



FIELD VARIANCE FORM

DATE: 17-AUGUST-11 **PROJECT NAME:** Future East Garrison RI **PROJECT LOCATION:** Future East Garrison MRA
APPLICABLE DOCUMENT / SECTION: Final Group 4 Remedial Investigation/Feasibility Study (RI/FS) Work Plan – Volume 2, Section 2.2.1, Section 2.3, Section 2.3.2, Table 2-1, and Figure 2-1
SUBJECT: Expanded Investigation Acreage in Proposed Residential Area Parcel E11b.8

FIELD CHANGE CONDITION:

Initial remedial investigation and expansion of investigation area in accordance with FVF No. G4WP-001 are being conducted in the parcels adjacent to E11b.8 (Parcel E11b.6.1, E11b.7.1, L20.19.1.1) within the Future East Garrison Munitions Response Area (MRA). Parcel E11b.8 is proposed for future residential development. The Army conducted previous investigations and response actions in Parcel E11b.8 as discussed in Volume I of the Group 4 Remedial Investigation / Feasibility Study (RI/FS) Work Plan (USA 2001c; Figure 1). Figures 2 through 5 show the MEC and MD found during the Environmental Services Cooperative Agreement (ESCA) Remediation Program (RP) remedial investigation within the MRA to date. These preliminary results show that MEC and MD have been found adjacent to the boundary of Parcel E11b.8, indicating that MEC and MD may be present in Parcel E11b.8. The potential for MEC and MD within Parcel E11b.8 warrants additional investigation in order to complete the RI/FS for the Future East Garrison MRA.

RECOMMENDED APPROACH / CHANGE:

Additional remedial investigation is recommended to further define the extent of munitions usage within Parcel E11b.8 and to complete the RI/FS for the Future East Garrison MRA.

Figure 6 displays the additional investigation area and represents an update to Figure 2-1 presented in the Group 4 RI/FS Work Plan, Volume 2 and FVF No. G4WP-001. The total area for the additional investigation is approximately 67.7 acres.

The ESCA RP Team will conduct the additional investigation in accordance with the field investigation plan described in the Group 4 RI/FS Work Plan, Volume 2, Sections 2.3, 2.3.2 and 2.4. These sections describe the analog and digital investigation activities to be conducted during the remedial investigation. For Parcel E11b.8, digital investigations will be conducted where terrain permits and analog investigation will be conducted in the remainder of the area.

IMPACT ON PRESENT AND COMPLETED WORK:

The recommended additional investigation allows for complete characterization of Parcel E11b.8.

REQUESTED BY: Kristie Reimer, ESCA Remediation Program Manager (ARCADIS)

CLARIFICATION/FOR INFORMATION ONLY

MINOR CHANGE

MAJOR CHANGE



ESCA RP TEAM APPROVALS: G. CLARK, L. TEMPLE, B. MOE

COMMENTS

ACKNOWLEDGED BY:

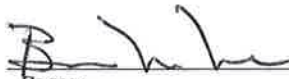
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ESCA RP UXO SAFETY
OFFICER (WESTON)


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8/17/11
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FORA APPROVAL:

COMMENTS



APPROVED



REJECTED

STAN COOK

FORA ESCA PROGRAM
MANAGER



SIGNATURE






8/17/11

DATE

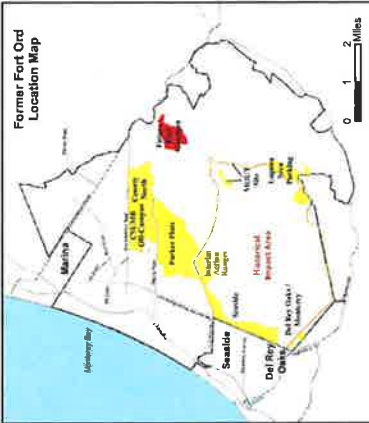
ATTACHMENTS:

- Figure 1 - Future East Garrison MRA ESCA Remedial Investigation Areas
- Figure 2 - Future East Garrison MRA Sampling and Analysis Plan, ESCA RI Preliminary MEC and MD Grenade Finds
- Figure 3 - Future East Garrison MRA Sampling and Analysis Plan, ESCA RI Preliminary MEC and MD Mortar Finds
- Figure 4 - Future East Garrison MRA Sampling and Analysis Plan, ESCA RI Preliminary MEC and MD Projectile Finds
- Figure 5 - Future East Garrison MRA Sampling and Analysis Plan, ESCA RI Preliminary MEC and MD Other Finds
- Figure 6 - Future East Garrison MRA Sampling and Analysis Plan, Additional Investigation Area

Legend

-  Completed ESCA RI Areas
-  Munitions Response Area Boundary
-  Fence
-  USACE Parcel
-  E11b.8

Former Fort Ord Location Map



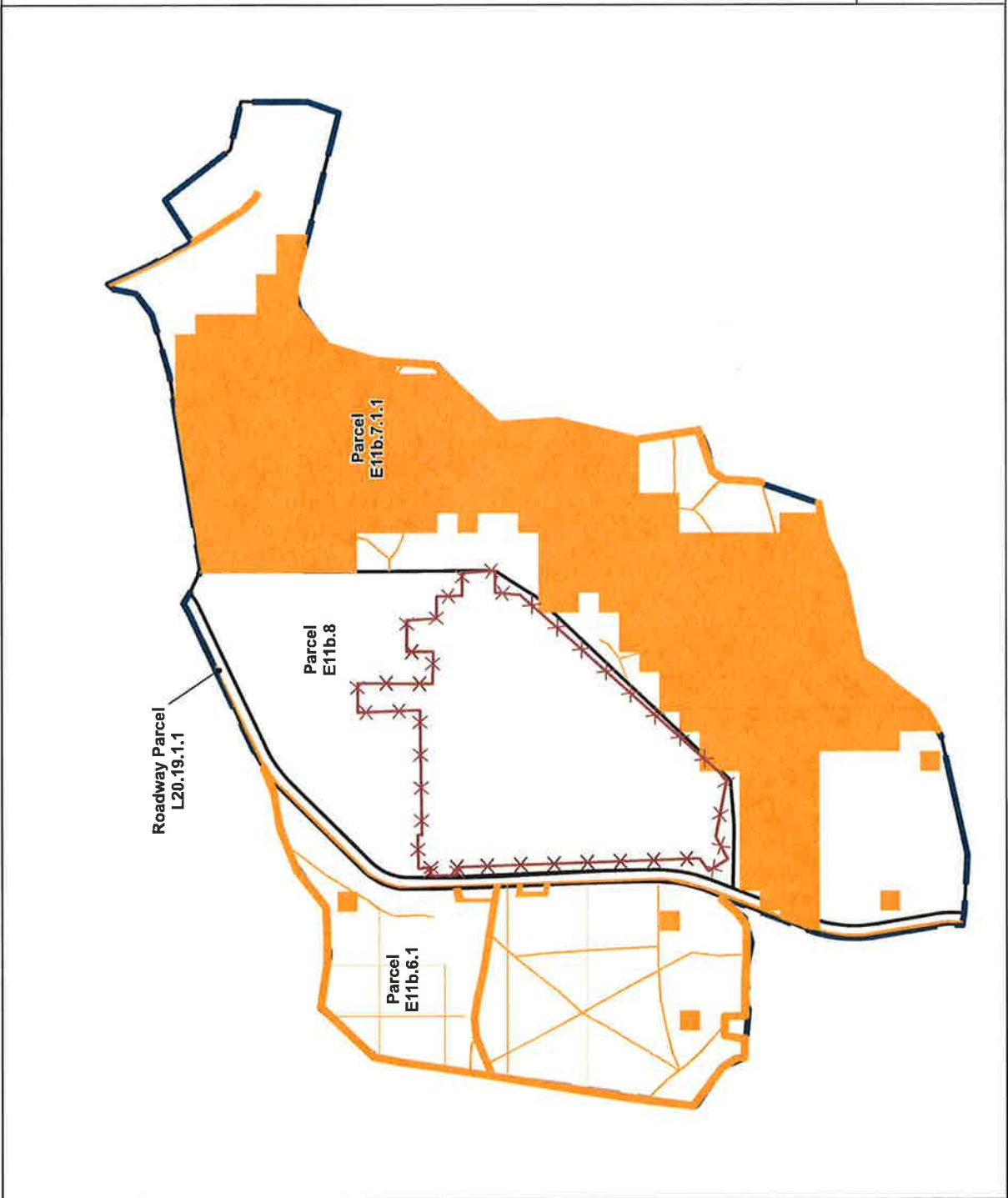
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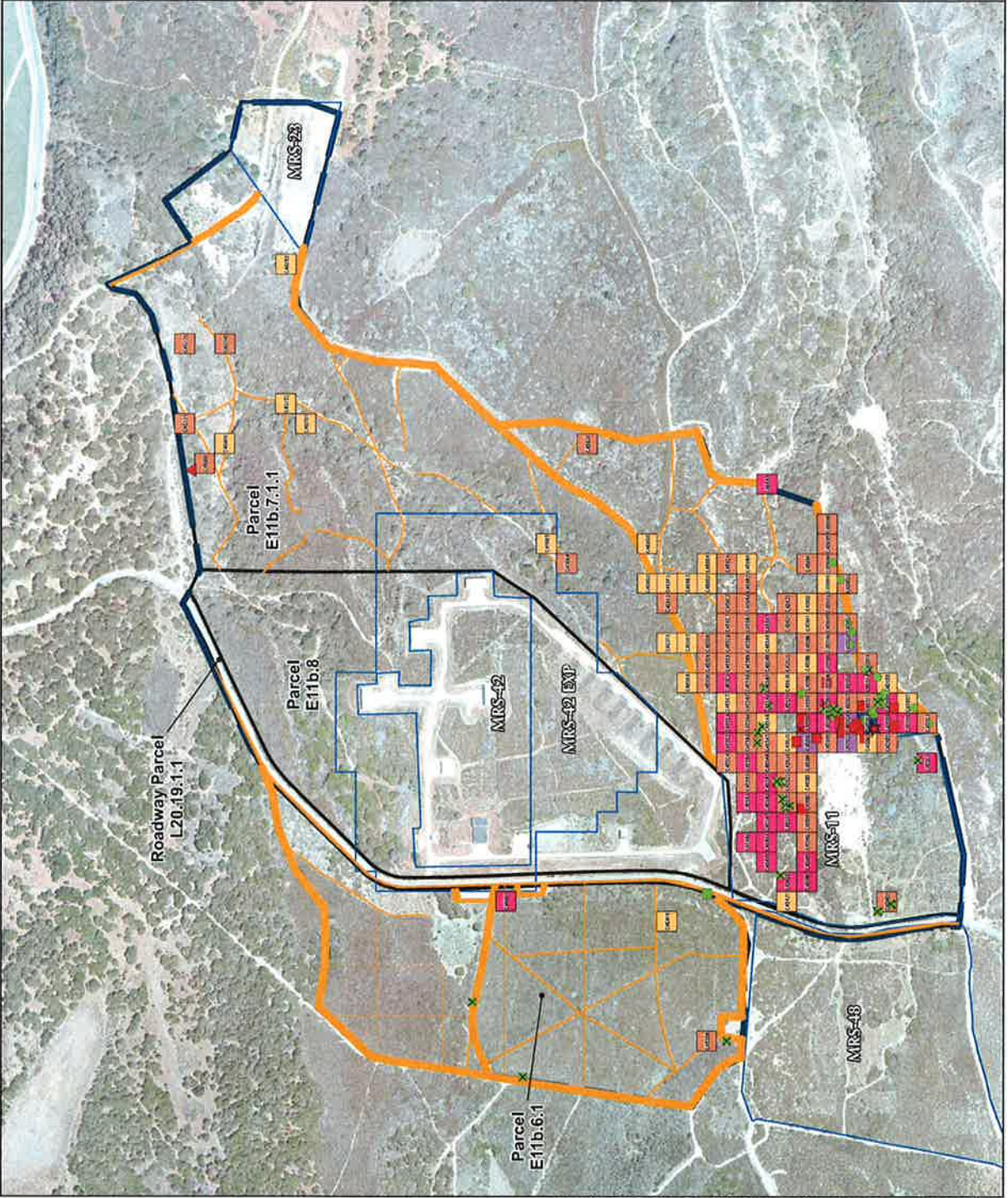
**Future East Garrison MRA
ESCA Preliminary Remedial
Investigation Areas**

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WESITEN

DRAFT **Figure 1**

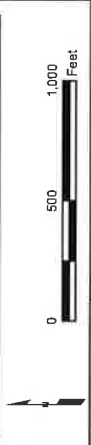
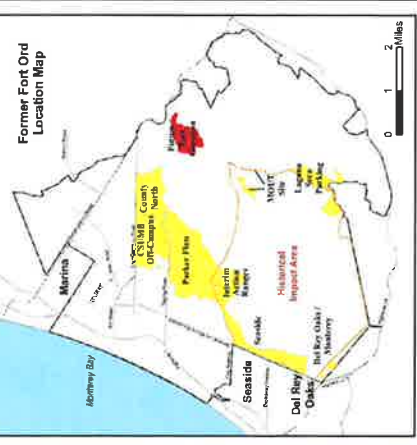




Legend

- MEC**
 - ★ Grenade, Hand, Fragmentation (MKII)
 - ☆ Fuze, Grenade, Hand, Practice (M205)
 - ▲ Fuze, Grenade, Hand, Practice (M228)
 - Fuze, Grenade, Hand (M10)
- MD**
 - Grenade, Hand, Fragmentation (MKII)
 - Fuze, Grenade, Hand (M10)
 - Grenade Debris Components
 - Under 1 lb Grenade MD Found in Grid
 - 1 to 4.9 lbs Grenade MD Found in Grid
 - 5 to 19.9 lbs Grenade MD Found in Grid
 - 20 to 99.9 lbs Grenade MD Found in Grid
 - 100 lbs or Over Grenade MD Found in Grid
- Munitions Response Area Boundary
- ▭ MRS Boundary
- ▭ USACE Parcel
- Trails, Transsects, and Roads Work Area

Note: Some MD grids with whole items also contained fragments.



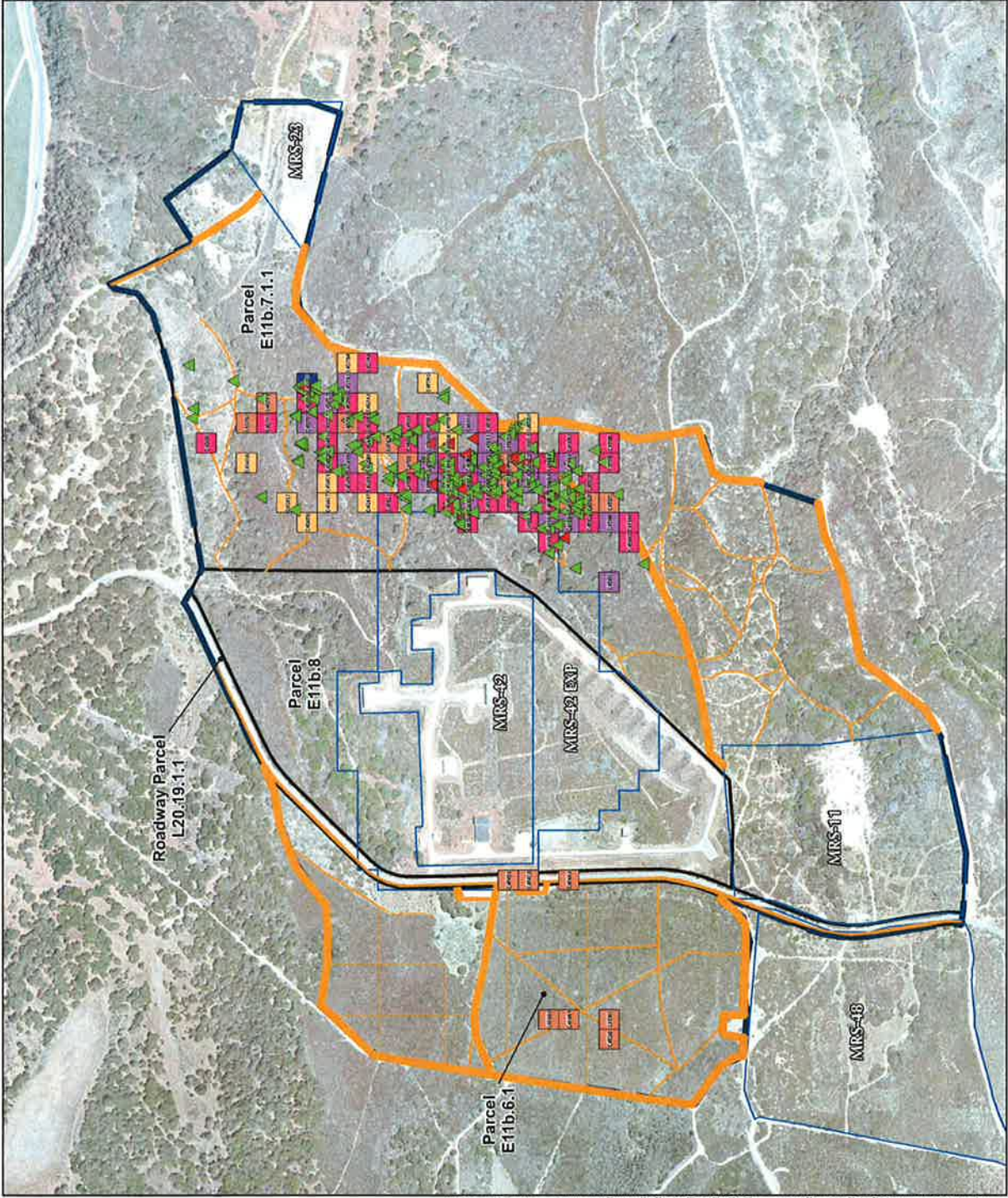
**Future East Garrison MRA
Sampling and Analysis Plan
ESCA RI Preliminary MEC and MD
Grenade Finds as of July 2011**

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Figure 2



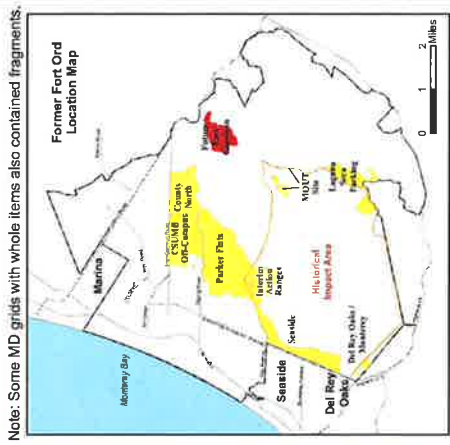


Legend

MEC ▲ Mortar, 3-inch, Practice (MK I [Stokes])

MD ▲ Mortar, 3-inch, Practice (MK I [Stokes])
 ▲ Fuze, Trench Mortar, PD (MK VI)
 ■ Under 1 lb Mortar MD Found in Grid
 ■ 1 to 4.9 lbs Mortar MD Found in Grid
 ■ 5 to 19.9 lbs Mortar MD Found in Grid
 ■ 20 to 99.9 lbs Mortar MD Found in Grid
 ■ 100 lbs or Over Mortar MD Found in Grid

■ Munitions Response Area Boundary
 ■ MRS Boundary
 ■ USACE Parcel
 ■ Trails, Transects, and Roads Work Area



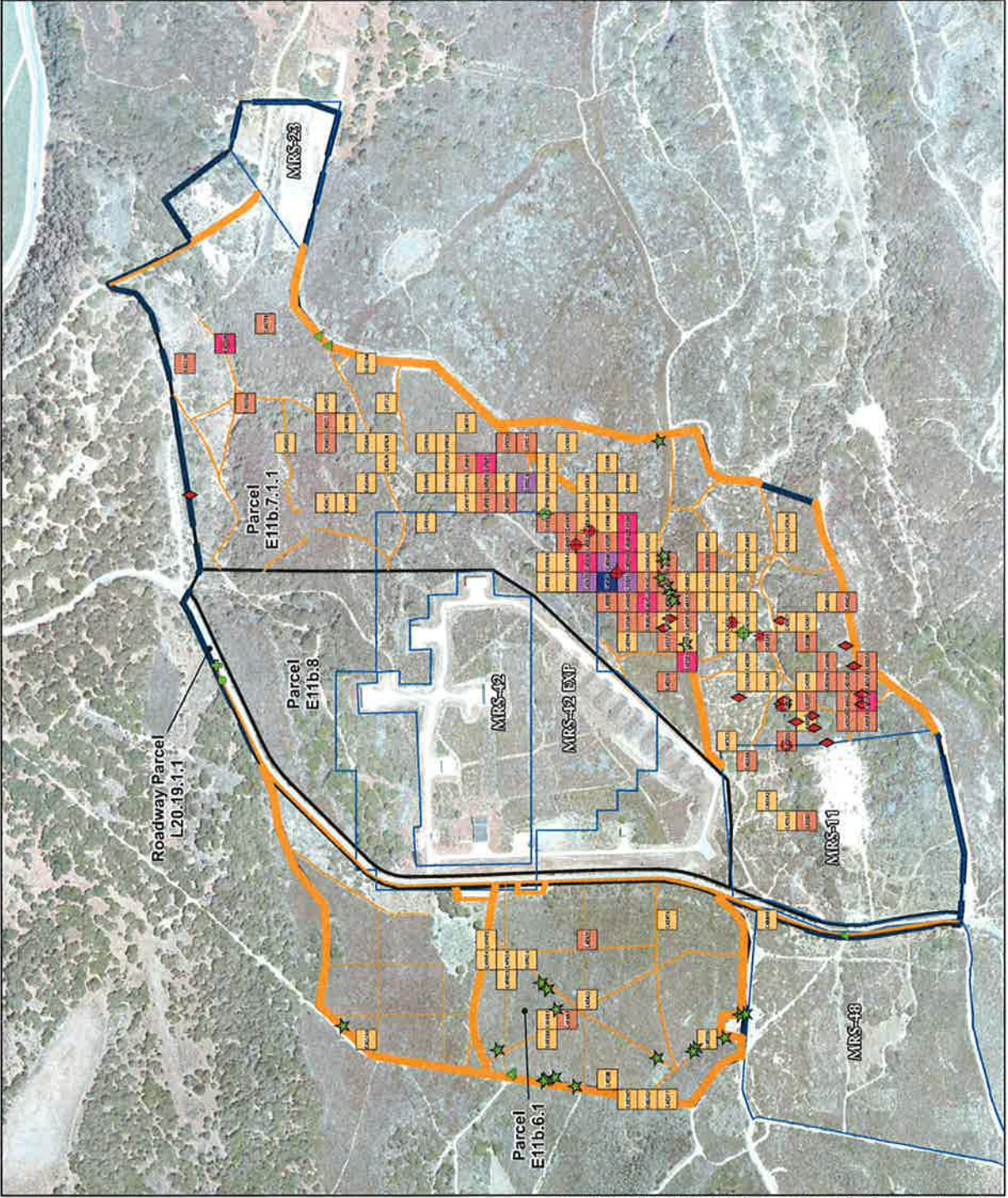
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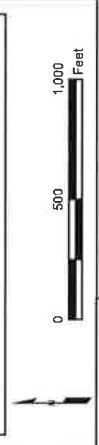
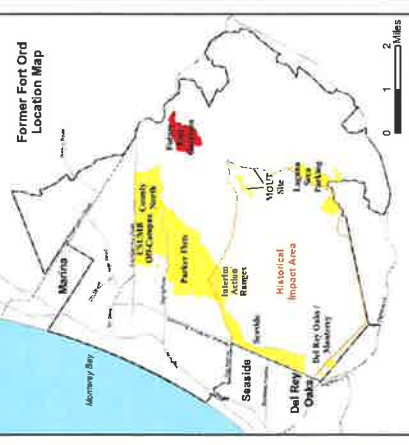
Future East Garrison MRA
 Sampling and Analysis Plan
 ESCA RI Preliminary MEC and MD
 Mortar Finds as of July 2011

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- MEC**
- Projectile, 37mm, Low Explosive (MK1)
 - Fuze, Projectile, PD (M8)
 - Grenade, Rifle, Antitank (M9)
 - Rocket, 2.36 inch, Practice (M7)
- MD**
- Projectile, 37mm, Low Explosive (MK1)
 - Projectile, 37mm, APT (M51)
 - Projectile, 37mm, Debris
 - Grenade, Rifle, Debris Components
 - Projectile, Debris Components
 - Under 1 lb Projectile MD Found in Grid
 - 1 to 4.9 lbs Projectile MD Found in Grid
 - 5 to 19.9 lbs Projectile MD Found in Grid
 - 20 to 99.9 lbs Projectile MD Found in Grid
 - 100 lbs or Over Projectile MD Found in Grid
- Munitions Response Area Boundary
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Note: Some MD grids with whole items also contained fragments.



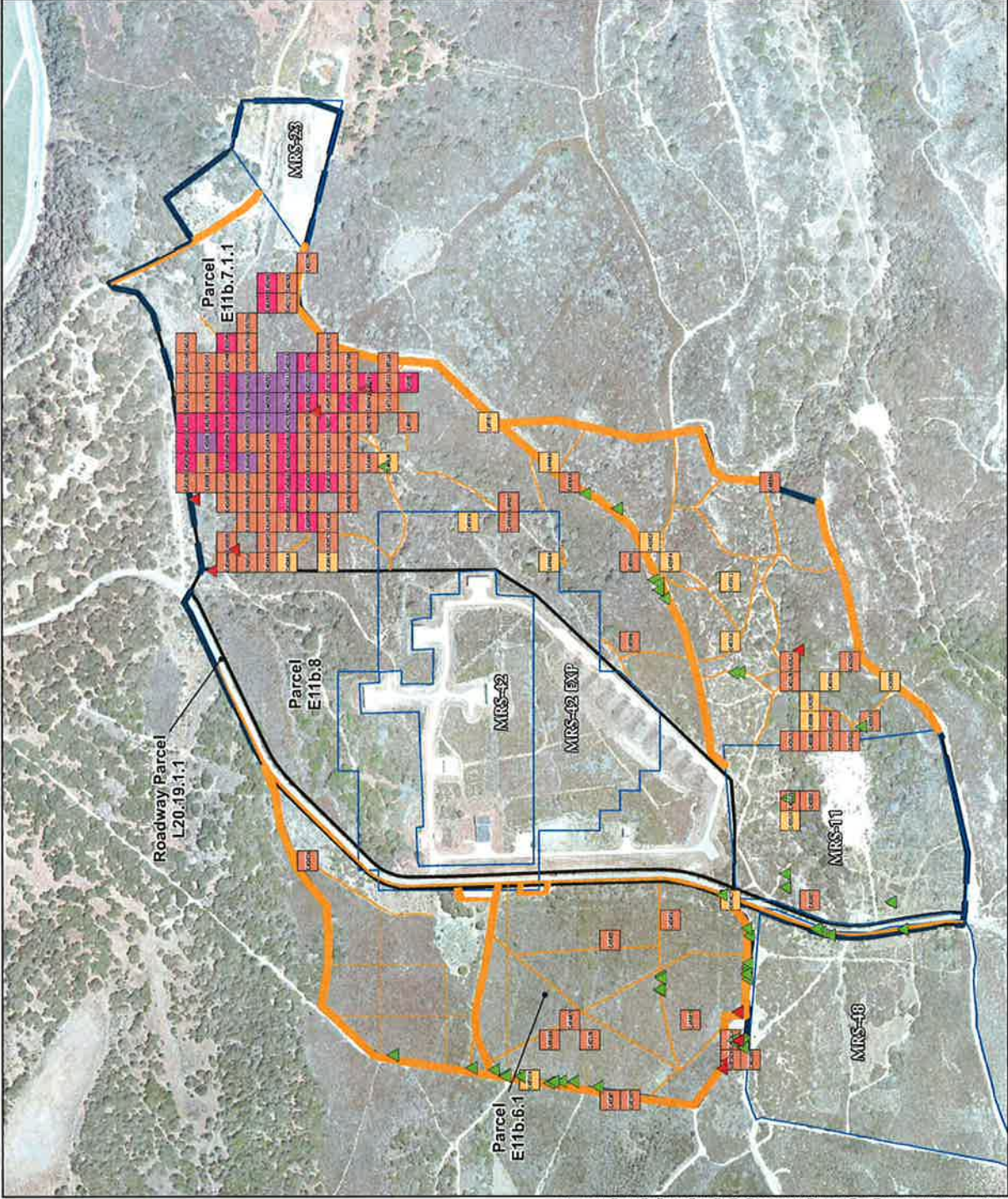
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Future East Garrison MRA
Sampling and Analysis Plan
ESCA RI Preliminary MEC and MD
Projectile Finds as of July 2011

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Figure 4



MEC ▲ Other Items

MD ▲ Other Items

	Under 1 lb Other Item MD Found in Grid
	1 to 4.9 lbs Other Item MD Found in Grid
	5 to 19.9 lbs Other Item MD Found in Grid
	20 to 99.9 lbs Other Item MD Found in Grid

MRS ■ Munitions Response Area Boundary

ET1b.8 ■ USACE Parcel

Trails, Transsects, and Roads Work Area

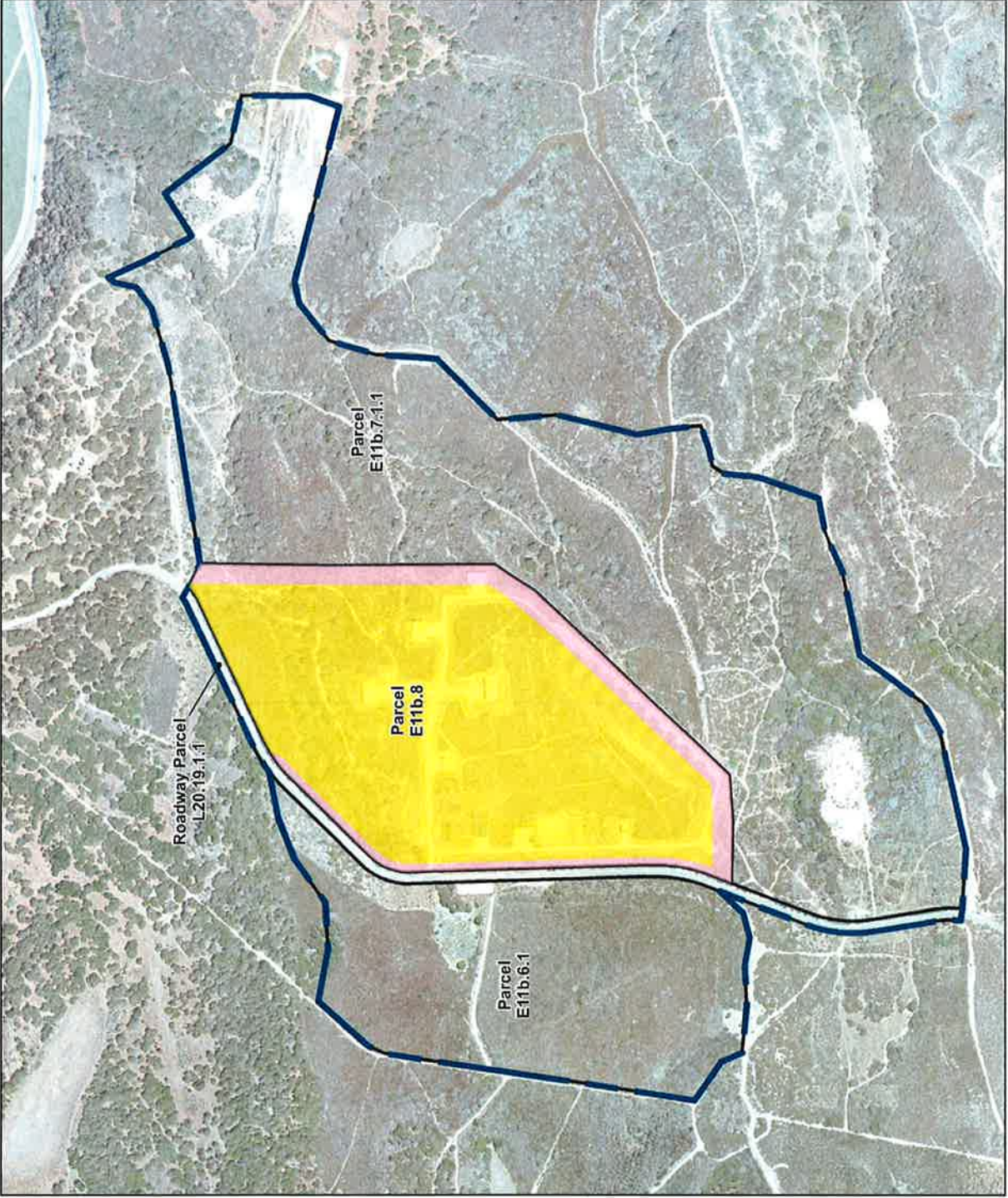
Other MEC and MD items include flares, signals, simulators, illumination, smoke and unknown fragments.

Note: Some MD grids with whole items also contained fragments.

Former Fort Ord Location Map

Scale: 0 500 1,000 Feet

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Figure 6