SITE 3-070

Interim Record of Decision
Site 3
Beach Trainfire Ranges
Fort Ord, California

January 13, 1997

United States Department of the Army
HQ, U.S. Army Garrison (Fort Ord)
Fort Ord, California 93941

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1.0 DECLARATION

1.1 Site Name and Location

Fort Ord is located near Monterey Bay in northwestern Monterey County, California, approximately 80 miles south of San Francisco. The base comprises approximately 28,000 acres adjacent to the cities of Seaside, Sand City, Monterey, and Del Rey Oaks to the south and Marina to the north. The Southern Pacific Railroad and Highway 1 pass through the western portion of Fort Ord, separating the beachfront from the rest of the base. Laguna Seca Recreation Area and Toro Regional Park border Fort Ord to the south and southeast, respectively. Land use east of Fort Ord is primarily agricultural.

1.2 Basis and Purpose

This Interim Record of Decision (ROD) addresses Remedial Investigation (RI) Site 3, the Beach Trainfire Ranges, which extends approximately 3.2 miles (780 acres) along the coastline of Monterey Bay at the western boundary of Fort Ord. This Interim ROD does not address ordnance or explosives (OE), which will be addressed in a separate process. RI Sites 2 and 12, 16 and 17, 31, and 39 were addressed in a separate ROD.

This decision document presents the selected remedial action for Site 3 for protection of human health. Ecological protection will be addressed after completion of the Ecological Risk Assessment. The remedy was selected in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendment and Reauthorization Act (SARA), and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision is based on the Administrative Record for Fort Ord.

The United States Environmental Protection Agency (EPA) and the California Environmental Protection Agency (Cal/EPA), which includes the California Regional Water Quality Control Board (RWQCB) and other State agencies, concur with the selected remedy.

1.3 Site Assessment

Actual or threatened releases of hazardous substances at Site 3, if not addressed by implementing the response action selected in this Interim ROD, may present a current or future threat to public health, welfare, or the environment.

1.4 Description of the Remedy

The selected remedial alternative described in this Interim ROD addresses current or potential significant risks to human health posed by Site 3 at Fort Ord, California as described in the Basewide Remedial Investigation/Feasibility Study (RI/FS) (*HLA, 1995a*). The remedy's protectiveness of the environment will be addressed after an environmental cleanup level is finalized on the basis of the Ecological Risk Assessment being performed.

The existing boundaries of the main landfill at Fort Ord will be designated as a Corrective Action Management Unit (CAMU), which will allow remediation waste to be placed there and used as a foundation layer without triggering certain regulations pertaining to disposal of waste. The soil remedy for Site 3 utilizes the CAMU for placement of excavated soil from remedial actions at the site. The soil will be managed at the CAMU, incorporated within the landfill cover soils (foundation layer) with remediation waste from the other RI sites, and capped as part of the landfill.

The selected remedy will involve the following activities:

- Excavation and separation (screening) of spent ammunition from soil in areas of greater than 10 percent surface coverage of spent ammunition
- Recycling of spent ammunition at a metals refinery, and
- Placement of lead-containing soil at the OU 2 landfill.

1.5 Statutory Determination

The selected remedy is protective of human health, complies with federal and state applicable or relevant and appropriate requirements for this action, and is cost effective. The remedy is intended to fully address the statutory mandate for permanence and treatment to the maximum extent practicable for Site 3. The remedy utilizes permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable and satisfies the statutory preference for remedies that employ treatment that reduces toxicity, mobility, or volume as a principal element.

- Soil from Site 3 will be reused as foundation layer material beneath the barrier layer at the OU 2 landfill, thereby reducing mobility.
- Spent ammunition from Site 3 will be recycled, and the metals reused.
- Soil from the site will be used as a resource for fill material needed to construct the cap at the OU 2 landfill, thereby reducing the volume of imported fill required.

Because this action does not constitute the final remedy for Site 3, subsequent actions will be evaluated to address fully the potential ecological risks posed by this site.

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2.0 DECISION SUMMARY

2.1 Site Description

Fort Ord is located near Monterey Bay in northwestern Monterey County, California, approximately 80 miles south of San Francisco. The base comprises approximately 28,000 acres adjacent to the cities of Seaside, Sand City, Monterey, and Del Rey Oaks to the south and Marina to the north. The Southern Pacific Railroad and Highway 1 pass through the western portion of Fort Ord, separating the beachfront from the rest of the base. Laguna Seca Recreation Area and Toro Regional Park border Fort Ord to the south and southeast, respectively. Land use east of Fort Ord is primarily agricultural.

Site 3

Site 3 extends approximately 3.2 miles (780 acres) along the coastline of Monterey Bay and forms a portion of the western boundary of Fort Ord. The site is bordered to the south by Sand City, to the north by the city of Marina, to the west by Monterey Bay, and to the east by the trainfire ranges access road and Highway 1 (Plates 1). Small arms firing ranges, numbered 1 through 17, are scattered along the eastern half of the site. There are no firing ranges numbered 10 or 13. In general, trainees fired from firing lines in the eastern portion of the site toward targets spaced at varying intervals to the west. Spent bullets accumulated on the east-facing (leeward) sides of the sand dunes that formed "backstops" for the targets. A former ammunition storage area is between Ranges 3 and 4. The area west of the dunes is an undeveloped beach.

Most of the surface area of Site 3 is unpaved and vegetated, with dune sand present at the surface. The predominant topography (i.e., numerous intersecting rolling hills) of Site 3 reflects a morphology typical of the dune sand deposits that underlie the site. The bases of the dunes begin at an elevation of approximately 40 feet above mean sea level (MSL); the maximum elevation of the dunes is approximately 150 feet MSL. The dunes are truncated to the west by steep cliffs formed as a result of waves and winter storms. Portions of the cliffs are as high as 40 feet above the beach.

Stilwell Hall and two sewage treatment plants are the main structures onsite. Stilwell Hall, in the central portion of Site 3, was once used for recreation purposes but is not currently in use. The Ord Village Sewage Treatment Plant (STP) and the Main Garrison STP are within Site 3, but are not considered part of this site. Instead, these STPs were investigated separately as Sites 1 and 2, respectively. Sewage is no longer treated at these plants, but instead is pumped from Site 1 and gravity fed from Site 2 to the Monterey Regional Treatment plant in the City of Marina.

Seven storm drain outfalls, which collect stormwater from the Main Garrison area of Fort Ord, discharge to either the dune area or the intertidal zone of the site. The storm drain outfalls were investigated separately as part of the Basewide Surface Water Outfall Investigation.

2.2 Site History

Since its opening in 1917, Fort Ord has primarily served as a training and staging facility for infantry troops. No permanent improvements were made until the late 1930s, when administrative buildings, barracks, mess halls, tent pads, and a sewage treatment plant were constructed. From 1947 to 1975, Fort Ord was a basic training center. After 1975, the 7th Infantry Division (Light) was assigned to Fort Ord. Light infantry troops are those that perform their duties without heavy tanks, armor, or artillery. In 1991, Fort Ord was selected for closure in 1993; the majority of the soldiers were reassigned to other Army posts. Although Army personnel still operate the base, no active army division is currently stationed there.

Site 3

Site 3 was used for small arms trainfire beginning in the 1940s. Trainees fired small-caliber, hand-held weapons at targets near the leeward dune faces. According to the director of Fort Ord Range Control, all of the target ranges were used before 1975, Ranges 1 through 8 have been used since 1975 with Range 8 receiving the heaviest and most recent use. During training activities, cartridges were routinely collected for reuse. No routine efforts were made to collect the spent ammunition. Therefore, most of the ranges contain accumulations of spent bullets. In 1976 and 1977, several hundred pounds of spent ammunition were recovered at Ranges 15 and 16 by a Fort Ord contractor, with little disturbance to the dunes. In addition, a pilot study was performed at Range 2 to evaluate excavation, screening, and onsite treatment options prior to full-scale remedial action at Site 3 (*HLA, 1996a*). Approximately 1,500 cubic yards of spent ammunition and soil from Range 2 was excavated, the spent ammunition was separated and recycled, and the soil was treated onsite by chemical fixation in September 1995.

2.3 Enforcement and Regulatory History

Environmental investigations began at Fort Ord in 1984 at Fritzsche Army Airfield (FAAF) under Regional Water Quality Control Board (RWQCB) cleanup or abatement orders 84-92, 86-86, and 86-315. Investigations indicated the presence of residual organic compounds from fire drill burning practices at the Fire Drill Burn Pit (Operable Unit 1 or OU 1). The subsequent RI/FS for OU 1 was completed in 1988, and cleanup of soil and groundwater began under RWQCB cleanup or abatement orders 86-87, 86-317, and 88-139. In 1986, further investigations began at the Fort Ord landfill, and the preliminary site characterization was completed in 1988. In 1990, Fort Ord was placed on the EPA's National Priorities List (NPL) primarily because of VOCs found in groundwater beneath OU 2.

A Federal Facility Agreement (FFA) was signed by the Army, EPA, the California Environmental Protection Agency's Department of Toxic Substances Control (DTSC; formerly the Toxic Substances Control Program of Department of Health Services or DHS), and the RWQCB. The FFA established schedules for performing remedial investigations and feasibility studies and requires that remedial actions be completed as expeditiously as possible. In 1991, the basewide RI/FS began, and Fort Ord was placed on the Base Realignment and Closure (BRAC) list.

Site 3

The final draft of the basewide RI/FS was submitted in October 1996 and addressed Site 3 as well as the other RI sites. Two separate Proposed Plans were submitted for Site 3 and the RI sites on May 7, 1996 (*HLA, 1996b, 1996c*). Site 3 is addressed separately in the Proposed Plan and this Interim ROD because the Ecological Risk Assessment at Site 3 is still being performed and requires separate scheduling.

2.4 Highlights of Community Participation

On May 7, 1996, the Army distributed the Proposed Plan for Site 3 to the public for review and comment (*HLA, 1996b*). The Proposed Plan presented the preferred alternative for protection of human health, and summarized information in the Site 3 RI/FS and other documents in the Administrative Record. These documents are available to the public at the following locations: Chamberlain Library, Building 4275, North-South Road, Presidio of Monterey Annex (formerly Fort Ord), California, and Seaside Branch Library, 550 Harcourt Avenue, Seaside, California. The administrative record is available at Building 4463, Gigling Road, Presidio of Monterey Annex (formerly Fort Ord), California, Monday through Friday from 9:00 a.m. to 3:00 p.m.

Comments on the Proposed Plan were accepted during a 60-day public review-and-comment period that began on May 7 and ended on July 8, 1996. A public meeting was held on May 18, 1996, at the Embassy Suites Hotel in Seaside, California. At that time, the public had the opportunity to ask the Army questions and express concerns about the plan. In addition, written comments were accepted

during the public comment period. Responses to the comments received during the public comment period are included in the Responsiveness Summary presented in Section 3.0 of this document.

2.5 Site Characteristics

Results of the remedial investigation indicate that lead, zinc, tin, antimony, chromium, copper, and iron are the primary waste components of spent ammunition at the site. Lead is the main contaminant of potential concern because of its toxicity and the high concentrations detected at the site. The highest lead concentrations were detected where surface concentrations of spent ammunition are greater than 10 percent. In the areas containing significant amounts of spent ammunition, the lead concentrations in sieved surface soil samples ranged from 457 to 46,300 milligrams per kilogram (mg/kg). In general, lead is present above background (naturally occurring) concentrations to depths of 2 feet below ground surface.

The following bullet distribution levels were identified: (1) light or none: less than 1 percent of surface area covered with spent ammunition, which occurred at 91 percent of the site, (2) moderate: 1 to 10 percent of surface area covered by spent ammunition, which occurred at 5 percent of the site, and (3) heavy: more than 10 percent of surface area covered, which occurred at 4 percent of the site.

The depth to groundwater ranges from 20 to 100 feet at Site 3. Concentrations of metals detected in groundwater samples were below regulatory levels and are consistent with background (naturally occurring) conditions. Lead was not detected in wells installed at the Beach Ranges.

2.6 Scope and Role of Operable Unit

This Interim ROD addresses planned remedial actions for Site 3 for the protection of human health as recommended in the FS. A pilot study at Range 2 was performed to evaluate various excavation, soil handling, staging, screening, and treatment techniques that will be used to further refine planned remedial actions (*HLA, 1996a*). The planned remedial actions for Site 3 will be final remedies for protection of human health. The Ecological Risk Assessment for Site 3 is being performed, and an environmental cleanup level has not been finalized. To proceed with cleanup plans for Site 3, the human health-based cleanup level for lead will be used as an interim environmental cleanup level.

2.7 Summary of Site Risks

Potential human health risks and environmental impacts at Site 3 were evaluated in the Human Health Risk Assessment and Ecological Risk Assessment, respectively.

Human Health Risks. The Human Health Risk Assessment for Site 3 evaluated the following potential risks associated with exposure to chemicals of potential concern:

- Potential adverse noncancer health risks were evaluated using the EPA's hazard index quotient. The EPA's threshold level of concern for noncancer effects is a hazard index (HI) greater than 1.

- Potential cancer health risks were evaluated using EPA and other toxicity values. The National Contingency Plan (NCP) states that the point of departure for acceptable cancer risks is 1×10^{-6}, or a 1 in 1,000,000 chance that an individual exposed under the scenario evaluated would develop cancer. Risks in the range of 1×10^{-6} to 1×10^{-4} (a 1 in 10,000 chance of developing cancer) should be evaluated on a case by case basis.

- Blood-lead levels were evaluated using blood lead level modeling procedures. The EPA's threshold blood-lead level of concern is a level greater than 10 micrograms per deciliter (μg/dL), on the basis of a study by the Centers of Disease Control and Prevention (CDC). Children's exposures to lead that results in blood-lead levels greater than 10 μg/dL may produce neurotoxicity. Applying this level to adult receptors such as construction workers is conservative and health-protective, because threshold levels suggested for adult receptors are higher.

Thresholds suggested for workers range from 25 to 50 μg/dL, for hematological and cardiovascular endpoints (CDC, 1991; ATSDR, 1993). Therefore, the blood-lead level of concern of 10 μg/dL is protective of both children and adults.

The chemicals of potential concern identified in the Human Health Risk Assessment for Site 3 are the metals antimony, copper, and lead. On the basis of the proposed future use of the site, the Human Health Risk Assessment evaluated risks to a nearby visitor or resident, and onsite park rangers. The evaluation assumed an exposure to contaminants while walking randomly through any and all portions of the site. The estimated exposure was based on lead concentrations within the areas covered by the three spent ammunition distribution levels.

None of the chemicals of potential concern evaluated had associated cancer risks; however, potential noncancer health effects and blood-lead levels were evaluated and compared to the EPA's HI threshold levels of concern. The evaluation indicated that blood-lead levels and HIs for the random walking exposure (for antimony and copper) in areas of light spent ammunition cover were below levels of concern. For comparison, human health risk estimates were also developed by assuming exposure might occur exclusively at each of the three bullet distribution areas. If the exposure is confined to areas with moderate and heavy spent ammunition cover, blood lead levels and HIs are estimated to exceed the EPA's threshold levels.

Given the conservative assumption that a nearby resident, visitor, or onsite park ranger would possibly be exposed to lead only in the areas with moderate and heavy bullet distribution, a health-based cleanup level of 1,860 mg/kg of lead in soil was developed. At this concentration, blood-lead levels are not expected to exceed the threshold of concern of 10 μg/dL. Concentrations of lead above the health-based level of concern occur mainly in areas where greater than 10 percent of the surface is covered by spent ammunition. Although antimony and copper are present in some areas at high concentrations, they appear to be collocated with high levels of lead. It is therefore expected that if lead in soil is remediated to the health-based level of concern, this will reduce antimony and copper concentrations to levels below which adverse health effects on humans might occur.

Ecological Impacts. On the basis of the Ecological Risk Assessment results for Site 3, an environmental cleanup level for lead is being developed; however, this level has not been finalized. To proceed with cleanup plans for Site 3, the human health-based level of concern for lead of 1,860 mg/kg will be used as an interim environmental cleanup level. The Army recognizes the need for additional ecological assessment activities and finalization of an environmental cleanup level for lead

2.8 Remedial Action Objectives

Proposed Reuse: Site 3 is proposed for reuse as a state park consisting mostly of open space. The park is intended for public hiking, camping, and recreational uses. The Site 2 STP within the boundaries of Site 3 is proposed for development as an aquaculture and marine research center or open space area.

Remedial Action Objectives:

The remedial action objectives for the protection of human health at Site 3 are to reduce potential adverse health effects associated with noncarcinogenic, site-related chemicals by remediation to health-based levels of concern.

A health-based cleanup level of 1,860 mg/kg will be applied to areas of greater than 10 percent surface coverage and provides the final remediation for protection of human health. A final determination of the remedy's protectiveness of the environment will be made when an environmental cleanup level for lead is finalized as discussed in Section 3.4.

Areas in which more than 10 percent of the surface is covered with spent ammunition comprise the Soil Remedial Unit for Site 3. The Remedial Unit consists of approximately 63,000 cubic yards (cy) of spent ammunition and soil and extends to a depth of approximately 2 feet below ground surface. Approximately 55,000 cy of the 63,000 cy is soil, and 8,000 cy is spent ammunition.

The remedial action objectives based on the Human Health Risk Assessment for Site 3 are protective under the proposed reuse. A post remediation risk assessment evaluating established chemicals of potential concern for soil will be conducted. This assessment may show that the site is safe for any use and deed restrictions are not necessary. If deed restrictions are determined to be necessary, the appropriate restrictions will be attached to the deed of this property. These restrictions will limit reuse and notify the potential owner of the presence of residual contamination.

2.9 Description of Alternatives

The following three remedial alternatives were evaluated in the FS. Capital costs were estimated for each alternative. There are no annual operational and maintenance costs associated with the alternatives.

2.9.1 Alternative 1 - No Action

Estimated Capital Cost: $0

This alternative consists of taking no further action to control or remediate contamination at the site. The no action alternative is required to be considered under CERCLA as a baseline against which to compare other alternatives. The only activity that would continue under the no action alternative would be periodic groundwater monitoring under the basewide program to detect any threat to human health or the environment, and continuation of access restrictions already in place at the site. Costs for these activities are included in existing programs.

2.9.2 Alternative 2 - Final Cleanup for Human Health: Excavation and Treatment

Estimated Capital Cost: $11,480,000

This alternative consists of mechanical and hand excavation of approximately 63,000 cubic yards of soil and spent ammunition in areas of more than 10 percent surface coverage of spent ammunition. Spent ammunition would be separated from soil using mechanical screens or gravity-fed separation techniques, and transported to a metals refinery for recycling. The screened soil would be treated onsite by chemical fixation, a stabilization technique that reduces the leachability of lead in soil. The excavated areas within the dunes would be revegetated with native species of plants under the Habitat Management Plan (HMP) (*COE, 1994*).

2.9.3 Alternative 3 - Final Cleanup for Human Health: Excavation and Placement at the OU 2 Landfill CAMU

Capital Cost: $7,115,000

This alternative consists of mechanical and hand excavation of approximately 63,000 cubic yards of soil and spent ammunition in areas of greater than 10 percent surface coverage of spent ammunition. Spent ammunition would be separated from soil using mechanical screens or gravity-fed separation techniques, and transported to a metals refinery for recycling. The screened soil would be transported and placed at the OU 2 landfill as part of the foundation layer. The excavated areas within the dunes would be revegetated with native species of plants under the HMP (*COE, 1994*).

2.10 Summary of Alternative Comparison

Nine criteria established by CERCLA were used to evaluate the alternatives in the detailed analysis step. The nine criteria encompass statutory requirements and include other technical, economic, and practical factors that assist in comparing the overall feasibility and acceptability of the cleanup alternatives. The nine criteria are summarized as follows:

Overall Protection of Human Health and the Environment. Addresses whether or not a remedy provides adequate protection and describes how risks posed through each exposure route are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.

Compliance with Applicable or Relevant and Appropriate Requirements (ARARs). Addresses whether or not a remedy will meet all of the ARARs or provide grounds for invoking a waiver of the requirements.

Long-Term Effectiveness and Permanence. Refers to the magnitude of residual risk and the ability of a remedy to maintain reliable protection of human health and the environment after cleanup goals have been met.

Reduction of Toxicity, Mobility, or Volume Through Treatment. Evaluates the anticipated performance of the treatment technologies that may be employed in a remedy.

Short-Term Effectiveness. Refers to the speed with which the remedy achieves protection, as well as the remedy's potential to create adverse impacts on human health and the environment that may result during the construction and implementation period.

Implementability. Refers to the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement the selected solution.

Cost. Evaluates capital and operating and maintenance costs for each alternative by performing present-worth cost analyses.

State Acceptance. Indicates whether, based on its review of the RI/FS reports and Proposed Plan, the state concurs with, opposes, or has no comment on each alternative.

Community Acceptance. Assesses general public response to the Proposed Plan following a review of the public comments received on the RI/FS reports and the Proposed Plan during the public comment period and open community meeting(s).

The selected remedy must meet the first two of the nine CERCLA screening criteria described above: protection of human health and the environment as well as compliance with ARARs. Protection of the environment is not addressed in this Interim ROD, which considers protection of human health. The next five criteria are primarily balancing criteria used for comparison with other remedial action alternatives. The final two criteria, state and community acceptance, are used to address the concerns of state agencies and surrounding communities. The remedial action alternatives discussed above were evaluated on the basis of these criteria in the FS (*HLA, 1995*); Table 1 summarizes this evaluation.

2.11 The Selected Remedy

Alternative 3 is the selected alternative based on the assessment in the FS and as summarized in Table 1. Alternative 3 met the first two screening criteria and was judged to be superior in the following balancing criteria:

- Long-term effectiveness and permanence
- Reduction of toxicity, mobility, and volume of chemicals
- Short-term effectiveness
- Cost effectiveness.

The State of California (Cal/EPA, DTSC and RWQCB) concurs with the selection of Alternative 3. Community acceptance is discussed in the responsiveness summary (Section 3.0). Details regarding soil remedial actions under the selected alternative are presented in Section 2.9.

2.12 Statutory Determinations

The selected remedy meets the requirements of Section 121 of CERCLA to:

- Be protective of human health
- Comply with ARARs
- Utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable
- Satisfy the preference for treatment that reduces toxicity, mobility, and/or volume as a principal element
- Be cost effective.

2.12.1 Protection of Human Health

The selected remedy provides the greatest degree of protection for human health. Implementation of the selected remedy

includes removal and recycling of the source of metals contamination, i.e., spent ammunition, and removal and placement of soil contaminated with metals from areas where concentrations of lead exceed the health-based level of concern in an engineered landfill.

2.12.2 Compliance with ARARs

The selected remedy complies with ARARs. ARARs are "applicable" or "relevant and appropriate" requirements that the Army is required to comply with. The categories of ARARs are: action-specific, chemical-specific, and location-specific. Action-, chemical-, and location-specific ARARs for the selected alternative are presented in Appendix A. In addition to complying with ARARs, the Army has the discretion to consider guidance and health advisories as "to-be-considered" (TBC) requirements. Those TBCs that the Army selects become performance standards that must be complied with.

2.12.3 Cost Effectiveness

The selected remedy is a cost-effective solution for reducing risks to human health. There are no costs associated with the no action alternative. The estimated cost of the selected remedy is approximately $7,115,000, which is lower than the treatment alternative and commensurate with the higher level of protection of human health provided relative to the no action alternative.

2.12.4 Utilization of Permanent Solutions and Alternative Treatment Technologies or Resource Recovery Technologies

The selected remedy uses permanent solutions, alternative treatment technologies, and resource recovery technologies to the maximum extent practicable.

- Placement of soil at the OU 2 landfill is an innovative, cost-effective waste management approach, and significantly minimizes the need for additional resources such as backfill material for construction of the foundation layer for capping and closure of the existing landfill.
- Recycling of spent ammunition is a permanent solution and resource recovery technology that provides beneficial reuse of the metals present at the site.

2.12.5 Preference for Treatment as a Principal Element

The selected remedy satisfies the statutory preference for treatment as a principal element in addressing the human health threats posed by Site 3 to the extent possible. The principal threat to human health identified during the RI is posed by lead in soil. The source of the lead is erosion of spent ammunition deposited at the site. The selected alternative separates and recycles the metals in the spent ammunition, eliminating the source of contamination to the soil, and reduces the mobility of the metals in soil through placement under an engineered landfill cap In addition, the remedy separates and recycles the metals in spent ammunition, and reuses soil as foundation layer material for the cap at the OU 2 landfill.

Treatment of soil will not be performed because an equally protective alternative is available through placement of the soil at the OU 2 landfill.

2.13 Documentation of Significant Changes

As described in the Responsiveness Summary (Section 3.0), the Proposed Plan for Site 3 was released for public comment on May 7, 1996, and a public meeting was held on May 18, 1996. This Proposed Plan identified excavation, separation, and recycling of spent ammunition, and placement of lead-containing soil at the OU 2 landfill as the selected remedial response action.

Comments collected during the 60-day public review period between May 7 and July 8, 1996 did not necessitate any significant changes to the conclusions or procedures outlined in the Site 3 Feasibility Study and Proposed Plan (*HLA, 1995, 1996b*).

3.0 RESPONSIVENESS SUMMARY

3.1 Overview

At the time of the public review period for the Army's Remedial Investigation/Feasibility Study and Proposed Plan for Site 3, the Army identified a preferred remedial alternative. The preferred remedial alternative consisted of the excavation, separation and recycling of spent ammunition, and placement of lead-containing soil at the CAMU. This remedial alternative was selected on the basis of an evaluation of three remedial alternatives, one of which considered four different treatment methods.

On the basis of the written and verbal comments received, the Army's Proposed Plan was generally accepted by the public. However, several citizens expressed concern regarding the following issues:

- The baseline Human Health Risk Assessment, development of a lead cleanup level, definition of the soil remedial unit, and the remedial alternatives considered.
- The handling of ordnance and explosives (OE) at Site 3, as well as the physical hazards associated with spent ammunition and OE, and implementation of institutional controls.
- Concerns regarding the capacity and design of the CAMU at the OU 2 landfill.
- The role of the state in officially commenting on the RI/FS and Proposed Plan regarding the California Environmental Quality Act (CEQA) and other state ARARs.
- Amendment of the OU 2 ROD to address the OU 2 landfill's designation as a CAMU to receive excavated soil from Site 3.

3.2 Background on Community Involvement

In 1991, Fort Ord was added to the Department of Defense BRAC List. The economic impact of Fort Ord's imminent closure has created much community interest relative to the potential economic reuse of portions of Fort Ord. Specifically, Site 3 is under consideration for reuse as a park by the California Department of Parks and Recreation.

Focused community involvement regarding Site 3 has most recently involved the public review of the Army's Remedial Investigation/Feasibility Study and Proposed Plan for Site 3 (*HLA, 1995, 1996b*). The public comment period began May 7, 1996, and closed July 8, 1996. A public meeting was held on May 18, 1996 to present the Army's Proposed Plan to the public describing the CAMU and planned remedial actions at the site.

This responsiveness summary responds to written comments received during the public comment period as well as oral comments expressed during the public meeting.

3.3 Summary of Comments Received During the Public Comment Period and Department of the Army's Responses

Comments raised during the Site 3 Proposed Plan public comment period are summarized below. The comments received from the comment period are categorized by relevant topics.

3.3.1 Remedial Alternative Preferences

- Several interested parties were concerned about the following issues:

  - Consideration of a wide enough range of alternatives.

  - Discussion of the CAMU at the OU 2 landfill under the preferred alternative, and

  - How institutional controls, long-term monitoring, and OE removal and physical hazards would be handled.

- Several citizens expressed concern that additional remedial alternatives should have been considered for soil at Site 3.

Department of the Army's Response: The remedial alternatives analyzed were selected by evaluating the universe of applicable technologies. After considering each technology, the following remedial alternatives were developed: 1) a no action alternative [Alternative 1], 2) four treatment and recycling options [Alternative 2], and 3) two disposal or placement and recycling options [Alternative 3]. In addition, four treatment options were evaluated in bench-scale laboratory studies, and the most promising option was further evaluated in a pilot study at Range 2 as recommended under the treatment alternative [Alternative 2]. The Army feels these options represent a broad range of alternatives.

- Several interested parties expressed concern that an additional remedial alternative should have been developed to address areas of 1 to 10 percent surface coverage of spent ammunition. There were also questions about how estimated blood lead levels were calculated, and concerns about residual lead concentrations.

  Department of the Army's Response: For Site 3, the health-based level of concern (HBLC) for lead in soil was calculated as 1,860 mg/kg. At this concentration blood-lead levels are not expected to exceed the level of concern, and correspond to concentrations of lead in the areas of greater than 10 percent surface coverage. The Human Health and Ecological Risk Assessments recommended remediation only in areas containing greater than 10 percent surface coverage of spent ammunition. Thus, the soil remedial unit for Site 3 was defined by those areas with greater than 10 percent surface coverage and remedial alternatives were developed for this remedial unit. On the basis of CERCLA guidance, remedial alternatives are developed for the remedial unit identified, i.e., soil with concentrations above HBLCs in areas of greater than 10 percent surface coverage of spent ammunition.

  Under the most conservative reuse scenario, no adverse health effects are anticipated for the receptors evaluated. A post remediation risk assessment evaluating established chemicals of potential concern for soil will be conducted. This assessment may show that the site is safe for any use and deed restrictions are not necessary. If deed restrictions are determined to be necessary, the appropriate restrictions will be attached to the deed of this property. These restrictions will limit reuse and notify the potential owner of the presence of residual contamination.

- One citizen had concerns that the random walk scenario was not an accurate estimate of how people would spend time at the site, because people would tend to congregate and spend time in one area.

  Department of the Army's Response: Access throughout the dunes will be limited to boardwalks due to the presence of habitat supporting sensitive species, including the endangered Smith's Blue Butterfly. Adequate public education about the butterfly habitat and the importance of staying on boardwalks will minimize exposures. The random walk exposure was used because it is unlikely that an individual will spend all of their time in one area (of either the 1 to 10 percent or greater than 10 percent surface coverage areas) that represents less than 5 percent of the 780 acres of the beach ranges. In addition, institutional controls such as boardwalks and posting of signs will minimize exposure in these areas.

- One citizen expressed concern that the state has a "safety level" for lead of 1,000 ppm (mg/kg), and the EPA has a preliminary remediation goal [PRG] of 400 mg/kg, and wondered why the cleanup level for Site 3 was above these values.

  Department of the Army's Response: State of California law states that 1,000 ppm is the total threshold limit concentration (TTLC) used for determining handling and disposal criteria of hazardous waste; it is not a safety level for lead. EPA has published a preliminary remediation goal (PRG) for lead of 400 mg/kg, and Cal EPA has published a value of 130 mg/kg, which are both intended to be protective under a residential scenario. In addition, these are

not enforceable, site-specific values, but recommended guidelines, to be used when evaluating a site. Site-specific information and data can, and should, be incorporated into the development of a final remedial goal as was performed for the Human Health Risk assessment for Site 3.

The PRGs cited are not nationally accepted standards, but are guidelines intended for use in preliminary evaluations of residential sites. EPA and DTSC support the use of site-specific data and information in the development of final remedial goals.

- Several citizens expressed concern that Alternative 3 (the disposal or placement and recycling option) did not discuss placing excavated soil in the CAMU.

  Department of the Army's Response: The draft final and final (August and October, 1995) versions of the RI/FS included a discussion of the CAMU and were revised from the earlier draft version (June 1995) cited in the comment. The earlier draft was revised based on agency comments and ongoing discussions regarding designation of the CAMU.

3.3.2 Technical Questions/Concerns Regarding Remedial Alternatives

- In general, several citizens expressed concern over how institutional controls would be implemented.

  Department of the Army's Response: Institutional controls described in the remedial alternatives will be implemented in conjunction with land use scenarios dictated by the FORA Reuse Plan (*FORA, 1996*) and the California State Parks and Recreation Reuse Plan (*CSPR, 1995*).

- Interested parties expressed concern about the CAMU; specific concerns were as follows:

  - A citizen stated "I have concerns that the OU 2 landfill CAMU may not be able to accommodate all the soil planned for disposal at the OU 2 site. How accurate are the projections about the amount of soil needed as the foundation layer for the cap, and the amount of soil planned for removal to the OU 2 landfill CAMU?"

    Department of the Army Response: If excess materials are generated, the landfill cover grades can be modified in the field to accommodate all the soil and documented as as-built conditions. The Design Analysis (*HLA, 1995*) allows for flexibility in the final waste volume without affecting the efficiency or effectiveness of the design.

- A citizen expressed concern about the design of the landfill, including the liner, the prevention of leakage to the surrounding soil, and the integrity of the landfill "structure."

  Department of the Army Response: The OU 2 landfill cover system was developed in the OU 2 feasibility study (*Remedial Investigations/Feasibility Study, Site 2 Landfills, Fort Ord, California*, Dames & Moore, December 18, 1992) and recommended in the ROD (*Final Record of Decision, Operable Unit 2, Fort Ord Landfills, Fort Ord, California*, U.S. Army, June 22, 1994). Design details are presented in the Design Analysis (*Draft Final Design Analysis, Fort Ord OU 2 Landfill Final Closure*, Harding Lawson Associates, December 5, 1995), Specifications (*Specification No. 9705, Fort Ord OU 2 Landfill Final Closure, Fort Ord, California*, Harding Lawson Associates, July 5, 1995, the Closure Plan (*Final Closure and Postclosure Maintenance Plan, Fort Ord OU 2 Landfill Final Closure, Fort Ord, California*, Harding Lawson Associates, December 5, 1995), and the Design Drawings (*Fort Ord OU 2 Landfill Final Closure*, October 20, 1995).

  The landfill cover will consist of a foundation layer to support the upper layers of the cover, a liner, and a vegetative layer to protect the liner and support the growth of native vegetation. The purpose of the liner is to minimize the infiltration of stormwater into the refuse. The cover will be constructed in accordance with California Code of Regulations Title 23,

Division 3, Chapter 15, which contains landfill closure requirements.

- A citizen expressed concern about the mixing of wastes in the CAMU, specifically: interactions of organic and inorganic chemistries, shifting earth, water encroachments, solubilities, pH of the soil and the CAMU contents, and their reactions with the liner and UXO. The citizen also expressed concern about the composition of "source excavations."

  Department of the Army's Response: The liner will not be in contact with the waste. A technical memorandum addressing these issues is in preparation and will become part of the public record. The landfill cover design has taken into account seismicity in the Monterey area and the potential for both short-term and long-term settlement of the waste mass. The cover system will minimize infiltration of water into the wastes. Available information on the composition of materials to be excavated and placed in the CAMU is presented in the Final RI/FS (*HLA, 1995*).

3.3.3 Costs/Funding Issues

- Several citizens expressed concern that the cost estimates for remediation of the sites did not include costs associated with clearing OE or UXO or remediation of areas outside the remedial unit (i.e., areas of 1 to 10 percent bullet distribution) for comparison purposes.

  Department of the Army's Response: OE and UXO at Fort Ord will be addressed under a separate action; therefore, costs were included for OE and UXO clearance in excavation areas only. The soil remedial unit and alternatives did not include the 1 to 10 percent areas; therefore, there are no associated costs.

3.3.4 Enforcement

- Several citizens expressed concern that the DTSC's official comments had not addressed CEQA, and the list of ARARs should include California Civil Code d3479 regarding residual contamination creating a public nuisance.

  Department of the Army's Response: The California Environmental Quality Act (CEQA) is a set of procedures to be followed by the State in its exercise of discretionary approval authority. With the exception of Public Resources Code section 21002, CEQA is comprised of procedural, as opposed to substantive, requirements. Although the State is not exercising its discretionary approval authority in the context of this Interim ROD, it would be required to follow Public Resources Code section 21002, which sets out the State's policy in selecting between or among alternative remedies, in any case where it does exercise such authority. Since the Congress intended that the federal lead agency follow all substantive requirements that are more stringent than federal requirements, it is appropriate to include Public Resources Code section 21002 as an applicable requirement.

  The State's alleged failure to comply with Public Resources Code section 21101 does not affect the validity of the Army's actions, since it is the State, and not the federal government, that is obligated to undertake a certain action under this State law. The intent of section 21101 is to ensure that the State give the same kind of consideration to a federal project that it would give to a State project. To the extent that the information contemplated by section 21101 has already been provided by the State to the Army in the course of this cleanup, there is no need for the State to repeat it in its official comments.

3.4 Remaining Concerns

- Several citizens expressed concern that the Proposed Plan could not be approved until the OU 2 ROD was amended to address designation of the landfill as a CAMU for soil excavated from the Site 3, as well as consolidation of soil from Area A.

Department of the Army's Response:

A ROD amendment is required when the scope, performance, or cost of a remedy fundamentally changes. Use of excavated soil from the RI sites and Area A as foundation layer material in the OU 2 landfill and its designation as a CAMU does not fundamentally change the remedy selected in the OU 2 ROD; therefore, a ROD amendment is not necessary. These modifications to the OU 2 ROD were addressed in the following documents as required under CERCLA: (1) an *Explanation of Significant Differences, Area A, Operable Unit 2 Landfill* (August, 1996), (2) a *Remediation Waste Consolidation Fact Sheet* (October, 1996), and (3) an *Explanation of Significant Differences (ESD) Consolidation of Remediation Waste at a Corrective Action Management Unit (CAMU), Operable Unit 2 Landfill* (November, 1996).

In addition, a public meeting was held on October 29, 1996 regarding waste consolidation in the CAMU, and public comments were accepted from October 8 through November 8, 1996.

4.0 REFERENCES

Agency for Toxic Substances and Disease Registry (ATSDR), 1993. *Toxicological Profile for Lead*. U.S. Department of Health and Human Services. April.

Centers for Disease Control and Prevention (CDC), 1991. *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. DHHS Publication No. PHS 921-50212.

Harding Lawson Associates, 1995. Final Basewide Remedial Investigation/Feasibility Study. October.

____, *1996a. Draft Conceptual Remedial Design Report and Pilot Study Construction Summary Report, Site 3, Fort Ord, California. January.*

____, *1996b. U.S. Army Proposes Cleanup Plan to Address Human Health at Site 3 Beach Trainfire Ranges, Fort Ord, California. May.*

____, *1996c. U.S. Army Proposes Cleanup Plan For Remedial Investigation Sites at Fort Ord, California. May.*

U.S. Army Corps of Engineers (COE), Sacramento District, 1994. *Installation-Wide Multispecies Habitat Management Plan*. February. Technical Assistance from Jones & Stokes Associates, Inc.

TABLES

TABLES

Table 1. Summary of Remedial Alternatives Evaluation
Site 3 Record of Decision
Fort Ord, California

	EPA Evaluation Criteria							
Alternative	Short-Term Effectiveness	Long-Term Effectiveness	Reduction of Toxicity, Mobility, and Volume (T, M, V) Through Treatment	Implementability	Compliance with ARARs	Overall Protection of Human Health and the Environment	Regulatory Agency and Community Acceptance	NPV Cost
Alternative 1 No Action	Not effective	Not effective	No reduction of T, M, or V	Easy to implement	No	Not protective	Likely not acceptable	$0
Alternative 2 Excavation, Separation, Recycling, and Treatment	Effective SCT = 8-12 mo.	Effective Will achieve TCLs	Soil: Reduction of T, M, and V Spent Ammunition: Reduction of T and M, no reduction of V	Implementable Requires some specialized equipment	Yes	Protective	To be determined	$11,480,000
Alternative 3 Excavation, Separation, Recycling, and Placement at OU 2 Landfill	Effective SCT = 6-8 mo.	Effective Will achieve TCLs	Soil: Reduction of M and V, no reduction of T Spent Ammunition: Reduction of M, no reduction of T or V	Easy to implement	Yes	Protective	To be determined	$7,115,000

ARARs Applicable of relevant and appropriate requirements
NPV Net Present Value
SCT Soil Cleanup Time
TCL Target Cleanup Level

PLATES

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APPENDIX A

APPENDIX A

APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS FOR THE SELECTED ALTERNATIVE

APPENDIX A

CONTENTS

A1.0 SOIL CHEMICAL-SPECIFIC ARARS 1

A2.0 LOCATION-SPECIFIC ARARS 1

A3.0 ACTION-SPECIFIC ARARS 2

APPENDIX A
APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS FOR THE SELECTED ALTERNATIVE

The promulgated standards described below are chemical-, location-, and action-specific ARARS for the selected alternative: excavation, separation and recycling of spent ammunition, and placement of soil in the OU 2 landfill. The standards described below are "applicable," or "relevant and appropriate" for soil remediation. These standards are designed to be protective of human health and the environment and to be technically achievable with existing analytical and treatment technologies.

A1.0 SOIL CHEMICAL-SPECIFIC ARARS

Chemicals such as lead that are regulated by the state and federal government at hazardous levels are known to be present at Site 3. The following chemical-specific ARARs for soil cleanup have been promulgated for chemicals of concern at this site.

- Identification and Listing of Hazardous Waste, Title 22 California Code of Regulations (CCR), Division 4.5, Chapter 11.

  Excavated lead-containing soil at Site 3 would be classified as a characteristic hazardous waste under the Resource Conservation and Recovery Act (RCRA) if samples indicate the soil contains hazardous levels of these chemicals. Excavated soil from Site 3, which is exempt from these requirements, will be placed at the OU 2 landfill.

- Waste Classification and Management, Title 23 CCR, Division 3, Chapter 15, Article 2.

  Excavated soil at Site 3 would be classified as a designated waste if samples indicate the soil contains nonhazardous levels of chemicals that may potentially degrade waters of the state. Excavated soil from Site 3, which is exempt from these requirements, will be placed at the OU 2 landfill. Chapter 15 will apply to waste placed at the OU 2 landfill.

A2.0 LOCATION-SPECIFIC ARARS

Environmentally or historically sensitive locations have been identified within Site 3 by investigations performed during the RI and Ecological Risk Assessment. Certain endangered plant and animal species are present at the site and the site is within a coastal zone. The following ARARs are applicable to implementation of the soil remedy at Site 3:

- Endangered Species Act, Title16, United States Code (U.S.C.), Section 1531 et seq., as promulgated by Title 50, CFR, Part 402, and the California Endangered Species Act, California Fish and Game Code, Section 2050 et seq.

  The Endangered Species Acts requires action to conserve endangered species and critical habitats upon which endangered species depend. The Habitat Management Plan (HMP) for Fort Ord addresses actions to be taken and will be implemented in conjunction with soil remediation.

- Migratory Bird Treaty Act, 16 U.S.C., Section 703, et seq.

  This Act protects certain migratory birds and their nests or eggs. The HMP for Fort Ord addresses these concerns and will be implemented in conjunction with soil remediation.

- National Archaeological and Historic Preservation Act, 16 U.S.C., Section 469 et seq., and 36 CFR Part 65.

  This Act provides for protection of any historically significant artifacts that may be unearthed during excavation activities. Appropriate actions will be taken if any artifacts are unearthed.

- Coastal Zone Management Act, 16 U.S.C., Section 1456, et seq., and California Coastal Act of 1976.

These Acts require activities conducted in the coastal zone (west of Highway 1) be completed in a manner consistent with the state's coastal zone management plan. Site 3 is within this zone; therefore, the Ecological Risk Assessment will address these concerns as they relate to implementation of the soil remedy.

A3.0 ACTION-SPECIFIC ARARS

Action-specific requirements apply to implementation of soil remedy activities such as excavation, screening, and soil handling. The following action-specific requirements are applicable to the soil remedy at Site 3:

- Monterey Bay Unified Air Pollution Control District (MBUAPCD), Regulations II and X, and National Primary and Secondary Air Quality Standards, 40 CFR Part 150

These regulations and standards establish requirements for sources of air pollution, and the appropriate level of air abatement technology to be applied for specific chemicals that may be generated as toxic air contaminants. The remedial design would need to meet the substantive requirements of these regulations. During excavation, screening, and soil handling activities, appropriate measures such as dust suppression would be implemented to meet these requirements.

APPENDIX B

APPENDIX B

COMMUNITY RELATIONS ACTIVITIES CONDUCTED FOR SITE 3

APPENDIX B

COMMUNITY RELATIONS ACTIVITIES CONDUCTED FOR SITE 3

The following activities have been conducted as part of the Army's public relations and information transfer efforts regarding environmental restoration activities at Site 3, Fort Ord. Presentations, briefings, and/or tours were given to the following groups or organizations, or at the following meetings.

Activity

1996

January 19. *Tour of clean-up activities for Congressman Sam Farr and staff*

January 20. *Orientation and tour for new Restoration Advisory Board (RAB) members*

March 28. *RAB meeting: RI sites*

April 25. *RAB meeting: RI sites*

May 1. *Superfund Roundtable for RAB members and general public*

May 6. *Presentation to Cal. State Univ. at Monterey Bay Environmental Chemistry class*

May 8, 12, 17. *Monterey County Herald Notice: Fort Ord public meeting*

May 18. *Proposed Plan public meeting*

May 23. *Tour of clean-up activities for members of Fort Ord Reuse Authority*

May 23. *RAB meeting: RI sites*

June 3-5. *Monterey County Herald Notice: Extension of Comment Period for the Fort Ord Proposed Plans*

June 10. *Training on DOD/EPA Guidance for RAB members*

June 11. *Presentation to Kiwanis Club on Ordnance and Explosive Waste Issues*

1995

January 26. *RAB meeting: RI sites*

February 23. *RAB meeting: RI sites*

February 24. *Presentation to National Oceanographic and Atmospheric Association*

March 23. *RAB meeting: RI sites*

April 27. *RAB meeting: RI sites*

May 9. *Presentation of OU1 and Superfund to Univ. of Calif. at Santa Cruz extension class*

May 24. *Superfund briefing to Fort Ord Reuse Authority staff*

May 25. *RAB meeting: RI sites*

May 30. *Community Outreach Committee of the RAB public workshop*

June 13. *Beach walk with "Coastwalk"*

June 22. *RAB meeting: RI sites*

July 13. *Presentation to Univ. of Calif. at Santa Cruz "Career Seminar"*

July 26. *RAB meeting: RI/FS report*

August 22-27. *Information Booth at Monterey County Fair*

August 24. *RAB meeting: RI sites*

September 7. *Community Outreach Committee of the RAB public meeting in Seaside*

September 28. *RAB meeting: Site 3*

October 3. *Public meeting on OU1*

October 14. *Information Booth at Marina Birthday Celebration*

October 21. *Community Outreach Committee of the RAB public meeting in Salinas*

October 28. *Community Outreach Committee of the RAB public meeting in Marina*

November 9. *Presentation to League of Women Voters*

November 27. *Seaside Community Forum with Congressman Farr*

November 30. *RAB meeting*

1994

February 7. *RAB/Technical Review Committee (TRC) meeting: RI/FS*

May 11. *RAB/TRC meeting: RI/FS*

October 20. *RAB/TRC meeting: RI/FS*

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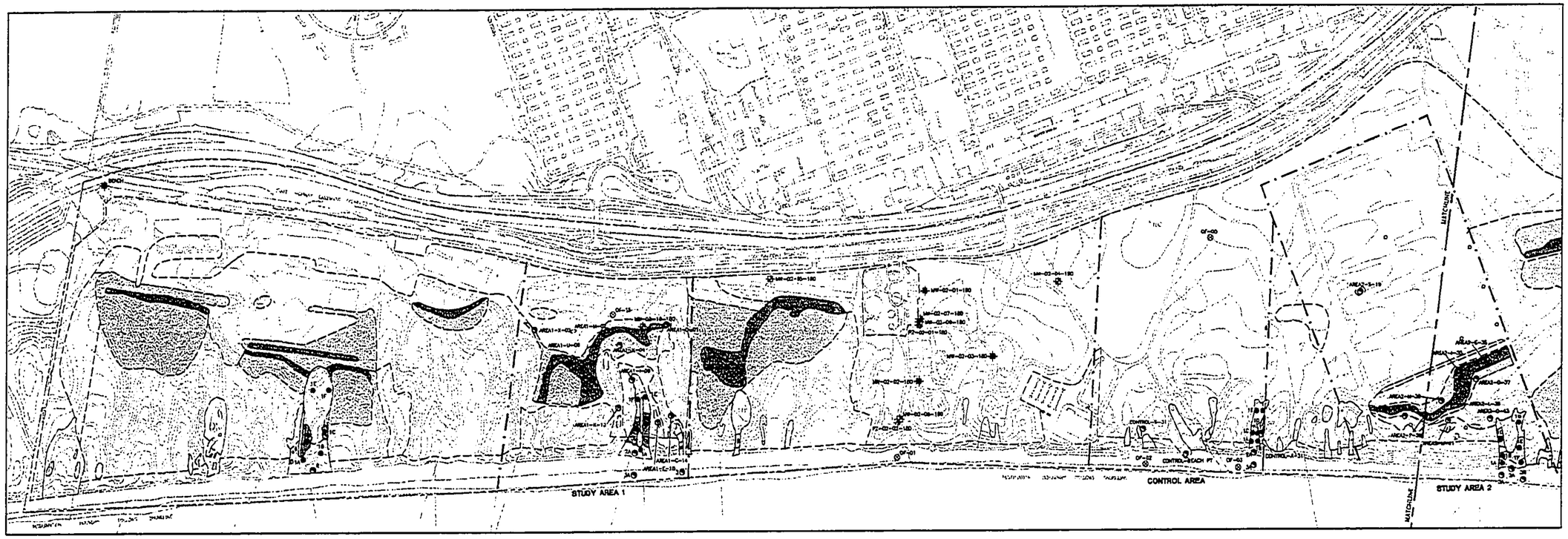

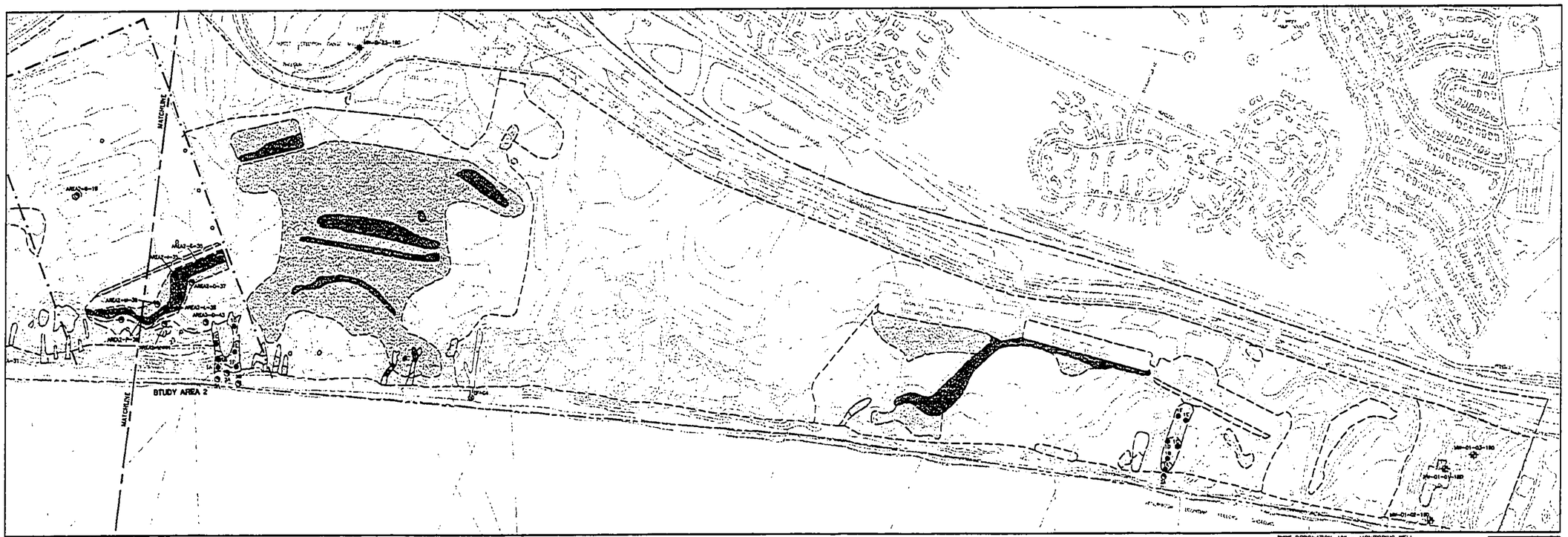

APPROXIMATE SURFACE CONCENTRATION OF SPENT AMMUNITION

- HEAVY, 10% OR GREATER SURFACE AREA COVERED CORRESPONDS TO SOIL REMEDIAL UNIT CONTAINING LEAD ABOVE HOLE OF 1,000 MG/KG
- LIGHT, LESS THAN 10 OF SURFACE AREA COVERED
- WOODCUT, 1 TO 10% OF SURFACE AREA COVERED
- NO SPENT AMMUNITION PRESENT AT SURFACE

0 400 800
SCALE IN FEET

EXPLANATION

- HAND-DUG TEST PIT
- CONFIRMATION SAMPLE
- MONITORING WELL (HLA)
- MONITORING WELL (BY OTHERS)
- PIEZOMETER NEST (HLA)
- SEDIMENT SAMPLE FROM STORM DRAIN OUTFALL PIPE
- SITE BOUNDARY
- STUDY AREA BOUNDARY
- 160 GROUND SURFACE CONTOUR (FEET ABOVE MEAN SEA LEVEL, CONTOUR INTERVAL 10 FEET)
- BUILDING
- DUNE BLOWOUT LOCATION WITH SURFACE CONCENTRATION OF SPENT AMMUNITION

TYPE DESIGNATION: MW = MONITORING WELL, SS = SURFACE SAMPLE, HP = HYDROPUNCH SAMPLE, OS = OUTFALL SAMPLE, PZ = PIEZOMETER, SB = SOIL BORING, SG = SOIL GAS, PB = PILOT BORING, TR = TRENCH
SITE NUMBER
MW-03-01-180
AQUIFER DESIGNATION, WHERE APPLICABLE (180-FOOT AQUIFER)
WELL, PIEZOMETER, SOIL BORING, SOIL GAS POINT, PILOT BORING, TRENCH NUMBER

Site 3
Fort Ord Boundary
VICINITY MAP

NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
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Harding Lawson Associates
Engineering and Environmental Services

Site 3 Record of Decision
Fort Ord, California

Soil Remedial Unit

PLATE 1

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