Table 2-1
Parker Flats MRA Phase II Remedial Investigation Areas

USACE Parcel Number (for land transfer)	Phase II Acreage To Be Investigated (Approximate)	Phase II Acreage Removal Action Completed (Approximate)	MRS Identifier
Future Land Use – Habitat Reserve			
E19a.2	72	0	MRS-27A, MRS-27B, non-MRS area
E19a.4	94	0	MRS-27B, MRS-27C, non-MRS area
Future Land Use – Nonresidential			
E18.1.1	29	0	MRS-44 EDC, non-MRS area
E18.1.2	12	0	MRS-44 EDC, non-MRS area
E19a.3	75	0	MRS-27A, MRS-45, non-MRS area
E21b.3	0	32	MRS-15 MOCO.02
L20.18	2*	4	MRS-44 PBC, MRS-15 MOCO.02, non-MRS area
L23.2	0	11	MRS-44 PBC
Future Land Use – Residential			
E18.1.1	8	0	non-MRS area
E18.1.2	1	0	non-MRS area
E18.1.3	39	1	MRS-04A, non-MRS area
E18.4	1	1	MRS-04A, non-MRS area
E19a.1	59	7	MRS-04A, non-MRS area
E20c.2	34	0	MRS-44 EDC
Total	426	56	
Phase II Total	482 acres		

Notes:
* = Acreage consists entirely of paved roadway (Eucalyptus Road).
MRA = Munitions Response Area
MRS = Munitions Response Site
USACE = U.S. Army Corps of Engineers

Table 3-1
Storage Compatibility Groups for Explosives and Ammunition

Group A	
Bombs, demolition	Mines, HEAT nitrocellulose wet 8 to 30 percent water exposed to detonation hazards at less than intra line distance
Bombs, fragmentation	Nitroguanidine
Bombs, general purpose	Nitrostarch Octol
Boosters	PBX
Boosters, auxiliary	Pentolite
Bursters	PETN, wet
Charge, demolition, snake	Picratol
Charge, springing earth rod, blast driven	Picric acid
Charge, supplementary, HE	Projectiles, HE, fuzed or unfuzed
Compositions A, A-2, A-3, A-4, B, B-3, C, C-2, C-3, and C-4	RDX (Cyclonite), wet
Cutter, cable M1	Rocket heads, HE, and HEAT (except pentolite loaded) w/o motors
Cyclonite (RDX), wet	Shaped charges
Cyclotol	Tetranitrocarbazole (TNC)
Demolition Blocks	Tetryl
Destructor, HE, M10	Tetrytol
Detonating cord (primacord) exposed to detonation hazard at less than intra line distance	TNT
Dynamite	Tritonal
Ednatol	Torpex
Cyclonite (RDX), dry	Mercury fulminate, wet
HMX, dry	PETN, dry
Lead azide, wet	RDX (cyclonite), dry
Lead styphnate, wet	Tetracene, wet
Group B	
Fuses (except chemically actuated fuses containing ampoules that may initiate, directly or indirectly, explosives and explosives-loaded components that are assembled in the conventional manner to form the finished explosive fuse).	Detonators
	Mines, practice, AP, M17
	Percussion elements
	Primer detonators
Group C	
Ammunition, blank and saluting, cannon	Cartridge, 90mm, canister, AP
Ammunition, .50 caliber, except API/incendiary	Cartridges, practice, over 40mm
Ammunition, 20mm, practice and high-pressure test	Catapults, aircraft ejection seat, M3A1, M4A1, M5
Ammunition, 25mm, with inert projectile	Charge, propelling, not assembled to projectiles EC powder
Ammunition, 27mm, caseless	Detonating cord (primacord)
Ammunition, 30mm, ball and high-pressure test	Nitrocellulose

Table 3-1
Storage Compatibility Groups for Explosives and Ammunition

Ammunition, 30mm, practice and training	Fuel (solid), emergency power unit
Ammunition, 37mm and 40mm, TP and AP	Propellant
Ammunition, 40mm, practice, M407A1, M382, and M385	Rockets, practice, 3.5-inch
Benite	Rocket motors, M3, M5, M6, M10, M13, M26, M30, M37, M42, M53, M66; Pershing 1st and 2nd stages; Spartan 1st, 2nd, and 3rd stages
Baron Potassium	
Group D	
Adapter booster	Explosive D
Ammonium nitrate, except in original shipping container or equivalent	Explosives, cratering
Ammonium perchlorate, except when particle size is over 15 microns and in original shipping container or equivalent	Grenades, rifle, AT (except pentolite loaded)
Ammonium picrate (Explosive D)	HMX, wet
Bangalore torpedoes	Mine, APERS, MN, M14 (w/integral fuse)
Baratol	Mines, antipersonnel (bounding type)
Black powder, bulk	Mines, antipersonnel (cast iron block)
Group E	
Ammunition, HEP	Ammunition, fixed and semi-fixed, 90mm through 106mm, loaded with ammonal, amatol, Explosive D, composition B, or TNT
Ammunition, 20mm, HE, HEI, and functional packs containing HE and HEI	Cartridge, heavy mortar over 81mm (including 81mm M56), except chemical loaded
Ammunition, 30mm, HEDP	Cartridge, light mortar, 81mm or less (excluding 81mm M56), except chemical loaded
Ammunition, 37mm, HE	Redeye guided missiles, packaged three complete rounds w/launcher
Ammunition, 40mm, HE, RDX loaded	
Ammunition, 40mm, HE, M406, M386, M441, and M463	Rockets, HEAT, 3.5-inch, complete round
Ammunition, 57mm through 81mm, except WP smoke, HEP and blank	Rockets, HE, 2.75-inch (in LAU-3/A rocket launcher)
Group F	
Grenades, hand offensive	Grenades, fragmentation
Group G	
Ammunition, .50 caliber API and incendiary	Grenades, hand, CN1, ABC, M25A1, w/fuse C12
Ammunition, 20mm, API	Grenades, hand, CM1, ABC, M25A2, w/fuse C12
Ammunition, 20mm, incendiary and functional packs containing incendiary, except those containing HE or HEI	Grenades, illuminating and incendiary
Ammunition, 40mm, riot control and pyrotechnic	Grenades, practice, w/spotting charge

Table 3-1
Storage Compatibility Groups for Explosives and Ammunition

loaded, except WP smoke	
Bombs, photoflash	Grenades, rifle, smoke, XM48E1 and M22 and M23
Cartridge, igniter, M2	Grenades, smoke (except WP and PWP)
Cartridge, illuminating	Grenades, riot control, CS1, M25A2
Cartridge, photoflash	Igniter, spotting charge
Cartridge cases, primer (w/o propellant)	Igniters for rocket motors (e.g., M12, M18, M20, and M29)
Charge, igniter assembly, for practice hand grenades	Ignition cartridge for trench mortar ammunition
Charge, spotting, APR practice, M8	Illuminating compositions (consolidated in final press operations)
Chemical ammunition, Group B, tear or smoke producing, w/explosive components, over 40mm	Mines, practice, w/spotting charge and /or fuse
Chemical ammunition, Group B, tear or smoke producing, w/o explosive components	Nuclear fire marker device 11-F2
Chemical ammunition, Group D, containing flammable solids, except for TEA or TPA, w/o explosive components	Photoflash powder
Chemical ammunition, Group D, fixed or semi-fixed rounds, containing flammable solids, except for TEA or TPA	Primers, artillery and cannon, percussion and electric
Clusters, incendiary bomb, M31 and M32 (w/o fusing components)	Projectiles, illuminating
Destroyer, file, M4	Rocket, riot control agent, CS, 2.75-inch FFAR, MX99
Detonation, simulator, explosive M80	Simulators, M110, M115, M116, M117, M118, M119, and XM142
Grenade, hand, smoke, HC, M8	Smoke pots
Grenades, hand CN, M7A1, w/fuse M201A1	Spotting charges (cartridge for miniature practice bombs)
Grenades, hand, CS, M7A3, w/fuse M210A1	
Group H	
Chemical ammunition, Group C	Grenade rifle, WP, M19
Grenades, WP	
Group J	
Chemical ammunition, Group D, containing flammable liquids or gels, with or w/o explosive components	Chemical ammunition, Group D, fixed and semi-fixed rounds, containing flammable liquids or gels with or without explosive components
Group K	
Chemical ammunition, Group A, with or without explosive components	Chemical ammunition, Group B, with or without explosive components, designed for toxic or incapacitating effects greater than lachrymation
Rockets, toxic chemical agents, complete rounds	
Group L	

Table 3-1
Storage Compatibility Groups for Explosives and Ammunition

Aluminum powder	Fuses, chemically actuated, containing ampoules which may initiate directly or indirectly, explosives and explosives loaded components which are assembled in the conventional manner to form the finished explosive fuse
Ammonium nitrate	Magnesium powder
Ammonium perchlorate	Grenades, rifle, AT (pentolite loaded)
Ammunition, pentolite loaded	Nitrates (inorganic), except ammonium nitrate (in original shipping container or equivalent)
Chemical ammunition, Group A, without explosive components	Perchlorates
Chemical ammunition, Group B, without explosive components, designed for toxic or incapacitating effects more severe than lachrymation	Peroxides, solid
Chemical ammunition, Group D, TEA or TPA components	Rocket heads, pentolite loaded, w/o motors
Chlorates	Zirconium (types I and II, spec. FED 1665)
DNT	
Group S	
Ammunition, 40mm, canister and multiple projectile	Fuse lighters
Ammunition, small arms, less than .50 caliber	Fuse safety
Explosive bellows	Squibs commercial
Firing devices	

Table 3-2
Storage Compatibility Chart

Groups	A	B	C	D	E	F	G	H	J	K	L	N	S
A	X	Z											
B	Z	X	Z	Z	Z	Z	Z					X	X
C		Z	X	X	X	Z	Z					X	X
D		Z	X	X	X	Z	Z					X	X
E		Z	X	X	X	Z	Z					X	X
F		Z	Z	Z	Z	X	Z					Z	X
G		Z	Z	Z	Z	Z	X					Z	X
H								X					X
J									X				X
K										Z			
L													
N		X	X	X	X	Z	Z					X	X
S		X	X	X	X	X	X	X	X			X	X

Notes:

1. The marking "X" at the intersection of the above chart indicates that these groups may be combined in storage. Otherwise, mixing is either prohibited or restricted per Note 2 below.
2. The marking "Z" at an intersection of the above chart indicates that, when warranted by operational considerations or magazine non-availability, and when safety is not sacrificed, these groups may be combined in storage.
3. The marking "U" on the above chart indicates that leaking toxic chemical munitions of one agent type, i.e., GB, with or without explosive components, may be stored together in one magazine specifically designated for storage of leakers of that agent type.
4. Equal numbers of separately packaged components of complete rounds of any single type of ammunition may be stored together. When so stored, compatibility is that of the assembled rounds; i.e., WP Filler in Group H, HE Filler in Groups D, E, or F, as appropriate.
5. Group K requires not only separate storage from other groups, but also requires that munitions having different toxic chemical agent fillers be stored separately from each other.
6. Ammunition designated "PRACTICE" by NSN and nomenclature may be stored with the fully loaded ammunition it stimulates.

Table 3-3
General Placarding Requirements for Any Quantity or Weight of Explosives

Category of Material (Hazard Class or Division Number and Additional Description, as Appropriate)	Placard Name	Placard Design Section Reference
1.1	Explosives 1.1	172.522
1.2	Explosives 1.2	172.522
1.3	Explosives 1.3	172.522

Table 3-4
General Placarding Requirements When Total Weight of Explosives Exceeds 1,001 Pounds

Category of Material (Hazard Class or Division Number and Additional Description, as Appropriate)	Placard Name	Placard Design Section Reference
1.4	Explosives 1.4	172.523
1.5	Explosives 1.5	172.524
1.6	Explosives 1.6	172.525

Table 5-1
Recovery and Penetration Depths of MEC Previously Encountered in Parker Flats MRA Phase II

MEC Type	Maximum Recovery Depth (feet bgs)	Maximum Calculated Penetration Depths in Sand (feet bgs)
Fuze, grenade, several types	1.5	Surface Munitions
Grenade, hand, several types	1.0	Surface Munitions
Grenade, rifle, several types	0.7	Surface Munitions
Projectile, 40 mm, cluster, white star, M585	0.2	0.2
Projectile, 40 mm, parachute, illumination, M583 series	0.0	0.2
Projectile, 75 mm, shrapnel, MK I	0.2	6.7
Signal, illumination, aircraft, AN-M37 series	0.0	Surface Munitions
Signal, illumination, ground, M125 series	0.5	Surface Munitions
Simulator, projectile, airburst, M74 series	0.0	Surface Munitions

Notes:
bgs = below ground surface
mm = millimeter
MEC = munitions and explosives of concern
MRA = Munitions Response Area

Table 11-1
Structure of Project Procedures

Procedure Number	Type of Procedures
1-X	Scope of Work
2-X	Administrative Procedures, includes Document Control, Personnel Proficiency, Records Control, Data Control
3-X	Cost Engineering, Scheduling, Estimating
4-X	Quality Control, Inspection and Testing, Supplier Quality, Training
5-X	Design Control, Configuration Control
6-X	Procurement Control, Subcontractor Control
7-X	Operational Procedures
8-X	Environmental Compliance Procedure

Table 11-2
Geophysical Quality Control Steps

Activity	QC Actions	Performed By	Overseen By
Digital Geophysical Mapping Surveys	Equipment Maintenance	Geophysical Field Team Coordinator	QC Geophysicist / UXO QC
	Weekly Instrument Checks (Instrument Standardization)	Geophysical Teams	QC Geophysicist
	Daily Instrument Checks (Instrument Standardization)	Geophysical Teams	QC Geophysicist / UXO QC
	Positioning Control Checks	Geophysical Teams	QC Geophysicist / UXO QC
	Static Checks	Geophysical Teams	QC Geophysicist / UXO QC
	Battery Strength Checks	Geophysical Teams	QC Geophysicist / UXO QC
	Audio Response Checks	Geophysical Teams	QC Geophysicist / UXO QC
	Field Data Quality Checks	Geophysical Teams	QC Geophysicist / UXO QC
	Cable Shake Test	Geophysical Teams	QC Geophysicist
	Metal-Free Operator Checks	Geophysical Teams	QC Geophysicist
	Download Checks	Digital Geophysical Teams / Processing Geophysicists	QC Geophysicist
	Field Record Checks	QC Geophysicist / Database Manager	QC Geophysicist / Database Manager
Digital Geophysical Mapping Data Processing	Data Quality Checks	Processing Geophysicists	QC Geophysicist
	Office Review of Field Forms	Processing Geophysicists	QC Geophysicist
	Instrument Standardization Checks	Processing Geophysicists	QC Geophysicist
	Data Sample Spacing Checks	Processing Geophysicists	QC Geophysicist
	Data Line Spacing Checks	Processing Geophysicists	QC Geophysicist
	Instrument Drift Checks	Processing Geophysicists	QC Geophysicist
	Processed Data Checks	Processing Geophysicists / QC Geophysicist / Project Geophysicist	QC Geophysicist

Table 11-2
Geophysical Quality Control Steps

Activity	QC Actions	Performed By	Overseen By
Digital Geophysical Mapping Data Processing (continued)	Data Deliverable Checks	Processing Geophysicists / QC Geophysicist / Project Geophysicist	QC Geophysicist
	Database Checks	Database Manager / QC Geophysicist / UXOQCS	Database Manager
	Dig Sheet Checks Prior to Delivery to UXO Teams	Processing Geophysicists / QC Geophysicist	QC Geophysicist
UXO Intrusive Operations	Field Verification of Geophysical Data Versus Intrusive Results	UXO Intrusive Teams / Processing Geophysicists / QC Geophysicist	QC Geophysicist / UXOQCS
Digital QC Surveys	Verification of Anomaly Removal During Intrusive Actions and After Completion of Initial Survey	Geophysical Teams	QC Geophysicist
Analog QC Surveys	Field Analog QC Surveys	UXOQCS	UXO QCM
Field QA Seeding and Surveys	Field QA Surveys	UXO QCM FORA QA Subcontractor EPA / DTSC	WESTON UXO Service Line Leader / FORA / EPA / DTSC
All Operations	Impromptu Field Team Checks for Adherence to Field / QC Procedures	Project Geophysicist, UXOQCS	QC Geophysicist / UXO QCM
	Daily Quality Control Reporting	UXO QC	QCM
Document Preparation	Check Document for Appropriate and Full Description of QC Activities	UXO QC	QCM

Notes:
DTSC = Department of Toxic Substances Control
FORA = Fort Ord Reuse Authority
QC = quality control
QCM = QC Manager
EPA = U.S. Environmental Protection Agency
UXO = unexploded ordnance
UXOQCS = UXO QC Specialist
WESTON = Weston Solutions, Inc.

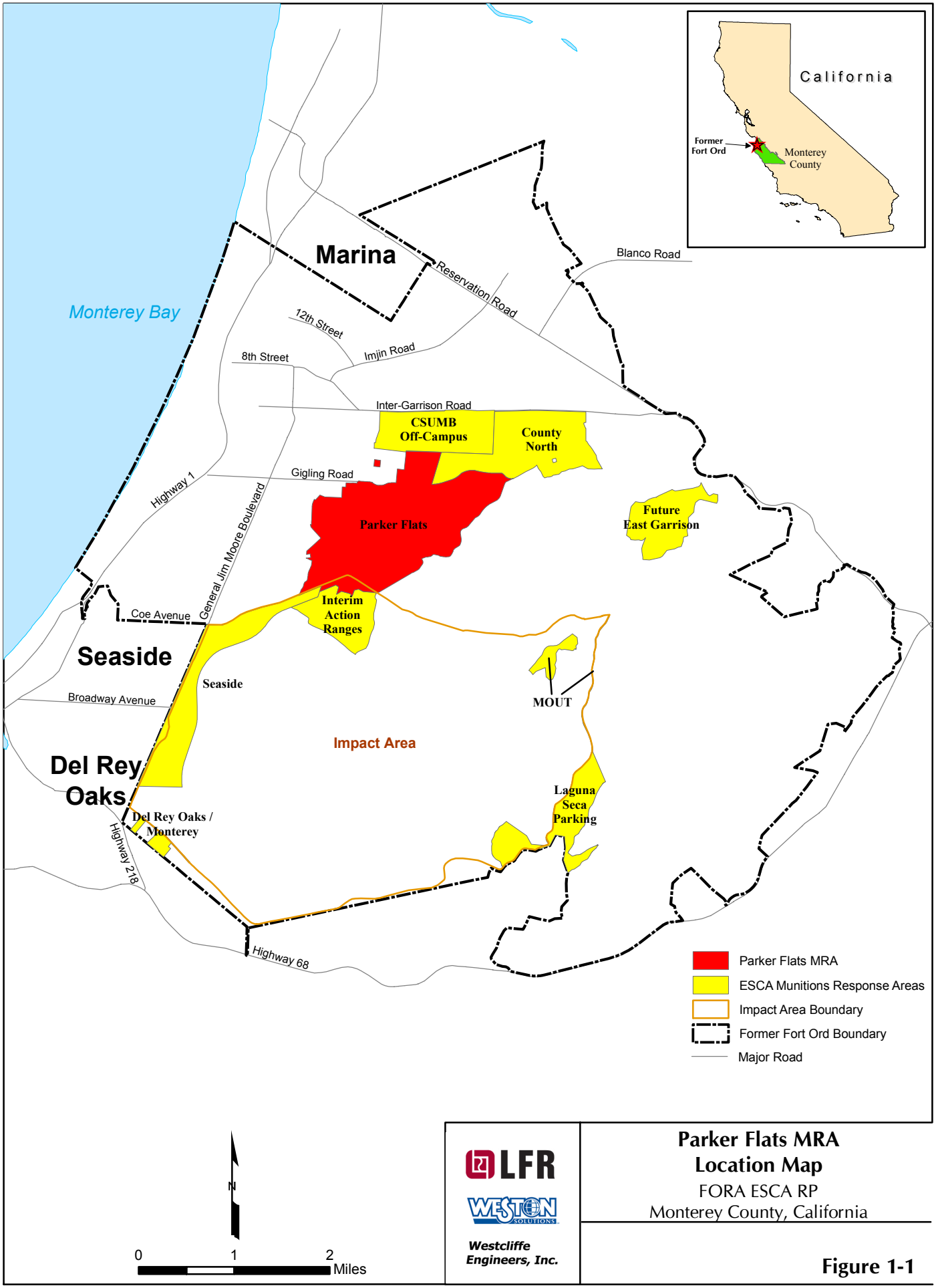
Table 11-3
List of Document Types for the Document Control Log

Description
Site-Specific Removal Report
Report / Minutes, Record of Meeting
Telephone Conversations / Correspondence Records
Conventional Explosives Safety Submission
Monthly Status Report
Weekly Status Report

Table 12-1
Parker Flats MRA – Possible Occurrence of HMP Species by Parcel

USACE Parcel as Referenced in the HMP	Corresponding USACE Parcel and/or Portion of Parcel Currently Used for Property Transfer Documentation	Sand Gilia	Monterey Spineflower	Seaside Bird's Beak	Toro Manzanita	Sandmat Manzanita	Monterey Ceanothus	Eastwood's Ericameria	Hooker's Manzanita	California Black Legless Lizard	California Tiger Salamander	Monterey Ornate Shrew
E18.1	E18.1.1, E18.1.3		X				X			X		X
E18.4	E18.4		X									X
E19a.1	E19a.3		X			X				X		X
E19a.2	E19a.1, E19a.2, E19a.4		X		X	X	X		X	X		X
E19a.3	E18.1.2, E19a.1, E19a.3, E19a.5		X		X	X	X		X	X		X
E20c.1.1	E20c.2		X			X	X	X		X		X
E20c.2.1	E18.1.1		X			X	X	X		X		X
E21a	E19.1.2, E19a.5		X			X	X	X		X		X
E21b.1	E19a.4, E19a.3, E19a.5		X		X	X	X	X	X	X		X
E21b.2	E18.1.2, E19a.4, E19a.5	X	X		X	X	X	X	X	X		X
E21b.3	E21b.3		X	X		X	X	X		X		
L20.18	L20.18		X	X		X	X	X		X		X
L23.2	L23.2		X			X	X					

Notes:
HMP = Habitat Management Plan
MRA = Munitions Response Area
USACE = United States Army Corps of Engineers



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LFR
WESTON SOLUTIONS
Westcliffe Engineers, Inc.

Parker Flats MRA Location Map

FORA ESCA RP
Monterey County, California

Figure 1-1