

5.0 Real Estate

5.1 Ownership

On 4 August 1917, the government purchased 15,809.5 acres from the David Jacks Corporation for the sum of \$162,095.00. The reservation was expanded to 20,000 acres in 1940. During the following two years, the government acquired additional land. The people of Salinas and the Monterey Peninsula bought 274 acres of sand dunes just south of the city of Marina and donated them to the Army for use as firing ranges. The lands for the Fritzsche Army Air Field (FAAF) were added to the reservation in 1960. This brought the total acreage to 28,953.58 acres.

A detailed real estate survey is currently being performed by the Sacramento District. Further information on real estate is also contained in the Fort Ord Environmental Impact Statement.

6.0 PASI Report and Site Specific History Update

The following sites are shown on the Known and Suspected OE Site Map in Appendix B. Many of the sites have military grid coordinates taken from historical base maps (Appendix D). Additionally, many of the latter sites have GPS coordinates based on site visits that used a hand-held Trimble/Scout Navigational GPS using North American Datum (NAD) 1929. The generic Training Sites (TS) 1-25 are listed under OE Site 27. A second map called OE Sites (requiring further investigation or documentation) included in Appendix B, shows only previously remediated sites and sites that need further investigation/removal actions. Sites that require no action, based on interview information and OE specialist inspections, have been excluded from this map. In determining which sites required no further action, if small arms were alleged to have been used and the site inspection confirmed that, then the site needed no further action or surface clearance only. If the site was alleged to have been used for anything larger than small arms, but the site inspection discovered only small arms, the site would still be recommended for further investigation or sampling.

6.1 Site OE 1, Flame Thrower Range (Vicinity FR 069591) (28.67 acres)

Description: This area was identified during archival investigations. A flame thrower range appears in this vicinity on a historical map, Map of Fort Ord Training Areas & Facilities, 10 January 1958, and also appears on a 15 July 1957 map of the same name, slightly to the east of this vicinity. The area shown on the 1958 map is suspected to have been located at the southern end of an existing fenced drainage area near Patton Housing Area. The area shown on the 1957 map is suspected to have been located south of Patton Elementary School and partially within Patton Housing Area.

Investigation History: The Army's OE contractor HFA sampled an area within the western end of the Patton Housing Area between 11 January 1994 and 24 February 1994. Additionally, 4 grids were placed and sampled between Sites 1 and 6. Five M1 Practice Mines were discovered and removed during that sampling activity. The Phase I EE/CA expanded the site boundary and recommended that confirmatory sampling be conducted.

Recommendation: Confirmatory sampling should be conducted in accordance with the Phase I EE/CA recommendation.

6.2 Site OE 2, Chemical Training Area (Vicinity FR 075575 to 078577; area between intersection of Fifth and Eighth Streets and intersection of Imjin and Eighth) (33.49 acres)

Description: This area was identified during archival investigations. This area was identified as a chemical training area by Mr. Maurice Macbride, who was a military dependent during 1933-1947. He stated he remembered watching soldiers training with protective masks on. He stated that later the area was used for landmine warfare training.

Mr. Lee Stickler, who was in the Field Artillery on Fort Ord in 1940-1941, and later served as the Range Control Officer from 1971-1989, stated that the area was a horse corral when he was at Fort Ord. This is confirmed by a Master Plan of Fort Ord map from 1943-1946.

Two point three six inch practice rocket (bazooka) rounds were discovered on the hillside to the east of Pete's Pond. This area is adjacent to the 5th Avenue Cutoff and is also known as the Pete's Pond Extension. Chunks of concrete, that may have been targets, were observed in that area during the ASR site walk.

Investigation History: Several 2.36" practice rockets were removed from the site before the base closed. Additionally, 2.36" practice rockets were discovered during the Hazardous, Toxic, & Radioactive Waste (HTRW) excavation of RI/FS Site 16 (specifically the Pete's Pond Extension on the side of the hill near the DOL Maintenance Yard). An additional 340 2.36" practice rockets were discovered in burial pits during excavations. All rockets were disposed of by detonation. The following lists the current discoveries:

4-3-97	(1) 2.36" Practice Rocket
4-10-97	(202) 2.36" Practice Rockets
4-30-97	(340) 2.36" Practice Rockets

The Army's OE contractor, HFA, sampled 20 grids in the area between 13 January 1994 and 24 February 1994. Two expended/inert OE items were discovered during sampling, (practice grenade and practice bomb). No live OE items were discovered.

Recommendation: The Pete's Pond Landfill, as this site is known, (also called RI/FS Site 16) has been excavated and removed. This site is recommended as a NOFA in accordance with Phase I EE/CA.

6.3 Site OE 3, Range 49, Old Demolition Area, (Vicinity ER 088554) (10 acres)

Description: The site served as a landmine warfare, anti-armor, and Molotov Cocktail training area. Interviews evidenced that over the years a whole host of

munitions were destroyed. The only visible remains of this range were two blackened areas where armored vehicles sat as targets for Molotov Cocktails. The exact location of the demolition range could not be pinpointed.

Investigation History: During 1993-1994 the Army's OE contractor, HFA, conducted sampling at 23 grids. Thirty-four AT Mines, Training , Inert and 153 inert 81mm Practice Mortar, and miscellaneous firing devices have been found. Further studies of historical photos and maps show that the safe disposal area (SDA) is slightly north of Range 49. It was originally thought that "SDA" stood for Safe Disposal Area. At this time SDA is believed to be Squad Defense Area. This entire area is also included within Site OE 54 which has been identified by Mr. Fred Stephani, former Fort Ord Fire Chief, as having several uses such as grenade range, firing point for launched projectiles and artillery.

Recommendation: A removal action is recommended in accordance with Phase I EE/CA.

6.4 Site OE 4, CBR Training Areas, (Vicinity 4A-FR 082557 (6.31 acres), 4B-091552 (7.05 acres), 4C-096568 (7 acres) and 4D-082545)(7 acres)

Description: These facilities appear on historical maps (Fort Ord Training Areas & Facilities) 15 July 1957 and 10 January 1958. There is a gas chamber where soldiers tested their masks for leaks at Site 4B.

Investigation History: During 1993-1994 the Army's OE contractor, HFA, conducted sampling at these sites. Six grids were reportedly sampled within the site and no live OE was found. The site boundary has recently been surveyed. The sampling at Site 4A found ten small arms items, one inert training Grenade Fuze, and one inert Law, Subcaliber. Site 4B had six grids sampled by HFA which found 58 live small arms items, one live practice 40mm cartridge, and two expended OE items. HFA sampled 5 of 6 grids at Site 4C which has now been subsumed into the larger CSU Footprint removal action. A removal action was accomplished at 100% of the site when the CSU Footprint removal action was done. The fourth site, now called Site 4D is subsumed into OE Site 40, the Parker Flats Gas House. Sampling was not conducted at this site by HFA. The Army's OE Contractor, CMS, conducted sampling.???

Recommendation: Further investigation and confirmatory sampling in accordance with Phase I EE/CA is recommended for site 4A. Site 4B has completed a removal action in accordance with Phase I EE/CA. In accordance with Phase I EE/CA Site 4C has a 100% removal action completed as part of the CSU Footprint. Site 4D should be investigated and sampled in accordance with OE Site 40.

6.5 Site OE 5, South of East Garrison, (Vicinity FR 133565) (28 acres)

Description: A 3.5" rocket motor was discovered south of East Garrison. It was discovered in the branches of a live oak tree. No known range is or was laid out in this area for firing these rockets. According to Mr. Roy Durham, the former range control officer "a tank subcaliber range was planned but never constructed."

Investigation History: In 1993-1994 the Army's OE contractor, HFA, sampled 15 grids (13%) at this site to the depth of 3 feet and did not find evidence of OE.

Recommendation: No further action is recommended for this site.

6.6 Site OE 6, Mine and Booby-Trap Training Area, (Vicinity FR 067595) (2.55 acres)

Description: This site is located in the Patton Housing area and appears on historical maps (Fort Ord Training Areas & Facilities), 1957-1958.

Investigation History: It is possible that practice landmines and booby-traps may have been left behind, or never uncovered. The Army's OE contractor, HFA, completed 100% sampling in this site. One live small arms cartridge and one inert AT, M1 Mine were discovered. In April 1997, CMS resurveyed the Site 6 grid and site boundaries using current GPS technology. Survey data currently reflects that all grids were placed within the site.

Recommendation: No further action is recommended in accordance with the Phase I EE/CA.

6.7 Site OE 7, Mine and Booby-Trap Training Areas, (Vicinity FR 091570) (4 acres)

Description: This site appears on historical maps (Fort Ord Training Areas & Facilities), 1957-1958. This site is within the CSU Footprint.

Investigation History: Initially, 7 grids were sampled by the Army's OE contractor HFA. Live small arms were found, 46 live Mine Activators, and 3 inert AT Training Mines. A removal action was accomplished at 100% of the site.

Recommendation: A removal action has been completed as part of the CSU Footprint removal action.

6.8 Site OE 8, Mine and Booby-Trap Training Areas, (Vicinity FR 097568) (2 acres)

Description: This site appears on historical maps (Fort Ord Training Areas & Facilities), 1957-1958.

Investigation History: This site was 100% sampled by the Army's OE contractor, HFA, (1993-1994). Live small arms (6,362) and 502 live OE items were found. A removal action was accomplished by HFA as part of the CSU Footprint removal action.

Recommendation: A removal has been completed as part of the CSU Footprint removal action.

6.9 Site OE 9, Mine and Booby-Trap Training Areas, (Vicinity FR 108544) (2 acres)

Description: This site appears on historical maps (Fort Ord Training Areas & Facilities), 1957-1958.

Investigation History: The Army's OE contractor, HFA, sampled the entire site (1993-1994). Four expended items of OE were found, a 57mm practice cartridge case, a 40mm expended signal cartridge, a Powder Time Train (PTT) projectile fuze, and a tail Rifle Grenade.

Recommendation: Confirmatory sampling should be performed at this site in accordance with the Phase I EE/CA.

6.10 Site OE 10, Leary Hill & Elliot Hill Region (506 acres)

Description: This area includes maneuver areas historically known as training areas K2 and K3 (Fort Ord Training Areas & Facilities). During walk through, of this area by base personnel, 81mm HE and 60mm illumination mortar rounds were observed on the surface. Maps from 1968 and 1972 show an EOD range called Range 50 (FR 109542) in this same area. Because of the approximate size of this site (506 acres), this site has been divided into two areas, Site 10A (Leary Hill Region, 258 acres) and Site 10B (Elliot Hill Region, 248 acres). For purposes of further discussion they will be referred to this way. Additionally both areas are referred to in a Fire Department ScrapBook Firebreak Map dated 1960, as "area of unusual hazard and possible live dud area".

Investigation History: 10A: This area subsumes the training site, TS-9 (OE 27). TS-9 is identified as 1 of 25 training sites shown on a historical map (Beardsley). The Army's OE contractor UXB conducted a removal action in 1994-1995 of 14 acres (47 grids) designated as firebreaks. These grids received removals

to a depth of 4 feet. A total of 5,018 live small arms, 5 live OE, and 11 expended OE were discovered by UXB. Another Army Contractor, CMS, conducted additional sampling (115 grids) in 1995-1997. A total of 6,745 live small arms, 61 live OE, and 18 expended OE items were found by CMS. The Phase I EE/CA, Appendix B, documents the OE items removed.

Recommendation 10A: Conduct removal actions in accordance with the Phase I EE/CA.

Investigation History: 10B. This site was additionally identified as a result of interviews with the former Fort Ord fire chief. He recalled that in the 1940s and 1950s, soldiers were seen firing shoulder-launched projectiles and rifle grenades toward cliff faces and in canyons at the site. A 35 grid removal action consisting of access roads leading to OE Site 19 has been conducted by the Army's OE contractor UXB in this area. A total of 771 small arms were found during this action. This area also subsumes Site TS-10.

Recommendation 10B: Sampling activities are currently being conducted at this site. Further recommendations for this site will be based on this sampling effort.

6.11 Site OE 11, Demolition Training Area, (Vicinity FR 130548) (5-15 acres)

Description: Identified by SFC Grimes, a former NCOIC of Range Control, who stated the area was an old EOD range. The exact location was unknown. He also stated that large portions of the area were burned off several years ago. During a walk through, pieces of 40mm training practice tracers were spotted. A 1946 Historic Map (Master Plan Fort Ord) also shows a live hand grenade training range in this expanded site. Additionally, a 15 July 1957 Fort Ord Training Areas & Facilities map shows a Frag Zone and an Engineer Training Area "C" in this same area.

Investigation History: This area has been expanded because of findings of MK2 hand grenades in eroded gullies as far as 300 meters north of the site boundary. Sampling for this site was scheduled by the Army's OE contractor HFA, however, the sampling was deferred by the CEHND Safety Specialist when a live MK2 Hand Grenade was found during survey gridding. The site was littered with fragments of MK2 Hand Grenades. In 1994-1995 UXB brush cleared the area, but no intrusive work was initiated.

Recommendation: Conduct further sampling and removal actions.

6.12 Site OE 12, Picnic Canyon, (Vicinity FR 133538 south to 133530) (28 acres)

Description: This area has been identified based upon reports of base personnel finding hand grenades, 37mm gun, and 40mm anti-aircraft projectiles.

Investigation History: During 1993-1994 the Army's OE contractor HFA located 12 40mm training practice (TP) cartridges in this site. There is no other mention of this site in the HFA After-Action report. In 1994-1995 the Army's OE contractor UXB conducted random sampling (20 grids) to a depth of 4 feet. Every grid sampled was documented as containing OE. A total of 6,960 live small arms, 4 live OE items, 1 pound of pyrotechnic compound, and 92 expended OE items were discovered. The Phase I EE/CA, Appendix B, Table B-1 provides a complete list of the items found. According to the interviews the hills in this canyon were firing points and target areas for mortar, rifle grenades, and shoulder launched projectiles in the 1940s, and 1950s. Helicopters also fired weapons in this canyon. Also included in this site are the hilltop at Perry Ridge, and what used to be known as Base Camp Alfa--POW Training Area. As a result of an interview with Fred Stephani, this adjacent area was inspected by an EOD specialist. During site sampling only expended blank small arms munitions and a 40mm practice grenade were located. No HE ordnance was discovered. No additional ordnance or munitions were found. Reference Appendix C for RAC sheet.

Recommendation: Conduct removal action in accordance with Phase I EE/CA.

6.13 Site OE 13, Practice Mortar Ranges, (Vicinity Grid Square 13A-FR 0958 (56 acres), and 13B-FR 087563 to 095561) (225-251 acres)

Description: These ranges were identified as mortar practice ranges during the 1940's and 1950's. (Shown on historical maps [Fort Ord Training Areas & Facilities] 15 July 1957 and 10 January 1958.) They are believed to have used practice ammunition and sabot trainers. For purposes of further discussion, this site is subdivided into 13A-FR0958 and 13B-FR087563.

Investigation History 13A: The Army's OE contractor HFA conducted sampling of 20 grids in this site. No OE was located during sampling operations. Additionally a large part of this site called Area A (former Fort Ord Landfill) was excavated.

Recommendation 13A: Further confirmatory sampling of the area should be performed in accordance with the Phase I EE/CA.

Investigation History 13B: In 1993-1994 the Army's OE contractor HFA initially sampled 57 grids. A total of 1,482 live small arms, 591 live OE items, and 175 expended OE items were discovered. A removal action was accomplished covering the northern one-third of the site by HFA as part of the CSU Footprint removal action (Reference Appendix B EE/CA). In 1994-1995 the site was surveyed and may have had brush clearing and marking done by UXB. No intrusive work was done. On 11 March 1997, while the Army's OE contractor CMS was conducting a Time Critical Removal Action (TCRA) in the southern portion of the site, two chemical agent identification sets (CAIS) were discovered and removed. All the contents of each set were found intact.

Site OE 13C is the wedge between the CSU footprint and 13B. It is shown as such to reflect final accurate survey data for this location, and is subsumed by the CSU footprint.

Recommendation 13B: Removal action is in progress.

6.14 Site OE 14, Pilarcitos Canyon & Lookout Ridge, (Vicinity Grid Squares FR 1250 & 1251)

Description: Based on interviews, this site was suspected of containing 7" and 8" naval gun rounds, that overshot the impact area. A 1957 map (Fort Ord Training Areas & Facilities) shows a mortar position in this area; a 1956 map shows a subcaliber artillery training area P-5 in this same area. According to an interview with Mr. Roy Durham, former Range Control Officer, Range P-5 was used from approximately 1972 through 1992 for subcaliber artillery and mortar practice. For purposes of this report, this site is divided into five subsites 14A through 14E:

14A - Lookout Ridge II (LOR 2) (166 acres).

Investigation History 14A: The Army's OE contractor HFA conducted a removal action in June 1994 to a depth of 3 feet to support the proposed Laguna Seca Raceway parking area. They established site boundaries for 50 acres (199 grids). They located one 37mm projectile with base fuze, detonated in place. The Army's OE contractor UXB recorded LOR2 as containing 193 acres and 840 grids, of which 10% were randomly sampled to a depth of 4 feet. They discovered 404 live small arms and 43 expended OE items. A total of 29 live OE items were found. 22mm subcaliber cartridges were found in a localized area on the northern boundary of the site. Several live items of OE were found on the surface within the northern one-third of this site.

Recommendation 14A: This area is currently undergoing removal actions.

14B-Approximately 469 acres north of Skyline Road and east of Barloy Canyon Road.

Investigation History 14B: This area had 2043 total 100 foot square grids, of which 5% (109 grids) were cleared to a depth of four feet. A total of 447 OE items were recovered, 404 of which were small arms. Sampling operations were halted on August 17, 1995. These items are listed in the Final Report for Ordnance and Explosive Removal Action, Site 14, November 1, 1995 submitted by UXB International Inc.

Recommendation 14B: Further investigation is recommended for this site.

14C - 14SE (27 acres)

Investigation History 14C: The Army's OE contractor UXB performed sampling of 15 grids of 118 100'x100' grids to a depth of 4 feet in 1995. A total of 129 small arm blanks (.30 cal) and 2 inert OE items (hand smoke grenade, rifle smoke grenade, and 1/10th pound of pyrotechnic compound were discovered.

Recommendation 14C: Conduct surface removal in accordance with Phase I EE/CA.

14D - 14 West (Approximately 85 acres)

Investigation History 14D: Includes an unidentified firing point listed as Site OE 25 and OE 26 hilltop within P-5 as well as Range P-5 area.

Recommendation 14D: Further site investigation is recommended.

14E-Site 14 East approximately 83 acres, east of Lookout Ridge Road.

Investigation History 14E: The Army's OE contractor CMS performed a sampling/removal action at this site from 1995 through July 1996. These actions included a 100% search and investigation of forty-five 100'x100' grids, which were randomly distributed throughout Site 14E. Specific activities included brush and vegetation removal, a surface/subsurface search of the operating area to locate OE contamination, and disposal of all UXO and OE related materials. Not all areas of site 14E were sampled. Approximately 4,358 small arms cartridge blanks were recovered and 20 OE items were recovered. These items are listed in the After Action Report-Site 14 East, Former Fort Ord, CA, February 12, 1997.

Recommendation 14E: Additional sampling/removal actions of the remaining areas of this site should be performed.

6.15 Site OE 15, Impact Area, (Inland Impact Area) (Multi Range Area) (7500+ acres)

Description: This tract of land has been used for a wide variety of weapons firing. The Multi Range Area (MRA) consists of approximately 8,000 acres in the southwestern portion of the former Fort Ord. The MRA is bordered by Eucalyptus Road to the north, Barloy Canyon Road to the east, South Boundary Road to the south, and North-South Road to the west. Five known or suspected previously identified OE sites are present in the MRA: Site OE-28 (MOUT Site); OE-30 (Laguna Seca Turn 11 [LS T11]); OE-35 (Former Fort Ord Range Control [FRC]; OE-47 (Wolf Hill); and Site OE-15 (which encompasses the remainder of the MRA).

For reporting purposes, the MRA has been divided into four areas (MRA Areas A through D) based on the expected concentration of OE. These areas have been delineated using information gathered from interviews with the former Fort Ord Range Control Officer, various training range Standard Operating Procedures (SOP) documents, visual observations, and a field map of range forms and target locations prior to base closure provided by Fort Ord Range Control.

Description 15A: This area is identified only as small arm ranges in the MRA. Ranges in this area were 18, 19, and 21.

Investigation History: Reference HLA RI Site 39 investigation.

Recommendation 15A: Continue investigation and sampling.

Description 15B: This is in the outer boundary of the MRA, behind the firing points of ranges and the roadways, encompassing the MRA and between the ranges in the safety buffer zones. Range Control records show various ordnance usage on the ranges in the adjacent firing ranges.

Investigation History: Reference HLA Site RI 39 investigation.

Recommendation 15B: Continue investigation and sampling.

Description 15C: This is in the middle portion of Site OE-15. It is located downrange of the firing points but outside of the high density OE areas. These ranges are believed to contain sporadic- to high-density OE.

Investigation History: Reference HLA RI Site 39 investigation.

Recommendation 15C: Further investigation is recommended.

Description 15D: This is the high-density OE area of Site OE-15. Many types of munitions have impacted into this area, mainly around the targets scattered throughout Site OE-15.

Investigation History: Reference HLA Site RI 39 investigation.

Recommendation 15D: Further investigation is recommended.

6.16 Site OE 16, 2.36" Rocket Moving Target Range, (Vicinity FR 094538 to 100536) (50 acres)

Description: This area was saturated with 2.36" rockets, both HEAT and practice. There was a narrow-gauge railroad track where moving targets operated. According to Mr. Roy Durham, he stated "Over 1000 rockets had already been destroyed and about 400-500 were HEAT warheads." During a terrain walk, nearly a dozen rocket motors and components could still be seen within a small area. Training Site TS-8 is included in this site.

Investigation History: The Army's OE contractor HFA was scheduled to sample the site, and was in the gridding process, when several OE items, including an MK2 hand grenade, 4 rifle grenades, and 9 empty Illumination flare signals were found.

Recommendation: Complete sampling and removal actions.

6.17 Site OE 17, Anti-tank (AT) Practice Mine Area, (Vicinity FR 155525, near Bldg. T-3992) (8.8 acres)

Description: According to interviews in the early 1960's this canyon had a firing point and target area for shoulder launched projectiles. The projectiles were fired from just east of the pond at a mound of dirt, covered with brush, in a westerly direction. This area was used for land mine training in the late 1960's. This area is adjacent to Training Site TS-19.

SFC Grimes stated that he had been shown an inert training anti-tank (AT) mine by an EOD sergeant who pulled it out of the ground in this area. A brief walk through showed no sign of where this type of training took place.

Investigation History: This area has been investigated by an EOD Safety Specialist who discovered two AT mines, inert at FR 161528. The Army's OE contractor UXB conducted random sampling of 6 grids (15%). They discovered 94

small arms items and 2 expended/inert items. See Appendix B of Phase I EE/CA for the list of the items.

Recommendation: No further action is recommended in accordance with Phase I EE/CA.

6.18 Site OE 18, 100lb Bomb, (Vicinity FR 090567, in the confidence course area) (15 acres)

Description: In the 1970's this area was a minefield practice area used to teach trainees methods for locating landmines (mine and booby-trap area #1). There is an obstacle course in the area. A map made by Sergeant Beardsley, an EOD NCO stationed at Fort Ord for many years, shows a 100 lb. bomb found in this area. A 1993 EOD incident report shows that the bomb was an unfuzed concrete-filled training device, and that three practice mines and a parachute flare were also found. This site has been subsumed into Site OE-31 CSU Footprint.

Investigation History: Fourteen grids were sampled by the Army's OE contractor HFA in 1993-1994. A removal action was later accomplished by HFA as part of the larger CSU Footprint removal action. No other bombs were found.

Recommendation: Refer to Site OE-31.

6.19 Site OE 19, Rifle Grenade Range, (Vicinity FR 127549, southern slope of the firing point at the top of the hill) (24 acres)

Description: A terrain walk uncovered what is believed to be a rifle grenade range. Fragments were found surrounding a target pit on the southern slope of the firing point (FP). Also found were jagged pieces of metal from 55-gallon drums. The area might have been used for flame field expedient (Fougas) training.

Investigation History: A site investigation is currently in progress. The area has been expanded due to sampling in an adjacent area that discovered a rifle grenade. This area also includes firing point FP3. A live HE rifle grenade was found during gridding in 1994 by the Army's OE contractor HFA. Access roads leading to this site underwent a removal action by UXB during 1994-1995 and are documented in the UXB Site 19 After Action report. These roads actually lie in Site OE10B. Twelve, randomly located, 100 ft x 100 ft grids were sampled during June and July 1996.

Recommendation: Conduct further sampling and removal action at this site in accordance with Phase I EE/CA.