of Agriculture, Soil Conservation Service (SCS), 1949. Aerial photograph set of Fort Ord. Photographs ABG-17F-87, -129, -131, -133, -193, and -195. August 17.
- _____, 1956. Aerial photograph of southeastern Inland Ranges. Photograph ABG-23R-85.
- _____, 1966. Aerial photograph set of Fort Ord. Photographs ABG-1GG-45-53, 128-133. June 2.
- U.S. Department of the Army (Army), 1940a. Fort Ord Locator Map. File Number 228-10.
- _____, 1940b. Camp Ord, Ultimate Layout of Concurrent Training Camps. June 20.
- _____, 1945. Map of Training Facilities, Fort Ord and Vicinity. August.
- _____, circa 1954. Map: Fort Ord. Inclosure [sic] 1 to Appendix A, to Annex 0.
- _____, 1956. Map of Fort Ord Training Areas and Facilities, Inclosure [sic] 1 to Annex 0. Revised December 20, 1956.
- _____, 1957. Map of Fort Ord Training Areas and Facilities, Enclosure 1 to Annex “H.” July 15.
- _____, 1958. Map of Fort Ord Training Areas and Facilities, Inclosure [sic] 1 to Appendix 1 to Annex H. January 10.
- _____, 1964. *Fort Ord Regulation 350-70*. Appendix 2, Annex O: Field Training Areas and Range Map, Fort Ord. April 27.
- _____, 1967. *Fort Ord Regulation 350-72*. Field Training Areas & Range Map, Appendix 2, Annex 0. January.
- _____, 1992. *Standard Operating Procedures, Leadership Reaction Course*. Fort Ord Pamphlet No. 350-5. Fort Ord, California. October 7.
- _____, 1998a. *Finding of Suitability to Transfer (FOST), Fritzsche Army Airfield Phase II Parcels, Former Fort Ord, California*. August 13.
- _____, 1998b. *Finding of Suitability to Transfer (FOST), Reservation Road Parcels, Former Fort Ord, California*. May 5.
- UXB International Inc. (UXB), 1995. *Final Report for Ordnance and Explosives Removal Action, OE Cache, Fort Ord, California*. November 1.

TABLE

Table 1. Track 0 Parcel Groupings

Track 0 Parcel Groupings	Parcels	Description
Highway 1	S4.1.2.1 S4.1.2.2 S4.1.3 S4.1.4 S4.1.5	These parcels make up Highway 1 and the right of ways (ROW). Highway 1 was in place before the establishment of Fort Ord.
Golf Course	F2.7.2	This parcel was developed at the time of the golf course construction in 1953. There is no evidence of OE use prior to construction of the golf course.
Brostrom Park	L27	This parcel is adjacent to the City of Seaside. Housing was built on the parcel in 1941 or 1942. The parcel was part of the 1940 land purchase.
East Garrison	E11b.1 E11b.2 E11b.3 E11b.4 L23.3.1 L23.3.2.1 L35.3 L35.6 L35.7 L35.8	These parcels were included in the original land purchase in 1917 and include some of the earliest construction at Fort Ord. The area was used as an encampment for troops stationed at the Presidio of Monterey. Troops utilized nearby small arms ranges as well as Inland Ranges to the southwest. Later training at these parcels included use of a skeet range, physical training area (Leadership Reaction Course), and Heavy Vehicle Driver Training Course. Several areas within these parcels were investigated for chemical contamination under the RI/FS program (IRP Sites 29, 30, 32, and 39A). Many site walks were conducted on these parcels. No evidence suggests ordnance use.

Table 1. Track 0 Parcel Groupings

Track 0 Parcel Groupings	Parcels	Description
Fritzsche Army Airfield	S2.1.2 S2.1.3 S2.1.4.1 S2.1.4.2 L5.1.2 L5.1.3 L5.1.4 L5.1.5 L5.1.6 L5.1.7 L5.1.8 L5.1.9 L5.1.10 L5.2 L5.3 F7.1 F7.2	These parcels were included in the 1940 land purchase. Parcels include support buildings related to the FAAF, water supply wells, and open space areas associated with the OU 1 treatment system. With the exception of the water supply wells and two airport transmission beacons, these parcels consist of areas investigated for chemical contamination under the RI/FS program. No specific training activities occurred on the parcels; however, some of the parcels do fall within larger training areas (e.g., the Tank Ranging Area and a Basic Driving and Field Communication Course), which were in use prior to construction of the FAAF.
OU 2 Landfill	E2e.1 E2e.2 S1.3.3 S2.5.1.1 S2.5.1.2 S2.5.2.1 S2.5.2.2 E8a.1* (*portion)	This area consists of open space excluding the OU 2 Landfill. Portions of these parcels were used for various nonordnance training activities including a Rifle Instruction Circle, Camouflage Area, and Proficiency Test Area. There is no evidence to suggest ordnance training in this area. The area of landfill disposal has been capped.
Reservation Road	L5.10 L20.10.1 L20.10.2 L20.10.3	Prior to the acquisition of the property by the Army in 1940, Reservation Road was an unimproved Monterey County Road extending from Highway 1 to the East Garrison. The road continued around the perimeter of Fort Ord to Salinas. There is no evidence of ordnance training occurring on or alongside Reservation Road.

Table 1. Track 0 Parcel Groupings

Track 0 Parcel Groupings	Parcels	Description
Patton/Abrams Park Housing	E2c.1 E4.1.1 E4.2 E4.3.1 E4.5 E5a L5.6.1 L5.6.2* (*portion)	Parcels include the Patton and Abrams Park Housing Areas constructed in 1962-1969 and 1978-1982, respectively. Prior to construction of the housing areas, portions of the parcels were used for weapons training, set-up, and physical training (i.e., Mortar Square, Wire Entanglement Area, and the Proficiency Test Area). Portion of OE-13A was completely excavated. Parcel L5.6.1 and a portion of Parcel L5.6.2 are considered "Special Case" Track 0 areas. Although ordnance was found within landfill materials excavated from Parcel L5.6.1 and a portion of Parcel L5.6.2, the items were related to disposal within these parcels and not associated with ordnance use at OE Site 13A.
Open Space Main Entrance	E15.1 L33.1 L33.2 S1.4	These parcels are mostly open space areas near the Fort Ord entrance. Portions of these parcels were developed at the time of the 1940 land purchase (e.g., Parade Ground/airfield). The parcels were used for physical training, weapons training, and set-up (i.e., Machine Gun Square, Rifle Instruction Circle). Secondary development included some building and paving (L33.1 and L33.2). Large portions of the parcels were investigated for chemical contamination under the RI/FS program (IRP Sites 20, 23, and 24) and the UST program (e.g., overexcavation of UST 3803). Many site walks were conducted in these parcels.
Surplus II	L1.1 L19.2 L19.3 L19.4 L32.2.1 L32.2.2 L32.3 L32.4.1 L32.4.2 L23.6 L36 L37 L15.1 L7.8 L7.9 L2.4.2 L2.4.3.1 L2.4.3.2 S1.3.1	This area was included in the 1940 property acquisition. The original property included physical training areas. The area later developed (large portion paved) to include troop housing and motor pools. A portion was investigated for chemical contamination under the RI/FS program (IRP Sites 22). There is no evidence to suggest ordnance training. Many site walks were conducted in this area.

Table 1. Track 0 Parcel Groupings

Track 0 Parcel Groupings	Parcels	Description
Main Garrison	E2b.1.1.1 E2b.1.2 E2b.1.1.2 E2b.1.3 E2b.1.4 E2b.1.5 E2b.2.1 E2b.2.2 E2b.2.3 E2b.2.4 E2b.2.5 E2b.3.1.1 E2c.2 E2c.3.1 E2c.3.2 E2c.3.3 E2c.4.1.1 E2c.4.2.1 E2d.1 E2d.2 L2.1 L12.2.2 L12.2.3 L12.3 L23.1.1 L23.1.2 L23.1.3 L23.1.4	These parcels include portions of Fort Ord acquired at the time of the original land purchase in 1917 and subsequent purchase in 1940. Construction began in this area in 1940 and included some of the oldest development and construction. The facilities included troop housing, support facilities, and physical training areas. There is no evidence to suggest that ordnance was used is these parcels. Large portions of this area are paved. Several investigations related to potential chemical contamination have taken place on these parcels (IRP Sites 12, 13, 14, 15, 16, 17, 18, 19, 25, 28, and 38). Many site walks were conducted in this area.
	L23.1.5 L35.1 L35.2 L20.16.1 L20.16.2 L20.16.3 S1.5.1.1 S1.5.1.2 S1.5.2 L23.4 L2.2.1 L5.8.1 L5.8.2 L20.17.1	

APPENDIX A

RESPONSE TO REGULATORY AGENCY COMMENTS

RESPONSE TO COMMENTS ON THE
DRAFT TRACK 0 TECHNICAL MEMORANDUM
ORDNANCE AND EXPLOSIVES
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
FORMER FORT ORD
DATED JANUARY 4, 2000

I. DTSC COMMENTS DATED NOVEMBER 3, 1999

This transmits our comments on the subject document. It was received in our office on November 4, 1999.

We have presented our proposed minimum requirements for making decisions to designate a portion of Fort Ord as a Track 0 area in our comments of November 10, 1999 on the Draft Ordnance and Explosives Remedial Investigation/Feasibility Study Work Plan. Since then the BRAC Cleanup Team continues discussion of those requirements. As a result we have refined those requirements and present them here.

The following requirements must be met for each area that is to be designated A Track 0 parcel.

General Comments:

Comment 1: A thorough historical record review shows no evidence at all that any activity that may be associated with ordnance and explosives (OE) use occurred in the area.

Response 1: Comment noted. A literature review was conducted as a thorough review of records and information relating to previous OE use at Fort Ord. This Technical Memorandum provides area-specific reviews of supporting information for proposed Track 0 areas. Similar information will be provided in Approval Memoranda for future Track 0 areas.

Comment 2: An individual, recognized by the Department of Defense Explosives Safety Board as a qualified explosive ordnance disposal technician and, in the capacity of the Site Safety Officer, state in writing, as part of the evaluation documentation, that they agree that the area meets the definition of Track 0. That definition being: An area at Fort Ord that contains no OE and is not suspected as having been used for OE-related activities of any kind.

Response 2: Obtaining such a statement from the OE safety specialists is outside of their normal duties and responsibilities. The Army is currently discussing the possibility of accomplishing this with U.S. Army Corps of Engineers, Huntsville, the Army's Mandatory Center of Expertise for OE, as they are the agency responsible for establishing the duties and responsibilities of local OE safety specialists.

Comment 3: The boundaries of OE Sites nearby a Track 0 area must be conservatively drawn, do not extend onto the Track 0 area, and for which adequate justification for those boundaries is presented. A buffer zone serving the purpose of establishment of conservative boundaries, physical separation from Track 0 property to be used as residential or other like use, separation from areas thought to contain ordnance which when detonated may present a danger to those using the subject Track 0

property, or other site specific reason will be identified as part of the rationale for the OE site boundary.

Response 3: Comment noted. The proximity and condition of OE sites in relation to proposed Track 0 areas will be considered and evaluated in an area-specific manner. For areas proposed for Track 0 in this memorandum, nearby OE sites have either been investigated and/or removal actions have been conducted. Discussion related to nearby OE sites is provided in Section 4.0 of the *Track 0 Technical Memorandum*.

Comment 4: The deeds for Track 0 sites shall contain the same notification concerning potential for the presence of unexploded ordnance that has been included in previous deeds for property that has been transferred. Specifically: Ordnance and explosives (OE) investigations indicate that OE is not likely on the Property. However, because this is a former military installation with a history of OE use, there is a potential for OE to be present on the Property. In the event Grantee or its successors and assigns should discover any ordnance on the Property, they shall not attempt to remove or destroy it, but shall immediately notify the local Police Department and the Directorate of Law Enforcement at the Presidio of Monterey. Competent U.S. Army Explosive Ordnance personnel will be dispatched promptly to dispose of such ordnance properly at no expense to the Grantee.

Response 4: This or similar language is already provided in deeds for transfer properties. The Army is committed to providing proper disclosure and notification to property recipients.

As necessary the deed shall also include information to meet the requirements included in item six below.

Comment 5: In some specific circumstances, it may be necessary to conduct some direct geophysical sampling. Sampling will be used to address specific questions.

Response 5: Comment acknowledged.

The following requirements are more general in nature and apply to Track 0 as well as the other Tracks as they are implemented in the future.

Comment 6: In addition to the minimum requirements provided in item number 4 above, as necessary, the deed for the property will have a notification describing the hazards related to or applicable to the property. Any notification will include a description of the investigation activities that have occurred for the property.

Response 6: Comment Acknowledged. The Army is committed to providing proper disclosure or notification to property recipients.

Comment 7: The U.S. Army commits to including in any community outreach activities, all property owners of former Fort Ord property. The purpose of including property owners is to inform them of the fact that ordnance was used and that there is some potential that it be discovered in the future, and the procedures to follow if suspected ordnance is found.

Response 7: Community outreach activities to provide information to local residents are outlined in the Community Relation Plan Update. Those activities apply to all Tracks of the OE RI/FS.

Comment 8: The U.S. Army conducts an ongoing collection and reporting of new information concerning evidence of ordnance and explosive wastes. This information is collected, analyzed, and reported to the regulatory agencies on a periodic basis.

Response 8: The Army will continue to collect information related to historical ordnance-related land use at Fort Ord, and provide any new information at BRAC Cleanup Team meetings.

Specific Comments:

Comment 1: Section 3.2, Track 0 Plug-In Process. The description of the contents of the Approval Memoranda should include as an item, the rationale and justification for the designation of a parcel as Track 0.

Response 1: Comment noted. The text was modified.

Comment 2: Section 4.1, Highway 1 Parcels. The format and succinct nature of the discussion presented of the Track 0 Areas is good. Specifically, this section should be modified to address the issues of why the ordnance and explosives (OE) boundaries are appropriate. The discussion of the lack of evidence of live ordnance being present on OE Site 6 is helpful but can not take the place of an acceptable rationale for the site boundary. In fact, in the case of OE Site 6 and Highway 1, since the boundary of Site 6 lies on one of the parcels proposed as Track 0, it is important to establish a new boundary along with adequate justification for it to support the Track 0 designation.

Response 2: The parcel in question has been removed from the Track 0 Technical Memorandum.

Comment 3: Section 4.4.2, Site Investigation, Patton/Abrams Park. The last sentence in paragraphs 3 and 8 describe buffer zones and refers the reader to Plate 5. It would be helpful to delineate the buffer areas on the plate.

Response 3: Areas of separation (i.e., developed and undeveloped land) are discussed in the text and shown on the applicable plates.

Comment 4: Section 4.6.2, Site Investigation, Surplus II. The discussion in this section includes OE sites in the vicinity. Some mention of OE Site 39 should be included. Does OE Site 13B include the area that chemical agent identification sets were found? If so, this information should be included in the description of the types of items found at the site.

Response 4: A discussion of OE Site 39 has been added to the text and the discovery of the chemical agent identification sets (CAISs) was added to the report.

Comment 5: Section 4.9.3, Typographical error. Second bullet between the words *developed* and *of*.

Response 5: Text has been changed.

Comment 6: **Table 1, Patton/Abrams Park Housing Area. The description of the parcels describes parcel L5.6.1 and a portion of L5.6.2 as Track 0 because of the land fill Area A excavations. Excavated areas where ordnance and explosives waste may have been disposed is not part of the Track 0 definition. Equivalency to Track 0 should be discussed here instead.**

Response 6: Table was revised.

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Track 0 Technical Memorandum
Ordnance and Explosives
Remedial Investigation/Feasibility Study
Former Fort Ord, California

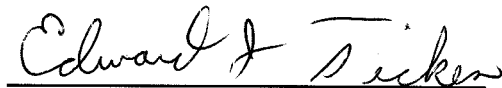
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