EXPLANATION OF SIGNIFICANT DIFFERENCES

Site PRFTA 02

Dublin Crossing PRFTA 02/Site Code 202046
CERCLIS ID CAR 000066613

Parks Reserve Forces Training Area
Dublin, CA

Prepared for:

Prepared by:
LK-CCS
925-484-3912

October 2016

Explanation of Significant Differences
Installation Restoration Program Site PRFTA-02
Dublin Crossing PRFTA 02/Site Code 202046
CERCLIS ID CAR 000066613

Parks Reserve Forces Training Area
Dublin, California

Prepared for:

Parks Reserve Forces Training Area

under

Exchange Agreement signed March 4, 2011

Prepared by: Lynn Kriegbaum-Creative Consulting Services
On behalf of Brookfield Residential

October 2016

Contents

Section **Page**

Contents ..... **iii**

Acronyms and Abbreviations ..... **iv**

Acronyms and Abbreviations, continued ..... **v**

1 Introduction to the Site and Statement of Purpose **1**
1.1 Site Name and Location 1
1.2 Lead and Support Agencies 1
1.3 Record of Decision 1
1.4 Summary of Circumstances Requiring an ESD 1
1.5 Administrative Record 3

2 Site History, Contamination, and Selected Remedy **4**
2.1 Site History and Contamination 4
2.2 Army's Selected Remedy 4

3 Basis for the ESD **6**
3.1 Compliance with Applicable or Relevant and Appropriate Requirements 8
3.2 Long-Term Effectiveness and Permanence 8
3.3 Sources of Information 9

4 Description of Significant Differences **10**
4.1 Significant Differences 10
4.1.1 Cleanup Levels **10**
4.1.2 Cleanup to Residential Levels **10**

5 Support Agency **11**

6 Statutory Determinations **11**

7 Public Participation Compliance **12**

8 Works Cited **13**

9 Authorizing Signatures **14**

ENCLOSURE 1 15

Figures

Figure 1: Site PRFTA 02 Location Map
Figure 2: Remediation Site Locations

Acronyms and Abbreviations

ARARs	Applicable or Relevant and Appropriate Requirements
bgs	below ground surface
CalEPA	California Environmental Protection Agency
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CHHSL	California Human Health Screening Level
COC	contaminant of concern
DTSC	California Department of Toxic Substances Control
EBS	Environmental Baseline Survey
EP	Exchange Partner
ESD	Explanation of Significant Differences
FS	Feasibility Study
LUC	land use control
IRP	Installation Restoration Program
LIFOC	Lease in Furtherance of Conveyance
LUC	Land Use Control
mg/kg	milligram per kilogram
MW-#	monitoring well-number
NCP	National Contingency Plan
pg/g	picograms per gram
PRFTA	Parks Reserve Force Training Area
RACR	Removal Action Completion Report
RAO	Remedial Action Objective
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendment and Reauthorization Act of 1986
SI	Site Inspection

Acronyms and Abbreviations, continued

SVOCs	semi-volatile organic compounds
TBCs	(criteria) to be considered
TEQ	toxin equivalent
UCL	upper confidence limit
U.S.	United States of America
USACE	U.S. Army Corps of Engineers
USAPHC	U.S. Army Public Health Command
USCHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
USGS	U.S. Geological Survey

SITE PRFTA 02
EXPLANATION OF SIGNIFICANT DIFFERENCES

1 Introduction to the Site and Statement of Purpose

This decision document modifies the remedy selected for soil at Site PRFTA 02, Parks Reserve Forces Training Area (PRFTA), in the *Record of Decision (ROD)* signed July 5, 2012 (ROD, URS 2012a) and presents an Explanation of Significant Differences (ESD). Cleanup to residential versus industrial levels is established, and cleanup levels are selected.

1.1 Site Name and Location

The PRFTA-02 site (Site), also known as the Former Building 109 Incinerator site, is located adjacent to the southwestern installation boundary, east of the intersection of Dougherty Road and Dublin Boulevard (Figure 1). PRFTA-02 is bounded by 3rd Street to the north; a drainage ditch and other installation open land to the south; the western installation boundary, a drainage ditch, and a paved hiking/biking path to the west. The Site is mapped on the Dublin, California U.S. Geological Survey (USGS) 7.5-minute topographic map at 37°42'27" north longitude, 121°54'14" west latitude (USGS 1953, 1961).

1.2 Lead and Support Agencies

This Explanation of Significant Difference (ESD) is issued by the U.S. Army, as the lead agency. The Army is managing remediation of contamination at PRFTA 02 in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as required by the Installation Restoration Program (IRP). The California Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board (RWQCB) are the regulatory oversight agencies representing the State of California (State).

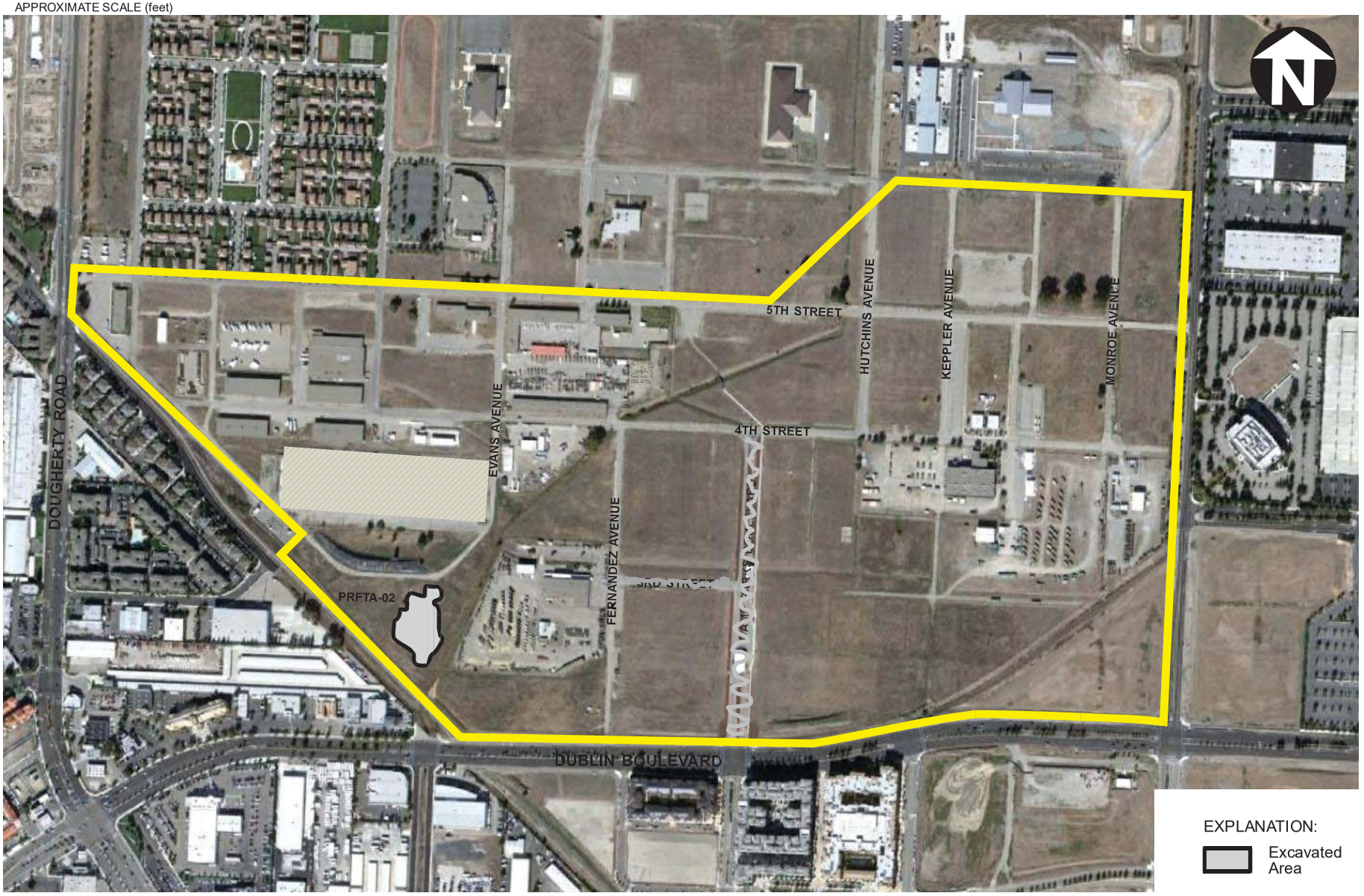
1.3 Record of Decision

A final remedy, Excavation, Backfill and Disposal with Short-term Monitoring and Land Use Controls (LUCs) was selected in the PRFTA 02 Record of Decision (ROD) (URS, 2012a). The soil removal action was designed to address soil contamination above industrial/commercial clean up goals. The Army planned to remove site soil contaminated with lead and dioxins to restore the site for future industrial use, based upon the Army's previous commercial/industrial use. Both RWQCB and DTSC concurred with the selected remedy.

The ROD acknowledges that the Site is scheduled for transfer out of Government ownership and future real property owners' planned site uses other than commercial/industrial, such as residential, may require additional remedial actions to eliminate the LUCs and make the Site suitable for those uses.

1.4 Summary of Circumstances Requiring an ESD

The Army completed the remediation activities selected in the ROD and prepared the Final Removal Action Completion Report (RACR) in May 2014 (URS, 2014). The Army determined that the Site has been cleaned to industrial/commercial standards. As the Site was not cleaned to levels appropriate for unrestricted use, the Base Master Plan will reflect the applicable use restrictions, with the Site restricted



MAP SOURCE: GOOGLE

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SITE LOCATION

Dublin Crossing PRFTA-02, Site Code 202046
Parks Reserve Forces Training Area
Dublin, California

Figure 1

Project 7161

from use for other than commercial/industrial purposes (no residential development, play areas, or day care facilities). Additionally, when the property is transferred out of Government ownership, the deed for the Site will include the LUCs for the restricted uses.

The Site area is part of a Reserve Property Exchange Agreement, dated March 4, 2011, as amended, whereby the property will be transferred to a private developer. The Site is included in a Master Plan development within the City of Dublin and once transferred out of Army ownership will be a City Park. The ROD included a LUC prohibiting "play areas" unless additional remediation is completed.

Army investigations identified lead and dioxins in the soil as the primary contaminants of concern. (COC). The RACR provided final confirmation sampling data to document the levels of COCs remaining after the Army completed its remediation. The confirmation sampling identified specific sampling areas which exceed allowable levels of these COCs for unrestricted residential reuse.

The Exchange Partner (EP) currently holds a Lease in Furtherance of Conveyance (LIFOC) over the Site which specifically allows the EP to undertake environmental remediation supporting the redevelopment of the property with Army approval. The EP plans to undertake additional removal actions necessary to achieve unrestricted residential reuse for the Site. This remediation was one of the alternatives considered by the Army in the *Final Remedial Investigation/Feasibility Study* dated May 2010 (USCHPPM, 2010), but deemed too costly and beyond the Army's allowed scope of only cleaning for like and similar use.

1.5 Administrative Record

In accordance with the NCP Section 300.435(c)(2)(i), this ESD, and all documents that form the basis for this decision, will become a part of the Administrative Record file for PRFTA 02 and Information Repository, and will be available to the public at the following Information Depository:

Alameda County Public Library, Dublin Branch
200 Civic Plaza
Dublin, CA 94568
(925) 803-7252

Hours:
Sunday: 1 p.m. - 5 p.m.
Monday, Tuesday and Wednesday: 10 a.m. - 8 p.m.
Thursday: 10 a.m. - 6 p.m.
Friday: Closed
Saturday: 10 a.m. - 5 p.m.

This ESD will also be posted on the PRFTA website: http://www.parks.army.mil/publicworks/env.asp

2 Site History, Contamination, and Selected Remedy

This section presents the site history, contamination, conceptual site model, and selected remedy for PRFTA 02.

2.1 Site History and Contamination

Documented in the 2014 RACR (URS Group, May 2014) Building 109 was an incinerator that was used for burning general installation refuse from the 1940's until approximately 1980. The site currently consisted of a grassed field and the remains of Former Building 109 (essentially the concrete foundation) and included areas of buried ash and waste. The site currently consists of almost 100 percent pervious surfaces. Slopes at the site are less than 2 percent, except along drainage ditch embankments.

The Army conducted various studies at or near the site between 1994 and 2007 as follows:

- A subsurface-soil investigation and removal of a ruptured 2,500-gallon underground storage tank (UST) in 1994.
- A soil and groundwater investigation related to the former UST in December 1994.
- A soil investigation related to ash discovered during the UST removal in January 1995.
- Quarterly groundwater sampling from January 1995 through February 1997 for various petroleum-related parameters and semi-volatile organic compounds (SVOCs).
- A Site Inspection (SI) in 1999 including installing additional groundwater monitoring wells and collecting groundwater and subsurface soil samples.
- Quarterly groundwater monitoring from November 2001 to August 2002.
- A Phase I Environmental Baseline Survey (EBS) in 2002 for a larger area that included PRFTA-02 and involved document and data review with no sample collection.
- A Phase II EBS in 2003 including surface and subsurface soil sampling and exploratory trenching.
- A Remedial Investigation (RI) in 2005 included 30 test trenches for sampling and analyzing soil for metals and dioxins/furans. The RI also included groundwater analysis for dioxins/furans. The RI identified lead and dioxins as the primary contaminants in soil.
- A data gap investigation by U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) in 2007 for additional collection of soil and groundwater samples.

2.2 Army's Selected Remedy

The Army selected Excavation, Backfill, and Disposal with Short-term Monitoring and LUCs (Remedial Alternative 4) as the preferred remedial alternative for PRFTA-02. The Army presented this alternative to the public in the Proposed Plan (URS 2010c) and ROD (URS 2012a). The ROD described the remedial action selection, remedial goals, remedial action objectives (RAOs), and Applicable or Relevant and Appropriate Requirements (ARARs).

The Army planned to restore PRFTA-02 to the point that the site would be compatible with previous use as established by the onset of Army ownership (i.e., commercial/industrial). The Final Evaluation

of Remedial Goals Technical Memorandum (URS 2011) evaluated and recommended remedial goals/RAOs for PRFTA-02. DTSC concurred with the evaluation and remedial goals/RAOs as recommended in the Memorandum. The remedial goals and RAOs were:

- Restore the site for future industrial use and reduce risk to human health and the environment by removing soil so that the 95% upper confidence limit (UCL) of the mean for the average lead concentration in soil is below a numerical goal of 800 milligrams per kilogram (mg/kg).

- Restore the site for future industrial use and reduce risk to human health and the environment by removing soil so that the 95% UCL for the average dioxin toxicity equivalent (TEQ) concentration in soil is below a numerical goal of 19 picograms per gram (pg/g).

- As a conservative approach, soil with concentrations above approximately 800 mg/kg for lead and 19 pg/g for dioxins will be targeted for excavation.

- This approach will result in the 95% UCL for dioxins being less than the remediation goal for dioxins (which is also the California Human Health Screening Level [CHHSL] for dioxins).

- Because a conservative approach is being used, it is likely that after excavation not only will the 95% UCL concentration for lead be less than the remediation goal for lead, it may also be less than the 320 mg/kg CHHSL for lead.

3 Basis for the ESD

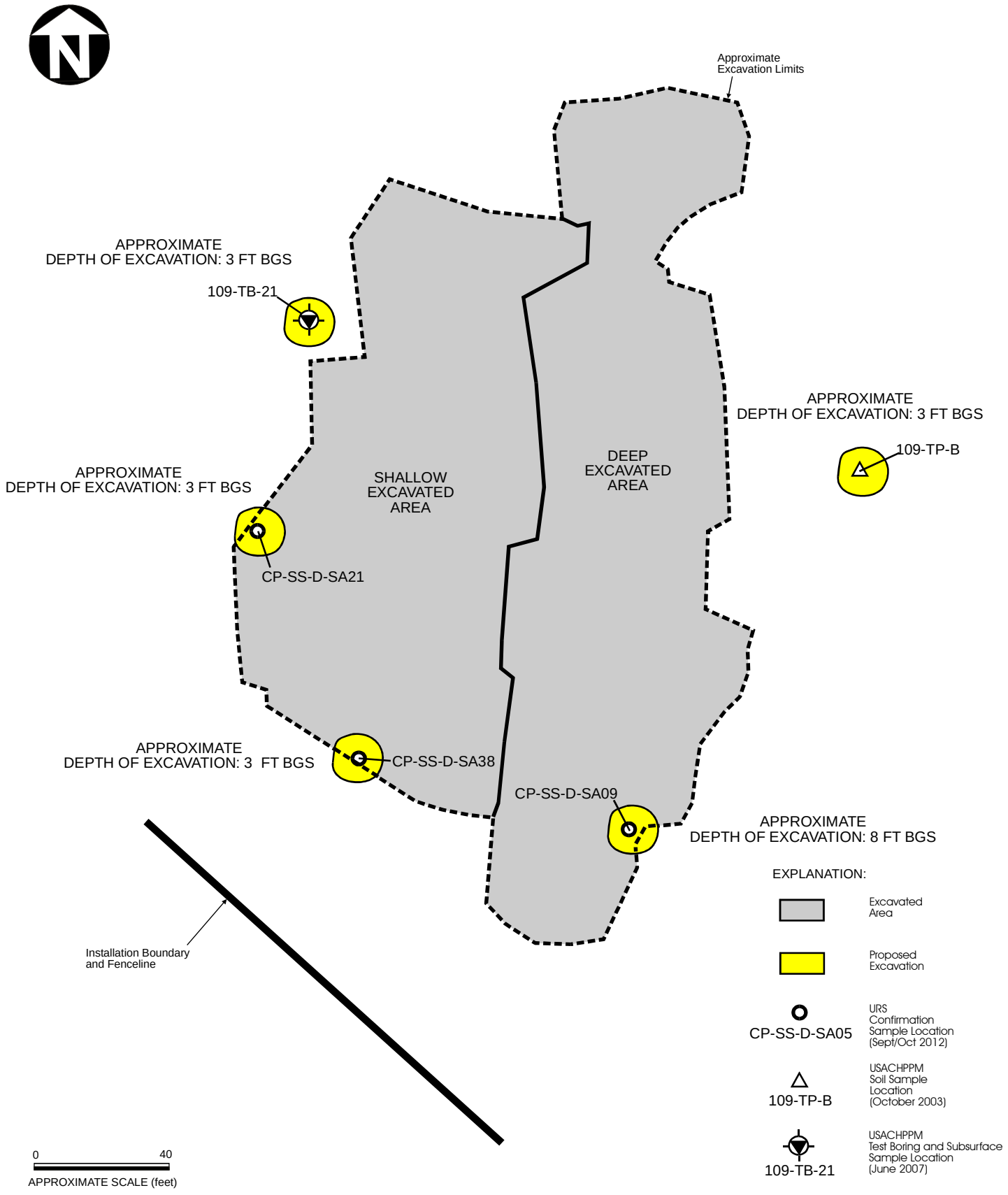
Soil data collected in December 2012 during the confirmation sampling showed lead and dioxin present in some of the samples at concentrations that support industrial/commercial reuse but do not allow for unrestricted residential reuse. The Army's weighted site wide 95 percent UCL of the mean statistical evaluation to achieve industrial/commercial compliance indicated that the mean concentration and 95% UCL for the PRFTA-02 Full Data Set are below the 800 mg/kg lead criteria and below the lead CHSSL of 320 mg/kg. The evaluation also indicated that the mean dioxin concentration is below the 19 pg/g RAO.

One sampling site, CP-SS-D-SA05, showed high levels of both lead and dioxins exceeding the industrial/commercial allowable concentrations. Due to the depth of the sample, at 11 feet below grade and the fact that the soil represented by SA-05 was below the water table, the Army excluded this site for its 95% UCL for the industrial/commercial determination.

After review of the final sampling, five (5) sites have been identified for further excavation to achieve unrestricted residential reuse for the Site (Figure 2). Based on a discussion with DTSC, the human health risk screening evaluation was calculated on soil data from 0 to 10 feet below ground surface (bgs). Soil data deeper than 10 feet bgs was excluded from the evaluation because it was considered an incomplete pathway for residents. The incomplete pathways for residents included: incidental ingestion of soil deeper than 10 feet bgs, dermal contact with soil deeper than 10 feet bgs, and inhalation of soil particulates deeper than 10 feet bgs. These pathways are incomplete because direct contact with soil greater than 10 feet bgs would involve significant digging or excavation activities that are unlikely under the planned use of the Site as a park for the proposed residential development on adjacent property.

The modified remedy would allow for unrestricted reuse as opposed to industrial land use.

These changes will not fundamentally alter the scope of the remedy selected in the ROD.



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PROPOSED EXCAVATIONS

Dublin Crossing PRFTA-02, Site Code 202046
Parks Reserve ForcesTraining Area
Dublin, California

Figure 2

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3.1 Compliance with Applicable or Relevant and Appropriate Requirements

CERCLA Section 121(d) and NCP §300.430(f)(1)(ii)(B) require that remedial actions at CERCLA sites at least attain legally applicable or relevant and appropriate Federal and State requirements, standards, criteria, and limitations which are collectively referred to as ARARs, unless such ARARs are waived under CERCLA Section 121(d)(4).

Applicable requirements are those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under Federal environmental or State environmental or facility citing laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a CERCLA site. State standards that are identified by a state in a timely manner and that are more stringent than Federal requirements may be applicable.

Relevant and appropriate requirements are those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under Federal environmental or State environmental or facility citing laws that, while not applicable to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site address problems or situations sufficiently similar to those encountered at the CERCLA site (relevant) that their use is well-suited (appropriate) to the particular site. Only those State standards that are identified in a timely manner and are more stringent than Federal requirements may be relevant and appropriate.

ARARs fall into three categories: chemical-specific, location-specific, and action-specific.

Chemical-specific ARARs are health-based or risk-management-based numbers that provide concentration limits for the occurrence of a chemical in the environment at agreed-upon points of compliance. Location-specific ARARs restrict activities in certain sensitive environments.

Action-specific ARARs are activity-based or technology-based, and typically control remedial activities that generate hazardous wastes (such as with those covered under the RCRA). Offsite shipment, treatment and disposal of excavated contaminated soil invoke action-specific ARARs.

Criteria to be considered, or TBCs, are non-promulgated advisories or guidance issued by federal or state government that are not legally binding and do not have the status of potential ARARs.

Compliance with ARARs addresses whether a remedy will meet all of the applicable or relevant and appropriate requirements of other Federal and State environmental statutes or provides a basis for invoking a waiver. A modified list of ARARs was provided in the ROD and is attached at Enclosure 1.

The modified remedy would meet chemical, location, and action specific ARARs. Soil would be removed and disposed of at an appropriate off-site facility, and the excavation backfilled with clean soil. Therefore, the modified remedy would meet the proposed chemical-specific residential remediation goals.

3.2 Long-Term Effectiveness and Permanence

The modified remedy would provide long-term effectiveness because it involves removal of contaminated soil that poses a potential unacceptable risk to human health and the environment during residential use.

3.3 Sources of Information

The following sources in the Administrative Record support the need for the change:

- DTSC, Human and Ecological Risk Office (HERO). 2016. Human Health Risk Assessment (HHRA) Note Number 2. http://www.dtsc.ca.gov/AssessingRisk/upload/HHRA_Note2_dioxin-2.pdf
  Note Number 3. https://www.dtsc.ca.gov/AssessingRisk/upload/HHRA_Note_3_-2016-06.pdf
  Note Number 4. https://www.dtsc.ca.gov/AssessingRisk/upload/HERO_HHRA_Note_Number-4-2016-07-01.pdf

- U.S. Environmental Protection Agency (USEPA). 2015. Regional Screening Levels (RSLs). https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-november-2015 November.

- URS. 2010b. Final Backfill Soil Sampling Results for PRFTA-02, U.S. Army Garrison Camp Parks, Dublin, California. 22 September.

- URS. 2010c. Proposed Plan for Installation Restoration Program site PRFTA-02, U.S. Army Garrison Camp Parks, Dublin, California. November.

- URS. 2010d. Public Participation Plan Addendum: Installation Restoration Program Soil Removal Action and Military Munitions Response Program Remedial Investigation, United States Army Garrison Camp Parks, California. November.

- URS. 2011. Final Evaluation of Remedial Goals Technical Memorandum, Installation Restoration Program site PRFTA-02, U.S. Army Garrison Camp Parks, California. April

- URS. 2012a. Final Record of Decision, Installation Restoration Program Site PRFTA-02, U.S. Army Garrison Camp Parks, California. July.

- URS. 2012c. Final Remedial Design/Removal Action Work Plan Installation Restoration Program Site PRFTA-02, U.S. Army Garrison Camp Parks, California. July.

- URS. 2014. Final Annual Groundwater Monitoring Report Installation Restoration Program Site PRFTA 02, Parks Reserve Forces Training Area, Dublin, California, May

- URS. 2014. Final Removal Action Completion Report Installation Restoration Program Site PRFTA-02 Site, Parks Reserve Forces Training Area, Dublin, California. May.

- USACE. 2013. Draft Final Land Use Controls Implementation Plan, Building 109 Incinerator (PRFTA-02), Parks Reserve Forces Training Area, Dublin, California. June.

- USACE. 2015. Final Land Use Controls Implementation Plan, Building 109 Incinerator (PRFTA-02), Parks Reserve Forces Training Area, Dublin, California. April.

- United States Army Corps of Engineers (USACE). 2012. Final Integrated Natural Resources Management Plan/Environmental Assessment, Parks Reserve Forces Training Area, California. March.

- United States Army Public Health Command (USAPHC). 2010. Final Remedial Investigation/Feasibility Study No. 38-EH-077T-07 Former Building 109 Incinerator U.S. Army Combat Support Training Center, Camp Parks, Dublin, California. May

4 Description of Significant Differences

The significant differences between the ROD and this ESD are as follows:

- The ROD only proposed cleanup to industrial levels while this ESD proposes cleanup to residential levels. Additional soil will be excavated and disposed of offsite.

4.1 Significant Differences

4.1.1 Cleanup Levels

The California Human Health Screening Level for residential land use for lead of 80 mg/kg and the dioxin residential remedial goal that was developed for the Site of 4.8 pg/g will be adopted as the remedial goals for the Site as shown in Table 4-1.

TABLE 4-1: CLEANUP LEVELS

Analyte	Cleanup Goal	Basis
Lead	80 mg/kg	Residential CHHSL
Dioxin	4.8 pg/g	Residential RSL

Utilizing the Army's sampling reports and RACR, a screening risk evaluation was conducted to evaluate the use of the Site for unrestricted residential applications. Results of the evaluation indicated that to reduce the overall existing residual contaminant levels such that the 95 percent UCL of dioxin and lead are below the residential remedial goals, impacted soil at samples CP-SS-D-SA09, CP- SS-D-SA21, CP-SS-D-SA38, 109-TB-21 and 109-TP-B2 (depicted on Figure 2) need to be removed.

4.1.2 Cleanup to Residential Levels

Supplementary soil remedial activities will include the removal of the dioxin- and lead-impacted soil identified in the screening risk evaluation at samples CP-SS-D-SA09, CP-SS-D-SA21, CP-SS-D-SA38, 109-TB-21 and 109-TP-B2 to reduce the overall existing residual contaminant levels such that the 95 percent UCL of dioxin and lead are below the residential remedial goals. Table 4-2 provides a summary of the expected outcomes of the remedial action selected in the ROD and revised in this ESD.

TABLE 4-2: CHANGES IN EXPECTED OUTCOME

Features	ROD	ESD
Available uses of land	Industrial	Residential
Estimated time for design and construction	> 3 years	1 year
Estimated volume of soil removed/excavated (cubic yards)	13,256	less than 1,000

5 Support Agency

DTSC is the regulatory oversight agency representing the State. RWQCB has concurred with closure of all monitoring wells and has deferred to DTSC for oversight of this Site. The Army Environmental Command, Army Reserve and DTSC jointly evaluated this ESD for Site PRFTA 02.

6 Statutory Determinations

The additional remedial action provided for in this ESD continues to satisfy CERCLA Section 121. Under CERCLA Section 121 (as required by NCP Section 300.430(f)(5)(ii)), the lead agency must select a remedy that is protective of human health and the environment, complies with ARARs, is cost-effective, and uses permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. CERCLA also includes (1) a preference for remedies that employ treatment that permanently and significantly reduces the volume, toxicity, or mobility of hazardous wastes as a principal element, and (2) a bias against offsite disposal of untreated wastes. The selected remedy, as modified by this ESD, remains protective of human health and the environment, complies with federal and state ARARs, is cost effective, and uses permanent solutions and alternative treatment technologies to the maximum extent practicable. Although treatment is the preferred principal element, effective treatment technologies for metals in soils are limited, and excavation and offsite disposal was considered a more efficient and technologically effective remedy.

7 Public Participation Compliance

A formal public comment period is not required for an ESD. A notice of availability and a brief description of the ESD will be published in a major newspaper of general circulation (as required by Code of Federal Regulation 40, Section 300.435(c)(2)(i)(B)). Any significant, but non fundamental, changes to the selected remedy must be publicly noticed under Section 117 of the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendment and Reauthorization Act of 1986 (SARA), and pursuant to CFR 40, Section 300.435(c)(2)(i).

The public participation requirements for an ESD set out in NCP Section 300.435(c)(2)(ii) will be met as follows:

- Placement of this ESD and supporting information in the Administrative Record file and the Information Repository.
- Publication of a notice of availability of the ESD, after signature, in the *Valley Times*, a local newspaper of general circulation in Dublin, California.

The ESD and supporting information for Site PRFTA 02 will become a part of the Administrative Record file for PRFTA 02 and Information Repository and will be made available to the public at the following location:

Alameda County Public Library, Dublin Branch
200 Civic Plaza
Dublin, CA 94568

Additionally, this ESD will also be posted on the PRFTA website:
http://www.parks.army.mil/publicworks/env.asp

8 Works Cited

- DTSC, Human and Ecological Risk Office (HERO). 2016. Human Health Risk Assessment (HHRA) Note Number 2. http://www.dtsc.ca.gov/AssessingRisk/upload/HHRA_Note2_dioxin-2.pdf
  Note Number 3. https://www.dtsc.ca.gov/AssessingRisk/upload/HHRA_Note_3_-2016-06.pdf
  Note Number 4. https://www.dtsc.ca.gov/AssessingRisk/upload/HERO_HHRA_Note_Number-4-2016-07-01.pdf

- URS Group, Inc. (URS). 2010a. Final Backfill Soil Letter Sampling Plan, PRFTA-02 (Former Building 109) Removal Action, Camp Parks, California. 1 July.

- URS. 2010b. Final Backfill Soil Sampling Results for PRFTA-02, U.S. Army Garrison Camp Parks, Dublin, California. 22 September.

- URS. 2010c. Proposed Plan for Installation Restoration Program site PRFTA-02, U.S. Army Garrison Camp Parks, Dublin, California. November.

- URS. 2010d. Public Participation Plan Addendum: Installation Restoration Program Soil Removal Action and Military Munitions Response Program Remedial Investigation, United States Army Garrison Camp Parks, California. November.

- URS. 2011. Final Evaluation of Remedial Goals Technical Memorandum, Installation Restoration Program site PRFTA-02, U.S. Army Garrison Camp Parks, California. April

- URS. 2012a. Final Record of Decision, Installation Restoration Program Site PRFTA-02, U.S. Army Garrison Camp Parks, California. July.

- URS. 2012c. Final Remedial Design/Removal Action Work Plan Installation Restoration Program Site PRFTA-02, U.S. Army Garrison Camp Parks, California. July.

- URS. 2014. Final Annual Groundwater Monitoring Report Installation Restoration Program Site PRFTA 02, Parks Reserve Forces Training Area, Dublin, California, May

- URS. 2014. Final Removal Action Completion Report Installation Restoration Program Site PRFTA-02 Site, Parks Reserve Forces Training Area, Dublin, California. May.

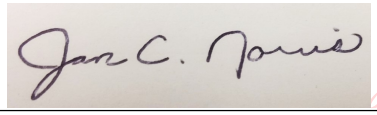
- USACE. 2015. Final Land Use Controls Implementation Plan, Building 109 Incinerator (PRFTA-02), Parks Reserve Forces Training Area, Dublin, California. April.

- United States Army Corps of Engineers (USACE). 2012. Final Integrated Natural Resources Management Plan/Environmental Assessment, Parks Reserve Forces Training Area, California. March.

- United States Army Public Health Command (USAPHC). 2010. Final Remedial Investigation/Feasibility Study No. 38-EH-077T-07 Former Building 109 Incinerator U.S. Army Combat Support Training Center, Camp Parks, Dublin, California. May.

9 Authorizing Signatures

This signature sheet documents the United States Army and California Department of Toxic Substances Control approval of the final remedy for soil at PRFTA 02 selected in the Record of Decision for PRFTA 02, Parks Reserve Forces Training Area, Alameda County, California (U.S. Army, 2012) and modified by this Explanation of Significant Differences.



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JAN C. NORRIS
COL, SC
Commanding

Date

Charlie Ridenour

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Date: 2016.11.10 09:16:10 -08'00'

11/10/2016

CHARLIE RIDENOUR, P.E.
Branch Chief
Cleanup Program – Sacramento Office
California Department of Toxic Substances Control

Date

ENCLOSURE 1

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Chemical-Specific ARARs				
Federal ARARs				
Clean Water Act	§304	Relevant and appropriate	Sets criteria for water quality based on toxicity to aquatic organisms and human health.	No risk identified relative to groundwater. Soil removal should not negatively impact groundwater.
Clean Water Act	40 CFR 230.3, Section 404, Definition of Wetlands	Relevant and appropriate	Authorizes the US Army Corps of Engineers to delineate wetlands.	Applicable to soil remedial action in the vicinity of wetlands.
Clean Water Act	40 CFR, 230.10(a) and 230.10(c)	Relevant and appropriate	Restrictions for discharge: If there is a practicable alternative that would have a lesser impact on the wetlands, fill materials should not be discharged at the wetland. Any discharge that occurs should not cause a violation of state water quality objectives or a significant degradation of water quality.	Applies to soil remedial actions in the vicinity of wetlands.
Clean Water Act	USACE, Public Notice 92-7: Interim Testing Procedures for Evaluating Dredged Material Disposed of in San Francisco Bay	Relevant and appropriate	Reassures that all wetland creation, uplands, disposal, or dredging projects complete certain notifications and listings.	Applies to soil remedial action in the vicinity of wetlands.
Clean Water Act	Section 401, 33 USC 1341	Relevant and appropriate	State Water Quality Certification: Wetland destruction and alteration would require a 404 permit and this certification assures that the proposed activity will comply with state water quality standards.	Applies to soil remedial actions in the vicinity of wetlands.

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Chemical-Specific ARARs				
Federal ARARs (continued)				
Clean Water Act	40 CFR 122 – EPA Administered Permit Programs: The Nation al Pollution Discharge Elimination System, 40 CFR 122.26; 40 CFR 122.41 (d); 40 CFR 122.41 (e); 40 CFR 122.44 (d)	Relevant and appropriate	Requirements to ensure storm water discharges from remedial action activities do not contribute to a violation of surface water quality standards. All reasonable steps must be taken to minimize or prevent discharges which have a reasonable likelihood of causing adverse impacts on surface water quality (40 CFR 122.41(d)). Discharges into surface water must achieve federal and state water quality standards (40 CFR 122.44 (d)).	Applies to soil remedial actions.
Chemical-Specific ARARs				
State ARARs				
Porter Cologne Water Quality Act, Water Quality Control Plan	22 CCR, Div. 6, Ch. 4, Article 3, §13240 *et seq*.	Relevant and appropriate	The Porter Cologne Water Quality Act established authority of the State Water Resources Control Board (SWRCB) and the Regional Water Resources Control Board (RWQCB) to regulate discharges into Waters of the State. The Basin Plan establishes discharge limits and procedures to protect water quality. The objective of this plan is to protect the quality of the surface and groundwater	No risk identified relative to groundwater. Soil removal should not negatively impact groundwater. Best Management Practices will be implemented during fieldwork to protect Chabot Canal.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13240, 13241, 13242, 13242) RWQCB-SFB Basin Plan	Chapter 2 – Beneficial Uses	Relevant and appropriate	Chapter 2 describes beneficial uses of surface and ground waters.	Applies to defining beneficial uses of surface water where treated effluent may be discharged or at locations where impacted ground water may be impacting surface water.

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Chemical-Specific ARARs				
State ARARs (continued)				
	Chapter 3 – Water Quality Objectives	Relevant and appropriate	Chapter 3 establishes water quality objectives, including narrative and numerical standards that protect the beneficial uses and water quality objectives of surface and ground waters in the region.	Applies where effluent is discharged to surface water or where groundwater discharges to surface water. Any activity, including, but not limited to the discharge of contaminated soils or water or in-situ treatment or containment of contaminated soils or waters, must not result in actual water quality exceeding water quality objectives.
	Chapter 4 – Implementation Plan	Relevant and appropriate	Chapter 4 describes implementation plans and other control measures designed to ensure compliance with statewide plans and policies and provide comprehensive water quality planning.	States that groundwater cleanup levels are established based upon the most sensitive beneficial use identified and that groundwater cleanup levels will be to background unless groundwater cleanup levels can be established based upon acceptable health risks. Requires groundwater monitoring to verify that groundwater is not polluted by chemicals remaining in soil.
California Water Code.	13307.1 (c)	Relevant and appropriate	If the SWRCB or RWQCB finds that the property is not suitable of unrestricted use and that a land use restriction is necessary for the protection of public health, safety, or the environment, then the SWRCB and the RWQCB may not issue a closure letter, or make a determination that no future action is required with respect to a site that is subject to a cleanup or abatement order pursuant to Section 13304 and that is not an underground storage tank site, unless a land use restriction is recorded or required to be recorded pursuant to Section 1471 of the Civil Code.	Applies to soil remedial actions.

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Chemical-Specific ARARs				
State ARARs (continued)				
	13243	Relevant and appropriate	The RWQCB may specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted.	Applies to soil remedial actions.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13000, 13140, 13240, 13260, 13263, 13267, 13300, 13304, 13307)	SWRCB Resolution 92-49 ("Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code 13304")	Relevant and appropriate	Establishes requirements for investigation and cleanup and abatement of discharges. Among other requirements, dischargers must cleanup and abate the effects of discharges in a manner that promotes the attainment of either background water quality, or the best quality that is reasonable if background water quality cannot be restored. Requires the application of Title 23, CCR, Section 2550.4 requirements to cleanups.	Applies to all cleanups of wastes to soil that threatens or may affect the quality of ground or surface water.
Technical Document prepared by RWQCB-SFB Staff	"Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater," Interim Final (current version)	Relevant and appropriate	Provides guidance on selecting numerical values to implement narrative water quality objectives contain in the Basin Plan.	Performance standard is to be considered in selecting numerical values to implement the Basin Plan for setting cleanup levels and discharge limits. The numerical values contained in the staff report may be ARAR's or Performance Standards, depending on the source of the values.
Staff Report of the RWQCB-CV	The Designated Level Methodology for Waste Classification and Cleanup Level Determination	Relevant and appropriate	Provides guidance on how to classify wastes according to Title 27, CCR, Division 2, Subdiv.1/ Title 23, CCR, Division 3, Chapter 15, Article 10	Performance standard tis o be considered in determining the classification of wastes and contaminated soils.

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Chemical-Specific ARARs				
State ARARs (continued)				
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13304)	Title 27, CCR, Division 2, Subdivision 1 (Section 20080 et seq.), Title 23, CCR, Division 3, Chapter 15, (Section 2510 et seq.)	Relevant and appropriate	Establishes waste and siting classification systems and minimum waste management standards for discharges of waste to land for treatment, storage, and disposal. Engineered alternatives that are consistent with Title 27/ Title 23 performance goals may be considered. Establishes corrective action requirements for responding to leaks and other unauthorized discharges.	Applies to all discharges of waste to land for treatment, storage, or disposal that may affect water quality. The application of some of the specific sections of Title 27/Title 23 to different situations is discussed below. Provisions of Title 23 apply to hazardous waste and provisions of Title 27 apply to designated and non-hazardous waste.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13269).	Title 23, CCR, Section, 2520, 2521	Relevant and appropriate	Requires that hazardous waste be discharged to Class I waste management units that meet certain design and monitoring standards.	Applies to discharges of hazardous waste to land for treatment, storage, or disposal.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13269).	Title 27, CCR, Section, 20200(c), 20210	Relevant and appropriate	Requires that designated waste be discharged to Class I or Class II waste management units.	Applies to discharges of designated waste (nonhazardous waste that could cause degradation of surface or ground waters) to land for treatment, storage, or disposal.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13269).	Title 27, CCR, Section 20230	Relevant and appropriate	Requires that inert waste does not need to be discharged at classified units.	Applies to discharges of inert waste to land for treatment, storage, or disposal.

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Chemical-Specific ARARs				
State ARARs (continued)				
Porter-Cologne Water Quality Control Act (California Water Code Sections 13260, 13263, 13370.5, 13372, 13373, 13374, 13375, 13376, 13377, 13383).	40 CFR Parts 122, 123, 124, NPDES, implemented by California Storm Water Permit for Industrial Activities, SWRCB Order #97-03-DWQ.	Relevant and appropriate	Regulates pollutants in discharge of storm water associated with hazardous waste treatment, storage, and disposal facilities, wastewater treatment plants, landfills, land application sites, and open dumps. Requirements to ensure storm water discharges do not contribute to a violation of surface water quality standards.	Applies to storm water discharges from industrial areas. Includes measures to minimize and/or eliminate pollutants in storm water discharges and monitoring to demonstrate compliance.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13260, 13263, 13370.5, 13372, 13373, 13374, 13375, 13376, 13377, 13383).	40 CFR Parts 122, 123, 124, NPDES, implemented by SWRCB Order No. 99-08 DWQ (Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity).	Relevant and appropriate	Requires control of storm water runoff discharges at construction sites that are greater than one acre in size. Regulates pollutants in discharge of storm water associated with construction activity (clearing, grading, or excavation) involving the disturbance of one acre or more. Requirements to ensure storm water discharges do not contribute to a violation of surface water quality standards.	Applies to construction areas over one acre in size. Includes measures to minimize and/or eliminate pollutants in storm water discharges and monitoring to demonstrate compliance.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13304).	Title 27, CCR, Section 20080(g), Title 23, CCR, Section 2510(g)	Relevant and appropriate	Requires monitoring. If water quality is threatened, corrective action consistent with Title 27, Title 23 is required.	Applies to areas of land where discharges had ceased as of November 27, 1984 (the effective date of the revised Title 27/ Title 23 regulations).

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Chemical-Specific ARARs				
State ARARs (continued)				
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13304).	Title 27, CCR, Section 20090(d) Title 23 CCR, Section 2511(d)	Relevant and appropriate	Actions taken by public agencies to cleanup unauthorized releases are exempt from Title 27/ Title 23 except that wastes removed from immediate place of release and discharged to land must be managed in accordance with classification (Title 27 CCR, Section 20200/ Title 23 CCR, Sections 2520) and siting requirements of Title 27 or Title 23 and wastes contained or left in place must comply with Title 27 or Title 23 to the extent feasible.	Applies to remediation and monitoring of sites.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13304).	Title 27, CCR, Section 20080 (d) Title 23, CCR, Section 2510(d)	Relevant and appropriate	Requires closure of existing waste management units according to Title 27/Title 23.	Applies to "existing" waste management units (i.e., areas where waste was discharged to land on or before 27 November 1984, but that were not closed, abandoned, or inactive prior to that date).
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 1323, 13269).	Title 27, CCR, Section 21400, Title 23, CCR, Section 2582.	Relevant and appropriate	Requires surface impoundments to be closed by removing and treating all free liquid and either removing all remaining contamination or closing the surface impoundment as a landfill.	If water quality is threatened, this section is relevant and appropriate for natural topographic depressions, excavations, and diked areas where wastes containing free liquids were discharged.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Sections 20385-20435 Title 23, CCR, Section 2550.	Relevant and appropriate	Applicable where groundwater monitoring is required under 2510 or 2511 of Ch 15 (and equivalent for Title 27), applies to authorized waste management units as well as unauthorized discharges of waste to land and to closed abandoned or inactive units.	Applies to all areas in which waste has been discharged to land to determine the threat to water quality.

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Chemical-Specific ARARs				
State ARARs (continued)				
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20390, Title 23, CCR, Section 2550.2	Relevant and appropriate	Requires establishment of a water quality protection standard consisting of a list of constituents of concern, concentration limits, compliance monitoring points and all monitoring points. This section further specifies the time period that the standard shall apply.	Applies to all areas in which waste has been discharged to land where groundwater is threatened.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20395, Title 23, CCR, Section 2550.3	Relevant and appropriate	Requires development of a list of constituents of concern, which include all waste constituents that are reasonably expected to be present in the soil from discharges to land, and could adversely affect water quality.	Applies to all areas in which waste has been discharged to land where groundwater is threatened.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20400, Title 23, CCR, Section 2550.4	Relevant and appropriate	Concentration limits must be established for groundwater, surface water, and the unsaturated zone. Must be based on background, equal to background, or for corrective actions, may be greater than background, not to exceed the lower of the applicable water quality objective or the concentration technologically or economically achievable. Specific factors must be considered in setting cleanup standards above background levels.	If water quality is threatened, this section applies in setting soil cleanup levels for all cleanups of discharges of waste to land.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20405, Title 23, CCR, Section 2550.5	Relevant and appropriate	Requires identification of the point of compliance, hydraulically down gradient from the area where waste was discharged to land.	Applies to all areas in which waste has been discharged to land where groundwater is threatened.

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Chemical-Specific ARARs				
State ARARs (continued)				
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20410 Title 23, CCR, Section 2550.6	Relevant and appropriate	Requires monitoring for compliance with remedial action objectives for three years from the date of achieving cleanup levels.	Applies to all soil cleanup activities.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20415 Title 23, CCR, Section 2550.7.	Relevant and appropriate	Requires general soil, surface water, and ground water monitoring.	Applies to all areas in which waste has been discharged to land.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20420, Title 23, CCR, Section 2550.8.	Relevant and appropriate	Requires detection monitoring to determine if a release has occurred.	Applies to all areas where waste has been discharged to land and groundwater is threatened.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20425 Title 23, CCR, Section 2550.9	Relevant and appropriate	Requires an assessment of the nature and extent of the release, including a determination of the spatial distribution and concentration of each constituent.	Applies to sites at which monitoring results show statistically significant evidence of a release.

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Chemical-Specific ARARs				
State ARARs (continued)				
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20430 Title 23, CCR, Section 2550.10	Relevant and appropriate	Requires implementation of corrective action measures that ensure that cleanup levels (i.e., water quality protection standard established under Section 2550.2) are achieved throughout the zone affected by the release by removing the waste constituents or treating them in place. Source control may be required. Also requires monitoring to determine the effectiveness of the corrective actions.	If water quality is threatened, this section applies to all soil cleanup activities.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 20950; 22207 (a); 22212 (a), and 22222. Title 23, CCR, Section 2550.0 (b); 2580; 2580(f).	Relevant and appropriate	General closure requirements, including continued maintenance of waste containment, drainage controls, and groundwater monitoring throughout the closure and post-closure maintenance periods.	Applies to partial or final closure of waste management units.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13140-13147, 13172, 13260, 13263, 13267, 13269).	Title 27, CCR, Section 21090	Relevant and appropriate	Requires a final cover for landfills constructed in accordance with specific prescriptive standards, to be maintained as long as wastes pose a threat to water quality.	If water quality is threatened, this section is relevant and appropriate for wastes contained or left in place at the end of remedial actions that could affect water quality. Includes closure of landfills and other areas where wastes have been discharged to land.
SWRCB	Resolution 92-49, Paragraph IIIGa (as amended)	Applicable	Establishes requirements for investigation and cleanup and abatement of discharges. Among other requirements, dischargers must cleanup and abate the effects of discharges in a manner that promotes the attainment of either background water quality, or the best water quality that is reasonable if background water quality cannot be restored. Requires the application of Title 23, CCR, Section 2550.4, requirements to cleanup.	No risk identified relative to groundwater. Soil removal should not negatively impact groundwater. Best Management Practices will be implemented during fieldwork to protect Chabot Canal.

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Location-Specific ARARs				
Federal ARARs				
Migratory Bird Treaty Act	16 USC Chapter 7 §701-715	Relevant and appropriate	Prohibits the taking of birds and mammals, including the taking by poison (including from uncontrolled release of contaminants.	The site is home to the burrowing owl, a protected species under this act. It is not applicable because the Federal government is exempt from liability; however, the act is relevant and appropriate because the burrowing owl is present at the site. The site will be observed for burrowing owl habitat.
Archaeological and Historic Preservation Act	16 USC Chapter 1A, Subchapter I §469-469a-2	Relevant and appropriate	Provides for the preservation of historical and archaeological data that would be lost due to alterations of the terrain.	No historical or archaeological data present.
Archaeological Resources Protection Act of 1979 as amended	16 USC Chapter 1A, Subchapter II §470 and 47 CFR Part 7	Relevant and appropriate	May not excavate, remove, damage, or otherwise alter or deface such resource unless by permit or exception; requires Phase II archaeological investigation prior to actions at discovered site.	Applicable if eligible resources identified within area to be disturbed. Resources have not been identified in area to be disturbed.
Executive Order on Flood Plain Management	Executive Order 11988	Applicable	Requires Federal agencies to evaluate the potential effects of actions they may take in a flood plain to avoid adverse impacts associated with direct and indirect development flood plain. Could require an environmental impact statement for activities that cannot be moved.	A portion of the site is located within a designated 100-year flood plain. Removal action activities should not affect the flood plain.

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Location-Specific ARARs				
State ARARs				
California Department of Fish and Game (CDFG) Code	CDFG Code Chapter 1.5 §20500	Relevant and appropriate	Establishes species, subspecies, and varieties of native California plants or animals as endangered, threatened, or rare. Prohibits the taking, importation, or sale of any species, or any part thereof, of an endangered species or a threatened species. Contains provisions concerning CDFG coordination and s consultation with state and Federal agencies and with project applicants. Recommends avoidance of adverse impacts on species of special concern and their habitat.	State protected species will be protected when practicable and the appropriate state authority will be consulted if conflicts arise.
CDFG Code	CDFG Code Chapter 1.5 §1600	Relevant and appropriate	Declares the protection and conservation of fish and wildlife to be an important public interest. This section is a general statement of policy that does not impose a substantive requirement.	State protected species will be protected when practicable and the appropriate state authority will be consulted if conflicts arise.
CDFG Code	CDFG Code Chapter 1.5 §4700 and 5050	Relevant and appropriate	Prohibits the possession of mammals, reptiles, and fish that are identified as "fully protected."	State protected species will be protected when practicable and the appropriate state authority will be consulted if conflicts arise.
CDFG Code	CDFG Code Chapter 1.5 §1900 *et seq.* and §2800	Relevant and appropriate	Contain provisions concerning native plant protection including: criteria for determining endangered plant species; designation of endangered plants; and other prohibitions.	State protected species will be protected when practicable and the appropriate state authority will be consulted if conflicts arise.

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Action-Specific ARARs				
Federal ARARs				
Code of Federal Regulations	40 CFR §264.554 (d), (l)(i-ii) and (d)(2), (e), (f), (h), (i), (j), and (k)	Applicable	Allows generators to accumulate solid remediation waste in a USEPA-designated pile for storage only, up to 2 years, during remedial operations without triggering land disposal restrictions.	Substantive provisions are applicable if wastes are hazardous and stored in piles. Waste characterization will be conducted prior to disposal. Relevant and appropriate if wastes are not hazardous but similar to hazardous waste.
Code of Federal Regulations	40 CFR §262 and 263	Applicable	These regulations apply to generators and transporters of hazardous waste within the United States	Waste transportation will follow applicable regulations.
Clean Water Act of 1977 (CWA)	40 CFR §122.44(k) (2) and (4)	Applicable	Construction projects that disturb over an acre or more of soil must incorporate a storm-water plan and best management practice requirements.	Substantive provisions are applicable for the proposed construction. The remedial design will include a storm water plan with best management practices for storm-water pollution prevention.
Code of Federal Regulations	40 CFR, Part 258.61(a)(3) and (4) and 27 CCR, §20385 (a)(1), (a)(2), (a)(3), (c)	Relevant and appropriate	Requires gas and groundwater monitoring.	Monitoring programs will be established for groundwater.
Action-Specific ARARs				
State ARARs				
California Hazardous Waste Control Law	22 CCR Chapter 11 §66261.24	Applicable	Presents criteria for testing and identifying RCRA hazardous wastes, sets levels for total threshold limit concentration (TTLC) and soluble threshold limit concentration (STLC).	The criteria and TTLC and STLC levels will be applied for the characterization of excavated soils or other wastes generated by the remedial action.
California Hazardous Waste Control Law	22 CCR §§66262.10 (a) and 66262.11	Applicable	Establishes standards for generators of hazardous wastes in California, including those for hazardous waste determination, manifesting, transportation record keeping, and reporting.	Substantive requirements will be applicable if excavated soils or treatment residuals exceed RCRA hazardous waste thresholds.
California Code of Regulations	22 CCR, Division .4.5, Chapter 13, §§ 66263.10-.18	Applicable	Establishes standards that apply to persons transporting hazardous waste in California.	These requirements will be followed for transporting hazardous waste off site.

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Action-Specific ARARs				
State ARARs (continued)				
California Hazardous Waste Control Law	22 CCR §§66264.13 (a) and (b)	Applicable	Requirements for analyzing waste to determine whether waste is hazardous.	Waste will be analyzed.
California Hazardous Waste Control Law	22 CCR §§66264.171 through 66264.173	Applicable	Containers of RCRA hazardous waste must be: • maintained in good condition, • compatible with hazardous waste to be stored, and • closed during storage except to add or remove waste	Will be followed, as applicable.
California Hazardous Waste Control Law	22 CCR §66264.174	Applicable	Inspect container storage areas weekly for deterioration.	Will be followed, as applicable.
California Hazardous Waste Control Law	22 CCR §§66264.175 (a) and (b)	Applicable	Place containers on a sloped, crack-free base, and protect from contact with accumulated liquid. Provide containment system with a capacity of 10 percent of the volume of containers of free liquids. Remove spilled or leaked waste in a timely manner to prevent overflow of the containment system.	Will be followed, as applicable.
California Hazardous Waste Control Law	22 CCR §66264.178	Applicable	At closure, remove all hazardous waste and residues from the containment system, and decontaminate or remove all containers and liners.	Will be followed, as applicable.
California Hazardous Waste Control Law	22 CCR §66264.601 (b), (c), and (d)	Applicable	Design and operating standards for unit in which hazardous waste is stored or treated.	Will be followed, as applicable.
California Hazardous Waste Control Law	22 CCR §66264.601 (b), (c), and (d)	Applicable	Alternative requirements that are protective of human health or the environment may replace design, operating, or closure standards for temporary tanks and container storage areas.	Will be followed, as applicable.

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Action-Specific ARARs				
State ARARs (continued)				
California Hazardous Waste Control Law	22 CCR §66264.111	Applicable	Minimize the need for further maintenance controls and minimize or eliminate, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated rainfall or runoff, or waste decomposition products to groundwater, surface water, or the atmosphere.	Will be followed, as applicable.
California Code of Regulations	22 CCR §66264.25(b)	Relevant and appropriate	Requires cover and cover systems and all containment and control features remaining after closure to withstand the maximum credible earthquake without decreasing environmental and public health protection.	Not applicable.
California Hazardous Waste Control Law	22 CCR §66264.250 through 66264.259	Applicable	Regulates the storage and treatment of hazardous waste in piles.	Will be followed, as applicable.
Corrective Management Rule	22 CCR §§66268.124, 66264.91, 66262.100, 66264.708; 66270.30; and 66272.1	Relevant and appropriate	Identifies hazardous wastes that are restricted from land disposal.	Applicable if excavated soil or treatment residuals exceed limits before treatment. TTLC/STLC will be used to determine if they exceed disposal limits, if necessary.
California Code of Regulations	22 CCR §67391.1(a), (b), and (d)	Relevant and appropriate	States that if a remedy results at levels not suitable for unrestricted use, then the Remedial Action Plan/ Record of Decision is to clearly define and include limitations on land use and hazardous substances remaining on the property.	Applicable if post-closure land-use restrictions are required.
California Code of Regulations	23 CCR §§2250.7 through 2250.10	Applicable	Requires remedial action monitoring.	Groundwater monitoring will be performed.
California Code of Regulations	27 CCR, §20200(c) and 20210	Relevant and appropriate	Requires generators to properly characterize waste and dispose of designated waste at Class I or II units.	If drums or containers are discovered during excavation, or if waste is produced (for example, drill cuttings, used oil) the contents will be analyzed in accordance with these requirements to select the appropriate off-site disposal requirements

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Action-Specific ARARs				
State ARARs, continued				
California Integrated Waste Management Act of 1989 (CIWMA)	27 CCR §20385 (a)(1), (a)(2), (a)(3), (c); §20420; §20425 (b), (c), (d)(1), (d)(2), (e), (f), (g), (h), (i)	Relevant and appropriate	Establishes groundwater monitoring program requirements for waste management units.	Groundwater will be monitored.
CIWMA	27 CCR §20405 and §20415 (b)(1)(A-C), (e)	Relevant and appropriate	Provides general water-quality monitoring and system requirements for the post-remedial action groundwater monitoring program.	Groundwater will be monitored.
CIWMA	27 CCR §20390 (a); §20395 (a); §20400 (a), (d), (g)	Relevant and appropriate	Discusses requirements for the development of a water quality protection standard and establishment of the constituents of concern and concentration limits.	Not applicable to remedy.
CIWMA	27 CCR §§20510 through 21600	Applicable	Requirements for waste management units and landfills.	Not applicable to remedy.
CIWMA	27 CCR §20800	Relevant and appropriate	Requires the operator to take adequate measures to minimize the creation of dust during landfill capping.	Not applicable to remedy.
CIWMA	27 CCR §21140	Relevant and appropriate	Requires final cover to protect human health and safety by controlling landfill gas migration and other factors. Requires final cover to be compatible with post-closure land use. Cover must meet requirements of 27 CCR §21090 (addressed below); alternative cover must comply with 40 CFR §258.6(b).	Not applicable to remedy
CIWMA	27 CCR §21190	Relevant and appropriate	Requires post-closure land use to protect the cover and gas monitoring systems and prevent public contact with the wastes, gas, and leachate. Addresses design of post-closure land uses, including onsite construction, and requires all such construction to maintain integrity of cover and control system. Establishes additional construction requirements.	Not applicable to remedy.

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Action-Specific ARARs				
State ARARs, continued				
Porter-Cologne Water Quality Control Act	Cal. Water Code §§13000, 13140, 13240; State Water Resources Control Board Resolution No. 88-63, "Sources of Drinking Water Policy"	Applicable	Establishes that virtually all groundwater and surface waters are considered suitable, or potentially suitable, for municipal or domestic water supply.	Groundwater will be monitored.
Porter-Cologne Water Quality Control Act	Cal. Water Code Chapter 4, Article 4 and SWRCB Order Number 97-03-DWQ	Applicable	Requires notification and transmittal of technical reports to the RWQCB of proposed discharges to the waters of the State. Requires cleanup and abatement of actual or threatened pollution or new source conditions and establishes waste discharge requirements, among other requirements.	Groundwater will be monitored.
Porter-Cologne Water Quality Control Act (California Water Code Sections 13000, 13140, 13240)	SWRCB 88-63 ("Sources of Drinking Water Policy") (as contained in the RWQCB- SFB Basin Plan	Applicable	Specifies that, with certain exemptions, all ground and surface waters must have the beneficial use of municipal or domestic supply. SWRCB Resolution 88-63 applies to all sites that may be affected by discharges of waste to groundwater or surface water. The resolution specifies that, with certain exemptions, all groundwater and surface waters have beneficial uses of municipal or domestic supply. These exceptions include, among others, if: (1) the total dissolved solids concentration exceeds 3,000 milligrams per liter, or (2) the water source does not provide sufficient water to supply a single well capable of producing an average sustained yield of 200 gallons per day.	Applies in determining beneficial uses for waters that may be affected by discharges of waste. Applies to soil actions that will result in a discharge to groundwater or surface water.

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Action-Specific ARARs				
State ARARs, continued				
Porter-Cologne Water Quality Control Act (California Water Code Sections 13000, 13140, 13263, 13304)	SWRCB Resolution No. 68-16 Statement of Policy with Respect to Maintaining High ("Anti-Quality Waters in California Degradation Policy")	Applicable	Establishes policy that whenever the existing water quality is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated that any change will be consistent with the maximum benefit to the people of the state, will not unreasonably affect present and anticipated beneficial use of such water, and will not result in water quality less than prescribed in the policies. Discharges or proposed discharges to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that a pollution or nuisance will not occur and the highest water quality consistent with the maximum benefit to the people of the state will be maintained.	Applies to sites where discharges of contaminants to the soil or soil action have potential to cause active discharges to surface waters and groundwater. In-situ cleanup levels for contaminated soils must be set so that groundwater will not be degraded, unless degradation is consistent with the maximum benefit of the people of the state. If degradation is allowed, the discharge must meet best practical treatment or control standards, and result in the highest water quality possible consistent with the maximum benefit to the people of the state. In no case may water quality objectives be exceeded.
San Francisco Bay Regional Water Quality Control Board Water Quality Control Plan	Chapter 2	Applicable	Presents beneficial uses of groundwater and surface water.	Groundwater will be monitored.

Table 2-7
Description of ARARs and TBCs

Source	Citation	Status	Description	Selected Remedy Attainment/Comment
Action-Specific ARARs				
State ARARs, continued				
California Civil Code	Civil Code §1471 (a) (b) and	Relevant and appropriate	Allows the state (as non-owners) to enter into restrictive land use covenants with land owners and their successors after determining that protection of present or future human health or safety or the environment is necessary. Specifies requirements for land use covenants to apply to successors in title to the land.	Land use covenants will be evaluated.

Notes:
ARAR = Applicable or Relevant and Appropriate Requirement
Basin Plan = Water Quality Control Plan for the San Francisco Bay Basin
CCR = California Code of Regulations
CFR = Code of Federal Regulations
NPDES = National Pollutant Discharge Elimination System
RWQCB = Regional Water Quality Control Board (any region)
RWQCB-CV = Regional Water Quality Control Board, Central Valley Region
RWQCB-SFB = Regional Water Quality Control Board, San Francisco Bay Region
SWRCB = State Water Resources Control Board
TBC = To Be Considered
USACE = U.S. Army Corps of Engineers
USC = United States Code