

N00236.000363
ALAMEDA POINT
SSIC NO. 5090.3

Southwest Division
Naval Facilities Engineering Command
Contracts Department
1220 Pacific Highway, Building 127, Room 112
San Diego, California 92132-5190

CONTRACT NO. N68711-98-D-5713
CTO No. 0040

FINAL
ADDENDUM TO THE
REMOVAL ACTION WORK PLAN
Revision 0
April 19, 2002

CERCLA TIME-CRITICAL REMOVAL ACTION
AT INSTALLATION RESTORATION SITE 25
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DCN: FWSD-RAC-02-0810



FOSTER WHEELER ENVIRONMENTAL CORPORATION

1230 Columbia Street, Suite 500
San Diego, CA 92101

Abram Eloskof, M. Sc., M. Eng., CIH
Project Manager

Jamshid Sadeghipour, Ph.D., PE
Deputy Program Manager



DEPARTMENT OF THE NAVY
SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132-5190

5090
Ser 06CA.RW\0401
April 19, 2002

Ms. Anna-Marie Cook
US Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

Dear Ms. Cook:

Subj: *ADDENDUM TO THE REMOVAL ACTION WORK PLAN CERCLA TIME-
CRITICAL REMOVAL ACTION AT INSTALLATION RESTORATION SITE 25
ALAMEDA POINT ALAMEDA, CALIFORNIA*

This letter transmits the Work Plan Addendum for the expanded PAH-contaminated soil Time Critical Removal Action (TCRA) at OU-5, Alameda Point, Alameda, California.

As you are aware, work associated with the expanded TCRA is underway. If the Environmental Protection Agency (EPA) or any other regulatory agency has a desire to change part of the Work Plan Addendum, Navy will incorporate desired change(s) in the document and in the field work as needed.

If you have questions, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard C. Weissenborn".

RICHARD C. WEISSENBORN, P.E.
Remedial Project Manager

Encl: (1) *ADDENDUM TO THE REMOVAL ACTION WORK PLAN CERCLA TIME-
CRITICAL REMOVAL ACTION AT INSTALLATION RESTORATION SITE 25
ALAMEDA POINT ALAMEDA, CALIFORNIA*

5090
Ser 06CA.RW\0401
April 19, 2002

Copy to :
Ms. Marcia Liao
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2721

Mr. Dennis Mishek
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, California 94612

FOSTER WHEELER

FOSTER WHEELER ENVIRONMENTAL CORPORATION

TRANSMITTAL/DELIVERABLE RECEIPT

Contract No. N68711-98-D-5713 (RAC III)

Document Control No. 02-0810 Rev. 0

File Code: 5.0

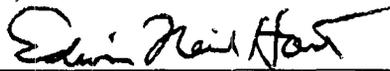
TO: Contracting Officer
 Naval Facilities Engineering Command
 Southwest Division
 Ms. Beatrice Appling, 02R1.BA
 1220 Pacific Highway
 San Diego, CA 92132-5190

DATE: 04/22/02

CTO: 0040

LOCATION: NAS Alameda

FROM:


 Neil Hart, Program Manager

DESCRIPTION: Final Addendum to the Removal Action Work Plan, CERCLA Time-Critical
 Removal Action at Installation Restoration Site 25, Rev. 0, 04/19/02

TYPE: Contract/Deliverable CTO Deliverable Notification
 Other

VERSION: Final REVISION #: 0
 (e.g. Draft, Draft Final, Final, etc.)

ADMIN RECORD: Yes No Category Confidential
 (PM to Identify)

SCHEDULED DELIVERY DATE: 04/26/02 ACTUAL DELIVERY DATE: 04/22/02

NUMBER OF COPIES SUBMITTED: 0/5C/9E

COPIES TO: (Include Name, Navy Mail Code, and Number of Copies)

NAVY:

R. Weissenborn (06CARW)
O/5E
N. Ancog (3ENNA) 1C/1E
D. Silva (05GDS) 3C/3E
Basic Contract File (02R1)
1C

FWENC:

M. Schneider
A. Eloskof
J. Baldwin

OTHER: (Distributed by FWENC)

See Attached for Additional
Distribution

Date/Time Received

EXECUTIVE SUMMARY

This Addendum to the Removal Action Work Plan (RAWP) has been prepared to describe the scope of the expanded Time-Critical Removal Action (TCRA) at Operable Unit-5 [synonymous with Installation Restoration (IR) Site 25] located within the boundary of the former Naval Air Station (NAS) Alameda, Alameda Point, Alameda, California. Alameda Point is located at the west end of Alameda Island. IR Site 25 is comprised of approximately 42 acres and is divided into three Environmental Baseline Survey (EBS) parcels (Parcels 181, 182, and 183). IR Site 25 is located within the National Priorities List's listed portion of the former NAS Alameda. The expanded TCRA area is approximately 11.6 acres and encompasses both EBS Parcel 182 and EBS Parcel 183 (Estuary Park).

The purpose of the action is to remove contaminated soil located in Estuary Park within IR Site 25. The Department of the Navy (DON), Southwest Division Naval Facilities Engineering Command, has retained the services of Foster Wheeler Environmental Corporation (FWENC) as the general contractor to conduct the removal action at this site.

The expanded TCRA will reduce soil contaminant concentrations to acceptable levels and be protective of human health by preventing exposure to the contaminated soil. This will be accomplished through excavation and off-site disposal of the contaminated soil at a disposal facility approved by the U.S. Environmental Protection Agency to accept Comprehensive Environmental Response, Compensation, and Liability Act off-site waste. Thus, the removal action will substantially eliminate the identified pathways of exposure to hazardous substances [the primary chemicals of concern (COCs)] for current and future users of the site. The human health COCs in the soil, addressed by the expanded TCRA, are the seven carcinogenic polynuclear aromatic hydrocarbons (PAHs) [benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-c,d)pyrene]. The expanded TCRA focuses only on potentially unacceptable human health risk concerns in soils. Groundwater is not included within the scope of this removal action.

The DON has prepared an Action Memorandum Addendum (FWENC, 2002) recommending that the remediation of the expanded TCRA area be completed by means of excavation and off-site disposal of contaminated soils at a regulatory-approved landfill. This Addendum to the RAWP provides additional detailed descriptions of the expanded TCRA including pre-construction, construction, and post-construction activities. Amended project-specific plans and specifications will be referenced, as appropriate, to provide further detailed support to the Addendum to the RAWP and are included as appendices. These plans include an Addendum to the Field Sampling Plan, an Addendum to the Quality Assurance Project Plan, an Addendum to the Site-Specific Health and Safety Plan, an Addendum to the Air Monitoring Plan, an Addendum to the Project Contractor Quality Control Plan, an Addendum to the Traffic Control Plan, an Addendum to the

Waste Management Plan, an Addendum to the Demolition Plan, an Addendum to the Environmental Protection Plan, an Addendum to the Environmental Conditions Report, and an Addendum to the Stormwater Management Plan.

Pre-construction activities for the expanded TCRA include pre-construction surveys, pre-construction sampling, pre-mobilization conference, subcontracting, and procurement. Site work will initiate upon completion of the pre-construction site activities. Construction activities include site mobilization and preparation, removal of recreational structures, contaminated soil excavation, backfilling and compaction, installation of an irrigation system, transport and off-site disposal of construction debris and contaminated soil at approved disposal facilities, site restoration, and demobilization. The remediation of the site requires excavation of approximately 37,500 cubic yards of PAH-contaminated soils from approximately 11.6 acres within Estuary Park. The anticipated time to complete the field activities associated with the removal action is 4 months.

Post-construction activities involve preparing a project closeout report to provide a record of activities conducted during the initial and expanded TCRA to document decisions made regarding work options and to address any residual contaminants (if any) that may have actual or potential impact on nearby human populations, animals, or the food chain.

FINAL REMOVAL ACTION WORK PLAN
CERCLA TIME-CRITICAL REMOVAL ACTION AT
INSTALLATION RESTORATION SITE 25

DATED 26 NOVEMBER 2001

IS ENTERED IN THE DATABASE AND FILED AT
ADMINISTRATIVE RECORD NO. N00236.000297

DRAFT ADDENDUM TO THE
REMOVAL ACTION WORK PLAN
CERCLA TIME-CRITICAL REMOVAL ACTION AT
INSTALLATION RESTORATION SITE 25

DATED 29 MARCH 2002

IS ENTERED IN THE DATABASE AND FILED AT
ADMINISTRATIVE RECORD NO. N00236.000360

TABLE OF CONTENTS

	<u>PAGE</u>
EXECUTIVE SUMMARY	i
LIST OF FIGURES	vi
ABBREVIATIONS AND ACRONYMS	vii
1.0 INTRODUCTION	1-1
1.1 SCOPE OF WORK	1-1
1.2 REPORT ORGANIZATION	1-2
2.0 SITE CONDITIONS	2-1
2.1 FACILITY DESCRIPTION AND BACKGROUND	2-1
2.1.1 Site Location	2-1
2.1.2 Type of Facility and Operational Status	2-1
2.1.3 Structures/Topography	2-1
2.2 PHYSICAL CHARACTERISTICS	2-1
2.2.1 Geology	2-1
2.2.2 Hydrogeologic Setting	2-1
2.2.3 Surface-Water Hydrology	2-2
2.2.4 Climatic Conditions	2-2
2.3 PREVIOUS INVESTIGATIONS	2-2
2.4 NATURE AND EXTENT OF CONTAMINATION	2-2
2.5 RISK-SCREENING EVALUATION	2-2
3.0 REGULATORY FRAMEWORK	3-1
3.1 REGULATORY PROCESS	3-1
3.2 REGULATED SITE ACTIVITIES	3-1
3.2.1 Anticipated Waste Streams	3-1
3.3 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS	3-1
3.3.1 Potential Location-Specific ARARs	3-1
3.3.2 Potential Action-Specific ARARs	3-2
3.3.3 Potential Chemical-Specific ARARs	3-2
3.4 REMOVAL ACTION OBJECTIVES	3-2
3.5 COMMUNITY RELATIONS ACTIVITIES	3-2
3.5.1 Public Information	3-2
3.5.2 Public Participation	3-2
4.0 PRE-CONSTRUCTION ACTIVITIES	4-1
4.1 PRE-CONSTRUCTION SURVEY	4-1
4.2 PRE-CONSTRUCTION SAMPLING	4-1
4.2.1 Sampling Procedure	4-1
4.3 PERMITTING	4-2

TABLE OF CONTENTS

(Continued)

	<u>PAGE</u>
4.4	PRE-MOBILIZATION CONFERENCE..... 4-2
4.5	SUBCONTRACTING/PROCUREMENT 4-2
5.0	PROJECT REQUIREMENTS..... 5-1
5.1	HEALTH AND SAFETY REQUIREMENTS 5-1
5.1.1	Worker Health and Safety 5-1
5.1.2	Training Requirements 5-1
5.1.3	Emergency Response Plan..... 5-1
5.2	AIR QUALITY MONITORING REQUIREMENTS..... 5-1
5.2.1	Air Quality Concerns 5-1
5.2.2	Sampling Methods 5-1
5.3	CONTRACTOR QUALITY CONTROL REQUIREMENTS 5-1
5.3.1	Field Quality Control..... 5-2
5.3.2	Field Inspections 5-2
5.3.3	Control Tests..... 5-2
5.4	TRAFFIC CONTROL 5-2
5.5	WASTE MANAGEMENT 5-2
5.6	DEMOLITION PLAN 5-2
5.7	ENVIRONMENTAL PROTECTION PLAN/ENVIRONMENTAL CONDITION PLAN 5-3
5.7.1	Environmental Considerations..... 5-3
6.0	PROJECT MANAGEMENT..... 6-1
6.1	PROJECT RESPONSIBILITIES 6-1
6.2	PROJECT SCHEDULE 6-2
6.3	DATA MANAGEMENT 6-3
6.4	DOCUMENT CONTROL 6-3
6.5	MEETINGS AND REPORTS 6-3
7.0	SITE WORK..... 7-1
7.1	PRE-CONSTRUCTION ACTIVITY 7-1
7.2	MOBILIZATION..... 7-1
7.3	SITE CONTROL AND SECURITY 7-2
7.4	SITE SUPPORT AREA PREPARATION 7-2
7.5	MONITORING WELL PROTECTION 7-3
7.6	EXPOSING UNDERGROUND UTILITIES 7-3
7.7	ENVIRONMENTAL PROTECTION MEASURES 7-3
7.7.1	Stormwater and Erosion Control 7-3
7.7.2	Fugitive Dust Control 7-3
7.7.3	Perimeter Air Monitoring 7-3
7.7.4	Wastewater Collection and Disposal 7-3

TABLE OF CONTENTS

(Continued)

	<u>PAGE</u>
7.8 DEMOLITION OF SITE STRUCTURES.....	7-4
7.8.1 Trees	7-4
7.8.2 Fences	7-4
7.8.3 Concrete Swales.....	7-4
7.8.4 Site Structures	7-4
7.9 EXCAVATION.....	7-4
7.9.1 Excavation of Contaminated Soil	7-4
7.9.2 Contaminated Soil Stockpile Management	7-5
7.9.3 Decontamination Procedures	7-5
7.10 BACKFILLING AND COMPACTION	7-6
7.11 SOD PLACEMENT	7-6
7.12 DEMOBILIZATION	7-6
7.13 SITE RESTORATION.....	7-6
8.0 POST-CONSTRUCTION CLOSEOUT REPORT	8-1
9.0 REFERENCES	9-1

APPENDICES

Appendix A	Final Addendum to the Field Sampling Plan
Appendix B	Final Addendum to the Quality Assurance Project Plan
Appendix C	Final Addendum to the Site-Specific Health and Safety Plan
Appendix D	Final Addendum to the Air Monitoring Plan
Appendix E	Final Addendum to the Project Contractor Quality Control Plan
Appendix F	Final Addendum to the Traffic Control Plan
Appendix G	Final Addendum to the Waste Management Plan
Appendix H	Final Addendum to the Demolition Plan
Appendix I	Final Addendum to the Environmental Protection Plan
Appendix J	Final Addendum to the Environmental Conditions Report
Appendix K	Final Addendum to the Stormwater Management Plan

LIST OF FIGURES

- Figure 1-1(A) Site Vicinity Map
- Figure 1-2(A) Site Location Map
- Figure 2-2(A) IR Site 25 Remedial Investigation Sample Locations
- Figure 4-1(A) Excavation Boundary and Pre-Construction Sample Locations
- Figure 6-2(A) Project Schedule
- Figure 7-1(A) Site Support Facilities
- Figure 7-2(A) Decontamination Pad Details

ABBREVIATIONS AND ACRONYMS

AMP	Air Monitoring Plan
ARAR	applicable or relevant and appropriate requirement
bgs	below ground surface
BMP	Best Management Practice
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	chemical of concern
DON	Department of the Navy
DP	Demolition Plan
DPM	Deputy Program Manager
DTSC	Department of Toxic Substances Control
EBS	Environmental Baseline Survey
ECR	Environmental Condition Report
EPA	U.S. Environmental Protection Agency
EPP	Environmental Protection Plan
FSP	Field Sampling Plan
FWENC	Foster Wheeler Environmental Corporation
IR	Installation Restoration
mg/kg	milligrams per kilogram
NAS	Naval Air Station
NPDES	National Pollution Discharge Elimination System
PAH	polynuclear aromatic hydrocarbon
PCB	polychlorinated biphenyl
PCQC	Project Contractor Quality Control
PJM	Project Manager
PQCM	Project Quality Control Manager
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
QCM	Quality Control Program Manager
RAWP	Removal Action Work Plan

ABBREVIATIONS AND ACRONYMS

(Continued)

ROICC	Resident Officer in Charge of Construction
RPM	Remedial Project Manager
RWQCB	Regional Water Quality Control Board
SHSS	Site Health and Safety Specialist
SHSP	Site-Specific Health and Safety Plan
SVOC	semivolatile organic compound
SWDIV	Southwest Division Naval Facilities Engineering Command
SWMP	Stormwater Management Plan
TCP	Traffic Control Plan
TCRA	Time-Critical Removal Action
TPH	total petroleum hydrocarbons
VOC	volatile organic compound
WMP	Waste Management Plan

1.0 INTRODUCTION

This Addendum to the Removal Action Work Plan (RAWP) describes the proposed procedures and field activities for the implementation of the expanded Time-Critical Removal Action (TCRA) at Operable Unit-5 [synonymous with Installation Restoration (IR) Site 25] located on former Naval Air Station (NAS) Alameda, Alameda Point, Alameda, California [Figure 1-1(A)]. Alameda Point is located at the west end of Alameda Island. IR Site 25 is comprised of approximately 42 acres and is divided into three Environmental Baseline Survey (EBS) parcels (Parcels 181, 182, and 183). The Department of the Navy (DON), Southwest Division Naval Facilities Engineering Command (SWDIV) is directing this TCRA in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Under the DON's directive, Foster Wheeler Environmental Corporation (FWENC) will be responsible for planning and implementing the expanded TCRA.

The Addendum to the RAWP (including appendices) provides details on the major aspects of the expanded TCRA. This Addendum to the RAWP includes additional clarifications and specific information pertinent to the expanded TCRA. The overall work program is described in detail in the *Final Removal Action Work Plan, CERCLA TCRA at IR Site 25, Alameda Point, Alameda, California* (FWENC, 2001). Figures and tables presented in the Final RAWP (FWENC, 2001) and associated appendices that have been revised to address the expanded TCRA are included in this report and are denoted with an (A) after the figure or table number [for example, Figure 1-1(A) or Table A.5-1(A)].

It should be noted that this Addendum to the RAWP is considered a supplementary document to the Final RAWP (FWENC, 2001). For completeness, one needs to refer back to the Final RAWP (FWENC, 2001) and then expand on the discussion by considering the modifications in the work elements as described in this addendum.

1.1 SCOPE OF WORK

The remediation of the expanded TCRA area will be restricted to the removal of the top 2 feet of soil in areas as depicted on Figure 1-2(A). Certain site features that include, but are not limited to shrubbery, fences, playground equipment, and physical fitness course equipment, will be removed prior to excavation and not replaced. The park also includes a baseball field, asphalt jogging path, sand volleyball court, and soccer field that will be removed for the work activity. The structures associated with these specific recreational features will be replaced upon completion of the excavation. Utility or utility pole removal is not anticipated. Large trees selected for preservation will be marked and protected during removal activities.

The contaminated soil slated for removal, extends from near-surface to a depth of 2 feet below ground surface (bgs) and encompasses an area of approximately 11.6 acres as depicted on

Figure 1-2(A). The excavation will not exceed depths of 2 feet or extend beyond the site boundary. Following excavation, the remediation area will be backfilled and graded, an irrigation system will be installed, the sod will be replaced, and selective recreational structures will be reinstalled. A closeout report will be prepared to document the removal activities associated with the initial and expanded TCRA's conducted at the site.

1.2 REPORT ORGANIZATION

This Addendum to the RAWP is structured to provide additional clarifications and detailed descriptions of the expanded TCRA including pre-construction, construction, and post-construction activities. Amended project-specific plans and specifications will be referenced, as appropriate, to provide further detailed support to the Addendum to the RAWP and are included as appendices. These plans include an Addendum to the Field Sampling Plan (FSP), an Addendum to the Quality Assurance Project Plan (QAPP), an Addendum to the Site-Specific Health and Safety Plan (SHSP), an Addendum to the Air Monitoring Plan (AMP), an Addendum to the Project Contractor Quality Control Plan (PCQC), an Addendum to the Traffic Control Plan (TCP), an Addendum to the Waste Management Plan (WMP), an Addendum to the Demolition Plan (DP), an Addendum to the Environmental Protection Plan (EPP), an Addendum to the Environmental Conditions Report (ECR), and an Addendum to the Stormwater Management Plan (SWMP).

2.0 SITE CONDITIONS

This section describes the site-specific conditions related to the expanded TCRA area.

2.1 FACILITY DESCRIPTION AND BACKGROUND

No revisions.

2.1.1 Site Location

The expanded TCRA area is located entirely within Estuary Park (EBS Parcel 182, which includes the U.S. Coast Guard Housing Office, and EBS Parcel 183, which includes the U.S. Coast Guard Housing Maintenance Office and a small yard area) and occupies approximately 11.6 acres. EBS Parcel 182 is used as a park and contains baseball and soccer fields, a sand volleyball court, playgrounds, and a physical fitness course. The expanded TCRA area is bordered by Todd Shipyard to the west, the Fleet and Industrial Supply Center, Oakland Alameda Annex Facility to the north and east, residential housing [EBS Parcel 181 (initial TCRA area)] to the south and southeast, and EBS Parcel 178 to the south [Figure 1-2(A)]. Currently, site support facilities associated with the initial TCRA area occupy the northeast portion of EBS Parcel 182.

2.1.2 Type of Facility and Operational Status

No revisions.

2.1.3 Structures/Topography

No revisions.

2.2 PHYSICAL CHARACTERISTICS

No revisions.

2.2.1 Geology

No revisions.

2.2.2 Hydrogeologic Setting

No revisions.

2.2.3 Surface-Water Hydrology

The expanded TCRA area is predominately a park with grassy areas. Two one-story buildings, the U.S. Coast Guard Housing Office and the U.S. Coast Guard Housing Maintenance Office, and associated asphalt parking areas are also located within the expanded TCRA area. The vegetative cover allows for partial absorption and percolation of precipitation. Collection of surface-water runoff from the expanded TCRA area occurs via the storm drain system on the island and discharges into the Oakland Inner Harbor.

2.2.4 Climatic Conditions

No revisions.

2.3 PREVIOUS INVESTIGATIONS

In 1995, three surface and five subsurface soil samples in addition to four groundwater samples were collected in EBS Parcel 182. In 1998, multi-depth soil samples (0.5 feet to 10 feet bgs) were collected from approximately 42 sample locations within the same area (Neptune and Company, Inc., 2001). Benzo(a)pyrene equivalents were calculated and utilized for the purpose of data analysis. Two trends were apparent in the historical review; 1) benzo(a)pyrene equivalent concentrations are elevated in EBS Parcel 182 and decrease to the east and south, and 2) benzo(a)pyrene equivalent concentrations are higher in soils between 4 to 8 feet bgs than 0 to 0.5 feet bgs in Estuary Park. Previous sampling locations are presented in Figure 2-2(A).

2.4 NATURE AND EXTENT OF CONTAMINATION

The DON established a 1.8-miligrams per kilogram (mg/kg) benzo(a)pyrene equivalent action level for the expanded TCRA and delineated the area as depicted on Figure 1-2(A).

2.5 RISK-SCREENING EVALUATION

No revisions.

3.0 REGULATORY FRAMEWORK

This section describes the additional regulatory requirements that are pertinent to the expanded TCRA area.

3.1 REGULATORY PROCESS

No revisions.

3.2 REGULATED SITE ACTIVITIES

3.2.1 Anticipated Waste Streams

A separate Addendum to the WMP (Appendix G) has been prepared to address management, transportation, and disposal of the waste streams specifically associated with the expanded TCRA.

3.3 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

To qualify as a state applicable or relevant and appropriate requirement (ARAR) under CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan, a state requirement must be a state law or regulation.

3.3.1 Potential Location-Specific ARARs

Coastal Resource ARARs

It is noted that the Oakland Inner Harbor, which connects to San Francisco Bay, is located approximately 200 feet north of the expanded TCRA area. Since the site is near a coastal area, the California Coastal Commission was contacted to determine if the site was within a coastal zone. Since the expanded TCRA area is greater than 100 feet from the coast high tide line, the site is not affected by any coastal zoning restrictions. However, implementing the TCRA at the site is consistent with California Coastal Commission goals and will conform to the substantive requirements of the state management program. While the remedial action will involve short-term and temporary excavation and staging of contaminated soils, the excavation activities will be conducted in a manner that will protect the adjacent coastal zone. The selected removal action will also reduce chemicals of concern (COCs) in the surface soils and thus reduce potential exposure of coastal fauna to COCs through erosion. Best Management Practices (BMPs) will be established in accordance with the Addendum to the SWMP to prevent runoff from the site from affecting San Francisco Bay. By reducing contamination in the area, COCs will be less available to food chains through flora as well.

Cultural Resources ARARs

No revisions.

Wetlands Protection and Floodplains Management ARARs

It is noted that San Francisco Bay is located approximately 200 feet north of the expanded TCRA area, and BMPs will be established in accordance with the Addendum to the SWMP (Appendix K) to prevent runoff from the site from affecting the bay.

Biological Resources ARARs

No revisions.

3.3.2 Potential Action-Specific ARARs

Federal Hazardous Waste Storage ARARs

No revisions.

State Waste Storage ARARs

No revisions.

Institutional Controls

No revisions.

3.3.3 Potential Chemical-Specific ARARs

No revisions.

3.4 REMOVAL ACTION OBJECTIVES

No revisions.

3.5 COMMUNITY RELATIONS ACTIVITIES

No revisions.

3.5.1 Public Information

No revisions.

3.5.2 Public Participation

The expanded TCRA will be discussed during community meetings and through the Restoration Advisory Board. In addition, a public notice will be issued that describes the expanded TCRA and the availability for review of the project administrative record.

4.0 PRE-CONSTRUCTION ACTIVITIES

Several pre-construction activities will be performed in preparation for excavating the impacted soil in the expanded TCRA area. These activities include a pre-construction survey, pre-construction sampling, permitting, a pre-mobilization meeting, and subcontracting and procurement activities.

4.1 PRE-CONSTRUCTION SURVEY

Prior to excavation activities at the expanded TCRA area, FWENC will conduct a land survey and an underground utility search at the site. The survey activities will be implemented prior to initiation of the field sampling activities to: (1) create an accurate topographic map of the site, (2) stake proposed pre-construction sample locations (samples to be used for waste profiling), and (3) create an underground utilities map. The topographic survey will document existing features and conditions, such as trees, buildings, curbs, gutters, sidewalks, utilities, manholes, and other points in sufficient detail to generate the topographic map with 1-foot contour elevation lines.

4.2 PRE-CONSTRUCTION SAMPLING

The purpose of pre-construction sampling activities at the expanded TCRA area is to characterize the material that is planned for excavation and off-site disposal. Characterization of the material prior to excavation allows for the immediate off-site transportation of the impacted soil to the approved landfill thereby minimizing stockpile areas.

The COCs for the site are polynuclear aromatic hydrocarbons (PAHs). The areal extent and concentration of the PAH contamination has been determined by other investigators and are based on approximately 50 shallow soil samples at locations within the proposed excavation area. The majority of the samples were analyzed for PAHs and total petroleum hydrocarbons (TPH). FWENC proposes to present to the disposal facility the soil data from the previous investigations in addition to supplemental sampling from the grid area.

The details of the sampling and analysis protocols and procedures are provided in the Addendum to the FSP (Appendix A); and the applicable analytical quality assurance requirements are provided in the Addendum to the QAPP (Appendix B). Health and Safety procedures are addressed in the Addendum to the SHSP (Appendix C).

4.2.1 Sampling Procedure

A 58-foot grid area was imposed over the work area for the purpose of locating sample points. Each grid represents approximately 250 cubic yards of soil and equates to the volume established to characterize the material for disposal purposes. Approximately 150 grids fall within the

subject site. Figure 4-1(A) presents the grid system and identifies historical and proposed sample locations. FWENC proposes to collect samples from approximately 150 grids. At those locations where historical data exist, only those analytes not previously sampled will be tested. The grid samples may be analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), metals, cyanide, and fish toxicity as detailed in the testing schedule provided in the Addendum to the FSP.

4.3 PERMITTING

The excavation area involves 11.6 acres. To meet the substantive requirements of a National Pollution Discharge Elimination System (NPDES) permit, an Addendum to the SWMP has been prepared and is included in Appendix K. Stormwater management activities are described in Section 7.7.1 of this Addendum to the RAWP.

4.4 PRE-MOBILIZATION CONFERENCE

Prior to commencing the expanded TCRA field activities, a pre-mobilization conference will be held on site.

4.5 SUBCONTRACTING/PROCUREMENT

Subcontracting and procurement will be performed primarily at the home office prior to initiating the on-site activities associated with the expanded TCRA.

5.0 PROJECT REQUIREMENTS

This section describes the specific project requirements for the expanded TCRA.

5.1 HEALTH AND SAFETY REQUIREMENTS

An Addendum to the SHSP has been developed for the project that discusses health and safety procedures to be followed while conducting activities in association with this TCRA. The Addendum to the SHSP addresses worker health and safety, chemical and physical hazards, training requirements, and spill prevention and response procedures associated with the expanded TCRA. A copy of the Addendum to the SHSP will be available on site at all times during the removal action. The Addendum to the SHSP is included here as Appendix C. All field personnel, including subcontractors, will be required to review the amended plan and provide written acknowledgment of their review.

5.1.1 Worker Health and Safety

No revisions.

5.1.2 Training Requirements

No revisions.

5.1.3 Emergency Response Plan

No revisions.

5.2 AIR QUALITY MONITORING REQUIREMENTS

Ambient air monitoring will be performed during earthmoving activities associated with the expanded TCRA. A description of the air monitoring program is provided in the Addendum to the AMP, located in Appendix D of this plan.

5.2.1 Air Quality Concerns

No revisions.

5.2.2 Sampling Methods

No revisions.

5.3 CONTRACTOR QUALITY CONTROL REQUIREMENTS

As required, an Addendum to the PCQC Plan has been developed for the expanded TCRA. The Addendum to the PCQC Plan is presented in Appendix E and provides additional text as needed to

describe project quality assurance/quality control information (QA/QC) specific to the expanded TCRA.

5.3.1 Field Quality Control

The removal activities requiring field inspections and control tests include installation of the irrigation system. Inspections and control testing will be conducted to meet industry standards.

5.3.2 Field Inspections

No revisions.

5.3.3 Control Tests

A hydrotest of the irrigation system, once it has been installed, will be performed during the expanded TCRA.

5.4 TRAFFIC CONTROL

The expanded TCRA fieldwork has a planned duration of 20 weeks. These activities will generate an average of 50 one-way passenger vehicle trips per day. Approximately 12,470 one-way commercial truck trips will be required during the entire project. This number includes mobilization and demobilization of heavy equipment (20 loads), transportation and delivery of soil fill material to the site (6,000 one-way commercial truck trips), off-site transportation of contaminated soil (6,000 one-way commercial truck trips), and transportation and delivery of sod material to the site (50 loads).

Based on this data, an average of 175 passenger and commercial vehicles per day over the life of the project will be associated with the expanded TCRA. It is estimated that the project will not negatively impact the exiting traffic conditions in the area.

An Addendum to the TCP has been prepared to address the expanded TCRA and is included as Appendix F of this Addendum to the RAWP.

5.5 WASTE MANAGEMENT

An Addendum to the WMP, Appendix G, has been prepared to clarify several issues concerning the expanded TCRA. These issues include project waste descriptions and soil stockpiles.

5.6 DEMOLITION PLAN

An Addendum to the DP has been prepared to address the expanded TCRA activities and is included as Appendix H. The Addendum to the DP summarizes the types of material to be encountered during the expanded TCRA and clarifies salvageable and non-salvageable materials.

5.7 ENVIRONMENTAL PROTECTION PLAN/ENVIRONMENTAL CONDITION PLAN

An Addendum to the EPP and an Addendum to the ECR have been prepared to address the expanded TCRA. The Addendums to the EPP and ECR are included in this report as Appendix I and J, respectively.

5.7.1 Environmental Considerations

No revisions.

6.0 PROJECT MANAGEMENT

The project management team will be responsible for all technical and administrative aspects of the expanded TCRA. Included among the team's responsibilities are the project schedule, staffing, document control, project meetings, and reporting.

6.1 PROJECT RESPONSIBILITIES

The original project management team assembled for the initial TCRA will remain the same for the expanded TCRA, except for the Site Health and Safety Specialist (SHSS). The new project SHSS is identified in the table below. In addition, revised addresses for FWENC team members have been included.

The following is a list of the key contacts:

Agency	Contact	Project Title
Naval Facilities Engineering Command Southwest Division BRAC Operations 1230 Columbia St., Suite 1100 San Diego, CA 92101	Mr. Rick Weissenborn (619) 532-0952	Remedial Project Manager (RPM)
Naval Facilities Engineering Command Southwest Division Caretaker Site Office – San Francisco Bay Area 410 Palm Ave., Building 1, Suite 161 San Francisco, CA 94130-1802	Mr. Doug DeLong (415) 742-4718 (510) 772-8832 (cellular)	Environmental Compliance Manager
Naval Facilities Engineering Command Southwest Division 1220 Pacific Highway San Diego, CA 92132-5187	Mr. Richard Selby (619) 532-0761	Contracting Officer
Naval Facilities Engineering Command Southwest Division 1220 Pacific Highway San Diego, CA 92132-5187	Ms. Joyce Howell-Payne (619) 532-0923	Contract Specialist
Naval Facilities Engineering Command Southwest Division 2450 Saratoga Street, Building 110, Suite 200 Alameda Point, Alameda, CA 94501	Ms. Shirley Ng (510) 749-5939	Resident Officer in Charge of Construction (ROICC)
U.S. Environmental Protection Agency 75 Hawthorne Street (SFD-8-2) San Francisco, CA 94105-3901	Ms. Anna-Marie Cook (415) 972-3029	Environmental Protection Agency (EPA)-RPM

Agency	Contact	Project Title
California Environmental Protection Agency Department of Toxic Substances Control 700 Heinz Avenue, Suite 200 Berkeley, CA 94710	Ms. Marcia Liao (510) 540-3767	Department of Toxic Substances Control (DTSC)-RPM
California Regional Water Quality Control Board 1515 Clay Street, Suite 400 Oakland, CA 94612,	Mr. Dennis Mishek (510) 622-2390	Regional Water Quality Control Board (RWQCB)
FWENC 1940 E. Deere Ave, Suite 200 Santa Ana, CA 92705	Mr. Jamshid Sadeghipour (949) 756-7519	Deputy Program Manager (DPM)
FWENC 1940 E. Deere Ave, Suite 200 Santa Ana, CA 92705	Mr. Abram Eloskof (949) 756-7521 (714) 620-5530 (cellular)	Project Manager (PJM)
FWENC 1940 E. Deere Ave, Suite 200 Santa Ana, CA 92705	Ms. Mary Schneider (949) 756-7586	Quality Control Program Manager (QCM)
FWENC Site Trailer 399 Mosley Ave. Alameda, CA 94501	Mr. Jim Baldwin (510) 393-7511 (cellular)	Project Superintendent
FWENC Site Trailer 399 Mosley Ave. Alameda, CA 94501	Mr. Richard W. Quinn (360) 981-2232 (cellular)	SHSS
FWENC Site Trailer 399 Mosley Ave. Alameda, CA 94501	Mr. Craig Rice (510) 393-7477 (cellular)	Project Quality Control Manager (PQCM)

6.2 PROJECT SCHEDULE

The schedule for implementation of the expanded TCRA is included in Figure 6-2(A). The schedule includes project startup, pre-construction, construction, and post-construction activities. Construction activities have been planned to start after approval of this Addendum to the RAWP and procurement of the necessary equipment, materials, and subcontracting services.

A total of four main stages will be followed during the course of this project:

- **STAGE 1 – PROJECT STARTUP.** This stage includes preparation of project submittals that include this Addendum to the RAWP. The Addendum to the RAWP includes as appendices an Addendum to the FSP, an Addendum to the QAPP, an Addendum to the SHSP, an Addendum to the AMP, an Addendum to the PCQC Plan, an Addendum to the TCP, an Addendum to the WMP, an Addendum to the DP, an Addendum to the EPP, an Addendum to the ECR, and an Addendum to the SWMP.

- **STAGE 2 – PRE-CONSTRUCTION ACTIVITIES.** This stage includes activities associated with the pre-construction surveys and conducting pre-construction sampling at the expanded TCRA area, along with permitting, subcontracting, and procurement activities.
- **STAGE 3 – CONSTRUCTION ACTIVITIES.** This stage includes the dismantling and temporary removal of the baseball field, soccer field, sand volleyball court, and the demolition of the asphalt jogging path and existing irrigation system. Other activities include soil excavation, transportation and off-site disposal of contaminated soil and demolition waste material, backfilling of the excavated areas, installation of the irrigation system, and restoration of the site, including reconstruction of the baseball and soccer fields, sand volleyball court, asphalt jogging path, and placement of sod.
- **STAGE 4 – POST-CONSTRUCTION ACTIVITIES.** This stage includes demobilization of all equipment and preparation of a final report that documents the results of all the activities performed as part of the initial and expanded TCRA's within IR Site 25.

6.3 DATA MANAGEMENT

No revisions.

6.4 DOCUMENT CONTROL

No revisions.

6.5 MEETINGS AND REPORTS

No revisions.

7.0 SITE WORK

The expanded TCRA activities are discussed in the following sections. These sections provide the details of the work that will occur from pre-construction through site restoration.

7.1 PRE-CONSTRUCTION ACTIVITY

Issues or concerns identified during the pre-mobilization conference will be addressed prior to mobilization. Additional activities associated specifically with the expanded TCRA at IR Site 25 are as follows:

- Install fencing with windscreen around the park portion of EBS Parcel 182. Temporary fencing will be provided daily around active work areas in the vicinity of U.S. Coast Guard Housing Office and U.S. Coast Guard Housing Maintenance Office.
- Perform pre-construction sampling and analysis in the expanded TCRA area for waste characterization.
- Salvage soccer goals, baseball fences, benches, and other recreational equipment as determined by the DON. It should be noted that the decisions for which in-place equipment would be salvaged were made after discussions with the U.S. Coast Guard and DON.
- Implement BMPs, which include installing silt fences and sandbags around park fence and implement other measures identified in the Addendum to the SWMP. Sandbags will be placed at the base of the silt fence to create settlement areas to prevent silt runoff from the site during construction.
- Re-establish baseball field with backstop and fences, soccer field, and sand volleyball court with associated benches upon completion of removal activities.
- Install irrigation system upon completion of backfilling.

To document the construction activities associated with the expanded TCRA, an Addendum to the PCQC Plan has been prepared and is presented in Appendix E. In addition, photographs will be taken to document the progress of the work.

7.2 MOBILIZATION

All mobilization activities associated with the expanded TCRA will be coordinated with the DON. These activities include mobilizing additional subcontractors, construction equipment, and miscellaneous materials. Prior to mobilization, the appropriate DON personnel, the City of Alameda, and the local community will be notified about the planned schedule of mobilization and removal activities.

The support facilities utilized for the initial TCRA will continue to be utilized for the expanded TCRA.

FWENC and its subcontractors will provide the materials, labor, and equipment necessary to accomplish the work and complete the construction tasks as identified in this Addendum to the RAWP. Equipment will be selected and sized to perform the designated tasks associated with soil removal, transportation/disposal, backfill, compaction, and sod placement. The following additional equipment will be mobilized to the site: one backhoe, one rubber-tired loader, two to three dump trucks, one water truck, one excavator, one dozer, one rubber-tired backhoe/dozer, one rubber-tired compactor roller, and one portable toilet.

For the expanded TCRA field activities, FWENC will continue to utilize the same water supply that is being used for the initial TCRA.

7.3 SITE CONTROL AND SECURITY

A 6-foot high chain-link construction fence will be partially installed around the expanded TCRA area. The fence will enclose the recreational park portion of EBS Parcel 182. FWENC will complete the fence around the area and install a windscreen. Signs identifying the project, Proposition 65 notices, and appropriate safety instructions will be placed appropriately. Daily temporary fencing will be provided in the vicinity of U.S. Coast Guard Housing Office and U.S. Coast Guard Housing Maintenance Office while removal activities are in progress in these areas. Figure 7-1(A) shows the proposed construction fence layout.

A private security firm will be employed for this project to monitor the site during non-working hours.

7.4 SITE SUPPORT AREA PREPARATION

No revisions.

Decontamination Area

The existing decontamination pad currently in use for the expanded TCRA will be lengthened 40 feet; the dimensions of the pad will be 20 feet wide by 80 feet long as shown on Figures 7-1(A) and 7-2(A).

Decontamination Water Tank and Drum Storage Area

No revisions.

Equipment Staging Area

No revisions.

Stockpiles

No revisions.

Temporary Facilities

No revisions.

7.5 MONITORING WELL PROTECTION

No revisions.

7.6 EXPOSING UNDERGROUND UTILITIES

No revisions.

7.7 ENVIRONMENTAL PROTECTION MEASURES

No revisions.

7.7.1 Stormwater and Erosion Control

Since the area of demolition and excavation exceeds 5 acres for the expanded TCRA, an Addendum to the SWMP has been prepared to address this scope change. The substantive requirements of a NPDES permit will be followed. Mobilization, excavation, stockpiling, backfilling, and related soil handling activities are scheduled to be completed within approximately 100 days, starting approximately April 22, 2002. Storm drain inlets in the vicinity of the excavation will be protected with silt fences and sandbags. Stormwater management concerns for the expanded TCRA are addressed in the Addendum to the SWMP (Appendix K).

7.7.2 Fugitive Dust Control

No revisions.

7.7.3 Perimeter Air Monitoring

Two air monitoring stations have been deployed at the IR Site 25 area (one stationary monitoring station at the Miller School playground and one mobile monitoring station positioned downwind of excavation activities). Air monitoring procedures are provided in the Addendum to the AMP (Appendix D).

7.7.4 Wastewater Collection and Disposal

No revisions.

7.8 DEMOLITION OF SITE STRUCTURES

Fieldwork will require the removal of selected site features that include, but are not limited to shrubbery, fences, asphalt parking areas, a physical fitness course, baseball and soccer fields, sand volleyball court, and ancillary structures. The Addendum to the DP, included as Appendix H, describes demolition activities.

7.8.1 Trees

The DON, in cooperation with the U.S. Coast Guard, will determine which trees are to be preserved in the expanded TCRA area. Trees less than 6 inches in diameter will be removed and not replaced in the expanded TCRA area. A professional tree removal subcontractor will remove these trees at ground level prior to excavation within the area. The root structure and associated soil will be removed with an excavator. The root structure and soil will be transported to a CERCLA-approved Class II landfill.

7.8.2 Fences

The metal fence associated with the ballpark outfield will be cut, where the fence post meets ground surface, and dismantled. The aboveground debris will be placed in 40-cubic yard bins for off-site disposal. The portion of the fence that is buried will be removed with an excavator along with the other soil. The excavated below grade fence post bottom and soil will be transported to a CERCLA-approved Class II landfill.

7.8.3 Concrete Swales

There are no concrete swales in the expanded TCRA area.

7.8.4 Site Structures

The site structures that will be demolished include the physical fitness course equipment, an approximately 3,000-foot-long jogging path, baseball and soccer fields (backstop, goals, bleachers, and benches to be salvaged), the sand volleyball court (benches to be salvaged), and two asphalt-paved parking areas in the northern portion of the site.

7.9 EXCAVATION

This section describes the procedures to be used during the excavation of the contaminated soil within the expanded TCRA area. Impacted soils will be either transported directly off site or temporarily stockpiled in the support area.

7.9.1 Excavation of Contaminated Soil

Excavation of contaminated soil will begin following site preparation as described in the previous section.

Excavation will proceed northeastward from the southwesternmost corner of the expanded TCRA area in phases with the intent not to excavate more area than can be backfilled within a 2-day period. Excavations immediately around the U.S. Coast Guard Housing Office and U.S. Coast Guard Housing Maintenance Office will be excavated in phases that do not exceed an area that cannot be backfilled within the same day.

Each daily excavation area will be marked on the ground surface with flags or paint and will identify the areas where contaminated soils will be removed. Prior to the start of any excavation, a complete geophysical survey and a topographic survey will be performed.

Depending on accessibility to the excavation area, contaminated material will be either loaded in a 6- or 12-cubic yard end dump truck and hauled to the stockpile staging area for eventual reloading into a 23-ton semi-end dump truck for transport to an approved off-site facility for disposal. For areas with proper accessibility, including stockpile staging area, contaminated soils will be directly loaded into a 23-ton semi-end dump truck for immediate transport to an approved off-site landfill. Each truck will be covered when traveling from the excavation to the stockpile staging area. Each excavator and backhoe will have a laborer (spotter) to make sure utilities are not damaged, and the spotter will spot the dump truck for loading.

As soon as the daily designated work area has been excavated to the required 2-foot depth, an orange safety fence will be placed along the entire bottom of the excavation. Clean backfill material will be delivered and placed in loose 9-inch lifts with a small dozer. Each lift will be compacted to 90 percent using a compactor roller, and 4 to 6 inches of topsoil will be placed and graded for sod placement. The irrigation system shall be installed after topsoil installation, but prior to sod placement.

The quantity of soil excavation from the expanded TCRA area is estimated to be approximately 37,500 bank (in place) cubic yards. The land survey data will be utilized to verify the final quantity.

7.9.2 Contaminated Soil Stockpile Management

The initial TCRA soil stockpile areas will also be utilized for the expanded TCRA. However, it is anticipated that the majority of the excavated soils in the expanded TCRA area will be loaded directly into the 23-ton semi-end dump trucks for immediate transport to, and disposal at, an approved landfill.

7.9.3 Decontamination Procedures

No revisions.

7.10 BACKFILLING AND COMPACTION

Upon completion of backfilling, the irrigation system will be installed and surveyed.

7.11 SOD PLACEMENT

As directed by the DON, the entire excavation area will be covered with sod that is suitable for the Alameda Point geographic area. Sod placement will occur, after the irrigation system is installed, by a qualified landscaping contractor.

7.12 DEMOBILIZATION

No revisions.

7.13 SITE RESTORATION

Site restoration for the expanded TCRA area will occur following the completion of demobilization activities. Restoration activities will be coordinated with the ROICC. A final survey of the site will be performed to document as-built grades and conditions.

All temporary storage and sanitary facilities, fencing, barricades, and other temporary structures used for the expanded TCRA will be removed from the site. Disturbed areas will be resurfaced or restored to conform to existing conditions prior to the expanded TCRA. The baseball field with backstops and outfield fences, bleachers and dugout benches, the soccer field goal post, a jogging path, and sand volleyball court with associated benches will be restored to pre-removal conditions. Playground equipment will be removed from the play area located adjacent to the U.S. Coast Guard Housing Office and the circular play area north of the storage area. This equipment will be temporarily stored at a location jointly designated and approved by the U.S. Coast Guard and DON. Upon completion of the expanded TCRA, the U.S. Coast Guard will be responsible for the re-installation of the playground equipment.

Wastes generated during the expanded TCRA activities will be transported off site and disposed in accordance with the Addendum to the WMP (Appendix G). The decontamination and soil stockpile areas will be dismantled and removed.

8.0 POST-CONSTRUCTION CLOSEOUT REPORT

A project Post-Construction Closeout Report will be prepared following the completion of the expanded TCRA fieldwork and demobilization. The report will provide a record of activities conducted during the initial and expanded TCRA's.

9.0 REFERENCES

Foster Wheeler Environmental Corporation (FWENC). 2001. *Final Removal Action Work Plan, CERCLA Time-Critical Removal Action, Installation Restoration Site 25, Alameda Point, Alameda, California*. November.

FWENC. 2002. *Action Memorandum Addendum, CERCLA Time-Critical Removal Action, Installation Restoration Site 25, Alameda Point, Alameda, California*. March.

Neptune and Company, Inc. 2001. *Final Remedial Investigation Work Plan for Operable Unit-5, Alameda Point, Alameda, California*. June.

FIGURES

DRAWING NO:
02081011A.DWG

DCN: FWSR-RAC-02-0810
CTO: #0040

APPROVED BY: AE

CHECKED BY: VR
REVISION: 0

DRAWN BY: MD
DATE: 04/11/02

I:\1990-RAC\CTO-0040\DWG\020810\02081011A.DWG
PLOT/UPDATE: APR 11 2002 10:39:25

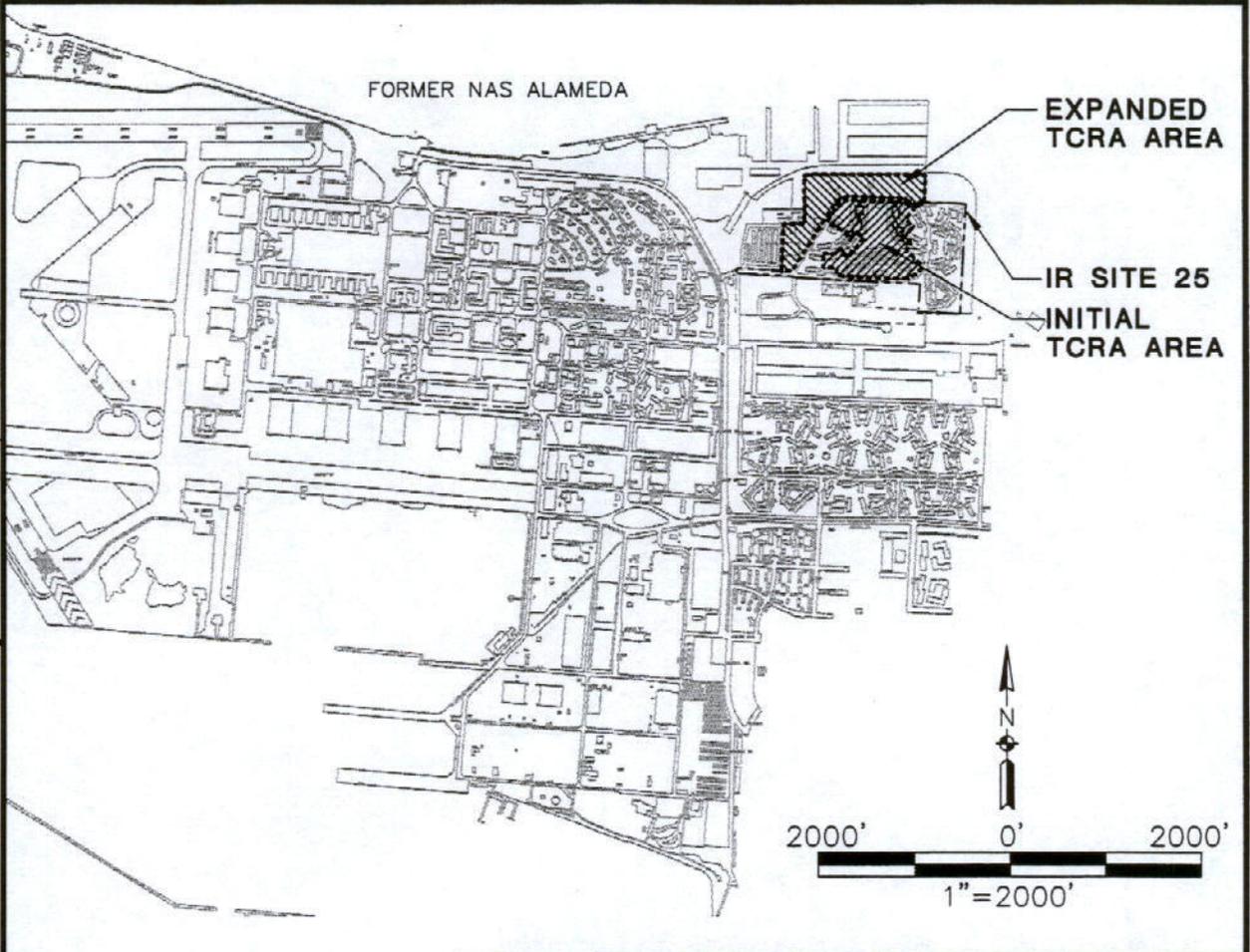
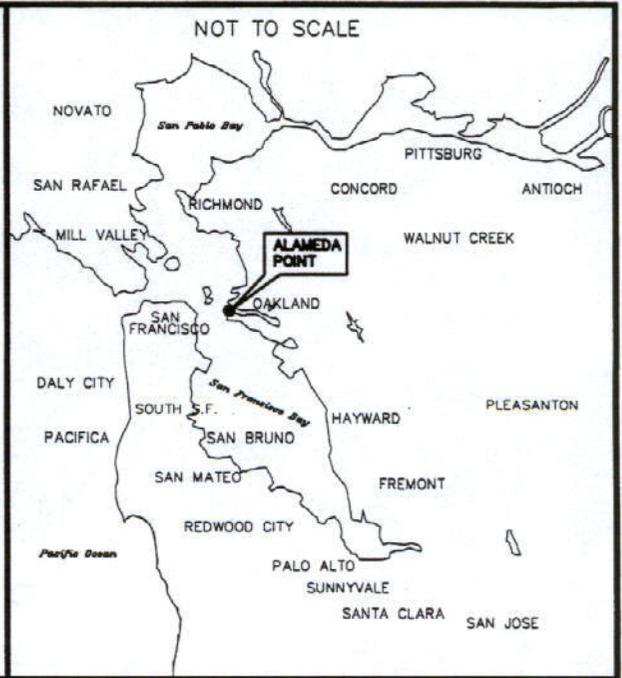


Figure 1-1(A)
SITE VICINITY MAP

ALAMEDA POINT - IR SITE 25

FOSTER  WHEELER
ENVIRONMENTAL CORPORATION

DRAWING NO:
02081022A.DWG

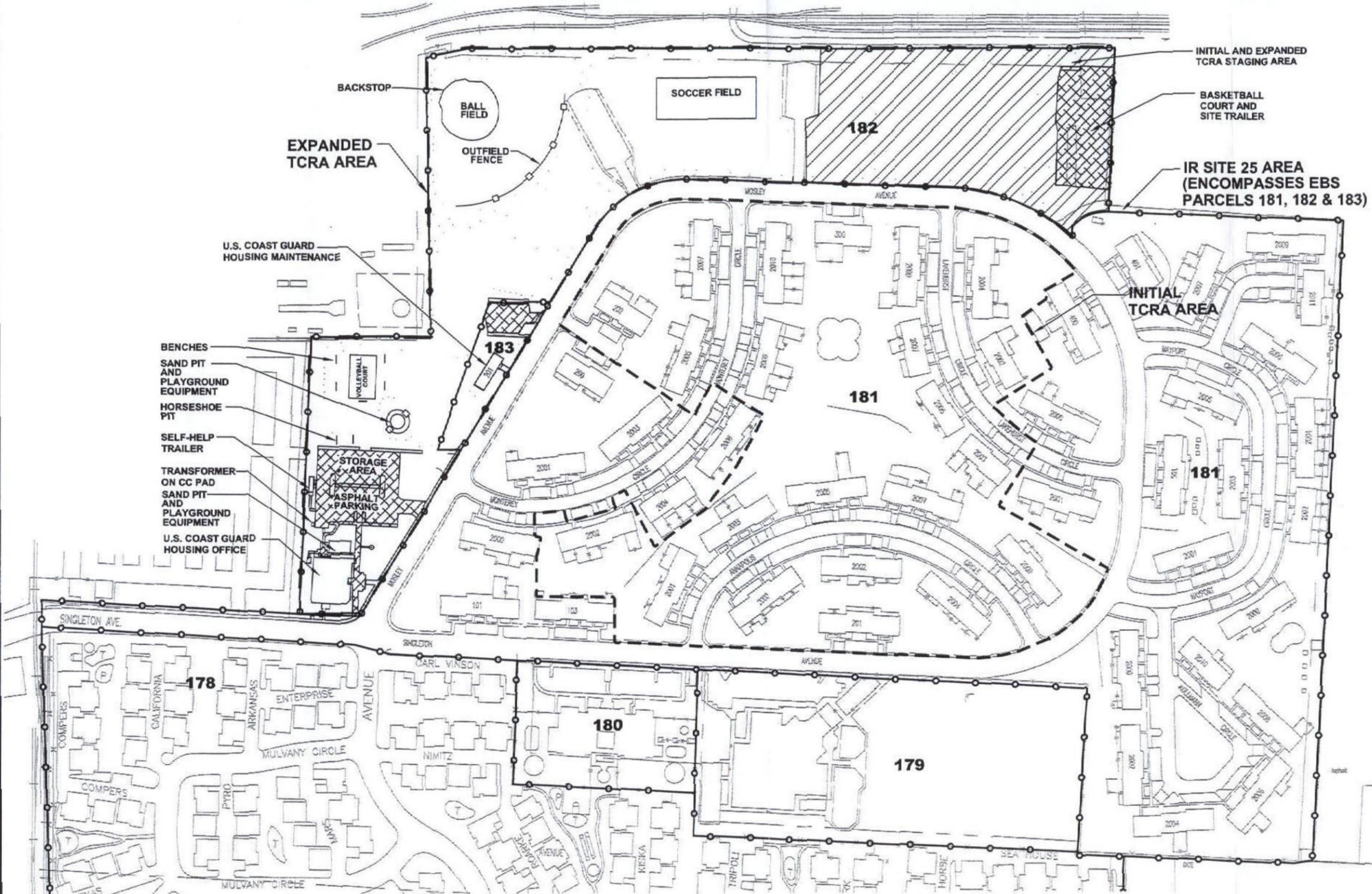
DCN: FWSD-RAC-02-0810
CTO #0040

APPROVED BY: AE

CHECKED BY: VR
REV: REVISION 0

DRAWN BY: MD
DATE: 04/11/02

I:\1990-RAC\CTO-0040\DWG\020810\02081012A.DWG
PLOT/UPDATE: APR 17 2002 15:08:27



LEGEND:

-  INITIAL TIME-CRITICAL REMOVAL ACTION (TCRA) BOUNDARY
-  EXPANDED TCRA
-  ENVIRONMENTAL BASELINE SURVEY (EBS) PARCEL BOUNDARY
-  EBS PARCEL NUMBER
-  PAVED AREA EXCLUDED FROM EXCAVATION
-  INITIAL AND EXPANDED TCRA STAGING AREA

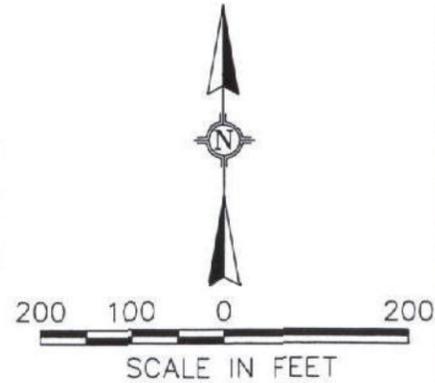


Figure 1-2(A)
SITE LOCATION MAP

ALAMEDA POINT - IR SITE 25

FOSTER WHEELER
ENVIRONMENTAL CORPORATION

DRAWING NO:
02081022A.DWG

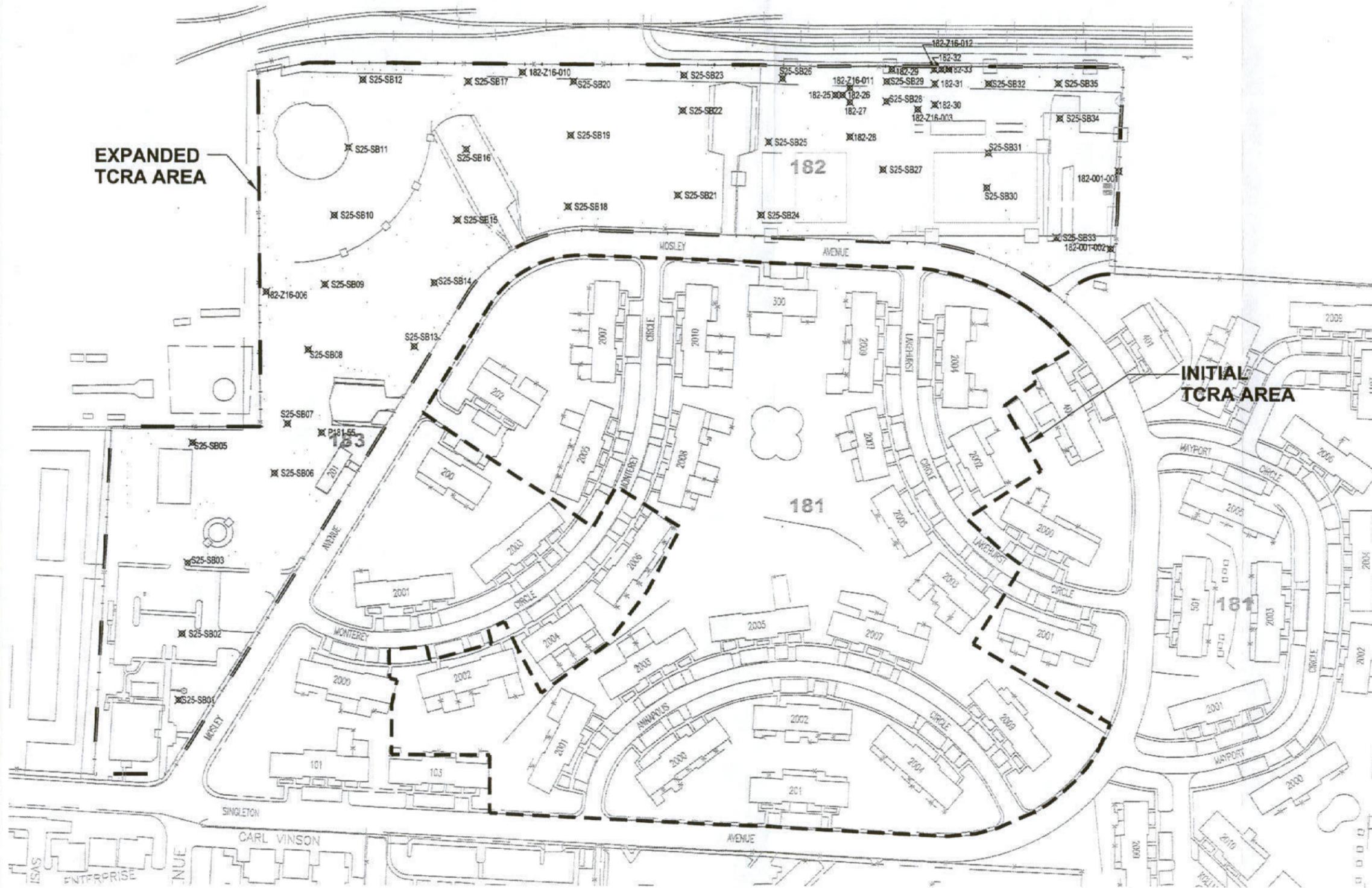
DCN: FWS-D-RAC-02-0810
CTO #0040

APPROVED BY: AE

CHECKED BY: VR
REV: REVISION 0

DRAWN BY: MD
DATE: 04/11/02

E:\1990-RAC\CTO-0040\DWG\020810\02081022A.DWG
PLOT/UPDATE: APR 17 2002 08:55:30



LEGEND:

- INITIAL TIME-CRITICAL REMOVAL ACTION (TCRA) BOUNDARY
- EXPANDED TCRA BOUNDARY
- x HISTORIC SAMPLE LOCATION

Figure 2-2(A)
IR SITE 25 REMEDIAL INVESTIGATION
SAMPLE LOCATIONS
ALAMEDA POINT - IR SITE 25
FOSTER WHEELER
ENVIRONMENTAL CORPORATION

DRAWING NO:
02081041A.DWG

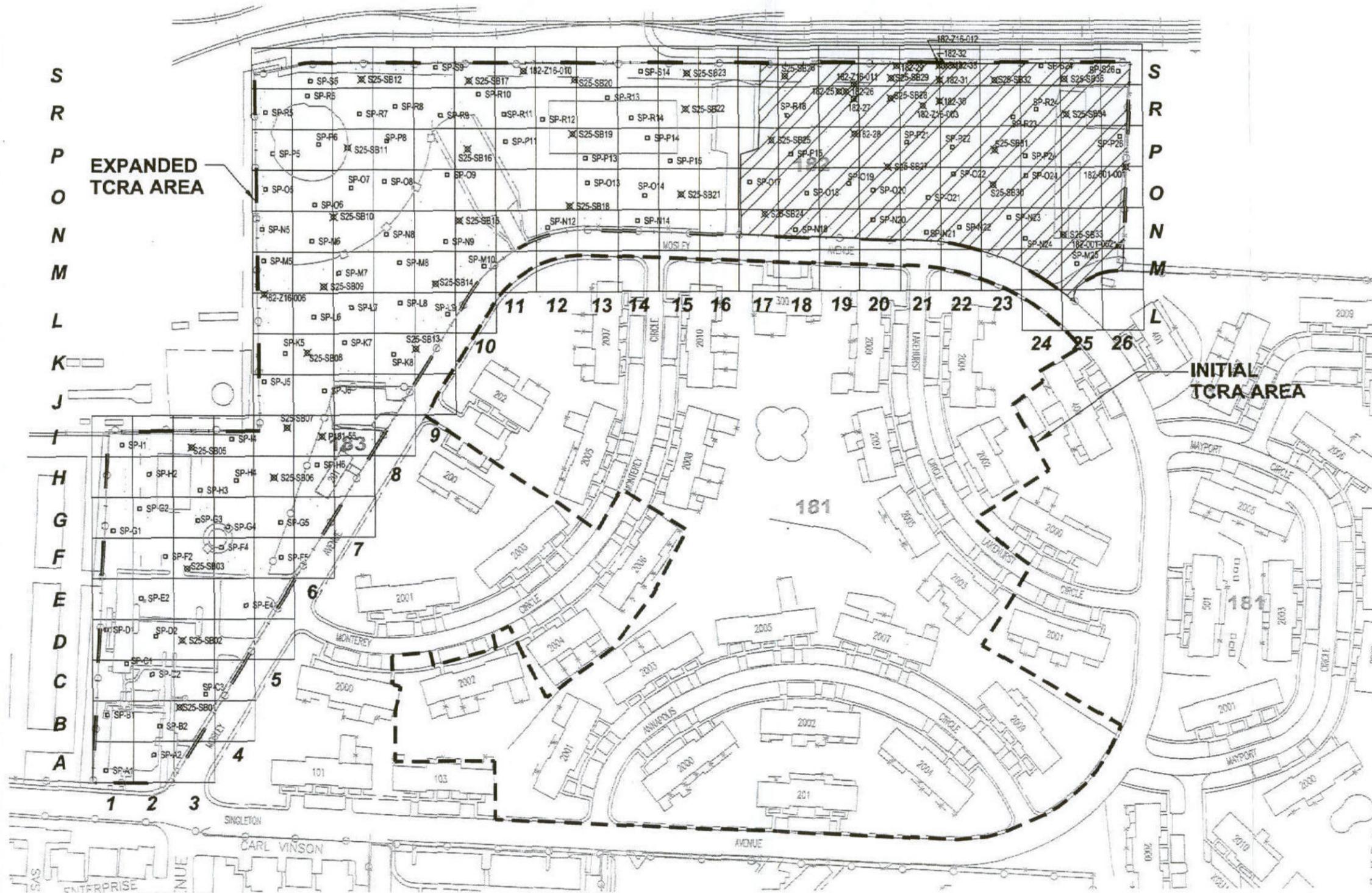
DCN: FWSD-RAC-02-0810
CTO #0040

APPROVED BY: AE

CHECKED BY: VR
REV: REVISION 0

DRAWN BY: MD
DATE: 04/11/02

I:\1990-RAC\CTO-0040\DWG\020810\02081041A.DWG
PLOT/UPDATE: APR 17 2002 09:01:16



LEGEND:

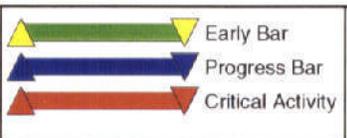
- INITIAL TIME-CRITICAL REMOVAL ACTION (TCRA) BOUNDARY
- EXPANDED TCRA BOUNDARY
- PRE-CONSTRUCTION SAMPLE LOCATION
- × HISTORICAL SAMPLE LOCATION
- A 1 58'X58' SAMPLE GRID

Figure 4-1(A)
EXCAVATION BOUNDARY AND
PRE-CONSTRUCTION SAMPLE LOCATIONS
ALAMEDA POINT - IR SITE 25

FOSTER  WHEELER
ENVIRONMENTAL CORPORATION



Start Date 10JUL01
 Finish Date 16JAN03
 Data Date 01APR02
 Run Date 16APR02 15:41
 © Primavera Systems, Inc.



Foster Wheeler Environmental Corp.
 Southwest Division RAC III
 CTO 40 - Estuary Park
 Project Schedule

Sheet 1 of 2
 Figure 6-2 (A)



DRAWING NO:
02081071A.DWG

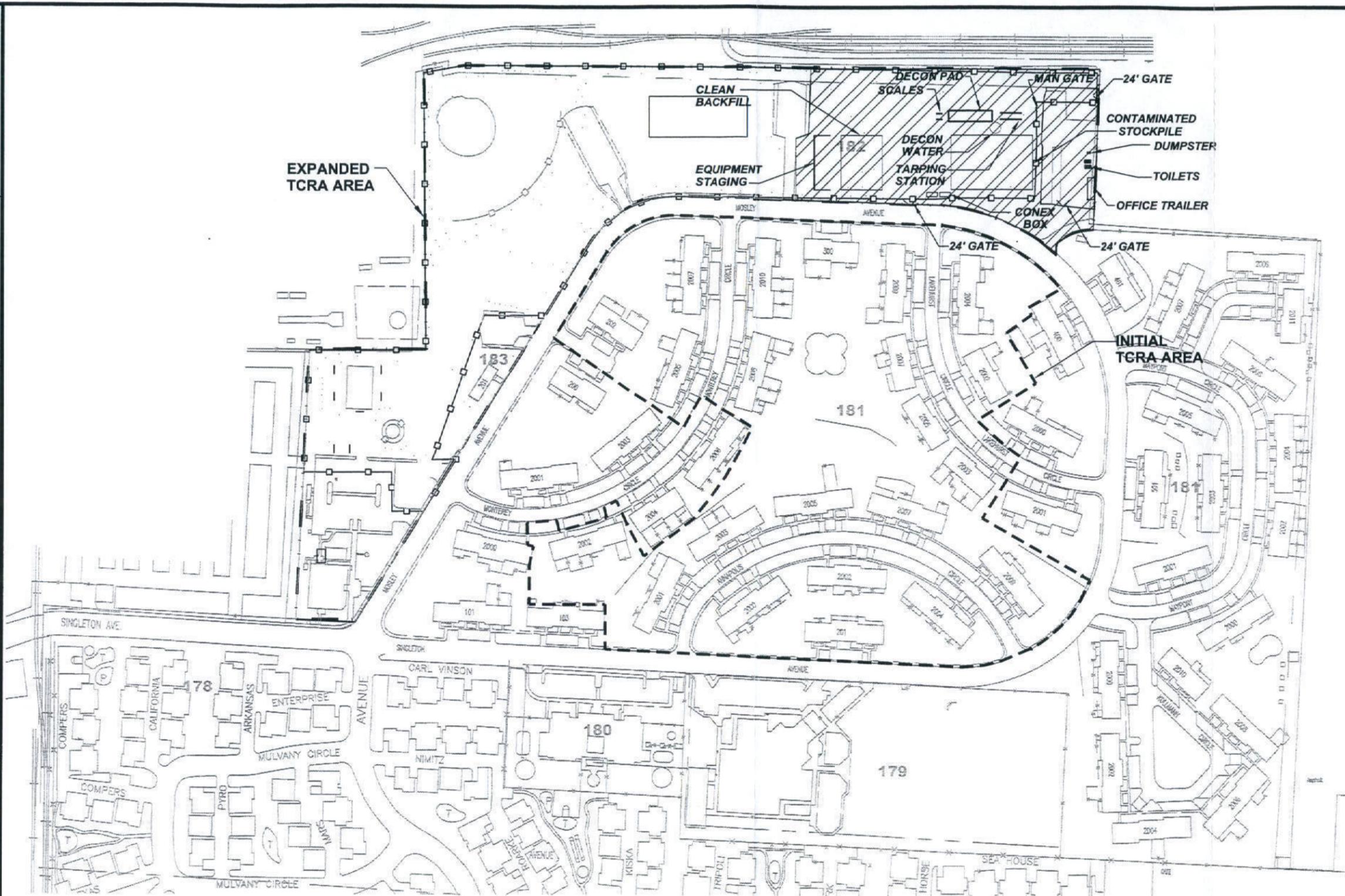
DCN: FWSO-RAC-02-0810
CTO #0040

APPROVED BY: AE

CHECKED BY: VR
REV: REVISION 0

DRAWN BY: MD
DATE: 04/11/02

I:\1990-RAC\CTO-0040\DWG\020810\02081071A.DWG
PLOT/UPDATE: APR 17 2002 09:05:46



LEGEND:

- INITIAL TIME-CRITICAL REMOVAL ACTION (TCRA) BOUNDARY
- EXPANDED TCRA BOUNDARY
- TEMPORARY CHAIN-LINK FENCE

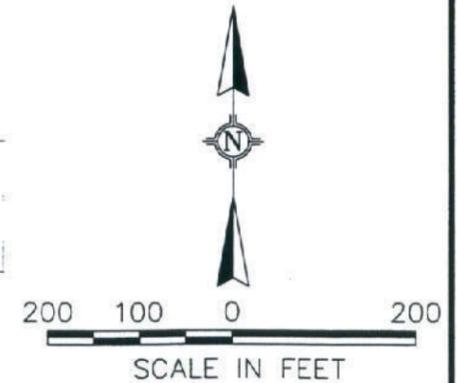


Figure 7-1(A)
SITE SUPPORT FACILITIES
ALAMEDA POINT - IR SITE 25
FOSTER  WHEELER
ENVIRONMENTAL CORPORATION

I:\1990-RAC\CTO-0040\DWG\020810\02081072A.DWG
 PLOT/UPDATE: APR 11 2002 09:10:57

DRAWN BY: MD	CHECKED BY: VR	APPROVED BY: AE	DCN: FWSD-RAC-02-0810	DRAWING NO: 02081072A.DWG
DATE: 04/11/02	REV: REVISION 0	CTO #0040		

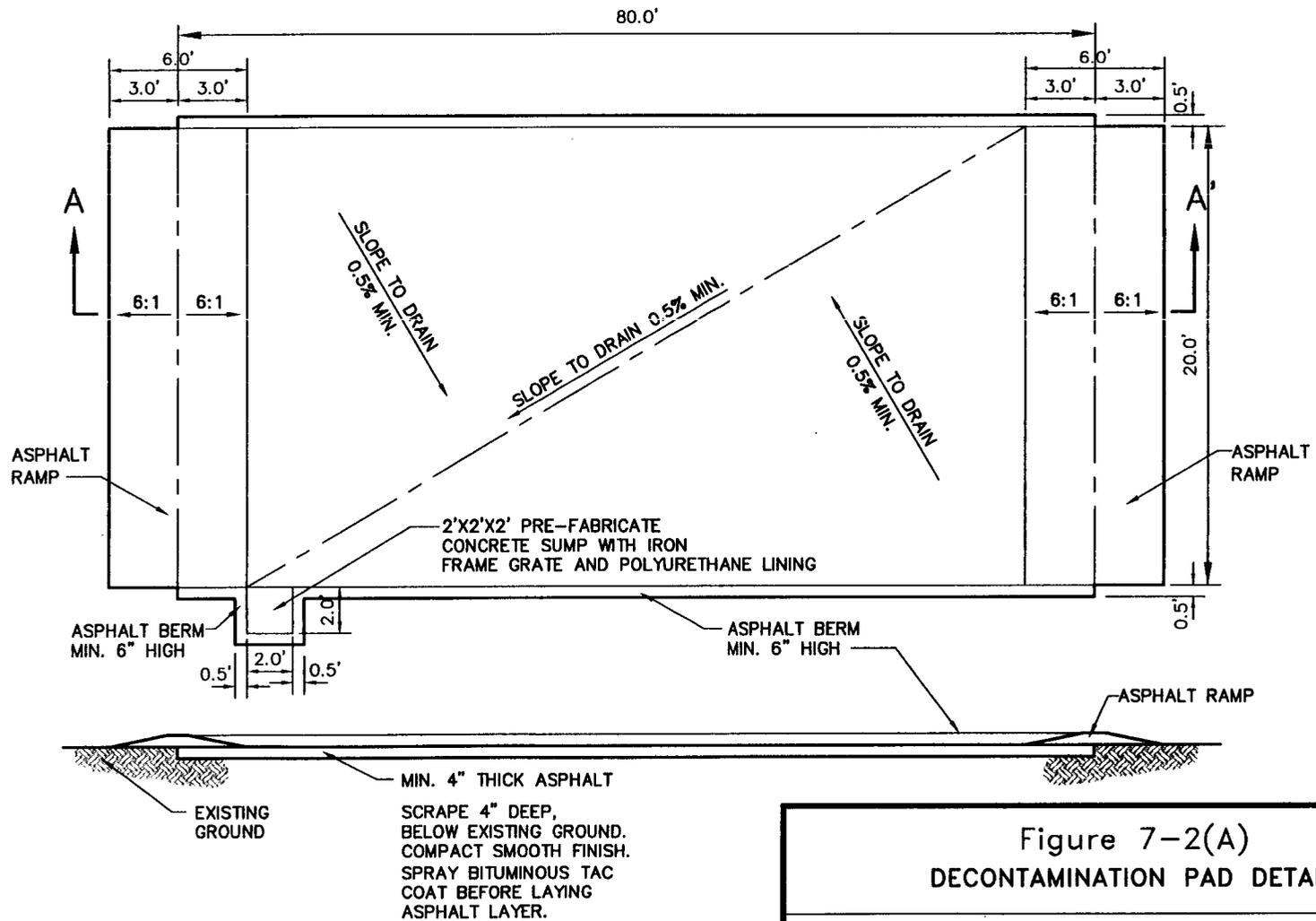


Figure 7-2(A)
 DECONTAMINATION PAD DETAILS

ALAMEDA POINT - IR SITE 25

FOSTER  WHEELER
 ENVIRONMENTAL CORPORATION

NOT TO SCALE

APPENDIX A
FINAL ADDENDUM TO THE
FIELD SAMPLING PLAN

Southwest Division
Naval Facilities Engineering Command
Contracts Department
1220 Pacific Highway, Building 127, Room 112
San Diego, California 92132-5190

CONTRACT NO. N68711-98-D-5713
CTO No. 0040

APPENDIX A
FINAL
ADDENDUM TO THE
FIELD SAMPLING PLAN

Revision 0
April 19, 2002

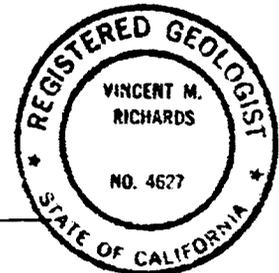
CERCLA TIME-CRITICAL REMOVAL ACTION
AT INSTALLATION RESTORATION SITE 25
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DCN: FWSD-RAC-02-0810



FOSTER WHEELER ENVIRONMENTAL CORPORATION

1230 Columbia Street, Suite 500
San Diego, CA 92101



Vince M. Richards

Reviewed by: Vince Richards, RG
Registered Geologist

4/17/02
Date

Mary Schneider

Reviewed by: Mary Schneider
Quality Control Program Manager

4/17/02
Date

Narciso A. Ancog

Approved by: Narciso A. Ancog
SWDIV Quality Assurance Officer

4/17/02
Date

TABLE OF CONTENTS

	<u>PAGE</u>
LIST OF TABLES.....	A.ii
LIST OF FIGURES.....	A.ii
ABBREVIATIONS AND ACRONYMS.....	A.iii
1.0 INTRODUCTION.....	A.1-1
1.1 OBJECTIVE.....	A.1-1
2.0 BACKGROUND.....	A.2-1
3.0 MAPS.....	A.3-1
4.0 SAMPLING STRATEGY.....	A.4-1
4.1 PRE-CONSTRUCTION SAMPLING.....	A.4-1
4.2 WASTEWATER CHARACTERIZATION SAMPLING.....	A.4-2
4.3 IMPORT SOIL SAMPLING.....	A.4-2
5.0 REQUEST FOR ANALYSIS.....	A.5-1
5.1 ANALYTICAL METHODS.....	A.5-1
5.2 SAMPLE CONTAINERS, PRESERVATIVES, AND HOLDING TIMES.....	A.5-1
5.3 FIELD QUALITY CONTROL SAMPLES.....	A.5-1
5.3.1 Trip Blanks.....	A.5-1
5.3.2 Field Duplicates.....	A.5-1
5.3.3 Equipment Rinse Samples.....	A.5-1
5.4 LABORATORY QUALITY CONTROL SAMPLES.....	A.5-1
6.0 FIELD METHODS AND SAMPLING PROCEDURES.....	A.6-1
6.1 PRE-CONSTRUCTION SAMPLING PROCEDURES.....	A.6-1
6.2 WASTE CHARACTERIZATION SAMPLING PROCEDURES.....	A.6-1
6.2.1 Soil VOC Sampling Procedures.....	A.6-1
6.3 DECONTAMINATION PROCEDURES.....	A.6-1
6.4 SAMPLE NUMBER.....	A.6-1
6.5 SAMPLE LABELING.....	A.6-1
6.6 SAMPLE PACKAGING AND SHIPMENT.....	A.6-1
6.7 FIELD DOCUMENTATION.....	A.6-1
6.7.1 Chain-of-Custody.....	A.6-1
6.7.2 Field Logbooks.....	A.6-1
6.7.3 Document Corrections.....	A.6-2
6.8 FSP REVISION OR AMENDMENT.....	A.6-2
6.9 IMPORT SOIL SAMPLING PROCEDURE.....	A.6-2
7.0 REFERENCES.....	A.7-1

LIST OF TABLES

Table A.4-1(A)	Proposed Analysis for New Sample Locations
Table A.4-2(A)	Proposed Analysis for Historical Sample Locations
Table A.5-1(A)	Sample Containers, Preservatives, and Holding Time Requirements

LIST OF FIGURES

Figure A.4-1(A)	Excavation Boundary and Pre-Construction Sample Locations
-----------------	---

ABBREVIATIONS AND ACRONYMS

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	chain-of-custody
CTO	Contract Task Order
DON	Department of the Navy
EBS	Environmental Baseline Survey
EPA	U.S. Environmental Protection Agency
FSP	Field Sampling Plan
FWENC	Foster Wheeler Environmental Corporation
IR	Installation Restoration
LC ₅₀	lethal concentration 50 percent
NAS	Naval Air Station
PAH	polynuclear aromatic hydrocarbon
PCB	polychlorinated biphenyl
QAPP	Quality Assurance Project Plan
RAC	Remedial Action Contract
RAWP	Removal Action Work Plan
SVOC	semivolatile organic compound
SWDIV	Southwest Division Naval Facilities Engineering Command
TCRA	Time-Critical Removal Action
TPH-extractable	total extractable petroleum hydrocarbons
TPH-purgeable	total purgeable petroleum hydrocarbons
VOC	volatile organic compound

1.0 INTRODUCTION

This Addendum to the Field Sampling Plan (FSP) was prepared by Foster Wheeler Environmental Corporation (FWENC) to support the expanded Time-Critical Removal Action (TCRA) sampling activities within Operable Unit-5 [synonymous with Installation Restoration (IR) Site 25] located on former Naval Air Station (NAS) Alameda, Alameda Point, Alameda, California. IR Site 25 is comprised of approximately 42 acres and is divided into three Environmental Baseline Survey (EBS) parcels (Parcels 181, 182, and 183). The expanded TCRA area encompasses both EBS Parcel 182 and EBS Parcel 183 (Estuary Park).

This Addendum to the FSP was prepared on behalf of the Department of the Navy (DON), Southwest Division Naval Facilities Engineering Command (SWDIV) Contract Task Order No. 0040, issued under Remedial Action Contract (RAC) No. N68711-98-D-5713. This Addendum to the FSP complies with the requirements of revising the FSP when a scope or regulation change occurs during the course of work. The Addendum to the FSP will be available in the project field office, located at 399 Mosley Avenue in Alameda, California.

The Addendum to the FSP [Appendix A in the *Final Removal Action Work Plan (RAWP)*, *CERCLA* (Comprehensive Environmental Response, Compensation, and Liability Act) *TCRA at IR Site 25, Alameda Point, Alameda, California*, FWSD-RAC-02-0206 (FWENC, 2001)] pertains to modifications relevant to the additional proposed pre-construction sampling and import soil sampling activities for the expanded TCRA. This Addendum to the FSP includes clarifications to work elements and specific information pertinent to the expanded TCRA.

1.1 OBJECTIVE

The expanded TCRA at IR Site 25 will reduce soil contaminant concentrations to acceptable levels and be protective of human health by preventing exposure to the contaminated soil. Sampling activities in support of the removal action will be as follows:

- Sample and analyze excavation material prior to excavation for waste characterization in Estuary Park.
- Characterize and monitor import soil to ensure that soil is not contaminated and is acceptable for use as fill material.

2.0 BACKGROUND

Site description and background information are presented in Section 2.0 of the Final RAWP (FWENC, 2001). Site location of the expanded TCRA, previous investigations, and nature and extent of contamination are described in Section 2.0 of the Addendum to the RAWP.

3.0 MAPS

The excavation boundary and pre-construction sampling locations are shown on Figure A.4-1(A).

4.0 SAMPLING STRATEGY

This section discusses the collection and analysis of samples to meet the project objectives during field activities.

4.1 PRE-CONSTRUCTION SAMPLING

The purpose of pre-construction sampling activities is to characterize the excavation material for waste disposal purposes. The expanded TCRA area has been characterized by soil sampling and analysis in previous investigations; however, additional sampling is required to meet the requirements of the disposal facility. The criteria established for the project is that sampling will be conducted on approximately 250-cubic yard intervals. Since the excavation depth of the expanded TCRA area is 2 feet, the excavation area is divided into 58-foot square grids so that each grid is representative of approximately 250 cubic yards. Approximately 150 grids fall within the subject site. Figure A.4-1(A) presents the grid system and identifies historical and proposed sample locations. Based on this grid sampling system, approximately 100 new sample locations are required, in addition to supplemental re-sampling at approximately 50 historical sample locations.

To ensure representative sampling, each new sampling point location has been determined using a random number generation of X and Y coordinates. Surveyors will stake the proposed pre-construction sampling locations in Estuary Park on Figure A.4-1(A). The sample location and depth may be influenced by site conditions (for example, tree roots or an underground utility line). Adjustments to sample location or depth will be noted in the sample logbook and indicated on the site map.

The soil samples in the expanded TCRA area may be analyzed for:

- Volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) Methods 5035/8260B
- Semivolatile organic compounds (SVOCs) by EPA Method 8270C
- Organochlorine pesticides by EPA Method 8081A
- Polychlorinated biphenyls (PCBs) by EPA Method 8082
- Metals by EPA Method 6010B
- Mercury by EPA Method 7471A
- Cyanide by EPA Methods 9010A/9012
- Total purgeable petroleum hydrocarbons (TPH-purgeable) by EPA Method 5035/8015B

- Total extractable petroleum hydrocarbons (TPH-extractable) by EPA Method 8015B
- Title 22 Fish Bioassay [96-hour lethal concentration 50 percent (LC₅₀)]

The frequency of each analysis for pre-construction and supplemental samples is illustrated on Table A.4-1(A) of this addendum.

The historical soil samples locations will only be re-sampled for analytes not previously sampled. The proposed sample analyses required for the approximately 100 new sample locations and 50 historical locations are provided in Table A.4-1(A) and Table A.4-2(A) respectively.

4.2 WASTEWATER CHARACTERIZATION SAMPLING

No revisions.

4.3 IMPORT SOIL SAMPLING

The chemical suitability of the material for each proposed source of import material will be determined. The proposed import fill company will submit soil data for review; however, additional sampling may be conducted to confirm that import material meets required specifications. If additional sampling is necessary, the import fill company will be required to deliver a small amount (5-gallon bucket) of import material to the job site. One analytical sample will be collected from the 5-gallon bucket and analyzed for the following:

- VOCs by EPA Methods 5035/8260B
- SVOCs by EPA Method 8270C
- Organochlorine pesticides by EPA Method 8081A, PCBs by EPA Method 8082
- Metals by EPA Method 6010B
- Mercury by EPA Method 7471A, cyanide by EPA Method 9010A/9012
- TPH-extractable by EPA Method 8015B

The import fill results will be compared to the background levels established for CTO No. 0040, Alameda, IR Site 25 to determine if the import source is acceptable to use. If no background levels are established, EPA Preliminary Remediation Goals residential soil levels will be used.

The DON has requested that during import activities, the approved import backfill and topsoil fill be randomly monitored for the following analyses:

- Arsenic by EPA Method 6010B
- Polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8310
- PCBs by EPA Method 8082

One sample of imported soil will be randomly collected from the backfill and topsoil material per delivery day. Typically, backfill will be delivered to the site everyday and topsoil material will be delivered every other day. On each delivery day, a random sample will be collected from a random truckload of each type of material. The samples will be collected and held at the site until the end of the work week. The samples will be stored in an on-site refrigerator and maintained under chain-of-custody (COC) procedures as described in Section 5.0 of the Addendum to the Quality Assurance Project Plan (QAPP), Appendix B. Each week the samples will be sent to the laboratory for compositing and analyses. The laboratory will composite the samples by weighting equal amounts from each sample submitted and then mixing until homogenous. The laboratory's standard operating procedure for sample compositing will be available in the FWENC project file. Five samples will be composited into one sample, then analyzed unless fewer samples are submitted due to the project schedule.

5.0 REQUEST FOR ANALYSIS

No revisions.

5.1 ANALYTICAL METHODS

Soil samples for the expanded TCRA will be analyzed for the following additional analytical methods:

- PAHs by EPA Method 8310
- TPH-extractable by EPA Method 8015B
- TPH-purgeable by EPA Method 5035/8015B
- Mercury by EPA Method 7471A

5.2 SAMPLE CONTAINERS, PRESERVATIVES, AND HOLDING TIMES

Table A.5-1(A) lists the sample containers, preservatives, and holding time requirements for the additional analyses identified in Section 5.1.

5.3 FIELD QUALITY CONTROL SAMPLES

No revisions.

5.3.1 Trip Blanks

No revisions.

5.3.2 Field Duplicates

No revisions.

5.3.3 Equipment Rinsate Samples

No revisions.

5.4 LABORATORY QUALITY CONTROL SAMPLES

No revisions.

6.0 FIELD METHODS AND SAMPLING PROCEDURES

No revisions.

6.1 PRE-CONSTRUCTION SAMPLING PROCEDURES

The sample grids are 58 feet square.

6.2 WASTE CHARACTERIZATION SAMPLING PROCEDURES

No revisions.

6.2.1 Soil VOC Sampling Procedures

No revisions.

6.3 DECONTAMINATION PROCEDURES

No revisions.

6.4 SAMPLE NUMBER

No revisions.

6.5 SAMPLE LABELING

No revisions.

6.6 SAMPLE PACKAGING AND SHIPMENT

No revisions.

6.7 FIELD DOCUMENTATION

No revisions.

6.7.1 Chain-of-Custody

No revisions.

6.7.2 Field Logbooks

No revisions.

6.7.3 Document Corrections

No revisions.

6.8 FSP REVISION OR AMENDMENT

No revisions.

6.9 IMPORT SOIL SAMPLING PROCEDURE

The following steps summarize the import fill sampling procedures to be performed:

1. Sampling personnel will don a new, clean, and chemical-resistant pair of disposable nitrile gloves.
2. Fill a 2-inch by 6-inch stainless steel sleeve with soil.
3. One end of the sleeve will be covered with Teflon[®] film and sealed with a plastic cap. If the sample will be analyzed for VOCs by EPA Method 5035/8260B and/or TPH-purgeable by EPA Method 5035/8015B, the procedure in Section 6.2.1 of the Final FSP (FWENC, 2001), Soil VOC Sampling Procedures, will be followed. Otherwise, both ends of the sleeve will be covered with Teflon film and sealed with plastic caps.
4. Affix a signed custody seal over both caps of the sleeve.
5. Affix a completed sample label to the sleeve.
6. Use clear packing tape to secure the sample label to the container.
7. Place the sleeve in a resealable bag.
8. Immediately place the resealable bag containing the sleeve in a cooler with bagged ice or in the on-site refrigerator.
9. Record the sample number, date, time, and description of the sample on the COC form and in the field logbook. All entries will be written in indelible black ink.
10. Place sampling equipment in a plastic bag and return it to the site for decontamination. All non-disposable sampling equipment will be decontaminated prior to each use as described in Section 6.3 of the Final FSP (FWENC, 2001).

7.0 REFERENCES

Foster Wheeler Environmental Corporation (FWENC). 2001. *Final Removal Action Work Plan, CERCLA Time-Critical Removal Action at Installation Restoration Site 25, Alameda Point, Alameda, California*. November.

TABLES

TABLE A.4-1(A)

PROPOSED ANALYSIS FOR NEW SAMPLE LOCATIONS

SAMPLE POINT	Easting	Northing	VOCs EPA Method 5035/8260B	SVOCs EPA Method 8270C	Pesticides EPA Method 8081A	PCBs EPA Method 8082	Metals EPA Method 6010B	Mercury EPA Method 7471A	Cyanide EPA Method 9010A/9012	TPH- purgeable EPA Method 5035/8015B	TPH- extractable EPA Method 8015B	Fish Bioassay (96 Hour)/ Title 22 (LC ₅₀)
SP-A1	1483258.296	473619.5701	0	0	0	0	0	0	0	0	0	0
SP-A2	1483326.41	473641.1579	---	---	---	---	0	---	---	0	0	---
SP-B1	1483259.957	473698.4492	---	---	---	---	0	---	---	0	0	---
SP-B2	1483334.717	473681.8434	---	---	---	---	0	---	---	0	0	---
SP-C1	1483288.199	473771.516	---	---	---	---	0	---	---	0	0	---
SP-C2	1483324.749	473755.7405	---	---	---	---	0	---	---	0	0	---
SP-C3	1483400.339	473727.51	---	---	---	---	0	---	---	0	0	---
SP-D1	1483259.127	473819.6736	---	---	---	---	0	---	---	0	0	---
SP-D2	1483329.732	473809.7105	---	---	---	---	0	---	---	0	0	---
SP-E2	1483308.966	473864.5099	---	---	---	---	0	---	---	0	0	---
SP-E4	1483459.316	473853.7164	0	0	0	0	0	0	0	0	0	0
SP-F2	1483343.853	473923.4619	---	---	---	---	0	---	---	0	0	---
SP-F4	1483424.429	473936.7472	---	---	---	---	0	---	---	0	0	---
SP-F5	1483510.816	473921.8012	---	---	---	---	0	---	---	0	0	---
SP-G1	1483269.094	473960.826	---	---	---	---	0	---	---	0	0	---
SP-G2	1483307.305	473992.377	---	---	---	---	0	---	---	0	0	---
SP-G3	1483390.372	473974.9408	---	---	---	---	0	---	---	0	0	---
SP-G4	1483433.565	473965.8071	---	---	---	---	0	---	---	0	0	---
SP-G5	1483509.986	473971.6195	---	---	---	---	0	---	---	0	0	---
SP-H2	1483321.426	474041.3658	---	---	---	---	0	---	---	0	0	---
SP-H3	1483394.524	474018.1164	0	0	0	0	0	0	0	0	0	0
SP-H4	1483446.856	474032.2321	---	---	---	---	0	---	---	0	0	---
SP-H6	1483563.148	474053.8199	---	---	---	---	0	---	---	0	0	---
SP-I1	1483282.386	474082.8808	---	---	---	---	0	---	---	0	0	---
SP-I4	1483440.211	474091.1841	---	---	---	---	0	---	---	0	0	---
SP-J5	1483487.83	474172.0117	---	---	---	---	0	---	---	0	0	---
SP-J6	1483574.589	474159.2313	---	---	---	---	0	---	---	0	0	---
SP-K5	1483517.967	474212.177	---	---	---	---	0	---	---	0	0	---
SP-K7	1483602.9	474226.7834	---	---	---	---	0	---	---	0	0	---
SP-K8	1483673.22	474210.3519	---	---	---	---	0	---	---	0	0	---
SP-L6	1483559.064	474264.2101	0	0	0	0	0	0	0	0	0	0
SP-L7	1483612.946	474276.9905	---	---	---	---	0	---	---	0	0	---
SP-L8	1483683.266	474283.3811	---	---	---	---	0	---	---	0	0	---
SP-L9	1483749.934	474266.9487	---	---	---	---	0	---	---	0	0	---
SP-M5	1483487.83	474343.63	---	---	---	---	0	---	---	0	0	---
SP-M7	1483595.593	474326.285	---	---	---	---	0	---	---	0	0	---

TABLE A.4-1(A)

PROPOSED ANALYSIS FOR NEW SAMPLE LOCATIONS

SAMPLE POINT	Easting	Northing	VOCs EPA Method 5035/8260B	SVOCs EPA Method 8270C	Pesticides EPA Method 8081A	PCBs EPA Method 8082	Metals EPA Method 6010B	Mercury EPA Method 7471A	Cyanide EPA Method 9010A/9012	TPH- purgeable EPA Method 5035/8015B	TPH- extractable EPA Method 8015B	Fish Bioassay (96 Hour)/ Title 22 (LC ₅₀)
SP-M8	1483682.353	474340.8914	---	---	---	---	0	---	---	0	0	---
SP-M10	1483802.902	474335.4143	---	---	---	---	0	---	---	0	0	---
SP-N5	1483485.089	474388.3599	---	---	---	---	0	---	---	0	0	---
SP-N6	1483557.237	474371.9284	---	---	---	---	0	---	---	0	0	---
SP-N8	1483663.175	474381.0567	0	0	0	0	0	0	0	0	0	0
SP-N9	1483748.107	474370.1024	---	---	---	---	0	---	---	0	0	---
SP-N12	1483893.315	474389.2725	---	---	---	---	0	---	---	0	0	---
SP-N14	1484021.171	474398.4017	---	---	---	---	0	---	---	0	0	---
SP-N18	1484248.938	474385.7992	---	---	---	---	0	---	---	0	0	---
SP-N20	1484360.507	474398.5635	---	---	---	---	0	---	---	0	0	---
SP-N21	1484436.453	474380.4248	---	---	---	---	0	---	---	0	0	---
SP-N22	1484483.501	474387.8147	---	---	---	---	0	---	---	0	0	---
SP-N23	1484555.416	474400.579	---	---	---	---	0	---	---	0	0	---
SP-N24	1484578.94	474371.0194	---	---	---	---	0	---	---	0	0	---
SP-M25	1484653.543	474335.4134	0	0	0	0	0	0	0	0	0	0
SP-O5	1483491.154	474445.0461	---	---	---	---	0	---	---	0	0	---
SP-O6	1483561.913	474423.226	---	---	---	---	0	---	---	0	0	---
SP-O7	1483613.853	474446.5513	---	---	---	---	0	---	---	0	0	---
SP-O8	1483661.276	474455.5804	---	---	---	---	0	---	---	0	0	---
SP-O9	1483750.854	474464.6095	---	---	---	---	0	---	---	0	0	---
SP-O13	1483950.333	474452.571	---	---	---	---	0	---	---	0	0	---
SP-O14	1484032.395	474434.2187	---	---	---	---	0	---	---	0	0	---
SP-O17	1484182.988	474453.101	---	---	---	---	0	---	---	0	0	---
SP-O18	1484265.893	474437.3658	---	---	---	---	0	---	---	0	0	---
SP-O19	1484326.601	474450.1443	0	0	0	0	0	0	0	0	0	0
SP-O20	1484361.482	474440.5432	---	---	---	---	0	---	---	0	0	---
SP-O21	1484439.841	474429.4262	---	---	---	---	0	---	---	0	0	---
SP-O22	1484476.24	474462.7781	---	---	---	---	0	---	---	0	0	---
SP-O24	1484580.382	474459.7455	---	---	---	---	0	---	---	0	0	---
SP-P5	1483501.535	474495.6501	---	---	---	---	0	---	---	0	0	---
SP-P6	1483567.478	474509.1017	---	---	---	---	0	---	---	0	0	---
SP-P8	1483664.375	474513.1372	---	---	---	---	0	---	---	0	0	---
SP-P11	1483833.943	474511.792	---	---	---	---	0	---	---	0	0	---
SP-P13	1483946.989	474487.5782	---	---	---	---	0	---	---	0	0	---
SP-P14	1484035.811	474515.8284	0	0	0	0	0	0	0	0	0	0
SP-P15	1484068.11	474483.5428	---	---	---	---	0	---	---	0	0	---

TABLE A.4-1(A)

PROPOSED ANALYSIS FOR NEW SAMPLE LOCATIONS

SAMPLE POINT	Easting	Northing	VOCs EPA Method 5035/8260B	SVOCs EPA Method 8270C	Pesticides EPA Method 8081A	PCBs EPA Method 8082	Metals EPA Method 6010B	Mercury EPA Method 7471A	Cyanide EPA Method 9010A/9012	TPH- purgeable EPA Method 5035/8015B	TPH- extractable EPA Method 8015B	Fish Bioassay (96 Hour)/ Title 22 (LC ₅₀)
SP-P15	1484243.062	474492.9598	---	---	---	---	O	---	---	O	O	---
SP-P21	1484408.593	474507.7565	---	---	---	---	O	---	---	O	O	---
SP-P22	1484474.536	474501.0307	---	---	---	---	O	---	---	O	O	---
SP-P24	1484579.507	474487.5782	---	---	---	---	O	---	---	O	O	---
SP-P26	1484715.176	474514.8112	---	---	---	---	O	---	---	O	O	---
SP-R5	1483492.035	474554.1882	---	---	---	---	O	---	---	O	O	---
SP-R6	1483552.363	474578.1321	---	---	---	---	O	---	---	O	O	---
SP-R7	1483626.886	474551.5283	---	---	---	---	O	---	---	O	O	---
SP-R8	1483677.454	474562.1698	O	O	O	O	O	O	O	O	O	O
SP-R9	1483742.217	474548.8675	---	---	---	---	O	---	---	O	O	---
SP-R10	1483796.336	474579.0187	---	---	---	---	O	---	---	O	O	---
SP-R11	1483832.709	474550.6417	---	---	---	---	O	---	---	O	O	---
SP-R12	1483886.826	474542.6601	---	---	---	---	O	---	---	O	O	---
SP-R13	1483979.98	474573.698	---	---	---	---	O	---	---	O	O	---
SP-R14	1484012.806	474544.4334	---	---	---	---	O	---	---	O	O	---
SP-R18	1484238.216	474548.0675	---	---	---	---	O	---	---	O	O	---
SP-R23	1484562.105	474542.8344	---	---	---	---	O	---	---	O	O	---
SP-R24	1484596.513	474554.0497	---	---	---	---	O	---	---	O	O	---
SP-S6	1483556.567	474599.0058	O	O	O	O	O	O	O	O	O	O
SP-S9	1483735.352	474617.1364	---	---	---	---	O	---	---	O	O	---
SP-S14	1484027.283	474610.2291	---	---	---	---	O	---	---	O	O	---
SP-S24	1484604.015	474615.9271	---	---	---	---	O	---	---	O	O	---
SP-S26	1484713.967	474607.3717	---	---	---	---	O	---	---	O	O	---

Notes:

- EPA - U.S. Environmental Protection Agency
- O - required sample collection and analyses
- PCB - polychlorinated biphenyl
- SVOC - semivolatile organic compound
- TPH-extractable - total extractable petroleum hydrocarbons
- TPH-purgeable - total purgeable petroleum hydrocarbons
- VOC - volatile organic compound

TABLE A.4-2(A)

PROPOSED ANALYSIS FOR HISTORICAL SAMPLE LOCATIONS

SAMPLE POINT	Easting	Northing	VOCs EPA Method 5035/8260B	SVOCs EPA Method 8270C	Pesticides EPA Method 8081A	PCBs EPA Method 8082	Metals EPA Method 6010B	Mercury EPA Method 7471A	Cyanide EPA Method 9010A/9012	TPH- purgeable EPA Method 5035/8015B	TPH- extractable EPA Method 8015B	Fish Bioassay (96 Hour)/ Title 22 (LC ₅₀)
182-001-001	1484724.024	474471.511	---	---	---	---	X	---	---	X	X	---
182-001-002	1484712.494	474360.54	---	---	---	---	X	---	---	X	X	---
182-25	1484313.268	474580.505	---	X	---	---	O	O	O	O	O	O
182-26	1484323.553	474580.505	---	X	---	---	O	---	---	O	O	---
182-27	1484334.458	474570.3073	---	X	---	---	O	---	---	O	O	---
182-28	1484334.44	474520.5193	---	X	---	---	O	---	---	O	O	---
182-29	1484395.576	474617.2693	---	X	---	---	O	---	---	O	O	---
182-30	1484457.373	474566.4239	---	X	---	---	O	---	---	O	O	---
182-31	1484457.403	474596.5161	---	X	---	---	O	---	---	O	O	---
182-32	1484466.943	474617.2693	---	X	---	---	O	---	---	O	O	---
182-33	1484477.118	474617.2693	---	X	---	---	O	---	---	O	O	---
182-Z16-003	1484432.832	474559.887	---	---	X	X	O	O	O	O	O	O
182-Z16-006	1483488.946	474296.203	---	---	X	X	O	---	---	O	O	---
182-Z16-010	1483860.2	474612	X	X	---	---	O	---	---	X	X	---
182-Z16-011	1484334.5	474590.8	X	X	---	---	O	---	---	X	X	---
182-Z16-012	1484456.9	474617.2	X	X	---	---	O	---	---	X	X	---
P181-55	1483570.13	474094.14	---	X	---	---	O	---	---	O	X	---
S25-SB01	1483363.125	473708.625	---	X	---	---	O	---	---	O	X	---
S25-SB02	1483367.75	473803.9375	---	X	---	---	O	---	---	O	X	---
S25-SB03	1483375.5	473905.8438	O	X	O	O	O	O	O	O	X	O
S25-SB05	1483382.125	474078.8125	---	X	---	---	O	---	---	O	X	---
S25-SB06	1483501.375	474035.5	---	X	---	---	O	---	---	O	X	---
S25-SB07	1483520	474106.5313	---	X	---	---	O	---	---	O	X	---
S25-SB08	1483550.125	474213.25	---	X	---	---	O	---	---	O	X	---
S25-SB09	1483574.25	474307.375	---	X	---	---	O	---	---	O	X	---
S25-SB10	1483588	474406.3438	---	X	---	---	O	---	---	O	X	---
S25-SB11	1483608.75	474503.2813	---	X	---	---	O	---	---	O	X	---
S25-SB12	1483629.625	474600.4688	---	X	O	O	O	O	O	O	X	O
S25-SB13	1483704.75	474218.2813	---	X	---	---	O	---	---	O	X	---
S25-SB14	1483733.75	474309.875	---	X	---	---	O	---	---	O	X	---
S25-SB15	1483767	474399.8125	---	X	---	---	O	---	---	O	X	---
S25-SB16	1483779.625	474500.7813	---	X	---	---	O	---	---	O	X	---
S25-SB17	1483782.5	474598.0938	---	X	---	---	O	---	---	O	X	---

TABLE A.4-2(A)

PROPOSED ANALYSIS FOR HISTORICAL SAMPLE LOCATIONS

SAMPLE POINT	Easting	Northing	VOCs EPA Method 5035/8260B	SVOCs EPA Method 8270C	Pesticides EPA Method 8081A	PCBs EPA Method 8082	Metals EPA Method 6010B	Mercury EPA Method 7471A	Cyanide EPA Method 9010A/9012	TPH- purgeable EPA Method 5035/8015B	TPH- extractable EPA Method 8015B	Fish Bioassay (96 Hour)/ Title 22 (LC ₅₀)
S25-SB18	1483925.25	474419.4375	---	X	---	---	O	---	---	O	X	---
S25-SB19	1483928.875	474521.9688	---	X	---	---	O	---	---	O	X	---
S25-SB20	1483933.125	474599.0938	---	X	---	---	O	---	---	O	X	---
S25-SB21	1484084.125	474435.7188	---	X	---	---	O	---	---	O	X	---
S25-SB22	1484090.625	474557	---	X	---	---	O	---	---	O	X	---
S25-SB23	1484092.5	474607.8125	---	X	---	---	O	---	---	O	X	---
S25-SB24	1484203.375	474408.0938	O	X	O	O	O	O	O	O	X	O
S25-SB25	1484214.375	474512.7188	---	X	---	---	O	---	---	O	X	---
S25-SB26	1484235.5	474603.8125	---	X	---	---	O	---	---	O	X	---
S25-SB27	1484382.25	474473.4063	---	X	---	---	O	---	---	O	X	---
S25-SB28	1484387.25	474571.0625	---	X	---	---	O	---	---	O	X	---
S25-SB29	1484387.875	474599.6875	---	X	---	---	O	---	---	O	X	---
S25-SB30	1484533.25	474447.6563	---	X	---	---	O	---	---	O	X	---
S25-SB31	1484535.625	474496.9063	---	X	---	---	O	---	---	O	X	---
S25-SB32	1484536.125	474596.3125	---	X	---	---	O	---	---	O	X	---
S25-SB33	1484634	474376.6875	---	X	---	---	O	---	---	O	X	---
S25-SB34	1484639.125	474547.0625	---	X	---	---	O	---	---	O	X	---
S25-SB35	1484637	474597.0313	O	X	O	O	O	O	O	O	X	O

Notes:

EPA - U.S. Environmental Protection Agency

O - required sample collection and analyses

PCB - polychlorinated biphenyl

SVOC - semivolatile organic compound

TPH-extractable - total extractable petroleum hydrocarbons

TPH-purgeable - total purgeable petroleum hydrocarbons

VOC - volatile organic compound

X - previously sampled

TABLE A.5-1(A)
SAMPLE CONTAINERS, PRESERVATIVES,
AND HOLDING TIME REQUIREMENTS

SOIL SAMPLES				
Analysis	Analytical Method	Container	Preservative	Holding Time
Mercury	EPA Method 7470A	One 8-ounce glass jar or stainless steel sleeve	Cool to 4±2°C	28 days
PAHs	EPA Method 8310	One 8-ounce glass jar or stainless steel sleeve	Cool to 4±2°C	14 days to extract; 40 days to analyze
TPH-purgeable	EPA Methods 5035/8015B	Three EnCore® samplers	Cool to 4±2°C	48 hours to analyze or lab preservation for EnCore® samples; analyze within 14 days of preservation
TPH-extractable	EPA Method 8015B	One 8-ounce glass jar or stainless steel sleeve	Cool to 4±2°C	14 days to extract; 40 days to analyze

Notes:

°C -- degrees Celsius

* - if required

EPA – U.S. Environmental Protection Agency

HNO₃ – nitric acid

PAH – polynuclear aromatic hydrocarbon

TCLP – Toxicity Characteristic Leaching Procedure

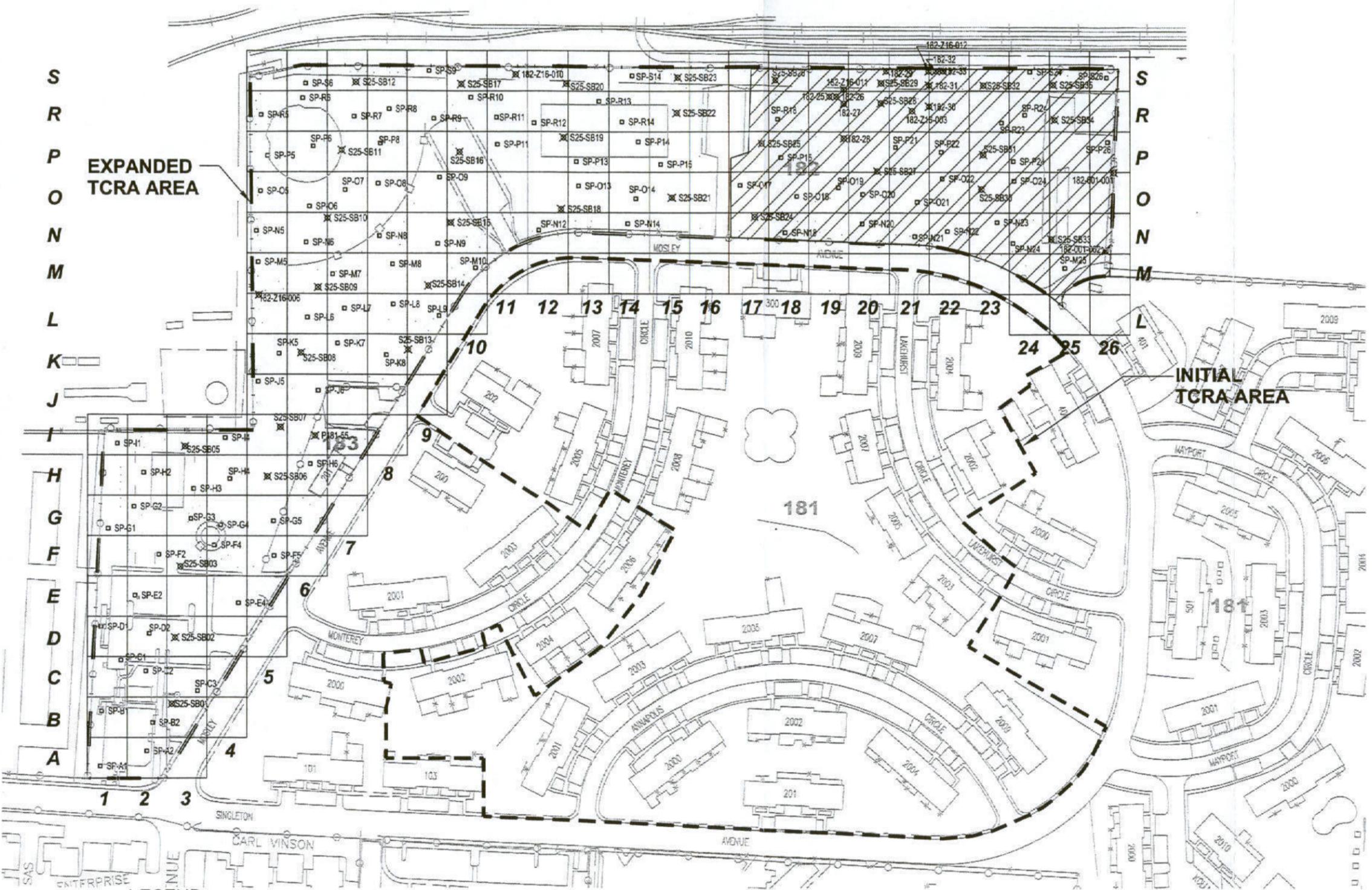
TPH-extractable – total extractable petroleum hydrocarbons

TPH-purgeable – total purgeable petroleum hydrocarbons

FIGURE

DRAWING NO: 02081041A.DWG
 DCN: FWS-D-RAC-02-0810
 CTO #0040
 APPROVED BY: AE
 CHECKED BY: VR
 REV: REVISION 0
 DRAWN BY: MD
 DATE: 04/11/02

I:\1990-RAC\CTO-0040\DWG\020810\02081041A.DWG
 PLOT/UPDATE: APR 17 2002 09:01:16



LEGEND:
 - - - - - INITIAL TIME-CRITICAL REMOVAL ACTION (TCRA) BOUNDARY
 _____ EXPANDED TCRA BOUNDARY
 □ PRE-CONSTRUCTION SAMPLE LOCATION
 ✕ HISTORICAL SAMPLE LOCATION
 A 58'X58' SAMPLE GRID
 1

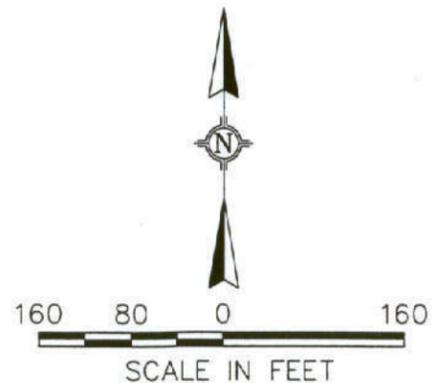


Figure A.4-1(A)
 EXCAVATION BOUNDARY AND
 PRE-CONSTRUCTION SAMPLE LOCATIONS
 ALAMEDA POINT - IR SITE 25
 FOSTER WHEELER
 ENVIRONMENTAL CORPORATION

APPENDIX B

**FINAL ADDENDUM TO THE
QUALITY ASSURANCE PROJECT PLAN**

Southwest Division
Naval Facilities Engineering Command
Contracts Department
1220 Pacific Highway, Building 127, Room 112
San Diego, California 92132-5190

CONTRACT NO. N68711-98-D-5713
CTO No. 0040

APPENDIX B
FINAL
ADDENDUM TO THE
QUALITY ASSURANCE PROJECT PLAN

Revision 0
April 19, 2002

CERCLA TIME CRITICAL REMOVAL ACTION
AT INSTALLATION RESTORATION SITE 25
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DCN: FWSD-RAC-02-0810



FOSTER WHEELER ENVIRONMENTAL CORPORATION

1230 Columbia Street, Suite 500
San Diego, CA 92101

Mary Schneider

Mary Schneider
Quality Control Program Manager

4/17/02

Date

Narciso A. Ancog

Narciso A. Ancog
SWDIV Quality Assurance Officer

4/17/02

Date

TABLE OF CONTENTS

	<u>PAGE</u>
LIST OF TABLES.....	B.iii
LIST OF FIGURES	B.iii
ABBREVIATIONS AND ACRONYMS.....	B.iv
1.0 INTRODUCTION	B.1-1
1.1 OBJECTIVE.....	B.1-1
1.2 BACKGROUND.....	B.1-1
2.0 PROJECT ORGANIZATION	B.2-1
2.1 LIST OF POINTS OF CONTACT	B.2-1
3.0 QUALITY ASSURANCE OBJECTIVES	B.3-1
3.1 DATA QUALITY OBJECTIVES	B.3-1
3.2 ANALYTICAL DATA QUALITY OBJECTIVES.....	B.3-1
3.2.1 Quality Control Criteria.....	B.3-1
3.2.2 Analytical Methods.....	B.3-1
4.0 SAMPLING COLLECTION.....	B.4-1
4.1 SAMPLING LOCATIONS.....	B.4-1
4.2 SAMPLE COLLECTION	B.4-1
4.3 SAMPLE CONTAINERS, PRESERVATIVES, AND HOLDING TIMES	B.4-1
4.4 SAMPLE PACKAGING AND SHIPMENT.....	B.4-1
5.0 SAMPLE CUSTODY AND DOCUMENTATION.....	B.5-1
5.1 FIELD SAMPLE CUSTODY AND DOCUMENTATION	B.5-1
5.1.1 Field Logbook.....	B.5-1
5.1.2 Sample Labeling	B.5-1
5.1.3 Custody Seals.....	B.5-1
5.1.4 Chain-of-Custody Records	B.5-1
5.2 LABORATORY SAMPLE CUSTODY AND DOCUMENTATION	B.5-1
5.3 CORRECTIONS TO CUSTODY DOCUMENTATION.....	B.5-1
6.0 ANALYTICAL QUALITY CONTROL PROCEDURES.....	B.6-1
6.1 LABORATORY QUALIFICATION	B.6-1
6.2 LABORATORY QUALITY CONTROL PROCEDURES.....	B.6-1
6.3 LABORATORY QUALITY CONTROL SAMPLES.....	B.6-1
6.3.1 Calibration	B.6-1
6.3.2 Instrument Blanks	B.6-1
6.3.3 Method Blanks.....	B.6-1
6.3.4 Laboratory Control Samples.....	B.6-1

TABLE OF CONTENTS
(Continued)

	<u>PAGE</u>
6.3.5 Matrix Spike and Matrix Spike Duplicate	B.6-1
6.3.6 Duplicates	B.6-1
6.4 PREVENTIVE MAINTENANCE	B.6-1
6.5 DATA REVIEW	B.6-1
6.5.1 Analyst Review	B.6-2
6.5.2 Peer Review	B.6-2
6.5.3 Technical Reviews	B.6-2
6.5.4 Management Review	B.6-2
6.5.5 QA Review	B.6-2
6.6 DELIVERABLES	B.6-2
6.6.1 Hard-Copy Deliverables	B.6-2
6.6.2 Electronic Deliverables	B.6-2
6.6.3 Analytical Data Rounding Criteria	B.6-2
7.0 DATA QUALITY MANAGEMENT	B.7-1
7.1 DATA MANAGEMENT	B.7-1
7.1.1 Hard Copy	B.7-1
7.1.2 Electronic Data	B.7-1
7.2 DATA VALIDATION	B.7-1
7.3 DATA EVALUATION	B.7-1
8.0 QUALITY ASSURANCE OVERSIGHT	B.8-1
8.1 FIELD AUDITS	B.8-1
8.1.1 Corrective Action	B.8-1
8.2 LABORATORY AUDITS	B.8-1
8.2.1 Corrective Action	B.8-1
8.3 QAPP REVISION OR AMENDMENT	B.8-1
9.0 REFERENCES	B.9-1

LIST OF TABLES

Table B.3-2(A)	Project Reporting Limits
Table B.3-3(A)	Quality Control Acceptance Criteria

LIST OF FIGURES

Figure B.2-1(A)	Project Organization Chart
-----------------	----------------------------

ABBREVIATIONS AND ACRONYMS

BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability act
CIH	Certified Industrial Hygienist
DON	Department of the Navy
EBS	Environmental Baseline Survey
EPA	U.S. Environmental Protection Agency
FWENC	Foster Wheeler Environmental Corporation
IR	Installation Restoration
MDL	method detection limit
µg/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
NA	not applicable
NAS	Naval Air Station
NE	not established
%R	percent recovery
PAH	polynuclear aromatic hydrocarbon
PCB	polychlorinated biphenyl
PRG	Preliminary Remediation Goal
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RAC	Remedial Action Contract
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
RL	reporting limit
RPD	relative percent difference
SVOC	semivolatile organic compound
SWDIV	Southwest Division Naval Facilities Engineering Command
TCRA	Time-Critical Removal Action
TCLP	Toxicity Leaching Characteristic Procedure

ABBREVIATIONS AND ACRONYMS

(Continued)

TPH-extractable	total extractable petroleum hydrocarbons
TPH-purgeable	total purgeable petroleum hydrocarbons
VOC	volatile organic compound

1.0 INTRODUCTION

This Addendum to the Quality Assurance Project Plan (QAPP) was prepared by Foster Wheeler Environmental Corporation (FWENC) to support sampling activities at the expanded Time-Critical Removal Action (TCRA) area at Operable Unit-5 [synonymous with Installation Restoration (IR) Site 25] located on former Naval Air Station (NAS) Alameda, Alameda Point, Alameda, California. IR Site 25 is comprised of approximately 42 acres and is divided into three Environmental Baseline Survey (EBS) parcels (Parcels 181, 182, and 183). The expanded TCRA area encompasses both EBS Parcel 182 and EBS Parcel 183 (Estuary Park).

This Addendum to the QAPP was prepared on behalf of the Department of the Navy (DON), Southwest Division Naval Facilities Engineering Command (SWDIV) Contract Task Order No. 0040, issued under Remedial Action Contract (RAC) No. N68711-98-D-5713. This addendum complies with the requirements of revising the current QAPP when a scope or regulation change occurs during the course of work. The Addendum to the QAPP will be available in the project field office, located at 399 Mosley Avenue in Alameda, California.

The Addendum to the QAPP pertains to modifications relevant to the additional proposed pre-construction sampling and import soil sampling activities for the expanded TCRA. This Addendum to the QAPP includes only specific information pertinent to the expanded TCRA. The overall quality assurance (QA) program is provided in the QAPP contained as Appendix B in the *Final Removal Action Work Plan (RAWP)*, *CERCLA* (Comprehensive Environmental Response, Compensation, and Liability Act) *TCRA at IR Site 25, Alameda Point, Alameda, California* (FWENC, 2001).

1.1 OBJECTIVE

No revisions.

1.2 BACKGROUND

Information on site location and background is presented in Section 2.0 of the Addendum to the RAWP and will not be duplicated in this Addendum to the QAPP.

2.0 PROJECT ORGANIZATION

The Project Organization Chart has been revised [Figure B.2-1(A)].

2.1 LIST OF POINTS OF CONTACT

The following lists the changes for key contact information.

Agency	Contact	Title
Naval Facilities Engineering Command Southwest Division BRAC Operations 1230 Columbia Street, Suite 1100 San Diego, CA 92101	Mr. Rick Weissenborn (619) 532-0952	Remedial Project Manager
Naval Facilities Engineering Command Southwest Division 1220 Pacific Highway San Diego, CA 92132-5187	Ms. Joyce Howell-Payne (619) 532-0923	Contracting Specialist
Southwest Division Naval Facilities Engineering Command 1220 Pacific Highway San Diego, CA 92132-5190	Narciso A. Ancog (619) 532-2540	Quality Assurance Officer
Navy Facilities Engineering Command San Francisco Bay Area 2450 Saratoga Street, Suite 200 Alameda, CA 94501	Ms. Shirley Ng (510) 749-5939	Resident Officer in Charge of Construction
FWENC 1940 East Deere Avenue, Suite 200 Santa Ana, CA 92705	Mr. Abram Eloskof (949) 756-7521 (714) 620-5530 (cell)	Project Manager
FWENC 1230 Columbia Street, Suite 500 San Diego, CA 92101	Roger Margotto, CIH (619) 471-3503 (714) 810-3742 (pager)	Project Environmental Health and Safety Manager
FWENC 1940 East Deere Avenue, Suite 200 Santa Ana, CA 92705	Mary Schneider (949) 756-7586 (714) 620-4551 (cell)	Quality Control Program Manager
FWENC 1940 East Deere Avenue, Suite 200 Santa Ana, CA 92705	Gerald Tamashiro (949) 756-7577	Project Chemist

3.0 QUALITY ASSURANCE OBJECTIVES

No revisions.

3.1 DATA QUALITY OBJECTIVES

No revision with the exception of site location.

3.2 ANALYTICAL DATA QUALITY OBJECTIVES

No revisions.

3.2.1 Quality Control Criteria

No revisions.

3.2.2 Analytical Methods

The following methods will be used during the expanded TCRA:

Soil Samples

- Polynuclear aromatic hydrocarbons (PAHs) by U.S. Environmental Protection Agency (EPA) 8310
- Total extractable petroleum hydrocarbons (TPH-extractable) by EPA 8015B
- Total purgeable petroleum hydrocarbons (TPH-purgeable) by EPA 8015B
- Mercury by EPA Method 7471A

Project reporting limits are shown on Table B.3-2(A).

Project Quality Control (QC) Limits

The precision and accuracy QC limits for each additional method are identified in Table B.3-3(A).

4.0 SAMPLING COLLECTION

4.1 SAMPLING LOCATIONS

No revisions.

4.2 SAMPLE COLLECTION

No revisions.

4.3 SAMPLE CONTAINERS, PRESERVATIVES, AND HOLDING TIMES

No revisions.

4.4 SAMPLE PACKAGING AND SHIPMENT

No revisions.

5.0 SAMPLE CUSTODY AND DOCUMENTATION

No revisions.

5.1 FIELD SAMPLE CUSTODY AND DOCUMENTATION

No revisions.

5.1.1 Field Logbook

No revisions.

5.1.2 Sample Labeling

No revisions.

5.1.3 Custody Seals

No revisions.

5.1.4 Chain-of-Custody Records

No revisions.

5.2 LABORATORY SAMPLE CUSTODY AND DOCUMENTATION

No revisions.

5.3 CORRECTIONS TO CUSTODY DOCUMENTATION

No revisions.

6.0 ANALYTICAL QUALITY CONTROL PROCEDURES

No revisions.

6.1 LABORATORY QUALIFICATION

No revisions.

6.2 LABORATORY QUALITY CONTROL PROCEDURES

No revisions.

6.3 LABORATORY QUALITY CONTROL SAMPLES

6.3.1 Calibration

No revisions.

6.3.2 Instrument Blanks

No revisions.

6.3.3 Method Blanks

No revisions.

6.3.4 Laboratory Control Samples

No revisions.

6.3.5 Matrix Spike and Matrix Spike Duplicate

No revisions.

6.3.6 Duplicates

No revisions.

6.4 PREVENTIVE MAINTENANCE

No revisions.

6.5 DATA REVIEW

No revisions.

6.5.1 Analyst Review

No revisions.

6.5.2 Peer Review

No revisions.

6.5.3 Technical Reviews

No revisions.

6.5.4 Management Review

No revisions.

6.5.5 QA Review

No revisions.

6.6 DELIVERABLES

No revisions.

6.6.1 Hard-Copy Deliverables

No revisions.

6.6.2 Electronic Deliverables

No revisions.

6.6.3 Analytical Data Rounding Criteria

No revisions.

7.0 DATA QUALITY MANAGEMENT

7.1 DATA MANAGEMENT

No revisions.

7.1.1 Hard Copy

No revisions.

7.1.2 Electronic Data

No revisions.

7.2 DATA VALIDATION

No revisions.

7.3 DATA EVALUATION

No revisions.

8.0 QUALITY ASSURANCE OVERSIGHT

No revisions.

8.1 FIELD AUDITS

No revisions.

8.1.1 Corrective Action

No revisions.

8.2 LABORATORY AUDITS

No revisions.

8.2.1 Corrective Action

No revisions.

8.3 QAPP REVISION OR AMENDMENT

No revisions.

9.0 REFERENCES

Foster Wheeler Environmental Corporation (FWENC). 2001. *Final Removal Action Work Plan, CERCLA Time-Critical Removal Action, Installation Restoration Site 25, Alameda Point, Alameda, California*. November.

TABLES

TABLE B.3-2(A)

PROJECT REPORTING LIMITS

Parameter/Method	Analyte	Soil		Impact Fill Criteria
		RL	Unit	
TPH-extractable EPA Methods 3500/8015B	Diesel	10	mg/kg	NE
	Motor Oil	10	mg/kg	NE
TPH-purgeable EPA Methods 5035/8015B	Gasoline	1	mg/kg	NE
PAHs EPA Method 8310	Acenaphthene	50	µg/kg	3,700,000
	Acenaphthylene	20	µg/kg	NE
	Anthracene	2	µg/kg	22,000,000
	Benzo(a)anthracene	5	µg/kg	620
	Benzo(a)pyrene	2	µg/kg	62
	Benzo(b)fluoranthene	2	µg/kg	620
	Benzo(g,h,i)perylene	2	µg/kg	NE
	Benzo(k)fluoranthene	2	µg/kg	610
	Chrysene	2	µg/kg	6,100
	Dibenz(a,h)anthracene	5	µg/kg	62
	Fluoranthene	2	µg/kg	2,300,000
	Fluorene	2	µg/kg	2,600,000
	Indeno(1,2,3-cd)pyrene	2	µg/kg	620
	Naphthalene	50	µg/kg	56,000
	Phenanthrene	2	µg/kg	NE
	Pyrene	2	µg/kg	2,300,000

TABLE B.3-2(A)

PROJECT REPORTING LIMITS

Parameter/Method	Analyte	Soil			
		RL	Waste Profile Action Level	Unit	Impact Fill Criteria
VOCs or TCLP VOCs EPA Method 5035/8260B or 1311/8260B	1,1,1-Trichloroethane	5	NE	µg/kg	630,000
	1,1,2,2-Tetrachloroethane	5	NE	µg/kg	380
	1,1,2-Trichloroethane	5	NE	µg/kg	840
	1,1-Dichloroethane	5	NE	µg/kg	3,300
	1,1-Dichloroethene	5	14,000	µg/kg	54
	1,2-Dichloroethane	5	10,000	µg/kg	350
	1,2-Dichloropropane	5	NE	µg/kg	350
	2-Hexanone	50	NE	µg/kg	NE
	Acetone	50	NE	µg/kg	1,600,000
	Benzene	5	10,000	µg/kg	650
	Bromodichloromethane	5	NE	µg/kg	1,000
	Bromoform	5	NE	µg/kg	62,000
	Bromomethane	5	NE	µg/kg	3,900
	Carbon tetrachloride	5	10,000	µg/kg	240
	Chlorobenzene	5	2,000,000	µg/kg	150,000
	Chloroethane	5	NE	µg/kg	3,000
	Chloroform	5	120,000	µg/kg	240
	Chloromethane	5	NE	µg/kg	1,200
	cis-1,2-Dichloroethene	5	NE	µg/kg	4,300
	cis-1,3-Dichloropropene	5	NE	µg/kg	700
	Dibromochloromethane	5	NE	µg/kg	1,100
	Ethylbenzene	5	NE	µg/kg	230,000
	MEK	50	4,000,000	µg/kg	7,300,000
	MTBE	10	NE	µg/kg	17,000
	Methylene chloride	5	NE	µg/kg	8,900
	MIBK	50	NE	µg/kg	790,000
	Styrene	5	NE	µg/kg	1,700,000
	Tetrachloroethene	5	14,000	µg/kg	5,700
	Toluene	5	NE	µg/kg	520,000
	trans-1,2-Dichloroethene	5	NE	µg/kg	63,000
	trans-1,3-Dichloropropene	5	NE	µg/kg	700
	Trichloroethene	5	10,000	µg/kg	2,800
	Vinyl acetate	50	NE	µg/kg	430,000
Vinyl chloride	5	4,000	µg/kg	150	
Xylenes (Total)	15	NE	µg/kg	210,000	

TABLE B.3-2(A)

PROJECT REPORTING LIMITS

Parameter/Method	Analyte	Soil			
		RL	Waste Profile Action Level	Unit	Impact Fill Criteria
PCBs or TCLP PCBs EPA Method 8082 or 1311/8082	Aroclor-1016	50	50,000	µg/kg	6,900
	Aroclor-1221	100	50,000	µg/kg	220
	Aroclor-1232	50	50,000	µg/kg	220
	Aroclor-1242	50	50,000	µg/kg	220
	Aroclor-1248	50	50,000	µg/kg	22
	Aroclor-1254	33	50,000	µg/kg	220
	Aroclor-1260	33	50,000	µg/kg	220
Organochlorine Pesticides or TCLP Organochlorine Pesticides EPA Method 8081A or 1311/8082	α-BHC	1	NE	µg/kg	90
	β-BHC	1	NE	µg/kg	320
	δ-BHC	1	NE	µg/kg	NE
	γ-BHC (Lindane)	1	NE	µg/kg	440
	Chlordane	50	600	µg/kg	1,600
	4,4'-DDD	2	1,000	µg/kg	240
	4,4'-DDE	2	1,000	µg/kg	170
	4,4'-DDT	2	1,000	µg/kg	170
	Aldrin	1	1,400	µg/kg	29
	Dieldrin	2	8,000	µg/kg	30
	Endosulfan I	1	NE	µg/kg	370,000
	Endosulfan II	2	NE	µg/kg	370,000
	Endosulfan Sulfate	5	NE	µg/kg	370,000
	Endrin	2	200	µg/kg	18,000
	Endrin Aldehyde	2	NE	µg/kg	NE
	Endrin Ketone	2	NE	µg/kg	NE
	Heptachlor	1	160	µg/kg	110
	Heptachlor Epoxide	1	160	µg/kg	53
	Methoxychlor	10	100,000	µg/kg	310,000
Toxaphene	100	5,000	µg/kg	440	
Hexachlorobenzene	10	NE	µg/kg	30	
Metals or TCLP Metals EPA Method 6010B/7471A or 1311/6010B/7471A	Antimony	5	150	mg/kg	31
	Arsenic	0.5	50	mg/kg	5.0 ⁽¹⁾
	Barium	1	1,000	mg/kg	5,400
	Beryllium	0.2	7.5	mg/kg	150
	Cadmium	0.3	10	mg/kg	9
	Chromium	2	100	mg/kg	210
	Cobalt	2	800	mg/kg	4,700
	Copper	0.5	250	mg/kg	2,900
	Lead	0.5	50	mg/kg	400
	Mercury	0.2	2	mg/kg	23
	Molybdenum	3	3,500	mg/kg	390

TABLE B.3-2(A)

PROJECT REPORTING LIMITS

Parameter/Method	Analyte	Soil			
		RL	Waste Profile Action Level	Unit	Impact Fill Criteria
(Continued)	Nickel	2	200	mg/kg	150
	Selenium	1	10	mg/kg	390
	Silver	2	50	mg/kg	390
	Thallium	2	70	mg/kg	5.2
	Vanadium	2	240	mg/kg	550
	Zinc	1	2,500	mg/kg	23,000
	Cyanide EPA Method 9010B/9012A	Total Cyanide	2.5	NE	mg/kg
SVOCs or TCLP SVOCs EPA Method 8270C or 1311/8270C	1,2,4-Trichlorobenzene	500	NE	µg/kg	650,000
	2,4,5-Trichlorophenol	500	8,000,000	µg/kg	6,100,000
	2,4,6-Trichlorophenol	500	40,000	µg/kg	44,000
	2,4-Dichlorophenol	500	NE	µg/kg	180,000
	2,4-Dimethylphenol	500	NE	µg/kg	1,200,000
	2,4-Dinitrophenol	500	NE	µg/kg	120,000
	2,4-Dinitrotoluene	500	2,600	µg/kg	120,000
	2,4-Dinitrotoluene	2500	NE	µg/kg	120,000
	2,6-Dinitrotoluene	500	NE	µg/kg	31,000
	2-Chloronaphthalene	500	NE	µg/kg	3900,000
	2-Chlorophenol	500	NE	µg/kg	63,000
	2-Methylnaphthalene	500	NE	µg/kg	NE
	2-Methylphenol	500	4,000,000	µg/kg	3,100,000
	2-Naphthylamine	2500	NE	µg/kg	NE
	2-Nitroaniline	2500	NE	µg/kg	3,500
	2-Nitrophenol	500	NE	µg/kg	NE
	3-Nitroaniline	2500	NE	µg/kg	NE
	4,6-Dinitro-2-methylphenol	2500	NE	µg/kg	NE
	4-Bromophenyl phenyl ether	500	NE	µg/kg	310,000
	4-Chloro-3-methylphenol	500	NE	µg/kg	NE
	4-Chloroaniline	1000	NE	µg/kg	240,000
	4-Chlorophenyl phenyl ether	500	NE	µg/kg	NE
	4-Methylphenol	500	4,000,000	µg/kg	310,000
	4-Nitroaniline	2500	NE	µg/kg	NE
	4-Nitrophenol	2500	NE	µg/kg	490,000
	Acenaphthene	500	NE	µg/kg	3,700,000
Acenaphthylene	500	NE	µg/kg	NE	
Aniline	500	NE	µg/kg	85,000	
Anthracene	500	NE	µg/kg	22,000,000	
Benzo[a]anthracene	500	NE	µg/kg	620	
Benzo[a]pyrene	500	NE	µg/kg	62	

TABLE B.3-2(A)

PROJECT REPORTING LIMITS

Parameter/Method	Analyte	Soil			
		RL	Waste Profile Action Level	Unit	Impact Fill Criteria
(Continued)	Benzo[b]fluoranthene	500	NE	µg/kg	62
	Benzo[g,h,i]perylene	500	NE	µg/kg	NE
	Benzo[k]fluoranthene	500	NE	µg/kg	6,200
	Bis(2-chloroethoxy)methane	500	NE	µg/kg	NE
	Bis(2-chloroethyl)ether	210	NE	µg/kg	210
	bis(2-chloroisopropyl)ether	500	NE	µg/kg	29,000
	bis(2-ethylhexyl)phthalate	500	NE	µg/kg	35,000
	Butyl benzyl phthalate	500	NE	µg/kg	12,000,000
	Chrysene	500	NE	µg/kg	62,000
	Dibenz(a,h)anthracene	500	NE	µg/kg	62
	Dibenzofuran	500	NE	µg/kg	290,000
	Diethyl phthalate	500	NE	µg/kg	49,000,000
	Dimethyl phthalate	500	NE	µg/kg	100,000,000
	Di-n-butyl phthalate	500	NE	µg/kg	NE
	Di-n-octyl phthalate	500	NE	µg/kg	1,200,000
	Fluoranthene	500	NE	µg/kg	2,300,000
	Fluorene	500	NE	µg/kg	2,600,000
	Hexachloro-1,3-cyclopentadiene	2500	NE	µg/kg	420,000
	Hexachlorobutadiene	500	NE	µg/kg	6,200
	Hexachloroethane	500	NE	µg/kg	35,000
	Indeno[1,2,3-cd]pyrene	500	NE	µg/kg	620
	Isophorone	500	NE	µg/kg	510,000
	Methyl methanesulfonate	500	NE	µg/kg	NE
	Naphthalene	500	NE	µg/kg	56,000
	Nitrobenzene	500	40,000	µg/kg	20,000
	N-Nitrosodimethylamine	300 ⁽²⁾	NE	µg/kg	9.5
	N-Nitrosodi-n-propylamine	69	NE	µg/kg	69
	N-Nitrosodiphenylamine	2500	NE	µg/kg	99,000
	Pentachlorophenol	2500	17,000	µg/kg	3,000
	Phenanthrene	500	NE	µg/kg	NE
	Phenol	500	NE	µg/kg	37,000,000
	Pyrene	500	NE	µg/kg	2,300,000

Notes:

(1) Calculated arsenic background is approximately 5 mg/kg.

(2) Current laboratory MDLs cannot support the residential PRG level.

EPA - U.S. Environmental Protection Agency

MDL - method detection limit

µg/kg - micrograms per kilogram

mg/kg - milligrams per kilogram

NE - not established

PAH - polynuclear aromatic hydrocarbon

PCB - polychlorinated biphenyl

PRG

RL

SVOC

TCLP

TPH-extractable

TPH-purgeable

VOC

- Preliminary Remediation Goal

- reporting limit

- semivolatile organic compound

- Toxicity Leaching Characteristic Procedure

- total extractable petroleum hydrocarbons

- total purgeable petroleum hydrocarbons

- volatile organic compound

TABLE B.3-3(A)

QUALITY CONTROL ACCEPTANCE CRITERIA

Method	Analyte	Accuracy Soil (%R)	Precision Soil (RPD)
TPH-extractable EPA Method 8015B	Diesel	40-139	≤ 50
	<i>Surrogate:</i> n-Octacosane	50-139	NA
TPH-purgeable EPA Method 8015B	Gasoline	73-128	≤ 28
	<i>Surrogate:</i> 4-Bromofluorobenzene	64-134	NA
PAHs EPA Method 8310	Acenaphthene	40-130	≤ 35
	Acenaphthylene	50-125	≤ 35
	Anthracene	50-135	≤ 35
	Benzo(a)anthracene	40-135	≤ 35
	Benzo(a)pyrene	40-125	≤ 35
	Benzo(b)fluoranthene	40-135	≤ 35
	Benzo(g,h,i)perylene	50-135	≤ 35
	Benzo(k)fluoranthene	60-130	≤ 35
	Chrysene	60-130	≤ 35
	Dibenzo(a,h)anthracene	50-135	≤ 35
	Fluoranthene	40-125	≤ 35
	Fluorene	40-135	≤ 35
	Indeno(1,2,3-c,d)pyrene	50-125	≤ 35
	Naphthalene	40-125	≤ 35
	Phenathrene	40-135	≤ 35
	Pyrene	40-135	≤ 35
	<i>Surrogate:</i> Terphenyl-D ₁₄	40-140	NA

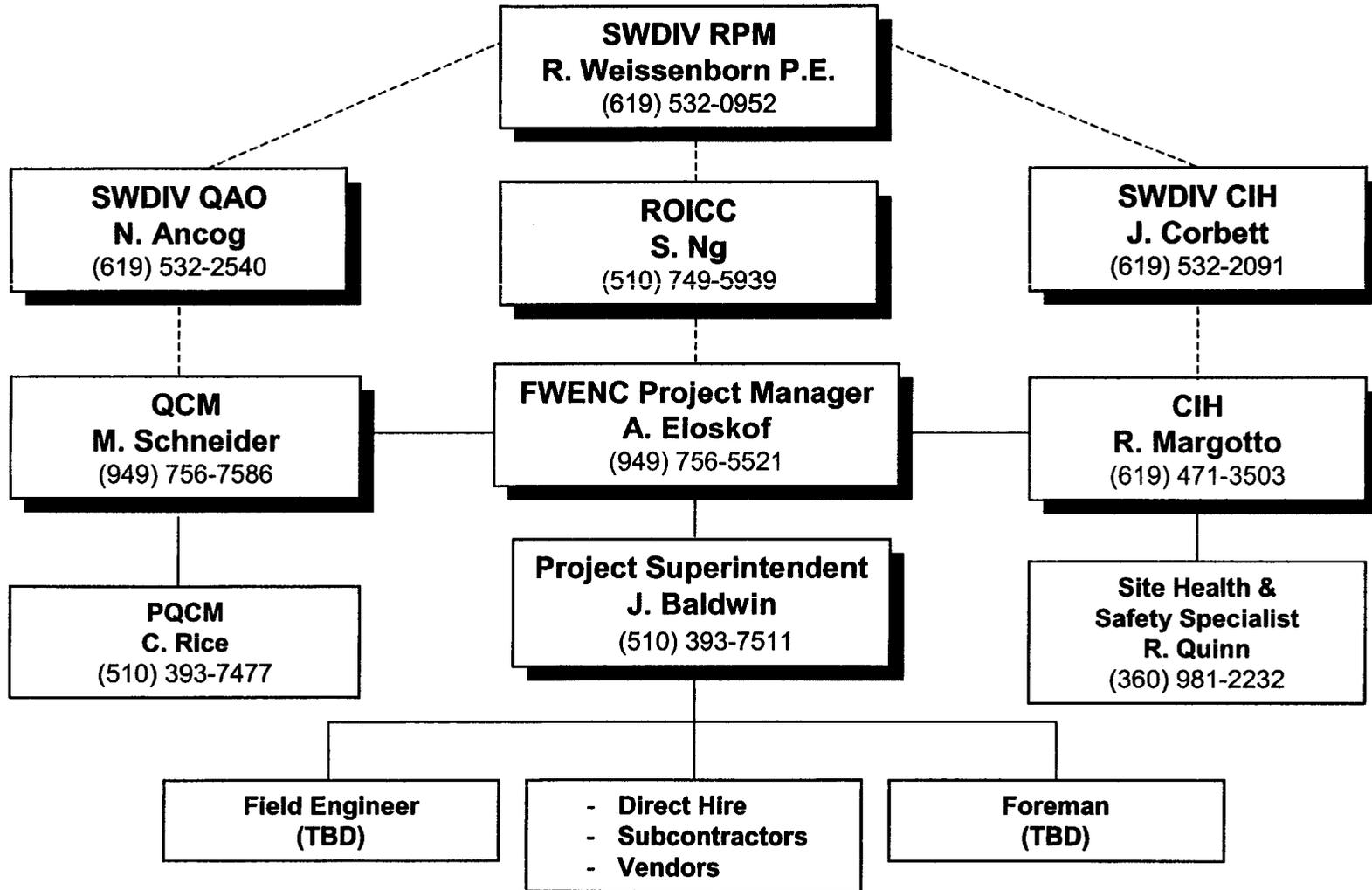
Notes:

- EPA - U.S. Environmental Protection Agency
 TPH-extractable - total extractable petroleum hydrocarbons
 TPH-purgeable - total purgeable petroleum hydrocarbons
 %R - percent recovery
 RPD - relative percent difference
 NA - not applicable

FIGURES

Figure B.2-1(A)

Project Organization Chart



APPENDIX C

**FINAL ADDENDUM TO THE
SITE-SPECIFIC HEALTH AND SAFETY PLAN**

Southwest Division
Naval Facilities Engineering Command
Contracts Department
1220 Pacific Highway, Building 127, Room 112
San Diego, California 92132-5190

CONTRACT NO. N68711-98-D-5713
CTO No. 0040

APPENDIX C
FINAL
ADDENDUM TO THE
SITE-SPECIFIC HEALTH AND SAFETY PLAN
April 19, 2002

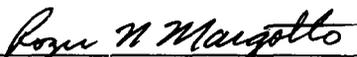
CERCLA TIME-CRITICAL REMOVAL ACTION
AT INSTALLATION RESTORATION SITE 25
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DCN: FWSD-RAC-02-0810



FOSTER WHEELER ENVIRONMENTAL CORPORATION

1230 Columbia Street, Suite 500
San Diego, CA 92101


Prepared by: Roger Margotto, CIH
Program Health and Safety Manager

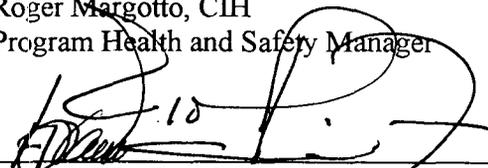

Approved by: Abram Eloskof, M. Sc., M. Eng., CIH
Project Manager

TABLE OF CONTENTS

	<u>PAGE</u>
LIST OF TABLES.....	C.iii
LIST OF FIGURES.....	C.iii
ABBREVIATIONS AND ACRONYMS.....	C.iv
1.0 INTRODUCTION.....	C.1-1
1.1 PURPOSE AND SCOPE.....	C.1-1
1.2 APPLICATION.....	C.1-1
1.2.1 Base-Wide Plan.....	C.1-1
1.3 SUMMARY OF MAJOR RISKS.....	C.1-2
2.0 ORGANIZATION OF THE PROJECT.....	C.2-1
3.0 SITE HISTORY AND PROJECT DESCRIPTION.....	C.3-1
3.1 FACILITY DESCRIPTION AND BACKGROUND.....	C.3-1
3.1.1 Site Location.....	C.3-1
3.1.2 Type of Facility and Operational Status.....	C.3-1
3.2 PROJECT DESCRIPTION.....	C.3-1
3.3 PROJECT DURATION.....	C.3-1
4.0 POTENTIAL HAZARDS.....	C.4-1
4.1 CHEMICAL HAZARDS.....	C.4-1
4.2 ENVIRONMENTAL HAZARDS.....	C.4-1
4.3 PHYSICAL HAZARDS.....	C.4-1
4.3.1 Excavation.....	C.4-1
4.3.2 Power Tools and Landscaping Equipment.....	C.4-1
4.3.3 Heavy Lifting.....	C.4-1
4.3.4 Slips, Trips, and Falls.....	C.4-1
4.3.5 Falling Objects.....	C.4-1
4.3.6 Contact with Mechanical Equipment and Heavy Equipment.....	C.4-1
4.3.7 Noise.....	C.4-1
4.3.8 General Precautions and Controls.....	C.4-2
4.4 STOCKPILE MANAGEMENT.....	C.4-2
4.5 SPECIAL CONSIDERATIONS FOR WORK IN RESIDENTIAL AREAS.....	C.4-2
5.0 ACTIVITY HAZARD ANALYSIS.....	C.5-1
6.0 PERSONAL PROTECTIVE EQUIPMENT.....	C.6-1
7.0 AIR MONITORING AND OTHER MONITORING ACTIVITIES.....	C.7-1
7.1 DIRECT READING INSTRUMENTS.....	C.7-1
7.1.1 Photoionization Detector.....	C.7-1

TABLE OF CONTENTS

(Continued)

	<u>PAGE</u>
7.1.2 Explosimeter	C.7-1
7.1.3 Particulate Monitor	C.7-1
7.1.4 Noise Monitoring.....	C.7-1
7.2 MONITORING STRATEGY	C.7-1
7.2.1 Personnel.....	C.7-1
7.2.2 Residents.....	C.7-1
7.3 QUALITY ASSURANCE/QUALITY CONTROL.....	C.7-1
7.3.1 Calibration and Maintenance Procedures	C.7-1
7.3.2 Documentation.....	C.7-1
8.0 SITE CONTROL	C.8-1
8.1 EXCLUSION ZONE.....	C.8-1
8.2 CONTAMINATION REDUCTION ZONE	C.8-1
8.2.1 Decontamination Procedures	C.8-1
8.2.2 Personnel Decontamination	C.8-1
8.2.3 Equipment Decontamination	C.8-1
8.3 SUPPORT ZONE.....	C.8-1
9.0 MEDICAL SURVEILLANCE PROCEDURES	C.9-1
10.0 SAFETY CONSIDERATIONS.....	C.10-1
11.0 DISPOSAL PROCEDURES	C.11-1
12.0 EMERGENCY RESPONSE PLAN	C.12-1
13.0 TRAINING	C.13-1
14.0 LOGS, REPORTS, AND RECORDKEEPING	C.14-1
15.0 FIELD PERSONNEL REVIEW	C.15-1
16.0 REFERENCES	C.16-1

ATTACHMENTS

- Attachment 1 Material Safety Data Sheets
- Attachment 2 Activity Hazard Analyses
- Attachment 3 Forms
- Attachment 4 Alameda Point Base-Wide Health and Safety Plan

LIST OF TABLES

No revisions.

LIST OF FIGURES

Figure C.3-2(A) Site Location Map

ABBREVIATIONS AND ACRONYMS

Base-Wide Plan	Base-Wide Health and Safety Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CTO	Contract Task Order
EBS	Environmental Baseline Survey
EZ	exclusion zone
FWENC	Foster Wheeler Environmental Corporation
IR	Installation Restoration
RAWP	Remedial Action Work Plan
SHSP	Site-Specific Health and Safety Plan
TCRA	Time-Critical Removal Action

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

This Addendum to the Site-Specific Health and Safety Plan (SHSP) applies to work to be performed under Contract N68711-98-D-5713, Contract Task Order (CTO) Number 0040 in order to complete the expanded Time-Critical Removal Action (TCRA) at Operable Unit-5 [synonymous with Installation Restoration (IR) Site 25] located on former Naval Air Station Alameda, Alameda Point, Alameda, California. IR Site 25 is comprised of approximately 42 acres and is divided into three Environmental Baseline Survey (EBS) parcels (Parcels 181, 182, and 183). The expanded TCRA area is approximately 11.6 acres and encompasses both EBS Parcels 182 and 183 (Estuary Park).

The expanded TCRA is an expansion of work of the current TCRA (initial TCRA). Additional information to support this Addendum to the SHSP can be found in the SHSP, Appendix C of the *Final Removal Action Work Plan (RAWP)*, CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) *TCRA at IR Site 25, Alameda Point, Alameda, California* [Foster Wheeler Environmental Corporation (FWENC), 2001a], and the Alameda Point *Final Base-Wide Health and Safety Plan (Base-Wide Plan)*, Alameda Point, Alameda, California (FWENC, 2001b), Attachment 4 of the Final SHSP (FWENC, 2001a).

The following sections of this Addendum to the SHSP address the pertinent modifications to the SHSP, Appendix C, of the Final RAWP (FWENC, 2001a). Only those sections that contain additional information specific to the expanded TCRA are included in this plan. For completeness, one needs to refer back to the Final SHSP (FWENC, 2001a) and Base-Wide Plan (FWENC, 2001b) and then expand on the discussions by considering the modifications in the work elements as described in this Addendum to the Final SHSP (FWENC, 2001a).

1.2 APPLICATION

This Addendum to the SHSP will be used with the Base-Wide Plan (FWENC, 2001b) previously submitted on October 30, 2001. The Addendum to the SHSP is applicable to all work conducted by FWENC and its subcontractors under the basic contract and this CTO.

1.2.1 Base-Wide Plan

This Addendum to the SHSP is not a stand-alone document. This Addendum to the SHSP augments the Base-Wide Plan (FWENC, 2001b). Personnel will receive training on the requirements of the Base-Wide Plan (FWENC, 2001b) and the Final SHSP (FWENC, 2001a).

1.3 SUMMARY OF MAJOR RISKS

No revisions.

2.0 ORGANIZATION OF THE PROJECT

The personnel information in section has been updated for the initial and expanded TCRA's.

LIST OF POINTS OF CONTACT

Agency	Contact	Project Title
Naval Facilities Engineering Command Southwest Division BRAC Operations 1230 Columbia Street, Suite 1100 San Diego, CA 92101	Rick Weissenborn, P.E. (619) 532-0952	Remedial Project Manager
Southwest Division Naval Facilities Engineering Command 1220 Pacific Highway San Diego, CA 92132-5190	Narcisco A. Ancog (619) 532-2540	Quality Assurance Officer
Naval Facilities Engineering Command Southwest Division 2450 Saratoga Street, Building 110 Suite 200 Alameda Point, Alameda, CA 94501	Shirley Ng 510-749-5939	Resident Officer in Charge of Construction
Coast Guard Housing Office 99 Mosley Avenue Alameda Point, CA 94501	CBO William Potchen (570) 769-0831 ext. 112	Coast Guard Point of Contact
FWENC 1230 Columbia Street, Suite 500 San Diego, CA 92101	Neil Hart (619) 471-3511	Program Manager
FWENC Site Trailer 399 Mosley Ave. Alameda, CA 94501	Craig Rice (510) 393-7977 (cellular)	Project Quality Control Manager
FWENC 1940 E. Deere Ave, Suite 200 Santa Ana, CA 92705	Abram Eloskof (562) 936-5806 (714) 620-5531	Project Manager
FWENC Site Trailer 399 Mosley Ave. Alameda, CA 94501	Jim Baldwin (510) 393-7511 (cellular)	Site Superintendent
FWENC 1230 Columbia Street, Suite 500 San Diego, CA 92101	Roger Margotto, CIH, CSP, CHHM (619) 471-3503	Project Environmental Health and Safety Manager

Agency	Contact	Project Title
FWENC 1940 E. Deere Ave, Suite 200 Santa Ana, CA 92705	Mary Schneider (949) 756-7586	Quality Control Program Manager
FWENC Site Trailer 399 Mosley Ave. Alameda, CA 94501	Mr. Richard W. Quinn (360) 981-2232 (cellular)	Site Health and Safety Specialist
FWENC Site Trailer 399 Mosley Ave. Alameda, CA 94501	Eric Goldman (510) 967-9134 (cellular)	Assistant Site Health and Safety Specialist

3.0 SITE HISTORY AND PROJECT DESCRIPTION

3.1 FACILITY DESCRIPTION AND BACKGROUND

No revisions.

3.1.1 Site Location

The expanded TCRA area encompasses Estuary Park and occupies approximately 11.6 acres. EBS Parcel 182 is used as a park and contains baseball and soccer fields, a sand volleyball court, playgrounds, a physical fitness course in addition to the U.S. Coast Guard Housing Office and parking area. EBS Parcel 183 is less than 1 acre in size and contains the U.S. Coast Guard Housing Maintenance Office, storage containers, and parking area. The expanded TCRA area is bordered by Todd Shipyard to the west, the Fleet and Industrial Supply Center, Oakland Alameda Annex Facility to the north and east, residential housing [EBS Parcel 181 (initial TCRA area)] to the south and southeast, and EBS Parcel 178 to the south [Figure C3-2(A)].

3.1.2 Type of Facility and Operational Status

The IR Site 25 area is comprised of EBS Parcel 181 and Estuary Park. The expanded TCRA area includes the park, the U.S. Coast Guard Housing Office and the U.S. Coast Guard Housing Maintenance Office.

3.2 PROJECT DESCRIPTION

The expanded TCRA proposed excavation area will extend to 2 feet below ground surface and progress from the southwest portion of the site to the northeast. As the TCRA encroaches on the site support area, the stockpiles will be diminished and eventually all import and export materials will be scheduled to avoid stockpiling.

3.3 PROJECT DURATION

This project is estimated to require 100 days of field activity beginning on approximately April 22, 2002. Work hours will be from 7:00 a.m. to 5:00 p.m., Monday through Friday.

4.0 POTENTIAL HAZARDS

No revisions.

4.1 CHEMICAL HAZARDS

No revisions.

4.2 ENVIRONMENTAL HAZARDS

No revisions.

4.3 PHYSICAL HAZARDS

No revisions.

4.3.1 Excavation

No revisions.

4.3.2 Power Tools and Landscaping Equipment

No revisions.

4.3.3 Heavy Lifting

No revisions.

4.3.4 Slips, Trips, and Falls

No revisions.

4.3.5 Falling Objects

No revisions.

4.3.6 Contact with Mechanical Equipment and Heavy Equipment

No revisions.

4.3.7 Noise

No revisions.

4.3.8 General Precautions and Controls

No revisions.

4.4 STOCKPILE MANAGEMENT

No revisions.

4.5 SPECIAL CONSIDERATIONS FOR WORK IN RESIDENTIAL AREAS

No revisions.

5.0 ACTIVITY HAZARD ANALYSIS

No revisions.

6.0 PERSONAL PROTECTIVE EQUIPMENT

No revisions.

7.0 AIR MONITORING AND OTHER MONITORING ACTIVITIES

No revisions.

7.1 DIRECT READING INSTRUMENTS

No revisions.

7.1.1 Photoionization Detector

No revisions.

7.1.2 Explosimeter

No revisions.

7.1.3 Particulate Monitor

No revisions.

7.1.4 Noise Monitoring

No revisions.

7.2 MONITORING STRATEGY

7.2.1 Personnel

No revisions.

7.2.2 Residents

No revisions.

7.3 QUALITY ASSURANCE/QUALITY CONTROL

No revisions.

7.3.1 Calibration and Maintenance Procedures

No revisions.

7.3.2 Documentation

No revisions.

8.0 SITE CONTROL

No revisions.

8.1 EXCLUSION ZONE

The exclusion zone (EZ) for the expanded TCRA will be demarcated for the excavation area. The excavation and stockpile areas will be within a fenced area.

8.2 CONTAMINATION REDUCTION ZONE

No revisions.

8.2.1 Decontamination Procedures

No revisions.

8.2.2 Personnel Decontamination

No revisions.

8.2.3 Equipment Decontamination

No revisions.

8.3 SUPPORT ZONE

No revisions.

9.0 MEDICAL SURVEILLANCE PROCEDURES

No revisions.

10.0 SAFETY CONSIDERATIONS

No revisions.

11.0 DISPOSAL PROCEDURES

No revisions.

12.0 EMERGENCY RESPONSE PLAN

No revisions.

13.0 TRAINING

No revisions.

14.0 LOGS, REPORTS, AND RECORDKEEPING

No revisions.

15.0 FIELD PERSONNEL REVIEW

No revisions.

16.0 REFERENCES

Foster Wheeler Environmental Corporation (FWENC). 2001a. *Final Removal Action Work Plan, CERCLA Time-Critical Removal Action, Installation Restoration Site 25, Alameda Point, Alameda, California*. November.

FWENC. 2001b. *Final Base-Wide Health and Safety Plan (Base-Wide Plan), Alameda Point, Alameda, California*. October.

TABLES

No revisions.

FIGURES

DRAWING NO:
02081022A.DWG

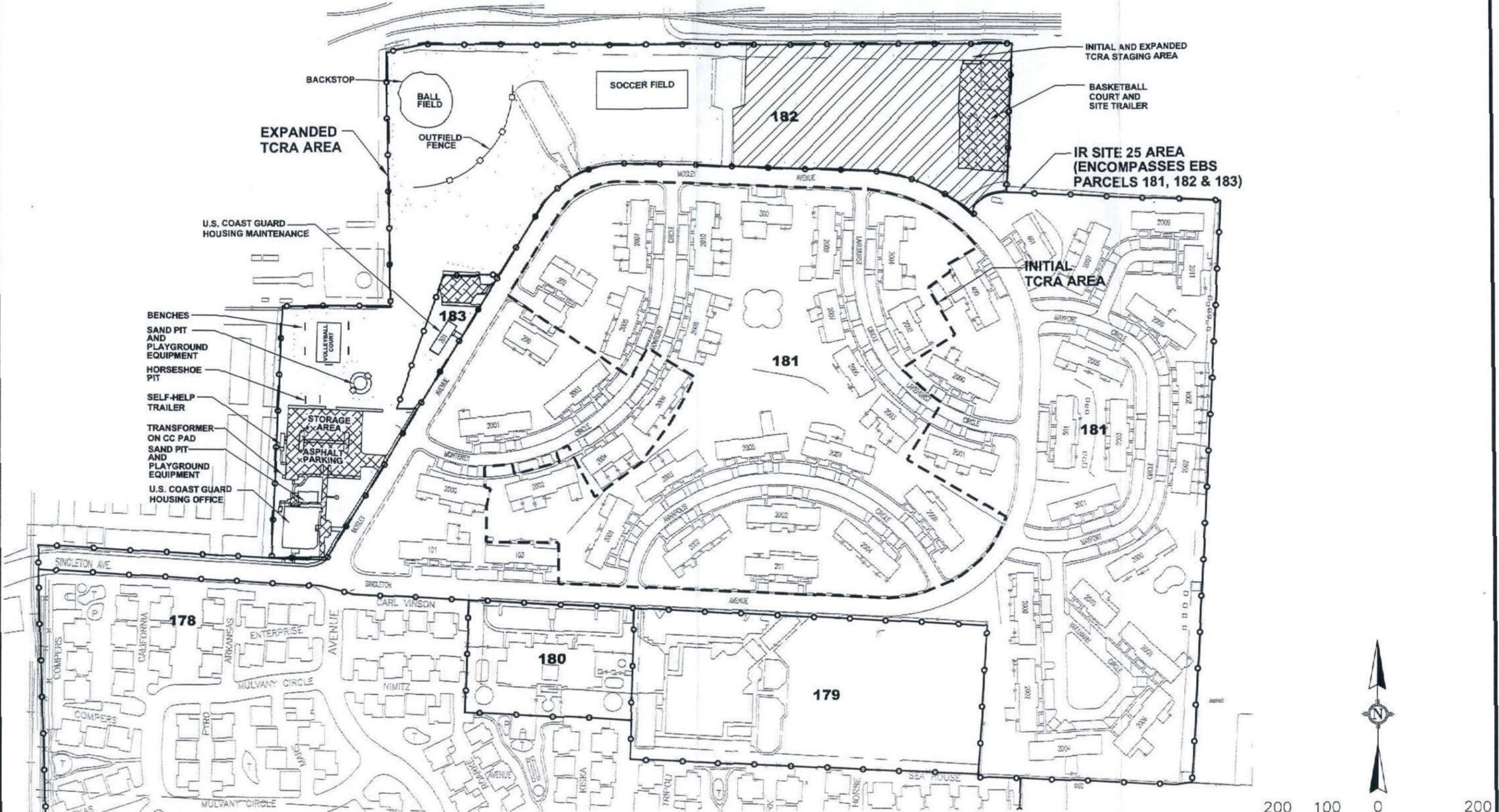
DCN: FWSD-RAC-02-0810
CTO #0040

APPROVED BY: AE

CHECKED BY: VR
REV: REVISION 0

DRAWN BY: MD
DATE: 04/11/02

I:\1990-RAC\CTO-0040\DWG\020810\02081012A.DWG
PLOT/UPDATE: APR 17 2002 15:08:27



LEGEND:

- INITIAL TIME-CRITICAL REMOVAL ACTION (TCRA) BOUNDARY
- - - EXPANDED TCRA
- ENVIRONMENTAL BASELINE SURVEY (EBS) PARCEL BOUNDARY
- 181 EBS PARCEL NUMBER
- [Cross-hatched box] PAVED AREA EXCLUDED FROM EXCAVATION
- [Diagonal hatched box] INITIAL AND EXPANDED TCRA STAGING AREA

Figure C.3-2(A)
SITE LOCATION MAP

ALAMEDA POINT - IR SITE 25

FOSTER WHEELER
ENVIRONMENTAL CORPORATION

ATTACHMENT 1
MATERIAL SAFETY DATA SHEETS

No revisions.

ATTACHMENT 2
ACTIVITY HAZARD ANALYSES

No revisions.

ATTACHMENT 3

FORMS

No revisions.

ATTACHMENT 4

ALAMEDA POINT BASE-WIDE HEALTH AND SAFETY PLAN

No revisions.

APPENDIX D

**FINAL ADDENDUM TO THE
AIR MONITORING PLAN**

Southwest Division
Naval Facilities Engineering Command
Contracts Department
1220 Pacific Highway, Building 127, Room 112
San Diego, California 92132-5190

CONTRACT NO. N68711-98-D-5713
CTO No. 0040

APPENDIX D
FINAL
ADDENDUM TO THE
AIR MONITORING PLAN
Revision 0
April 19, 2002

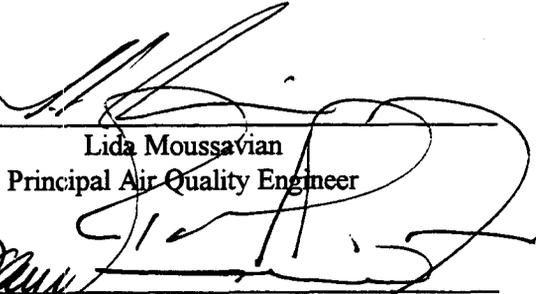
CERCLA TIME-CRITICAL REMOVAL ACTION AT
INSTALLATION RESTORATION SITE 25
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DCN: FWSD-RAC-02-0810

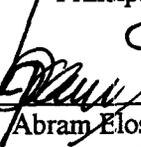


FOSTER WHEELER ENVIRONMENTAL CORPORATION

1230 Columbia Street, Suite 500
San Diego, CA 92101



Lida Moussavian
Principal Air Quality Engineer



Abram Eloskof, M. Sc., M. Eng., CIH
Project Manager

TABLE OF CONTENTS

	PAGE
LIST OF FIGURES	D.ii
ABBREVIATIONS AND ACRONYMS	D.iii
1.0 INTRODUCTION	D.1-1
2.0 SITE DESCRIPTION	D.2-1
2.1 AREA DESCRIPTION	D.2-1
2.2 CLIMATE DESCRIPTION – NORTHERN ALAMEDA REGION.....	D.2-1
2.3 MONITORING SITE LOCATIONS	D.2-1
3.0 AIR MONITORING PROGRAM	D.3-1
3.1 AIR QUALITY MONITORING SYSTEM	D.3-1
3.1.1 High-Volume Air Sampler	D.3-1
3.1.2 Medium-Volume Air Sampler.....	D.3-1
3.2 METEOROLOGICAL MONITORING SYSTEM.....	D.3-1
3.2.1 Meteorological Tower	D.3-1
3.2.2 Meteorological System.....	D.3-1
4.0 OPERATION AND MAINTENANCE.....	D.4-1
4.1 AIR MONITORING PERSONNEL	D.4-1
4.2 ROUTINE OPERATION AND MAINTENANCE	D.4-1
4.3 PREVENTATIVE MAINTENANCE.....	D.4-1
4.4 NON-ROUTINE MAINTENANCE AND EMERGENCY RESPONSE.....	D.4-1
5.0 QUALITY CONTROL.....	D.5-1
5.1 QUALITY CONTROL PROCEDURES	D.5-1
6.0 DATA EVALUATION AND REPORTING.....	D.6-1
6.1 DATA ASSEMBLY AND REVIEW	D.6-1
6.2 DATA PROCESSING AND VALIDATION	D.6-1
6.3 FINAL REPORT	D.6-1
7.0 REFERENCES	D.7-1

ATTACHMENTS

Attachment 1 Alameda Monitoring Station, Wind Rose Plot

LIST OF FIGURES

Figure D.2-1(A) Site Vicinity Map

ABBREVIATIONS AND ACRONYMS

AMP	Air Monitoring Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
EBS	Environmental Baseline Survey
EPA	U.S. Environmental Protection Agency
FWENC	Foster Wheeler Environmental Corporation
IR	Installation Restoration
PAH	polynuclear aromatic hydrocarbon
PM ₁₀	particulate matter less than 10 microns in diameter
QC	quality control
RAWP	Removal Action Work Plan
TCRA	Time-Critical Removal Action
TSP	total suspended particulates

1.0 INTRODUCTION

The following Addendum to the Air Monitoring Plan (AMP) presents specific site information regarding the air monitoring program to be conducted during the expanded Time-Critical Removal Action (TCRA) at Operable Unit-5 [synonymous with Installation Restoration (IR) Site 25] Alameda Point, Alameda, California. This Addendum to the AMP clarifies the number and locations of the air stations, duration of monitoring, and calibration and maintenance of equipment. Air monitoring is currently being conducted as part of the initial TCRA and will continue until both phases are completed.

A detailed description of the overall air monitoring program is provided in the AMP contained as Appendix D of the *Final Removal Action Work Plan (RAWP), CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) TCRA at IR Site 25, Alameda Point, Alameda, California* [Foster Wheeler Environmental Corporation (FWENC), 2001].

Meteorological monitoring stations are established at the site and are currently performing real-time monitoring of wind speed, direction, barometric pressure, and temperature during excavation and earthmoving activities associated with the initial TCRA. Air samples are collected at two air monitoring stations (one stationary monitoring station at the Miller School playground and one mobile monitoring station positioned downwind of excavation activities) and are analyzed for the airborne contaminants of concern. The results of the air quality sampling are used to determine if there are any air quality compliance concerns or if modifications to the removal activities are needed. The meteorological data for the general project area, in particular wind speed and direction, are used to determine the proper location of the mobile air monitoring station. The same monitoring stations will continue to be utilized throughout the duration of the expanded TCRA activities.

2.0 SITE DESCRIPTION

2.1 AREA DESCRIPTION

The project is located on Alameda Island on the east side of the San Francisco Bay Area. The work area, defined as the expanded TCRA area, is within IR Site 25, located in the northeastern corner of Alameda Point [Figure D.2-1(A)]. IR Site 25 is comprised of approximately 42 acres and is divided into three Environmental Baseline Survey (EBS) parcels (Parcels 181, 182, and 183). The expanded TCRA area encompasses both EBS Parcels 182 and 183 (Estuary Park). The expanded TCRA area is approximately 11.6 acres and primarily consists of a park, which contains baseball and soccer fields, a sand volleyball court, and a physical fitness course. The U.S. Coast Guard Housing Office and the Housing Maintenance Office are also located within the boundary of the expanded TCRA area.

2.2 CLIMATE DESCRIPTION – NORTHERN ALAMEDA REGION

No revisions.

2.3 MONITORING SITE LOCATIONS

Air monitoring is currently performed for the initial TCRA activities and will be performed during the expanded TCRA in order to estimate and assess the impact of the on-site activities. Two air monitoring stations shall be utilized to collect air samples:

- At the north end of the Miller School playground area immediately adjacent to Singleton Avenue
- Immediately downwind of active excavation areas

3.0 AIR MONITORING PROGRAM

No revisions.

3.1 AIR QUALITY MONITORING SYSTEM

No revisions.

3.1.1 High-Volume Air Sampler

No revisions.

3.1.2 Medium-Volume Air Sampler

Start-up and shutdown of the air samplers will coincide with the beginning and end of the workday.

3.2 METEOROLOGICAL MONITORING SYSTEM

No revisions.

3.2.1 Meteorological Tower

No revisions.

3.2.2 Meteorological System

No revisions.

4.0 OPERATION AND MAINTENANCE

No revisions.

4.1 AIR MONITORING PERSONNEL

No revisions.

4.2 ROUTINE OPERATION AND MAINTENANCE

During periodic inspections, the on-site instrumentation will be recalibrated. The results of all equipment checks and calibrations will be documented in on-site logbooks. Field forms have been eliminated.

4.3 PREVENTATIVE MAINTENANCE

No revisions.

4.4 NON-ROUTINE MAINTENANCE AND EMERGENCY RESPONSE

No revisions.

5.0 QUALITY CONTROL

No revisions.

5.1 QUALITY CONTROL PROCEDURES

Key elements of the routine field quality control (QC) program include:

- Periodic calibration of the sampling pumps and flow devices at 3-month intervals (or more frequently) and after non-routine maintenance or repair

Key elements of the routine QC procedures implemented during the sample analyses will include analysis of laboratory blanks, laboratory control samples, and spikes and calibration of the analytical instruments as specified in the appropriate methodology [U.S. Environmental Protection Agency (EPA) Title 40 Code of Federal Regulations (CFR), Part 53, for particulate matter less than 10 microns (PM₁₀) and total suspended particulates (TSP), and Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA Method TO-13 for polynuclear aromatic hydrocarbons (PAHs)].

6.0 DATA EVALUATION AND REPORTING

No revisions.

6.1 DATA ASSEMBLY AND REVIEW

No revisions.

6.2 DATA PROCESSING AND VALIDATION

No revisions.

6.3 FINAL REPORT

At the conclusion of the initial and expanded TCRA monitoring activities, a final report will be prepared to summarize all collected data.

7.0 REFERENCES

Foster Wheeler Environmental Corporation (FWENC). 2001. *Final Removal Action Work Plan, CERCLA Time-Critical Removal Action, Installation Restoration Site 25, Alameda Point, Alameda, California*. November.

FIGURE

DRAWING NO:
02081011A.DWG

DCN: FWS-D-RAC-02-0810
CTO: #0040

APPROVED BY: AE

CHECKED BY: VR
REVISION: 0

DRAWN BY: MD
DATE: 04/11/02

I:\1990-RAC\CTO-0040\DWG\020810\02081011A.DWG
PLOT/UPDATE: APR 11 2002 10:39:25

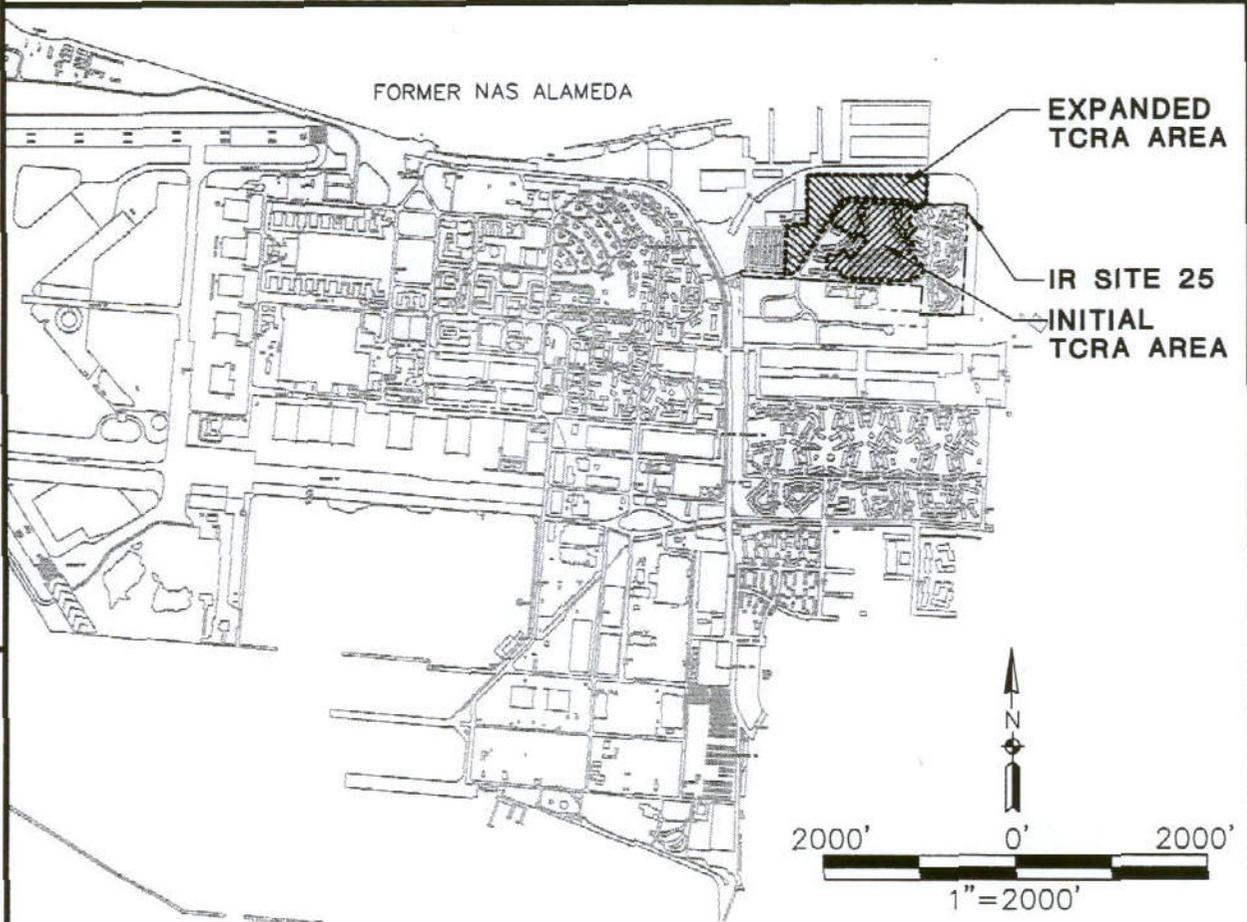
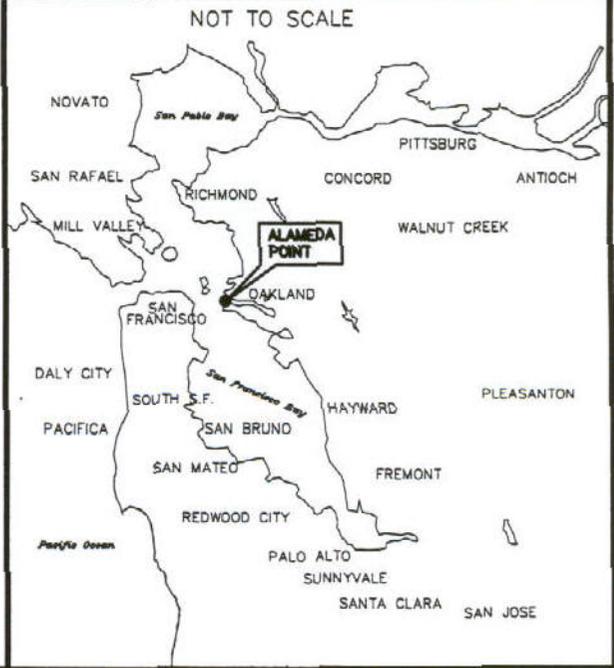


Figure D.2-1(A)
SITE VICINITY MAP

ALAMEDA POINT - IR SITE 25

FOSTER  WHEELER
ENVIRONMENTAL CORPORATION

ATTACHMENT 1
ALAMEDA MONITORING STATION
WIND ROSE PLOT

No revisions.

APPENDIX E

**FINAL ADDENDUM TO THE
PROJECT CONTRACTOR QUALITY CONTROL PLAN**

Southwest Division
Naval Facilities Engineering Command
Contracts Department
1220 Pacific Highway, Building 127, Room 112
San Diego, CA 92132-5187

CONTRACT NO. N68711-98-D-5713
CTO No. 0040

APPENDIX E

FINAL
ADDENDUM TO THE
PROJECT CONTRACTOR QUALITY CONTROL PLAN
Revision 0
April 19, 2002

CERCLA TIME-CRITICAL REMOVAL ACTION
AT INSTALLATION RESTORATION SITE 25
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DCN: FWSD-RAC-02-0810



FOSTER WHEELER ENVIRONMENTAL CORPORATION

1230 Columbia Street, Suite 500
San Diego, CA 92101



Abram Eloskof, M. Sc., M. Eng., CIH
Project Manager



Mary Schneider
Quality Control Program Manager

TABLE OF CONTENTS

	<u>PAGE</u>
LIST OF TABLES.....	E.ii
LIST OF FIGURES	E.ii
REVISION PAGE	E.iii
ABBREVIATIONS AND ACRONYMS.....	E.iv
1.0 INTRODUCTION	E.1-1
2.0 ORGANIZATION AND RESPONSIBILITIES	E.2-1
2.1 CONTRACT TASK ORDER MANAGER.....	E.2-1
2.2 QUALITY CONTROL PROGRAM MANAGER	E.2-1
2.3 PROJECT SUPERINTENDENT.....	E.2-1
2.4 PROJECT QUALITY CONTROL MANAGER.....	E.2-1
2.5 PROJECT ENGINEER.....	E.2-1
2.6 SITE HEALTH AND SAFETY SPECIALIST	E.2-1
2.7 SUBCONTRACTORS AND VENDORS	E.2-1
3.0 SUBMITTALS	E.3-1
4.0 TESTING.....	E.4-1
5.0 INSPECTION PLAN.....	E.5-1
6.0 DOCUMENTATION	E.6-1
7.0 NONCONFORMANCES.....	E.7-1
8.0 QUALITY MANAGEMENT.....	E.8-1
9.0 REFERENCES	E.9-1

ATTACHMENTS

Attachment 1	Appointment Letters and Resumes
Attachment 2	Quality Control Forms

LIST OF TABLES

Table E.5-1(A) Definable Features of Work

LIST OF FIGURES

Figure E.2-1(A) Project Organization Chart

ABBREVIATIONS AND ACRONYMS

CERCLA	Comprehensive Environmental Response, Compensation, Liability Act
CTO	Contract Task Order
DFW	definable feature of work
DON	Department of the Navy
EBS	Environmental Baseline Survey
FWENC	Foster Wheeler Environmental Corporation
IR	Installation Restoration
PCQC	Project Contractor Quality Control
RAWP	Removal Action Work Plan
RAC	Remedial Action Contract
RPM	Remedial Project Manager
ROICC	Resident Officer in Charge of Construction
SWDIV	Southwest Division Naval Facilities Engineering Command
TCRA	Time-Critical Removal Action
USC	United States Code

1.0 INTRODUCTION

This Addendum to the Project Contractor Quality Control (PCQC) Plan was prepared by Foster Wheeler Environmental Corporation (FWENC) to support the Department of the Navy's (DON's) inclusion of the expanded Time-Critical Removal Action (TCRA) within Operable Unit-5 [synonymous with Installation Restoration (IR) Site 25] located at Alameda Point, Alameda, California. IR Site 25 is comprised of approximately 42 acres and is divided into three Environmental Baseline Survey (EBS) parcels (Parcels 181, 182, and 183). The expanded TCRA area is approximately 11.6 acres and encompasses both EBS Parcels 182 and 183 (Estuary Park). The expanded TCRA was undertaken pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan, 42 United States Code (USC), Section 9604, 10 USC, Section 2701, and Federal Executive Order 12580. This Addendum to the PCQC Plan was prepared on behalf of the DON, Southwest Division Naval Facilities Engineering Command (SWDIV) under Remedial Action Contract (RAC) No. N68711-98-D-5713, Contract Task Order (CTO) No. 0040.

The expanded TCRA is a broadened scope of the IR Site 25 initial TCRA, which was initiated in November 2001. Expanded work activities include removing impacted soils from Estuary Park, demolishing existing irrigation system, installing a new irrigation system, salvaging and re-installing (except playground equipment) recreational structures (baseball diamond backstops, soccer goals, asphalt paths, benches, and so forth), and installing fencing.

Clarifications and specific information pertinent to the expanded TCRA are presented in this addendum. A detailed description of quality control procedures and information is provided in the PCQC Plan, Appendix E of the *Final Removal Action Work Plan (RAWP), CERCLA TCRA at IR Site 25, Alameda Point, Alameda, California* (FWENC, 2001).

This Addendum to the PCQC Plan complies with the requirements of revising the PCQC Plan when a scope or regulation change occurs during the course of work. This Addendum to the PCQC Plan will be available in the project field office, located at 399 Mosley Avenue in Alameda, California.

2.0 ORGANIZATION AND RESPONSIBILITIES

The PCQC Plan project organization chart [Figure E.2-1(A)] has been modified to reflect personnel changes applicable to the initial and expanded TCRAs.

2.1 CONTRACT TASK ORDER MANAGER

No revisions.

2.2 QUALITY CONTROL PROGRAM MANAGER

No revisions.

2.3 PROJECT SUPERINTENDENT

No revisions.

2.4 PROJECT QUALITY CONTROL MANAGER

No revisions.

2.5 PROJECT ENGINEER

No revisions.

2.6 SITE HEALTH AND SAFETY SPECIALIST

The new SHSS is Richard Quinn, as indicated in the organizational chart. The duties remain unchanged.

2.7 SUBCONTRACTORS AND VENDORS

No revisions.

3.0 SUBMITTALS

No revisions.

4.0 TESTING

No revisions.

5.0 INSPECTION PLAN

Revisions to the definable features of work (DFWs) [Table 5.5-1(A)] and testing plan log (Attachment 2) are included in this addendum.

6.0 DOCUMENTATION

No revisions.

7.0 NONCONFORMANCES

No revisions.

8.0 QUALITY MANAGEMENT

No revisions.

9.0 REFERENCES

Foster Wheeler Environmental Corporation (FWENC). 2001. *Final Removal Action Work Plan, CERCLA Time-Critical Removal Action, Installation Restoration Site 25, Alameda Point, Alameda, California*. November.

TABLES

TABLE E.5-1(A)

DEFINABLE FEATURES OF WORK

ACTIVITY	PREPARATORY	DONE	INITIAL	DONE	FOLLOW-UP	DONE
Pre-construction Topographic Survey	<ul style="list-style-type: none"> • Ensure that Addendum to the RAWP has been reviewed and approved prior to start of work. • Verify pre-construction sample locations to be staked with the ROICC and surveying subcontractor. • Review pre-construction surveying requirements provided in the Addendum to the RAWP and the procurement specifications. • Verify that the utility locations identified in the geophysical survey have been marked and will be surveyed. • Ensure that photographs of the site are taken prior to any site work and submitted to ROICC. • Ensure that surveyor has received available control point information. 		<ul style="list-style-type: none"> • Verify that current site conditions are properly documented and surveyed prior to removal/demolition. 		<ul style="list-style-type: none"> • Verify that survey work is proceeding on schedule. • Ensure deliverables are received as required in Addendum to the RAWP and procurement documents. • Follow-up to ensure project team has received a copy of the topographic map. 	
Construction Staking/Site Survey	<ul style="list-style-type: none"> • Ensure that all procurements for products and subcontracted services have been awarded and submittals approved. • Ensure survey team has received the pre-construction topographic map. • Ensure surveyor has received asphalt path coordinates. • Obtain ROICC approval for asphalt path construction. 		<ul style="list-style-type: none"> • No revisions. 		<ul style="list-style-type: none"> • No revisions. 	

TABLE E.5-1(A)

DEFINABLE FEATURES OF WORK

ACTIVITY	PREPARATORY	DONE	INITIAL	DONE	FOLLOW-UP	DONE
Facility Removal/ Salvage (fences recreational structures, and so forth)	<ul style="list-style-type: none"> • Ensure that all procurements for products and subcontracted services have been awarded. • Identify and secure temporary storage location for recreational structures and fences. • Obtain ROICC and RPM approval for list of items to be removed and salvaged. • Verify that photographs have been taken of structures to be moved to document existing conditions. • Verify that subcontractors have proper health and safety documentation. 		<ul style="list-style-type: none"> • Identify work areas in field. • Inspect removal activities. 		<ul style="list-style-type: none"> • Verify that all selected structures were removed/salvaged. • Ensure recreational structures and fences are properly handled and stored in designated storage areas. • Document any damage to recreational structures that occurred during removal activities. 	
Facility Removal/ Demolition (shubbery, fences, existing asphalt path, selective asphalt areas, exercise equipment, playground concrete curbs, and so forth)	<ul style="list-style-type: none"> • Ensure that all procurements for products and subcontracted services have been awarded. • Review work with ROICC and verify work area. • Review Addendum to the RAWP and subcontractor procurement contracts. • Review list of facilities and trees to be demolished with ROICC. • Verify that subcontractor has health and safety documentation. 		<ul style="list-style-type: none"> • Ensure that materials and equipment delivered to the site are as identified in the Addendum to the RAWP and procurement documents. 		<ul style="list-style-type: none"> • Verify wastes are segregated for disposal purposes. 	

TABLE E.5-1(A)
DEFINABLE FEATURES OF WORK

ACTIVITY	PREPARATORY	DONE	INITIAL	DONE	FOLLOW-UP	DONE
Irrigation System Trenching and Backfilling	<ul style="list-style-type: none"> • Ensure that all procurement for products and subcontracted services have been awarded. • Ensure that the design has been approved by the DON prior to performing any irrigation installation-related activities. • Ensure design and materials meet subcontractor design specifications and procurement contract requirements. • Review work with ROICC and verify work area. • Verify that subcontractor has health and safety documentation. 		<ul style="list-style-type: none"> • Ensure that materials and equipment delivered to the site are as identified in the subcontractor design drawings, specifications, and procurement documents. • Verify that import backfill and topsoil meet specifications for size and chemical composition. • Ensure compaction testing is occurring at proper frequency. 		<ul style="list-style-type: none"> • Protect work area from water run-off. • Verify that the excavation meets specifications. • Ensure that excavation is not backfilled until irrigation system has been adequately tested. • Review compaction data. 	
Install Irrigation System	<ul style="list-style-type: none"> • Ensure that all procurement for products and subcontracted services have been awarded. • Ensure that the design has been approved by the DON prior to performing any irrigation installation-related activities. • Ensure that design and materials meet specifications provided in the procurement documentation. • Ensure that ROICC receives and approves system specifications. • Verify that subcontractor has health and safety documentation. 		<ul style="list-style-type: none"> • Ensure that materials and equipment delivered to the site are as identified in the design and procurement documents. • Ensure that water main supply line has been turned off. • Ensure that power supply lines have been provided and that lockout/tagout procedures are followed. 		<ul style="list-style-type: none"> • Inspect piping installation. • Ensure installed piping has been flushed of debris. • Observe pressure test and ensure project requirements are met prior to backfilling. • Test irrigation control systems. • Ensure maintenance and operation manuals/instructions have been provided and properly documented. • Turn water main and power supply lines on after installation activities are complete. 	

TABLE E.5-1(A)

DEFINABLE FEATURES OF WORK

ACTIVITY	PREPARATORY	DONE	INITIAL	DONE	FOLLOW-UP	DONE
Construct Asphalt Jogging Path	<ul style="list-style-type: none"> • Ensure that all procurement for products and subcontracted services have been awarded. • Ensure design and materials meet procurement specifications. • Ensure that ROICC receives and approves asphalt path specifications. • Verify that subcontractor has appropriate health and safety documentation. 		<ul style="list-style-type: none"> • Ensure that materials and equipment delivered to the site are as identified in the procurement documents. • Ensure asphalt delivery tickets have been received. 		<ul style="list-style-type: none"> • Inspect construction to ensure compliance with specifications. 	
Replace Recreational Structures (baseball field, fences soccer goals, backstop, volleyball court, benches, and so forth), except playground equipment	<ul style="list-style-type: none"> • Ensure any damage to recreational structures that may have occurred during removal has been fixed or replaced. • Obtain ROICC approval for temporary storage location. 		<ul style="list-style-type: none"> • Ensure locations for former recreational structures are properly delineated. • If procurement is necessary, ensure that materials and equipment delivered to the site are as identified in the procurement documents. 		<ul style="list-style-type: none"> • Ensure that recreational structures have been restored to pre-construction condition. • Take photographs to document completed condition of each recreational structure. • Verify storage location of playground equipment. 	
Replace Playground Curbs	<ul style="list-style-type: none"> • Ensure that all procurement for products and subcontracted services has been awarded. • Ensure design and materials are as specified in the procurement documents. • Ensure that the ROICC receives and approves curb specifications. • Verify that subcontractor has health and safety documentation. 		<ul style="list-style-type: none"> • Ensure that concrete delivery tickets have been received and meet specifications identified in procurement documents. 		<ul style="list-style-type: none"> • Inspect construction to ensure compliance with specifications identified in procurement documents. 	

TABLE E.5-1(A)
DEFINABLE FEATURES OF WORK

ACTIVITY	PREPARATORY	DONE	INITIAL	DONE	FOLLOW-UP	DONE
Topsoil and Sod Placement	<ul style="list-style-type: none"> • Ensure that all procurements for products and subcontracted services have been awarded. • Review work with ROICC and verify work area. • Obtain ROICC approval for topsoil and sod specifications. • Verify that subcontractors have proper health and safety documentation. 		<ul style="list-style-type: none"> • Ensure that materials (sod and topsoil) and equipment delivered to the site are as specified in procurement documents. • Inspect placement of topsoil and sod. 		<ul style="list-style-type: none"> • Ensure the viability of the sod until the permanent irrigation system is installed. 	

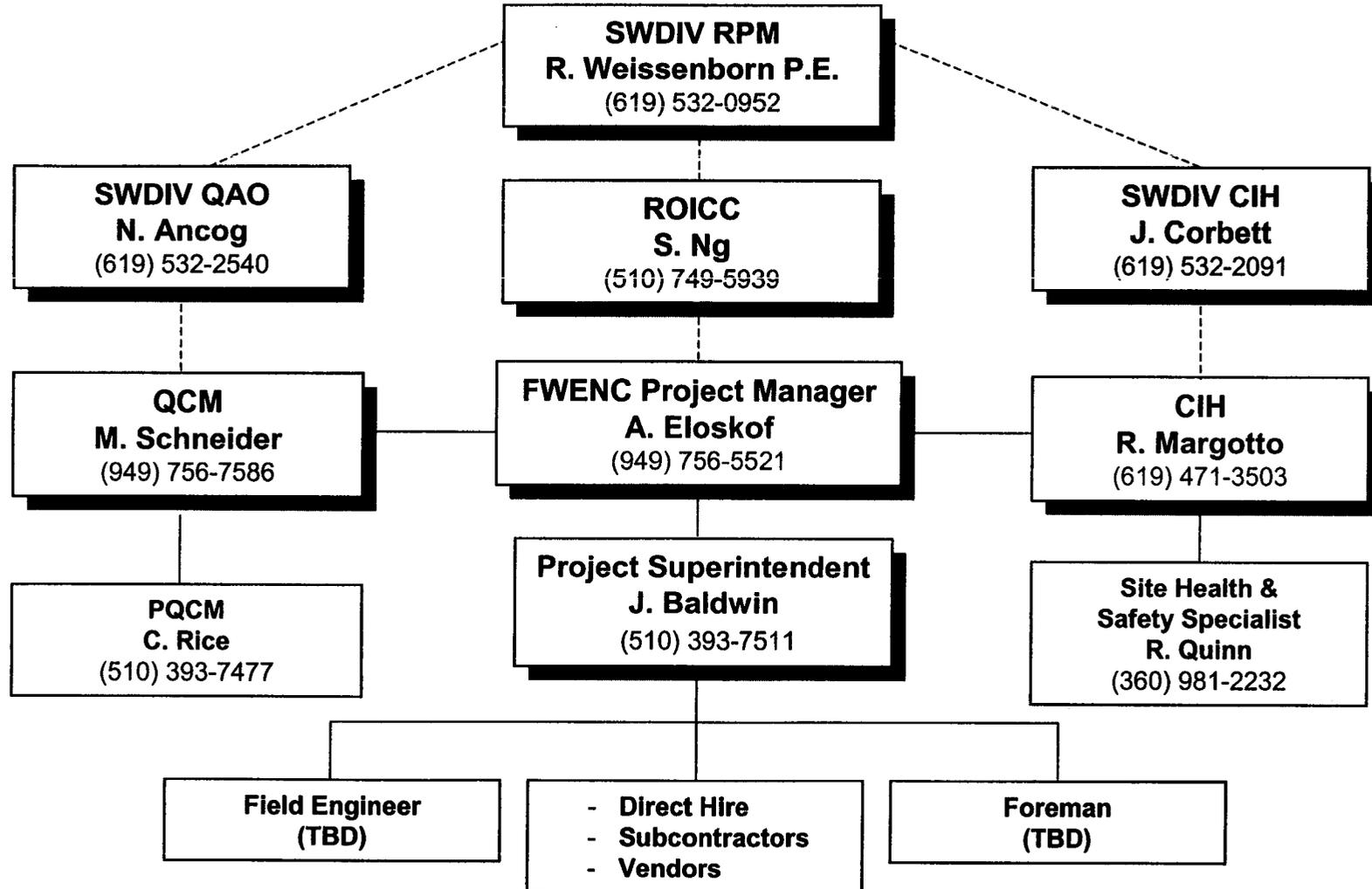
Notes:

- DON – Department of the Navy RPM – Remedial Project Manager
 RAWP – Removal Action Work Plan ROICC – Resident Officer in Charge of Construction

FIGURES

Figure E.2-1(A)

Project Organization Chart



ATTACHMENT 1
APPOINTMENT LETTERS AND RESUMES
No Revisions

ATTACHMENT 2
QUALITY CONTROL FORMS

APPENDIX F
FINAL ADDENDUM TO THE
TRAFFIC CONTROL PLAN

**Southwest Division
Naval Facilities Engineering Command
Contracts Department
1220 Pacific Highway, Building 127, Room 112
San Diego, California 92132-5190**

**CONTRACT NO. N68711-98-D-5713
CTO No. 0040**

APPENDIX F

**FINAL
ADDENDUM TO THE
TRAFFIC CONTROL PLAN
Revision 0
April 19, 2002**

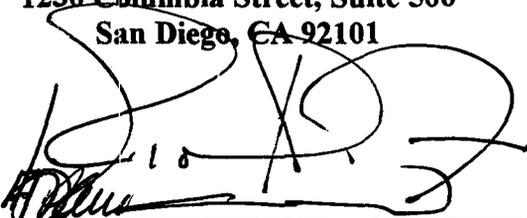
**CERCLA TIME-CRITICAL REMOVAL ACTION
AT INSTALLATION RESTORATION SITE 25
ALAMEDA POINT
ALAMEDA, CALIFORNIA**

DCN: FWSD-RAC-02-0810



FOSTER WHEELER ENVIRONMENTAL CORPORATION

**1230 Columbia Street, Suite 500
San Diego, CA 92101**



**Abram Eloskof, M.Sc., M. Eng., CIH
Project Manager**

TABLE OF CONTENTS

	<u>PAGE</u>
LIST OF FIGURES	F.ii
ABBREVIATIONS AND ACRONYMS.....	F.iii
1.0 INTRODUCTION	F.1-1
2.0 SITE DESCRIPTION	F.2-1
3.0 SCOPE OF WORK.....	F.3-1
4.0 TRANSPORTATION/CIRCULATION	F.4-1
4.1 DESCRIPTION OF ENVIRONMENTAL SETTING	F.4-1
4.2 ANALYSIS OF POTENTIAL IMPACTS.....	F.4-1
4.3 TRAFFIC SAFETY MEASURES	F.4-1
4.4 TRAFFIC CONTROL	F.4-1
5.0 REFERENCES	F.5-1

LIST OF FIGURES

- Figure F.2-1(A) Site Vicinity Map
- Figure F.2-2(A) Site Location Map

ABBREVIATIONS AND ACRONYMS

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EBS	Environmental Baseline Survey
FWENC	Foster Wheeler Environmental Corporation
IR	Installation Restoration
RAWP	Removal Action Work Plan
TCRA	Time-Critical Removal Action
TCP	Traffic Control Plan

1.0 INTRODUCTION

The Addendum to the Traffic Control Plan (TCP) addresses project-specific information for vehicular traffic relating to the remediation activities occurring at the expanded Time-Critical Removal Action (TCRA) area at Operable Unit-5 [synonymous with Installation Restoration (IR) Site 25] located on Alameda Point, Alameda, California. IR Site 25 is comprised of approximately 42 acres and is divided into three Environmental Baseline Survey (EBS) parcels (Parcels 181, 182, and 183). The expanded TCRA area encompasses both EBS Parcels 182 and 183 (Estuary Park).

The Addendum to the TCP discusses traffic impacts to the site. Ingress and egress routes for heavy equipment and passenger vehicles remain the same as established for the initial TCRA. Clarifications and specific information pertinent to the expanded TCRA are presented in this addendum. A detailed description of site traffic for the IR Site 25 initial TCRA area is provided in the TCP contained as Appendix F of the *Final Removal Action Work Plan (RAWP), CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) TCRA at IR Site 25, Alameda Point, Alameda, California* [Foster Wheeler Environmental Corporation (FWENC), 2001].

2.0 SITE DESCRIPTION

The project consists of an expanded TCRA, which encompasses Estuary Park within the limits of IR Site 25, Alameda Point, Alameda, California [Figure F.2-1(A) and Figure F.2-2(A), Site Vicinity Map and Site Location Map, respectively]. The purpose of the expanded TCRA is to remove contaminated soil located in Estuary Park.

3.0 SCOPE OF WORK

The scope of work for the expanded TCRA area will include excavation and off-site disposal of approximately 37,500 cubic yards of contaminated soils, in addition to backfilling and site restoration.

4.0 TRANSPORTATION/CIRCULATION

4.1 DESCRIPTION OF ENVIRONMENTAL SETTING

The expanded TCRA area is immediately adjacent to the initial TCRA area. The majority of the expanded TCRA activities are scheduled to occur after the initial TCRA is completed. However, some activities may be conducted concurrently at the initiation of the expanded work; therefore, traffic patterns for both activities will be coordinated.

4.2 ANALYSIS OF POTENTIAL IMPACTS

The expanded TCRA fieldwork has a planned duration of approximately 20 weeks. These activities will generate an average of 50 one-way passenger vehicle trips per day. Approximately 10,224 one-way commercial truck trips will be required during the expanded TCRA. This number includes transportation and delivery of soil fill material to the site (5,112), off-site transportation of contaminated soil (5,112), transportation and delivery of sod material to the site (50), miscellaneous support vehicle trips (400), and mobilization and demobilization of heavy equipment (20).

Passenger and commercial vehicles during the expanded TCRA will average 157 one-way trips per day over the life of the project. Based on the city of Alameda's traffic data, it is estimated that the project will not negatively impact the existing traffic conditions in the area.

Remedial activities associated with the expanded TCRA, including trucks entering or exiting the site, will be restricted to the hours between 7:00 a.m. and 5:00 p.m. Monday through Friday. Work will not be conducted on weekends or holidays.

Vehicles used for commuting workers will be parked in designated areas approved by the Department of the Navy. Vehicles will not be parked in spaces marked for residences.

4.3 TRAFFIC SAFETY MEASURES

No revisions.

4.4 TRAFFIC CONTROL

No revisions.

5.0 REFERENCES

Foster Wheeler Environmental Corporation (FWENC). 2001. *Final Removal Action Work Plan, CERCLA Time-Critical Removal Action at Installation Restoration Site 25, Alameda Point, Alameda, California*. November.

FIGURES

DRAWING NO:
02081011A.DWG

DCN: FWSO-RAC-02-0810

CTO: #0040

APPROVED BY: AE

CHECKED BY: VR

DRAWN BY: MD

DATE: 04/11/02
REVISION: 0

I:\1990-RAC\CTO-0040\DWG\020810\02081011A.DWG
PLOT/UPDATE: APR 11 2002 10:39:25

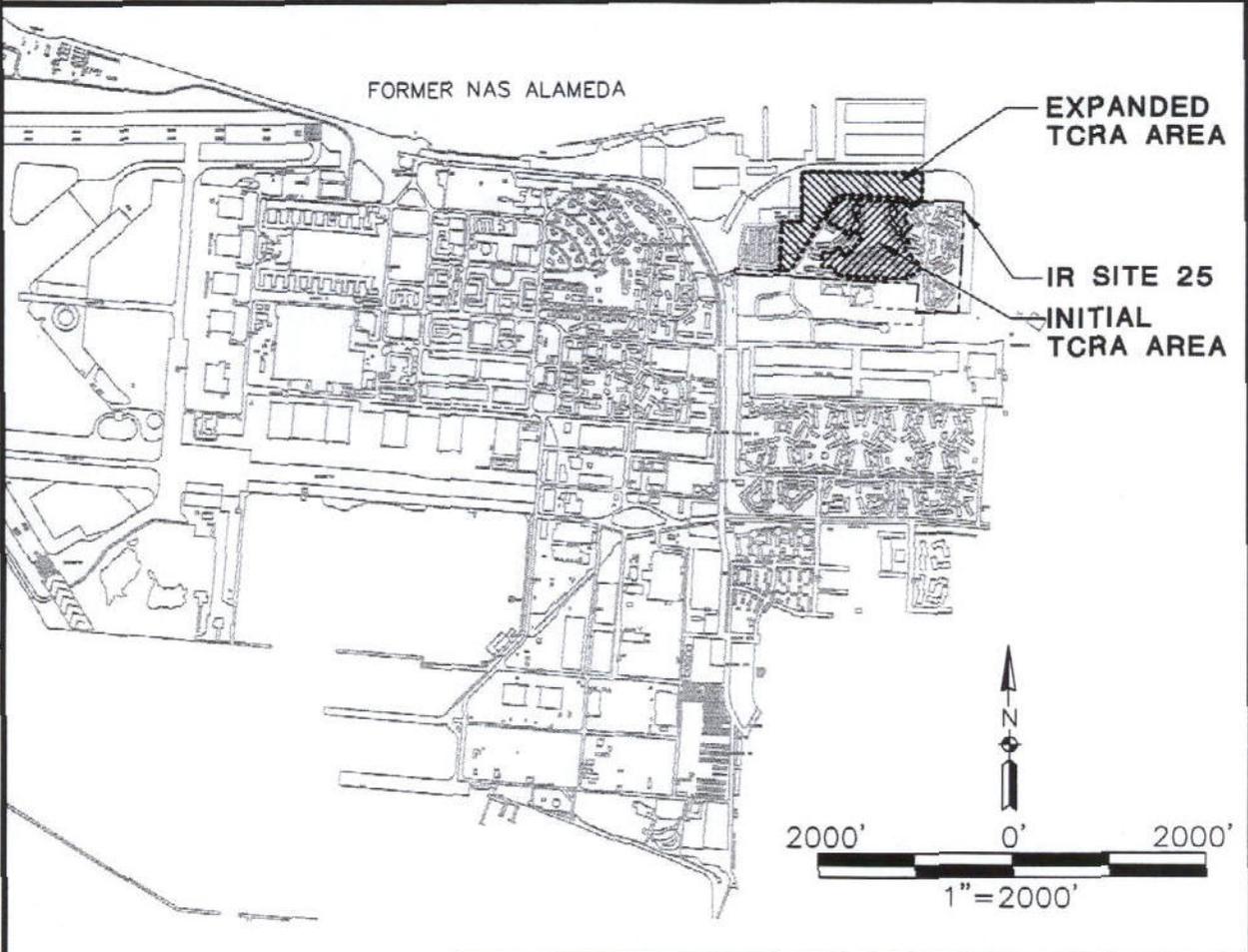
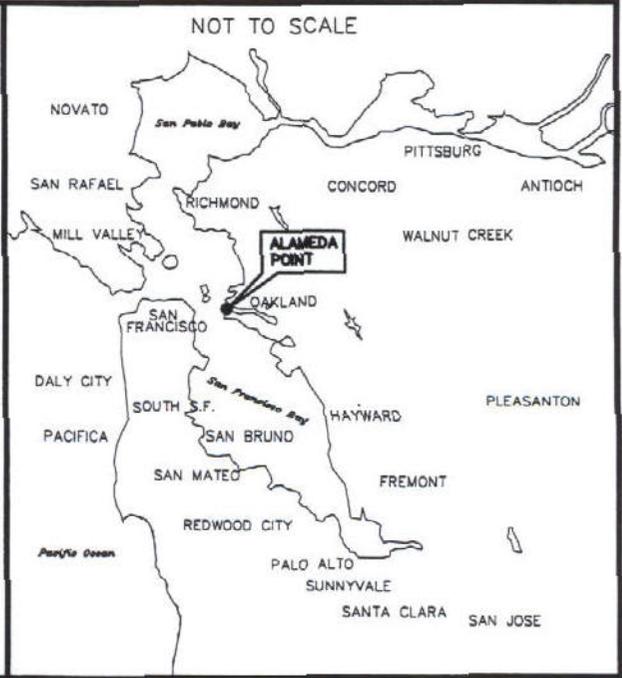


Figure F.2-1(A)
SITE VICINITY MAP

ALAMEDA POINT - IR SITE 25

FOSTER  WHEELER
ENVIRONMENTAL CORPORATION

DRAWING NO:
02081012A.DWG

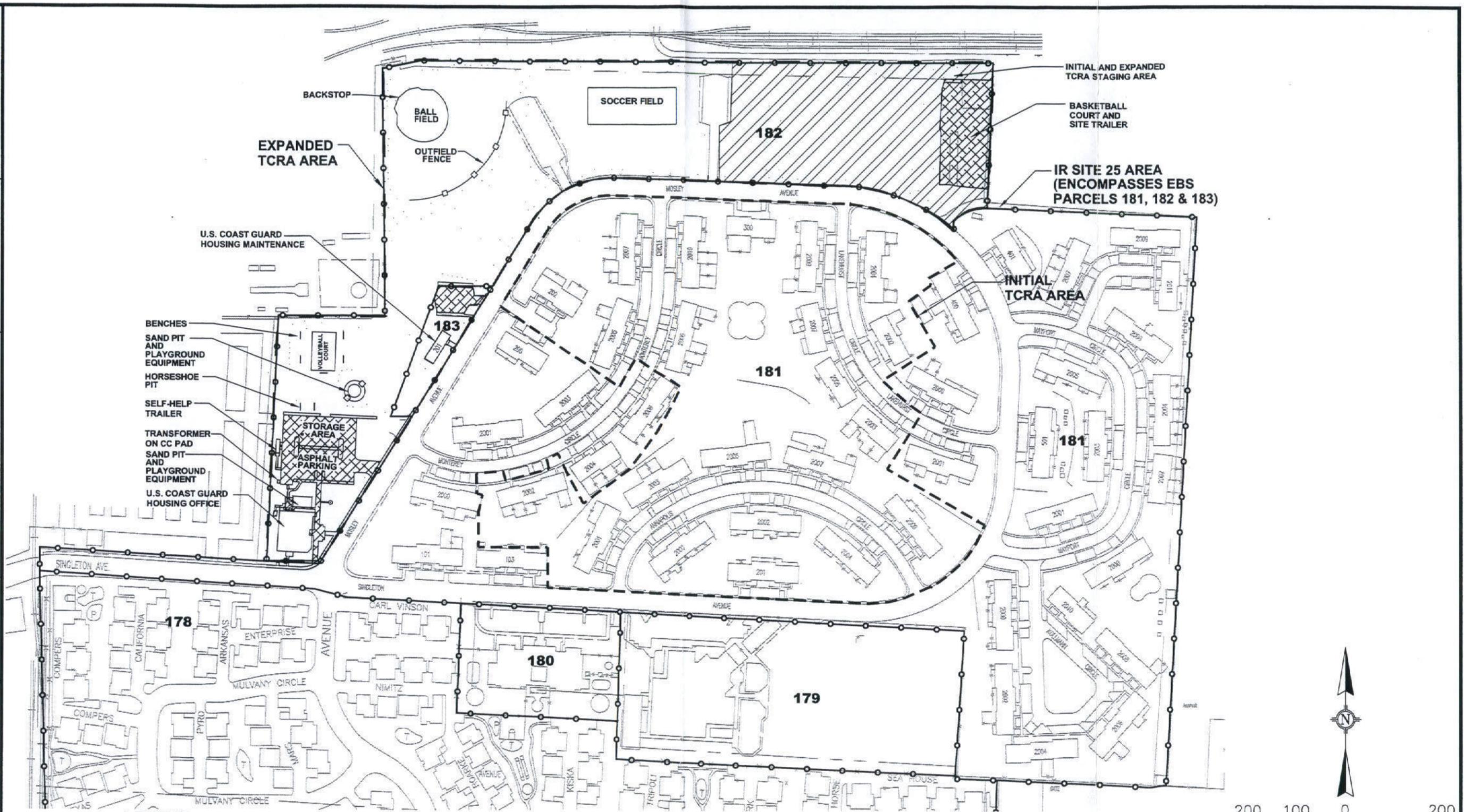
DCN: FWS-D-RAC-02-0810
CTO #0040

APPROVED BY: AE

CHECKED BY: VR
REV: REVISION 0

DRAWN BY: MD
DATE: 04/11/02

I:\1990-RAC\CTO-0040\DWG\020810\02081012A.DWG
PLOT/UPDATE: APR 17 2002 08:50:45



LEGEND:

- INITIAL TIME-CRITICAL REMOVAL ACTION (TCRA) BOUNDARY
- EXPANDED TCRA BOUNDARY
- - - ENVIRONMENTAL BASELINE SURVEY (EBS) PARCEL BOUNDARY
- 181 EBS PARCEL NUMBER
- [Cross-hatched box] PAVED AREA EXCLUDED FROM EXCAVATION
- [Diagonal hatched box] INITIAL AND EXPANDED TCRA STAGING AREA

Figure F.2-2(A)
SITE LOCATION MAP

ALAMEDA POINT - IR SITE 25

FOSTER  WHEELER
ENVIRONMENTAL CORPORATION

APPENDIX G

**FINAL ADDENDUM TO THE
WASTE MANAGEMENT PLAN**

Southwest Division
Naval Facilities Engineering Command
Contracts Department
1220 Pacific Highway, Building 127, Room 112
San Diego, California 92132-5190

CONTRACT NO. N68711-98-D-5713
CTO No. 0040

APPENDIX G

FINAL
ADDENDUM TO THE
WASTE MANAGEMENT PLAN
Revision 0
April 19, 2002

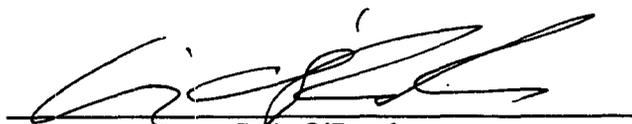
CERCLA TIME-CRITICAL REMOVAL ACTION AT
INSTALLATION RESTORATION SITE 25
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DCN: FWSD-RAC-02-0810

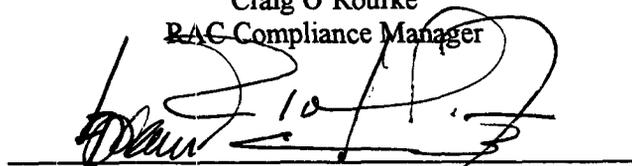


FOSTER WHEELER ENVIRONMENTAL CORPORATION

1230 Columbia Street, Suite 500
San Diego, CA 92101



Craig O'Rourke
RAC Compliance Manager



Abram Eloskof, M. Sc., M. Eng., CIH
Project Manager

TABLE OF CONTENTS

	<u>PAGE</u>
LIST OF TABLES.....	G.ii
ABBREVIATIONS AND ACRONYMS.....	G.iii
1.0 PURPOSE.....	G.1-1
2.0 REGULATORY FRAMEWORK.....	G.2-1
3.0 PROJECT WASTE DESCRIPTIONS.....	G.3-1
4.0 WASTE MANAGEMENT.....	G.4-1
4.1 WASTE CLASSIFICATION.....	G.4-1
4.2 WASTE ACCUMULATION AND STORAGE.....	G.4-1
4.2.1 Soil Stockpiles and Staging Piles.....	G.4-1
4.2.2 Wastewater and Waste Fluids.....	G.4-1
4.2.3 Used PPE.....	G.4-1
4.2.4 Container Labeling.....	G.4-1
4.2.5 Waste Accumulation Areas.....	G.4-1
4.3 WASTE DISPOSAL.....	G.4-1
4.4 WASTE TRANSPORTATION.....	G.4-1
4.5 WASTE MINIMIZATION.....	G.4-1
4.6 WASTE MANAGEMENT INSPECTION AND DOCUMENTATION PROGRAM.....	G.4-2
4.6.1 Inspections.....	G.4-2
4.6.2 Documentation.....	G.4-2
4.6.3 Hazardous Waste Manifests and LDR Certification.....	G.4-2
4.7 UPDATING THE WASTE MANAGEMENT PLAN.....	G.4-2
5.0 REFERENCES.....	G.5-1

LIST OF TABLES

No revisions.

ABBREVIATIONS AND ACRONYMS

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
FWENC	Foster Wheeler Environmental Corporation
IR	Installation Restoration
LDR	land disposal restriction
PPE	personal protective equipment
PJM	Project Manager
RAWP	Removal Action Work Plan
RCRA	Resource Conservation and Recovery Act
TCRA	Time-Critical Removal Action
WMP	Waste Management Plan

1.0 PURPOSE

The Addendum to the Waste Management Plan (WMP) addresses project-specific information relating to waste management of the remediation activities at the expanded Time-Critical Removal Action (TCRA) area within Operable Unit-5 [synonymous with Installation Restoration (IR) Site 25] located on Alameda Point, Alameda, California. The Addendum to the WMP identifies waste streams associated with the expanded TCRA and provides additional clarification on waste pile regulations. It is the responsibility of the Project Manager (PJM) to verify that all project personnel are aware of the requirements stipulated in this plan.

This Addendum to the WMP includes only specific information pertinent to the expanded TCRA. A detailed description of the overall waste management practices is provided in the WMP contained as Appendix G of the *Final Removal Action Work Plan (RAWP), CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) TCRA at IR Site 25, Alameda Point, Alameda, California* [Foster Wheeler Environmental Corporation (FWENC), 2001].

2.0 REGULATORY FRAMEWORK

No revisions.

3.0 PROJECT WASTE DESCRIPTIONS

There are no concrete swales within the expanded TCRA area. All other potential waste streams are identical to those generated as part of the initial TCRA.

4.0 WASTE MANAGEMENT

4.1 WASTE CLASSIFICATION

No revisions.

4.2 WASTE ACCUMULATION AND STORAGE

No revisions.

4.2.1 Soil Stockpiles and Staging Piles

The land disposal restrictions (LDRs), the landfill minimum technology requirements, and the waste pile permitting requirements of the Resource Conservation and Recovery Act (RCRA) do not apply to staging piles of RCRA hazardous waste.

4.2.2 Wastewater and Waste Fluids

No revisions.

4.2.3 Used Personal Protective Equipment (PPE)

No revisions.

4.2.4 Container Labeling

No revisions.

4.2.5 Waste Accumulation Areas

No revisions.

4.3 WASTE DISPOSAL

No revisions.

4.4 WASTE TRANSPORTATION

No revisions.

4.5 WASTE MINIMIZATION

No revisions.

4.6 WASTE MANAGEMENT INSPECTION AND DOCUMENTATION PROGRAM

No revisions.

4.6.1 Inspections

No revisions.

4.6.2 Documentation

No revisions.

4.6.3 Hazardous Waste Manifests and LDR Certification

No revisions.

4.7 UPDATING THE WASTE MANAGEMENT PLAN

As required, this Addendum to the WMP has been prepared to meet the requirement to update the plan in the event of changes in site activities or changes in applicable regulations as they occur.

5.0 REFERENCES

Foster Wheeler Environmental Corporation (FWENC). 2001. *Final Removal Action Work Plan, CERCLA Time-Critical Removal Action, Installation Restoration Site 25, Alameda Point, Alameda, California*. November.

TABLES

No revisions.

APPENDIX H
FINAL ADDENDUM TO THE
DEMOLITION PLAN

Southwest Division
Naval Facilities Engineering Command
Contracts Department
1220 Pacific Highway, Building 127, Room 112
San Diego, California 92132-5190

CONTRACT NO. N68711-98-D-5713
CTO No. 0040

APPENDIX H
FINAL
ADDENDUM TO THE DEMOLITION PLAN
Revision 0
April 19, 2002

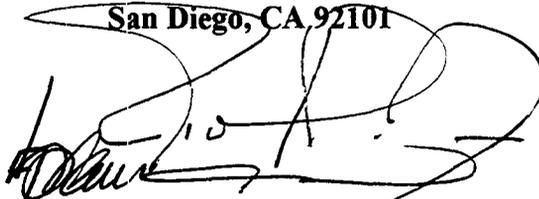
CERCLA TIME-CRITICAL REMOVAL ACTION
AT INSTALLATION RESTORATION SITE 25
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DCN: FWSD-RAC-02-0810

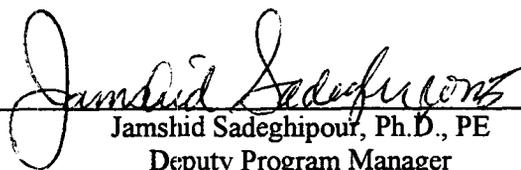


FOSTER WHEELER ENVIRONMENTAL CORPORATION

1230 Columbia Street, Suite 500
San Diego, CA 92101



Abram Eloskof, M. Sc., M. Eng., CIH
Project Manager



Jamshid Sadeghipour, Ph.D., PE
Deputy Program Manager

TABLE OF CONTENTS

	<u>PAGE</u>
LIST OF FIGURES	H.ii
ABBREVIATIONS AND ACRONYMS.....	H.iii
1.0 GENERAL INFORMATION.....	H.1-1
1.1 SITE LOCATION	H.1-1
1.2 OBJECTIVE.....	H.1-1
1.3 SCHEDULE.....	H.1-1
2.0 DUST CONTROL	H.2-1
3.0 PROTECTION OF EXISTING FACILITIES.....	H.3-1
3.1 HOUSING UNITS	H.3-1
3.2 TREES.....	H.3-1
3.3 LANDSCAPING.....	H.3-1
3.4 SITE STRUCTURES.....	H.3-1
4.0 TEMPORARY FACILITIES	H.4-1
5.0 REFUSE STORAGE CONTAINERS.....	H.5-1
6.0 WORK ACTIVITIES	H.6-1
6.1 FENCE REMOVAL	H.6-1
6.2 SWALE REMOVAL	H.6-1
6.3 ORGANIC MATERIAL (GREEN WASTE).....	H.6-1
6.4 CONTAMINATED SOIL REMOVAL.....	H.6-1
6.5 SITE STRUCTURES REMOVAL	H.6-1
7.0 REFERENCES	H.7-1

LIST OF FIGURES

Figure H.1-2(A) Site Location Map

Figure H.4-1(A) Site Support Facilities

ABBREVIATIONS AND ACRONYMS

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DON	Department of the Navy
DP	Demolition Plan
EBS	Environmental Baseline Survey
FWENC	Foster Wheeler Environmental Corporation
IR	Installation Restoration
NAS	Naval Air Station
RAWP	Removal Action Work Plan
ROICC	Resident Officer in Charge of Construction
TCRA	Time-Critical Removal Action

1.0 GENERAL INFORMATION

Foster Wheeler Environmental Corporation (FWENC) has prepared this Addendum to the Demolition Plan (DP) to address specific issues relevant to the salvage, demolition, and soil removal procedures that will be implemented during the expanded Time-Critical Removal Action (TCRA) activities at Operable Unit-5 [synonymous with Installation Restoration (IR) Site 25] located on former Naval Air Station (NAS) Alameda, Alameda Point, Alameda, California. IR Site 25 is comprised of approximately 42 acres and is divided into three Environmental Baseline Survey (EBS) parcels (Parcels 181, 182, and 183). The expanded TCRA area encompasses both EBS Parcels 182 and 183 (Estuary Park).

The Addendum to the DP discusses the schedule, clarifies demolition material specific to the site, and contains a new section describing salvage material. This Addendum to the DP includes only specific information pertinent to the expanded TCRA. A detailed description of the demolition activities occurring in the contiguous initial TCRA area is provided in the DP contained as Appendix H of the *Final Removal Action Work Plan (RAWP), CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) TCRA at IR Site 25, Alameda Point, Alameda, California* (FWENC, 2001.)

1.1 SITE LOCATION

The expanded TCRA area is located entirely within Estuary Park (EBS Parcel 182, which includes the U.S. Coast Guard Housing Office, and EBS Parcel 183, which includes the U.S. Coast Guard Housing Maintenance Office and a small yard area [Figure H.1-2(A)].

1.2 OBJECTIVE

No revisions.

1.3 SCHEDULE

Anticipated excavation activities for the expanded TCRA is scheduled to begin on April 22, 2002, and work is anticipated to continue through September 2002. Installation of temporary fences and pre-construction waste characterization sampling activities began on April 10, 2002. Work hours at the site are limited to 7:00 a.m. through 5:00 p.m. Work will not be allowed during the weekend or holidays.

2.0 DUST CONTROL

No revisions.

3.0 PROTECTION OF EXISTING FACILITIES

No revisions.

3.1 HOUSING UNITS

No revisions.

3.2 TREES

No revisions.

3.3 LANDSCAPING

No revisions.

3.4 SITE STRUCTURES

Protected structures at the expanded TCRA area include the U.S. Coast Guard Housing Office, the U.S. Coast Guard Housing Maintenance Office, and selected paved/parking areas. Temporary fences will be placed around these features during excavation work to protect employees from ingress to the exclusion zone.

4.0 TEMPORARY FACILITIES

The existing staging area for the initial TCRA will also be utilized for the expanded TCRA [Figure H.4-1(A)]. Additionally, a temporary storage area will be used to store salvaged recreational structures, such as playground equipment, the baseball diamond backstops, park benches, volleyball court, and so forth. An approved, fenced, temporary storage area will be designated by the Resident Officer in Charge of Construction (ROICC).

5.0 REFUSE STORAGE CONTAINERS

No revisions.

6.0 WORK ACTIVITIES

No revisions.

6.1 FENCE REMOVAL

The excavation boundary is shown on Figure H.1-2(A). Prior to excavating, chain-linked fences, associated with the baseball field backstop and outfield, will be removed and salvaged if possible.

6.2 SWALE REMOVAL

There are no swales within the limits of the expanded TCRA area.

6.3 ORGANIC MATERIAL (GREEN WASTE)

Organic material (green waste such as shrubs and designated trees) within the excavation boundary will be removed. In coordination with the U.S. Coast Guard, the Department of the Navy (DON) will designate which shrubs and trees will be disposed.

The following location has been added to the list of FWENC-approved local composting/recycling facilities for the disposal of green waste generated from the initial and expanded TCRA activities:

BFI Newby Island Landfill
1601 Dixon Landing Road
Milpitas, California 55035
(408) 262-1401

6.4 CONTAMINATED SOIL REMOVAL

No revisions.

6.5 SITE STRUCTURES REMOVAL

As part of the expanded TCRA, recreational structures in Estuary Park will be salvaged for future re-installation. The features include, but are not limited to, the baseball diamond backstop, soccer goal posts, volleyball court, park benches, and playground equipment. Prior to removal, the DON will coordinate with the U.S. Coast Guard to identify which structures are to be salvaged or segregated for disposal. FWENC will move salvageable structures to a pre-designated storage area. Structures selected for disposal will be transported to one of the FWENC-approved Class III landfills identified in Section 6.1 of the Final DP (FWENC, 2001).

7.0 REFERENCES

Foster Wheeler Environmental Corporation (FWENC). 2001. *Final Removal Action Work Plan, CERCLA Time-Critical Removal Action, Installation Restoration Site 25, Alameda Point, Alameda, California*. November.

FIGURES

DRAWING NO:
02081011A.DWG

DCN: FWS-D-RAC-02-0810
CTO: #0040

APPROVED BY: AE

CHECKED BY: VR
REVISION: 0

DRAWN BY: MD
DATE: 04/11/02

I:\1990-RAC\CTO-0040\DWG\020810\02081011A.DWG
PLOT/UPDATE: APR 11 2002 10:39:25

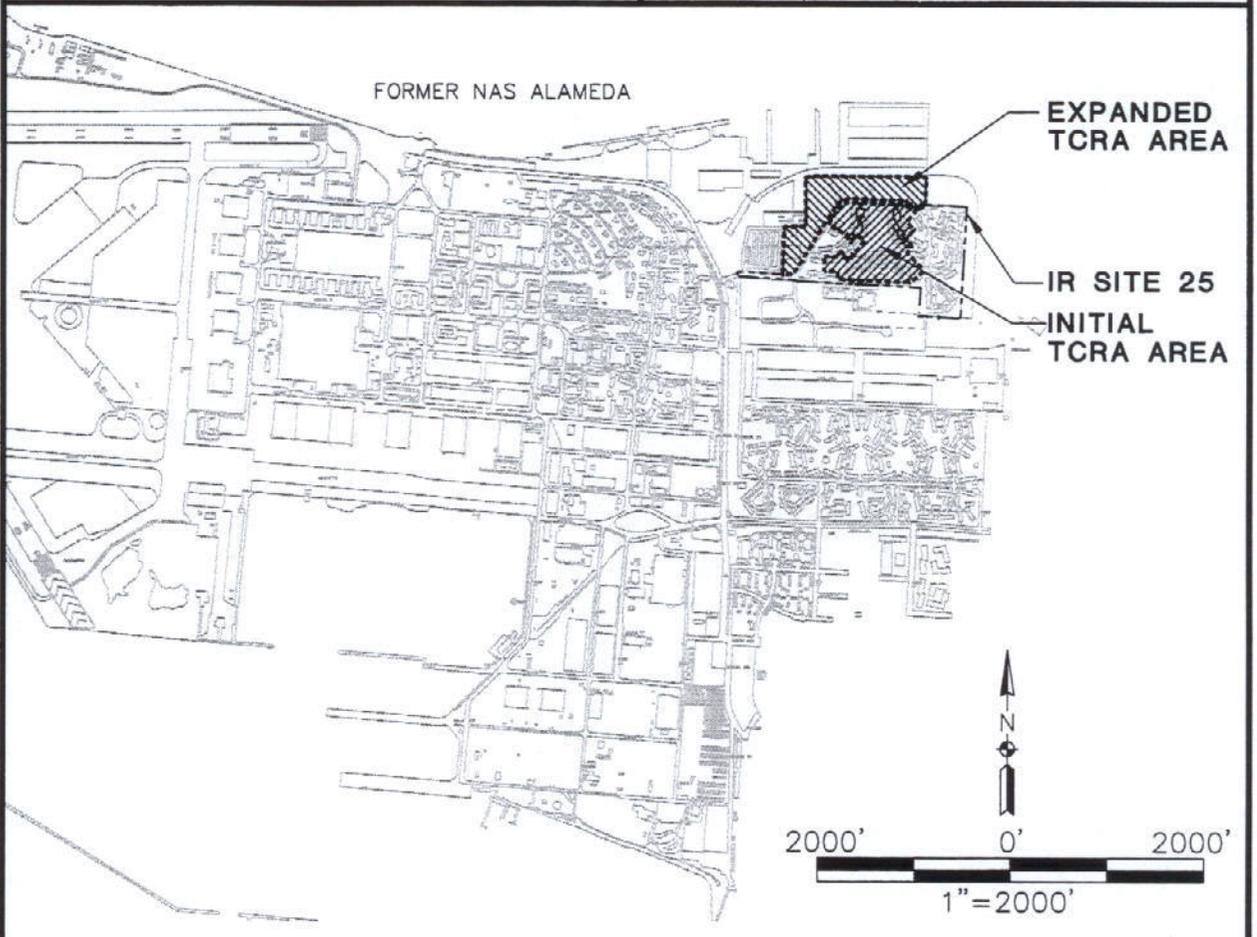
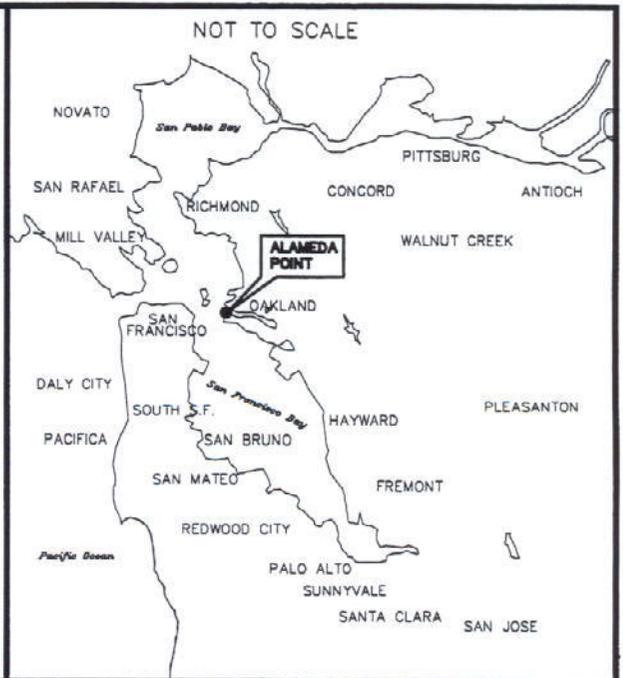
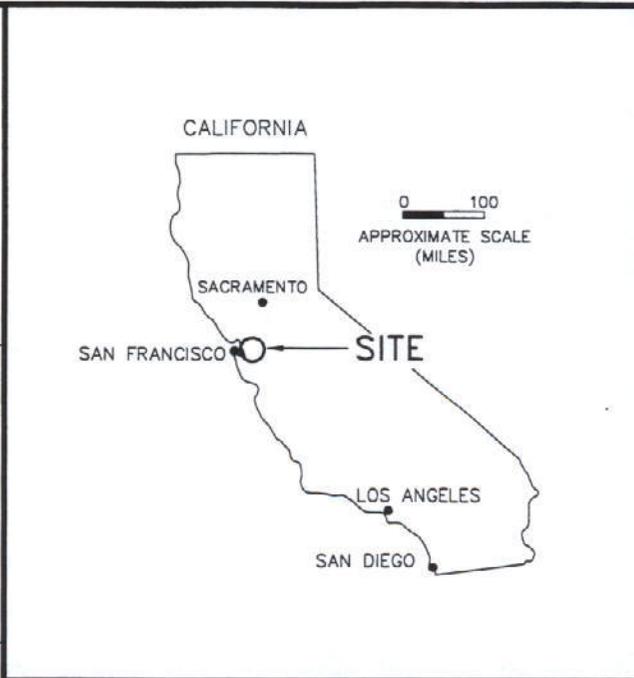


Figure H.1-2(A)
SITE VICINITY MAP

ALAMEDA POINT - IR SITE 25

FOSTER  WHEELER
ENVIRONMENTAL CORPORATION

APPENDIX I

**FINAL ADDENDUM TO THE
ENVIRONMENTAL PROTECTION PLAN**

Southwest Division
Naval Facilities Engineering Command
Contracts Department
1220 Pacific Highway, Building 127, Room 112
San Diego, California 92132-5190

CONTRACT NO. N68711-98-D-5713
CTO No. 0040

APPENDIX I

FINAL
ADDENDUM TO THE
ENVIRONMENTAL PROTECTION PLAN
Revision 0
April 19, 2002

CERCLA TIME-CRITICAL REMOVAL ACTION
AT INSTALLATION RESTORATION SITE 25
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DCN: FWSD-RAC-02-0810

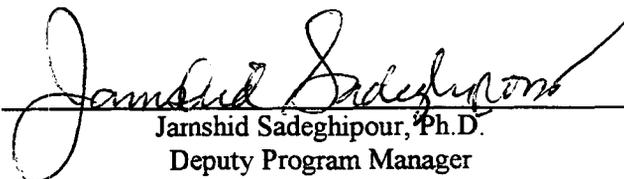


FOSTER WHEELER ENVIRONMENTAL CORPORATION

1230 Columbia Street, Suite 500
San Diego, CA 92101



Abram Eloskof, M.Sc., M. Eng., CIH
Project Manager



Jamshid Sadeghipour, Ph.D.
Deputy Program Manager

TABLE OF CONTENTS

	<u>PAGE</u>
ABBREVIATIONS AND ACRONYMS.....	I.ii
1.0 ENVIRONMENTAL PROTECTION PLAN	I.1-1
1.1 EXISTING ENVIRONMENTAL CONDITIONS AND IMPACT	
PATHWAYS	I.1-1
1.1.1 Land Resources	I.1-1
1.1.2 Surface Waters	I.1-2
1.1.3 Biological Resources/Threatened, Endangered, and Sensitive Species.....	I.1-2
1.2 REGULATORY FRAMEWORK	I.1-2
1.2.1 Waste Management	I.1-2
1.2.2 Location Standards	I.1-2
1.2.3 Air Emissions	I.1-3
1.2.4 Stormwater Management and Erosion Control	I.1-3
1.2.5 Plant and Wildlife Protection	I.1-3
1.2.6 Other Considerations.....	I.1-3
1.3 RELEASE RESPONSE AND REPORTING.....	I.1-3
1.3.1 Spill Prevention.....	I.1-3
1.3.2 Spill Response.....	I.1-3
1.3.3 Spill Reporting	I.1-3
1.4 TRAINING REQUIREMENTS FOR PROJECT PERSONNEL	I.1-3
1.4.1 Federal Requirements.....	I.1-3
1.4.2 Client Requirements.....	I.1-3
1.5 INSPECTION AND AUDIT PROCEDURES.....	I.1-3
1.5.1 Inspection by Regulatory Agencies.....	I.1-3
1.5.2 Inspection By Third Parties.....	I.1-4
1.6 UPDATING THE ENVIRONMENTAL PROTECTION PLAN	I.1-4
2.0 REFERENCES	I.2-1

ABBREVIATIONS AND ACRONYMS

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EBS	Environmental Baseline Survey
EPP	Environmental Protection Plan
FWENC	Foster Wheeler Environmental Corporation
IR	Installation Restoration
PJM	Project Manager
RAWP	Removal Action Work Plan
SWMP	Stormwater Management Plan
TCRA	Time-Critical Removal Action

1.0 ENVIRONMENTAL PROTECTION PLAN

The purpose of this Addendum to the Environmental Protection Plan (EPP) is to provide specific site information associated with the expanded Time-Critical Removal Action (TCRA) to supplement the existing program developed to protect existing environmental conditions and to facilitate the tracking of compliance requirements within Operable Unit-5 [synonymous with Installation Restoration (IR) Site 25] at Alameda Point, Alameda, California (formerly Naval Air Station Alameda). IR Site 25 is comprised of approximately 42 acres and is divided into three Environmental Baseline Survey (EBS) parcels (Parcels 181, 182, and 183). The expanded TCRA area is approximately 11.6 acres and encompasses both EBS Parcels 182 and 183 (Estuary Park). The expanded TCRA is a broadened scope of the initial TCRA, which was initiated in November 2001 and continues to date.

A detailed description of the environmental compliance procedures and the specific environmental regulatory, procedural, and training requirements associated with activities to be conducted at the IR Site 25 area is provided in the EPP contained as Appendix I of the *Final Removal Action Work Plan (RAWP), CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) TCRA at IR Site 25, Alameda Point, Alameda, California* [Foster Wheeler Environmental Corporation (FWENC), 2001]. It is the responsibility of the Project Manager (PJM) to verify that all project personnel are aware of the compliance requirements stipulated in this addendum.

This Addendum to the EPP was prepared in response to the project scope change as required in the EPP, dated November 2001. If either the scope of the expanded TCRA or applicable regulations change, this plan must be revised to reflect the change.

1.1 EXISTING ENVIRONMENTAL CONDITIONS AND IMPACT PATHWAYS

No revisions.

1.1.1 Land Resources

The expanded TCRA area encompasses Estuary Park and consists of landscaped recreation areas, baseball field, sand volleyball court, asphalt jogging path, sidewalks, the U.S. Coast Guard Housing Office, and U.S. Coast Guard Housing Maintenance Office.

1.1.2 Surface Waters

The expanded TCRA area is located in the northeast section of Alameda Point. There are no surface water bodies within the site boundaries; however, the northwest corner of the site is located approximately 200 feet from a seawall along the Oakland Inner Harbor, which connects to San Francisco Bay.

1.1.3 Biological Resources/Threatened, Endangered, and Sensitive Species

The expanded TCRA area is urbanized consists of a housing office, maintenance building, and extensive landscaped recreation areas including ball fields and play areas. Therefore, the area supports few wildlife species. Due to the lack of native habitat and due to the disturbed nature of the area, it is unlikely that the project site is inhabited or utilized by sensitive, threatened, or endangered species.

1.2 REGULATORY FRAMEWORK

No revisions.

1.2.1 Waste Management

No revisions.

1.2.2 Location Standards

1.2.2.1 Coastal Zone

It is noted that the Oakland Inner Harbor, which connects to San Francisco Bay, is located approximately 200 feet north of the site. Since the site is near a coastal area, the California Coastal Commission was contacted to determine if the site was within a coastal zone. Since the distance of the expanded TCRA area is greater than 100 feet from the coast high tide line of the Oakland Inner Harbor, the site is not affected by any coastal zoning restrictions. However, implementing the TCRA at the site is consistent with Coastal Commission goals and will conform to the substantive requirements of the state management program. While the remedial action will involve short-term and temporary excavation and staging of contaminated soils, the excavation activities will be conducted in a manner that will protect the adjacent coastal zone. The selected removal action will also reduce contaminants of concern in the surface soils and thus reduce potential exposure of coastal fauna to contaminants through erosion. Best Management Practices will be established, in accordance with the current Stormwater Management Plan (SWMP) contained in the Final RAWP (FWENC, 2001) and the Addendum to the SWMP that is attached as Appendix K of this report, to prevent runoff from the site from affecting San Francisco Bay. By reducing contamination in the area, contaminants will be less available to food chains through flora as well.

1.2.3 Air Emissions

No revisions.

1.2.4 Stormwater Management and Erosion Control

No revisions.

1.2.5 Plant and Wildlife Protection

No revisions.

1.2.6 Other Considerations

No revisions.

1.3 RELEASE RESPONSE AND REPORTING

1.3.1 Spill Prevention

No revisions.

1.3.2 Spill Response

No revisions.

1.3.3 Spill Reporting

No revisions.

1.4 TRAINING REQUIREMENTS FOR PROJECT PERSONNEL

1.4.1 Federal Requirements

No revisions.

1.4.2 Client Requirements

No revisions.

1.5 INSPECTION AND AUDIT PROCEDURES

1.5.1 Inspection by Regulatory Agencies

No revisions.

1.5.2 Inspection By Third Parties

No revisions.

1.6 UPDATING THE ENVIRONMENTAL PROTECTION PLAN

This Addendum to the EPP has been updated in accordance with the requirement to amend the plan in the event that site activities or applicable regulations change.

2.0 REFERENCES

Foster Wheeler Environmental Corporation (FWENC). 2001. *Final Removal Action Work Plan, CERCLA Time-Critical Removal Action at Installation Restoration Site 25, Alameda Point, Alameda, California*. November.

APPENDIX J

**FINAL ADDENDUM TO THE
ENVIRONMENTAL CONDITIONS REPORT**

Southwest Division
Naval Facilities Engineering Command
Contracts Department
1220 Pacific Highway, Building 127, Room 112
San Diego, California 92132-5190

CONTRACT No. N68711-98-D-5713
CTO No. 0040

APPENDIX J
FINAL
ADDENDUM TO THE
ENVIRONMENTAL CONDITIONS REPORT
Revision 0
April 19, 2002

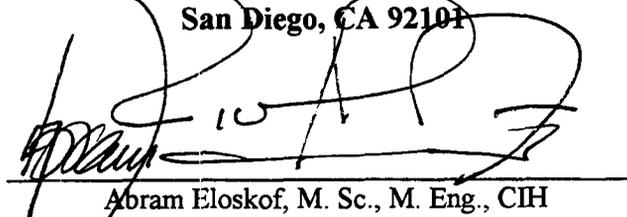
CERCLA TIME-CRITICAL REMOVAL ACTION
AT INSTALLATION RESTORATION SITE 25
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DCN: FWSD-RAC-02-0810

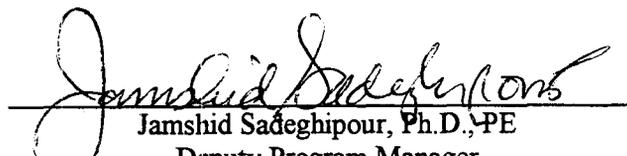


FOSTER WHEELER ENVIRONMENTAL CORPORATION

1230 Columbia Street, Suite 500
San Diego, CA 92101



Abram Eloskof, M. Sc., M. Eng., CIH
Project Manager



Jamshid Sadeghipour, Ph.D., PE
Deputy Program Manager

TABLE OF CONTENTS

	<u>PAGE</u>
LIST OF FIGURES	J.ii
ABBREVIATIONS AND ACRONYMS	J.iii
1.0 ENVIRONMENTAL CONDITIONS REPORT	J.1-1
1.1 PURPOSE AND OBJECTIVE	J.1-1
1.2 SITE LOCATION	J.1-1
1.3 TCRA AREA	J.1-2

Attachment 1 Photograph Log

LIST OF FIGURES

Figure J.1-1(A)	Photograph Locations
Figure J.1-2(A)	Site Vicinity Map
Figure J.1-3(A)	Site Location Map

ABBREVIATIONS AND ACRONYMS

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DON	Department of the Navy
EBS	Environmental Baseline Survey
FWENC	Foster Wheeler Environmental Corporation
IR	Installation Restoration
RAWP	Removal Action Work Plan
TCRA	Time-Critical Removal Action

1.0 ENVIRONMENTAL CONDITIONS REPORT

1.1 PURPOSE AND OBJECTIVE

The purpose of this Addendum to the Environmental Conditions Report is to document physical conditions within the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) expanded Time-Critical Removal Action (TCRA) area within Operable Unit-5 [synonymous with Installation Restoration (IR) Site 25] at Alameda Point, Alameda, California. IR Site 25 is comprised of approximately 42 acres and is divided into three Environmental Baseline Survey (EBS) parcels (Parcels 181, 182, and 183). The expanded TCRA area encompasses both EBS Parcels 182 and 183 (Estuary Park).

This document describes existing environmental conditions and physical features of the expanded TCRA area as noted during a site visit conducted on March 12, 2002, by Mr. Craig Rice, a Principal Scientist with Foster Wheeler Environmental Corporation (FWENC). Photographs of the various features and the general condition of the site and surrounding areas are provided within a photograph log (Attachment 1). The locations where these photographs were taken are identified on Figure J.1-1(A).

A detailed description of the environmental conditions of IR Site 25 is provided in the Environmental Conditions Report contained as Appendix I of the *Final Removal Action Work Plan (RAWP) CERCLA TCRA at IR Site 25, Alameda Point, Alameda, California* (FWENC, 2001).

1.2 SITE LOCATION

The expanded TCRA area is located in the northeast portion of Alameda Point, formerly Naval Air Station Alameda [Figure J.1-2(A), Site Vicinity Map]. The expanded TCRA area consists of approximately 11.6 acres and encompasses Estuary Park. The site lies north and northwest of Mosley Avenue and contains recreational fields, jogging paths, and housing management and maintenance offices for housing and park maintenance workers. Immediately west of Parcel 182 is a back-up power generation facility owned by Alameda Power. The Oakland Inner Harbor is located to the north of EBS Parcel 182. Residential housing areas lie to the east and to the south of the park. A day care center and elementary school are located across Singleton Avenue, approximately ¼-mile south of the park.

APPENDIX J – FINAL ADDENDUM TO THE
ENVIRONMENTAL CONDITIONS REPORT

SECTION 1.3 – TCRA AREA

PAGE J.1-2

FINAL
ADDENDUM TO THE REMOVAL ACTION WORK
PLAN CERCLA TIME-CRITICAL REMOVAL ACTION
AT INSTALLATION RESTORATION SITE 25

THE ABOVE IDENTIFIED PAGE IS NOT
AVAILABLE.

EXTENSIVE RESEARCH WAS PERFORMED BY
NAVFAC SOUTHWEST TO LOCATE THIS PAGE.
THIS PAGE HAS BEEN INSERTED AS A
PLACEHOLDER AND WILL BE REPLACED
SHOULD THE MISSING ITEM BE LOCATED.

QUESTIONS MAY BE DIRECTED TO:

DIANE C. SILVA
RECORDS MANAGEMENT SPECIALIST
NAVAL FACILITIES ENGINEERING COMMAND
SOUTHWEST
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132

TELEPHONE: (619) 532-3676

FIGURES

DRAWING NO:
020810J11A.DWG

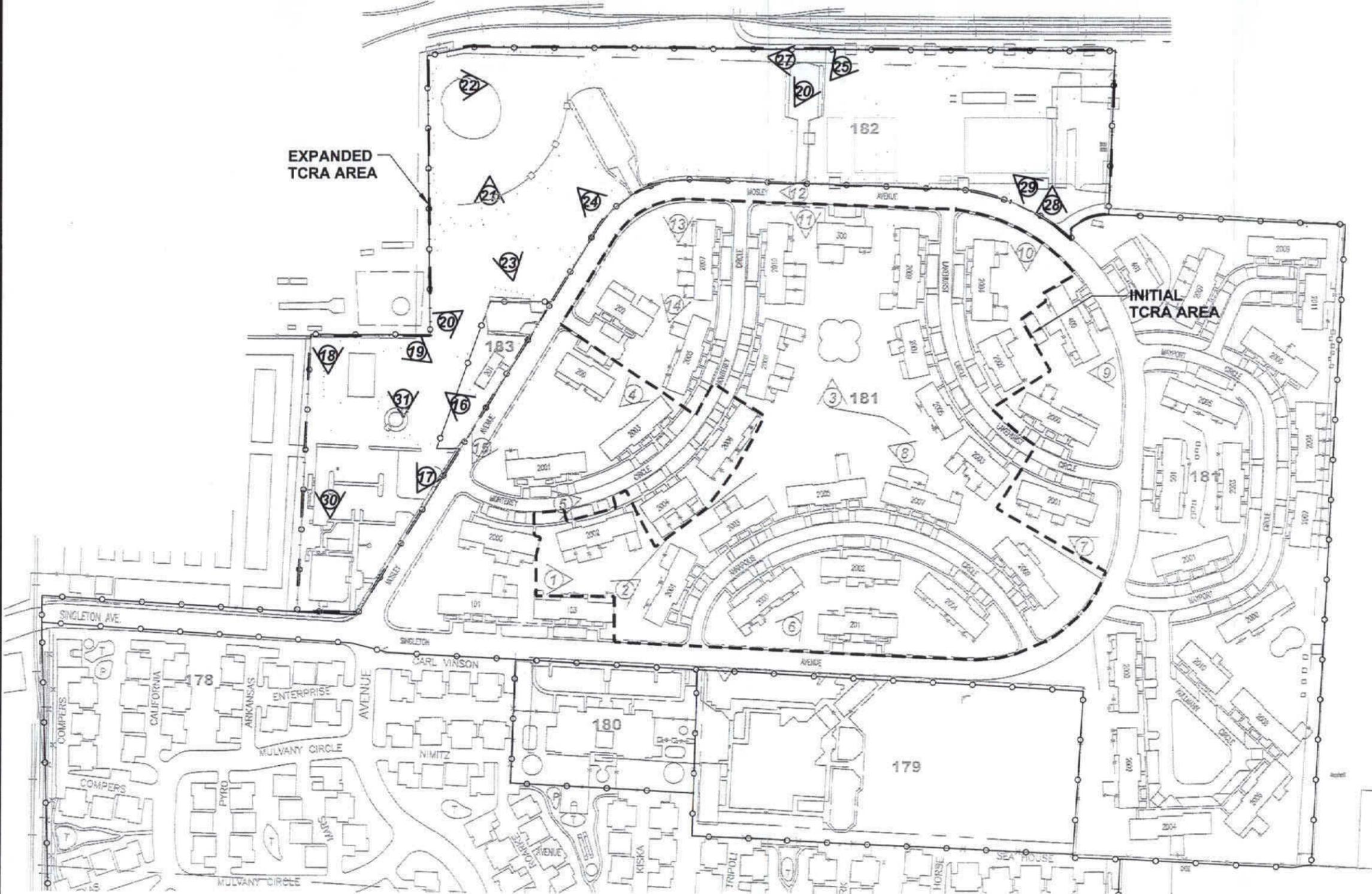
DCN: FWS-D-RAC-02-0810
CTO #0040

APPROVED BY: AE

CHECKED BY: VR
REV: REVISION 0

DRAWN BY: MD
DATE: 04/11/02

I:\1990-RAC\CTO-0040\DWG\020810\020810J11A.DWG
PLOT/UPDATE: APR 17 2002 09:09:34



LEGEND:

- INITIAL TIME-CRITICAL REMOVAL ACTION (TCRA) BOUNDARY
 - EXPANDED PHASE TCRA BOUNDARY
 - ENVIRONMENTAL BASELINE SURVEY (EBS) PARCEL BOUNDARY
 - ▲ PHOTO LOCATION AND DIRECTION
- NOTE: PHOTOS 1-15 SEE FINAL RAWP (FWENC, 2001)

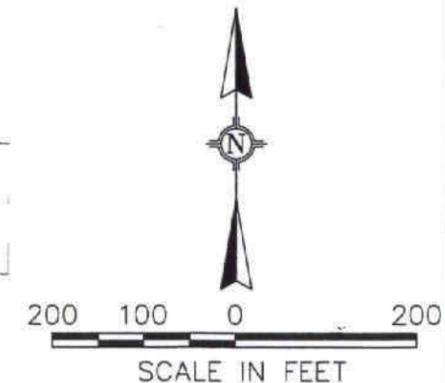


Figure J.1-1(A)
PHOTOGRAPH LOCATIONS

ALAMEDA POINT - IR SITE 25

FOSTER  WHEELER
ENVIRONMENTAL CORPORATION

DRAWING NO: 02081011A.DWG
 DCN: FWS-D-RAC-02-0810
 CTO: #0040
 APPROVED BY: AE
 CHECKED BY: VR
 DRAWN BY: MD
 REVISION: 0
 DATE: 04/11/02

I:\1990-RAC\CTO-0040\DWG\020810\02081011A.DWG
 PLOT/UPDATE: APR 11 2002 10:39:25

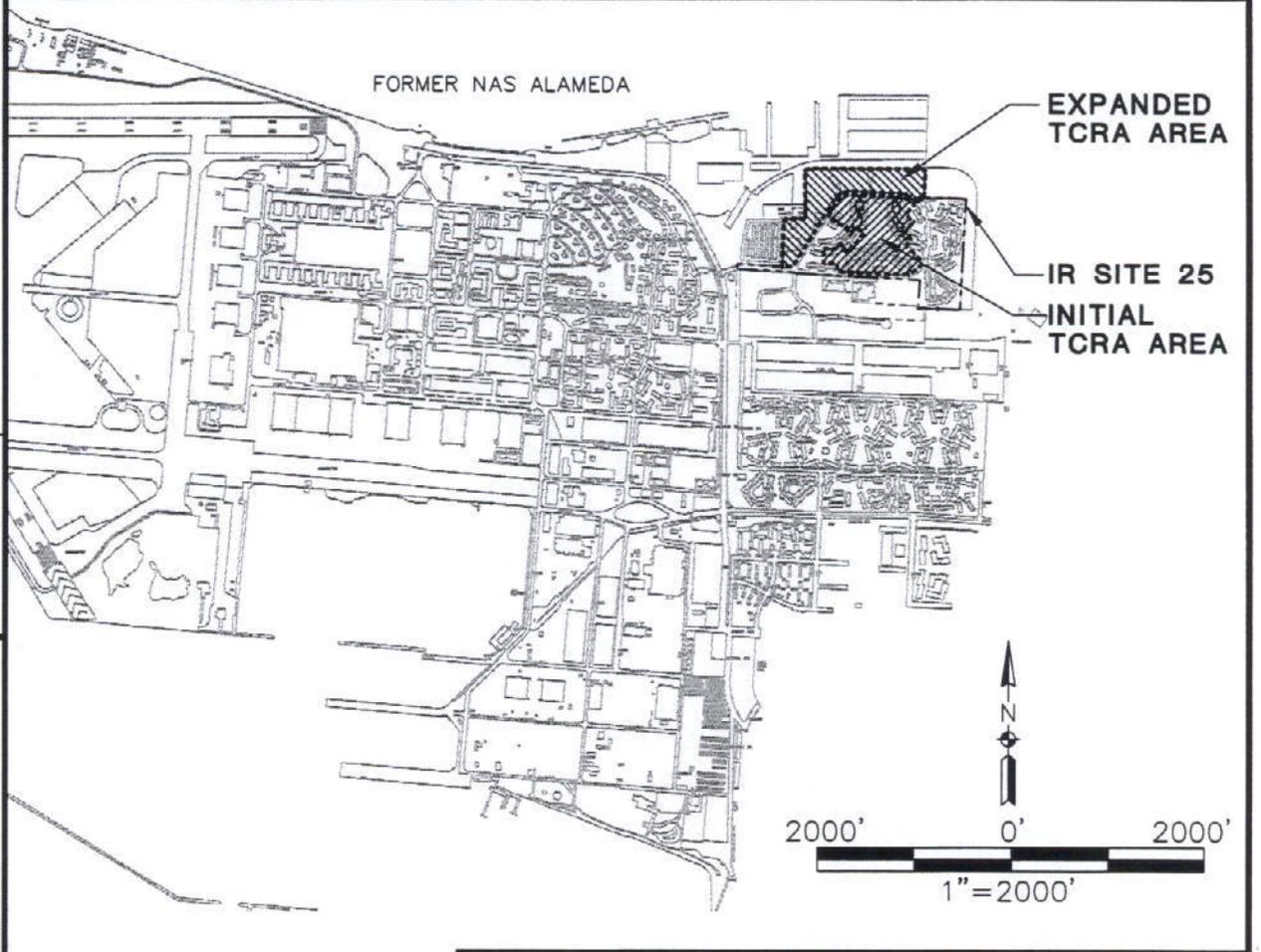
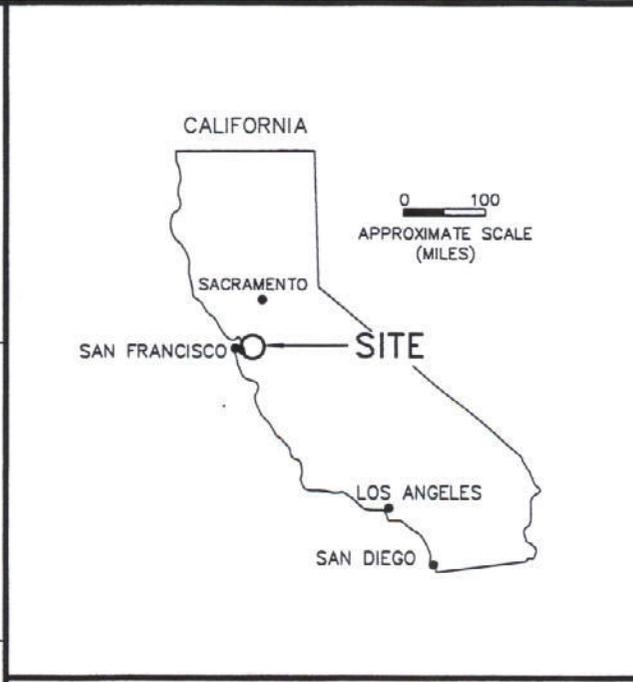


Figure J.1-2(A)
 SITE VICINITY MAP

ALAMEDA POINT - IR SITE 25

FOSTER  WHEELER
ENVIRONMENTAL CORPORATION

ATTACHMENT 1
PHOTOGRAPH LOG



Photo 16. Looking northwest from Mosley Avenue, across the southern end of the expanded TCRA area toward Alameda Power's back-up generation facility.



Photo 17. Looking southwest along Mosley Avenue, across the southwestern corner of the expanded TCRA area toward the U.S. Coast Guard Housing Office.



Photo 18. Looking south along western perimeter of the expanded TCRA area showing the volleyball pit and picnic tables, which will be replaced following the expanded TCRA.



Photo 19. Looking southeast toward the rear of the U.S. Coast Guard Housing Maintenance Office.



Photo 20. Looking northeast across the U.S. Coast Guard Housing Maintenance Office parking lot.



Photo 21. Looking north along the western boundary of the expanded TCRA area. The ball field, bleachers, and backstop will be replaced following the expanded TCRA.



Photo 22. Looking east from the ball field along the northern boundary of the expanded TCRA area. The bleachers, benches, and fencing will be replaced following the expanded TCRA.



Photo 23. Looking south-southeast at the U.S. Coast Guard Housing Maintenance Office parking lot. The parking lot will be protected as part of the expanded TCRA.



Photo 24. Looking northwest from Mosley Avenue across the central portion of the expanded TCRA area and the western end of the soccer field.



Photo 25. Looking southwest across the U.S. Coast Guard contractor's green waste staging area located in the northern portion of the expanded TCRA area.



Photo 26. Looking southwest across IT Corporation's test area located in the northern portion of the expanded TCRA area.

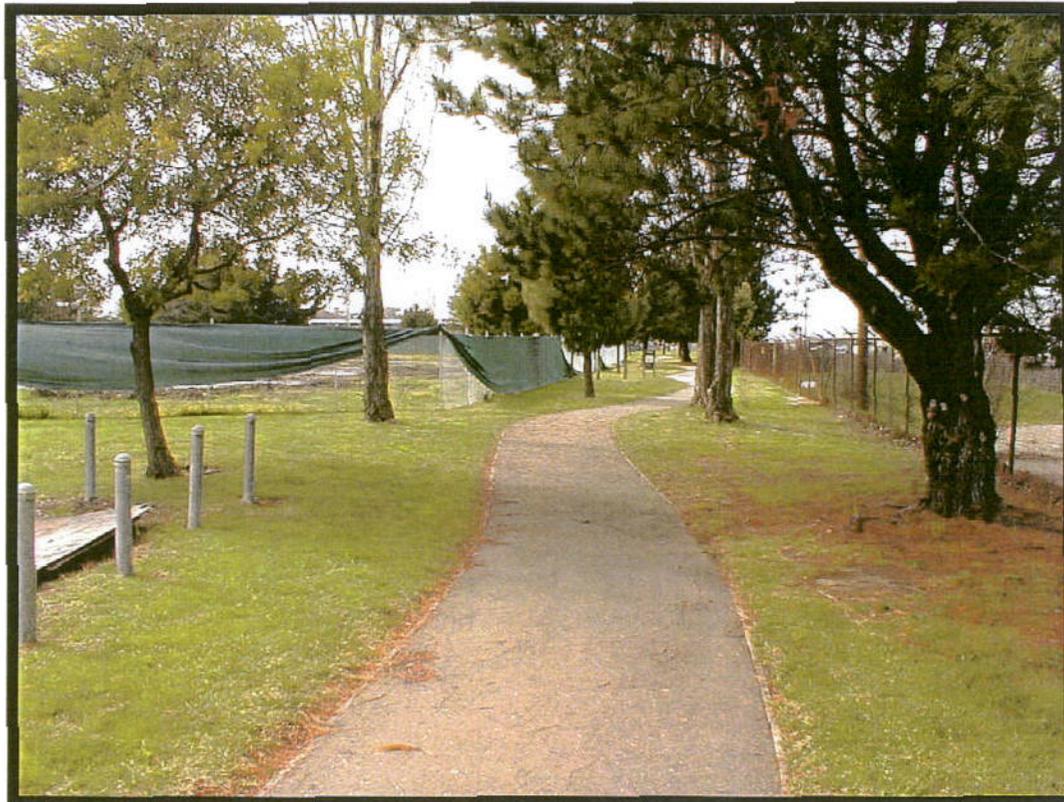


Photo 27. Looking west along the northern boundary of the expanded TCRA area.



Photo 28. Looking north along the eastern boundary of the expanded TCRA area toward the existing decontamination and truck tarping station.



Photo 29. Looking northwest toward the existing stockpile staging areas located in the northeast portion of the expanded TCRA area.



Photos 30 and 31. Photographs of existing playground area located in the western portion of the expanded TCRA area. The playground equipment will be removed and the sand and associated concrete curbing will be removed. Upon completion of the expanded TCRA, the concrete curb of the play area will be replaced, and the area will be filled with sand and wood chips.

APPENDIX K

**FINAL ADDENDUM TO THE
STORMWATER MANAGEMENT PLAN**

Southwest Division
Naval Facilities Engineering Command
Contracts Department
1220 Pacific Highway, Building 127, Room 112
San Diego, California 92132-5190

CONTRACT NO. N68711-98-D-5713
CTO No. 0040

APPENDIX K
FINAL
ADDENDUM TO THE
STORMWATER MANAGEMENT PLAN
Revision 0
April 19, 2002

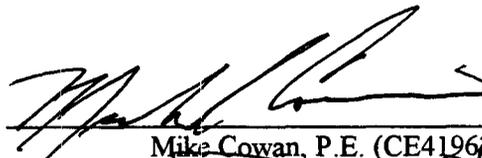
CERCLA TIME-CRITICAL REMOVAL ACTION
AT INSTALLATION RESTORATION SITE 25
ALAMEDA POINT
ALAMEDA, CALIFORNIA

DCN: FWSD-RAC-02-0810

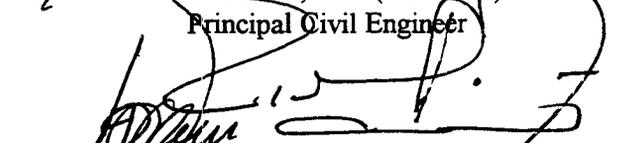


FOSTER WHEELER ENVIRONMENTAL CORPORATION

1230 Columbia Street, Suite 500
San Diego, CA 92101



Mike Cowan, P.E. (CE41966)
Principal Civil Engineer



Abram Eloskof, M.Sc., M. Eng., CIH
Project Manager

TABLE OF CONTENTS

	<u>PAGE</u>
LIST OF TABLES	K.iii
LIST OF FIGURES	K.iii
ABBREVIATIONS AND ACRONYMS	K.iv
1.0 INTRODUCTION	K.1-1
1.1 GENERAL.....	K.1-1
1.2 PROJECT OVERVIEW	K.1-1
2.0 SITE DESCRIPTION	K.2-1
2.1 SITE LOCATION.....	K.2-1
2.2 CLIMATE AND PRECIPITATION.....	K.2-1
2.3 EXISTING STORMWATER CONVEYANCE SYSTEM.....	K.2-1
2.4 CONSTRUCTION ACTIVITIES.....	K.2-1
2.5 CONSTRUCTION SEQUENCE.....	K.2-1
2.6 SOURCE IDENTIFICATION	K.2-1
3.0 BMPS TO BE IMPLEMENTED FOR CONSTRUCTION ACTIVITIES.....	K.3-1
4.0 BMPS TO BE IMPLEMENTED FOR EROSION AND SEDIMENTATION CONTROL.....	K.4-1
4.1 CONSTRUCTION SEQUENCE (ESC1).....	K.4-1
4.2 PRESERVATION OF EXISTING VEGETATION (ESC2).....	K.4-1
4.3 TRACKWALKING	K.4-1
4.4 SODDING (ESC10)	K.4-1
4.5 DUST CONTROLS (ESC21).....	K.4-1
4.6 BORROW MATERIAL STOCKPILE AREAS.....	K.4-1
4.7 DRAINS (ESC32).....	K.4-1
4.8 SILT FENCE AND SANDBAGS (ESC50 AND 52).....	K.4-1
5.0 NON-STORMWATER MANAGEMENT	K.5-1
6.0 WASTE MANAGEMENT AND DISPOSAL.....	K.6-1
7.0 IMPLEMENTATION OF OTHER APPROVED PLANS.....	K.7-1
8.0 POST-CONSTRUCTION CONTROLS	K.8-1

TABLE OF CONTENTS
(Continued)

	<u>PAGE</u>
9.0 SITE INSPECTIONS AND MONITORING	K.9-1
10.0 RESPONSIBLE PERSONNEL	K.10-1
11.0 PERSONNEL TRAINING	K.11-1
12.0 CERTIFICATION OF COMPLIANCE.....	K.12-1
13.0 SWMP REVIEW AND MODIFICATIONS	K.13-1
14.0 REFERENCES	K.14-1

ATTACHMENTS

- Attachment 1 Site Hydrology and Hydraulic Calculations
- Attachment 2 Best Management Practices Details
- Attachment 3 Site Inspection and Monitoring Reporting Forms

LIST OF TABLES

No revisions.

LIST OF FIGURES

Figure K.1-1(A) Site Vicinity Map

Figure K.1-2(A) Site Location Map

Figure K.2-1(A) Storm Drain Map and Construction BMPs

ABBREVIATIONS AND ACRONYMS

BMP	Best Management Practice
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DON	Department of the Navy
EBS	Environmental Baseline Survey
FWENC	Foster Wheeler Environmental Corporation
IR	Installation Restoration
RAWP	Removal Action Work Plan
SWMP	Stormwater Management Plan
TCRA	Time-Critical Removal Action

1.0 INTRODUCTION

1.1 GENERAL

This Addendum to the Stormwater Management Plan (SWMP) for construction activities presents the measures to be implemented to minimize sediment and other pollutants in stormwater discharges during remedial activities at the expanded Time-Critical Removal Action (TCRA) area at Operable Unit-5 [synonymous with Installation Restoration (IR) Site 25] Alameda Point, Alameda, California [Figure K.1-1(A)]. IR Site 25 is comprised of approximately 42 acres and is divided into three Environmental Baseline Survey (EBS) parcels (Parcels 181, 182, and 183). The expanded TCRA area encompasses both EBS Parcels 182 and 183 (Estuary Park) [Figure K.1-2(A)].

Work associated with the expanded TCRA will consist of excavating approximately 11.6 acres to a depth of 2 feet, backfilling with imported fill, and placement of sod. The initial TCRA has been in progress at IR Site 25 since November 2001. At the request of the Department of the Navy (DON), the original area of concern has been expanded to include Estuary Park (includes U.S. Coast Guard Housing Office and the U.S. Coast Guard Housing Maintenance Office sites) within IR Site 25. Expanded work activities include removing selected park facilities, parking areas, fences, and trees, and demolishing the existing irrigation system, removing impacted soils, backfilling clean soil, placing sod, replacing selective recreational facilities, and installing a new irrigation system and fencing.

Clarifications and specific information pertinent to the expanded TCRA are presented in this addendum. A detailed description of the overall stormwater management practices is provided in the SWMP contained as Appendix K of the *Final Removal Action Work Plan (RAWP), CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) TCRA at IR Site 25, Alameda Point, Alameda, California* [Foster Wheeler Environmental Corporation (FWENC), 2001.]

1.2 PROJECT OVERVIEW

No revisions.

2.0 SITE DESCRIPTION

No revisions.

2.1 SITE LOCATION

The expanded TCRA area encompasses Estuary Park. This area comprises the northern and western portion of IR Site 25. The expanded TCRA area is bordered by Todd Shipyard to the west, the Alameda Annex to the north and east, by residential housing (EBS Parcel 181, initial TCRA area) to the south and southeast, and EBS Parcel 178 to the south [Figure K.1-2(A)].

2.2 CLIMATE AND PRECIPITATION

No revisions.

2.3 EXISTING STORMWATER CONVEYANCE SYSTEM

The stormwater drainage system in the expanded TCRA area consists of only one major drainage control element: surface drainage to streets and gutters, which drain to subsurface conveyance storm drain lines that eventually discharge to the Oakland Inner Harbor.

2.4 CONSTRUCTION ACTIVITIES

Active construction area Best Management Practices (BMPs) will be implemented in accordance with those shown in Figure K.2-1(A).

A permanent irrigation system will be installed within the expanded TCRA area as part of this project support the establishment of the sod and continued maintenance of the vegetation after final grading.

2.5 CONSTRUCTION SEQUENCE

A phased construction sequence will be implemented for the expanded TCRA area. Excavation will proceed northeastward from the southwesternmost corner of the expanded TCRA area. A Storm Drain Map and Construction BMPs, Figure K.2-1(A), were developed for the construction phase of the project and will be updated as necessary as work progresses.

2.6 SOURCE IDENTIFICATION

No revisions.

3.0 BMPS TO BE IMPLEMENTED FOR CONSTRUCTION ACTIVITIES

No revisions.

4.0 BMPS TO BE IMPLEMENTED FOR EROSION AND SEDIMENTATION CONTROL

4.1 CONSTRUCTION SEQUENCE (ESC1)

No revisions.

4.2 PRESERVATION OF EXISTING VEGETATION (ESC2)

No revisions.

4.3 TRACKWALKING

No revisions.

4.4 SODDING (ESC10)

A permanent irrigation system will be installed within the expanded TCRA area as part of this project to support the establishment of the sod and continued maintenance of the vegetation after final grading.

4.5 DUST CONTROLS (ESC21)

No revisions.

4.6 BORROW MATERIAL STOCKPILE AREAS

No revisions.

4.7 DRAINS (ESC32)

Street gutters are the only major drain inlets for the expanded TCRA area that will convey stormwater to the existing storm drains and harbor. The locations of these drains are indicated in Figure K.2-1(A).

4.8 SILT FENCE AND SANDBAGS (ESC50 AND 52)

No revisions.

5.0 NON-STORMWATER MANAGEMENT

No revisions.

6.0 WASTE MANAGEMENT AND DISPOSAL

No revisions.

7.0 IMPLEMENTATION OF OTHER APPROVED PLANS

No revisions.

8.0 POST-CONSTRUCTION CONTROLS

No revisions.

9.0 SITE INSPECTIONS AND MONITORING

No revisions.

10.0 RESPONSIBLE PERSONNEL

No revisions.

11.0 PERSONNEL TRAINING

All personnel involved with the ongoing monitoring and maintenance of the stormwater management system will attend a training class held by the Project Superintendent, or their designee, before the beginning of field activities within the expanded TCRA area.

12.0 CERTIFICATION OF COMPLIANCE

No revisions.

13.0 SWMP REVIEW AND MODIFICATIONS

FWENC intends to amend this SWMP, if deemed necessary, to address changes in the physical condition of the expanded TCRA area or to maintain compliance in areas where this SWMP is inadequate.

14.0 REFERENCES

Foster Wheeler Environmental Corporation (FWENC), 2001. *Final Removal Action Work Plan, CERCLA Time-Critical Removal Action at Installation Restoration Site 25, Alameda Point, Alameda, California*. November.

TABLES

NO REVISIONS

FINAL
ADDENDUM TO THE
REMOVAL ACTION WORK PLAN
CERLA TIME-CRITICAL REMOVAL ACTION AT
INSTALLATION RESTORATION SITE 25

DATED 19 APRIL 2002

FIGURES

DRAWING NO:
02081011A.DWG

DCN: FWSD-RAC-02-0810
CTO: #0040

APPROVED BY: AE

CHECKED BY: VR
REVISION: 0

DRAWN BY: MD
DATE: 04/11/02

I:\1990-RAC\CTO-0040\DWG\020810\02081011A.DWG
PLOT/UPDATE: APR 11 2002 10:39:25

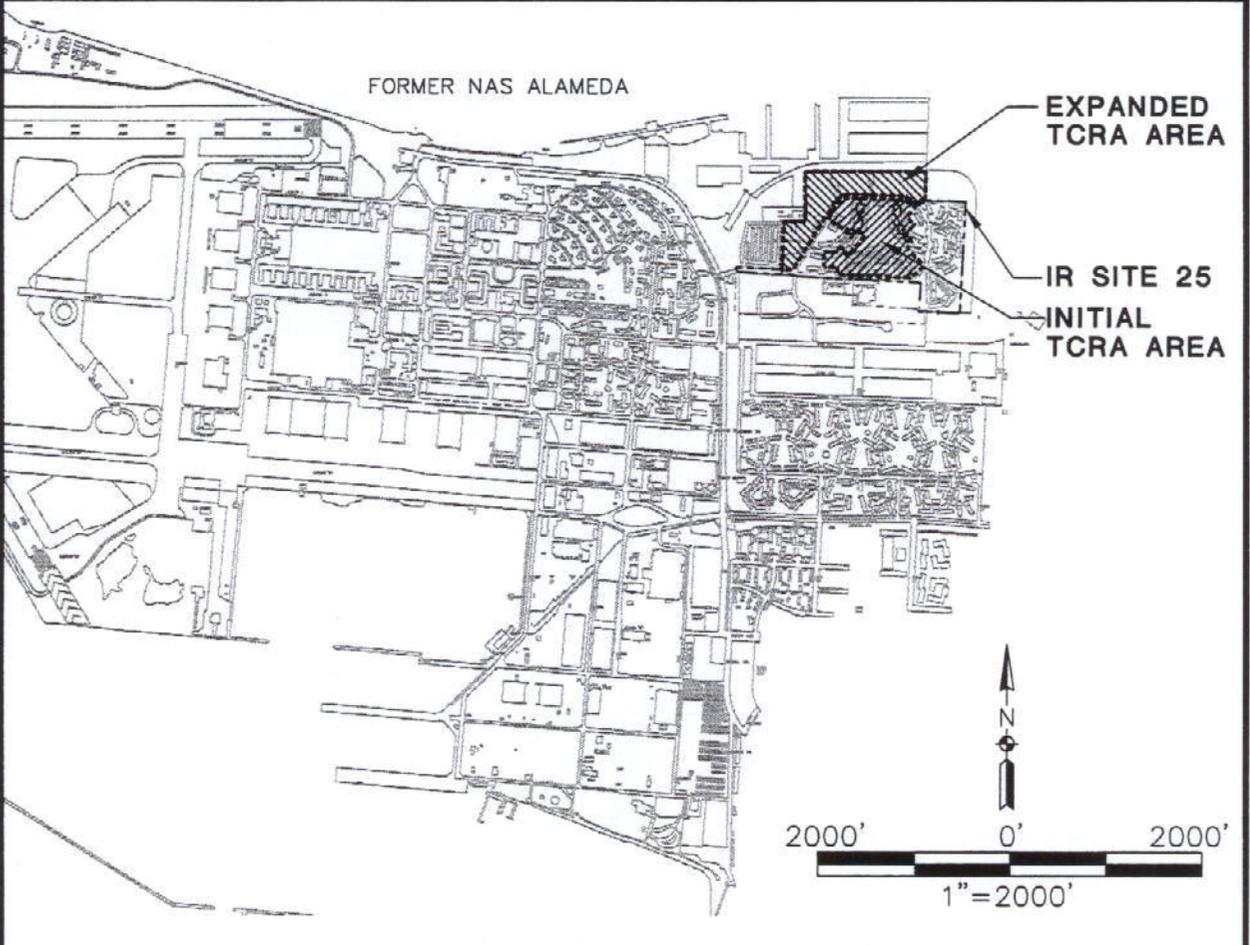


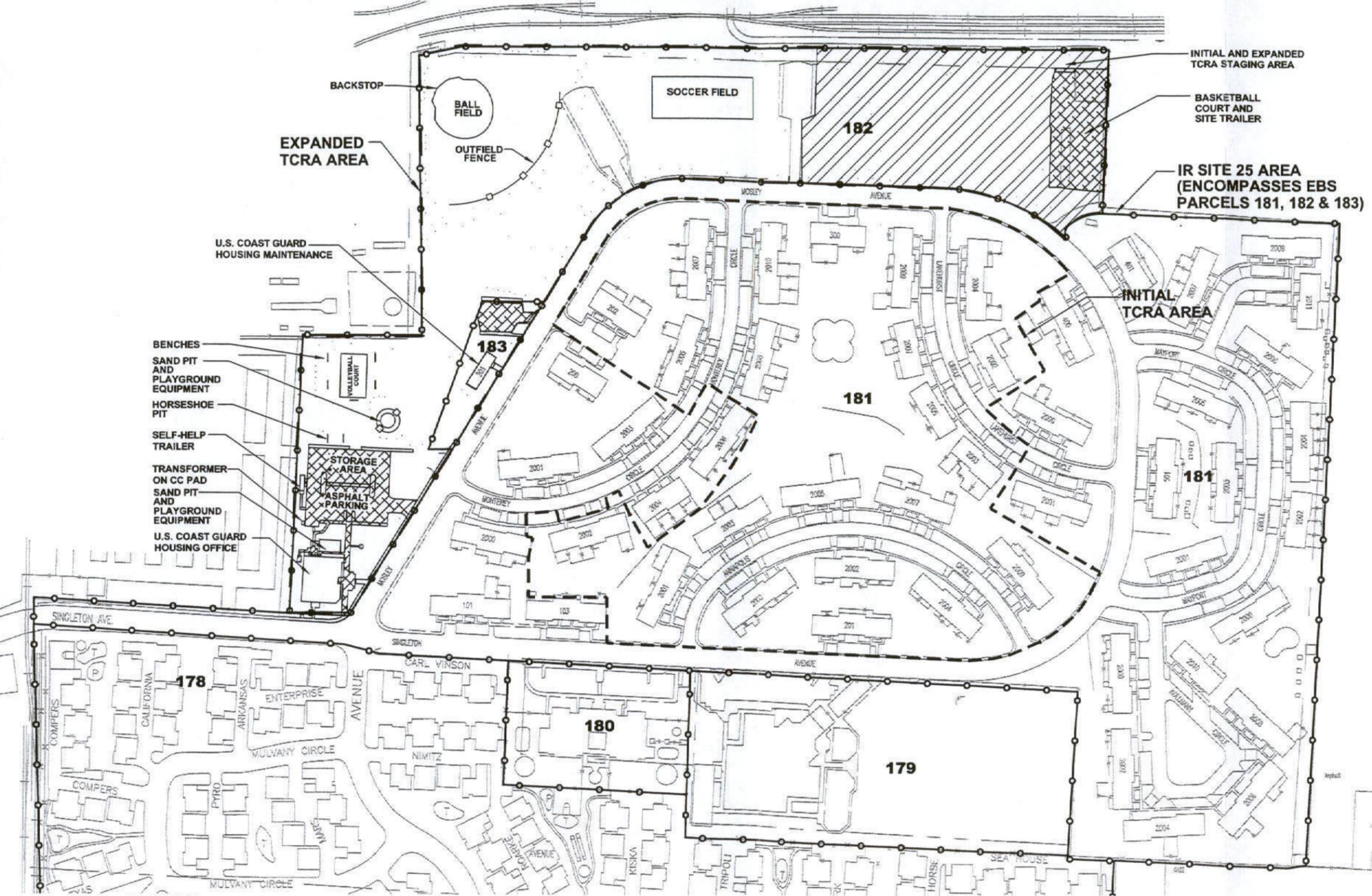
Figure K.1-1(A)
SITE VICINITY MAP

ALAMEDA POINT - IR SITE 25

FOSTER  WHEELER
ENVIRONMENTAL CORPORATION

DRAWING NO: 02081012A.DWG
 DCN: FWS-D-RAC-02-0810
 CTO #0040
 APPROVED BY: AE
 CHECKED BY: VR
 DRAWN BY: MD
 DATE: 04/11/02
 REV: REVISION 0

I:\1990-RAC\CTO-0040\DWG\020810\02081012A.DWG
 PLOT/UPDATE: APR 17 2002 15:08:27



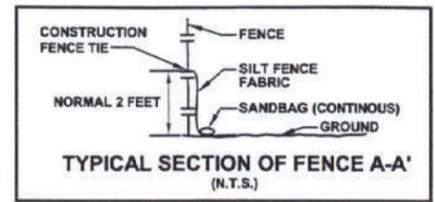
LEGEND:

- INITIAL TIME-CRITICAL REMOVAL ACTION (TCRA) BOUNDARY
- - - EXPANDED TCRA BOUNDARY
- ENVIRONMENTAL BASELINE SURVEY (EBS) PARCEL BOUNDARY
- 181 EBS PARCEL NUMBER
- [Cross-hatched box] PAVED AREA EXCLUDED FROM EXCAVATION
- [Diagonal hatched box] INITIAL AND EXPANDED TCRA STAGING AREA

Figure K.1-2(A)
 SITE LOCATION MAP
 ALAMEDA POINT - IR SITE 25
 FOSTER WHEELER
 ENVIRONMENTAL CORPORATION

DRAWING NO: 020810K21A.DWG
 DCN: FWSO-RAC-02-0810
 CTO #0040
 APPROVED BY: AE
 CHECKED BY: VR
 DATE: 04/11/02
 REV: REVISION 0

I:\1990-RAC-0040\DWG\020810\020810K21A.DWG
 PLOT/UPDATE: APR 17 2002 15:05:43



- LEGEND:**
- MANHOLE
 - ⊕ MONITORING WELL
 - ∞ SANDBAGS
 - STORM DRAIN
 - ESTIMATED DRAINAGE FLOW
 - SWALE/DITCH
 - |- SILT FENCE W/SANDBAGS
 - - - BURIAL STORM DRAIN
 - - - INITIAL TIME CRITICAL REMOVAL ACTION (TCRA) AREA
 - - - EXPANDED TCRA AREA

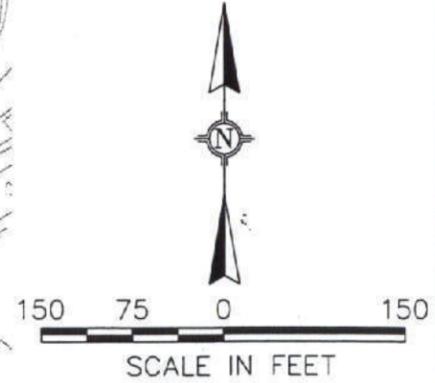
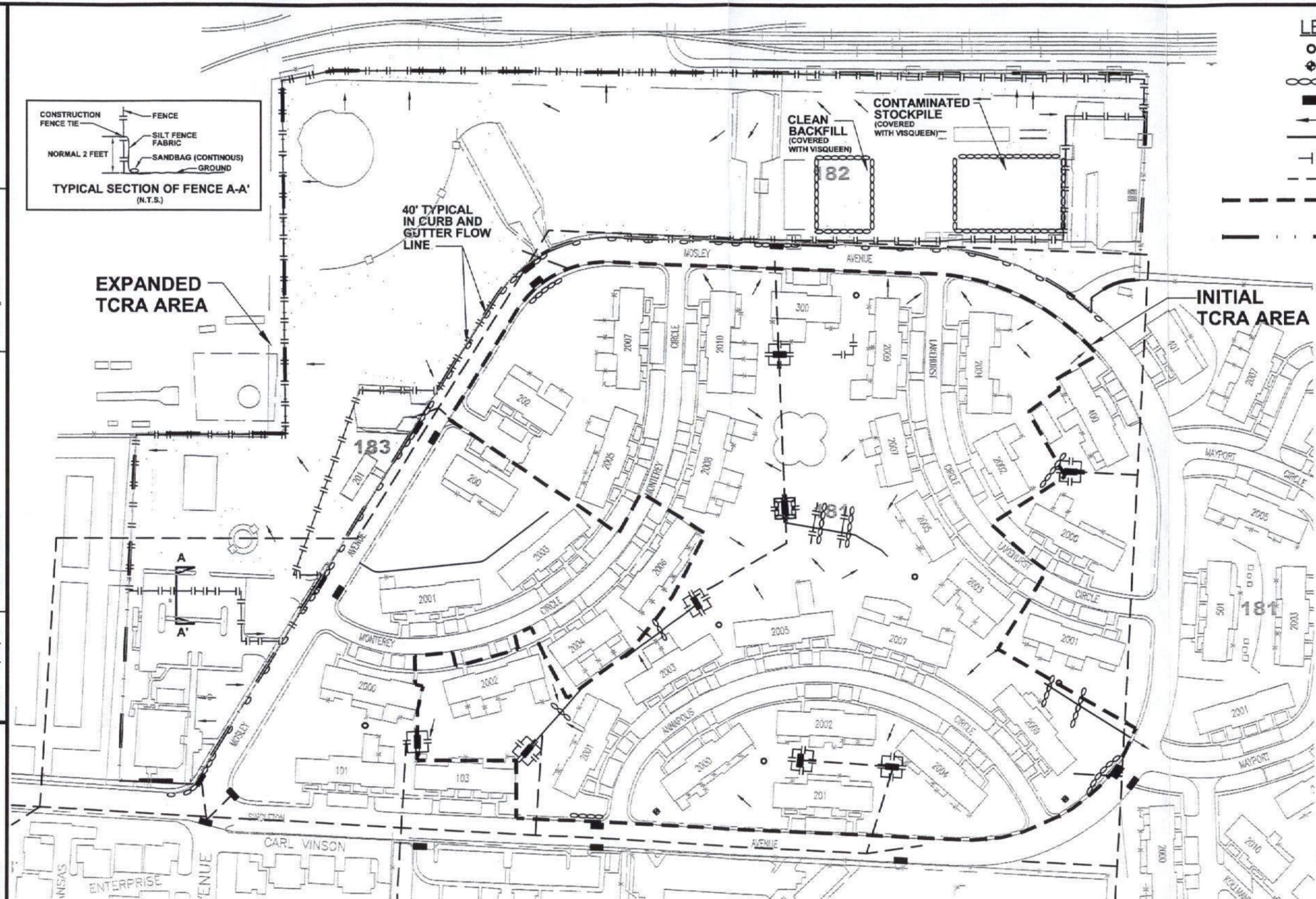


Figure K.2-1(A)
 STORM DRAIN MAP AND CONSTRUCTION BMPs
 ALAMEDA POINT - IR SITE 25
 FOSTER WHEELER ENVIRONMENTAL CORPORATION

ATTACHMENT 1
SITE HYDROLOGY AND HYDRAULIC CALCULATIONS

HYDROLOGY REPORT

No revisions to hydrologic calculations.

The following for clarification only:

The entire project area for the expanded TCRA area is approximately 11.6 acres, but at no time will the total excavation area exceed 5 acres in size.

ATTACHMENT 2
BEST MANAGEMENT PRACTICES DETAILS
No Revisions.

ATTACHMENT 3
SITE INSPECTION AND MONITORING REPORTING FORMS
No Revisions.