

Appendix I

Technical Project Planning (TPP) Work Sheets

**Trabuco Bombing Range Remedial Investigation/Feasibility Study (RI/FS)
Technical Project Planning (TPP) Worksheets**

TPP Team		EM200-1-2, Paragraph 1.1.1
Decision Makers		
Customer	Corps of Engineers, Los Angeles District (CESPL)	Larry Sievers, CESPL Project Manager (PM)
Project Manager	Larry Sievers, CESPL PM; B. J. Allen, CESPL Technical Lead	Joni Jorgensen-Risk, ITSI PM; Bill Kelso, Parsons PM
Regulators	EPA Region IX: State of California: Dept. of Toxic Substances Control (DTSC); Dept. of Fish and Game	
Stakeholders	State of California: DTSC; Orange County Sheriff's Dept.; Orange County Harbors, Beaches and Parks; O'Neill Regional Park	Cities of Rancho Santa Margarita and Mission Viejo; Orange County Fire Authority; SAMLARC; Communities of Rancho (CAR); Santa Margarita Water District; Trabuco Canyon Water District
Data Types	Data User	Data Gatherer
Compliance/Regulatory	CESPL, ITSI, Parsons	ITSI/Parsons
Demographic/Land Use	CESPL, ITSI, Parsons	ITSI/Parsons
Site Conditions	CESPL, ITSI, Parsons	ITSI/Parsons
MEC/UXO	CESPL, ITSI, Parsons	ITSI/Parsons
MC	CESPL, ITSI, Parsons	ITSI/Parsons
Endangered Species	CESPL, ITSI, Parsons	ITSI/Parsons
Archaeology	CESPL, ITSI, Parsons	ITSI/Parsons
Aerial Photo Interpretation	CESPL, ITSI, Parsons	ITSI/Parsons
CUSTOMER'S GOALS		
EM 200-1-1, Paragraph 1.1.2		
Future Land Use(s)	Issues and Regulatory Compliance Status	Site-specific Closeout Goal (if applicable)
Open space (including O'Neill Regional Park) and residential	UXO items/fragments; MC in soils	See closeout statement below
Site Closeout Statement		
To manage the munitions and explosives of concern (MEC) risk through a combination of removal, administrative controls, and public education, thereby rendering the site as safe as possible to humans and the environment.		
Customer's Schedule Requirements		
RI/FS Field Investigation to commence: spring 2006		
Customer's Site Budget		
RI/FS field investigation and reporting: Confidential		

Acronyms

CAR-Communities of Rancho
 CESPL-Corps of Engineers, Los Angeles District
 DTSC-Dept. of Toxic Substances Control
 EM-Engineer Manual
 ITSI-Innovative Technical Solutions, Inc.
 MC-munitions constituents
 MEC-munitions and explosives of concern
 PM-Project Manager
 RI/FS-Remedial Investigation/Feasibility Study
 TPP-Technical Project Planning
 UXO- Unexploded ordnance

IDENTIFY SITE APPROACH		
EXISTING SITE INFORMATION & DATA	EM 200-1-2, Paragraph 1.1.3 and 1.2.1	
Attachment(s) to Phase I MFR	Located at Repository	Preliminary Conceptual Site Model
Inventory Project Report (INPR)	Yes	Yes
Archives Search Report (ASR)	Yes	Yes
Time Critical Removal Report	Yes	Yes
Topographic Engineer Center (TEC) Historical Aerial Photo Analysis	In process	In process
POTENTIAL POINTS OF COMPLIANCE	EM 200-1-2, Paragraph 1.2.1.3	
Most probable munition (MPM) for the Explosives Safety Submission (ESS) Avoidance of sensitive conditions, endangered species, archaeological sites, and possible wetlands.		
MEDIA OF POTENTIAL CONCERN	EM 200-1-2, Paragraph 1.2.1.4	
Munitions and explosives of concern (MEC) at surface and subsurface.		
SITE OBJECTIVES	EM 200-1-2, Paragraph 1.2.2	
Site closeout and remediation (if applicable) See attached work sheets developed by ITSI & Parsons		
REGULATOR AND STAKEHOLDER PERSPECTIVES	EM 200-1-1, Paragraph 1.2.3	
Regulators	Community Interests	Others
See TPP Meeting Minutes, 6/27/05 and 8/18/05	See TPP Meeting Minutes, 6/27/05 and 8/18/05	
PROBABLE REMEDIES	EM 200-1-2, Paragraph 1.2.4	
Detonation of MEC found during Remedial Investigation/Feasibility Study (RI/FS)		
Removal of munitions debris found during RI/FS		
Implementation of institutional controls		
Determination of work beyond RI/FS		
EXECUTABLE STAGES TO SITE CLOSEOUT	EM 200-1-2, Paragraph 1.2.5	
Detonation of MEC found during RI/FS		
Remedial Investigation (phase 2, if needed)		
Time-Critical Removal Action (as required)		
Risk Assessment		
Feasibility Study (as required)		
Action Memorandum		
Conventional Ordnance Explosives Safety Submission		
Removal Action (as needed)		
Proposed Plan		
Decision Document		

Acronyms

- ASR-Archives Search Report
- EM-Engineer Manual
- ESS-Explosives Safety Submission
- INPR-Inventory Project Report
- ITSI-Innovative Technical Solutions, Inc.
- MEC-munitions and explosives of concern
- MFR-Memorandum For Record
- MPM-most probable munition
- RI/FS-Remedial Investigation/Feasibility Study
- TEC-Technical Engineering Center
- TPP-Technical Project Planning

IDENTIFY CURRENT PROJECT		
SITE CONSTRAINTS AND DEPENDENCIES		EM 200-1-2, Paragraph 1.3.1
<u>Administrative Constraints and Dependencies</u>		
Funding		
Biological Assessment (optional)		
Cultural resources survey (optional)		
Rights of entry		
<u>Technical Constraints and Dependencies</u>		
Property owner site activities (e.g., exclusion zones, site access)		
Breeding season (March-August)		
Topography/Vegetation		
Close proximity to residential areas and golf course		
Habitat for federally listed species		
Environmentally sensitive areas		
<u>Legal and Regulatory Constraints and Dependencies</u>		
Consistent with CERCLA and NCP		
Public, stakeholder, and regulatory involvement and review of key documents		
Formerly Used Defense Site (FUDS) funding limitations		
CURRENT EXECUTABLE STAGE		EM 200-1-2, Paragraph 1.3.3
Remedial Investigation/Feasibility Study (RI/FS)		
<i>See attached worksheets developed by Corps of Engineers, Los Angeles District (CESPL), and ITS/Parsons</i>		
Basic (For Current Projects)	Optimum (For Future Projects)	Excessive (Objectives that do not lead to site closeout)
RI/FS	Removal Action	

Acronyms

- CERCLA-Comprehensive Environmental Response, Compensation, and Liability Act
- CESPL-Corps of Engineers, Los Angeles District
- EM-Engineer Manual (see www.usace.army.mil/inet/usace-docs/)
- FUDS-Formerly Used Defense Site
- NCP-National Contingency Plan
- RI/FS-Remedial Investigation/Feasibility Study
- TPP-Technical Project Planning

PROJECT OBJECTIVES WORKSHEET

Site: **Trabuco Bombing Range**

Project: **Former Trabuco Bombing Range, Rancho Santa Margarita, CA**

Number	Site Objective ^a		Description	Source ^c	Data Needs	Data Collection Methods	Project Objective Classification ^d
	Executable Stage ^b						
	Current	Future					
1	Yes		Delineate MEC/MC within site	ASR	UXO	geophysics, GPS, and excavations	basic
2	Yes		Determine presence/absence of MEC, and presence/absence of MC before/after detonation	DTSC	explosives and ordnance related constituents	field analysis and laboratory analysis	optimum
3	Yes		Define current and future land use	Rancho Santa Margarita, O'Neill Regional Park	LU projections	TPP/interviews	basic
4	Yes		Impact Analysis/Risk Analysis	CERCLA	UXO, LU, CR, SC	RAC, EPA risk assessment	basic
5	Yes		NDAI/RA decision	CERCLA	UXO, LU, CR, SC	RI/FS Report	basic

a Refer to EM 200-1-2, Paragrah 1.2.2

b Refer to EM 200-1-2, Paragrah 1.2.5

c For example, Meeting with Customer/Stakeholder/Regulator, State Regulation ____.

d Classification of project objectives can only occur after the current project has been identified. Refer to EM 200-1-2, Paragraph 1.3.3

Acronyms

ASR-Archives Search Report

CERCLA-Comprehensive Environmental Response, Compensation, and Liability Act

CR-Compliance/Regulatory

DTSC-Department of Toxic Substances Control

EM-Engineer Manual

EPA-Environmental Protection Agency

GPS-global positioning system

LU-Land Use

MC-Munitions Constituents

MEC-Munitions and Explosives of Concern

NDAI-No Department of Defense Action Indicated

RA-Removal Action

RAC-risk assessment code

RI/FS-Remedial Investigation/Feasibility Study

SC-Site Conditions

TPP-Technical Project Planning

UXO-unexploded ordnance

SITE INFORMATION WORKSHEET

SITE: **Former Trabuco Bombing Range, Rancho Santa Margarita, CA**

PROJECT **Former Trabuco Bombing Range Remedial Investigation/Feasibility Study (RI/FS), Rancho Santa Margarita, CA**

Number	Site Information Needed ^a	Potential Source(s) of Site Information	User of Site Information ^b	Suggested Means to Obtain Site Information	Deadline for Obtaining Site Information
1	Historical use of land	Archive Search Report (ASR)	ITSI/Parsons, Corps of Engineers, Los Angeles District (CESPL)	From client	Already obtained
2	Previous site investigations	ASR, Time Critical Removal Action (TCRA)	ITSI/Parsons, CESPL	From client	Already obtained
3	Aerial photographs	USACE Hunstville, TEC	ITSI/Parsons, CESPL	From client	Obtained October 2005
4	Biological assessment	CESPL, Orange County	ITSI/Parsons, CESPL	From client	TBD
5	Cultural resources	CESPL, State Historic Preservation Office (SHPO), Orange County	ITSI/Parsons, CESPL	From client	TBD
6					
7					
8					
9					
10					
11					

^a Refer to EM 200-1-2, Paragraphs 1.1.3 and 2.2

^b Indicate a specific TPP team member (e.g., Risk Data User, Customer, Regulator, Sampling Data Implementor)

Acronyms

- ASR-Archives Search Report
- CESPL-Corps of Engineers, Los Angeles District
- EM-Engineer Manual
- ITSI-Innovative Technical Solutions, Inc.
- SHPO-State Historic Preservation Office
- TBD-to be determined
- TCRA-Time Critical Removal Actions
- TEC-Technical Engineer Center
- TPP-Technical Project Planning
- USACE-US Army Corps of Engineers

DATA QUALITY OBJECTIVES WORKSHEET	
Site: Trabuco Bombing Range T-35 Rocket and Dive Bombing Project: Former Trabuco Bombing Range Remedial Investigation/Feasibility Study (RI/FS), Rancho Santa Margarita, CA DQO Statement Number: 1	
Intended Data Use: (Which project objective (s) will be satisfied?)	Prepare and obtain stakeholder concurrence on a Decision Document.
Data need requirements: (What data do you need to collect?) see para 3-3.	The type, distribution, and density of ordnance and explosives on the site.
Are data: basic, optimal, or excessive need? (see para 3-4)	Data needs are basic and optimal.
How much data is enough?	Any presence or evidence of munitions and explosives of concern or munitions debris, either on the surface or subsurface.
How will these data be collected?	Geophysical mapping of approximately 1.9% of the area using meandering path, transects, and a grid at the Adobe Hut, and intrusive investigation of selected anomalies. Munitions Constituents analysis (MC) by the collection of soil samples in designated locations and before and after each blow-in-place event. MC samples will be analyzed as follows: Explosives by Method SW8330 and Metals by Methods SW6010B and SW7471A.
Was Data Quality Objective attained?	TBD
Where are supporting data maintained?	Project Web site, ITSI Walnut Creek and Sacramento offices, and U.S. Army Corps of Engineers Los Angeles District (CESPL) office.

DATA QUALITY OBJECTIVES WORKSHEET	
Site: Trabuco Bombing Range T-36 Dive Bombing Strafing Page 1 of 1 Project: Former Trabuco Bombing Range Remedial Investigation/Feasibility Study (RI/FS), Rancho Santa Margarita, CA DQO Statement Number: 1	
Intended Data Use: (Which project objective (s) will be satisfied?)	Prepare and obtain stakeholder concurrence on a Decision Document.
Data need requirements: (What data do you need to collect?) see para 3-3.	The type, distribution, and density of ordnance and explosives on the site.
Are data: basic, optimal, or excessive need? (see para 3-4)	Data needs are basic and optimal.
How much data is enough?	Any presence or evidence of munitions and explosives of concern or munitions debris, either on the surface or subsurface.
How will these data be collected?	Geophysical mapping of approximately 1.9% of the area using meandering path, transects, and a grid at the Adobe Hut, and intrusive investigation of selected anomalies. Munitions Constituents analysis (MC) by the collection of soil samples in designated locations and before and after each blow-in-place event. MC samples will be analyzed as follows: Explosives by Method SW8330 and Metals by Methods SW6010B and SW7471A.
Was Data Quality Objective attained?	TBD
Where are supporting data maintained?	Project Web site, ITSI Walnut Creek and Sacramento offices, and U.S. Army Corps of Engineers Los Angeles District (CESPL) office.

DATA QUALITY OBJECTIVES WORKSHEET	
Site: Trabuco Bombing Range T-36 Dive Bombing Strafing Page 1 of 1 Project: Former Trabuco Bombing Range Remedial Investigation/Feasibility Study (RI/FS), Rancho Santa Margarita, CA DQO Statement Number: 1	
Intended Data Use: (Which project objective (s) will be satisfied?)	Prepare and obtain stakeholder concurrence on a Decision Document.
Data need requirements: (What data do you need to collect?) see para 3-3.	The type, distribution, and density of ordnance and explosives on the site.
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Was Data Quality Objective attained?	TBD
Where are supporting data maintained?	Project Web site, ITSI Walnut Creek and Sacramento offices, and U.S. Army Corps of Engineers Los Angeles District (CESPL) office.

DATA QUALITY OBJECTIVES WORKSHEET	
Site: Trabuco Bombing Range T-37 Dive Bombing Strafing Page 1 of 1 Project: Former Trabuco Bombing Range Remedial Investigation/Feasibility Study (RI/FS), Rancho Santa Margarita, CA DQO Statement Number: 1	
Intended Data Use: (Which project objective (s) will be satisfied?)	Prepare and obtain stakeholder concurrence on a Decision Document.
Data need requirements: (What data do you need to collect?) see para 3-3.	The type, distribution, and density of ordnance and explosives on the site.
Are data: basic, optimal, or excessive need? (see para 3-4)	Data needs are basic and optimal.
How much data is enough?	Any presence or evidence of munitions and explosives of concern or munitions debris, either on the surface or subsurface.
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Was Data Quality Objective attained?	TBD
Where are supporting data maintained?	Project Web site, ITSI Walnut Creek and Sacramento offices, and U.S. Army Corps of Engineers Los Angeles District (CESPL) office.

DATA QUALITY OBJECTIVES WORKSHEET	
Site: Trabuco Bombing Range T-108 Rocket Firing Page 1 of 1	
Project: Former Trabuco Bombing Range Remedial Investigation/Feasibility Study (RI/FS), Rancho Santa Margarita, CA	
DQO Statement Number: 1	
Intended Data Use: (Which project objective (s) will be satisfied?)	Prepare and obtain stakeholder concurrence on a Decision Document.
Data need requirements: (What data do you need to collect?) see para 3-3.	The type, distribution, and density of ordnance and explosives on the site.
Are data: basic, optimal, or excessive need? (see para 3-4)	Data needs are basic and optimal.
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Was Data Quality Objective attained?	TBD
Where are supporting data maintained?	Project Web site, ITSI Walnut Creek and Sacramento offices, and U.S. Army Corps of Engineers Los Angeles District (CESPL) office.