



**Final**

## **Record of Decision for Parcel UC-3**

**Hunters Point Naval Shipyard  
San Francisco, California**

**January 2014**

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## Record of Decision for Parcel UC-3

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January 2014

Prepared for:



Department of the Navy  
Base Realignment and Closure  
Program Management Office West  
San Diego, California



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# Acronyms and Abbreviations

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µg/L	microgram per liter
§	Section
ACM	asbestos-containing material
ARARs	applicable or relevant and appropriate requirements
ARIC	area requiring institutional controls
AST	aboveground storage tank
BERA	baseline ecological risk assessment
bgs	below ground surface
BRAC	Base Realignment and Closure
CCSF	City and County of San Francisco
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR	Code of Federal Regulations
COC	chemical of concern
COPC	chemical of potential concern
CSM	conceptual site model
DTSC	Department of Toxic Substances Control
ERA	ecological risk assessment
FFA	Federal Facility Agreement
FS	feasibility study
FUDS	Formerly Utilized Defense Sites
GDGI	groundwater data gaps investigation
GWTS	groundwater treatability study
HHRA	human health risk assessment
HI	hazard index
HPAL	Hunters Point ambient level
HPNS	Hunters Point Naval Shipyard
HRA	Historical Radiological Assessment
HRC	hydrogen release compound
IAS	Initial Assessment Study
IC	institutional control
IR	Installation Restoration
ISB	in situ bioremediation

LUC RD	land use control remedial design
MCL	maximum contaminant level
mg/kg	milligram per kilogram
mg/L	milligram per liter
MNA	monitored natural attenuation
MOA	memorandum of agreement
msl	mean sea level
Navy	United States Department of the Navy
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
NRDL	Naval Radiological Defense Laboratory
PCB	polychlorinated biphenyl
PRG	preliminary remediation goal
RAO	remedial action objective
RACR	remedial action completion report
RD	remedial design
RG	remediation goal
RI	remedial investigation
RME	reasonable maximum exposure
RMP	risk management plan
ROD	record of decision
RWQCB	San Francisco Bay Regional Water Quality Control Board
SA	site assessment
SARA	Superfund Amendments and Reauthorization Act
SSF	site-specific factor
SVOC	semivolatile organic compound
SWAQAT	solid waste air quality assessment test
TCE	trichloroethene
TCRA	time-critical removal action
TPH	total petroleum hydrocarbons
Triple A	Triple A Machine Shop, Inc.
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VOC	volatile organic compound
yd <sup>3</sup>	cubic yard
ZVI	zero valent iron

# 1.0 Declaration

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This Record of Decision (ROD) presents the selected remedy for Parcel UC-3 at Hunters Point Naval Shipyard (HPNS) San Francisco, California. HPNS was placed on the National Priorities List (NPL) in 1989 (United States Environmental Protection Agency [USEPA] Identification: CA 71170090087). The remedy was selected in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986 (Title 42 United States Code Section [§] 9601, et seq.); and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (Title 40 Code of Federal Regulations [CFR] Part 300). This decision is based on the Administrative Record file for this site<sup>1</sup>. The Administrative Record index is included in the electronic version of this ROD as Attachment A. The United States Department of the Navy (Navy) and USEPA jointly selected the remedy for Parcel UC-3. The California Department of Toxic Substances Control (DTSC) and the San Francisco Bay Regional Water Quality Control Board (RWQCB) concur on the remedy for Parcel UC-3. The Navy provides funding for site cleanup at HPNS. The Federal Facility Agreement (FFA) for HPNS documents how the Navy intends to meet and implement CERCLA in partnership with USEPA, DTSC, and RWQCB.

Parcel UC-3 was formerly part of Parcel E. Parcel E is one of the six parcels (Parcels A through F) originally designated for environmental restoration. In February 2013, Parcel UC-3 was designated as a separate parcel for remedy selection to facilitate a real property conveyance strategy and schedule of Parcel UC-3<sup>2</sup>. Environmental investigations began at Parcel E, including Parcel UC-3, in 1984. The Final Revised Parcel E Remedial Investigation (RI) Report was completed and submitted in 2008. The Final Parcel E Feasibility Study (FS) Report was completed and submitted in 2012. This ROD documents the final remedial action for Parcel UC-3 and does not include or affect any other sites at HPNS.

## 1.1 Selected Remedy

The CERCLA remedial action selected in this ROD is necessary to protect the public health, welfare, or the environment from actual or potential releases of hazardous substances from Parcel UC-3. This ROD identifies the selected remedy for Parcel UC-3 to address soil affected by semivolatile organic compounds (SVOCs), metals, radionuclides, and total petroleum hydrocarbons (TPH). This ROD also identifies the selected remedy for trichloroethene (TCE)-affected groundwater from Installation Restoration (IR) Site 56. The selected remedy consists of the following actions to address risks posed by contaminated media:

- Removal of contaminated soil from selected areas that contain high concentrations of SVOCs, metals, and TPH and dispose of contaminated soil offsite.

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<sup>1</sup> **Blue text** identifies detailed site information available in the Administrative Record and listed in the References Table (Attachment B).

<sup>2</sup> Discussions within this ROD that reference documents published prior to February 2013 refer to the portion of Parcel E that became Parcel UC-3.

- Excavation of radiologically impacted sewer and storm drain lines and disposal of material associated with the excavation.
  - The excavation of radiologically impacted sewer and storm drain lines was completed at Parcel UC-3 under a Time- Critical Removal Action (TCRA) in 2011. The removal action included all sewer and storm drain lines within Parcel UC-3 as well as potentially impacted soil. A Radiological Removal Action Completion Report (RACR) for Parcel UC-3 was submitted on March 16, 2012, and received concurrence for radiological unrestricted release from DTSC on October 31, 2012. All work required by the selected radiological remedy (Alternative R-2) has been completed, and no additional actions are required. Selection of Alternative R-2 is documented in this ROD.
- Install a durable cover consisting of asphalt and concrete surfaces corresponding to Redevelopment Block MU-3 on the eastern portion of Parcel UC-3 to break the exposure pathway for contaminants left in place.
- Sample, clean, and close steam lines (IR Site 45), as needed, within Parcel UC-3.
- Groundwater treatment by injection of biological nutrients to break down VOCs to nontoxic compounds.
- Soil gas monitoring at the IR Site 56 plume, where volatile organic compound (VOC) contamination is present in groundwater.
- Monitor and maintain the durable cover.
- Groundwater monitoring of the VOC plume.
- Use of institutional controls (ICs) to restrict specific land uses and activities within portions of Parcel UC-3.

## 1.2 Statutory Determinations

The selected remedy is protective of human health and the environment, complies with federal and state statutes and regulations that are applicable or relevant and appropriate to the remedy, and is cost effective. The selected remedy uses permanent solutions and alternative treatment technologies to the maximum extent practicable. It provides the best balance of tradeoffs relative to the five balancing criteria and properly considers the two modifying criteria<sup>3</sup>. The selected remedy does not satisfy the statutory preference for treatment<sup>4</sup> as a principal element because there is no cost-effective means of treating soil contamination located in separate areas of Parcel UC-3. Statutory five-year reviews pursuant to CERCLA § 121 and the NCP will be conducted because the remedy will leave contamination in place at Parcel UC-3 above concentrations that allow for unrestricted use.

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<sup>3</sup> As defined in the NCP (Title 40 CFR § 300.430[f][1][i]), the five primary balancing criteria are long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; implementability; and cost. State and community acceptance are modifying criteria that shall be considered in remedy selection.

<sup>4</sup> As defined in the NCP (Title 40 CFR § 300.5), "treatment technology" means any unit operation or series of unit operations that alters the composition of a hazardous substance or pollutant or contaminant through chemical, biological, or physical means so as to reduce toxicity, mobility, or volume of the contaminated materials being treated. Treatment technologies are an alternative to land disposal of hazardous wastes without treatment.

## 1.3 Data Certification Checklist

The following information is included in Section 2.0 of this ROD:

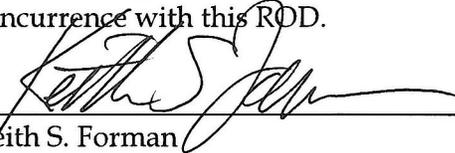
- Chemicals of concern (COCs) and their concentrations (Sections 2.3 and 2.5).
- Baseline risk represented by COCs (Section 2.5).
- Remediation goals (RGs) established for COCs and the basis for these goals (Sections 2.5 and 2.7).
- Principal threat wastes (Section 2.6).
- Current and reasonably anticipated future land use assumptions, and current and potential future beneficial uses of groundwater (Section 2.4).
- Potential land and groundwater use that will be available at Parcel UC-3 as a result of the selected remedy (Section 2.9).
- Estimated capital costs, annual operation and maintenance, and total present worth costs; discount rate; and the number of years over which the remedy cost estimate is projected (Section 2.8).
- Key factors that led to selecting the remedy (i.e., a description of how the selected remedy provides the best balance of tradeoffs with respect to the balancing and modifying criteria, highlighting criteria key to the decision) (Section 2.9).

Additional information can be found in the Administrative Record file for this site (Attachment A).

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## 1.4 Authorizing Signatures

This signature sheet documents the Navy's and USEPA's co-selection of the remedy in this ROD. This signature sheet also documents the State of California's (DTSC and RWQCB) concurrence with this ROD.

  
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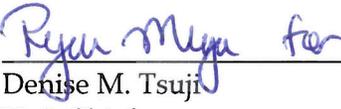
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United States Department of the Navy

01/09/2014  
Date

  
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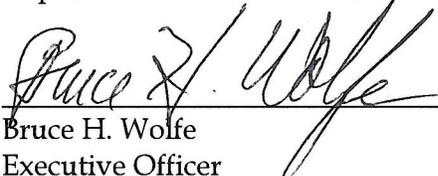
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San Francisco Bay Regional Water Quality Control Board

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## 2.0 Decision Summary

### 2.1 Site Description and History

HPNS is located in southeastern San Francisco on a peninsula that extends east into San Francisco Bay (Figure 1). HPNS consists of 866 acres: 420 acres on land and 446 acres under water in the San Francisco Bay. In 1940, the Navy obtained ownership of HPNS for shipbuilding, repair, and maintenance activities. After World War II, activities at HPNS shifted to submarine maintenance and repair. HPNS was also the site of the Naval Radiological Defense Laboratory (NRDL). A history of Navy radiological operations at HPNS is provided in the [Historical Radiological Assessment \(HRA\)](#).

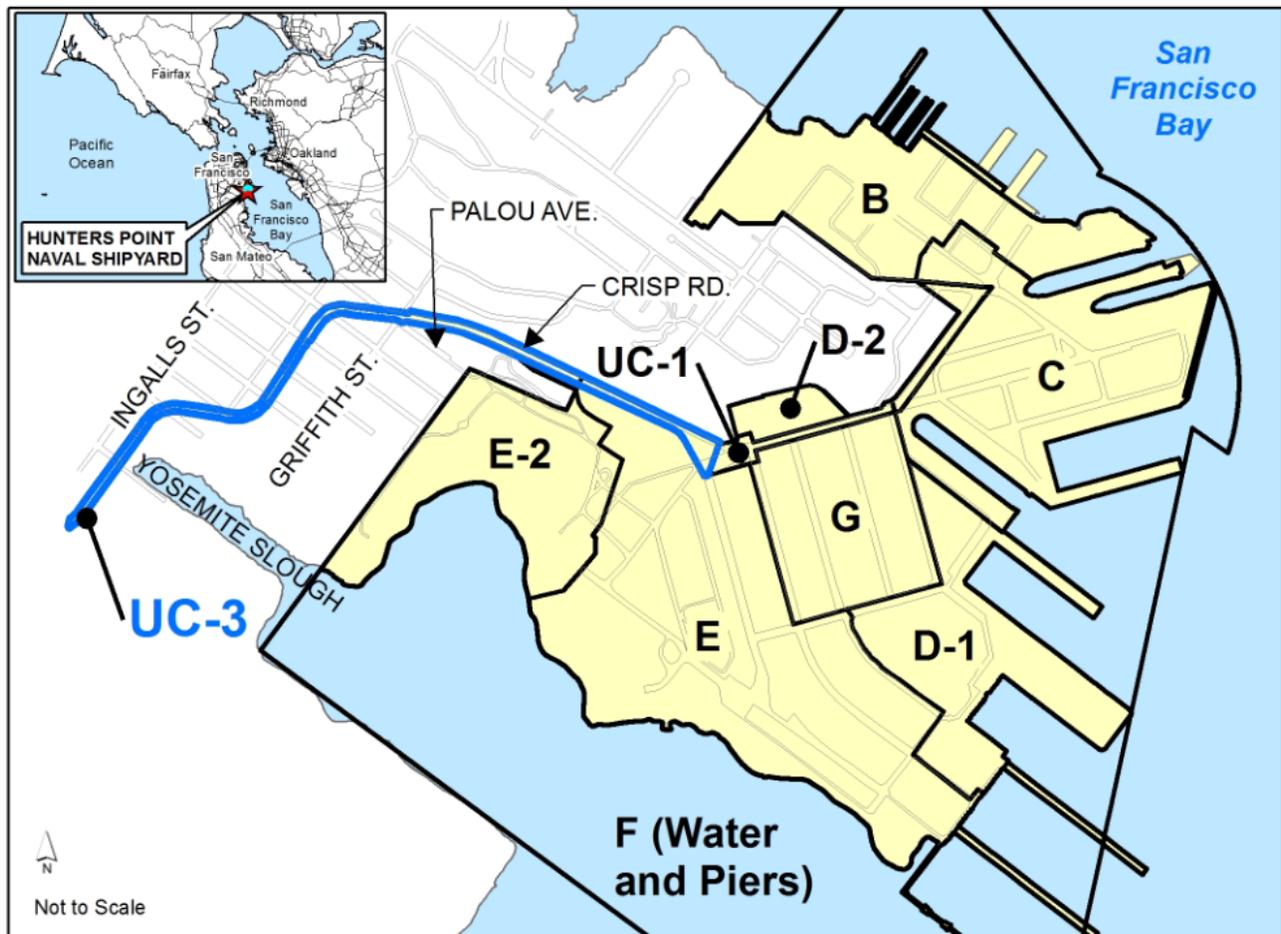


Figure 1. Facility and Parcel UC-3 Location Map

HPNS was deactivated in 1974 and remained relatively unused until 1976. Between 1976 and 1986, the Navy leased most of HPNS to Triple A Machine Shop, Inc. (Triple A), a private ship repair company. In 1987, the Navy resumed occupancy of HPNS. Because past shipyard operations left hazardous substances onsite, HPNS property was placed on the NPL in 1989 pursuant to CERCLA, as amended by the SARA. In 1991, HPNS was designated for closure pursuant to the Defense Base

Closure and Realignment Act of 1990. Closure activities at HPNS involve conducting environmental remediation and making the property available for nondefense use.

Originally, **Parcel UC-3** was within Parcel E. By separating the parcels, Parcel UC-3, a parcel consisting of 11 acres in the western portion of HPNS, was created. Parcel UC-3 is bounded to the north by non-Navy property, to the east by Parcel UC-1, to the south by Parcel E and non-Navy property, and to the west by non-Navy property. Parcel UC-3 includes Crisp Road and the railroad right-of-way (Figure 1). The Navy prepared RI and FS reports for Parcel E that were approved by the FFA Signatories. These documents were finalized in May 2008 and August 2012. The Navy subsequently decided, with FFA Signatory concurrence, to carve out Parcel UC-3 from Parcel E to support a real property conveyance strategy and schedule. The decision was made that the RODs for the amended Parcel E and the new Parcel UC-3 would be based on the Parcel E RI and FS reports and supporting administrative record. The RODs for both the amended Parcel E and new Parcel UC-3 generally address the same investigatory information and the same remedial alternatives evaluated in the Parcel E RI and FS reports.

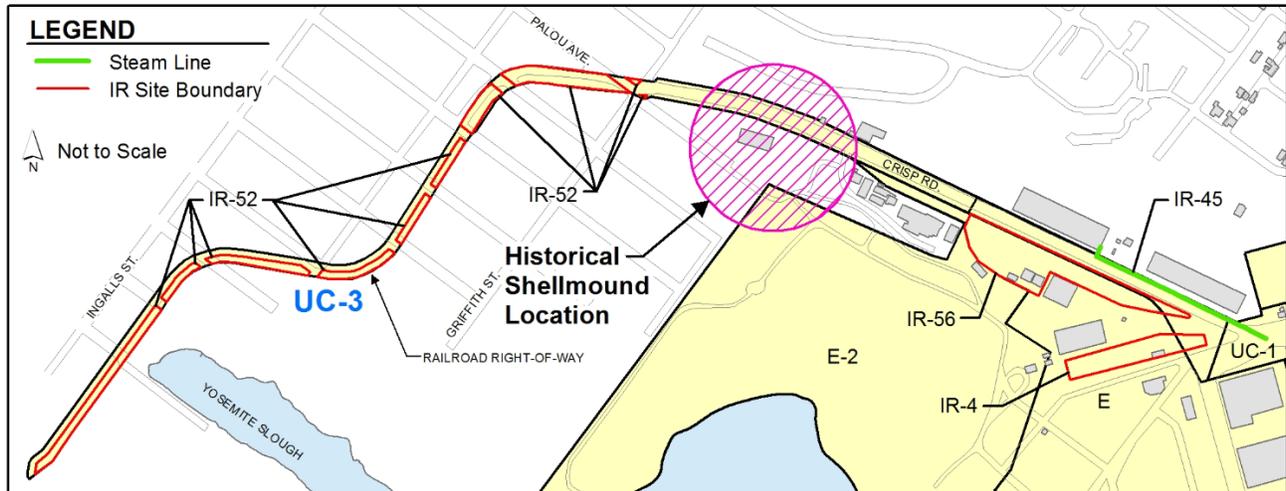
The railroad right-of-way portion of Parcel UC-3 is located in San Francisco's Bayview neighborhood. The railroad was originally used to transport materials and equipment to and from the shipyard. The chemical contamination of the railroad right-of-way likely resulted from miscellaneous spills while the Navy operated the HPNS. The railroad right-of-way is about 30 feet wide and extends about 3,200 feet west from the end of Crisp Road (near the intersection of Palou Avenue and Griffith Street) to a location near the intersection of Carroll Avenue and Ingalls Street.

The Crisp Road portion of Parcel UC-3 is located adjacent to the northern boundary of HPNS and the western edge is adjacent areas where the former Triple A had a scrapyard to store metal, drums, pipe lagging, liquid waste, and batteries. Triple A also had disposal trenches for waste liquids and a concrete pad where waste liquid drums were crushed. Chemical contamination at Crisp Road likely resulted from Triple A operations which allegedly disposed of hazardous wastes at various locations at HPNS, including **discharging waste oil** in below-ground fuel and steam lines.

Radiological contamination at Crisp Road likely resulted from research activities at various buildings formerly occupied by NRDL. NRDL performed practical and applied research on radiation decontamination methods, the effects of radiation on living organisms, and the effects of radiation on natural and synthetic materials. NRDL activities discharged small amounts of low-level radioactive liquids into the sanitary sewer, storm drains, and septic sewer lines. Parcel UC-3 does not contain radiologically impacted buildings, but many of the sewer and storm drain lines located in Crisp Road were radiologically impacted.

## 2.2 Site Characteristics

The main portion of HPNS is situated on a long headland in the southeastern part of the City and County of San Francisco, extending eastward into San Francisco Bay. Land at HPNS consists of relatively level lowlands constructed by excavating portions of surrounding hills and placing nonengineered fill materials along the margin of San Francisco Bay. The remaining land is a moderate to steep sloping, northwest-trending ridge. Parcel UC-3 is located in the lowlands, with surface elevations ranging from approximately 10 to 20 feet above mean sea level (msl). Existing site features at Parcel UC-3 are shown on Figure 2.



**Figure 2. Parcel UC-3 Existing Site Features**

There are no surface water features within Parcel UC-3. Surface water at HPNS drains toward the San Francisco Bay primarily as sheet flow. Storm drain and sewer lines throughout Parcel UC-3 were removed from 2009 to 2012 pursuant to the Final Basewide Radiological Removal Action Memorandum. The USEPA and State of California concurred with the Radiological RACR for Parcel UC-3 that was completed in March 2012.

**Geology:** Five **geologic units** underlie HPNS, including four units of unconsolidated sedimentary deposits of Quaternary age and a fifth of underlying Jurassic-Cretaceous age Franciscan Complex bedrock. The stratigraphic sequence of these geologic units, from youngest (shallowest) to oldest (deepest), is generally Artificial Fill, Undifferentiated Upper Sands, Bay Mud, Undifferentiated Sediments, and Bedrock. Artificial Fill and Bedrock are the most likely units to be encountered above 10 feet below ground surface (bgs), but other units, such as Bay Mud, may be observed along the railroad right-of-way.

**Hydrostratigraphy:** The following discussion of hydrostratigraphy is based on information presented in the Parcel E FS Report. The information was collected across Parcel E and has been extrapolated to be applicable to Parcel UC-3. Three **hydrostratigraphic units** are found at Parcel UC-3. These include (1) the A-aquifer, (2) the B-aquifer, and (3) the bedrock water-bearing zone. An aquitard composed of the Bay Mud separates the A-aquifer from the B-aquifer across parts of Parcel UC-3.

The A-aquifer at Parcel UC-3 may include (1) Undifferentiated Upper Sands; (2) sandy units within the Bay Mud; and (3) the upper weathered bedrock zone, where the A-aquifer directly overlies bedrock. The A-aquifer covers most of Parcel UC-3 and is generally a few feet thick. The A-aquifer is generally unconfined throughout Parcel UC-3.

The Bay Mud Aquitard separates the A-aquifer from the B-aquifer in a small portion of the eastern part of Parcel UC-3.

The B-aquifer is a sequence of laterally continuous layers of sand and silty and clayey sand, which are separated by laterally continuous layers of silt and clay. The B-aquifer behaves as a single aquifer with the A-aquifer where the Bay Mud Aquitard is absent.

The bedrock water-bearing zone is saturated, fractured, unweathered bedrock with limited flow capability and low storage capacity. The estimated groundwater velocity is 0.12 to 0.34 foot per day.

Primary sources of recharge for the A-aquifer are infiltration of precipitation and runoff, leakage from utility supply lines, horizontal flow of groundwater from upgradient areas, and vertical flow of water from the B-aquifer. The primary sources of recharge for the B-aquifer include infiltration of precipitation and runoff and horizontal groundwater flow from upgradient areas north and west of Parcel UC-3. The bedrock water-bearing zone likely discharges into the B-aquifer at upgradient contacts and is recharged by infiltration of precipitation at outcrop areas north and northwest of Parcel UC-3.

**Groundwater:** The depth to groundwater at [monitoring well IR74MW01A](#) (the only monitoring well in Parcel UC-3) was 11.48 feet bgs on May 21, 2010 (the last time depth to groundwater was measured before it was abandoned). Between 2006 and 2010, the depth to groundwater in well IR74MW01A ranged from 10.19 to 13.29 feet bgs (-0.13 to 2.97 feet msl).

Groundwater has not been extensively investigated in Parcel UC-3. Based on a [summary of groundwater flow characteristics in Parcel E](#) in the FS Report, groundwater flow at Parcel UC-3 is from southeast to southwest, toward the San Francisco Bay.

**Historic Area:** A [historic shell mound](#) has been documented along Crisp Road in the eastern portion of Parcel UC-3 (Figure 2). Future CERCLA actions in this area must comply with the provisions outlined within § 106 of the National Historic Preservation Act and its implementing regulations at Title 36 CFR Part 800.

**Radiological Operations:** Radiological operations did not take place at Parcel UC-3. However, the RACR determined that [radiologically impacted storm drain and sewer lines](#) were previously located under a portion of Crisp Road. These lines were subsequently removed under a [basewide removal action](#) to address radioactive contamination.

## 2.3 Previous Investigations and Removal Actions

Prior to the preparation of this ROD, Parcel UC-3 was included within Parcel E. Located within Parcel E are several environmental investigation sites identified during the Initial Assessment Study conducted by the Navy in 1984. Since that time, the Navy has performed multiple [environmental investigations](#) at Parcel E to further evaluate the 21-identified IR sites associated with former shipyard operations. Four current IR sites are within or partially within the Parcel UC-3 boundary (Figure 2). The Navy also performed a treatability study for IR Site 56 that involved testing of technology to reduce VOCs in groundwater and a removal action of radiologically impacted sewer and storm drain lines within Parcel UC-3 in 2011.

The Revised Parcel E RI Report (May 2008), Parcel E Groundwater Treatability Study (February 2011), Parcel E Radiological RACR (March 2012), Parcel E FS Report (August 2012), and Parcel UC3 Soil Excavation Characterization (June 2013) collectively summarize the results of the environmental investigations and removal actions, and document the site conditions at Parcel UC-3. Brief summaries of these documents are provided in Sections 2.3.1 through 2.3.4. Based on previous investigations and removal actions, the sources and extent of the remaining contamination in soil and groundwater have been adequately characterized to evaluate site risks, develop remedial alternatives, and support the remedy decision made in this ROD. Table 1 summarizes the previous investigations, treatability studies, and removal actions performed at Parcel UC-3. Since

Parcel UC-3 was recently separated from Parcel E, Table 1 includes investigations and removal actions that were basewide or specific to Parcel E (which included Parcel UC-3). Figure 3 shows the locations where samples were collected to analyze soil and groundwater during the site investigations, as described in the Revised Parcel E RI Report and the Soil Excavation Characterization report; however, soil confirmation sample locations from the basewide removal action to address radiological contamination are not shown ([all concentrations were below established radiological release criteria](#)).

TABLE 1  
Previous Investigations and Removal Actions (Parcel UC-3 was included in Parcel E in documents published prior to February 2013)

Previous Investigation/ Removal Action <sup>a</sup>	Date(s)	Investigation/Removal Action Activities
Initial Assessment Survey (IAS)	1984	The IAS assessed the extent of releases of contamination, potential migration pathways, and potential receptors (human or wildlife) where releases of contamination had occurred. The IAS was based on reviews of records and interviews of previous workers at the site. The IAS included one site partially within Parcel UC-3: Installation Restoration (IR) Site 04 (Scrap Yard Shed Building 807).
Confirmation Study and Verification Step	1987	This confirmation study was conducted to verify the presence of hazardous waste contamination. Activities included a geophysical survey; subsurface exploration using exploratory borings; and soil, groundwater, and air sampling. The study included one site partially within Parcel UC-3: IR Site 04.
Area Study	1987	This study evaluated whether asbestos-containing material (ACM) was present in areas of HPNS where potential future construction would occur or potential hazardous materials were located. The study consisted of surface sampling for ACM, shallow subsurface exploration using exploratory borings, soil sampling, and laboratory analyses. The study included one site partially within Parcel UC-3: IR Site 04.
Scoping Document Summary	1988	The scoping document summarized (1) previous activities and investigations, (2) ongoing or planned investigations and how they relate to the remedial investigation/feasibility study (RI/FS) process, (3) the Navy's approach to investigating and remediating sites under the RI/FS process and the field investigations to be conducted as part of the RI, and (4) proposed investigation activities for sites identified during the IAS, confirmation study, and Triple A investigation. Sites were grouped into operable units.
Remedial Investigation Phase I Reconnaissance	1988	The RI evaluated hydrogeologic conditions and identified waste boundaries using ground-penetrating radar, electromagnetic survey, and test pits to delineate the extent of waste depositions in fill material. Surface scintillation counts also were measured to evaluate whether surface radiation exceeded HPNS background levels.
Preliminary Assessment	1989 to 1990	The preliminary assessment reviewed existing documents to (1) identify buildings or areas where chemicals were used, stored, or disposed of; (2) evaluate potential environmental effects of underground utilities (e.g., steam lines, storm and sanitary sewer lines, fuel lines); (3) identify potential receptors and threats to human health and the environment; (4) evaluate the need for immediate removal actions; (5) assess priorities for subsequent site inspection activities; and (6) identify which IR sites required no further action or investigation.
Sandblast Waste Fixation	1991 to 1995	More than 4,900 tons of sandblast waste were collected from locations around HPNS, temporarily stockpiled at Parcel E, and sent to an asphalt plant for recycling.

TABLE 1

Previous Investigations and Removal Actions (Parcel UC-3 was included in Parcel E in documents published prior to February 2013)

Previous Investigation/ Removal Action <sup>a</sup>	Date(s)	Investigation/Removal Action Activities
Remedial Investigation	1992 to 1996	The RI evaluated the nature and extent of contamination in soil and groundwater at Parcel E. More than 4,700 soil and 1,200 groundwater samples were collected and analyzed for various hazardous substances, including metals, organic chemicals, and total petroleum hydrocarbons (TPH). All data were compared with screening criteria for the protection of humans and wildlife. Additionally, an HHRA for soil and groundwater and an ecological risk assessment (ERA) for soil were conducted.
Facility-wide Ambient Air Monitoring (Phases I, II, and III)	1992, 1994, and 1996	Ambient air sampling was conducted at selected locations, including Parcel E, in three phases at HPNS. Phase I focused on testing air upwind and downwind of approximately 25 percent of the contaminated sites. Phase II tested upwind and downwind conditions of the remaining 75 percent of potential contaminated sites. Phase III sampling was conducted to address uncertainties associated with Phase II sampling.
Site Inspection	1993 to 1994	Soil and groundwater samples were collected and analyzed for metals, volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), and TPH to further evaluate whether contamination was present and whether a release to the environment had occurred. Additionally, results were used to characterize site-specific hydrogeologic conditions and evaluate whether a site should be included in the RI for further investigation. Utility lines (steam, storm drain, and sanitary sewer) were mapped, surveyed, visually inspected, and sampled. Geophysical surveys were conducted to map fuel lines and located suspected underground storage tanks (USTs).
Site Assessment (SA)	1993 to 1994	The SA evaluated 75 sites, including 110 buildings and areas. Specifically, the SA evaluated areas that had not been previously investigated under the IR Program because of lack of access or documentation, and areas that might have been conducted by recent (a decade prior to the SA) activities. The SA consisted of a records review, personnel interviews, and a field inspection to identify potential areas of contamination.
Phases 1A and 1B Ecological Risk Assessment	1994 to 1996	The Phase 1A ERA was a qualitative analysis that developed a preliminary characterization of HPNS based on existing data, biotic surveys, and contaminant migration pathways and exposure routes. Both terrestrial and aquatic environments were considered in the Phase 1A ERA. The quantitative Phase 1B ERA was performed to delineate potential gradients of contamination from onshore sources to offshore sediments, and to characterize the risk to aquatic wildlife.
Removal of Sediment from the Storm Drain System	1996 to 1997	More than 1,200 tons of sediment and debris were removed from storm drain lines across HPNS, including from storm drain lines in Parcel E, to reduce the potential for chemicals to be transported to San Francisco Bay.
Feasibility Study	1997 to 1998	The FS identified, screened, and evaluated remedial alternatives for cleanup of soil and groundwater at Parcel E.
Validation Study and Protective Soil Concentrations	1999 to 2000	The validation study addressed some of the uncertainties associated with dose calculations (from the Baseline ERA (BERA)). Additionally, tissue from plants, invertebrates, lizards, and small mammals was collected, and tissue data were used to develop site-specific chemical soil concentrations that would be protective of terrestrial wildlife.

TABLE 1

Previous Investigations and Removal Actions (Parcel UC-3 was included in Parcel E in documents published prior to February 2013)

Previous Investigation/ Removal Action <sup>a</sup>	Date(s)	Investigation/Removal Action Activities
Groundwater Data Gaps Investigation	2000 to 2002	The GDGI was conducted in three phases between 2000 and 2002 to update previous assessments of groundwater conditions at HPNS, supplement information gathered during the Parcel E RI, and better define the extent of groundwater contamination at HPNS.
Historical Radiological Assessment (HRA)	2003 to 2004	The HRA identified 33 areas in Parcel E as radiologically affected (at the time of the study, Parcel E included what is now Parcel UC-3). These areas were small such as former building foundation footprints and fill areas that may contain dials, gauges, deck markers, or sandblast waste. The HRA also identified basewide utility systems as affected areas, including the underground storm drain and sanitary sewer lines. The HRA reported that no radiological contamination was suspected in groundwater at Parcel UC-3. Nevertheless, the HRA concluded that further evaluation of the affected areas was required.
Landfill Gas Monitoring and Control	2003 to Present	Landfill gas is being monitored on a regular basis under the Interim Landfill Gas Monitoring and Control Plan to verify that hazardous concentrations of landfill gas are not migrating beyond the fence line of the landfill and onto the University of California San Francisco compound. Many of the monitoring points are within Parcel UC-3. The landfill gas control system is operated using both passive venting and active extraction.
TPH Corrective Action Program	2004	TPH is not included in the definition of hazardous substances under CERCLA. However, this exclusion only applies to TPH contamination that is separate and distinguishable from other hazardous wastes. Therefore, all sites where TPH is commingled with CERCLA-regulated substances have been addressed under the Navy's IR Program process. Such areas will be included in the final remedy selected for Parcel E.
Basewide Groundwater Monitoring Program	2004 to present	Groundwater at HPNS is monitored on a quarterly basis. The number of wells, location of wells, and analytes is determined through the basewide groundwater monitoring program.
Revised Remedial Investigation, including HHRA and ERA	2008	During the Revised RI, additional data were collected to better characterize Parcel E to support remedy evaluation at the site. To address data gaps, additional field investigations were performed to gather supplementary information needed to support the remedy evaluation.
Basewide Radiological Time-Critical Removal Action (TCRA)	2009 to present	TCRA activities in Parcel UC-3 identified and removed low-level radiological material with radioactivity levels exceeding the TCRA removal goals and remediation goals (RGs) at all radiologically affected sites, including storm drain and sewer lines. The fieldwork on Parcel UC-3 was completed in June 2011. The United States Environmental Protection Agency (USEPA) and the State of California concurred with the Radiological removal action completion report (RACR) for Parcel UC-3 that was completed in March 2012.
Treatability Study	2009 to 2011	This GWTS included a study of possible zero valent iron (ZVI) use at IR Site 56.
Feasibility Study	2012	The FS identified, screened, and evaluated remedial alternatives for cleanup of soil and groundwater at Parcel E.

TABLE 1

Previous Investigations and Removal Actions (Parcel UC-3 was included in Parcel E in documents published prior to February 2013)

Previous Investigation/ Removal Action <sup>a</sup>	Date(s)	Investigation/Removal Action Activities
Soil Excavation Characterization	2013	A soil investigation was conducted to determine the lateral and vertical extent of COCs associated with excavation areas in Parcel UC-3.
Proposed Plan	2013	The Proposed Plan presented remedial alternatives and selected the proposed alternatives, to be further described in this Record of Decision (ROD).

## Notes:

<sup>a</sup>The documents listed in this table are available in the Administrative Record and provide detailed information used to support the remedy selection for Parcel UC-3.

ACM - asbestos-containing material  
 AST - aboveground storage tank  
 BERA - baseline ecological risk assessment  
 COC - chemical of concern  
 ERA - ecological risk assessment  
 FS - feasibility study  
 GDGI - groundwater data gaps investigation  
 GWTS - groundwater treatability study  
 HHRA - human health risk assessment  
 HPNS - Hunters Point Naval Shipyard  
 HRA - historical radiological assessment  
 IAS - initial site assessment  
 IR - Installation Restoration  
 mg/kg - milligram per kilogram

PCB - polychlorinated biphenyl  
 RACR - removal action completion report  
 RAO - remedial action objective  
 RG - remediation goal  
 RI - remedial investigation  
 ROD - Record of Decision  
 SA - site assessment  
 SVOC - semivolatile organic compound  
 SWAQAT - solid waste air quality assessment test  
 TCRA - time-critical removal action  
 TPH - total petroleum hydrocarbons  
 USEPA - United States Environmental Protection Agency  
 UST - underground storage tank  
 VOC - volatile organic compound  
 yd<sup>3</sup> - cubic yard  
 ZVI - zero valent iron

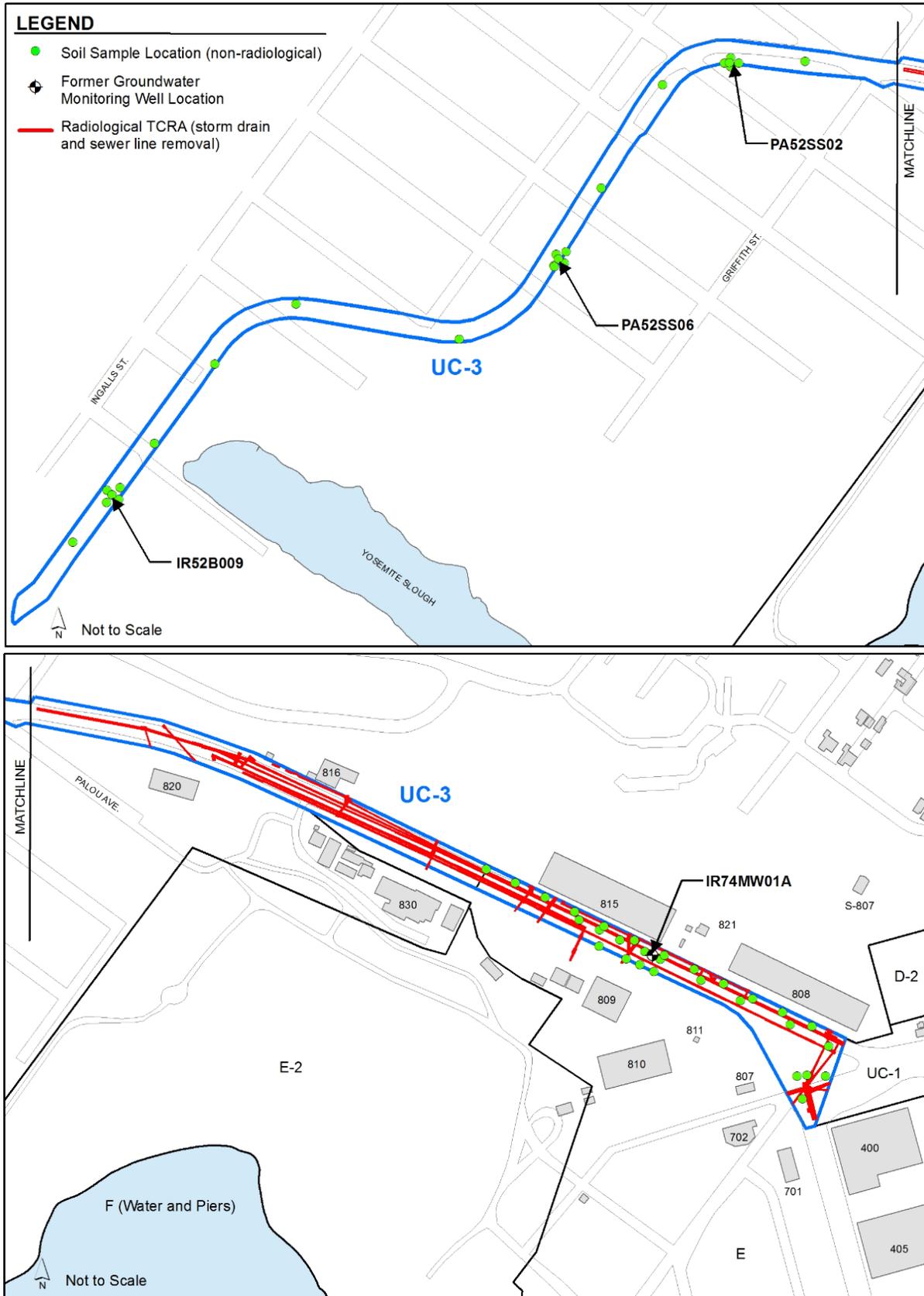


Figure 3. Previous Soil and Groundwater Sampling Locations

### 2.3.1 Revised Parcel E RI Report

The **Revised Parcel E RI Report** used residential and industrial screening criteria to screen chemical data for redevelopment areas based on the **1997 Redevelopment Plan**. Additionally, human health risk was evaluated for various exposure scenarios; planned reuse (as of 1997), residential, industrial, recreational, and construction worker. A BERA was completed and no unacceptable risk to ecological receptors was indicated at Parcel UC-3. Human health and ecological risks are summarized in Section 2.5.

The Revised Parcel E RI identified four IR sites that are located within or partially within Parcel UC-3 (Figure 2):

- IR Site 4 (partial) – A scrapyards and scrap material area where the Navy stored used submarine batteries, electrical capacitors, and steel. The area was leased to Triple A in 1976 who also used it as a scrapyards. Drums, pipe lagging, batteries, liquid wastes, and scrap metal were found at the site. Stained soil was observed at the site.
- IR Site 45 (partial) – Basewide steam line system. Triple A is suspected of using the steam line system to transport waste oil.
- IR Site 52 – The railroad and its surrounding right-of-way, which was leased to Triple A in 1976. Stained soil, spilled paint, household waste, and abandoned buildings were observed during past investigations.
- IR Site 56 (partial) – The Railroad Yard Area. Use of wood preservatives and railroad cleaning solvents was suspected. Evidence of paint leakage from storage containers was observed.

Soil investigations at Parcel UC-3 identified SVOCs, metals, and TPH, at **concentrations that exceeded industrial screening criteria** used in the Revised Parcel E RI. The Navy completed 55 soil borings within Parcel UC-3 to evaluate the nature and extent of contamination (Figure 3).

Additionally, one monitoring well (IR74MW01A) was installed in Parcel UC-3, and soil samples were collected from the boring. Well IR74MW01A was installed as part of the investigation of IR Site 74 and is located south of the IR Site 74 boundary but within Parcel UC-3. IR Site 74 is now part of the Formerly Utilized Defense Sites (FUDS) program and is not included in this ROD.

The Revised Parcel E RI identified **three redevelopment units based on the 1997 Redevelopment Plan** that were located within or partially within Parcel UC-3: all of EOS-5, most of EOS-4, and a small part of redevelopment block 45. The planned reuse for EOS-5 was open space. IR Site 52 is located completely within EOS-5. One of 39 soil samples collected within EOS-5 contained metals at concentrations above the industrial screening criteria used in the Revised Parcel E RI (Table 2). One of 39 soil samples collected within EOS-5 contained SVOC concentrations above the industrial screening criteria used in the Revised Parcel E RI (Table 3). No other soil samples had concentrations above the industrial screening criteria used in the Revised Parcel E RI.

**TABLE 2**  
Metals Concentrations in Soil Exceeding Industrial Screening Criteria

Point ID	Analyte	Result (mg/kg)	Screening Criterion (mg/kg)	Depth (feet bgs)
PA52SS06	Arsenic	12.8	11.8 (HPAL)	0.75
PA52SS06	Lead	1,280	800 (Industrial)	0.75

Notes:

bgs - below ground surface

HPAL - Hunters Point ambient level

mg/kg - milligram per kilogram

**TABLE 3**  
SVOC Concentrations in Soil Exceeding Industrial Screening Criteria

Point ID	Analyte	Result (mg/kg)	Screening Criterion (mg/kg)	Depth (feet bgs)
IR52B009	Benzo(a)anthracene	8.8	1.8 (Industrial)	3.75
IR52B009	Benzo(a)pyrene	13.0	0.2 (Industrial)	3.75
IR52B009	Benzo(b)fluoranthene	21.0	1.8 (Industrial)	3.75
IR52B009	Benzo(k)fluoranthene	3.5	1.8 (Industrial)	3.75
IR52B009	Dibenz(a,h)anthracene	1.7	0.3 (Industrial)	3.75
IR52B009	Indeno(1,2,3-c,d)pyrene	5.2	1.8 (Industrial)	3.75

Notes:

bgs - below ground surface

HPAL - Hunters Point ambient level

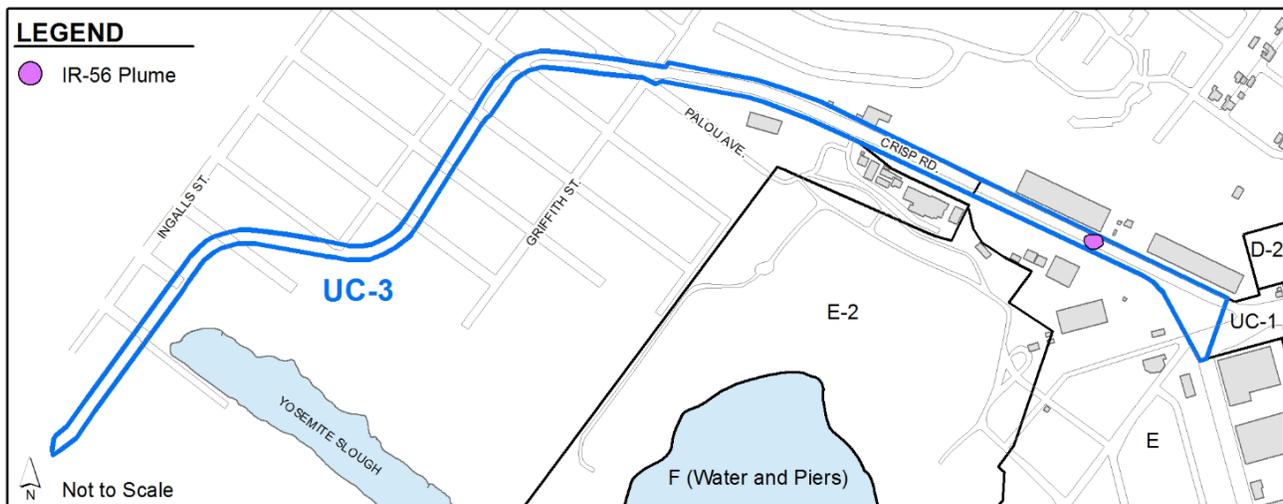
mg/kg - milligram per kilogram

The 1997 Redevelopment Plan did not identify a planned reuse for EOS-4. EOS-4 contains railroad tracks that leave the former Golden Gate Railroad Museum and merge onto EOS-5. There have been no reports of observed chemical releases such as stained soil within EOS-4. No areas exceeding the industrial screening criteria used in the Revised Parcel E RI were identified.

Based on the 1997 Redevelopment Plan, the planned reuse for Redevelopment Block 45 was research and development. IR Site 56 and a small portion of IR Site 4 were located within Redevelopment Block 45. Concentrations of metals above the residential screening criteria used in the Revised Parcel E RI were found throughout Redevelopment Block 45, including the portion within Parcel UC-3. Concentrations of one SVOC (benzo[a]pyrene) and TPH were above the residential screening criteria used in the Revised Parcel E RI at one location within Parcel UC-3 (IR56B037). However, this location will not be addressed in this ROD because the area near IR56B037 is being managed by the Navy under the Hunters Point TPH program. One groundwater plume (IR Site 56 plume) within Parcel UC-3 was identified, with TCE concentrations above vapor intrusion criteria.

### 2.3.2 Parcel E Groundwater Investigations

Groundwater conditions at Parcel UC-3 were evaluated only at monitoring well IR74MW01A as part of the basewide groundwater monitoring program. Groundwater investigations at and near Parcel UC-3 have identified a groundwater plume (IR Site 56) with concentrations of TCE that exceeded the vapor intrusion criterion used in the Revised Parcel E RI (2.9 micrograms per liter [ $\mu\text{g}/\text{L}$ ]). **Well IR74MW01A was sampled** during 1996, 2004, 2006, 2008, and 2009, and TCE concentrations ranged from less than 0.5  $\mu\text{g}/\text{L}$  to 4  $\mu\text{g}/\text{L}$ . In 2009, groundwater samples were also collected from five direct-push sampling locations to evaluate baseline conditions during a **groundwater treatability study** (GWTS). Data from the well and direct-push sampling locations in 2009 indicated that the **plume delineation** presented in the RI had not changed (Figure 4).



**Figure 4. IR Site 56 Groundwater Plume Location**

The Navy performed the GWTS to evaluate the effectiveness of ZVI injection in treating groundwater contamination. The GWTS was implemented in two phases: (1) a plume characterization phase, during which groundwater and soil vapor samples were collected to better delineate the groundwater plumes identified in the Revised Parcel E RI Report (Phase I); and (2) treatment, if necessary, of selected plumes using ZVI (Phase II). Based on the Phase I characterization, ZVI injections were not recommended for the IR Site 56 TCE plume because concentrations of COCs did not significantly exceed their respective project-specific goals.

### 2.3.3 Parcel E Radiological RACR

A history of radiological operations by the Navy at HPNS is presented in the HRA. The HRA identified radiological-affected sewer and storm drain lines across Parcel UC-3. The source of potential radioactive contamination at Parcel UC-3 was research activities at various buildings formerly occupied by NRDL. NRDL performed practical and applied research on radiation decontamination methods and on the effects of radiation on living organisms and natural and synthetic materials. NRDL activities may have discharged small amounts of low-level radioactive liquids into sanitary sewer, storm drain, and septic sewer lines. As a result, sanitary sewer, storm drain, and septic sewer lines throughout Parcel UC-3 were affected. Therefore, storm drain and sewer lines throughout Parcel UC-3 were removed from 2009 to 2012 pursuant to the Final Basewide Radiological Action Memorandum. The removal action included all sewer and storm drain lines within Parcel UC-3, as well as potentially impacted soil. A **Radiological RACR** for

Parcel UC-3 was submitted on March 16, 2012, and received concurrence for radiological unrestricted release from DTSC on October 31, 2012. All work required by the selected radiological remedy, Alternative R-2, has been completed, and no additional actions are required. Selection of Alternative R-2 is documented in this ROD.

### 2.3.4 Parcel E FS Report

The **Parcel E FS Report** was based on the **2010 Redevelopment Plan** and evaluated alternatives for soil and groundwater. Excavation options were focused on removing COCs in soil at concentrations significantly above preliminary remediation goals (PRGs) (by either 5 or 10 times) and COCs indicative of a potential source of groundwater contamination.

Based on the 2010 Redevelopment Plan, Parcel UC-3 contains two redevelopment units: the railroad right-of-way and a portion of Redevelopment Block MU-3 (Figure 5). No redevelopment unit was identified for the former EOS-4 redevelopment unit. The 2010 Redevelopment Plan proposed light industrial use for the railroad right-of-way and mixed use for Redevelopment Block MU-3. Based on existing surrounding uses, the former EOS-4 redevelopment unit has been screened for industrial use in this ROD.

During the process of identifying potential soil areas for removal, the Navy focused the list of COCs to those nonradioactive chemicals present at concentrations that exceeded the PRGs. The PRGs generally correspond to a cancer risk of greater than 1 in 1,000,000 or a noncancer Hazard Index (HI) greater than 1. Areas of soil that contain elevated COC concentrations that pose the most significant risk to humans were referred to as hot spots. Hot spot locations were initially categorized as Tier 1 or Tier 2 locations. Tier 1 locations contained COCs at concentrations greater than 10 times the PRGs (the Tier 1 action levels). Tier 2 locations contained COCs at concentrations greater than 5 times the PRGs (the Tier 2 action levels), thus Tier 2 locations include all Tier 1 locations. Tier 1 and Tier 2 action levels do not apply to TPH concentrations. Instead, TPH locations were defined as soil that contained TPH at concentrations greater than the PRG.

In the eastern portion of Parcel UC-3 (which corresponds to the portion of Redevelopment Block MU-3 that lies in Parcel UC-3), no areas of soil exceeded the residential screening criteria used in the Revised Parcel E RI, except for one location in Parcel UC-3 that is being addressed under the Hunters Point TPH program. The Revised Parcel E RI did not identify areas exceeding the RI screening criteria within the area between Redevelopment Block MU-3 and the railroad right-of-way. No soil samples have been collected in this area because no IR Sites or evidence of spills or soil staining were identified. In the railroad right-of-way, the Revised Parcel E RI screening process identified no contiguous areas that exceeded screening criteria for soil. However, at three isolated boring locations, SVOCs, TPH, or metals **concentrations exceeded industrial screening criteria** used in the Revised Parcel E RI. Two of the locations exceeded the Tier 2 action levels of 5 times the PRGs for either SVOCs or metals, and one location exceeded the PRG for TPH. At boring IR52B009, a soil sample (3.5 feet bgs) reported concentrations of six SVOCs exceeding industrial screening criteria used in the Revised Parcel E RI. At boring PA52SS02, in a soil sample collected at approximately 0.5 foot bgs, a TPH concentration exceeded industrial screening criteria used in the Revised Parcel E RI. At boring PA52SS06, in a soil sample collected at approximately 0.5 foot bgs, copper and lead concentrations exceeded the Tier 2 action levels. In 2012, the Navy collected soil samples surrounding each of these boring locations to identify the extent of contamination at each location to define the appropriate excavation area. These locations are further discussed in Section 2.9.2.1. Soil samples show that the excavation areas are adequately bound on four sides.

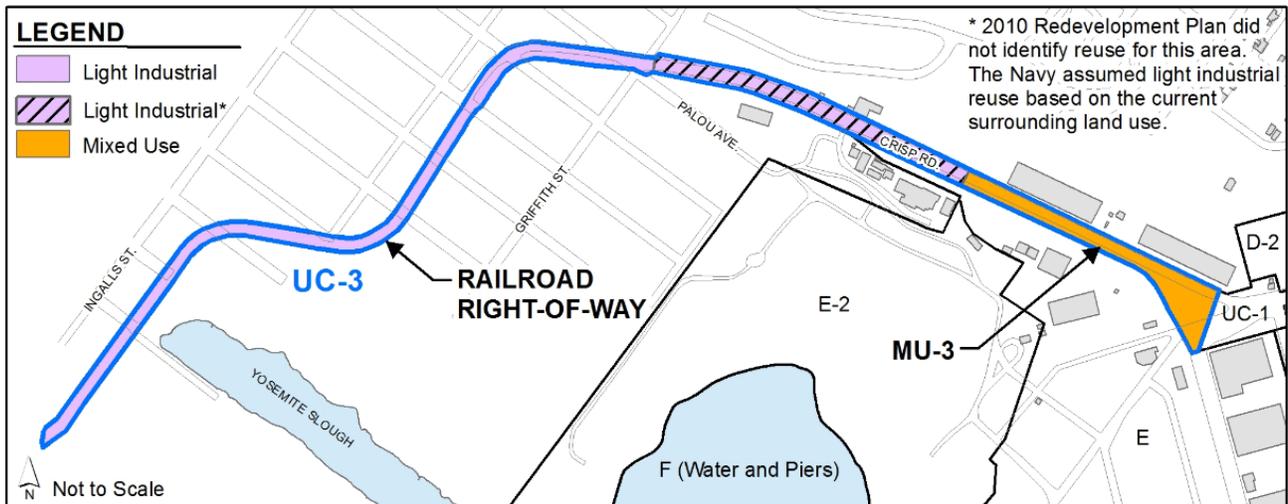


Figure 5. Planned Reuses

## 2.4 Current and Potential Future Site Uses

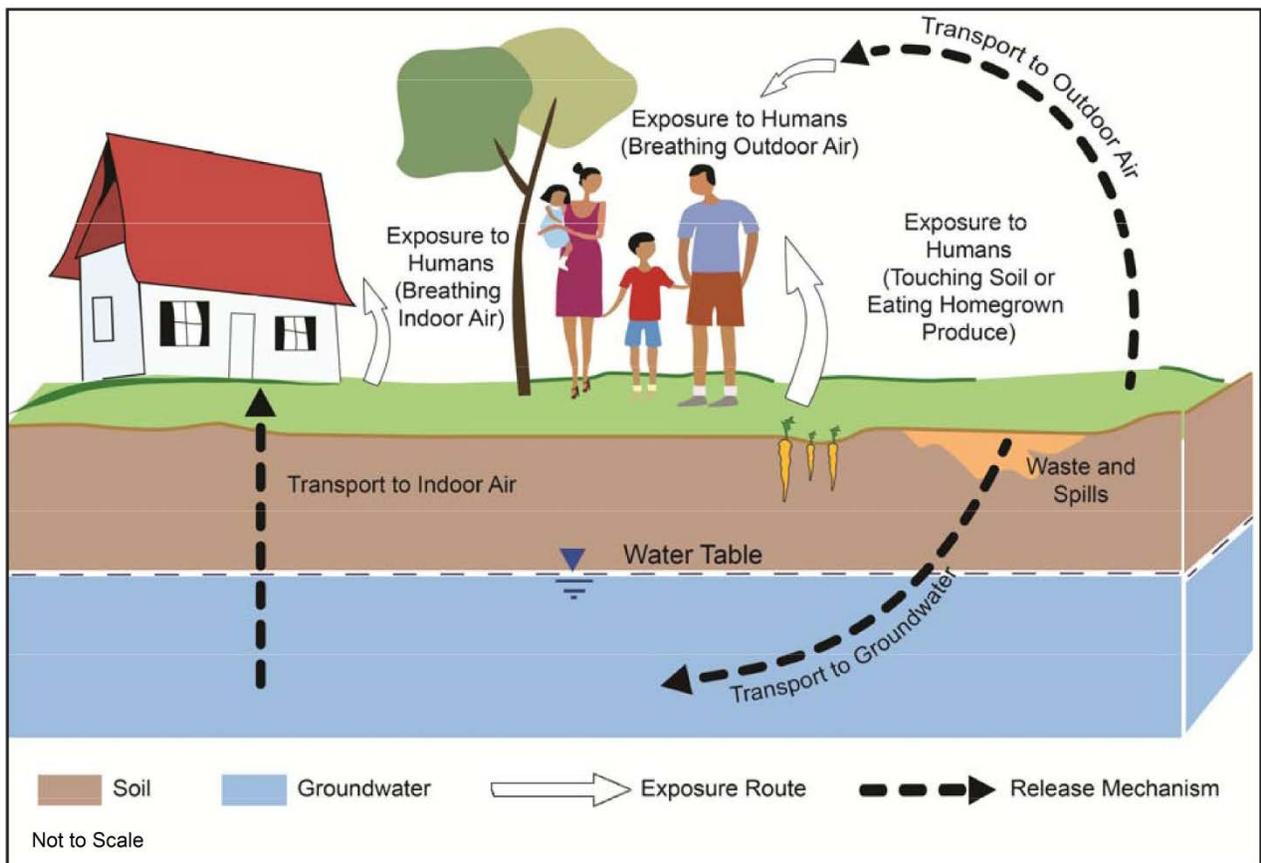
The 2010 [amended redevelopment plan](#) from the City and County of San Francisco (CCSF) outlines the proposed reuse for Parcel UC-3. The Navy divided Parcel UC-3 into reuse areas based on the redevelopment plan and, in the case of the western half of Crisp Road, to reflect the surrounding neighborhood light industrial uses. The data analysis, risk evaluations, and remedial alternatives presented in the Revised RI Report and FS Report assumed that the future reuse of Redevelopment Block MU-3 will be mixed use, and the future use of the area between the railroad right-of-way and Redevelopment Block MU-3 and the railroad right-of-way will be light industrial (Figure 5). For this ROD, the area designated as “no identified reuse” in the 2010 amended redevelopment plan has been screened against criteria for light industrial use. This is consistent with existing surrounding land use and this area (the area between the railroad right-of-way and Redevelopment Block MU-3), and the railroad right-of-way will have institutional controls restricting residential development.

The Revised RI Report provides an assessment of the municipal and domestic drinking water beneficial uses of Parcel E groundwater, focusing on the A-aquifer with respect to federal criteria and the B-aquifer with respect to federal and state criteria. Appendix F of the Revised RI Report provides a detailed discussion of the beneficial use evaluation of groundwater at Parcel E. The Revised RI Report did not evaluate the A-aquifer with respect to state criteria because [RWQCB concurred](#) with the Navy’s determination that the A-aquifer is not suitable or potentially suitable as a municipal or domestic water supply and meets exemption criteria in State Water Resources Control Board (SWRCB) Resolution 88-63 and RWQCB Resolution 89-39. Based on the federal groundwater classification criteria and the evaluation of site-specific factors (SSFs), the A-aquifer is not a viable source of drinking water, and federal maximum contaminant levels (MCLs) are not applicable or relevant and appropriate requirements (ARARs) for the CERCLA action. Furthermore, based on the SSF evaluation, the B-aquifer has potential beneficial use as drinking water across most of the parcel, and MCLs are ARARs; however, CCSF regulatory controls prohibit domestic use of groundwater at Parcel UC-3 without CCSF approval, and the CCSF has no current plans to install wells for drinking water.

Agricultural beneficial use of the A-aquifer and B-aquifer groundwater is limited to areas with total dissolved solids at concentrations less than 1,500 milligrams per liter (mg/L) for irrigation and less than 10,000 mg/L for livestock. Both the A- and B-aquifers have potential industrial beneficial use. According to the Basin Plan (RWQCB, 2007), site-by-site determinations of the freshwater replenishment beneficial use will be made. Freshwater replenishment has been determined to be a beneficial use of the groundwater at Parcel UC-3.

## 2.5 Summary of Site Risks

Potential contamination at Parcel UC-3 is attributable to miscellaneous spills while the Navy operated and maintained the railroad. Additionally, contamination from the IR Site 56 (Building 809 lumber storehouse; railroad yard area used to clean metal parts; and open storage yard for scrap metal, motors, and batteries) migrated into the eastern portion of Parcel UC-3. Contaminated media at Parcel UC-3 consists of soil and groundwater. The primary contaminant transport mechanisms are water infiltration and percolation into subsurface soil and groundwater. A general conceptual site model (CSM) for Parcel UC-3 is provided on Figure 6. Based on the CSM, Parcel UC-3 was assessed for potential risks to human health and the environment during the RI/FS and described in the Revised RI Report, FS Report, and the Radiological Addendum to the FS Report. Section 2.5.1 presents the results of the HHRA. Section 2.5.2 presents the results of the ERA.



**Figure 6. Conceptual Site Model**

## 2.5.1 Human Health Risk Assessment

Based on a **CSM for human health, a quantitative HHRA** was completed for soil and groundwater at Parcel E, which included Parcel UC-3 at the time the HHRA was completed. The Navy evaluated risk to human health at Parcel UC-3 in the HHRA presented in the Revised Parcel E RI Report and the Radiological Addendum to the Parcel E FS Report. The baseline HHRA was conducted for Parcel E to accomplish the following:

- Estimate the magnitude of potential risks to human health associated with current site conditions and potential future land use scenarios.
- Identify the environmental media and contaminants that pose the primary health concerns or pose little or no threat to human health.
- Provide the basis to support risk management decisions about the need for further action.

The HHRA was conducted assuming the long-term uses for Parcel UC-3 include mixed use in the portion of Redevelopment Block MU-3 that is within Parcel UC-3, and light industrial use in the railroad right-of-way. The portion of Parcel UC-3 between the railroad right-of-way and the eastern part of Parcel UC-3 where Redevelopment Block MU-3 is located was not evaluated in the HHRA. The Navy evaluated the reuses using residential, industrial, and recreational exposure scenarios.

**Potential cancer risks and noncancer hazards** were calculated based on reasonable maximum exposure (RME) assumptions recommended by USEPA and DTSC. These assumptions are based on an RME rather than an average or medium range exposure assumption to provide a conservative and protective approach that estimates the highest health risks that are reasonably expected to occur at a site.

Cancer risk is the estimated probability that a person will develop cancer from exposure to site contaminants and is generally expressed as an upper-bound probability. For example, a 1 in 1,000,000 chance is a risk that for every 1,000,000 people, one additional cancer case may occur as a result of exposure to site contaminants. The Navy adopted a conservative approach at Parcel E, including Parcel UC-3, and evaluated action where potential risk exceeded 1 in 1,000,000, which meets the most conservative end of the risk management range established by USEPA.

Noncancer hazard is the risk of health effects other than cancer and is expressed as a number called the HI. An HI of 1 or less is considered an acceptable exposure level for noncancer health hazards. The Navy evaluated action at Parcel E areas with an HI greater than 1.

Both **total and incremental risks** were evaluated for exposure to soil at Parcel E, including Parcel UC-3. For the total risk evaluation, all detected chemicals, with the exception of calcium, magnesium, potassium, and sodium (essential nutrients), were included as chemicals of potential concern (COPCs), regardless of concentration. The total risk evaluation provides an estimate of the risks posed by all chemicals at Parcel E and Parcel UC-3, including those present at concentrations at or below ambient levels. For the incremental risk evaluation, the essential nutrients and metals with maximum measured concentrations less than the Hunters Point ambient levels (HPALs) were excluded as COPCs. The incremental risk evaluation provides an estimate of risks posed by all chemicals at Parcel UC-3, except those that do not exceed ambient levels.

Potential unacceptable risks include cancer risks and noncancer hazards for future receptors from exposure to soil or groundwater, as shown in Tables 4 and 5. Potential unacceptable risk is defined

as an excess lifetime cancer risk of greater than 1 in 1,000,000 or a segregated HI greater than 1, as calculated by the incremental risk evaluation.

The cancer risk and HI presented in Table 4 for Redevelopment Block MU-3 were calculated utilizing soil data from the Revised Parcel E RI within Redevelopment Block MU-3. Metals drive the cancer risk and HI in the portion of Redevelopment Block MU-3 that is within Parcel UC-3. Parcel UC-3 includes only a small portion of Redevelopment Block MU-3 and none of the Tier 2 hot spot locations are present within the Parcel UC-3 portion of Redevelopment Block MU-3. A separate HHRA was not conducted for the Parcel UC-3 portion of Redevelopment Block MU-3.

Based on the [HHRA results for chemicals in soil and groundwater](#), cancer risks exceeded 1 in 1,000,000, and HI were greater than 1 (Tables 4 and 5). The HHRA did not calculate a risk for the area between the railroad right-of-way and Redevelopment Block MU-3 (Figure 5) because no results exceeded the screening criteria used in the RI and there are no IR Sites in this area. The highest cancer risks and HI in soil were driven by concentrations of SVOCs, TPH, and metals (copper and lead) in three separate locations in the railroad right-of-way. The highest cancer risks and noncancer hazards in groundwater were estimated for future residents that could theoretically breathe VOC vapors that may have migrated from shallow groundwater through the shallow soil beneath Parcel UC-3.

TABLE 4  
Cancer Risks and Noncancer Hazards, Soil

Reuse Area	Parcel	Exposure Scenario	Chemical Cancer Risk	Hazard Index
MU-3	E / UC-3 <sup>a</sup>	Residential	1 in 1,000	65
Railroad Right-of-Way	UC-3	Industrial	5 in 100,000	<1

Notes:

Listed risk value is maximum in each reuse area; risk is based on conditions before cleanup (including prior to interim removal actions).

<sup>a</sup> HHRA completed for entire Redevelopment Block MU-3, which includes a portion of Parcel E and Parcel UC-3.

TABLE 5  
Cancer Risks and Noncancer Hazards, Groundwater

Reuse Area	Parcel	Exposure Scenario	Chemical Cancer Risk	Hazard Index
<b>Breathing Indoor Air from Shallow Groundwater</b>				
MU-3	E / UC-3 <sup>a</sup>	Residential	8 in 100,000	2.9

Notes:

Listed risk value is maximum in the reuse area; risk is based on conditions before cleanup (including prior to interim removal actions).

<sup>a</sup> HHRA completed for entire Redevelopment Block MU-3, which includes a portion of Parcel E and Parcel UC-3.

The HHRA specifies the [assumptions and uncertainties](#) inherent in the risk assessment process as a result of the number of samples collected or their locations, the literature-based exposure and toxicity values used to calculate risk, and the risk characterization across multiple media and exposure pathways. The effects of uncertainties are overestimation or underestimation of the actual

cancer risk or HI. In general, the risk assessment process is based on the use of conservative (health protective) assumptions that when combined are intended to overestimate the actual risk.

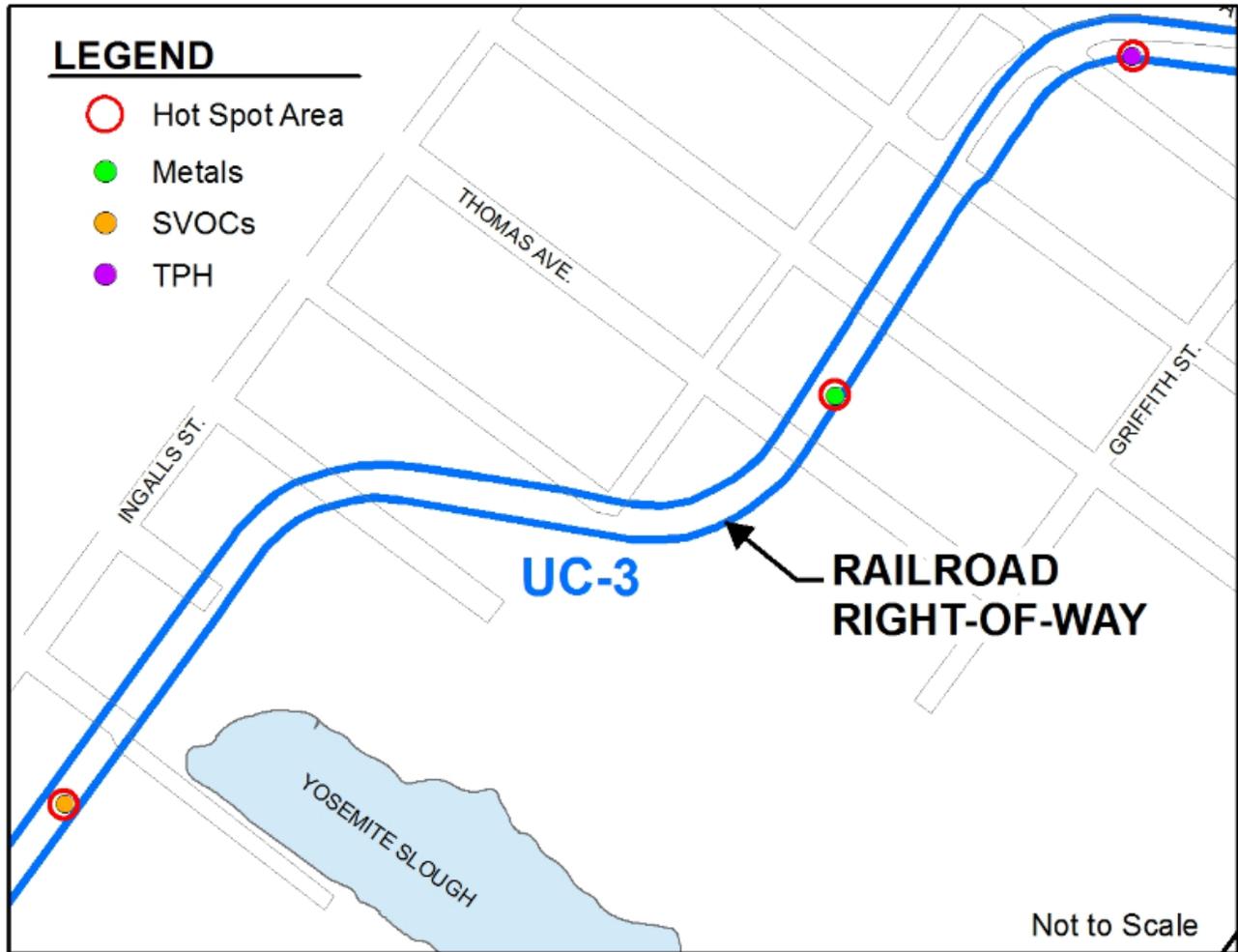
### 2.5.2 Ecological Health Risk Assessment

The Navy performed a BERA to evaluate risks to wildlife (such as small mammals, birds, and marine life) from exposure to soil. The BERA compared soil data against toxicity benchmarks for selected ecological receptors. Results of the risk evaluation indicated carnivorous birds (such as the American kestrel) and small omnivorous mammals (such as the house mouse) may be at risk from ingested doses of copper, lead, and PCBs at Parcel E (PCBs are not a COC in Parcel UC-3). However, the magnitude of the hazard quotient (all less than 2.7) and the low quality of the habitat suggest that risk is not significant. No unacceptable risk to ecological receptors was indicated at Parcel UC-3.

### 2.5.3 Basis for Response Action

The response action selected in this ROD is necessary to protect the public health, welfare, or the environment from actual or potential releases of hazardous substances into the environment. The Navy, in partnership with USEPA, DTSC, and RWQCB, considered all pertinent factors in accordance with CERCLA and NCP remedy selection criteria and determined that remedial action is necessary to clean up soil and groundwater at Parcel UC-3. This determination was made because chemicals were detected in soil and groundwater at concentrations that pose unacceptable risk to human health (cancer risk greater than 1 in 1,000,000 or a noncancer HI greater than 1).

The HHRA identified COCs in soil and groundwater present at concentrations that posed an unacceptable cancer risk or noncancer hazard. The elevated concentrations of COCs in soil were found to be located in noncontiguous areas of Parcel UC-3. The Navy identified an approach that proposed removal of soil areas that posed the most significant risk to humans, identified as hot spots in Figure 7, and proposed cover for the soil areas within Redevelopment Block MU-3 that posed a lower risk to humans (see Section 2.8.1).



**Figure 7. Tier 2 and TPH Hot Spot Locations in Soil**

During the process of identifying potential areas for soil removal, the Navy focused the list of COCs to those nonradioactive chemicals present at concentrations that exceeded the RGs, which generally correspond to a cancer risk of 1 in 1,000,000 or a noncancer HI greater than 1. Areas in soil that contain elevated COC concentrations that pose the most significant risk to humans are referred to as hot spots. Hot spot locations were initially categorized as Tier 1 (COCs at concentrations greater than 10 times the RGs) or Tier 2 (COCs at concentrations greater than 5 times the RGs). Additionally, TPH hot spot locations were defined as soil that contains TPH at concentrations greater than the RG. Figure 7 identifies the locations of Tier 2 and TPH hot spots in the railroad right-of-way. Table 6 identifies the COCs at the Tier 2 and TPH hot spots, along with residential RGs and Tier 2 and TPH action levels for each COC. For groundwater, the Navy proposed anaerobic in situ bioremediation (ISB), followed by monitored natural attenuation (MNA) (Section 2.8.1), and ICs in the IR Site 56 plume area. Figure 4 identifies the location of the IR Site 56 plume.

TABLE 6  
Chemicals of Concern and Action Levels for Soil at Hot Spots in Railroad Right-of-Way

COC	Residential Remediation Goal (mg/kg)	Tier 2/TPH Hot Spot Action Levels (mg/kg)	Basis for Hot Spot Action Level
Benzo(a)anthracene	0.37	1.85	5 times the RG for residential exposure scenario <sup>a</sup>
Benzo(a)pyrene	0.33	1.65	5 times the RG for residential exposure scenario <sup>a</sup>
Benzo(b)fluoranthene	0.34	1.70	5 times the RG for residential exposure scenario <sup>a</sup>
Benzo(k)fluoranthene	0.34	1.70	5 times the RG for residential exposure scenario <sup>a</sup>
Copper	160	800	5 times the RG for residential exposure scenario <sup>a</sup>
Dibenz(a,h)anthracene	0.33	1.65	5 times the RG for residential exposure scenario <sup>a</sup>
Indeno(1,2,3-cd)pyrene	0.35	1.50	5 times the RG for residential exposure scenario <sup>a</sup>
Lead	155	755	5 times the RG for residential exposure scenario <sup>a</sup>
Total TPH	3,500	3,500	TPH source criterion <sup>b</sup>

Notes:

<sup>a</sup> RGs for residential, industrial worker, construction worker, and recreational exposure scenarios are detailed in Table 7.

<sup>b</sup> The TPH source criterion represents the most conservative evaluation criterion for potential sources of groundwater contamination that may affect aquatic life in San Francisco Bay.

## 2.6 Principal Threat Waste

According to USEPA's "Guide to Principal Threat and Low Level Threat Wastes," principal threat wastes are those source materials considered to be highly toxic or highly mobile that generally cannot be reliably contained or would present a significant risk to human health or the environment should exposure occur. The chemicals, found in soil and groundwater at Parcel UC-3, do not constitute a principal threat because the chemicals do not migrate readily in the environment.

## 2.7 Remedial Action Objectives

**RAOs** are established based on attainment of regulatory requirements, standards, and guidance; contaminated media; COCs and chemicals of ecological concern; potential receptors and exposure scenarios; and human health and ecological risks. Ultimately, the success of a remedial action is measured by its ability to meet the RAOs. Planned future land use is an important component in developing RAOs, and the RAOs for Parcel UC-3 are based on future mixed use and light industrial reuse.

The RAOs for Parcel UC-3 were developed in conjunction with the regulatory agencies and are listed by medium.

## 2.7.1 Soil and Soil Gas RAOs

Soil and soil gas RAOs for Parcel UC-3 are as follows:

- Prevent unacceptable exposure of humans to chemicals and radionuclides in soil at concentrations exceeding the RGs (Table 7) for the following exposure pathways:
  - Ingestion of, outdoor inhalation of, and dermal exposure to soil from 0 to 10 feet bgs by residents in areas zoned for mixed-use reuse.
  - Ingestion of homegrown produce in native soil in areas zoned for mixed-use reuse.
  - Ingestion of, outdoor inhalation of, and dermal exposure to soil from 0 to 10 feet bgs by construction workers in all areas.
  - Ingestion of, outdoor inhalation of, and dermal exposure to soil from 0 to 10 feet bgs by industrial users of the railroad right-of-way.
- Prevent exposure of humans to VOCs in soil gas at concentrations that would pose unacceptable risk via indoor inhalation of vapors. **Table 7 of the final soil gas memorandum** lists risk-based action levels for various volatile chemicals, including SVOCs, that may pose an unacceptable risk via indoor inhalation of vapors. These soil gas action levels will be used for an initial risk-based screening of data collected during future soil gas surveys (such as the surveys to be performed at the IR Site 56 VOC groundwater plume following active treatment). After the initial risk-based screening, areas with unacceptable risk will be further evaluated using location-specific data (i.e., physical characteristics of the soil) to assess potential exposures consistent with the State of California and USEPA vapor intrusion guidance. In addition, risks and hazards at these areas will be further characterized using the accepted methodology for risk assessments at HPNS.

## 2.7.2 Radiologically Impacted Media RAO

The RAO for radiologically impacted media for Parcel UC-3 is as follows:

- Prevent exposure to radiological isotopes at activity levels that exceed remediation goals for all potentially complete exposure pathways (which include external exposure, ingestion, and inhalation of soil based on the CSM for human health).

The RAO for radiologically impacted media has been satisfied through removal actions at Parcel UC-3. Excavation of radiologically impacted sewer and storm drain lines was completed under a TCRA in 2011. The removal action included all sewer and storm drain lines as well as potentially impacted soil. A Radiological RACR for Parcel UC-3 was submitted on March 16, 2012, and received concurrence for radiological unrestricted release from DTSC on October 31, 2012. All work required by the selected radiological remedy, Alternative R-2, has been completed and no additional actions are required. Selection of Alternative R-2 is documented in this ROD.

## 2.7.3 Groundwater RAOs

Groundwater RAOs for Parcel UC-3 are as follows:

- Prevent or minimize unacceptable exposure of humans to COCs in the B-aquifer at concentrations exceeding RGs via the domestic use pathway.

- Prevent or minimize unacceptable exposure of construction workers to VOCs in A-aquifer groundwater by dermal exposure and inhalation of vapors with chemicals exceeding RGs.

Table 7 lists the RGs for COCs in soil. Table 8 lists the RGs for COCs in groundwater.

**TABLE 7**  
Remediation Goals for Soil

Chemical of Concern	RG for Residential Exposure Scenario (mg/kg)	RG for Industrial Worker Exposure Scenario (mg/kg)	RG for Construction Worker Exposure Scenario (mg/kg)	RG for Recreational Exposure Scenario (mg/kg)
Antimony	10	--	120	--
Aroclor 1260	0.21	--	2.1	0.74
Arsenic	11.1	11.1	11.1	11.1
Benzene	0.18	--	9.4	--
Benzo(a)anthracene <sup>1</sup>	0.37	1.8	6.4	1.3
Benzo(a)pyrene <sup>1</sup>	0.33	0.33	0.65	0.33
Benzo(b)fluoranthene <sup>1</sup>	0.34	1.8	6.5	1.3
Benzo(k)fluoranthene <sup>1</sup>	0.34	1.8	6.5	1.3
Bis(2-ethylhexyl)phthalate	1.1	--	--	--
Cadmium	3.5	--	--	--
Copper <sup>1</sup>	160	76,000	11,000	470
Dibenz(a,h)anthracene <sup>1</sup>	0.33	0.33	1.1	0.33
Heptachlor epoxide	0.0017	--	--	0.21
Indeno(1,2,3-cd)pyrene <sup>1</sup>	0.35	1.8	6.5	1.3
Iron	58,000	--	93,000	--
Lead <sup>1</sup>	155	800	800	155
Manganese	1,431	--	6,900	2,430
Mercury	2.28	--	93	210
Thallium	5.0	--	--	--
Vanadium	117	--	310	--
Zinc	370	--	--	--
Xylene	270	--	--	--
Total TPH <sup>1</sup>	3,500	3,500	3,500	3,500

Notes:

The source of the RG is presented in Table 3-1 of the Parcel E FS Report.

<sup>1</sup>These chemicals are those found in soil at concentrations that exceed Soil Action Levels identified in Table 6.

**TABLE 8**  
Remediation Goals for Groundwater

Exposure Scenario	Chemical of Concern	RG (µg/L)
Construction Worker Exposure to Shallow Groundwater (A-aquifer)	Trichloroethene	370
Construction Worker Exposure to Shallow Groundwater (A-aquifer)	1,2-dichloroethene (total)	305
Construction Worker Exposure to Shallow Groundwater (A-aquifer)	Vinyl chloride	6.3

Notes:

Trichloroethene is the only COC for groundwater in Parcel UC-3.  
The source of the RGs is risk-based and presented in Section 3.1.3.2 and Table 3-3 of the Parcel E FS Report.  
µg/L = microgram per liter

## 2.8 Description and Evaluation of Remedial Alternatives

The Navy screened a range of general response actions and remedial technologies and then, using the retained technologies, developed alternatives in the Parcel E FS Report to address contamination at Parcel UC-3.

### 2.8.1 Description of Remedial Alternatives

The following remedial alternatives evaluated for soil at Parcel UC-3 are listed and briefly described below:

- **Alternative S-1 - No Action:** Under Alternative S-1, no response action would be taken. Soil at Parcel UC-3 would be left in place as is, without implementing any ICs, containment, removal, treatment, or other response actions. The no action alternative is retained throughout the FS process as required by NCP to provide a baseline for comparison with and evaluation of other alternatives.
- **Alternative S-2 - Covers and Institutional Controls:** Alternative S-2 includes (1) covers at Redevelopment Block MU-3 to prevent unacceptable human exposure to ubiquitous metals and other COCs that may pose a risk, (2) ICs that would be implemented through deed restrictions, including maintaining the covers, (3) cleaning and closure of buried steam lines (IR Site 45), and (4) soil-gas monitoring at the IR Site 56 plume area.
- **Alternative S-3 - Excavation and Offsite Disposal of Soil from Tier 1 Locations, Followed by Covers and Institutional Controls:** Alternative S-3 includes (1) excavation and offsite disposal of soil from Tier 1 locations (soil that contains COCs at concentrations greater than 10 times the RGs) at a permitted facility, (2) covers at Redevelopment Block MU-3 and ICs to limit unacceptable exposure to COCs in soil that is left in place, (3) cleaning and closure of buried steam lines, and (4) soil-gas monitoring at the IR Site 56 plume area.
- **Alternative S-4 - Excavation and Offsite Disposal of Soil from Tier 2 and TPH Locations, Followed by Covers and Institutional Controls:** Alternative S-4 consists of (1) excavation and offsite disposal of soil from Tier 2 locations (soil that contains COCs at concentrations greater than 5 times the RGs) and TPH locations (soil that contains TPH at concentrations greater than the RG) at a permitted facility, (2) covers at Redevelopment Block MU-3 and ICs to limit

unacceptable exposure to COCs in soil that is left in place, (3) cleaning and closure of buried steam lines, and (4) soil-gas monitoring at the IR Site 56 plume area.

The following remedial alternatives for groundwater at Parcel UC-3 were developed for evaluation:

- **Alternative GW-1 – No Action:** Under Alternative GW-1, no response action would be taken. Groundwater at Parcel UC-3 would be left as is, without implementing any ICs, containment, removal, treatment, or other response actions.
- **Alternative GW-2 – Long-term Groundwater Monitoring and Institutional Controls:** Alternative GW-2 would meet RAOs by controlling exposure pathways through ICs. This alternative does not intend to restore affected groundwater for beneficial use. Long-term groundwater monitoring would provide awareness of the size and behavior of the COC plume, helping to ensure that contaminants do not migrate beyond controlled areas. ICs would be implemented in areas where humans could be exposed to COCs at concentrations that pose an unacceptable health risk.
- **Alternative GW-3 – In Situ Bioremediation, Monitored Natural Attenuation, and Institutional Controls:** Alternative GW-3 would meet RAOs by addressing organic chemicals through anaerobic ISB. Groundwater would be monitored during the ISB and natural attenuation phases of this alternative. ICs would be implemented in areas where humans could be exposed to COCs at concentrations that pose an unacceptable health risk.

The following remedial alternatives for radiologically impacted media at Parcel UC-3 were developed for evaluation:

- **Alternative R-1 – No Action:** Under Alternative R-1, no response action would be taken. Radiologically impacted sewer and storm drain lines at Parcel UC-3 would be left in place as is, without implementing any ICs, containment, removal, treatment, or other response actions. The no action alternative is retained throughout the FS process as required by NCP to provide a baseline for comparison with and evaluation of other alternatives.
- **Alternative R-2 – Survey, Removal, and Disposal:** Under Alternative R-2, all sewer and storm drain lines would be excavated. Excavated materials would be disposed of at offsite facilities. Surveys would then be conducted to ensure that RGs are met for radiological unrestricted release.

Alternative R-2 was completed as part of the basewide radiological TCRA. DTSC concurred on radiological unrestricted release for radiologically impacted media at Parcel UC-3 in October 2012.

Table 9 describes the major components and cost of each remedial alternative identified for Parcel UC-3. The Parcel E Feasibility Study presented costs for all of Parcel E, including Parcel UC-3. Parcel UC-3 is a small portion of the total cost for Parcel E. Cost estimates in this ROD were derived using a ratio of the soil volumes and groundwater plume area size in Parcel UC-3 to the overall Parcel E costs. Costs were not broken down by capital costs and operation and maintenance costs, as this was not identified in the FS specifically for Parcel UC-3.

**TABLE 9**  
Remedial Alternatives Identified for Parcel UC-3

Remedial Alternative and Key Components		Cost
<b>SOIL</b>		
S-1	<b>No Action:</b> No actions or costs; this alternative is required by CERCLA as a baseline for comparison with the other alternatives.	\$0
S-2	<p><b>Covers:</b> Construct physical barriers at Redevelopment Block MU-3 to eliminate the exposure pathways to soil at Parcel UC-3.</p> <p><b>Long-term Monitoring and Maintenance:</b> Regularly inspect, maintain, and repair the existing covers.</p> <p><b>ICs:</b> Impose ICs to limit the use of land or restrict activities.</p> <p><b>Steam Line Closure:</b> Remove steam line if contaminated with waste oil, or clean and close steam line in place.</p> <p><b>Soil-gas Monitoring:</b> Perform soil-gas monitoring at the IR Site 56 plume.</p>	<p>Capital Cost: \$250,000</p> <p>Total O&amp;M: \$86,000</p> <p>Present Net Worth: \$358,000 (2.7% discount rate)</p> <p>Timeframe: 32 years</p>
S-3	<p><b>Excavation and Offsite Disposal of Soil from Tier 1 Locations:</b> At Tier 1 locations, remove soil that contains chemicals at concentrations greater than 10 times the RGs.</p> <p><b>Covers:</b> Construct physical barriers at Redevelopment Block MU-3 to eliminate the exposure pathways to soil at Parcel UC-3.</p> <p><b>Long-term Monitoring and Maintenance:</b> Regularly inspect, maintain, and repair the existing covers.</p> <p><b>ICs:</b> Impose ICs to limit the use of land or restrict activities.</p> <p><b>Steam Line Closure:</b> Remove steam line if contaminated with waste oil, or clean and close steam line in place.</p> <p><b>Soil-gas Monitoring:</b> Perform soil-gas monitoring at the IR Site 56 plume.</p>	<p>Capital Cost: \$452,000</p> <p>Total O&amp;M: \$104,000</p> <p>Present Net Worth: \$611,000 (2.7% discount rate)</p> <p>Timeframe: 32 years</p>
S-4	<p><b>Excavation and Offsite Disposal of Soil from Tier 2 and TPH Locations, Followed by Covers and Institutional Controls:</b> At Tier 2 locations, remove soil that contains chemicals at concentrations greater than 5 times the RGs (Tier 2 locations include Tier 1 locations). At TPH locations, remove soil that contains TPH at concentrations greater than the RG.</p> <p><b>Covers:</b> Construct physical barriers within Redevelopment Block MU-3 to eliminate the exposure pathways to soil at Parcel UC-3.</p> <p><b>Long-term Monitoring and Maintenance:</b> Regularly inspect, maintain, and repair the existing covers.</p> <p><b>ICs:</b> Impose ICs to limit the use of land or restrict activities.</p> <p><b>Steam Line Closure:</b> Remove steam line if contaminated with waste oil, or clean and close steam line in place.</p> <p><b>Soil-gas Monitoring:</b> Perform soil-gas monitoring at the IR Site 56 plume.</p>	<p>Capital Cost: \$467,000</p> <p>Total O&amp;M: \$104,000</p> <p>Present Net Worth: \$629,000 (2.7% discount rate)</p> <p>Timeframe: 32 years</p>

**TABLE 9**  
Remedial Alternatives Identified for Parcel UC-3

Remedial Alternative and Key Components		Cost
<b>RADIOLOGICALLY IMPACTED MEDIA</b>		
R-1	<b>No Action:</b> No actions or costs; this alternative is required by CERCLA as a baseline for comparison with the other alternatives.	\$0
R-2	<b>Survey, Removal, and Disposal:</b> Excavate all sewer and storm drain lines. Excavated materials would be disposed of at offsite facilities. Surveys would then be conducted to ensure that RGs are met for radiological unrestricted release (see note below).	\$6,882,000
<b>GROUNDWATER</b>		
GW-1	<b>No Action:</b> No actions or costs; this alternative is required by CERCLA as a baseline for comparison with the other alternatives.	\$0
GW-2	<b>Groundwater Monitoring:</b> Implement long-term monitoring of groundwater to assess whether chemicals are migrating and to monitor changes in ambient conditions. <b>ICs:</b> Impose ICs to limit the use of land or restrict activities.	Capital Cost: \$16,000 Total O&M: \$164,000 Present Net Worth: \$150,000 (2.7% discount rate) Timeframe: 32 years
GW-3	<b>In Situ Groundwater Treatment:</b> Inject an organic compound at the source of groundwater contamination to stimulate biological activity to create conditions where VOCs are broken down into inert chemicals in groundwater. <b>MNA:</b> Implement long-term monitoring and studies of groundwater to assess whether chemicals are migrating and to evaluate the effects of treatment. <b>ICs:</b> Impose ICs to limit the use of land or restrict activities.	Capital Cost: \$67,000 Total O&M: \$221,000 Present Net Worth: \$259,000 (2.7% discount rate) Timeframe: 32 years

Notes:

Costs indicated above are based on calculated costs from the Parcel E FS Report and were estimated using unit costs for each remedial technology.

Alternative R-2 was completed as part of the basewide TCRA. The cost listed for Alternative R-2 is the approximate actual cost and includes removal and disposal actions, confirmation sampling, and completion of the RACR.

## 2.8.2 Comparative Analysis of Alternatives for Soil and Radiologically Impacted Media

This section presents a comparative analysis of alternatives for soil and radiologically impacted media with respect to the **nine evaluation criteria**: two threshold, five balancing, and two modifying criteria. Table 10 provides a relative ranking of the alternatives for soil. Table 11 provides a relative ranking of the alternatives for radiologically impacted media.

**TABLE 10**  
Relative Ranking of Remedial Alternatives for Soil

CERCLA Criteria	Alternative S-1 No Action	Alternative S-2 Covers and ICs	Alternative S-3 Excavation and Offsite Disposal of Soil from Tier 1 Locations, Followed by Covers and ICs	Alternative S-4* Excavation and Offsite Disposal of Soil from Tier 2 and TPH Locations, Followed by Covers and ICs
<b>Threshold Criteria</b>				
Overall Protection of Human Health and Environment	No	Yes	Yes	Yes
Compliance with ARARs	NA	Yes	Yes	Yes
<b>Balancing Criteria</b>				
Long-term Effectiveness and Performance				
Reduction in Toxicity, Mobility, or Volume through Treatment				
Short-term Effectiveness				
Implementability				
Present Worth Cost	0	\$358,000	\$611,000	\$629,000
<b>Modifying Criteria</b>				
State Acceptance				
Community Acceptance <sup>a</sup>				

Notes:

Fill symbol by quarters from open (poor) to full (excellent).

\* Indicates preferred alternative

<sup>a</sup> Community Acceptance ranking of the alternatives was based on feedback received during community and public meetings and public comments on Parcels E and UC-3.

**TABLE 11**  
Relative Ranking of Remedial Alternatives for Radiologically Impacted Media

CERCLA Criteria	Alternative R-1 No Action	Alternative R-2 <sup>a</sup> Survey, Removal, and Disposal
<b>Threshold Criteria</b>		
Overall Protection of Human Health and the Environment	No	Yes
Compliance with ARARs	NA	Yes
<b>Balancing Criteria</b>		
Long-term Effectiveness and Performance		
Reduction in Toxicity, Mobility, or Volume through Treatment		
Short-term Effectiveness		
Implementability		
Present Worth Cost	\$0	\$6,882,000
<b>Modifying Criteria</b>		
State Acceptance		
Community Acceptance <sup>b</sup>		

## Notes:

Fill symbol by quarters from open (poor) to full (excellent).

Alternative R-2 was completed as part of the basewide TCRA. The cost listed for alternative R-2 is the approximate actual cost and includes removal and disposal actions, confirmation sampling, and completion of the RACR.

<sup>a</sup> Indicates preferred alternative

<sup>b</sup> Community Acceptance ranking of the alternatives was based on feedback received during community and public meetings and public comments on Parcels E and UC-3.

Following is a discussion that weighs the soil and radiologically impacted media alternatives against each other in terms of the threshold, balancing, and modifying criteria (nine evaluation criteria).

### Threshold Criteria

**Overall Protection of Human Health and the Environment.** Alternatives S-2, S-3, S-4, and R-2 are protective. Alternatives S-1 and R-1 are not protective. Alternatives S-2, S-3, S-4, and R-2 protect human health and the environment under the anticipated future land use of Parcel UC-3. Alternatives S-1 and R-1 do not address any risks at the site; thus, they do not provide sufficient protection to human health or the environment.

**Compliance with ARARs.** Alternatives S-2, S-3, S-4, and R-2 comply with all of the pertinent ARARs, thereby satisfying this threshold criterion and making these alternatives eligible for selection as the final remedial action. ARARs do not apply to the no action alternatives.

## Primary Balancing Criteria

**Long-term Effectiveness and Permanence.** Long-term effectiveness and permanence of Alternatives S-4 and R-2 are rated the highest because they would remove the most COC-contaminated soil and remove all radiologically impacted media. The magnitude of residual risks remaining after the response action would be highest for Alternative S-2, which relies on covers to meet the RAOs, and lowest for Alternatives S-3, S-4, and R-2, which implement excavations. Alternatives S-2, S-3, and S-4 would provide long-term effectiveness in meeting the RAOs through reliance on continual enforcement of deed restrictions to maintain covers and access restrictions. Alternative S-3 provides long-term effectiveness and permanence for soil contaminated with metals and organic chemicals but relies on a cover and ICs for other COCs. Alternative S-2 provides comprehensive soil coverage prior to development but does not permanently remove any contamination; long-term effectiveness is good for Alternative S-2, as long as the covers are maintained. Alternative R-2 provides long-term effectiveness through removal of all radiologically impacted media and a determination of radiological unrestricted release. Because no action would be taken under Alternatives S-1 and R-1, they do not provide any degree of long-term effectiveness.

**Reduction in Toxicity, Mobility, and Volume through Treatment.** Alternative S-4 would reduce both the mobility and volume of contaminated soil in a particular geographic area at the site, thus it is rated the highest (good). Alternatives S-1, S-2, S-3, R-1 and R-2 were all rated low (poor) because they do not include treatment that would result in the destruction, transformation, or irreversible reduction in contaminant mobility.

**Short-term Effectiveness.** Alternatives S-1 and R-1 have the least effect on the community, workers, or the environment during implementation because they include no actions, so they were rated higher for short-term effectiveness. Alternative S-2 would similarly introduce minimal risk to the community, workers, or the environment because it does not include significant amounts of excavation, hauling, and disposal of contaminated soil. Alternatives S-3, S-4, and R-2 include removing and hauling large volumes of soil with contamination, which would pose potential risk to site workers, the community, and the environment. However, this risk is considered low because mitigation measures would be implemented to protect human health and the environment. Alternatives S-2, S-3, and S-4 would generate similarly sized environmental footprints, primarily associated with emissions and energy use from construction of the durable covers; however, the periods of construction for all three alternatives are relatively short (2 years) and would not significantly affect short-term effectiveness. Therefore, Alternatives S-3 and S-4 were rated equally good with respect to short-term effectiveness.

**Implementability.** Alternatives S-2, S-3, and S-4 require implementation of ICs and active remediation. Installing covers and excavating soil (Alternatives S-3 and S-4) are standard technologies that are easy to implement and have been successfully implemented in the past at HPNS. However, the excavation operation decreases the implementability of Alternatives S-3, S-4, and R-2. Alternatives S-1 and R-1 do not involve remedial technologies or ICs because no implementation occurs.

**Cost.** Alternatives S-1 and R-1 require no action; therefore, no costs are associated with these alternatives. Alternative S-2 would incur relatively low costs (\$358,000) because it includes no active remediation prior to property transfer. Alternatives S-3 and S-4 would incur higher costs (\$611,000 for Alternative S-3 and \$629,000 for Alternative S-4) because they include excavation and

offsite disposal of contaminated soil as an option. No costs remain for Alternative R-2 because the TCRA is complete, and the site has achieved radiological unrestricted release.

### Modifying Criteria

**State Acceptance.** DTSC and RWQCB have been involved throughout the CERCLA process and concur with the selected remedies for Parcel UC-3.

**Community Acceptance.** Comments received from the public during the public meeting and during the public comment period for the Proposed Plan are addressed in the Responsiveness Summary.

## 2.8.3 Comparative Analysis of Alternatives for Groundwater

This section presents a comparative analysis of alternatives for groundwater with respect to the nine evaluation criteria: two threshold, five balancing, and two modifying criteria. Table 12 provides a relative ranking of the alternatives for groundwater.

**TABLE 12**  
Relative Ranking of Remedial Alternatives for Groundwater

CERCLA Criteria	Alternative GW-1 No Action	Alternative GW-2 Long-term Groundwater Monitoring and ICs	Alternative GW-3* In Situ Bioremediation, Monitored Natural Attenuation, and ICs
<b>Threshold Criteria</b>			
Overall Protection of Human Health and Environment	No	No	Yes
Compliance with ARARs	NA	No	Yes
<b>Balancing Criteria</b>			
Long-term Effectiveness and Performance			
Reduction in Toxicity, Mobility, or Volume through Treatment			
Short-term Effectiveness			
Implementability			
Present Worth Cost	0	\$150,000	\$259,000
<b>Modifying Criteria</b>			
State Acceptance			
Community Acceptance <sup>a</sup>			

Notes:

Fill symbol by quarters from open (poor) to full (excellent).

\* Indicates preferred alternative

<sup>a</sup> Community Acceptance ranking of the alternatives was based on feedback received during community and public meetings and public comments on Parcels E and UC-3.

Following is a discussion that weighs the groundwater alternatives against each other in terms of the threshold, balancing, and modifying criteria (nine evaluation criteria).

### **Threshold Criteria**

**Overall Protection of Human Health and the Environment.** Alternative GW-3 is protective of human health and the environment. Alternatives GW-1 and GW-2 are not protective of human health. Alternative GW-3 would accelerate the degradation of chemicals that would reduce the duration of implementation and the longevity of some ICs over time.

**Compliance with ARARs.** Alternative GW-3 complies with all of the pertinent ARARs, thereby satisfying this threshold criterion and making alternative GW-3 eligible for selection as the final remedial action. Alternative GW-2 does not meet all of the pertinent ARARs. ARARs do not apply to the no action alternative (GW-1).

### **Primary Balancing Criteria**

**Long-Term Effectiveness and Permanence.** Alternative GW-3 would provide the highest level of long-term effectiveness and permanence because COCs would be degraded or immobilized using treatment technologies that have been successfully implemented at other HPNS sites. Alternative GW-2 would provide a poor level of long-term effectiveness and permanence because human health risk would be addressed only through ICs. Alternative GW-1 would not provide an acceptable level of long-term effectiveness and permanence.

**Reduction in Toxicity, Mobility, and Volume through Treatment.** Alternative GW-3 is rated the highest because it reduces the toxicity and/or mobility of COCs, as well as the volume of contaminated groundwater by active treatment of COCs through both aerobic and anaerobic degradation. Alternatives GW-1 and GW-2 would not reduce the toxicity or volume of chemicals, other than through the natural recovery of the aquifer.

**Short-Term Effectiveness.** Alternative GW-1 has an excellent short-term effectiveness rating because no response actions are conducted under this alternative. Alternative GW-3 poses a greater risk to workers than Alternative GW-2 because it involves more aggressive field activities that would expose receptors to additional risks. However, the risks associated with implementing Alternative GW-3 could be mitigated through control measures during the implementation period. Control measures have been implemented successfully at HPNS in the past and should not be considered a significant hindrance to Alternative GW-3. Alternative GW-3 would generate a moderately sized environmental footprint, primarily associated with emissions and energy from well drilling and groundwater treatment. Comparatively, Alternative GW-2 would produce a relatively small footprint because of the lack of construction-based field activity. Overall, none of the environmental footprints produced by these remedial alternatives would be considered large enough or would occur over a long enough period of time to be considered a hindrance to short-term effectiveness.

**Implementability.** Alternatives GW-1 and GW-2 have the highest rating because their implementation requires minimal to no construction. Alternative GW-3 is more complex to implement because it includes construction and implementation of in situ treatment technologies.

**Cost.** Alternative GW-1 requires no action; therefore, no costs are associated with this alternative. Alternative GW-2 would incur low costs (\$150,000) because it includes no active remediation. Alternative GW-3 would incur higher costs (\$259,000) because it includes construction and implementation of specialized treatment technologies.

### **Modifying Criteria**

**State Acceptance.** DTSC and RWQCB have been involved throughout the CERCLA process and concur with the selected remedy for Parcel UC-3.

**Community Acceptance.** Community acceptance is evaluated based on comments received from the public during the public comment period for the Proposed Plan. The Proposed Plan, which identified Alternatives S-4, GW-3, and R-2 as the preferred remedial alternatives, was presented to the community and discussed during a public meeting on February 28, 2013. Comments were also gathered during the public comment period from February 13 through April 1, 2013. In general, public comments expressed support for the Navy's selected remedial alternatives. Attachment 3, the responsiveness summary of this ROD, addresses the public's comments and specific concerns about the selected remedial alternatives for soil in the railroad right-of-way (Alternative S-4), for groundwater at the IR Site 56 plume (Alternative GW-3), and for radiologically impacted media at Parcel UC-3 (Alternative R-2). Section 2.10 provides additional information on the Navy's community participation efforts for Parcel UC-3.

## **2.9 Selected Remedy**

### **2.9.1 Rationale for Selected Remedy**

The selected remedy for Parcel UC-3 consists of the following:

- Soil – Alternative S-4. Excavation and offsite disposal of soil from Tier 2 and TPH locations (Figure 7), followed by covers within Redevelopment Block MU-3, steam line closure, and ICs. Soil gas surveys will be conducted in consultation with regulatory agencies (1) in focused areas where concerns continue about residual VOCs in soil, (2) where VOCs are present in groundwater, (3) at groundwater remediation areas following completion of the remedial action for groundwater, and (4) to evaluate the need for remedial action or the reduction or retention of an Area Requiring Institutional Control (ARIC) for potential VOC chemicals in groundwater and soil gas.
- Groundwater – Alternative GW-3. ISB, MNA, and ICs (Figure 4).
- Radiologically Impacted Media – Alternative R-2. Survey, removal, and disposal.

The Navy and USEPA, in consultation with DTSC and RWQCB, selected the remedy based on an evaluation of the remedial alternatives, as described in Section 2.8, relative to the nine evaluation criteria. The selected remedies comply with the two threshold criteria and provide the best balance among the alternatives with respect to the five balancing criteria. The Navy's evaluation of the two modifying criteria did not warrant changes to the preferred alternatives published in the Proposed Plan.

Alternative S-4 will achieve RAOs by permanently removing soil in selected areas where chemicals exceed 5 times the RGs (Tier 2 locations, including Tier 1 locations) or the RG (TPH locations), thus protecting human health under the anticipated future land use of Parcel UC-3. Alternative S-4

prevents exposure to contaminants remaining in soil by durable covers. Alternative S-4 also provides long-term effectiveness in meeting the RAOs through reliance on continual enforcement of deed restrictions to maintain covers and access restrictions, and control of future land uses.

Alternative GW-3 will achieve RAOs by actively treating the VOC groundwater plume at Parcel UC-3 using injected biological nutrients to break down the VOCs to nontoxic compounds. The Navy expects that it will take several years to complete the active treatment, which will be followed by MNA to ensure that natural processes are degrading the remaining VOCs. The Navy will also implement ICs after these activities for continued protection of public health and the environment and to ensure the integrity of the containment remedies.

All work required by the selected radiological Alternative R-2 has been completed and no additional actions are required.

## 2.9.2 Description of Selected Remedy

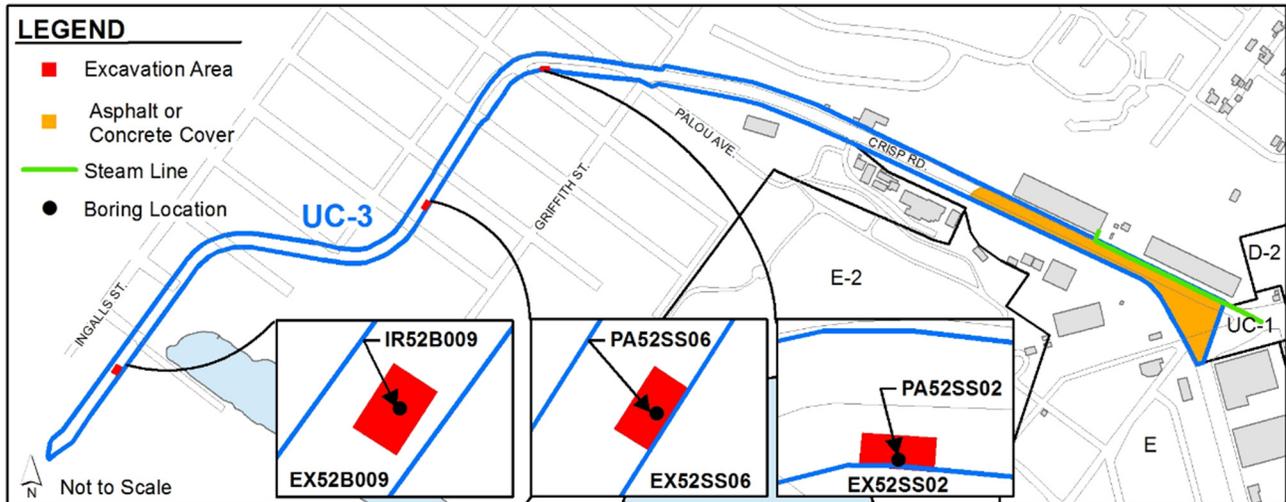
The selected remedy for soil and groundwater at Parcel UC-3 consists of two primary components: (1) excavation and offsite disposal of soil from Tier 2 and TPH locations, steam line closure, and soil-gas monitoring at the IR Site 56 plume, followed by covers within Redevelopment Block MU-3 and ICs; and (2) ISB, MNA, and ICs at the IR Site 56 plume. The following sections describe the components of the selected remedy, which will be **further developed in the Remedial Design (RD)**.

### 2.9.2.1 Excavation and Offsite Disposal (Alternative S-4)

Alternative S-4 consists of removing soil from three locations that pose an unacceptable risk to humans and the environment, with disposal at one or more approved offsite landfills, as appropriate, and backfilling of the excavations with clean soil.

In the Parcel E FS, areas to be excavated were identified. The extents of the excavations are based on data collected during characterization efforts in 2012 and the industrial screening criteria used in the Revised Parcel E RI. The three excavations in Parcel UC-3 are shown on Figure 8 and defined as follows:

- Excavation EX52B009 is located where SVOC concentrations exceeded Tier 2 action levels at soil boring IR52B009. The total proposed excavation area is approximately 1,103 square feet, and the total volume to be excavated to 5 feet bgs is approximately 204 yd<sup>3</sup> of soil.
- Excavation EX52SS02 is located where TPH concentrations exceeded the TPH action level at soil boring PA52SS02. The total proposed excavation area is approximately 694 square feet, and the total volume to be excavated to 3 feet bgs is approximately 77 yd<sup>3</sup> of soil.
- Excavation EX52SS06 is located where copper and lead concentrations exceeded Tier 2 action levels at soil boring PA52SS06. The total proposed excavation area is approximately 1,097 square feet, and the total volume to be excavated to 3 feet bgs is approximately 122 yd<sup>3</sup> of soil.



**Figure 8. Excavation and Cover Plan**

Following excavation and before the voids are backfilled, confirmation samples will be collected for analysis to verify that soil Tier 2 and TPH action levels (Table 6) have been achieved at each soil excavation area. Following receipt of acceptable confirmation sampling results, the excavations will be backfilled with clean imported soil that meets acceptance criteria (to be specified in the RD) and compacted.

### 2.9.2.2 Durable Covers (Alternative S-4)

A durable cover is required at Parcel UC-3 in the eastern portion of Crisp Road (specifically within Redevelopment Block MU-3) to meet the RAO by breaking the exposure pathway for contamination left in place. Durable covers are not required in the railroad right-of-way and the area between the railroad right-of-way and Redevelopment Block MU-3.

Soil and groundwater in this area are not contaminated above the RGs for the industrial worker exposure scenario, except for the hot spot locations in the railroad right-of-way, which will be excavated. A durable cover will not break, erode, or deteriorate such that the underlying soil becomes exposed. The durable cover will consist of a minimum of 4 inches of asphalt or concrete paving. Existing asphalt and concrete surfaces and buildings may be used as covers as long as they meet the durability requirement. Asphalt covers will be sealed at the start of construction and maintained by resealing once every 10 years or as needed to prevent opening an exposure pathway.

### 2.9.2.3 Steam Line Closure (Alternative S-4)

**Additional investigation of the underground stream line system** (IR Site 45) will be required to assess whether individual steam lines within Parcel UC-3 were used to transfer waste oil and if so, whether they leaked into the concrete utility corridors. A general procedure was provided in the Parcel E FS for steam line investigation and closure, including:

- Geophysical mapping of pipelines
- Asbestos abatement of protective wrap and pipe insulation
- Inspection and tightness testing of steam lines, with excavation to expose steam lines as needed
- Sampling and analysis of fluids or, if none, wipe sampling to identify pipe segments with potential impact to soil and groundwater

- Pressure testing of pipeline segments where waste oil and contaminants were found
- Removal of pipeline segments that fail pressure testing
- Pressure washing of remaining pipeline segments and confirmatory wipe sampling
- Utility corridor cleaning and inspection with excavation

Detailed excavation and confirmation sampling plans will be developed in the RD. If soil samples are collected as part of the steam line closure activities, they will be compared to Tier 2 and TPH action levels (Table 6) to determine whether remediation is required.

#### **2.9.2.4 Excavation and Offsite Disposal of Radiologically Impacted Sewer and Storm Drain Lines (Alternative R-2)**

Alternative R-2 will achieve RAOs by performing the following actions: (1) scanning radiologically impacted sewer and storm drain lines at Parcel UC-3; (2) screening, separating, and disposing of radiologically impacted debris and soil at an approved landfill; and (3) performing final surveys to demonstrate RGs have been met. As discussed in Sections 1.1 and 2.8.1, this alternative was completed at Parcel UC-3 under a TCRA in 2011. All work required by the selected radiological Alternative R-2 has been completed and no additional actions are required. A Radiological RACR was submitted on March 16, 2012, and received concurrence for radiological unrestricted release from DTSC on October 31, 2012.

#### **2.9.2.5 In Situ Bioremediation (Alternative GW-3)**

**ISB:** Anaerobic ISB will be used for the IR Site 56 plume to target TCE. Reductive dechlorination is the mechanism by which chlorinated compounds are biodegraded into less harmful constituents such as ethene and ethane. Anaerobic conditions will be produced by introducing a substrate (or food source). The substrate will fuel aerobic micro-organisms and cause them to quickly deplete available oxygen. Anaerobic micro-organisms will then multiply in the anoxic environment and destroy the targeted chemicals through a variety of mechanisms, including direct metabolism, co-metabolism, and halorespiration.

Hydrogen is a key component in anaerobic contaminant degradation during reductive dechlorination. Hydrogen release compound (HRC) is an electron donor that, when hydrated, is specifically designed to produce a controlled release of lactic acid. The resulting lactic acid is critical for the production of hydrogen to fuel anaerobic biodegradation processes in groundwater. Therefore, HRC acts as a reducing agent and a hydrogen-producing agent.

Substrate will be injected into the saturated zone of the A-aquifer within the lateral extent of the IR Site 56 plume. Once in the subsurface, HRC resides within the soil matrix fueling reductive dechlorination and promoting reducing aquifer conditions for periods of up to 24 months or longer through the controlled release of lactic acid and subsequent hydrogen production. The HRC dosages used to produce the cost estimates were modeled conservatively using the maximum plume concentration, so it is anticipated that only a single treatment will be required to achieve target endpoints at the plume (to be developed by the Navy and regulatory agencies during the RD). Based on maximum observed concentrations and half-lives of the target COC, it is estimated that anaerobic bioremediation will meet the intermediate remediation endpoints in about 2 years (based on professional judgment and past experience). ISB performance monitoring will continue until groundwater ROAs and RGs are met and no rebound is observed, even after depletion of amendments.

Quarterly progress monitoring will be conducted during the anaerobic phase (the 2-year active remediation period). Wells will also be monitored during the MNA phase, which is described in more detail in Section 2.9.2.6.

### **2.9.2.6 Monitoring**

#### **Soil-gas Monitoring (Alternative S-4)**

IR Site 56, located partially within Parcel UC-3, will be evaluated as a potential soil gas survey area. Soil gas surveys will be conducted, in consultation with regulatory agencies, (1) in focused areas where concerns continue about residual VOCs in soil, (2) where VOCs are present in groundwater, (3) at groundwater remediation areas following completion of the remedial action for groundwater, and (4) to evaluate the need for remedial action or the reduction or retention of an ARIC for potential VOC chemicals in groundwater and soil gas.

#### **Monitored Natural Attenuation (Alternative GW-3)**

MNA will follow implementation of ISB. MNA will continue for as long as COC concentrations exceed their RGs or until a vapor intrusion risk evaluation determines that no unacceptable risk to future users exists. MNA is distinguished from long-term monitoring in that MNA measures and evaluates the natural processes that reduce chemical concentrations to acceptable levels (e.g., dilution, volatilization, biodegradation, adsorption, and chemical reactions with native soils); long-term monitoring is conducted to measure changes in chemical concentrations including byproducts (daughter compounds) of degradation. Where MNA is implemented, MNA parameters are monitored for, in addition to the COC monitoring prescribed by the long-term monitoring program. MNA parameters are collected to demonstrate that long-term biological degradation is occurring. If degradation is not demonstrated through site data, then the use of biological activity enhancers (such as electron acceptors, nutrients, and electron donors) may be required to enhance the MNA process.

### **2.9.2.7 Maintenance and Institutional Controls (Alternatives S-4 and GW-3)**

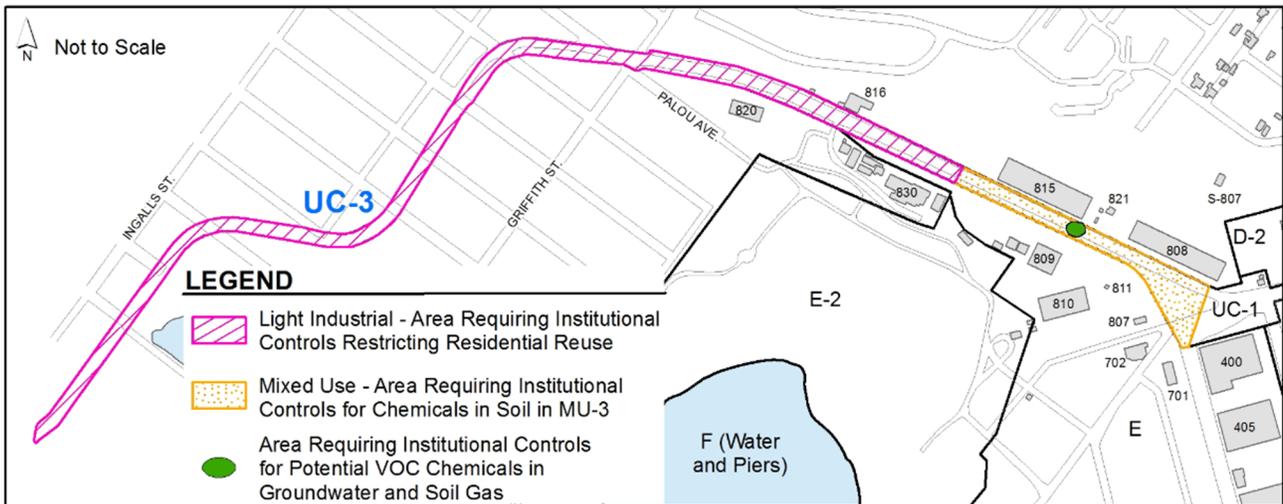
Each of the selected remedies includes the monitoring and maintenance activities that will be performed as long as necessary to protect human health and the environment and to comply with the substantive provisions of pertinent state and federal ARARs (see Attachment D). In addition, the selected remedy will be subject to statutory reviews every 5 years pursuant to CERCLA to ensure that it remains protective of human health and the environment.

The Navy will also implement ICs, which are legal and administrative mechanisms for the continued protection of human health and the environment. In Parcel UC-3, the objectives of the ICs are as follows:

- Implement land use and activity restrictions that limit the exposure of future landowners or users of the property to hazardous substances present on the property and in groundwater.
- Ensure the integrity of the remedial action, including any current or future remedial or monitoring systems such as monitoring wells and subsurface groundwater control barriers.

ICs are required on a property where the selected remedial action results in contamination remaining at the property above levels that allow for unlimited use and unrestricted exposure. The ICs will restrict the development, land use, and activities on Parcel UC-3 property, as described in this ROD. These ICs will be maintained until the concentrations of hazardous substances in soil and groundwater are at levels that allow for unrestricted use and exposure. Implementation of ICs at

Parcel UC-3 includes requirements for monitoring, inspections, and reporting, to ensure compliance with land use or activity restrictions. Figure 9 presents the ARIC for chemicals, which comprises all of Parcel UC-3.



**Figure 9. Area Requiring Institutional Controls (ARIC)**

The Navy has determined that it will rely on proprietary controls in the form of environmental restrictive covenants as provided in the *Memorandum of Agreement Between the United States Department of the Navy and the California Department of Toxic Substances Control* and attached covenant models (Navy and DTSC, 2000) (hereinafter referred to as the Navy/DTSC MOA).

More specifically, land use and activity restrictions will be incorporated into two separate legal instruments as provided in the Navy/DTSC MOA:

1. Restrictive covenants included in one or more Quitclaim Deeds from the Navy to the property recipient.
2. Restrictive covenants included in one or more Covenant to Restrict Use of Property entered into by the Navy and DTSC as provided in the Navy/DTSC MOA and consistent with the substantive provisions of California Code of Regulations Title 22 § 67391.1.

The Covenants to Restrict Use of Property will incorporate the land use restrictions into environmental restrictive covenants that run with the land and that are enforceable by DTSC against future transferees. The Quitclaim Deeds will include the identical land use and activity restrictions in environmental restrictive covenants that run with the land and that will be enforceable by the Navy against future transferees.

The land use and activity restrictions in the Covenants to Restrict Use of Property and Quitclaim Deeds will be further defined in the land use control remedial design (LUC RD) report that will be prepared by the Navy and reviewed and approved by the other FFA signatories. The LUC RD report shall be referenced in the applicable Covenant to Restrict Use of Property and Deed. CCSF may prepare a risk management plan (RMP) to be approved by the FFA signatories that may set forth certain requirements and protocols used to conduct restricted activities.

In addition to being set forth in the Covenants to Restrict Use of Property and Quitclaim Deeds, restrictions applied to specified portions of the property will be described in findings of suitability to transfer.

**Access:** The Deed and Covenant shall provide that the Navy and other FFA signatories, where applicable, and their authorized agents, employees, contractors, and subcontractors have the right to enter upon HPNS Parcel UC-3 to conduct investigations, tests, or surveys; inspect field activities; or construct, operate, and maintain any response or remedial action as required or necessary under the cleanup program, including, but not limited to, monitoring wells, pumping wells, treatment facilities, and cover and containment systems.

**Implementation:** The Navy shall address and describe IC implementation and maintenance actions, including periodic inspections and reporting requirements in the preliminary and final RD reports to be developed and submitted to the FFA signatories for review pursuant to the FFA (see *Navy Principles and Procedures for Specifying, Monitoring and Enforcement of Land Use Controls and Other Post-ROD Actions* attached to January 16, 2004 United States Department of Defense memorandum titled *Comprehensive Environmental Response, Compensation and Liability Act [CERCLA] Record of Decision [ROD] and Post-ROD Policy*). The preliminary and final RD reports are primary documents as provided in Section 7.3 of the FFA.

The Navy is responsible for implementing, maintaining, reporting on, and enforcing institutional controls. Although the Navy may later transfer these procedural responsibilities to another party by contract, property transfer agreement, or through other means, the Navy shall retain ultimate responsibility for remedy integrity.

### **2.9.2.8 Activity Restrictions That Apply to Mixed Use Area 3**

The following sections describe the IC objectives to be achieved through activity restrictions throughout Mixed Use Area 3 in order to ensure that necessary measures to protect human health and the environment and the integrity of the remedy have been undertaken.

**Restricted Activities:** The following restricted activities throughout Mixed Use Area 3 must be conducted in accordance with the Covenants to Restrict Use of Property, Quitclaim Deeds, the LUC RD report, and, if necessary, an RMP, and any other work plan or document approved in accordance with these referenced documents.

- a. Land-disturbing activity, which includes, but is not limited to, the following: (1) excavation of soil, (2) construction of roads, utilities, facilities, structures, and appurtenances of any kind, (3) demolition or removal of hardscape (e.g., concrete roadways, parking lots, foundations, and sidewalks), (4) any activity that involves movement of soil to the surface from below the surface of the land, and (5) any other activity that causes or facilitates the movement of known contaminated groundwater. Land-disturbing activities are not intended to include placement of additional clean, imported fill on top of the soil cover that the Navy will construct upon a portion of HPNS Parcel UC-3.
- b. Alteration, disturbance, or removal of any component of a response or cleanup action (including, but not limited to, pump-and-treat facilities and soil cap/containment systems); groundwater extraction, injection, and monitoring wells and associated piping and equipment; or associated utilities.
- c. Extraction of groundwater and installation of new groundwater wells.

- d. Removal of or damage to security features (e.g., locks on monitoring wells, survey monuments, fencing, signs, or monitoring equipment and associated pipelines and appurtenances).

**Prohibited Activities:** The following activities are prohibited throughout HPNS Parcel UC-3:

- e. Growing vegetables or fruits in native soil for human consumption.
  - a. Use of groundwater.

### **2.9.2.9 Activity Restrictions Relating to VOC Chemicals at Specific Locations within Parcel UC-3**

Any proposed construction and occupancy of enclosed structures within the ARIC must be approved by the FAA signatories in accordance with the Covenants to Restrict Use of the Property, Quitclaim Deeds, and LUC RD, to ensure that the risks of potential exposures to VOC vapors are reduced to acceptable levels that are adequately protective of human health. The ARIC for potential VOC chemicals in groundwater and soil gas shown on Figure 9 will include the portion of the ARIC that is located in Redevelopment Block MU-3 within Parcel UC-3. The reduction in potential risk can be achieved through engineering controls or other design alternatives that meet the specifications set forth in the ROD, RD reports, and LUC RD report. When construction of enclosed structures or reuse of an existing building is proposed in the ARIC, the FFA signatories must approve the design of the vapor control system built into foundations. In addition, enclosed structures within the ARIC shall not be occupied until the Owner has requested and obtained FFA Signatory approval that any necessary engineering controls or design alternatives have been properly constructed and are operating successfully. The ARIC for potential VOC chemicals in groundwater and soil gas may be modified by the FFA signatories when vapor inhalation risks for cancer (produced from soil contamination areas and groundwater contaminant plumes) are reduced to less than 1 in 1,000,000.

### **2.9.2.10 Additional Land Use Restrictions for Areas Designated for Industrial Reuse**

For property areas designated for industrial land uses, the following land uses will be specifically prohibited unless written approval for such used is granted by the FFA signatories in accordance with the Covenants to Restrict Use of the Property, Quitclaim Deeds, and LUC RD report:

- a. A residence, including any mobile home or factory built housing, constructed or installed for use as residential human habitation.
- b. A hospital for humans.
- c. A school for persons under 21 years of age.
- d. A day care facility for children.

### **2.9.3 Expected Outcomes of the Selected Remedy**

Once the selected remedy has been implemented, risk to human health and the environment under the planned mixed use and light industrial use will be acceptable and the RAOs will be achieved. Excavation and offsite disposal of soil from Tier 2 and TPH locations will reduce site risks, and the cover will prevent contact with remaining contamination that might pose an unacceptable risk. Steam line removal will reduce site risks by removing a potential source of contamination. Soil-gas monitoring will reduce risk uncertainty by evaluating the potential risk associated with vapor intrusion and determining the extent to which further monitoring, remediation, or ICs are required to mitigate vapor intrusion risk. ISB will reduce site risks by degrading contaminants during reductive

dechlorination to levels that do not pose an unacceptable risk. The selected remedy will take a relatively short period of time to implement and will use readily available technologies and labor. Following implementation, long-term monitoring and maintenance will ensure the continued protection of human health and the environment. In addition, ICs will restrict potential exposure to contaminated soil, soil-gas, and groundwater, and the restrictions will be consistent with the planned future use of Parcel UC-3.

#### 2.9.4 Statutory Determinations

In accordance with the NCP, the selected remedy for Parcel UC-3 meets the following statutory determinations:

- **Protection of Human Health and the Environment.** The selected remedy will protect human health and the environment by preventing exposure to COCs through the excavation of soil from Tier 2 and TPH locations near the ground surface, installation of covers, closure of steam lines, monitoring of soil-gas, ISB, MNA, and implementation of ICs.
- **Compliance with ARARs.** CERCLA § 121(d)(1) states that remedial actions on CERCLA sites must attain (or the decision document must justify waiver of) any federal or more stringent state environmental standards, requirements, criteria, or limitations that are determined to be legally applicable or relevant and appropriate. The selected remedy for Parcel UC-3 will comply with the substantive provisions of the federal and state requirements identified as ARARs. The chemical-, location-, and action-specific ARARs for the selected remedy are summarized in Attachment D.
- **Cost Effectiveness.** As specified in the NCP, the cost effectiveness of a remedy is determined in two steps. First, the overall effectiveness of a remedial alternative is determined by evaluating the following three of the five balancing criteria: (1) long-term effectiveness and permanence; (2) reduction in toxicity, mobility, or volume through treatment; and (3) short-term effectiveness. Second, the overall effectiveness is compared to cost to determine whether a remedy is cost effective. The selected alternatives have a high overall effectiveness because, compared to the other remedial alternatives, the selected alternatives offer a high degree of long-term effectiveness in a manner that minimizes short-term risks. The selected remedy will provide high overall effectiveness proportional to its costs, as demonstrated by the improved overall effectiveness of Alternatives S-4 and GW-3 relative to Alternatives S-3 and GW-2 for a modest incremental cost increase. Therefore, the selected remedy is considered cost effective. In contrast, Alternatives S-3 and GW-2 are not considered cost effective because of lower overall effectiveness. The selected remedy consists of the most cost effective alternatives and represents the most reasonable value for the money. The costs are proportional to overall effectiveness by achieving long-term effectiveness and permanence within a reasonable timeframe.
- **Utilization of Permanent Solutions and Alternative Treatment Technologies or Resource Recovery Technologies to the Maximum Extent Practicable.** The Navy has determined that the selected groundwater treatment remedy (Alternative GW-3), combined with excavation of three limited areas of contaminated soil (Alternative S-4), represents the maximum extent to which permanent solutions and treatment are practicable at this site. Alternatives S-4 and GW-3 provide a combination of removal and monitoring that reduces risk sooner, is easiest to implement, and provides additional risk reduction as compared with other Alternatives. The selected alternatives are the most permanent solutions, the most cost effective and represent the

most reasonable value for the money. The costs are proportional to overall effectiveness by achieving long-term effectiveness and permanence within a reasonable timeframe.

- **Preference for Treatment as a Principal Element.** The selected remedy for soil does not satisfy the statutory preference for treatment as a principal element because there is no cost-effective way to treat the noncontiguous areas that have low-level soil contamination in the railroad right-of-way of Parcel UC-3. Treatment is not a principal element of the selected remedy for soil because excavation and offsite disposal provide the best balance of tradeoffs with respect to long-term effectiveness and permanence in the shortest timeframe for a reasonable cost. However, treatment is the principal element of the selected remedy for groundwater because ISB is considered to have high, long-term effectiveness and permanence for a reasonable cost.
- **Five-Year Review Requirements.** Statutory five-year reviews pursuant to CERCLA § 121 and the NCP will be conducted because the selected remedy will leave contamination in place at Parcel UC-3 above levels that allow for unrestricted use and unlimited exposure. Five-year reviews for Parcel UC-3 will follow the ongoing schedule of five-year reviews established for other remedies in place at HPNS.

### 2.9.5 Documentation of Significant Changes

No significant changes were made to the ROD from the information presented in the Proposed Plan.

## 2.10 Community Participation

Community participation at HPNS includes public meetings, public information repositories, an IR Program website, newsletters and fact sheets, public notices, and site tours. The [Community Involvement Plan](#) for HPNS provides detailed information on community participation for the IR Program and documents interests, issues, and concerns raised by the community regarding ongoing investigation and cleanup activities at HPNS. The Navy held a community meeting on February 2, 2010, to solicit community input on updating the Community Involvement Plan for HPNS. The Navy used this input in preparing an update to the Community Involvement, which was finalized in May 2011.

Starting in January 2010, the Navy began conducting bimonthly Community Technical Meetings to discuss the technical aspects of the CERCLA milestone documents with community members (and with participation from the Base Realignment and Closure [BRAC] Cleanup Team). Documents and relevant information relied upon in the remedy selection process are made available for public review in the public information repositories (listed at the end of this section) or on the [IR Program Website](#).

Community participation is also solicited through public mailings, including newsletters, fact sheets, public notices, and proposed plans, which are designed to broadly disseminate information throughout the local community. Public mailings for HPNS are sent to more than 2,000 groups and individuals that have added their names to the community mailing list, including residents in the local Hunters Point-Bayview community; city, state, and federal officials; regulatory agencies; and other interested groups and individuals. Previous updates and fact sheets have included general program information such as the status of environmental investigations and cleanup activities at each HPNS parcel. In addition, the Navy has held periodic site tours of HPNS to better explain the status and cleanup activities to interested community members.

For Parcel UC-3, a significant effort was made to inform the public of the remedy proposed in the Proposed Plan and selected in this ROD. Prior to making the Proposed Plan available for public review, a public notice of the meeting and availability of documents was placed in the *San Francisco Chronicle* on February 10, 2013. Additional public notices were placed in the February 2013 editions of two publications (the *San Francisco Bayview* and the *Sun-Reporter*) in the local Hunters Point-Bayview community. The Proposed Plan, along with an associated fact sheet, was distributed to recipients on the community mailing list beginning on February 12, 2013. An online advertisement was also placed on the *San Francisco Bayview* website to direct users to the IR Program website, where electronic copies of the Proposed Plan, fact sheets, the Revised RI Report, and the FS Report were made available.

In accordance with CERCLA § 113 and § 117, the Navy provided a public comment period from February 13, 2013, to April 1, 2013, for the proposed remedial action described in the Proposed Plan for Parcel UC-3. A public meeting to present the Proposed Plan was held at the Southeast Community Facility Commission (located at 1800 Oakdale Avenue, San Francisco, California) from 6:00 to 9:00 p.m. on February 28, 2013. At the public meeting, the Navy gave presentations on the conditions at Parcel UC-3, and representatives from the Navy and regulatory agencies were available to answer questions. A **transcript of the public meeting** prepared by a court reporter is part of the Administrative Record for this ROD and is available on the CD for this ROD. Responses to spoken comments received during the public meeting and written comments received during the public comment period are included in the Responsiveness Summary in Section 3.0.

Key supporting documents that pertain to Parcel UC-3 and a complete index of all Navy HPNS documents are available at the following information repositories:

San Francisco Main Library  
100 Larkin Street  
Government Information Center, 5<sup>th</sup> Floor  
San Francisco, California 94102  
Phone: (415) 557-4500

HPNS Office Trailer  
690 Hudson Street  
San Francisco, California 94124

For access to the Administrative Record contact:

Naval Facilities Engineering Command Southwest  
Attention: Diane Silva, Command Records Manager  
2965 Mole Road, Building 3519  
San Diego, California 92136  
Phone: (619) 556-1280

For additional information on the IR Program contact:

Mr. Keith Forman  
HPNS BRAC Environmental Coordinator  
BRAC Program Management Office West  
1455 Frazee Road, Suite 900  
San Diego, California 92108-4310  
Phone: (619) 532-0913  
e-mail: [keith.s.forman@navy.mil](mailto:keith.s.forman@navy.mil)

## 3.0 Responsiveness Summary

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The responsiveness summary is the third component of a ROD. Its purpose is to summarize information about the views of the public and regulatory agencies on the remedial alternatives and general concerns about Parcel UC-3 submitted during the public comment period. The responsiveness summary documents how public comments were integrated into the decision-making process. The participants in the public meeting held on February 28, 2013, included community members and representatives of the Navy, USEPA, DTSC, and RWQCB. Questions and concerns received during the meeting were addressed at the meeting and are documented in the meeting transcript. Responses to comments provided at the meeting and received during the public comment period by the Navy, USEPA, DTSC, or RWQCB are included in the responsiveness summary (Attachment C).

Parcels E and UC-3 were combined in a Proposed Plan and subsequent community meeting. Comments from community members were not specific to either Parcel UC-3 or Parcel E. The responsiveness summary for the Parcel UC-3 ROD will therefore be identical to the responsiveness summary for the Parcel E ROD.

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**Attachment A**  
**Administrative Record**

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HUNTERS POINT

DRAFT ENVIRONMENTAL RESTORATION RECORD PUBLIC / IR INDEX - UPDATE (SORTED BY RECORD DATE/RECORD NUMBER)

ADMINISTRATIVE RECORD INDEX FOR  
PARCELS E AND UC-3, SITES 4, 52 AND 56

UIC No. _ Rec. No.	Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
Approx. # Pages						
AR_N00217_000079 REPORT 15		09-01-1987	HARDING LAWSON ASSOCIATES	WORK PLAN PRELIMINARY RISK ASSESSMENT, PROPOSED HOUSING DEVELOPMENT (SEE RECORD #84 - WDIV TRANSMITTAL LETTER)	YES	PARCEL A SITE 00001 SITE 00002 SITE 00004 SITE 00005
AR_N00217_000089 REPORT 151		09-23-1987	EMCON ASSOCIATES	VERIFICATION OF HAZARDOUS WASTE CONTAMINATION AT SPECIFIED SITES	YES	PARCEL B SITE 00004 SITE 00007 SITE 00010 SITE 00011 SITE 00013
AR_N00217_000229 CORRESPONDENCE 20		03-08-1988	NAVFAC - WESTERN DIVISION	RESPONSES TO COMMENTS ON THE DRAFT SCOPING DOCUMENT	YES	PARCEL A PARCEL B SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00011
AR_N00217_001654 REPORT 768		12-03-1990	PRC ENVIRONMENTAL MANAGEMENT, INC.	POST CONSTRUCTION REPORT ON THE CLEAN-UP OF ASBESTOS-CONTAINING MATERIALS AT THE WATER SOFTENING TREATMENT AREA AND VARIOUS REMOTE SITES (SEE RECORD # 1699 - WDIV TRANSMITTAL LETTER)	YES	BLDG 0000521 PARCEL E

**UIC No. \_ Rec. No.**

<b>Record Type Approx. # Pages</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_002359 CORRESPONDENCE 3	<b>09-23-1991</b>	NAVFAC - WESTERN DIVISION	TRANSMITTAL OF DRAFT PRIMARY PHASE 2A DATA SUBMITTAL AND RECOMMENDATIONS FOR PHASE 2B SAMPLING PROGRAM MODIFICATIONS: SCRAPYARD AND TRANSFORMING STORAGE YARD (ENCLOSURE IS RECORD # 2358)	YES	OU 000003 SITE 00004 SITE 00005
AR_N00217_002566 CORRESPONDENCE 17	<b>10-16-1992</b>	NAVFAC - WESTERN DIVISION	TRANSMITTAL OF PROPOSED SCHEDULES AND ASSUMPTIONS; INTERIM ACTION SCHEDULES FOR GROUP V SITES (W/ ENCLOSURES)	YES	OU 000002 PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_002582 CORRESPONDENCE 21	<b>12-04-1992</b>	NAVFAC - WESTERN DIVISION	TRANSMITTAL OF RESPONSE TO COMMENTS ON PARCEL SCHEDULING ASSUMPTIONS AND PARCEL SCHEDULES, REVISED SCHEDULING ASSUMPTIONS, AND REVISED SCHEDULES (W/ ENCLOSURE)	YES	PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_002720 CORRESPONDENCE 1	<b>07-13-1993</b>	U.S. EPA - SAN FRANCISCO, CA	QUESTIONS ABOUT NAVY'S MEMORANDUM OF 10 JUNE 1993 REGARDING THE CONTAINMENT FEASIBILITY STUDIES	YES	PARCEL E
AR_N00217_003266 CORRESPONDENCE 5	<b>07-13-1993</b>	NAVFAC - EFA WEST	TRANSMITTAL OF MAY 1993 AND JUNE 1993 MONTHLY PROGRESS REPORTS (W/ENCLOSURE)	YES	BLDG 0000816 OU 000002 OU 000003 OU 000004 PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E SITE 00003
AR_N00217_000127 REPORT 74	<b>11-30-1993</b>	PRC ENVIRONMENTAL MANAGEMENT, INC.	REMEDIAL INVESTIGATION/FEASIBILITY STUDY FIELD WORK AND ANALYSIS	YES	PARCEL B PARCEL C PARCEL D PARCEL E

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_002939 CORRESPONDENCE 4	01-04-1994	U.S. EPA - SAN FRANCISCO, CA	COMMENTS ON SITE INSPECTION DATA PRESENTATION VOLUMES II AND III	YES	PARCEL E
AR_N00217_002969 CORRESPONDENCE 3	01-04-1994	U.S. EPA - SAN FRANCISCO, CA	COMMENTS ON THE DRAFT SITE INSPECTION DATA PRESENTATION ON 02 NOVEMBER 1993 (VOLUMES II AND III) [SEE RECORD # 2484 - DRAFT SI WORK PLAN, VOLUMES I-III OF III]	YES	PARCEL E
AR_N00217_002942 CORRESPONDENCE 2	01-31-1994	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON SITE INSPECTION DATA PRESENTATIONS, VOLUME I	YES	PARCEL D PARCEL E
AR_N00217_002975 CORRESPONDENCE 3	04-15-1994	NAVFAC - WESTERN DIVISION	TRANSMITTAL OF SITE ASSESSMENT REPORT, POTENTIALLY CONTAMINATED SITES (ENCLOSURE IS RECORD # 3027)	YES	PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_003027 REPORT 282	04-15-1994	PRC ENVIRONMENTAL MANAGEMENT, INC.	FINAL SITE ASSESSMENT REPORT, POTENTIALLY CONTAMINATED SITES (SEE RECORD # 2975 - WDIV TRANSMITTAL LETTER)	YES	PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_003019 CORRESPONDENCE 3	04-19-1994	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON DRAFT FINAL TREATABILITY STUDY WORK PLAN (OIL RECLAMATION PONDS)	YES	PARCEL E SITE 00003
AR_N00217_003180 CORRESPONDENCE 2	04-19-1994	U.S. EPA - SAN FRANCISCO, CA	CLARIFICATION OF RADIATION ISSUES	YES	PARCEL B PARCEL E SITE 00001 SITE 00002
AR_N00217_002991 CORRESPONDENCE 18	05-11-1994	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON DRAFT SITE INSPECTION REPORT	YES	PARCEL E
AR_N00217_003000 CORRESPONDENCE 17	06-03-1994	ARC ECOLOGY	REVIEW AND COMMENTS ON SITE INVESTIGATION REPORTS	YES	PARCEL C PARCEL D PARCEL E

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<b>Record Type</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_003029 CORRESPONDENCE 3	<b>06-24-1994</b>	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE FINAL SITE ASSESSMENT REPORT, POTENTIALLY CONTAMINATED SITES	YES	PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_003030 CORRESPONDENCE 2	<b>07-05-1994</b>	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE FINAL SITE ASSESSMENT REPORT, POTENTIALLY CONTAMINATED SITES	YES	PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_003017 CORRESPONDENCE 3	<b>07-15-1994</b>	NAVFAC - WESTERN DIVISION	TRANSMITTAL OF THE DRAFT FINAL SITE INSPECTION REPORT (ENCLOSURE IS RECORD # 3018)	YES	PARCEL E
AR_N00217_003034 CORRESPONDENCE 3	<b>08-04-1994</b>	HARDING LAWSON ASSOCIATES	COMMUNITY NOTIFICATION OF DRILLING AND SOIL SAMPLING AT OFFSITE RAILROAD RIGHT-OF-WAY	YES	SITE 00052

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Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_003038 CORRESPONDENCE 5	08-19-1994	ARMS CONTROL RESEARCH CENTER	COMMENTS ON DRAFT SUMMARY REPORT OF PHASE I AND PHASE II UNDERGROUND STORAGE TANK REMOVALS AND CLOSURES IN PLACE (SEE RECORD # 3016 - DRAFT SUMMARY REPORT)	YES	PARCEL A PARCEL B SITE 00004 SITE 00005 SITE 00006 SITE 00009 SITE 00011 SITE 00015 SITE 00017 SITE 00019 SITE 00020 SITE 00022 SITE 00024 SITE 00025 SITE 00027 SITE 00028 UST HPA-14 UST HPA-2 UST HPA-3 UST S-209 UST S-210 UST S-211 UST S-212 UST S-213 UST S-219 UST S-711 UST S-712 UST S-713 UST S-714 UST S-715
AR_N00217_003039 CORRESPONDENCE 2	08-19-1994	NAVFAC - WESTERN DIVISION	RESPONSES TO COMMENTS ON THE DRAFT SITE INSPECTION REPORT AND DRAFT FINAL SITE INSPECTION REPORT	YES	PARCEL C PARCEL D PARCEL E

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AR_N00217_003053 CORRESPONDENCE 9	08-30-1994	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON DRAFT FINAL SITE INSPECTION REPORT	YES	PARCEL E
AR_N00217_003924 REPORT 45	09-08-1994	SANFORD COHEN AND ASSOCIATES	EPA - NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY CONDUCTED A PRELIMINARY STUDY AT THE RADIOLOGICAL AND CHEMICAL TECHNICAL SUPPORT CENTER	YES	PARCEL E
AR_N00217_003059 CORRESPONDENCE 8	11-21-1994	NAVFAC - EFA WEST	RESPONSES TO COMMENTS ON FINAL SITE ASSESSMENT REPORT, POTENTIALLY COMTAMINATED SITES	YES	PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_003079 CORRESPONDENCE 3	04-06-1995	NAVFAC - EFA WEST	TRANSMITTAL OF THE DRAFT RESULTS OF SUBSURFACE RADIATION INVESTIGATION (ENCLOUSRE IS RECORD # 3080 AND 3081)	YES	PARCEL B PARCEL E
AR_N00217_003088 CORRESPONDENCE 4	04-28-1995	ARC ECOLOGY	COMMENTS ON THE RESULTS OF SUBSURFACE RADIATION INVESTIGATION	YES	PARCEL B PARCEL E
AR_N00217_003124 CORRESPONDENCE 2	05-30-1995	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON RESULTS OF SUBSURFACE RADIATION INVESTIGATION, VOLUMES I AND II OF II	YES	PARCEL B PARCEL E
AR_N00217_003125 CORRESPONDENCE 7	06-19-1995	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON SUBSURFACE RADIATION INVESTIGATION	YES	PARCEL B PARCEL E
AR_N00217_003132 CORRESPONDENCE 3	08-07-1995	NAVFAC - EFA WEST	TRANSMITTAL OF THE DRAFT ADDENDUM TO THE FACILITY GROUNDWATER MONITORING PLAN	YES	PARCEL B PARCEL D PARCEL E
AR_N00217_003138 CORRESPONDENCE 2	10-05-1995	NAVAL SEA SYSTEMS COMMAND DETACHMENT - YORKTOWN, VA	RESPONSES TO RESPONSE TO COMMENTS ON THE RESULTS OF THE DRAFT SUBSURFACE RADIATION INVESTIGATION	YES	PARCEL B PARCEL E

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_003140 CORRESPONDENCE 4	10-12-1995	DTSC - BERKELEY, CA	COMMENTS ON RADIATION INVESTIGATION OF THE INTERTIDAL AREAS SURROUNDING THE INDUSTRIAL LANDFILL AND BAY LANDFILL AREA, DRAFT SAMPLING AND ANALYSIS PLAN	YES	PARCEL E SITE 00001 SITE 00002
AR_N00217_003157 REPORT 34	12-22-1995	PRC ENVIRONMENTAL MANAGEMENT, INC.	FORMERLY USED DEFENSE SITES FIELD SAMPLING PLAN (SEE RECORD # 3158 - EFAW TRANSMITTAL LETTER)	YES	BLDG 0000815 BLDG 0000820 BLDG 0000830 BLDG 0000831 PARCEL E SITE IR-74 SITE SI-74 SITE SI-75
AR_N00217_003160 CORRESPONDENCE 15	01-11-1996	NAVFAC - EFA WEST	RESPONSES TO COMMENTS ON THE DRAFT RESULTS OF THE SUBSURFACE RADIATION INVESTIGATION	YES	PARCEL B PARCEL E
AR_N00217_003197 CORRESPONDENCE 1	01-23-1996	U.S. EPA - SAN FRANCISCO, CA	RESPONSES TO COMMENTS ON THE SUBSURFACE RADIATION INVESTIGATION, VOLUMES I AND II OF II	YES	PARCEL B PARCEL E
AR_N00217_003200 CORRESPONDENCE 24	02-08-1996	DTSC - BERKELEY, CA	RESPONSES TO RESPONSE TO COMMENTS ON THE RESULTS OF SUBSURFACE RADIATION INVESTIGATION	YES	PARCEL B PARCEL E
AR_N00217_003252 REPORT 10	03-26-1996	NAVFAC - EFA WEST	TRANSMITTAL OF FEBRUARY 1996 MONTHLY PROGRESS REPORT (W/ ENCLOSURE)	YES	PARCEL B PARCEL C PARCEL E SITE 00002 SITE 00006 SITE 00009

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AR_N00217_001415 CORRESPONDENCE 2	03-27-1996	PRC ENVIRONMENTAL MANAGEMENT, INC.	NET LABORATORY HISTORY AND ISSUES	YES	OU 0000001 OU 0000003 OU 0000004 SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00007
AR_N00217_003234 REPORT 383	04-05-1996	PRC ENVIRONMENTAL MANAGEMENT, INC.	FINAL FACILITY-WIDE GROUNDWATER MONITORING PLAN (SEE RECORD # 3260 - EFAW TRANSMITTAL LETTER)	YES	BASEWIDE PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_003257 CORRESPONDENCE 12	04-18-1996	NAVFAC - EFA WEST	TRANSMITTAL OF MARCH 1996 MONTHLY PROGRESS REPORT (W/ ENCLOSURE)	YES	BLDG 0000364 OU 0000001 OU 0000002 PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F SITE 00001 SITE 00002 SITE 00003 SITE 00006 SITE 00007 SITE 00009 SITE 00018 SITE 00021
AR_N00217_003261 CORRESPONDENCE 7	04-30-1996	DTSC - BERKELEY, CA	APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS FOR REMOVAL ACTION	YES	PARCEL E SITE 00001 SITE 00021

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AR_N00217_003262 REPORT 26	04-30-1996	PRC ENVIRONMENTAL MANAGEMENT, INC.	REVISED TECHNICAL MEMORANDUM, REMEDIATION ALTERNATIVE ANALYSIS	YES	PARCEL E SITE 00001 SITE 00003 SITE 00021
AR_N00217_003267 CORRESPONDENCE 13	05-17-1996	NAVFAC - EFA WEST	TRANSMITTAL OF APRIL 1996 MONTHLY PROGRESS REPORT (W/ ENCLOSURE)	YES	OU 0000001 OU 0000002 PARCEL B PARCEL C PARCEL D PARCEL E SITE 00001 SITE 00002 SITE 00003 SITE 00006 SITE 00007 SITE 00009 SITE 00018 SITE 00021
AR_N00217_003294 REPORT 54	05-31-1996	PRC ENVIRONMENTAL MANAGEMENT, INC.	TECHNICAL MEMORANDUM, REVIEW OF POLYCHLORINATED BIPHENYL OCCURRENCES IN SOIL AND GROUNDWATER (SEE RECORD # 3293 - EFAW TRANSMITTAL LETTER)	YES	PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_003281 CORRESPONDENCE 3	06-01-1996	NAVFAC - EFA WEST	REQUEST FOR VARIANCE IN BORING LOCATIONS FOR THE FORMERLY USED DEFENSE SITES FIELD SAMPLING (W/ ENCLOSURE)	YES	BLDG 0000815 BLDG 0000820 PARCEL E
AR_N00217_003449 CORRESPONDENCE 2	06-10-1996	NAVFAC - EFA WEST	TRANSMITTAL OF THE FINAL DRAFT RESULTS OF SUBSURFACE RADIATION INVESTIGATION REPORT	YES	PARCEL B PARCEL E
AR_N00217_003293 CORRESPONDENCE 3	06-26-1996	NAVFAC - EFA WEST	TRANSMITTAL OF TECHNICAL MEMORANDUM, REVIEW OF POLYCHLORINATED BIPHENYL OCCURRENCES IN SOIL AND GROUNDWATER (ENCLOSURE IS RECORD # 3294)	YES	PARCEL B PARCEL C PARCEL D PARCEL E

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_003332 CORRESPONDENCE 2	07-15-1996	NAVFAC - EFA WEST	TRANSMITTAL OF DRAFT FINAL SUBSURFACE RADIATION INVESTIGATION, VOLUME I (ENCLOSURE IS RECORD # 3333)	YES	PARCEL B PARCEL E
AR_N00217_003394 CORRESPONDENCE 1	09-09-1996	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT TECHNICAL MEMORANDUM FOR THE RADIATION INVESTIGATION OF TIDAL AREA SURROUNDING THE BAY AREA LANDFILL	YES	PARCEL E SITE 00002
AR_N00217_003395 CORRESPONDENCE 2	09-09-1996	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT FINAL REPORT FOR RESULTS OF SUBSURFACE RADIATION INVESTIGATION	YES	PARCEL B PARCEL E
AR_N00217_003388 CORRESPONDENCE 2	10-16-1996	NAVFAC - EFA WEST	TRANSMITTAL OF THE FINAL ACTION MEMORANDUM AND FINAL ENGINEERING EVALUATION/COST ANALYSIS, REMOVAL ACTIONS, WASTE OIL RECLAMATION PONDS (ENCLOSURE IS RECORD # 3389)	YES	PARCEL E SITE 00003
AR_N00217_003389 REPORT 298	10-18-1996	LEVINE-FRICKE, INC.	FINAL ACTION MEMORANDUM AND FINAL ENGINEERING EVALUATION/COST ANALYSIS, REMOVAL ACTIONS, WASTE OIL RECLAMATION PONDS (INCLUDES EFAW TRANSMITTAL LETTER) [SEE RECORD # 3390 - REPLACEMENT SIGNATURE PAGE 18]	YES	PARCEL E SITE 00003
AR_N00217_003390 CORRESPONDENCE 3	10-25-1996	NAVFAC - EFA WEST	TRANSMITTAL OF THE REPLACEMENT SIGNATURE PAGE FOR FINAL ACTION MEMORANDUM AND FINAL ENGINEERING EVALUATION/COST ANALYSIS, REMOVAL ACTIONS, WASTE OIL RECLAMATION PONDS - 18 OCTOBER 1996 (W/ ENCLOSURE)	YES	PARCEL E SITE 00003
AR_N00217_003401 CORRESPONDENCE 17	11-12-1996	NAVFAC - EFA WEST	RESPONSES TO COMMENTS ON THE RADIATION INVESTIGATION OF THE TIDAL AREA DRAFT TECHNICAL MEMORANDUM	YES	PARCEL E SITE 00002
AR_N00217_003452 CORRESPONDENCE 3	12-17-1996	NAVFAC - EFA WEST	REPOSE TO COMMENTS ON THE RESULTS OF THE DRAFT FINAL REPORT, RESULTS OF SUBSURFACE RADIATION INVESTIGATION	YES	PARCEL B PARCEL E
AR_N00217_003481 CORRESPONDENCE 3	05-29-1997	NAVFAC - EFA WEST	TRANSMITTAL OF THE DRAFT REMEDIAL INVESTIGATION REPORT (ENCLOSURE IS RECORDS # 3482 THROUGH # 3508 - DRAFT REMEDIAL INVESTIGATION REPORT, VOLUMES I THROUGH XXVII OF XXVII)	YES	PARCEL E

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AR_N00217_003514 CORRESPONDENCE 5	06-24-1997	NAVFAC - EFA WEST	TRANSMITTAL OF PUBLIC SUMMARY FOR REMEDIAL INVESTIGATION, DRAFT REPORT (W/ ENCLOSURES)	YES	PARCEL E
AR_N00217_003517 CORRESPONDENCE 4	07-01-1997	NAVFAC - EFA WEST	TRANSMITTAL OF PUBLIC SUMMARY REMEDIAL INVESTIGATION DRAFT REPORT (W/ ENCLOSURES)	YES	PARCEL E
AR_N00217_003525 CORRESPONDENCE 18	08-15-1997	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION REPORT (INCLUDES HERD MEMO DATED 4 AND 7 AUGUST 1997 AND CRWQCB COMMENTS DATE 8 JULY 1997)	YES	PARCEL E
AR_N00217_003526 CORRESPONDENCE 64	08-15-1997	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION REPORT	YES	PARCEL E
AR_N00217_003533 CORRESPONDENCE 3	08-22-1997	ARC ECOLOGY	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION REPORT	YES	PARCEL E
AR_N00217_003530 CORRESPONDENCE 7	09-02-1997	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION REPORT (INCLUDES DEPARTMENT OF HEALTH SERVICES COMMENTS)	YES	PARCEL E
AR_N00217_003669 CORRESPONDENCE 64	10-21-1997	NAVFAC - EFA WEST	TRANSMITTAL OF REQUEST FOR IDENTIFICATION OF STATE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (W/ ENCLOSURE)	YES	PARCEL C PARCEL E PARCEL F
AR_N00217_003662 REPORT 855	10-27-1997	NAVFAC - EFA WEST	ASSEMBLY INSTRUCTIONS AND SUBMISSION OF THE DRAFT FINAL REPORT REMEDIAL INVESTIGATION, VOLUMES I TO III AND VARIOUS INSERTS (W/ ENCLOSURES) [SEE RECORD # 3663 THROUGH # 3665 - VOLUMES I THROUGH III, #3666 - VOLUME XXVIII, AND # 3672 - REVISED APPENDIX E]	YES	PARCEL E
AR_N00217_003692 CORRESPONDENCE 7	12-22-1997	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT FINAL REMEDIAL INVESTIGATION REPORT	YES	PARCEL E

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AR_N00217_003693 CORRESPONDENCE 4	12-29-1997	SAN FRANCISCO REDEVELOPMENT AGENCY - SAN FRANCISCO, CA	COMMENTS ON THE DRAFT FINAL REMEDIAL INVESTIGATION REPORT	YES	PARCEL E
AR_N00217_003694 CORRESPONDENCE 9	12-29-1997	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT FINAL REMEDIAL INVESTIGATION REPORT	YES	PARCEL E
AR_N00217_003695 CORRESPONDENCE 4	01-08-1998	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE ECOLOGICAL PORTION OF THE DRAFT FINAL REMEDIAL INVESTIGATION REPORT	YES	PARCEL E
AR_N00217_003681 CORRESPONDENCE 3	01-15-1998	NAVFAC - EFA WEST	TRANSMITTAL OF THE FEASIBILITY STUDY DRAFT REPORT (ENCLOSURES ARE RECORD # 3682 THROUGH # 3685)	YES	PARCEL E
AR_N00217_003697 CORRESPONDENCE 4	01-26-1998	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT FINAL REMEDIAL INVESTIGATION REPORT	YES	PARCEL E
AR_N00217_003698 CORRESPONDENCE 7	01-29-1998	NAVFAC - EFA WEST	TRANSMITTAL OF THE PUBLIC SUMMARY FOR THE DRAFT FEASIBILITY STUDY (W/ ENCLOSURES)	YES	PARCEL E
AR_N00217_003718 CORRESPONDENCE 5	03-31-1998	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT FEASIBILITY STUDY REPORT	YES	PARCEL E
AR_N00217_003725 CORRESPONDENCE 1	03-31-1998	MICROSEARCH ENVIRONMENTAL CORPORATION	REVIEW AND COMMENTS ON THE DRAFT FEASIBILITY STUDY	YES	PARCEL E

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AR_N00217_003743 REPORT 16	<b>04-18-1998</b>	NAVFAC - EFA WEST	TRANSMITTAL OF APRIL 1998 MONTHLY PROGRESS REPORT AND SCHEDULES (W/ ENCLOSURE)	YES	BASEWIDE PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F
AR_N00217_003731 CORRESPONDENCE 1	<b>04-29-1998</b>	ENVIROCURE	REVIEW AND COMMENTS ON THE DRAFT FEASIBILITY STUDY REPORT CLEANUP	YES	PARCEL E
AR_N00217_003734 CORRESPONDENCE 4	<b>04-29-1998</b>	COALITION FOR BETTER WASTEWATER SOLUTIONS - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT FEASIBILITY STUDY REPORT	YES	PARCEL E
AR_N00217_003732 CORRESPONDENCE 2	<b>04-30-1998</b>	ECDC ENVIRONMENTAL L.C.	REVIEW AND COMMENTS ON THE DRAFT FEASIBILITY STUDY REPORT	YES	PARCEL E
AR_N00217_003733 CORRESPONDENCE 5	<b>04-30-1998</b>	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT FEASIBILITY STUDY REPORT	YES	PARCEL E
AR_N00217_003735 CORRESPONDENCE 37	<b>04-30-1998</b>	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT FEASIBILITY STUDY REPORT	YES	PARCEL E
AR_N00217_003736 CORRESPONDENCE 5	<b>04-30-1998</b>	MICROSEARCH ENVIRONMENTAL CORPORATION	REVIEW AND COMMENTS ON THE DRAFT FEASIBILITY STUDY REPORT	YES	PARCEL E
AR_N00217_003737 CORRESPONDENCE 14	<b>05-01-1998</b>	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT FEASIBILITY STUDY REPORT	YES	PARCEL E

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AR_N00217_003738 CORRESPONDENCE 4	06-05-1998	NAVFAC - EFA WEST	TRANSMITTAL OF 1) REVISED SCHEDULE FOR THE VALIDATION STUDY AND 2) REVISED FEDERAL FACILITY AGREEMENT SCHEDULE	YES	PARCEL E
AR_N00217_003744 CORRESPONDENCE 2	06-19-1998	DTSC - BERKELEY, CA	FEDERAL FACILITY AGREEMENT EXTENSION APPROVAL FOR THE DRAFT ECOLOGICAL RISK ASSESSMENT VALIDATION WORK PLAN	YES	PARCEL E
AR_N00217_003765 CORRESPONDENCE 3	09-30-1998	NAVFAC - EFA WEST	TRANSMITTAL OF 1) ANALYSIS OF INTEGRATION OF REMEDIAL ALTERNATIVES AND 2) MAJOR ISSUES FROM AGENCIES COMMENTS ON THE FEASIBILITY STUDY (W/ ENCLOSURE 2 AND ENCLOSURE 1) IS RECORD # 3766)	YES	PARCEL E PARCEL F
AR_N00217_003766 REPORT 69	09-30-1998	TETRA TECH EM, INC.	ANALYSIS OF INTEGRATION OF REMEDIAL ALTERNATIVES (SEE RECORD # 3765 - EFAW TRANSMITTAL LETTER)	YES	PARCEL E PARCEL F
AR_N00217_003769 CORRESPONDENCE 134	10-07-1998	NAVFAC - EFA WEST	TRANSMITTAL OF THE RESPONSE TO COMMENTS ON THE DRAFT FINAL REMEDIAL INVESTIGATION REPORT (W/ ENCLOSURE)	YES	PARCEL E
AR_N00217_003755 CORRESPONDENCE 3	10-14-1998	NAVFAC - EFA WEST	TRANSMITTAL OF THE DRAFT FINAL WORK PLAN AND FIELD SAMPLING PLAN VALIDATION STUDY (ENCLSOURE IS RECORD # 3756)	YES	PARCEL E
AR_N00217_003757 CORRESPONDENCE 3	10-26-1998	NAVFAC - EFA WEST	TRANSMITTAL OF THE DRAFT QUALITY ASSURANCE PROJECT PLAN ADDENDUM, VALIDATION STUDY (ENCLOSURE IS RECORD # 3758)	YES	PARCEL E
AR_N00217_003759 CORRESPONDENCE 3	10-30-1998	NAVFAC - EFA WEST	TRANSMITTAL OF THE DRAFT DATA GAPS SAMPLING AND ANALYSIS WORK PLAN (ENCLOSURE IS RECORD # 3760)	YES	PARCEL E
AR_N00217_003761 CORRESPONDENCE 3	11-03-1998	NAVFAC - EFA WEST	TRANSMITTAL OF THE FINAL EVALUATION OF THE POTENTIAL FOR WETLANDS CREATION (ENCLOSURE IS RECORD # 3762)	YES	PARCEL E

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_003762 REPORT 39	11-03-1998	TETRA TECH EM, INC.	FINAL EVALUATION OF THE POTENTIAL FOR WETLANDS CREATION (SEE RECORD # 3761 - EFAW TRANSMITTAL LETTER)	YES	PARCEL E
AR_N00217_003798 CORRESPONDENCE 4	11-13-1998	DEPARTMENT OF HEALTH SERVICES - SACRAMENTO, CA	COMMENTS ON THE RESPONSE TO COMMENTS ON THE DRAFT FINAL REMEDIAL INVESTIGATION AND DETERMINATION DISCUSSION OF ACCEPTABLE CONCENTRATIONS OF RESIDUAL RADIOACTIVITY CONTAMINATION	YES	PARCEL E
AR_N00217_003781 CORRESPONDENCE 3	01-14-1999	NAVFAC - EFA WEST	TRANSMITTAL OF THE DRAFT FINAL ECOLOGICAL RISK ASSESSMENT VALIDATION STUDY, QUALITY ASSURANCE PROJECT PLAN ADDENDUM (ENCLOSURE IS RECORD # 3782)	YES	PARCEL E
AR_N00217_003802 CORRESPONDENCE 5	03-01-1999	NAVFAC - EFA WEST	TRANSMITTAL OF RESPONSE TO COMMENTS ON THE DRAFT FINAL REMEDIATION INVESTIGATION (W/ ENCLOSURE)	YES	PARCEL E
AR_N00217_003825 CORRESPONDENCE 3	04-26-1999	NAVFAC - EFA WEST	TRANSMITTAL OF THE DRAFT FINAL DATA GAPS SAMPLING AND ANALYSIS PLAN (ENCLOSURE IS RECORD # 3826)	YES	PARCEL E
AR_N00217_000541 CORRESPONDENCE 8	04-27-1999	NAVFAC - EFA WEST	RESPONSES TO VARIOUS COMMENTS REGARDING NAVY'S REQUEST FOR SCHEDULE REVISIONS (W/ ENCLOSURES)	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F
AR_N00217_003827 CORRESPONDENCE 2	04-28-1999	DEPARTMENT OF HEALTH SERVICES - SACRAMENTO, CA	COMMENTS ON THE RESPONSE TO COMMENTS FOR DRAFT FINAL REMEDIAL INVESTIGATION	YES	PARCEL E
AR_N00217_003845 CORRESPONDENCE 3	05-13-1999	U.S. EPA - SAN FRANCISCO, CA	COMMENTS ON THE DRAFT FINAL DATA GAPS SAMPLING AND ANALYSIS WORK PLAN	YES	PARCEL E
AR_N00217_003835 CORRESPONDENCE 3	06-14-1999	NAVFAC - EFA WEST	TRANSMITTAL OF THE DRAFT VALIDATION STUDY REPORT (ENCLOSURE IS RECORD # 3836)	YES	PARCEL E

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AR_N00217_003902 CORRESPONDENCE 4	07-09-1999	NAVFAC - EFA WEST	TRANSMITTAL OF FEDERAL FACILITY AGREEMENT SCHEDULE EXTENSION REQUEST (W/ ENCLOSURES)	YES	PARCEL E
AR_N00217_003903 CORRESPONDENCE 8	07-15-1999	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT VALIDATION STUDY REPORT	YES	PARCEL E
AR_N00217_003904 CORRESPONDENCE 1	07-15-1999	U.S. EPA - SAN FRANCISCO, CA	FEDERAL FACILITY AGREEMENT APPROVAL OF SCHEDULE EXTENSION REQUEST	YES	PARCEL E
AR_N00217_003905 CORRESPONDENCE 7	07-26-1999	CALIFORNIA DEPARTMENT OF FISH AND GAME - SACRAMENTO, CA	COMMENTS ON THE DRAFT VALIDATION STUDY REPORT	YES	PARCEL E
AR_N00217_003906 CORRESPONDENCE 3	08-25-1999	NAVFAC - EFA WEST	TRANSMITTAL OF FEDERAL FACILITY AGREEMENT REVISED SCHEDULE EXTENSION (W/ ENCLOSURE)	YES	PARCEL E
AR_N00217_003896 CORRESPONDENCE 3	10-04-1999	NAVFAC - EFA WEST	TRANSMITTAL OF THE REVISED DRAFT FINAL DATA GAPS SAMPLING AND ANALYSIS WORK PLAN (ENCLOSURE IS RECORD # 3897)	YES	PARCEL E
AR_N00217_000245 MINUTES 71	02-24-2000	BECHTEL ENVIRONMENTAL, INC.	24 FEBRUARY 2000 RESTORATION ADVISORY BOARD (RAB) MEETING HANDOUTS [INCLUDES AGENDA, RAB LISTING, MEETING MINUTES OF 10/21/99, 12/09/99, 01/18/00 AND 01/27/00 AND VARIOUS HANDOUTS]	YES	PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F
AR_N00217_003938 CORRESPONDENCE 2	04-05-2000	CRWQCB - OAKLAND, CA	REVIEW AND NO COMMENT ON THE DRAFT FINAL PROTECTIVE SOIL CONCENTRATIONS TECHNICAL MEMORANDUM AND ECOLOGICAL RISK ASSESSMENT VALIDATION STUDY REPORT	YES	PARCEL E
AR_N00217_000259 CORRESPONDENCE 3	04-21-2000	LENNAR, LLC	REVIEW AND COMMENTS ON THE DRAFT FINAL PROTECTIVE SOIL CONCENTRATIONS TECHNICAL MEMORANDUM	YES	PARCEL E SITE 00001 SITE 00021

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_000092 CORRESPONDENCE 4	04-27-2000	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT FINAL ECOLOGICAL RISK ASSESSMENT VALIDATION STUDY REPORT, AND DRAFT FINAL PROTECTIVE SOIL CONCENTRATIONS TECHNICAL MEMORANDUM	YES	PARCEL E
AR_N00217_000247 MINUTES 72	04-27-2000	BECHTEL ENVIRONMENTAL, INC.	27 APRIL 2000 RESTORATION ADVISORY BOARD (RAB) MEETING HANDOUTS - INCLUDES AGENDA, 23 MARCH 2000 MEETING MINUTES, BRAC CLEANUP TEAM (BCT) 3 MARCH 2000 MEETING MINUTES AND DRAFT EXPLANATION OF SIGNIFICANT DIFFERENCES	YES	PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F SITE 00001
AR_N00217_000264 CORRESPONDENCE 4	04-27-2000	U.S. EPA - SAN FRANCISCO, CA	COMMENTS BY REGULATOR ON THE RESPONSE TO COMMENTS OF THE DRAFT FINAL VALIDATION STUDY REPORT	YES	PARCEL E
AR_N00217_003945 CORRESPONDENCE 2	05-05-2000	U.S. EPA - SAN FRANCISCO, CA	EPA'S REQUEST TO ASSIST IN CALCULATING REALISTIC COST TO COMPLETE ESTIMATE	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F
AR_N00217_003949 CORRESPONDENCE 8	05-24-2000	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF RESPONSE TO COMMENTS FOR THE DRAFT FINAL ECOLOGICAL RISK ASSESSMENT VALIDATION STUDY REPORT (W/ ENCLOSURE) [SEE RECORDS # 92 AND # 264 - COMMENTS]	YES	PARCEL E
AR_N00217_000224 MINUTES 19	05-25-2000	BECHTEL NATIONAL, INC.	25 MAY 2000 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES	YES	PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_000251 MINUTES 20	05-25-2000	BECHTEL ENVIRONMENTAL, INC.	25 MAY 2000 RESTORATION ADVISORY BOARD (RAB) MEETING HANDOUTS [INCLUDES AGENDA, 04/27/00 MEETING MINUTES AND VARIOUS HANDOUTS]	YES	PARCEL B PARCEL C PARCEL D PARCEL E

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AR_N00217_000257 FACT SHEET 12	06-01-2000	BECHTEL NATIONAL, INC.	ENVIRONMENTAL CLEANUP NEWSLETTER:	YES	PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E SITE 00001 SITE 00003 SITE 00006 SITE 00021
AR_N00217_003948 CORRESPONDENCE 5	06-06-2000	TETRA TECH EM, INC.	DISTRIBUTION OF ERRATA SHEET FOR DRAFT FINAL ECOLOGICAL RISK ASSESSMENT VALIDATION STUDY (SEE RECORD # 3928 - DRAFT FINAL ECOLOGICAL RISK ASSESSMENT VALIDATION STUDY)	YES	PARCEL E
AR_N00217_003979 CORRESPONDENCE 3	06-16-2000	CRWQCB - OAKLAND, CA	COMMENTS ON DRAFT FIELD SAMPLING PLAN FOR PHASE I DATA GAPS INVESTIGATION	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_003962 CORRESPONDENCE 12	06-23-2000	NAVFAC - EFA WEST	TRANSMITTAL OF TREATABILITY STUDY WORK PLAN MODIFICATIONS REGARDING THE PHASE II SOIL VAPOR EXTRACTION (W/ ENCLOSURE)	YES	BLDG 0000134 BLDG 0000211 BLDG 0000231 BLDG 0000253 BLDG 0000272 PARCEL B PARCEL C PARCEL E SITE 00010 SITE 00025 SITE 00028 SITE 00036

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AR_N00217_003976 CORRESPONDENCE 11	06-23-2000	DTSC - BERKELEY, CA		REVIEW AND COMMENTS ON THE DRAFT QUALITY ASSURANCE PROJECT PLAN AND DRAFT FIELD SAMPLING PLAN FOR PHASE I GROUNDWATER DATA GAPS INVESTIGATION	YES	PARCEL B PARCEL C PARCEL D PARCEL E SITE 00009 SITE 00018 SITE 00025 SITE 00028
AR_N00217_003973 CORRESPONDENCE 7	06-30-2000	NAVFAC - EFA WEST		TRANSMITTAL OF 31 MAY 2000 FINAL PETROLEUM HYDROCARBON PROGRAM MEETING MINUTES	YES	BLDG 0000439 PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_000063 CORRESPONDENCE 2	07-03-2000	U.S. EPA - SAN FRANCISCO, CA		COMMENTS ON THE PHASE II SOIL VAPOR EXTRACTION TREATABILITY STUDY WORK PLAN (SEE RECORD # 3962 - TREATABILITY STUDY WORK PLAN)	YES	BLDG 0000123 PARCEL B PARCEL C PARCEL E SITE 00010 SITE 00025
AR_N00217_000234 MINUTES 19	07-27-2000	BECHTEL NATIONAL, INC.		27 JULY 2000 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES REPORTER'S TRANSCRIPT	YES	PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_000051 REPORT 599	07-31-2000	TETRA TECH EM, INC.		FINAL FIELD SAMPLING PLAN AND QUALITY ASSURANCE PROJECT PLAN - PHASE I GROUNDWATER DATA GAPS INVESTIGATION [INCLUDES SWDIV TRANSMITTAL LETTER]	YES	PARCEL B PARCEL C PARCEL D PARCEL E SITE 00001 SITE 00006 SITE 00021 SITE 00022

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AR_N00217_000123 REPORT 134	08-17-2000	TETRA TECH EM, INC.	FINAL RADIOLOGICAL REMOVAL ACTION, ACTION MEMORANDUM (INCLUDES RESPONSE TO AGENCY COMMENTS ON THE DRAFT RADIOLOGICAL REMOVAL ACTION, ACTION MEMORANDUM, SWDIV TRANSMITTAL LETTER, AND CD COPY)	YES	BLDG 0000364 BLDG 0000509 BLDG 0000529 BLDG 0000707 PARCEL B PARCEL D PARCEL E SITE 00011 SITE 00014 SITE 00015 SITE 00034 SITE 00039
AR_N00217_000235 MINUTES 31	08-24-2000	BECHTEL NATIONAL, INC.	24 AUGUST 2000 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES REPORTER'S TRANSCRIPT	YES	BLDG 0000411 PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_000399 CORRESPONDENCE 9	08-31-2000	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF JULY 2000 MONTHLY PROGRESS REPORT (W/ ENCLOSURE)	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F
AR_N00217_000258 FACT SHEET 10	09-01-2000	BECHTEL NATIONAL, INC.	ENVIRONMENTAL CLEANUP NEWSLETTER: "CLEANUP MOVING FORWARD"	YES	PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F
AR_N00217_000254 MINUTES 18	09-28-2000	BECHTEL ENVIRONMENTAL, INC.	28 SEPTEMBER 2000 RESTORATION ADVISORY BOARD (RAB) MEETING HANDOUTS [INCLUDES AGENDA, 08/24/00 MEETING MINUTES, FACT SHEETS NO. 1 & 2 AND RECENT FIRE-RELATED EVENTS]	YES	PARCEL B PARCEL E

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AR_N00217_000240 ANALYTICAL DATA 8	<b>10-19-2000</b>	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE TECHNICAL JUSTIFICATION FOR THE INTERFACE, BEACH AMORTIZATION CONCEPTUAL DESIGN (W/ ENCLOSURE)	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F
AR_N00217_000241 CORRESPONDENCE 6	<b>10-19-2000</b>	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF DESIGN SUMMARY, LANDFILL CAP (W/ ENCLOSURE)	YES	PARCEL E
AR_N00217_000244 MINUTES 6	<b>10-24-2000</b>	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF 26 SEPTEMBER 2000 FINAL SOIL DATA GAPS MEETING MINUTES (W/ ENCLOSURE)	YES	PARCEL E
AR_N00217_000256 MINUTES 19	<b>10-26-2000</b>	BECHTEL ENVIRONMENTAL, INC.	26 OCTOBER 2000 RESTORATION ADVISORY BOARD (RAB) MEETING HANDOUTS [INCLUDES AGENDA, MEETING MINUTES, VARIOUS HANDOUTS, SEPTEMBER 2000 MONTHLY PROGRESS REPORT AND FACT SHEET NO. 3]	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F
AR_N00217_000289 CORRESPONDENCE 2	<b>10-31-2000</b>	U.S. EPA - SAN FRANCISCO, CA	REVIEW OF TECHNICAL JUSTIFICATION FOR THE INTERFACE, BEACH ARMORIZATION CONCEPTUAL DESIGN {SEE RECORD #240 - TECHNICAL JUSTIFICATION}	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F
AR_N00217_000297 CORRESPONDENCE 2	<b>10-31-2000</b>	CRWQCB - SAN FRANCISCO, CA	COMMENTS ON TECHNICAL JUSTIFICATION FOR THE INTERFACE BEACH ARMORIZATION CONCEPTUAL DESIGN (SEE RECORD # 240 - TECHNICAL JUSTIFICATION FOR THE INTERFACE BEACH ARMORIZATION CONCEPTUAL DESIGN)	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F
AR_N00217_000290 CORRESPONDENCE 5	<b>11-02-2000</b>	SAN FRANCISCO REDEVELOPMENT AGENCY - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE TECHNICAL JUSTIFICATION FOR THE INTERFACE, BEACH ARMORIZATION CONCEPTUAL DESIGN {SEE RECORD #240 - TECHNICAL JUSTIFICATION}	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F

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AR_N00217_000265 REPORT 36	11-07-2000	TETRA TECH EM, INC.	ACTION MEMORANDUM, LANDFILL FIRE EMERGENCY REMOVAL ACTION (INCLUDES SWDIV TRANSMITTAL LETTER)	YES	PARCEL E
AR_N00217_000302 REPORT 33	11-17-2000	TETRA TECH EM, INC.	GROUNDWATER BENEFICIAL USE EVALUATION (INCLUDES SWDIV TRANSMITTAL LETTER)	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_000303 CORRESPONDENCE 37	11-21-2000	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL LETTER OF DOCUMENTS SENT TO REGULATORS FOR REVIEW AND INFORMATION REGARDING LANDFILL FIRE (W/ ENCLOSURES)	YES	PARCEL E
AR_N00217_000325 CORRESPONDENCE 2	11-29-2000	CRWQCB - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON GROUNDWATER BENEFICIAL USE EVALUATION (SEE RECORD # 302 - GROUNDWATER BENEFICIAL USE EVALUATION)	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_000326 CORRESPONDENCE 4	12-05-2000	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON GROUNDWATER BENEFICIAL USE EVALUATION (SEE RECORD # 302 - GROUNDWATER BENEFICIAL USE EVALUATION)	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_000358 MINUTES 78	12-07-2000	BECHTEL ENVIRONMENTAL, INC.	07 DECEMBER 2000 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES - INCLUDES MEETING MINUTES OF 26 OCTOBER 2000, REPORTER'S TRANSCRIPT, AGENDA, PUBLIC NOTICE, AND HANDOUTS	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F SITE 00003
AR_N00217_000342 CORRESPONDENCE 3	12-18-2000	LENNAR, LLC	COMMENTS ON THE GROUNDWATER BENEFICIAL USE EVALUATION (W/ ENCLOSURE) (SEE RECORD # 302 - GROUNDWATER BENEFICIAL USE EVALUATION, #325)	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_000360 REPORT 145	01-01-2001	NEW WORLD TECHNOLOGY	FINAL WORK PLAN FOR SOIL REMOVAL AND PACKAGING, RADIOLOGICAL TIME CRITICAL REMOVAL ACTION, REVISION 4 (INCLUDES RESPONSE TO COMMENTS ON THE DRAFT WORK PLAN, FINAL MARSSIM STATUS SURVEY PLAN, AND SWDIV TRANSMITTAL LETTERS)	YES	PARCEL D PARCEL E

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AR_N00217_000404 CORRESPONDENCE 2	01-01-2001	AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY - SAN FRANCISCO, CA	HEALTH CONSULTATION SUMMARY REGARDING THE LANDFILL FIRE	YES	PARCEL E
AR_N00217_000332 REPORT 249	01-08-2001	TETRA TECH EM, INC.	FIELD SAMPLING PLAN AND QUALITY ASSURANCE PROJECT PLAN ADDENDUM FOR PHASE II GROUNDWATER DATA GAPS INVESTIGATION [INCLUDES SWDIV TRANSMITTAL LETTERS] {CD COPY ENCLOSED}	YES	PARCEL B PARCEL C PARCEL D PARCEL E SITE 00001 SITE 00006 SITE 00021 SITE 00022
AR_N00217_000363 MINUTES 64	01-25-2001	BECHTEL ENVIRONMENTAL, INC.	25 JANUARY 2001 RESTORATION ADVISORY BOARD (RAB) MEETING PUBLIC INFORMATION MATERIAL PACKAGE (INCLUDES REPORTER'S TRANSCRIPT OF 25 JANUARY 2001 MEETING)	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F
AR_N00217_000384 CORRESPONDENCE 35	02-07-2001	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE REVISED INFORMATION PACKAGE FOR THE PHASE I GROUNDWATER DATA GAP INVESTIGATION AND FIELD SAMPLING PLAN AND QUALITY ASSURANCE PROJECT PLAN ADDENDA FOR PHASE II GROUNDWATER DATA GAP INVESTIGATION	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_000359 CORRESPONDENCE 16	02-08-2001	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF RESPONSE TO COMMENTS ON THE GROUNDWATER BENEFICIAL USE EVALUATION FOR (W/ ENCLOSURE)	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_000364 FACT SHEET 13	02-15-2001	BECHTEL ENVIRONMENTAL, INC.	ENVIRONMENTAL CLEANUP NEWSLETTER: CAPPING AND FIRE UPDATE OCTOBER THROUGH DECEMBER 2000	YES	PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_000362 MINUTES 61	02-22-2001	BECHTEL ENVIRONMENTAL, INC.	22 FEBRUARY 2001 RESTORATION ADVISORY BOARD (RAB) MEETING PUBLIC INFORMATION MATERIAL PACKAGE (INCLUDES REPORTER'S TRANSCRIPT OF 22 FEBRUARY 2001 MEETING)	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F

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AR_N00217_000376 REPORT 229	02-28-2001	TETRA TECH EM, INC.	CALCULATION AND IMPLEMENTATION OF SUPPLEMENTAL MANGANESE AMBIENT LEVELS [INCLUDES SWDIV TRANSMITTAL LETTER AND CD COPY]	YES	PARCEL B PARCEL E SITE 00007 SITE 00018
AR_N00217_000405 CORRESPONDENCE 30	03-02-2001	U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES - ATLANTA, GA	HEALTH CONSULTATION LANDFILL FIRE	YES	PARCEL E
AR_N00217_000395 MINUTES 87	03-22-2001	BECHTEL ENVIRONMENTAL, INC.	22 MARCH 2001 RESTORATION ADVISORY BOARD (RAB) MEETING PUBLIC INFORMATION MATERIALS (INCLUDES AGENDA, MEETING MINUTES FROM 2/22/01, REPORTER'S TRANSCRIPT FROM THE 3/22/01 MEETING, AND VARIOUS HANDOUTS	YES	PARCEL D PARCEL E PARCEL F
AR_N00217_000430 REPORT 44	04-12-2001	TETRA TECH EM, INC.	FINAL GROUNDWATER BENEFICIAL USE DETERMINATION FOR A-AQUIFER (SEE RECORD # 493 - REVISED FINAL GROUNDWATER BENEFICIAL USE)	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_000446 CORRESPONDENCE 6	04-18-2001	DTSC - BERKELEY, CA	RESPONSES TO RESPONSE TO COMMENTS ON THE FIELD SAMPLING PLAN ADDENDUM FOR PHASE II GROUNDWATER DATA GAPS INVESTIGATION {SEE RECORD # 440 - NAVY'S RESPONSE TO COMMENTS}	YES	PARCEL E
AR_N00217_000440 CORRESPONDENCE 5	04-23-2001	NAVFAC - SOUTHWEST DIVISION	RESPONSES TO 18 APRIL 2001 LETTER, REGARDING THE NAVY'S RESPONSE TO COMMENTS ON THE FIELD SAMPLING PLAN ADDENDUM FOR THE PHASE II GROUNDWATER DATA GAPS INVESTIGATION	YES	PARCEL E
AR_N00217_000437 MINUTES 105	04-26-2001	BECHTEL ENVIRONMENTAL, INC.	26 APRIL 2001 RESTORATION ADVISORY BOARD (RAB) MEETING PUBLIC INFORMATION MATERIALS PACKAGE (INCLUDES AGENDA, MEETING TRANSCRIPT FROM THE 4/26/01 MEETING, MINUTES FROM THE 3/22/01 MEETING, HANDOUTS, RAB APPLICATIONS AND MAILING LIST)	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F
AR_N00217_000456 CORRESPONDENCE 2	05-02-2001	SAN FRANCISCO REDEVELOPMENT AGENCY - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT PETROLEUM HYDROCARBON CORRECTIVE ACTION PLAN	YES	PARCEL C PARCEL D PARCEL E

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AR_N00217_000433 FACT SHEET 21	05-03-2001	BECHTEL ENVIRONMENTAL, INC.	ENVIRONMENTAL CLEANUP NEWSLETTER: JANUARY-MARCH 2001, SMOLDERING AREA AT LANDFILL CAPPED AND EXTINGUISHED	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F	
AR_N00217_000459 CORRESPONDENCE 4	05-16-2001	DTSC - BERKELEY, CA	RESPONSES TO NAVY'S LETTER DATED 23 APRIL 2001 REGARDING THE FIELD SAMPLING PLAN ADDENDUM FOR THE PHASE II GROUNDWATER DATA GAPS INVESTIGATION (SEE RECORD # 440 - NAVY'S LETTER DATED 04/23/01)	YES	PARCEL E	
AR_N00217_000465 CORRESPONDENCE 3	06-14-2001	CRWQCB - OAKLAND, CA	REVIEW AND COMMENTS ON THE DRAFT PETROLEUM HYDROCARBON CORRECTIVE ACTION PLAN	YES	PARCEL C PARCEL D PARCEL E	
AR_N00217_000725 REPORT 26	06-21-2001	IT CORPORATION	PROGRESS REPORT FOR THE SOIL VAPOR EXTRACTION PILOT TEST	YES	BLDG 0000406 PARCEL E	
AR_N00217_000448 CORRESPONDENCE 3	06-22-2001	NAVFAC - SOUTHWEST DIVISION	RESPONSES TO THE 7 JUNE 2001 LETTER, REGARDING THE ENVIRONMENTAL PROTECTION AGENCY'S INTENTION TO IMPOSE STIPULATED PENALTIES ON THE NAVY REGARDING THE INCIDENTS RELATED TO THE PARCEL E LANDFILL FIRE	YES	PARCEL E	
AR_N00217_000483 MINUTES 114	06-28-2001	BECHTEL ENVIRONMENTAL, INC.	MEETING MATERIALS FOR THE RESTORATION ADVISORY BOARD (RAB) MEETING HELD ON 28 JUNE 2001 - INCLUDES AGENDA, PUBLIC NOTICE, REPORTER'S TRANSCRIPT OF 6/28/01 & MEETING MINUTES OF 5/24/01, FACT SHEET DATED 6/19/01 SANDBLAST GRIT AND HANDOUTS	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F SITE 00007	

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AR_N00217_000368 CORRESPONDENCE 115	06-29-2001	TETRA TECH EM, INC.	TRANSMITTAL OF REFERENCE MATERIAL FOR THE DRAFT FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN FOR DATA GAPS INVESTIGATION - [W/ ENCLOSURE] (SEE RECORD # 378 - DRAFT FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN)	YES	PARCEL E SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00011 SITE 00012 SITE 00013 SITE 00014 SITE 00015 SITE 00036 SITE 00038 SITE 00039 SITE 00054 SITE 00056 SITE 00072
AR_N00217_000449 CORRESPONDENCE 3	07-05-2001	NAVFAC - SOUTHWEST DIVISION	RESPONSES TO 07 AND 26 JUNE 2001 LETTERS, REGARDING THE EPA'S INTENTION TO IMPOSE STIPULATED PENALTIES ON THE NAVY REGARDING INCIDENTS RELATED TO THE PARCEL E LANDFILL FIRE	YES	PARCEL E
AR_N00217_000503 CORRESPONDENCE 18	08-01-2001	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN FOR DATA GAPS INVESTIGATION	YES	PARCEL E

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AR_N00217_000493 REPORT 42	08-10-2001	TETRA TECH EM, INC.	REVISED FINAL GROUNDWATER BENEFICIAL USE DETERMINATION FOR A-AQUIFER (INCLUDES SWDIV TRANSMITTAL LETTER ) [SEE RECORD # 430 - FINAL GROUNDWATER BENEFICIAL USE]	YES	BLDG 0000217 BLDG 0000241 BLDG 0000258 BLDG 0000275 PARCEL C PARCEL D PARCEL E SITE 00002 SITE 00006 SITE 00008 SITE 00011 SITE 00012 SITE 00025 SITE 00028 SITE 00029 SITE 00030 SITE 00033 SITE 00039 SITE 00058
AR_N00217_000494 REPORT 579	08-10-2001	TETRA TECH EM, INC.	INFORMATION PACKAGE - PHASE II GROUNDWATER DATA GAPS INVESTIGATION (VOLUME I-II OF II) [INCLUDES SWDIV TRANSMITTAL LETTER] {CD COPY ENCLOSED}	YES	PARCEL E SITE 00001 SITE 00002 SITE 00003 SITE 00012 SITE 00013 SITE 00036
AR_N00217_000553 CORRESPONDENCE 15	08-31-2001	SAN FRANCISCO REDEVELOPMENT AGENCY - SAN FRANCISCO, CA	COMMENTS ON THE REVISED DRAFT FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN, DATA GAPS INVESTIGATION (SEE RECORD # 378 - DRAFT FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN)	YES	PARCEL E
AR_N00217_000514 CORRESPONDENCE 7	09-18-2001	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT REMOVAL ACTION LANDFILL CAP CLOSE-OUT REPORT AND DRAFT FIELD SAMPLING PLAN QUALITY ASSURANCE PROJECT PLAN FOR DATA GAPS-LIQUEFACTION POTENTIAL (SEE RECORD # 451 - DRAFT REMOVAL ACTION)	YES	PARCEL E

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AR_N00217_001444 CORRESPONDENCE 4	10-02-2001	SAN FRANCISCO REDEVELOPMENT AGENCY - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE REVISED DRAFT PETROLEUM HYDROCARBON SOIL AND GROUNDWATER SAMPLING PLAN	YES	PARCEL C PARCEL D PARCEL E	
AR_N00217_000531 MINUTES 107	11-29-2001	BECHTEL ENVIRONMENTAL, INC.	29 NOVEMBER 2001 RESTORATION ADVISORY BOARD (RAB) MEETING PUBLIC INFORMATION MATERIAL PACKAGE (INCLUDES AGENDA, PUBLIC NOTICE, MEETING MINUTES FROM MEETING HELD ON 10/24/01, REPORTERS TRANSCRIPT FROM 11/29/01 MEETING AND HANDOUTS)	YES	DRY DOCK 0004 PARCEL B PARCEL C PARCEL D PARCEL E	
AR_N00217_001449 CORRESPONDENCE 2	12-20-2001	CRWQCB - OAKLAND, CA	REVIEW AND COMMENTS ON THE REVISED DRAFT PETROLEUM HYDROCARBON SOIL AND GROUNDWATER SAMPLING PLAN	YES	PARCEL C PARCEL D PARCEL E	
AR_N00217_000559 CORRESPONDENCE 5	01-15-2002	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE DRAFT FINAL SAMPLING PLAN AND QUALITY ASSURANCE PROJECT PLAN FOR NON- STANDARD DATA GAPS INVESTIGATION (INDUSTRIAL LANDFILL AND WETLANDS DELINEATION) [ENCLOSURE IS RECORD # 554]	YES	PARCEL E	
AR_N00217_000557 MINUTES 91	01-24-2002	BECHTEL ENVIRONMENTAL, INC.	24 JANUARY 2002 RESTORATION ADVISORY BOARD (RAB) MEETING PUBLIC INFORMATION MATERIALS PACKAGE (INCLUDES AGENDA, PUBLIC NOTICE, ATTENDANCE LIST, MEETING MINUTES FROM 11/29/01 MEETING, REPORTERS TRANSCRIPT OF 01/24/02 MEETING AND HANDOUTS)	YES	PARCEL B PARCEL C PARCEL E PARCEL F	
AR_N00217_000579 CORRESPONDENCE 5	02-05-2002	U.S. EPA - SAN FRANCISCO, CA	COMMENTS ON THE DRAFT FINAL FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN NONSTANDARD DATA GAPS INVESTIGATION (INDUSTRIAL LANDFILL AND WETLANDS DELINEATION) {SEE RECORD # 554 - DRAFT FINAL FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN}	YES	PARCEL E	
AR_N00217_000580 REPORT 336	02-05-2002	TETRA TECH EM, INC.	FIELD SAMPLING PLAN AND QUALITY ASSURANCE PROJECT PLAN ADDENDUM FOR PHASE III GROUNDWATER DATA GAPS INVESTIGATION (ADDENDUM II) [INCLUDES SWDIV TRANSMITTAL LETTER] {CD COPY ENCLOSED}	YES	PARCEL B PARCEL C PARCEL D PARCEL E SITE 00001 SITE 00006 SITE 00021 SITE 00022	

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AR_N00217_000589 MINUTES 79	02-28-2002	BECHTEL ENVIRONMENTAL, INC.	28 FEBRUARY 2002 RESTORATION ADVISORY BOARD (RAB) MEETING PUBLIC INFORMATION MATERIAL PACKAGE (INCLUDES AGENDA, PUBLIC NOTICE, MEETING MINUTES FROM 01/24/02 MEETING, REPORTERS TRANSCRIPT OF 02/28/02 MEETING, ATTENDANCE SHEET AND HANDOUTS)	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F SITE 00010
AR_N00217_000583 FACT SHEET 11	03-07-2002	BECHTEL ENVIRONMENTAL, INC.	ENVIRONMENTAL CLEANUP NEWSLETTER OCTOBER-DECEMBER 2001	YES	PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F SITE 00010 SITE 00026
AR_N00217_000590 REPORT 143	03-21-2002	TETRA TECH EM, INC.	BASEWIDE HEALTH AND SAFETY PLAN (CD COPY ENCLOSED)	YES	PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_000588 MINUTES 22	03-28-2002	BECHTEL ENVIRONMENTAL, INC.	PRE-MEETING MAILER FOR THE 28 MARCH 2002 RESTORATION ADVISORY BOARD (RAB) MEETING (INCLUDES AGENDA, PUBLIC NOTICE, MEETING MINUTES FROM THE 02/28/02 MEETING, PROPOSED AMENDED RAB BYLAWS, DATED 03/06/02 - E-MAIL TRANSMITTING RAB BYLAWS)	YES	PARCEL E
AR_N00217_004089 REPORT 225	04-19-2002	FOSTER WHEELER ENVIRONMENTAL CORPORATION	FINAL HEALTH AND SAFETY PLAN FOR THE INDUSTRIAL PROCESS EQUIPMENT SURVEY, SAMPLING , DECONTAMINATION, AND WASTE CONSOLIDATION	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_004150 CORRESPONDENCE 13	04-19-2002	FOSTER WHEELER ENVIRONMENTAL CORPORATION	RESPONSES TO COMMENTS ON THE DRAFT HEALTH AND SAFETY PLAN INDUSTRIAL PROCESS EQUIPMENT SURVEY, SAMPLING, DECONTAMINATION, AND WASTE CONSOLIDATION	YES	PARCEL C PARCEL D PARCEL E

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AR_N00217_000615 MINUTES 77	04-25-2002	BECHTEL ENVIRONMENTAL, INC.	25 APRIL 2002 RESTORATION ADVISORY BOARD (RAB) MEETING PUBLIC INFORMATION MATERIALS (INCLUDES AGENDA, PUBLIC NOTICE, MINUTES FROM 28 MARCH 2002 MEETING, TRANSCRIPT OF MINUTES FROM 25 APRIL 2002 MEETING, MONTHLY PROGRESS REPORT, AND HANDOUTS)	YES	BLDG 0000123 PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F SITE 00007 SITE 00018 SITE 00029
AR_N00217_000605 REPORT 395	05-28-2002	TETRA TECH EM, INC.	REVISED FIELD SAMPLING PLAN AND QUALITY ASSURANCE PROJECT PLAN ADDENDA FOR THE PHASE III GROUNDWATER DATA GAPS INVESTIGATION (ADDENDUM II) {SEE RECORD # 580 - FIELD SAMPLING PLAN AND QUALITY ASSURANCE PROJECT PLAN}	YES	PARCEL C PARCEL D PARCEL E SITE 00003
AR_N00217_000607 CORRESPONDENCE 39	05-29-2002	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF COMPILED RESPONSE TO COMMENTS ON THE INFORMATION PACKAGE - PHASE II GROUNDWATER DATA GAPS INVESTIGATION {COMMENTS BY EPA & DTSC} (W/ ENCLOSURE 2) [ENCLOSURE 1 IS RECORD # 606 AND ENCLOSURE 3 IS # 609]	YES	PARCEL E SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00036

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<b>Approx. # Pages</b> AR_N00217_000609 CORRESPONDENCE 9	<b>05-29-2002</b>	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF COMPILED RESPONSE TO COMMENTS ON THE REVISED FINAL GROUNDWATER BENEFICIAL USE DETERMINATION FOR A-AQUIFER {COMMENTS BY EPA} (W/ ENCLOSURE 3) [ENCLOSURE 1 IS RECORD # 606 AND ENCLOSURE 2 IS RECORD # 607]	YES	BLDG 0000217 BLDG 0000241 BLDG 0000258 BLDG 0000275 PARCEL C PARCEL D PARCEL E SITE 00002 SITE 00006 SITE 00011 SITE 00012 SITE 00028 SITE 00029 SITE 00030 SITE 00033 SITE 00039 SITE 00058
AR_N00217_000620 MINUTES 62	<b>05-30-2002</b>	BECHTEL ENVIRONMENTAL, INC.	30 MAY 2002 RESTORATION ADVISORY BOARD (RAB) MEETING PUBLIC INFORMATION MATERIALS (INCLUDES AGENDA, PUBLIC NOTICE, MINUTES FROM 25 APRIL 2002 MEETING, TRANSCRIPT OF MINUTES FROM 30 MAY 2002 MEETING, MONTHLY PROGRESS REPORT, AND HANDOUTS)	YES	BLDG 0000815 BLDG 0000830 PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F SITE 00001 SITE 00003 SITE 00007 SITE 00012 SITE 00018 SITE 00021 SITE 00059

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AR_N00217_000928 CORRESPONDENCE 7	05-30-2002	SAN FRANCISCO REDEVELOPMENT AGENCY - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT HISTORICAL RADIOLOGICAL ASSESSMENT VOLUME II [SEE RECORD # 594 - DRAT HISTORICAL RADIOLOGICAL ASSESSMENT]	YES	BLDG 0000815 BLDG 0000820 BLDG 0000821 BLDG 0000830 BLDG 0000831 PARCEL A PARCEL B PARCEL D PARCEL E
AR_N00217_000621 MINUTES 82	06-27-2002	BECHTEL ENVIRONMENTAL, INC.	27 JUNE 2002 RESTORATION ADVISORY BOARD (RAB) MEETING PUBLIC INFORMATION MATERIALS (INCLUDES: AGENDA, PUBLIC NOTICE, MINUTES FROM 30 MAY 2002 MEETING, TRANSCRIPT OF MINUTES FROM 27 JUNE 2002 MEETING, MONTHLY PROGRESS REPORT, AND HANDOUTS)	YES	BLDG 0000123 BLDG 0000816 BLDG 0000821 PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F SITE 00007 SITE 00018 SITE 00059
AR_N00217_000612 REPORT 211	07-02-2002	TETRA TECH EM, INC.	LANDFILL GAS TECHNICAL MEMORANDUM FOR INDUSTRIAL LANDFILL (INCLUDES SWDIV TRANSMITTAL LETTER) [CD COPY ENCLOSED]	YES	PARCEL E
AR_N00217_000613 REPORT 137	07-12-2002	TETRA TECH EM, INC.	SAMPLING AND ANALYSIS PLAN (FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN) FOR BASEWIDE GROUNDWATER SAMPLING FOR PETROLEUM HYDROCARBONS [INCLUDES SWDIV TRANSMITTAL LETTER]	YES	PARCEL B PARCEL C PARCEL D PARCEL E

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AR_N00217_000641 MINUTES 104	07-25-2002	BECHTEL ENVIRONMENTAL, INC.	PUBLIC INFORMATION MATERIAL PACKAGE FOR THE 25 JULY 2002 RESTORATION ADVISORY BOARD (RAB) MEETING - INCLUDES REPORTER'S TRANSCRIPT OF 25 JULY 2002 MEETING, AGENDA, MINUTES FROM 27 JUNE 2002 MEETING, MONTHLY PROGRESS REPORT, PRESENTATION MATERIALS, ETC.	YES	BLDG 0000103 BLDG 0000113 BLDG 0000123 BLDG 0000130 BLDG 0000134 BLDG 0000146 BLDG 0000211 BLDG 0000214 BLDG 0000224 BLDG 0000241 BLDG 0000253 BLDG 0000272 BLDG 0000274 BLDG 0000313 BLDG 0000317 BLDG 0000322 BLDG 0000351 BLDG 0000364 BLDG 0000365 BLDG 0000366 BLDG 0000406 BLDG 0000414 BLDG 0000506 BLDG 0000507 BLDG 0000509 BLDG 0000510 BLDG 0000517 BLDG 0000520 BLDG 0000529 BLDG 0000707 BLDG 0000708 BLDG 0000810 BLDG 0000815 BLDG 0000816 BLDG 0000820 BLDG 0000821 BLDG 0000830

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					BLDG 0000831 PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E SITE 00001 SITE 00002 SITE 00007 SITE 00018 SITE 00021
AR_N00217_000639 FACT SHEET 3	08-01-2002	TETRA TECH EM, INC.	UPDATE ON THE LANDFILL GAS REMOVAL ACTION	YES	PARCEL E
AR_N00217_000629 CORRESPONDENCE 8	08-07-2002	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF RESPONSE TO COMMENTS ON THE DRAFT DATA QUALITY OBJECTIVES TABLES FOR THE STANDARD DATA GAPS INVESTIGATION	YES	PARCEL E
AR_N00217_000630 CORRESPONDENCE 4	08-08-2002	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF A CONSENSUS STATEMENT BY THE DISPUTE RESOLUTION COMMITTEE FOR RESOLVING DISPUTE ON LANDFILL FIRE STIPULATED PENALTIES - FOR THE MINIMIZATION OF THE FREQUENCY OF AND POTENTIAL IMPACT FROM BRUSH OR DEBRIS FIRES (W/ ENCLOSURES)	YES	PARCEL E
AR_N00217_000631 REPORT 328	08-16-2002	FOSTER WHEELER ENVIRONMENTAL CORPORATION	FINAL WORK PLAN - INDUSTRIAL PROCESS EQUIPMENT SURVEY, SAMPLING, DECONTAMINATION, AND WASTE CONSOLIDATION (SEE RECORD # 702 - ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN)	YES	PARCEL C PARCEL D PARCEL E

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AR_N00217_000646 MINUTES 98	08-22-2002	BECHTEL ENVIRONMENTAL, INC.	PUBLIC INFORMATION MATERIALS FROM THE 22 AUGUST 2002 PUBLIC MEETING/ RESTORATION ADVISORY BOARD MEETING (INCLUDES: AGENDA AND PUBLIC NOTICE, MINUTES FROM MEETING OF 25 JULY 2002, PRESENTATION MATERIALS, FACT SHEET, MINUTES FROM VARIOUS OTHER MEETINGS)	YES	BLDG 0000815 BLDG 0000820 BLDG 0000821 PARCEL A PARCEL C PARCEL D PARCEL E SITE 00007 SITE 00018
AR_N00217_000644 REPORT 35	09-23-2002	TETRA TECH EM, INC.	FINAL LANDFILL GAS TIME-CRITICAL REMOVAL ACTION - ACTION MEMORANDUM [INCLUDES SWDIV TRANSMITTAL LETTER]	YES	PARCEL E SITE 00001 SITE 00021
AR_N00217_000672 MINUTES 79	09-26-2002	BECHTEL ENVIRONMENTAL, INC.	26 SEPTEMBER 2002 RESTORATION ADVISORY BOARD (RAB) MEETING PUBLIC INFORMATION MATERIALS - INCLUDES AGENDA, MEETING MINUTES FROM 08/22/02, HANDOUTS, AND REPORTER'S TRANSCRIPT FROM THE 09/26/02 MEETING	YES	PARCEL E
AR_N00217_000642 REPORT 287	10-01-2002	INNOVATIVE TECHNICAL SOLUTIONS, INC.	PROJECT WORK PLAN TIME-CRITICAL LANDFILL GAS REMOVAL ACTION FOR PARCEL E (INCLUDES SWDIV TRANSMITTAL LETTER)	YES	PARCEL E SITE 00001 SITE 00021
AR_N00217_000648 CORRESPONDENCE 53	11-01-2002	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF RESPONSES TO COMMENTS ON THE LANDFILL GAS TECHNICAL MEMORANDUM FOR INDUSTRIAL LANDFILL (W/ ENCLOSURE)	YES	PARCEL E SITE 00001 SITE 00021

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AR_N00217_000649 CORRESPONDENCE 91	11-01-2002	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF RESPONSES TO COMMENTS ON THE REVISED DRAFT FINAL SAMPLING AND ANALYSIS PLAN (FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN) FOR STANDARD DATA GAPS INVESTIGATION [W/ ENCLOSURE]	YES	BLDG 0000400 PARCEL E SITE 00001 SITE 00002 SITE 00003 SITE 00004 SITE 00012 SITE 00021 SITE 00036 SITE 00040 SITE 00045 SITE 00047 SITE 00050 SITE 00051 SITE 00052 SITE 00054 SITE 00056 SITE 00072 SITE 00073 SITE 00074 SITE 00075 SITE 00076	
AR_N00217_000656 CORRESPONDENCE 6	11-26-2002	TETRA TECH EM, INC.	RESPONSES TO COMMENTS ON THE REVISED DRAFT FINAL SAMPLING AND ANALYSIS PLAN STANDARD DATA GAPS INVESTIGATION (INCLUDES SWDIV TRANSMITTAL LETTER)	YES	BLDG 0000704 PARCEL E	
AR_N00217_000671 MINUTES 78	12-05-2002	BECHTEL ENVIRONMENTAL, INC.	05 DECEMBER 2002 RESTORATION ADVISORY BOARD (RAB) MEETING PUBLIC INFORMATION MATERIALS (INCLUDES AGENDA, MEETING MINUTES FROM 10/24/02, HANDOUTS, AND REPORTER'S TRANSCRIPT FROM THE 12/05/02 MEETING)	YES	PARCEL B PARCEL E	

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AR_N00217_000657 FACT SHEET 15	12-12-2002	BECHTEL ENVIRONMENTAL, INC.	ENVIRONMENTAL CLEANUP NEWSLETTER SUMMER/FALL EXPANDED ISSUE: "AMBIENT AIR AND SOIL GAS SURVEYS CONDUCTED AT LANDFILL - REMOVAL ACTION UNDERWAY", APRIL-SEPTEMBER 2002	YES	BLDG 0000123 BLDG 0000364 BLDG 0000406 PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F SITE 00007 SITE 00018
AR_N00217_000689 MINUTES 73	04-03-2003	BECHTEL ENVIRONMENTAL, INC.	27 FEBRUARY 2003 RESTORATION ADVISORY BOARD (RAB) MEETING PUBLIC INFORMATION MATERIALS [INCLUDES AGENDA, PUBLIC NOTICE, MEETING MINUTES FROM 01/23/03 MEETING, REPORTER'S TRANSCRIPT OF 27 FEBRUARY 2003 MEETING AND VARIOUS HANDOUTS]	YES	PARCEL E
AR_N00217_000702 REPORT 36	04-08-2003	FOSTER WHEELER ENVIRONMENTAL CORPORATION	ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN - INDUSTRIAL PROCESS EQUIPMENT SURVEY, SAMPLING, DECONTAMINATION, AND WASTE CONSOLIDATION [SEE RECORD # 631 - SAMPLING AND ANALYSIS PLAN (APPENDIX A) OF FINAL WORK PLAN]	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_000699 CORRESPONDENCE 14	04-24-2003	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF RESPONSE TO COMMENTS ON THE DRAFT STORM WATER DISCHARGE MANAGEMENT PLAN, INDUSTRIAL LANDFILL (W/ ENCLOSURE) [SEE RECORD # 679 - DRAFT MANAGEMENT PLAN]	YES	PARCEL E SITE 00001 SITE 00021
AR_N00217_003195 CORRESPONDENCE 6	05-15-2003	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE DRAFT NONSTANDARD DATA GAPS INVESTIGATION, LANDFILL LATERAL EXTENT EVALUATION (ENCLOSURE IS RECORD # 706)	YES	PARCEL E
AR_N00217_003196 CORRESPONDENCE 6	05-15-2003	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE DRAFT NONSTANDARD DATA GAPS INVESTIGATION, LANDFILL GAS CHARACTERIZATION (ENCLOSURE IS RECORD # 705)	YES	PARCEL E
AR_N00217_003279 CORRESPONDENCE 6	05-15-2003	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE DRAFT NONSTANDARD DATA GAPS INVESTIGATION, WETLANDS DELINEATION AND FUNCTIONS AND VALUES ASSESSMENT (ENCLOSURE IS RECORD # 704)	YES	PARCEL E

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AR_N00217_000737 REPORT 112	06-12-2003	TETRA TECH EM, INC.	FINAL STORM WATER DISCHARGE MANAGEMENT PLAN FOR THE INDUSTRIAL LANDFILL (INCLUDES SWDIV TRANSMITTAL LETTER AND CD COPY)	YES	PARCEL E SITE 00001 SITE 00021
AR_N00217_000742 CORRESPONDENCE 42	06-25-2003	TETRA TECH EM, INC.	RESPONSES TO REGULATORY AGENCY COMMENTS ON THE TIME-CRITICAL LANDFILL GAS REMOVAL ACTION PROJECT WORK PLAN AND THE FINAL LANDFILL GAS TIME-CRITICAL REMOVAL ACTION MEMORANDUM INCLUDES (SWDIV TRANSMITTAL LETTER)	YES	PARCEL E
AR_N00217_000750 REPORT 106	08-14-2003	TETRA TECH EM, INC.	FINAL NONSTANDARD DATA GAPS INVESTIGATION, WETLANDS DELINEATION AND FUNCTIONS AND VALUES ASSESSMENT [INCLUDES SWDIV TRANSMITTAL LETTER] {CD COPY ENCLOSED}	YES	PARCEL B PARCEL E
AR_N00217_001600 CORRESPONDENCE 5	10-17-2003	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE FINAL GROUNDWATER SUMMARY REPORT FOR PHASE III GROUNDWATER DATA GAPS INVESTIGATION (ENCLOSURE IS RECORD # 783)	YES	PARCEL E
AR_N00217_004035 MINUTES 97	12-04-2003	INNOVATIVE TECHNICAL SOLUTIONS, INC.	04 DECEMBER 2003 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, 23 OCTOBER 2003 MEETING MINUTES, 04 DECEMBER 2003 REPORTER'S TRANSCRIPT, AND VARIOUS HANDOUTS)	YES	BLDG 0000134 BLDG 0000231 BLDG 0000253 BLDG 0000272 BLDG 0000281 BLDG 0000366 PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F SITE 00002
AR_N00217_000784 REPORT 336	12-23-2003	TETRA TECH EM, INC.	FINAL NONSTANDARD DATA GAPS INVESTIGATION, LANDFILL GAS CHARACTERIZATION [INCLUDES SWDIV TRANSMITTAL LETTER] {CD COPY ENCLOSED}	YES	PARCEL E

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AR_N00217_000812 REPORT 53	04-09-2004	TETRA TECH EM, INC.	FINAL MONTHLY LANDFILL GAS MONITORING REPORT FOR FEBRUARY 2004 POST-REMOVAL ACTION, INDUSTRIAL LANDFILL (INCLUDES SWDIV TRANSMITTAL LETTER AND CD COPY)	YES	PARCEL E
AR_N00217_004124 REPORT 65	04-26-2004	TETRA TECH FW, INC.	FINAL BIOLOGICAL ASSESSMENT (SEE RECORD # 2191 - BRAC PMO WEST TRANSMITTAL LETTER)	YES	PARCEL E
AR_N00217_000926 CORRESPONDENCE 4	05-05-2004	CRWQCB - OAKLAND, CA	REVIEW AND COMMENTS ON THE DRAFT FIRST MONTHLY LANDFILL GAS MONITORING REPORT, POST-REMOVAL ACTION AND ON THE FINAL MONTHLY LANDFILL GAS MONITORING REPORT FOR FEBRUARY 2004	YES	PARCEL E
AR_N00217_004013 REPORT 66	05-06-2004	TETRA TECH EM, INC.	FINAL MONTHLY LANDFILL GAS MONITORING REPORT FOR MARCH 2004, POST-REMOVAL ACTION, INDUSTRIAL LANDFILL [INCLUDES SWDIV TRANSMITTAL LETTER] {CD COPY ENCLOSED}	YES	PARCEL E
AR_N00217_000783 REPORT 4894	05-11-2004	TETRA TECH EM, INC.	REVISED FINAL GROUNDWATER SUMMARY REPORT, PHASE III GROUNDWATER DATA GAPS INVESTIGATION, VOLUMES I THROUGH V OF V (INCLUDES CD COPY, AND REPLACEMENT PAGES CONVERTING THE FINAL DATED 17 OCTOBER 2003 TO REVISED FINAL)	YES	"PERCHLORATE " SEARCH - ROUND 1 PARCEL E
AR_N00217_004014 CORRESPONDENCE 4	05-11-2004	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF REPLACEMENT PAGES CONVERTING THE FINAL GROUNDWATER SUMMARY REPORT, PHASE III GROUNDWATER DATA GAPS INVESTIGATION, DATED 17 OCTOBER 2003, TO REVISED FINAL (ENCLOSURE IS RECORD # 783)	YES	PARCEL E
AR_N00217_004009 CORRESPONDENCE 34	05-18-2004	TETRA TECH FW, INC.	TRANSPORTATION AND DISPOSAL PLAN, POLYCHLORINATED BIPHENYL HOT SPOTS SOIL EXCAVATION SITE (SEE RECORD #4120 - FINAL TRANSPORTATION AND DISPOSAL PLAN FOR PCB HOT SPOT SOIL EXCAVATION SITE, REVISION 1) {CD COPY ENCLOSED}	YES	PARCEL E
AR_N00217_004020 CORRESPONDENCE 25	05-25-2004	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF COMMENTS ON THE DRAFT CHARACTERIZATION WORK PLAN FOR THE METAL DEBRIS REEF AND METAL SLAG AREAS (W/ ENCLOSURE) [CD COPY ENCLOSED]	YES	PARCEL E

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AR_N00217_004031 MINUTES 130	05-27-2004	INNOVATIVE TECHNICAL SOLUTIONS, INC.	27 MAY 2004 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, MEETING HANDOUTS, AND PUBLIC INFORMATION MATERIALS PACKAGE FOR 27 MAY 2004 PUBLIC MEETING/RESTORATION ADVISORY BOARD (RAB) MEETING)	YES	BLDG 0000322 PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL F SITE 00002
AR_N00217_004021 REPORT 50	06-03-2004	TETRA TECH EM, INC.	FINAL MONTHLY LANDFILL GAS MONITORING REPORT FOR APRIL 2004, POST-REMOVAL ACTION, INDUSTRIAL LANDFILL [INCLUDES SWDIV TRANSMITTAL LETTER] {CD COPY ENCLOSED}	YES	PARCEL E
AR_N00217_000932 CORRESPONDENCE 5	06-10-2004	CRWQCB - OAKLAND, CA	REVIEW AND COMMENTS ON THE DRAFT WORK PLAN FOR TOTAL PETROLEUM HYDROCARBON PROGRAM - IMPLEMENTATION OR CORRECTIVE ACTION PLAN SOIL REMOVAL (SEE RECORD # 809 - DRAFT WORK PLAN)	YES	PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_004019 REPORT 321	06-18-2004	TETRA TECH FW, INC.	FINAL CHARACTERIZATION WORK PLAN METAL DEBRIS REEF AND METAL SLAG AREAS [INCLUDES SWDIV TRANSMITTAL LETTER] {CD COPY ENCLOSED}	YES	PARCEL E
AR_N00217_004029 REPORT 182	06-29-2004	TETRA TECH FW, INC.	FINAL SITE-SPECIFIC HEALTH AND SAFETY PLAN FOR THE METAL DEBRIS REEF AND METAL SLAG AREAS	YES	"PERCHLORATE" SEARCH - ROUND 1 PARCEL E
AR_N00217_004069 CORRESPONDENCE 4	06-29-2004	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF FINAL 2003-2004 ANNUAL REPORT FOR STORM WATER DISCHARGE MANAGEMENT, INDUSTRIAL LANDFILL	YES	PARCEL E SITE 00001 SITE 00021
AR_N00217_004038 REPORT 55	07-01-2004	TETRA TECH EM, INC.	FINAL MONTHLY LANDFILL GAS MONITORING REPORT FOR MAY 2004 POST-REMOVAL ACTION [INCLUDES SWDIV TRANSMITTAL LETTER] {CD COPY ENCLOSED}	YES	PARCEL E
AR_N00217_002163 CORRESPONDENCE 4	07-12-2004	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE FINAL POST CONSTRUCTION REPORT, DECONTAMINATE PROCESS EQUIPMENT, CONDUCT WASTE CONSOLIDATION AND PROVIDE ASBESTOS SERVICES (ENCLOSURE IS RECORD # 4030)	YES	PARCEL B PARCEL C PARCEL D PARCEL E

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_002165 CORRESPONDENCE 5	08-13-2004	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE FINAL NONSTANDARD DATA GAPS INVESTIGATION LANDFILL LIQUEFACTION POTENTIAL (ENCLOSURE IS RECORD # 4051)	YES	PARCEL E
AR_N00217_002166 CORRESPONDENCE 5	08-13-2004	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE FINAL INTERIM LANDFILL GAS MONITORING AND CONTROL PLAN INDUSTRIAL LANDFILL (ENCLOSURE IS RECORD # 4054)	YES	PARCEL E
AR_N00217_004051 REPORT 347	08-13-2004	TETRA TECH EM, INC.	FINAL NONSTANDARD DATA GAPS INVESTIGATION LANDFILL LIQUEFACTION POTENTIAL (CD COPY ENCLOSED) [SEE RECORD # 2165 - SWDIV TRANSMITTAL LETTER]	YES	PARCEL E
AR_N00217_004052 REPORT 83	08-13-2004	TETRA TECH EM, INC.	FINAL MONTHLY LANDFILL GAS MONITORING REPORT FOR JANUARY 2004 POST-REMOVAL ACTION INDUSTRIAL LANDFILL [INLCUDES SWDIV TRANSMITTAL LETTER] {CD COPY ENCLOSED}	YES	PARCEL E
AR_N00217_004053 REPORT 56	08-13-2004	TETRA TECH EM, INC.	FINAL MONTHLY LANDFILL GAS MONITORING REPORT FOR JUNE 2004 POST-REMOVAL ACTION INDUSTRIAL LANDFILL [INCLUDES SWDIV TRANSMITTAL LETTER] {CD COPY ENCLOSED}	YES	PARCEL E
AR_N00217_004054 REPORT 348	08-13-2004	TETRA TECH EM, INC.	FINAL INTERIM LANDFILL GAS MONITORING AND CONTROL PLAN INDUSTRIAL LANDFILL (CD COPY ENCLOSED) [SEE RECORD # 2166 - SWDIV TRANSMITTAL LETTER]	YES	PARCEL E

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Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_000848 MINUTES 87	08-26-2004	TETRA TECH EM, INC.	26 AUGUST 2004 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, 22 JULY 2004 MEETING MINUTES, JULY 2004 MONTHLY PROGRESS REPORT, 11 AUGUST 2004 RAB SUBCOMMITTEE MEETING MINUTES,	YES	BLDG 0000101 BLDG 0000103 BLDG 0000114 BLDG 0000123 BLDG 0000130 BLDG 0000134 BLDG 0000140 BLDG 0000142 BLDG 0000146 BLDG 0000203 BLDG 0000211 BLDG 0000253 BLDG 0000272 BLDG 0000322 BLDG 0000364 BLDG 0000365 BLDG 0000366 BLDG 0000521 BLDG 0000813 BLDG 0000816 BLDG 0000819 BLDG 0000821 BLDG 0000901 PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 SITE 00002 SITE 00004 SITE 00007 SITE 00018

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_000847 MINUTES 94	09-23-2004	TETRA TECH EM, INC.	23 SEPTEMBER 2004 RESTORATION ADVISORY BOARD (RAB) MEETING (INCLUDES AGENDA, 26 AUGUST 2004 MEETING MINUTES, AUGUST 2004 MONTHLY PROGRESS REPORT, 15 SEPTEMBER 2004 RAB SUBCOMMITTEE MEETING MINUTES, REPORTER'S TRANSCRIPT AND VARIOUS HANDOUTS)	YES	BLDG 0000101 BLDG 0000114 BLDG 0000123 BLDG 0000130 BLDG 0000134 BLDG 0000142 BLDG 0000146 BLDG 0000203 BLDG 0000211 BLDG 0000253 BLDG 0000272 BLDG 0000322 BLDG 0000364 BLDG 0000365 BLDG 0000366 BLDG 0000408 BLDG 0000521 BLDG 0000813 BLDG 0000816 BLDG 0000819 BLDG 0000821 BLDG 0000901 PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E SITE 00002 SITE 00007 SITE 00018
AR_N00217_004072 REPORT 56	10-25-2004	INNOVATIVE TECHNICAL SOLUTIONS, INC.	FINAL MONTHLY LANDFILL GAS MONITORING REPORT FOR JULY 2004, POST-REMOVAL ACTION, INDUSTRIAL LANDFILL [INCLUDES SWDIV TRANSMITTAL LETTER] {CD COPY ENCLOSED}	YES	PARCEL E SITE 00001 SITE 00021

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<b>Record Type</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_004076 REPORT 154	10-29-2004	TETRA TECH EM, INC.	FINAL NONSTANDARD DATA GAPS INVESTIGATION, LANDFILL LATERAL EXTENT EVALUATION [INCLUDES SWDIV TRANSMITTAL LETTER] {CD COPY ENCLOSED}	YES	PARCEL E
AR_N00217_004059 REPORT 487	11-01-2004	TETRA TECH EM, INC.	DATA SUMMARY REPORT STANDARD DATA GAPS INVESTIGATION [INCLUDES SWDIV TRANSMITTAL LETTER] {CD COPY ENCLOSED}	YES	PARCEL E
AR_N00217_004030 REPORT 175	11-02-2004	TETRA TECH FW, INC.	FINAL POST-CONSTRUCTION REPORT - DECONTAMINATE PROCESS EQUIPMENT, CONDUCT WASTE CONSOLIDATION AND ASBESTOS SERVICES [INCLUDES REPLACEMENT PAGES CONVERTING DRAFT FINAL DATED 09 JULY 2004 TO FINAL AND CD COPY)	YES	PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_004077 CORRESPONDENCE 10	11-02-2004	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF REQUEST FOR IDENTIFICATION OF STATE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS	YES	PARCEL E
AR_N00217_004078 REPORT 10	11-02-2004	TETRA TECH FW, INC.	RESPONSE TO COMMENTS ON THE DRAFT FINAL POST CONSTRUCTION REPORT [INCLUDES SWDIV TRANSMITTAL LETTER]	YES	BLDG 0000231 BLDG 0000600 PARCEL B PARCEL C PARCEL D PARCEL E
AR_N00217_002164 CORRESPONDENCE 4	11-03-2004	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE REPLACEMENT PAGES FOR THE FINAL POST CONSTRUCTION REPORT, DECONTAMINATE PROCESS EQUIPMENT, CONDUCT WASTE CONSOLIDATION AND PROVIDE ASBESTOS SERVICES [REPLACEMENT PAGES WERE INSERTED IN THE DOCUMENT] (ENCLOSURE IS RECORD # 4030)	YES	PARCEL B PARCEL C PARCEL D PARCEL E

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_000840 MINUTES 84	12-09-2004	SULTECH	09 DECEMBER 2004 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, 21 OCTOBER 2004 MONTHLY PROGRESS REPORT, REPORTER'S TRANSCRIPT, TECHNICAL REVIEW SUBCOMMITTEE MEETING MINUTES, AND VARIOUS HANDOUTS)	YES	BLDG 0000101 BLDG 0000114 BLDG 0000123 BLDG 0000134 BLDG 0000146 BLDG 0000253 BLDG 0000272 BLDG 0000322 BLDG 0000351A BLDG 0000364 BLDG 0000366 BLDG 0000408 BLDG 0000500 BLDG 0000503 BLDG 0000521 BLDG 0000529 BLDG 0000813 BLDG 0000815 BLDG 0000819 BLDG 0000839 PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 PARCEL F SITE 00001 SITE 00002 SITE 00007 SITE 00018 SITE 00021
AR_N00217_004088 REPORT 5	12-20-2004	TETRA TECH FW, INC.	FINAL KLEINFELDER WASTE SOIL TESTING WORK INSTRUCTION	YES	BLDG 0000241 BLDG 0000406 PARCEL E

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<b>Record Type</b>	<b>Approx. # Pages</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_002168 CORRESPONDENCE 4	01-12-2005	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE DRAFT ACTION MEMORANDUM TIME-CRITICAL REMOVAL ACTION FOR THE POLYCHLORINATED BIPHENYLS HOT SPOT AREA (ENCLOSURE IS RECORD # 4090)	YES	PARCEL E PARCEL E-2	
AR_N00217_002176 CORRESPONDENCE 5	02-18-2005	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE DRAFT REMOVAL ACTION DESIGN AND IMPLEMENTATION WORK PLAN AT THE METAL DEBRIS REEF AND METAL SLAG AREAS (ENCLOSURE IS RECORD # 4106)	YES	PARCEL E PARCEL E-2	
AR_N00217_002191 CORRESPONDENCE 3	02-23-2005	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE 1) FINAL BIOLOGICAL ASSESSMENT, AND 2) DRAFT REMOVAL ACTION DESIGN IMPLEMENTATION WORK PLAN FOR METAL DEBRIS REEF AND METAL SLAG AREAS [ENCLOSURE 1) IS RECORD # 4124 AND 2) IS RECORD # 4106]	YES	PARCEL E	
AR_N00217_002183 CORRESPONDENCE 5	02-25-2005	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE DRAFT PROJECT WORK PLAN FOR THE POLYCHLORINATED BIPHENYLS HOT SPOT EXCAVATION SITE (ENCLOSURE IS RECORD # 4108)	YES	PARCEL E PARCEL E-2	
AR_N00217_002187 CORRESPONDENCE 5	03-09-2005	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE DRAFT PROJECT WORK PLAN AT NORTHWEST AND CENTRAL (ENCLOSURE IS RECORD # 4118)	YES	PARCEL E SITE 00002	
AR_N00217_000842 MINUTES 94	03-23-2005	SULTECH	23 MARCH 2005 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, APRIL 2005 MONTHLY PROGRESS REPORT, REPORTER'S TRANSCRIPT AND VARIOUS HANDOUTS)	YES	BLDG 0000123 BLDG 0000134 BLDG 0000272 PARCEL A PARCEL A-1 PARCEL A-2 PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 PARCEL F SITE 00002	
AR_N00217_002200 CORRESPONDENCE 4	03-24-2005	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE DATA SUMMARY REPORT FOR THE STANDARD DATA GAPS INVESTIGATION (ENCLOSURE IS RECORD # 4133)	YES	PARCEL E PARCEL E-2	

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<b>Record Type Approx. # Pages</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_004133 REPORT 198	03-24-2005	TETRA TECH EM, INC.	DATA SUMMARY REPORT FOR THE STANDARD DATA GAPS INVESTIGATION, REVISION 1 [CD COPY ENCLOSED] (SEE RECORD # 2200 - BRAC PMO WEST TRANSMITTAL LETTER)	YES	PARCEL E PARCEL E-2
AR_N00217_004120 REPORT 36	04-20-2005	TETRA TECH FW, INC.	FINAL TRANSPORTATION AND DISPOSAL PLAN FOR POLYCHLORINATED BIPHENYL HOT SPOT SOIL EXCAVATION SITE, REVISION 1 {CD COPY ENCLOSED} (SEE RECORD #4009 - TRANSPORTATION AND DISPOSAL PLAN)	YES	PARCEL E PARCEL E-2
AR_N00217_000839 MINUTES 75	04-27-2005	SULTECH	27 APRIL 2005 RESTORATION ADVISORY BOARD (RAB) MEETING (INCLUDES AGENDA, 27 APRIL 2008 MEETING MINUTES, RAB SUB COMMITTEE MEETING MINUTES, MAY 2005 MONTHLY PROGRESS REPORT, REPORTER'S TRANSCRIPT AND VARIOUS HANDOUTS)	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 PARCEL F SITE 00002 SITE 00007 SITE 00018
AR_N00217_002195 CORRESPONDENCE 4	04-29-2005	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE DUST CONTROL PLAN (ENCLOSURE IS RECORD # 4130)	YES	PARCEL E PARCEL E-2
AR_N00217_004130 REPORT 50	04-29-2005	TETRA TECH FW, INC.	DUST CONTROL PLAN (CD COPY ENCLOSED) [SEE RECORD # 2195 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	PARCEL E PARCEL E-2
AR_N00217_001711 CORRESPONDENCE 5	05-17-2005	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE DRAFT FINAL PROJECT WORK PLAN, POLYCHLORINATED BIPHENYLS HOT SPOT SOIL EXCAVATION (ENCLOSURE IS RECORD # 4137)	YES	PARCEL E PARCEL E-2
AR_N00217_004138 REPORT 176	05-17-2005	TETRA TECH FW, INC.	FINAL SITE-SPECIFIC HEALTH AND SAFETY PLAN AT THE PCB HOT SPOT SOIL EXCAVATION SITE {CD COPY ENCLOSED}	YES	"PERCHLORATE" SEARCH - ROUND 1 PARCEL E PARCEL E-2

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_001777 CORRESPONDENCE 4	05-19-2005	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE FINAL ACTION MEMORANDUM FOR THE TIME-CRITICAL REMOVAL ACTION, POLYCHLORINATED BIPHENYLS HOT SPOT AREA (ENCLOSURE IS RECORD # 4140)	YES	PARCEL E PARCEL E-2
AR_N00217_004140 REPORT 62	05-19-2005	SULTECH	FINAL ACTION MEMORANDUM FOR THE TIME-CRITICAL REMOVAL ACTION, POLYCHLORINATED BIPHENYLS HOT SPOT AREA [CD COPY ENCLOSED] (SEE RECORD # 1777 - BRAC PMO WEST TRANSMITTAL LETTER)	YES	PARCEL E PARCEL E-2
AR_N00217_002204 CORRESPONDENCE 5	05-20-2005	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE DRAFT FINAL REMOVAL ACTION DESIGN AND IMPLEMENTATION WORK PLAN FOR METAL DEBRIS AND METAL SLAG AREAS (ENCLOSURE IS RECORD # 4139)	YES	PARCEL E PARCEL E-2
AR_N00217_000837 MINUTES 117	05-25-2005	TETRA TECH EM, INC.	25 MAY 2005 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES [INCLUDES AGENDA, LIST OF ATTENDEES, ACTION ITEMS, 25 MAY 2005 REPORTER'S TRANSCRIPT AND MAY 2005 MONTHLY PROGRESS REPORT]	YES	PARCEL A PARCEL E PARCEL E-2
AR_N00217_004142 REPORT 167	05-25-2005	TETRA TECH FW, INC.	FINAL SITE-SPECIFIC HEALTH AND SAFETY PLAN FOR THE REMOVAL ACTION DESIGN AND IMPLEMENTATION PLAN AT THE METAL DEBRIS REEF AND METAL SLAG AREAS (CD COPY ENCLOSED)	YES	"PERCHLORATE" SEARCH - ROUND 2 PARCEL E PARCEL E-2
AR_N00217_004145 REPORT 176	06-01-2005	TETRA TECH EM, INC.	FINAL SITE-SPECIFIC HEALTH AND SAFETY PLAN FOR NORTHWEST AND CENTRAL (CD COPY ENCLOSED)	YES	"PERCHLORATE" SEARCH - ROUND 2 PARCEL E SITE 00002
AR_N00217_004153 FACT SHEET 7	06-01-2005	TETRA TECH FW, INC.	FACT SHEET NO. 7 - FINAL REMOVAL ACTIONS AT THE SHORELINE (RADIOLOGICAL COMMUNICATION SUPPORT)	YES	PARCEL E PARCEL E-2
AR_N00217_004149 REPORT 52	06-09-2005	TETRA TECH FW, INC.	DUST CONTROL AND ASBESTOS MITIGATION PLAN (SEE RECORD # 1998 - BRAC PMO WEST TRANSMITTAL LETTER)	YES	PARCEL E PARCEL E-2
AR_N00217_001998 CORRESPONDENCE 5	06-17-2005	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE DUST CONTROL AND ASBESTOS MITIGATION PLAN (ENCLOSURE IS RECORD # 4149)	YES	PARCEL E PARCEL E-2

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<b>Record Type</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_000838 MINUTES 152	06-22-2005	NAVFAC - SOUTHWEST DIVISION	22 JUNE 2005 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES [INCLUDES AGENDA, LIST OF ATTENDEES, ACTION ITEMS, 22 JUNE 2005 NAVY MONTHLY PROGRESS REPORT, AND 22 JUNE 2005 REPORTER'S TRANSCRIPT]	YES	BLDG 0000103 BLDG 0000113 BLDG 0000113A BLDG 0000114 BLDG 0000123 BLDG 0000128 BLDG 0000130 BLDG 0000131A BLDG 0000134 BLDG 0000140 BLDG 0000142 BLDG 0000146 BLDG 0000157 BLDG 0000203 BLDG 0000211 BLDG 0000214 BLDG 0000224 BLDG 0000231 BLDG 0000241 BLDG 0000251 BLDG 0000253 BLDG 0000271 BLDG 0000272 BLDG 0000274 BLDG 0000313 BLDG 0000317 BLDG 0000322 BLDG 0000351 BLDG 0000351A BLDG 0000364 BLDG 0000365 BLDG 0000366 BLDG 0000383 BLDG 0000406 BLDG 0000408 BLDG 0000411 BLDG 0000414

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Approx. # Pages					BLDG 0000500
					BLDG 0000503
					BLDG 0000523
					BLDG 0000701
					BLDG 0000707
					BLDG 0000708
					BLDG 0000709
					BLDG 0000808
					BLDG 0000813
					BLDG 0000819
					DRY DOCK 0002
					DRY DOCK 0003
					DRY DOCK 0004
					DRY DOCK 0005
					DRY DOCK 0006
					DRY DOCK 0007
					PARCEL A
					PARCEL B
					PARCEL C
					PARCEL D
					PARCEL E
					PARCEL F
					SITE 00001
					SITE 00007
					SITE 00010
					SITE 00018
					SITE 00021
					SITE 00506
					SITE 00507
					SITE 00508
					SITE 00509
					SITE 00510
					SITE 00510A
					SITE 00517
					SITE 00520
					SITE 00529
					SITE 00707

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Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
Approx. # Pages					WELL EW-001
					WELL IR-01-MW-038A
					WELL IR-01-MW-043A
					WELL IR-01-MW-366A
					WELL IR-03-MW-218A-2
					WELL IR-03-MW-342A
					WELL IR-03-MW-373B
					WELL IR-04-MW-013A
					WELL IR-09-MW-061A
					WELL IR-09-MW-062A
					WELL IR-09-MW-063A
					WELL IR-10-MW-013A-1
					WELL IR-25-MW-002A
					WELL IR-25-MW-053A
					WELL IR-25-MW-054A
					WELL IR-28-MW-136A
					WELL IR-28-MW-140F
					WELL IR-28-MW-150A
					WELL IR-28-MW-151A
					WELL IR-28-MW-211F
					WELL IR-28-MW-221A
					WELL IR-28-MW-221B

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Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
Approx. # Pages					WELL IR-28-MW-270A
					WELL IR-28-MW-341F
					WELL IR-28-MW-396B
					WELL IR-28-MW-397B
					WELL IR-28-MW-403A
					WELL IR-28-MW-407A
					WELL IR-28-MW-408A
					WELL IR-28-MW-409A
					WELL IR-28-MW-410A
					WELL IR-28-MW-412A
					WELL IR-58-MW-031A
					WELL IR-58-MW-033B
					WELL IR-70-MW-007A
					WELL IR-71-MW-003A
					WELL IR-71-MW-012B
					WELL IR-91-MW-004A
					WELL IW-002
					WELL MW-033A
					WELL MW-053A
					WELL MW-054A
					WELL MW-061A
					WELL MW-062A
					WELL PA-50-MW-007A

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<b>Record Type Approx. # Pages</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_004155 CORRESPONDENCE 11	<b>06-28-2005</b>	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF RESPONSES TO COMMENTS ON THE DUST CONTROL PLAN (W/ ENCLOSURE) {CD COPY ENCLOSED} [SEE RECORD # 4130 - DUST CONTROL PLAN]	YES	PARCEL E PARCEL E-2
AR_N00217_004165 CORRESPONDENCE 7	<b>07-27-2005</b>	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF RESPONSE TO COMMENTS ON FINAL ACTION MEMORANDUM TIME CRITICAL REMOVAL ACTION FOR THE PCB HOT SPOT AREA (W/ ENCLOSURE) [SEE RECORD # 4140 - FINAL ACTION MEMORANDUM]	YES	PARCEL E PARCEL E-2
AR_N00217_000835 MINUTES 64	<b>07-28-2005</b>	SULTECH	28 JULY 2005 RESTORATION ADVISORY BOARD (RAB) MEETING (INCLUDES AGENDA, 20 JULY 2005 MEETING MINUTES, JUNE 2005 MONTHLY PROGRESS REPORT, REPORTER'S TRANSCRIPT AND VARIOUS HANDOUTS)	YES	BLDG 0000366 PARCEL B PARCEL C PARCEL E PARCEL E-2 PARCEL F SITE 00002
AR_N00217_000834 MINUTES 59	<b>08-25-2005</b>	SULTECH	25 AUGUST 2005 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, AUGUST 2005 MONTHLY PROGRESS REPORT, REPORTER'S TRANSCRIPT AND VARIOUS HANDOUTS)	YES	BLDG 0000103 BLDG 0000104 BLDG 0000115 BLDG 0000116 BLDG 0000600 PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 PARCEL F SITE 00002
AR_N00217_000832 REPORT 62	<b>08-31-2005</b>	INNOVATIVE TECHNICAL SOLUTIONS, INC.	FINAL JUNE 2005 MONTHLY LANDFILL GAS MONITORING REPORT FOR POST-REMOVAL ACTION AT THE INDUSTRIAL LANDFILL (INCLUDES BRAC PMO WEST TRANSMITTAL LETTER)	YES	BLDG 0000830 PARCEL D PARCEL E PARCEL E-2 SITE 00001 SITE 00021

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_004170 REPORT 13	10-03-2005	TETRA TECH EC, INC.	FINAL ADDENDUM 1 TO THE DRAFT FINAL SAMPLING AND ANALYSIS PLAN (FIELD SAMPLING PLAN AND QUALITY ASSURANCE PROJECT PLAN), POLYCHLORINATED BIPHENYLS HOT SPOT SOIL EXCAVATION SITE	YES	PARCEL E PARCEL E-2
AR_N00217_001876 CORRESPONDENCE 5	11-01-2005	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT SHORELINE CHARACTERIZATION TECHNICAL MEMORANDUM (ENCLOSURE IS RECORD # 4177)	YES	PARCEL E PARCEL E-2
AR_N00217_004178 REPORT 238	11-01-2005	CE2 - KLEINFELDER, JOINT VENTURE	FINAL WORK PLAN FOR CONTAMINATION DELINEATION AT (INCLUDES REVISED FIGURE A-14 AND CD COPY) [SEE RECORD # 863 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	BLDG 0000108 BLDG 0000130 BLDG 0000134 PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 PARCEL F SITE 00006 SITE 00025 WELL IR-06-MW-034A WELL IR-06-MW-046A WELL IR-25-MW-037B WELL IR-25-MW-038B WELL IR-25-MW-039B
AR_N00217_001712 CORRESPONDENCE 5	11-10-2005	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF REPLACEMENT PAGES CONVERTING DRAFT FINAL PROJECT WORK PLAN, POLYCHLORINATED BIPHENYLS HOT SPOT SOIL EXCAVATION DATED 17 MAY 2005 TO FINAL (ENCLOSURE IS RECORD # 4137) [REPLACEMENT PAGES WERE INSERTED IN THE DOCUMENT]	YES	PARCEL E PARCEL E-2

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_002205 CORRESPONDENCE 5	11-10-2005	NAVFAC - SOUTHWEST DIVISION	TRANSMITTAL OF THE REPLACEMENT PAGES CONVERTING THE DRAFT FINAL REMOVAL ACTION DESIGN AND IMPLEMENTATION WORK PLAN FOR METAL DEBRIS REEF AND METAL SLAG AREAS, DATED 20 MAY 2005, TO FINAL (REPLACEMENT PAGES WERE INSERTED IN THE DOCUMENT)	YES	PARCEL E PARCEL E-2
AR_N00217_004137 REPORT 357	11-10-2005	TETRA TECH EM, INC.	FINAL PROJECT WORK PLAN, POLYCHLORINATED BIPHENYL HOT SPOT SOIL EXCAVATION SITE (INCLUDES REPLACEMENT PAGES CONVERTING DRAFT FINAL DATED 17 MAY 2005 TO A FINAL AND CD	YES	"PERCHLORATE" SEARCH - ROUND 2 PARCEL E PARCEL E-2 SITE 00001 SITE 00021
AR_N00217_004139 REPORT 746	11-10-2005	TETRA TECH FW, INC.	FINAL REMOVAL ACTION DESIGN AND IMPLEMENTATION WORK PLAN AT THE METAL DEBRIS REEF AND METAL SLAG AREAS (INCLUDES REPLACEMENT PAGES CONVERTING DRAFT FINAL DATED 20 MAY 2005 TO FINAL, SUPPLEMENTAL REPLACEMENT PAGES, AND CD COPY)	YES	PARCEL E PARCEL E-2
AR_N00217_004143 REPORT 359	11-10-2005	TETRA TECH EC, INC.	FINAL PROJECT WORK PLAN, TIME-CRITICAL REMOVAL ACTION FOR NORTHWEST AND CENTRAL (INCLUDES REPLACEMENT PAGES CONVERTING DRAFT FINAL DATED 27 MAY 2005 TO A FINAL)	YES	PARCEL E SITE 00002
AR_N00217_000830 REPORT 1221	12-01-2005	KLEINFELDER	REVISED FINAL SECOND QUARTER (APRIL - JUNE) 2004 GROUNDWATER SAMPLING REPORT (INCLUDES REPLACEMENT PAGES REVISING THE DATE OF 29 JULY 2005) [SEE RECORD # 1457 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_001457 CORRESPONDENCE 8	12-01-2005	BRAC PMO WEST	TRANSMITTAL OF THE RESPONSES TO COMMENTS ON THE 1) FINAL APRIL - JUNE 2004, EIGHTEENTH QUARTERLY GROUNDWATER SAMPLING REPORT, 2) FINAL JULY - SEPTEMBER 2004, NINETEENTH QUARTERLY GROUNDWATER SAMPLING REPORT,	YES	PARCEL B PARCEL C PARCEL D PARCEL E

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<b>Record Type</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
<b>Approx. # Pages</b> AR_N00217_000871 REPORT 241	<b>12-05-2005</b>	STANFORD UNIVERSITY	FINAL DEMONSTRATION PLAN FOR FIELD TESTING OF ACTIVATED CARBON MIXING AND IN SITU STABILIZATION OF POLYCHLORINATED BIPHENYLS IN SEDIMENT [SEE RECORD # 872 - BRAC PMO WEST TRANSMITTAL LETTER] {	YES	PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 PARCEL F
AR_N00217_001713 CORRESPONDENCE 5	<b>12-12-2005</b>	BRAC PMO WEST	TRANSMITTAL OF SUPPLEMENTAL REPLACEMENT PAGES FOR FINAL PROJECT WORK PLAN, POLYCHLORINATED BIPHENYLS HOT SPOT SOIL EXCAVATION (ENCLOSURE IS RECORD # 4137) [REPLACEMENT PAGES WERE INSERTED IN THE DOCUMENT]	YES	PARCEL E PARCEL E-2
AR_N00217_002206 CORRESPONDENCE 5	<b>12-12-2005</b>	BRAC PMO WEST	TRANSMITTAL OF THE SUPPLEMENTAL REPLACEMENT PAGES FOR THE FINAL REMOVAL ACTION DESIGN AND IMPLEMENTATION WORK PLAN AT THE METAL DEBRIS REEF AND METAL SLAG AREAS (REPLACEMENT PAGES WERE INSERTED IN THE DOCUMENT)	YES	PARCEL E PARCEL E-2
AR_N00217_001459 CORRESPONDENCE 4	<b>12-14-2005</b>	BRAC PMO WEST	TRANSMITTAL OF THE FINAL FOURTH QUARTER (OCTOBER - DECEMBER) 2004 GROUNDWATER SAMPLING REPORT (ENCLOSURE IS RECORD # 4181)	YES	PARCEL C PARCEL D PARCEL E

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<b>Record Type</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
<b>Approx. # Pages</b> AR_N00217_004181 REPORT 920	12-14-2005	KLEINFELDER	FINAL FOURTH QUARTER (OCTOBER - DECEMBER) 2004 GROUNDWATER SAMPLING REPORT (CD COPY ENCLOSED) [SEE RECORD # 916 - REVISED FINAL FOURTH QUARTER REPORT, AND # 1459 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	BLDG 0000134 BLDG 0000156 BLDG 0000228 BLDG 0000253 BLDG 0000400 BLDG 0000405 BLDG 0000406 BLDG 0000411 BLDG 0000413 BLDG 0000414 DRY DOCK 0002 PARCEL C PARCEL D PARCEL E WELL IR-02-MW- 114A-2 WELL IR-06-MW- 045A WELL IR-06-MW- 054F WELL IR-06-MW- 055F WELL IR-06-MW- 057F WELL IR-09 WELL IR-71 VOC WELL RU-C1 VOC WELL RU-C2 VOC WELL RU-C4 VOC

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_000852 REPORT 68	01-16-2006	INNOVATIVE TECHNICAL SOLUTIONS, INC.	FINAL MONTHLY LANDFILL GAS MONITORING REPORT FOR OCTOBER 2005 POST-REMOVAL ACTION, INDUSTRIAL LANDFILL (INCLUDES REPLACEMENT PAGES CONVERTING DRAFT DATED 29 NOVEMBER 2005 TO FINAL, CD COPY, AND BRAC TRANSMITTAL LETTERS}	YES	BLDG 0000830 PARCEL A PARCEL D PARCEL E PARCEL E-2 SITE 00001 SITE 00021
AR_N00217_000865 REPORT 50	02-14-2006	TETRA TECH EC, INC.	REVISED FINAL BASEWIDE RADIOLOGICAL REMOVAL ACTION, ACTION MEMORANDUM (CD COPY ENCLOSED) [SEE RECORD # 529 - FINAL BASEWIDE RADIOLOGICAL REMOVAL ACTION, ACTION MEMORANDUM, AND RECORD # 866 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	BASEWIDE BLDG 0000114 BLDG 0000146 BLDG 0000322 BLDG 0000364 BLDG 0000509 BLDG 0000517 BLDG 0000529 BLDG 0000707 BLDG 0000819 PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 PARCEL F SITE 00001 SITE 00003 SITE 00011 SITE 00014 SITE 00015 SITE 00021

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<b>Record Type</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_000942 MINUTES 14	02-23-2006	BARAJAS AND ASSOCIATES, INC.	23 FEBRUARY 2006 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES LIST OF ATTENDEES AND ACTION ITEMS)	YES	BLDG 0000103 BLDG 0000113 BLDG 0000113A BLDG 0000114 BLDG 0000130 BLDG 0000142 BLDG 0000146 BLDG 0000157 BLDG 0000211 BLDG 0000406 BLDG 0000813 BLDG 0000819 PARCEL B PARCEL D PARCEL E PARCEL F SITE 00007 SITE 00018
AR_N00217_004185 MINUTES 24	02-23-2006	BARAJAS AND ASSOCIATES, INC.	23 FEBRUARY 2006 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING REPORTER'S TRANSCRIPT	YES	BLDG 0000103 BLDG 0000113 BLDG 0000113A BLDG 0000114 BLDG 0000142 BLDG 0000146 BLDG 0000157 BLDG 0000211 BLDG 0000406 BLDG 0000813 BLDG 0000819 PARCEL B PARCEL D PARCEL E PARCEL F

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<b>Record Type</b>	<b>Approx. # Pages</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_000952 CORRESPONDENCE	30	03-02-2006	TETRA TECH EC, INC.	ADDITIONAL RESPONSE TO COMMENTS ON DRAFT FINAL PROJECT WORK PLAN FOR PCB HOT SPOT SOIL EXCAVATION SITE AND RESPONSE TO COMMENTS ON FIELD CHANGE REQUEST 035 (FCR-PCBHS-035) [CD COPY ENCLOSED]	YES	PARCEL E PARCEL E-2
AR_N00217_000923 CORRESPONDENCE	5	03-06-2006	BRAC PMO WEST	TRANSMITTAL OF 1) ADDITIONAL COMMENTS TO THE RESPONSE TO COMMENTS ON DRAFT FINAL PROJECT WORK PLAN FOR PCB HOT SPOT SOIL EXCAVATION SITE, AND 2) RESPONSE TO COMMENTS ON FIELD CHANGE REQUEST 035 (FCR-PCBHS-035) [ENCLOSURES ARE RECORD # 952]	YES	PARCEL E PARCEL E-2
AR_N00217_004184 REPORT	63	03-13-2006	INNOVATIVE TECHNICAL SOLUTIONS, INC.	FINAL MONTHLY LANDFILL GAS MONITORING REPORT FOR DECEMBER 2005 POST-REMOVAL ACTION, INDUSTRIAL LANDFILL (INCLUDES BRAC PMO WEST TRANSMITTAL LETTER AND CD COPY) (SEE RECORD # 890 - BRAC PMO WEST TRANSMITTAL)	YES	BLDG 0000830 PARCEL A PARCEL E PARCEL E-2 SITE 00010 SITE 00021 WELL EW-108A WELL EW-108B WELL EW-122A WELL EW-122B WELL EW-134A WELL EW-134B WELL EW-138A WELL EW-138B WELL EW-142A WELL EW-142B WELL EW-146A WELL EW-146B WELL EW-150A WELL EW-150B WELL EW-154A WELL EW-154B WELL EW-158A WELL EW-158B

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_000885 REPORT 37	03-20-2006	TETRA TECH EC, INC.	WASTE CONSOLIDATION FINAL STATUS REPORT (CD COPY ENCLOSED) [SEE RECORD # 885 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	BLDG 0000115 BLDG 0000704 PARCEL E PARCEL E-2
AR_N00217_000874 CORRESPONDENCE 5	03-22-2006	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT JANUARY TO MARCH 2005 FIFTH QUARTERLY/FIRST ANNUAL GROUNDWATER MONITORING REPORT (ENCLOSURE IS RECORD # 873)	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_000943 MINUTES 25	03-23-2006	BARAJAS AND ASSOCIATES, INC.	23 MARCH 2006 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING REPORTER'S TRANSCRIPT	YES	BLDG 0000123 BLDG 0000134 PARCEL B PARCEL C PARCEL D PARCEL E SITE 00010 SITE 00026
AR_N00217_004186 MINUTES 11	03-23-2006	BARAJAS AND ASSOCIATES, INC.	23 MARCH 2006 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES LIST OF ATTENDEES AND ACTION ITEMS)	YES	BLDG 0000153 PARCEL B PARCEL C PARCEL E SITE 00007 SITE 00010 SITE 00026 WELL IR-26-MW-047A
AR_N00217_000889 CORRESPONDENCE 62	03-31-2006	BRAC PMO WEST	TRANSMITTAL OF 1) FEDERAL FACILITY AGREEMENT SCHEDULE, 2) PROJECT SCHEDULE, AND 3) RESPONSE TO COMMENTS ON THE FEDERAL FACILITY AGREEMENT SCHEDULE, DATED 23 SEPTEMBER 2005 (W/ENCLOSURES)	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 PARCEL F

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Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
Approx. # Pages AR_N00217_000947 CORRESPONDENCE 14	03-31-2006	BRAC PMO WEST	TRANSMITTAL OF ADDITIONAL RESPONSE TO COMMENTS AND REPLACEMENT PAGES FOR 1) FINAL Q18 (APRIL TO JUNE 2004), 2) FINAL Q19 (JULY TO SEPT. 2004), AND 3) FINAL Q3 (JULY TO SEPT 2004) GROUNDWATER MONITORING REPORTS (W/ ENCLOSURE)	YES	PARCEL B PARCEL C PARCEL D PARCEL E

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<b>Record Type</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
<b>Approx. # Pages</b> AR_N00217_004161 REPORT 964	03-31-2006	KLEINFELDER	REVISED FINAL THIRD QUARTER (JULY - SEPTEMBER) 2004 GROUNDWATER SAMPLING REPORT (INCLUDES REPLACEMENT PAGES, REVISED CD COPY, AND BRAC PMO WEST TRANSMITTAL LETTERS) (SEE RECORD # 947 AND # 1457 - BRAC PMO WEST TRANSMITTAL LETTERS)	YES	BLDG 0000134 BLDG 0000156 BLDG 0000228 BLDG 0000253 BLDG 0000406 BLDG 0000408 BLDG 0000413 BLDG 0000414 BLDG 0000439 PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 SITE 00006 SITE 00007 SITE 00018 SITE 00025 SITE 00071 WELL IR-01-MW-012A WELL IR-02-MW-114A-2 WELL IR-06-MW-050F WELL IR-06-MW-057F WELL IR-06-P-054F WELL IR-25-MW-039A WELL IR-26-MW-041A WELL IR-28-MW-155A WELL IR-28-MW-311A WELL IR-30-MW-001F

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					WELL PA-50-MW-006A
AR_N00217_000974 REPORT 51	04-21-2006	TETRA TECH EC, INC.	FINAL BASEWIDE RADIOLOGICAL REMOVAL ACTION, ACTION MEMORANDUM - REVISION 2006 (CD COPY ENCLOSED) [SEE RECORD # 973 - BRAC PMO WEST TRANSMITTAL LETTER, AND RECORD # 529 - FINAL ACTION MEMORANDUM]	YES	BLDG 0000114 BLDG 0000146 BLDG 0000322 BLDG 0000364 BLDG 0000506 BLDG 0000509 BLDG 0000517 BLDG 0000529 BLDG 0000707 BLDG 0000819 PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 PARCEL F
AR_N00217_000910 CORRESPONDENCE 4	04-27-2006	BRAC PMO WEST	TRANSMITTAL OF DRAFT OCTOBER TO DECEMBER 2005 GROUNDWATER MONITORING REPORT (ENCLOSURE IS RECORD # 909)	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_000944 MINUTES 11	04-27-2006	BARAJAS AND ASSOCIATES, INC.	27 APRIL 2006 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES LIST OF ATTENDEES AND ACTION ITEMS)	YES	BLDG 0000272 PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E SITE 00010 WELL IR-10-MW-071A WELL IR-25-MW-0544

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AR_N00217_000945 MINUTES 23	04-27-2006	BARAJAS AND ASSOCIATES, INC.	27 APRIL 2006 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING REPORTER'S TRANSCRIPT	YES	BLDG 0000123 BLDG 0000134 BLDG 0000272 DRY DOCK 0004 PARCEL B PARCEL C PARCEL D PARCEL E WELL 00054A WELL 00071A WELL 00211F
AR_N00217_000917 CORRESPONDENCE 4	05-08-2006	BRAC PMO WEST	TRANSMITTAL OF REVISED FINAL FOURTH QUARTER (OCTOBER - DECEMBER) 2004 GROUNDWATER SAMPLING REPORT (ENCLOSURE IS RECORD # 916)	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_000876 REPORT 75	05-10-2006	INNOVATIVE TECHNICAL SOLUTIONS, INC.	FINAL FEBRUARY 2006 MONTHLY LANDFILL GAS MONITORING REPORT, POST-REMOVAL ACTION [INCLUDES REPLACEMENT PAGES CONVERTING DRAFT FINAL DATED 29 MARCH 2006 TO FINAL, AND CD COPY] (SEE RECORD # 877 AND # 911- BRAC PMO WEST TRANSMITTAL LETTERS)	YES	BLDG 0000830 PARCEL A PARCEL D PARCEL E PARCEL E-2 SITE 00001 SITE 00021
AR_N00217_000948 REPORT 8	05-18-2006	TETRA TECH EC, INC.	FINAL ADDENDUM 1 TO THE FINAL SAMPLING AND ANALYSIS PLAN (FIELD SAMPLING PLAN AND QUALITY ASSURANCE PROJECT PLAN) PCB HOT SPOT SOIL EXCAVATION [CD COPY ENCLOSED]	YES	PARCEL E PARCEL E-2
AR_N00217_001015 MINUTES 14	05-25-2006	BARAJAS AND ASSOCIATES, INC.	25 MAY 2006 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES LIST OF ATTENDEES AND ACTION ITEMS)	YES	BLDG 0000813 PARCEL B PARCEL C PARCEL D PARCEL E SITE 00007 SITE 00018

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<b>Record Type Approx. # Pages</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_000950 CORRESPONDENCE 5	<b>05-31-2006</b>	BRAC PMO WEST	TRANSMITTAL OF THE FINAL ADDENDUM 1 TO THE FINAL SAMPLING AND ANALYSIS PLAN (FIELD SAMPLING PLAN AND QUALITY ASSURANCE PROJECT PLAN) PCB HOT SPOT SOIL EXCAVATION SITE [ENCLOSURE IS RECORD # 948]	YES	PARCEL E PARCEL E-2
AR_N00217_004226 CORRESPONDENCE 35	<b>06-30-2006</b>	BRAC PMO WEST	TRANSMITTAL OF NAVY RESPONSE TO COMMENTS ON THE DRAFT SHORELINE CHARACTERIZATION TECHNICAL MEMORANDUM (W/ ENCLOSURE)	YES	PARCEL E PARCEL E-2
AR_N00217_001356 REPORT 57	<b>07-01-2006</b>	SHAW ENVIRONMENTAL, INC.	FINAL REPORT MECHANOCHEMICAL DESTRUCTION TREATABILITY STUDY POLYCHLORINATED BIPHENYLS CONTAMINATED SOILS PARCEL SHORELINE (CD COPY ENCLOSED) [SEE RECORD # 1355 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	PARCEL E
AR_N00217_001355 CORRESPONDENCE 4	<b>07-10-2006</b>	BRAC PMO WEST	TRANSMITTAL OF THE FINAL MECHANOCHEMICAL DESTRUCTION TREATABILITY STUDY POLYCHLORINATED BIPHENYLS CONTAMINATED SOILS REPORT, SHORELINE (ENCLOSURE IS RECORD # 1356)	YES	PARCEL E
AR_N00217_000920 REPORT 57	<b>07-17-2006</b>	INNOVATIVE TECHNICAL SOLUTIONS, INC.	FINAL MONTHLY LANDFILL GAS MONITORING REPORT FOR APRIL 2006, POST REMOVAL ACTION, INDUSTRIAL LANDFILL (INCLUDES REPLACEMENT PAGES CONVERTING THE DRAFT DATED 30 MAY 2006 TO FINAL AND CD COPY)	YES	BLDG 0000830 PARCEL D PARCEL E PARCEL E-2 SITE 00001 SITE 00021
AR_N00217_000991 REPORT 2904	<b>08-01-2006</b>	CE2 - KLEINFELDER, JOINT VENTURE	QUARTERLY GROUNDWATER MONITORING REPORT (OCTOBER-DECEMBER 2005), REVISION 1 [SEE RECORD # 990 - BRAC PMO WEST TRANSMITTAL, AND RECORD # 909 - DRAFT QUARTERLY GROUNDWATER MONITORING REPORT]	YES	"PERCHLORATE" SEARCH - ROUND 1 BLDG 0000819 PARCEL C PARCEL D PARCEL E PARCEL E-2

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AR_N00217_000966 REPORT 58	08-14-2006	INNOVATIVE TECHNICAL SOLUTIONS, INC.	FINAL MONTHLY LANDFILL GAS MONITORING REPORT FOR MAY 2006, POST-REMOVAL ACTION, INDUSTRIAL LANDFILL (INCLUDES REPLACEMENT PAGES CONVERTING DRAFT DATED 26 JUNE 2006 TO FINAL, RESPONSE TO REGULATORY AGENCY COMMENTS ON THE DRAFT REPORT AND CD COPY)	YES	BLDG 0000830 PARCEL A PARCEL E PARCEL E-2 SITE 00001 SITE 00021 WELL IR-74-MW-001A
AR_N00217_001021 MINUTES 12	08-24-2006	BARAJAS AND ASSOCIATES, INC.	24 AUGUST 2006 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES LIST OF ATTENDEES AND ACTION ITEMS)	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 PARCEL F
AR_N00217_000990 CORRESPONDENCE 4	08-31-2006	BRAC PMO WEST	TRANSMITTAL OF THE QUARTERLY GROUNDWATER MONITORING REPORT, (OCTOBER-DECEMBER 2005), REVISION 1 [ENCLOSURE IS RECORD # 991]	YES	PARCEL C PARCEL D PARCEL E PARCEL E-2
AR_N00217_000992 CORRESPONDENCE 52	09-08-2006	BRAC PMO WEST	TRANSMITTAL OF 1) FEDERAL FACILITY AGREEMENT SCHEDULE, AND 2) PROJECT SCHEDULE (W/ENCLOSURES) [SEE RECORD # 889 - FEDERAL FACILITY AGREEMENT SCHEDULE]	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 PARCEL F
AR_N00217_000980 REPORT 62	09-18-2006	INNOVATIVE TECHNICAL SOLUTIONS, INC.	FINAL MONTHLY LANDFILL GAS MONITORING REPORT FOR JUNE 2006, POST-REMOVAL ACTION, INDUSTRIAL LANDFILL (INCLUDES REPLACEMENT PAGES CONVERTING DRAFT DATED 02 AUGUST 2006 TO FINAL) {REPLACEMENT PAGES ISSUED ON 18 SEPTEMBER 2006}	YES	BLDG 0000830 PARCEL A PARCEL E PARCEL E-2 WELL MW-001A
AR_N00217_000916 REPORT 3794	09-29-2006	KLEINFELDER	REVISED FINAL FOURTH QUARTER (OCTOBER - DECEMBER) 2004 GROUNDWATER SAMPLING REPORT (INCLUDES REPLACEMENT PAGES REVISING THE DATE OF 28 APRIL 2006 TO 29 SEPTEMBER 2006 AND CD COPY)	YES	PARCEL C PARCEL D PARCEL E

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<b>Record Type</b>	<b>Approx. # Pages</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_001458 CORRESPONDENCE 5	09-29-2006	BRAC PMO WEST	TRANSMITTAL OF REPLACEMENT PAGES REVISING THE DATE ON THE FINAL FOURTH QUARTER (OCTOBER-DECEMBER) 2004 GROUNDWATER SAMPLING REPORT (ENCLOSURE IS RECORD # 916)	YES	PARCEL C PARCEL D PARCEL E	
AR_N00217_000989 REPORT 3362	10-01-2006	CE2 - KLEINFELDER, JOINT VENTURE	QUARTERLY GROUNDWATER MONITORING REPORT, OCTOBER - DECEMBER 2005, AND ANNUAL REPORT 2005, REVISION 2 [INCLUDES REPLACEMENT PAGES CONVERTING REVISION 1 DATED 01 JULY 2006 TO REVISION 2 AND CD COPY]	YES	BLDG 0000123 BLDG 0000134 BLDG 0000141 PARCEL A PARCEL B PARCEL D PARCEL E PARCEL E-2 PARCEL F WELL IR-06-MW-014A WELL IR-06-MW-054A WELL IR-07-MW-S-002 WELL IR-07-MW-S-003 WELL IR-10-MW-012A WELL IR-10-MW-013A-1 WELL IR-10-MW-028A WELL IR-10-MW-059A WELL IR-10-MW-061A WELL IR-10-MW-071A WELL IR-26-MW-046A WELL IR-26-MW-047A WELL IR-26-MW-048A WELL PA-24-MW-002A	

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AR_N00217_001010 CORRESPONDENCE 4	<b>10-11-2006</b>	BRAC PMO WEST	TRANSMITTAL OF FINAL (APRIL - JUNE) 2005, SIXTH QUARTER GROUNDWATER MONITORING REPORT (ENCLOSURE IS RECORD # 1011)	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_001011 REPORT 3538	<b>10-11-2006</b>	KLEINFELDER	FINAL (APRIL - JUNE) 2005, SIXTH QUARTER GROUNDWATER SAMPLING REPORT (CD COPY ENCLOSED) [SEE RECORD # 1010 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_001013 REPORT 1025	<b>10-17-2006</b>	KLEINFELDER	FINAL JULY TO SEPTEMBER 2005, SEVENTH QUARTER, GROUNDWATER MONITORING REPORT (CD COPY ENCLOSED) [SEE RECORD # 1012 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	PARCEL C PARCEL D PARCEL E PARCEL E-2
AR_N00217_000984 REPORT 62	<b>10-18-2006</b>	INNOVATIVE TECHNICAL SOLUTIONS, INC.	FINAL MONTHLY LANDFILL GAS MONITORING REPORT FOR JULY 2006, POST-REMOVAL ACTION, INDUSTRIAL LANDFILL (INCLUDES REPLACEMENT PAGES CONVERTING DRAFT DATED 28 AUGUST 2006 TO FINAL) [SEE RECORD # 983 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	BLDG 0000830 PARCEL A PARCEL D PARCEL E PARCEL E-2 WELL IR-74-MW-001A
AR_N00217_001028 REPORT 26	<b>10-23-2006</b>	TETRA TECH EC, INC.	AIR MONITORING PLAN, BASE-WIDE STORM DRAIN AND SANITARY SEWER REMOVAL	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 PARCEL F
AR_N00217_001065 CORRESPONDENCE 5	<b>11-17-2006</b>	BRAC PMO WEST	TRANSMITTAL OF THE FINAL JANUARY TO MARCH 2005 FIFTH QUARTERLY/FIRST ANNUAL GROUNDWATER MONITORING REPORT, VOLUMES I - II OF II (ENCLOSURE IS RECORD # 1066)	YES	PARCEL C PARCEL D PARCEL E

**UIC No. \_ Rec. No.**

<b>Record Type</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
<b>Approx. # Pages</b> AR_N00217_001066 REPORT 15662	<b>11-17-2006</b>	KLEINFELDER	FINAL JANUARY TO MARCH 2005, FIFTH QUARTERLY/FIRST ANNUAL GROUNDWATER SAMPLING REPORT, VOLUMES I AND II OF II (CD COPY ENCLOSED) [SEE RECORD # 1065 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	"PERCHLORATE " SEARCH - ROUND 1 BLDG 0000231 BLDG 0000251 BLDG 0000253 BLDG 0000272 BLDG 0000406 PARCEL C PARCEL D PARCEL E PARCEL E-2 SITE 00028
AR_N00217_001055 CORRESPONDENCE 4	<b>11-21-2006</b>	BRAC PMO WEST	TRANSMITTAL OF THE QUARTERLY GROUNDWATER MONITORING REPORT (APRIL - JUNE 2006) [ENCLOSURE IS RECORD # 1056]	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_001067 CORRESPONDENCE 4	<b>11-28-2006</b>	BRAC PMO WEST	TRANSMITTAL OF DRAFT WETLANDS MITIGATION AND MONITORING PLAN, METAL DEBRIS REEF AND METAL SLAG AREAS (ENCLOSURE IS RECORD # 1069)	YES	PARCEL E PARCEL E-2
AR_N00217_001034 REPORT 60	<b>12-19-2006</b>	INNOVATIVE TECHNICAL SOLUTIONS, INC.	FINAL MONTHLY LANDFILL GAS MONITORING REPORT FOR SEPTEMBER 2006, POST-REMOVAL ACTION, INDUSTRIAL LANDFILL (INCLUDES REPLACEMENT PAGES CONVERTING THE DRAFT DATED 01 NOVEMBER 2006 TO FINAL AND CD COPY)	YES	BLDG 0000830 PARCEL D PARCEL E PARCEL E-2 SITE 00001 SITE 00021 WELL IR-74-MW-001A

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_004210 MINUTES 18	01-25-2007	BARAJAS AND ASSOCIATES, INC.	25 JANUARY 2007 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA AND ATTACHMENTS A AND B)	YES	BLDG 0000113 BLDG 0000113A BLDG 0000130 BLDG 0000133 BLDG 0000142 BLDG 0000144 BLDG 0000146 BLDG 0000157 PARCEL A PARCEL B PARCEL D PARCEL E SITE 00002
AR_N00217_004191 CORRESPONDENCE 4	01-31-2007	BRAC PMO WEST	TRANSMITTAL OF QUARTERLY GROUNDWATER MONITORING REPORT, JULY-SEPTEMBER 2006 (ENCLOSURE IS RECORD # 4192)	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_004212 MINUTES 17	02-22-2007	BARAJAS AND ASSOCIATES, INC.	22 FEBRUARY 2007 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA AND ATTACHMENTS A AND B)	YES	PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 SITE 00009
AR_N00217_004229 REPORT 63	03-19-2007	INNOVATIVE TECHNICAL SOLUTIONS, INC.	FINAL MONTHLY LANDFILL GAS MONITORING REPORT DECEMBER 2006 POST REMOVAL ACTION INDUSTRIAL LANDFILL (INCLUDES REPLACEMENT PAGES CONVERTING DRAFT DATED 31 JANUARY 2007 TO FINAL, AND CD COPY]	YES	BLDG 0000830 PARCEL D PARCEL E PARCEL E-2 SITE 00001 SITE 00021 WELL IR-74-MW-001A
AR_N00217_001125 MINUTES 18	03-22-2007	BARAJAS AND ASSOCIATES, INC.	22 MARCH 2007 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, LIST OF ATTENDEES, AND VARIOUS HANDOUTS)	YES	PARCEL E PARCEL E-2

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<b>Record Type</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
<b>Approx. # Pages</b> AR_N00217_004232 CORRESPONDENCE 4	<b>03-30-2007</b>	BRAC PMO WEST	TRANSMITTAL OF REPLACEMENT PAGES CONVERTING THE QUARTERLY GROUNDWATER MONITORING REPORT (JANUARY-MARCH 2006) DATED 01 AUGUST 2006 TO REVISION 1 (ENCLOSURE IS RECORD # 1000)	YES	PARCEL C PARCEL D PARCEL E
AR_N00217_001126 MINUTES 17	<b>04-26-2007</b>	BARAJAS AND ASSOCIATES, INC.	26 APRIL 2007 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES AGENDA, LIST OF ATTENDEES, AND VARIOUS HANDOUTS)	YES	PARCEL B PARCEL E PARCEL E-2 PARCEL E-3 SITE 00001 SITE 00002 SITE 00026

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Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_004190 REPORT 3450	05-01-2007	CE2 - KLEINFELDER, JOINT VENTURE	QUARTERLY GROUNDWATER MONITORING REPORT, JULY-SEPTEMBER 2006, REVISION 1 (INCLUDES REPLACEMENT PAGES CONVERTING THE DOCUMENT, DATED 01 JANUARY 2007, TO REVISION 1, AND CD COPY) {SEE RECORD # 1083 - BRAC PMO WEST TRANSMITTAL LETTER}	YES	BLDG 0000123 BLDG 0000134 BLDG 0000141 PARCEL A PARCEL B PARCEL C PARCEL E PARCEL E-2 PARCEL F SITE 00010 SITE 00026 WELL IR-05-MW- 050A WELL IR-06-MW- 049A WELL IR-07-MW- 019A WELL IR-07-MW- 020A-1 WELL IR-10-MW- 0012A WELL IR-10-MW- 082A WELL IR-26-MW- 046A WELL IR-26-MW- 047A WELL IR-26-MW- 048A WELL IR-26-MW- 049A WELL IR-26-MW- 050A WELL IR-60-MW- 008A

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<b>Record Type</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
<b>Approx. # Pages</b>					
AR_N00217_004192 REPORT 4120	05-01-2007	CE2 - KLEINFELDER, JOINT VENTURE	QUARTERLY GROUNDWATER MONITORING REPORT (JULY-SEPTEMBER 2006), REVISION 1 [INCLUDES REPLACEMENT PAGES CONVERTING REVISION 0 DATED 01 JANUARY 2007 TO REVISION 1, ANALYTICAL DATA - PAPER ONLY, AND CD COPY]	YES	BLDG 000058 BLDG 0000134 BLDG 0000211 BLDG 0000231 BLDG 0000251 BLDG 0000253 BLDG 0000272 BLDG 0000281 BLDG 0000600 PARCEL C PARCEL D PARCEL E PARCEL E-2 SITE 00001 SITE 00002 SITE 00003 SITE 00006 SITE 00009 SITE 00012 SITE 00025 SITE 00033 SITE 00036 SITE 00056 SITE 00072 WELL IR-09- PPY-001 WELL IR-12-MW- 021A WELL IR-28-MW- 151A WELL IR-33-MW- 061A WELL IR-39-MW- 021A WELL PA-36- MW-008A

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_001099 CORRESPONDENCE 4	06-03-2007	BRAC PMO WEST	TRANSMITTAL OF QUARTERLY GROUNDWATER MONITORING REPORT (JANUARY - MARCH 2007) AND ANNUAL REPORT (ENCLOSURE IS RECORD # 1100)	YES	PARCEL C PARCEL D PARCEL E PARCEL E-2
AR_N00217_001194 CORRESPONDENCE 5	06-29-2007	BRAC PMO WEST	TRANSMITTAL OF 1) RESPONSES TO COMMENTS ON THE DRAFT SHORELINE CHARACTERIZATION TECHNICAL MEMORANDUM AND 2) REPLACEMENT PAGES FOR THE DRAFT SHORELINE CHARACTERIZATION TECHNICAL MEMORANDUM (ENCLOSURE 1) IS RECORD # 1195 AND #1198 2) IS RECORD # 4177)	YES	PARCEL E PARCEL E-2
AR_N00217_004314 CORRESPONDENCE 4	07-05-2007	CALIFORNIA DEPARTMENT OF PARKS AND RECREATION - PETALUMA, CA	REVIEW AND COMMENTS ON THE 1) DRAFT WETLANDS MITIGATION AND MONITORING PLAN, METAL DEBRIS REEF AND METAL SLAG AREAS; AND 2) DRAFT REMEDIAL INVESTIGATION/FEASIBILITY STUDY	YES	PARCEL E PARCEL E-2
AR_N00217_001106 REPORT 19	07-06-2007	BARAJAS AND ASSOCIATES, INC.	FEDERAL FACILITIES AGREEMENT SCHEDULE (SEE RECORD # 1105 - BRAC PMO WEST TRANSMITTAL LETTER)	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 PARCEL F
AR_N00217_004313 CORRESPONDENCE 3	07-19-2007	ARC ECOLOGY	REVIEW AND COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION/FEASIBILITY STUDY (SEE RECORD # 1316 - DRAFT REMEDIAL INVESTIGATION/FEASIBILITY STUDY)	YES	PARCEL E PARCEL E-2
AR_N00217_001135 CORRESPONDENCE 7	07-27-2007	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT REVISED REMEDIAL INVESTIGATION REPORT (ENCLOSURE IS RECORD # 1137)	YES	PARCEL E
AR_N00217_001108 CORRESPONDENCE 5	07-31-2007	BRAC PMO WEST	TRANSMITTAL OF DRAFT REMOVAL ACTION COMPLETION REPORT, POLYCHLORINATED BIPHENYLS HOT SPOT SOIL EXCAVATION SITE (ENCLOSURE IS RECORD # 1109)	YES	PARCEL E PARCEL E-2

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_001089 REPORT 4710	08-01-2007	CE2 - KLEINFELDER, JOINT VENTURE	QUARTERLY GROUNDWATER MONITORING REPORT (OCTOBER - DECEMBER 2006) REVISION 1 (INCLUDES REPLACEMENT PAGES CONVERTING APRIL 2007 REPORT TO REVISION 1) [SEE RECORD # 1191 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	BLDG 0000134 BLDG 0000211 BLDG 0000231 NORTH BLDG 0000231 SOUTH BLDG 0000251 BLDG 0000253 BLDG 0000258 BLDG 0000272 BLDG 0000281 BLDG 0000600 PARCEL C PARCEL D PARCEL E PARCEL E-2 SITE 00001 SITE 00002 SITE 00003 SITE 00009 SITE 00012 SITE 00025 SITE 00028 SITE 00032 SITE 00033 SITE 00036 SITE 00056 SITE 00071 SITE 00072 WELL IR-02-MW- 179A WELL IR-02-MW- 209A WELL IR-06-MW- 035A1 WELL IR-06-MW- 040A WELL IR-06-MW- 059A-1

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Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
Approx. # Pages					WELL IR-09-MW-051F
					WELL IR-09-MW-PPY-001
					WELL IR-12-MW-021A
					WELL IR-25-MW-011A
					WELL IR-25-MW-016A
					WELL IR-25-MW-054A
					WELL IR-25-MW-0902B
					WELL IR-28-MW-136A
					WELL IR-28-MW-151A
					WELL IR-28-MW-169A
					WELL IR-28-MW-188F
					WELL IR-28-MW-211F
					WELL IR-28-MW-300F
					WELL IR-28-MW-406A
					WELL IR-28-MW-407
					WELL IR-28-MW-407A
					WELL IR-33-MW-061A
					WELL IR-36-MW-008A
					WELL IR-39-MW-021A
					WELL IR-50-MW-007A
					WELL IR-58-MW-031A

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
					WELL IR-58-MW-033B WELL IR-71-MW-003A
AR_N00217_001133 CORRESPONDENCE 5	08-17-2007	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT REMOVAL ACTION COMPLETION REPORT, METAL DEBRIS REEF AND METAL SLAG AREA EXCAVATION SITES (ENCLOSURE IS RECORD # 1134)	YES	PARCEL E PARCEL E-2
AR_N00217_001436 MINUTES 46	08-23-2007	BARAJAS AND ASSOCIATES, INC.	23 AUGUST 2007 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES (INCLUDES LIST OF ATTENDEES, VARIOUS HANDOUTS, TRANSCRIPT, AND CD COPY)	YES	PARCEL A PARCEL B PARCEL E PARCEL E-2

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Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_001091 REPORT 4118	10-01-2007	CE2 - KLEINFELDER, JOINT VENTURE	QUARTERLY GROUNDWATER MONITORING REPORT (OCTOBER - DECEMBER 2006) AND ANNUAL REPORT, REVISION 1	YES	BLDG 0000123 BLDG 0000130 BLDG 0000141 PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 SITE 00010 SITE 00025 SITE 00026 WELL IR-07-MW- 022A-1 WELL IR-10-MW- 012A WELL IR-10-MW- 013A-1 WELL IR-10-MW- 033A WELL IR-10-MW- 059A WELL IR-10-MW- 061A WELL IR-10-MW- 062A WELL IR-10-MW- 071A WELL IR-24-MW- 006A WELL IR-26-MW- 047A WELL IR-26-MW- 048A WELL IR-26-MW- 049A WELL IR-26-MW- 050A

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<b>Record Type</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_001191 CORRESPONDENCE 4	10-18-2007	BRAC PMO WEST	TRANSMITTAL OF REPLACEMENT PAGES CONVERTING THE QUARTERLY GROUNDWATER MONITORING REPORT (OCTOBER - DECEMBER 2006) TO REVISION 1 [ENCLOSURE IS RECORD # 1089]	YES	PARCEL C PARCEL D PARCEL E PARCEL E-2
AR_N00217_001100 REPORT 4990	11-01-2007	CE2 - KLEINFELDER, JOINT VENTURE	QUARTERLY GROUNDWATER MONITORING REPORT (JANUARY - MARCH 2007) AND ANNUAL REPORT, REVISION 1 (INCLUDES REPLACEMENT PAGES CONVERTING DOCUMENT, DATED 01 JUNE 2007, TO REVISION 1, AND CD COPY)	YES	PARCEL C PARCEL D PARCEL E PARCEL E-2
AR_N00217_004312 CORRESPONDENCE 8	11-07-2007	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT RADIOLOGICAL ADDENDUM TO THE DRAFT REMEDIAL INVESTIGATION/FEASIBILITY STUDY (SEE RECORD # 1318 - DRAFT RADIOLOGICAL ADDENDUM TO THE DRAFT REMEDIAL INVESTIGATION/FEASIBILITY STUDY)	YES	PARCEL E PARCEL E-2
AR_N00217_001231 CORRESPONDENCE 4	11-15-2007	BRAC PMO WEST	TRANSMITTAL OF REPLACEMENT PAGES CONVERTING QUARTERLY GROUNDWATER MONITORING REPORT (JANUARY - MARCH 2007) AND ANNUAL REPORT, DATED 1 JUNE 2007, TO REVISION 1 (ENCLOSURE IS RECORD # 1100)	YES	PARCEL C PARCEL D PARCEL E PARCEL E-2
AR_N00217_001246 CORRESPONDENCE 5	12-31-2007	BRAC PMO WEST	TRANSMITTAL OF THE FINAL REMOVAL ACTION COMPLETION REPORT (ENCLOSURE IS RECORD # 1247)	YES	PARCEL E SITE 00002
AR_N00217_001264 REPORT 99	01-18-2008	BARAJAS AND ASSOCIATES, INC.	FINAL TECHNICAL MEMORANDUM: NONREPRESENTATIVE GROUNDWATER SAMPLES AND INFLUENCES ON RESULTS OF HUMAN HEALTH, RISK ASSESSMENTS (CD COPY ENCLOSED) [SEE RECORD # 1263 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_001487 MINUTES 45	01-24-2008	BARAJAS AND ASSOCIATES, INC.	24 JANUARY 2008 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES AND TRANSCRIPT (INCLUDES LIST OF ATTENDEES, ACTION ITEMS, AND CD COPY)	YES	BLDG 0000117 BLDG 0000140 BLDG 0000813 BLDG 0000819 PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2 PARCEL F SITE 00007 SITE 00009 SITE 00018 SITE 00026 SITE 00033 SITE 00071 WELL 00046A WELL 00047A WELL 00048A WELL 00049A
AR_N00217_001278 CORRESPONDENCE 7	02-04-2008	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL REVISED REMEDIAL INVESTIGATION REPORT (ENCLOSURE IS RECORD # 1281)	YES	PARCEL E
AR_N00217_001488 MINUTES 40	02-28-2008	BARAJAS AND ASSOCIATES, INC.	28 FEBRUARY 2008 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES AND TRANSCRIPT (INCLUDES LIST OF ATTENDEES, ACTION ITEMS, AND CD COPY)	YES	PARCEL A PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2
AR_N00217_001489 MINUTES 38	03-27-2008	BARAJAS AND ASSOCIATES, INC.	27 MARCH 2008 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES AND TRANSCRIPT (INCLUDES LIST OF ATTENDEES, ACTION ITEMS, AND CD COPY)	YES	PARCEL A PARCEL E PARCEL E-2 SITE 00002

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_001328 ANALYTICAL DATA 99999	04-30-2008	TETRA TECH EC, INC.	COMBINED ANALYTICAL DATA FOR FINAL REMOVAL ACTION COMPLETION REPORT DATED 12 DECEMBER 2007 [SEE RECORD #1247], AND FOR FINAL REMOVAL ACTION COMPLETION REPORT DATED 30 NOVEMBER 2007 [SEE RECORD # 1256]	NO	PARCEL E PARCEL E-2 SITE 00002
AR_N00217_001281 REPORT 232814	05-02-2008	BARAJAS AND ASSOCIATES, INC.	FINAL REVISED REMEDIAL INVESTIGATION REPORT , (INCLUDES ANALYTICAL DATA - PAPER ONLY AND CD COPY ENCLOSED) {SEE RECORDS # 1278 AND # 1344 - BRAC PMO WEST TRANSMITTAL LETTERS}	YES	PARCEL E
AR_N00217_001344 CORRESPONDENCE 6	05-02-2008	BRAC PMO WEST	TRANSMITTAL OF THE REPLACEMENT PAGES CONVERTING THE DRAFT FINAL REVISED REMEDIAL INVESTIGATION REPORT, DATED 04 FEBRUARY 2008 TO THE FINAL REVISED REMEDIAL INVESTIGATION REPORT (ENCLOSURE IS RECORD # 1281)	YES	PARCEL E
AR_N00217_001492 MINUTES 44	06-26-2008	BARAJAS AND ASSOCIATES, INC.	26 JUNE 2008 RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES AND TRANSCRIPT (INCLUDES LIST OF ATTENDEES, ACTION ITEMS, AND CD COPY)	YES	BLDG 0000140 BLDG 0000144 BLDG 0000317 BLDG 0000351 BLDG 0000351A BLDG 0000364 BLDG 0000365 BLDG 0000366 BLDG 0000401 BLDG 0000408 PARCEL B PARCEL C PARCEL D PARCEL D-2 PARCEL E PARCEL E-2 PARCEL G SITE 00007 SITE 00317
AR_N00217_001404 CORRESPONDENCE 5	08-31-2008	BRAC PMO WEST	TRANSMITTAL OF THE FINAL ANNUAL LANDFILL CAP OPERATION AND MAINTENANCE REPORT FOR 2007-2008, INDUSTRIAL LANDFILL [ENCLOSURE IS RECORD # 1405]	YES	PARCEL E PARCEL E-2 SITE 00001 SITE 00021

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<b>Record Type</b>	<b>Approx. # Pages</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_001498 CORRESPONDENCE 6	<b>01-29-2009</b>	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL WETLANDS MITIGATION AND MONITORING PLAN (ENCLOSURE IS RECORD # 1499)	YES	PARCEL B PARCEL E PARCEL E-2	
AR_N00217_001568 CORRESPONDENCE 5	<b>05-05-2009</b>	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT WORK PLAN FOR THE GROUNDWATER TREATABILITY STUDY (ENCLOSURE IS RECORD # 1569)	YES	PARCEL E	
AR_N00217_001625 CORRESPONDENCE 6	<b>05-22-2009</b>	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT PETROLEUM HYDROCARBON CORRECTIVE ACTION PLAN REVISION 2009 (CD COPY ENCLOSED) [ENCLOSURE IS RECORD # 1626]	YES	PARCEL E	
AR_N00217_004301 CORRESPONDENCE 2	<b>06-12-2009</b>	ARC ECOLOGY	REVIEW AND COMMENTS ON THE DRAFT FINAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT (SEE RECORD # 1636 - DRAFT FINAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT)	YES	PARCEL E PARCEL E-2	
AR_N00217_004310 CORRESPONDENCE 6	<b>06-12-2009</b>	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT FINAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT (SEE RECORD # 1636 - DRAFT FINAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT)	YES	PARCEL B PARCEL E PARCEL E-2	

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_001673 REPORT 5263	07-01-2009	CE2 - KLEINFELDER, JOINT VENTURE	SEMI-ANNUAL GROUNDWATER MONITORING REPORT (OCTOBER 2008 - MARCH 2009) [CD COPY ENCLOSED] {SEE RECORD # 1672 - BRAC PMO WEST TRANSMITTAL LETTER}	YES	"PERCHLORATE " SEARCH - ROUND 2 PARCEL B PARCEL C PARCEL D-1 PARCEL D-2 PARCEL E PARCEL E-2 PARCEL G PARCEL UC-1 WELL IR-01-MW- 065A WELL IR-02-MW- 024A WELL IR-02-MW- 183A WELL IR-02-MW- 206A-1 WELL IR-02-MW- 206A-2 WELL IR-02-MW- 374A WELL IR-02-MW- 375A WELL IR-04-MW- 031A WELL IR-07-MW- 020A-1 WELL IR-07-MW- 021A-1 WELL IR-07-MW- 025A WELL IR-07-MW- 026A WELL IR-07-MW- 093A WELL IR-07-MW- S-004 WELL IR-12-MW- 011A

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					WELL IR-25-MW-060A-1 WELL IR-26-MW-049A WELL IR-26-MW-051A WELL IR-28-MW-394B WELL IR-28-MW-914A WELL IR-33-MW-002A WELL IR-34-MW-036B WELL IR-46-MW-049A WELL IR-46-MW-050A WELL IR-46-MW-051A WELL IR-46-MW-052A WELL IR-73-MW-004A WELL PA-36-MW-004A WELL UT03-MW-011A
AR_N00217_001652 CORRESPONDENCE 5	07-02-2009	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FEASIBILITY STUDY REPORT (ENCLOSURE IS RECORD # 1653)	YES	PARCEL E
AR_N00217_001706 CORRESPONDENCE 4	07-27-2009	BRAC PMO WEST	TRANSMITTAL OF THE FINAL WORK PLAN FOR THE GROUNDWATER TREATABILITY STUDY (ENCLOSURE IS RECORD # 1709)	YES	PARCEL E

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<b>Record Type</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
<b>Approx. # Pages</b> AR_N00217_001709 REPORT 1593	07-27-2009	SHAW ENVIRONMENTAL, INC.	FINAL WORK PLAN FOR THE GROUNDWATER TREATABILITY STUDY (CD COPY ENCLOSED)	YES	BLDG 0000406 BLDG 0000809 BLDG 0000810 PARCEL E WELL 00001A WELL 00003-A WELL 00009A WELL 00013A WELL 00014A WELL 00017A WELL 00018A WELL 00019A WELL 00021A WELL 00035A WELL 00037A WELL 00085A WELL 00122A WELL 00125A WELL IR-01-MW-042A WELL IR-01-MW-366A WELL IR-04-MW-009A WELL IR-04-MW-013A WELL IR-04-MW-031A WELL IR-04-MW-037A WELL IR-04-MW-038A WELL IR-05-MW-073A WELL IR-05-MW-085A WELL IR-12-MW-011A WELL IR-12-MW-013A

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Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
Approx. # Pages					
					WELL IR-12-MW-014A
					WELL IR-12-MW-017A
					WELL IR-12-MW-018A
					WELL IR-12-MW-019A
					WELL IR-12-MW-020A
					WELL IR-13-MW-012A
					WELL IR-36-MW-009A
					WELL IR-36-MW-121A
					WELL IR-36-MW-125A
					WELL IR-36-MW-127A
					WELL IR-36-MW-128A
					WELL IR-39-MW-021A
					WELL IR-56-MW-039A
					WELL IR-72-MW-032A
					WELL IR-74-MW-001A
					WELL PA-36-MW-003A
					WELL PA-36-MW-004A
					WELL PA-36-MW-007A
AR_N00217_001638 CORRESPONDENCE 6	07-31-2009	BRAC PMO WEST	TRANSMITTAL OF THE FINAL PETROLEUM HYDROCARBONS CORRECTIVE ACTION PLAN, REVISION 2009 (ENCLOSURE IS RECORD # 1639)	YES	PARCEL E

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_001639 REPORT 707	07-31-2009	SHAW ENVIRONMENTAL, INC.	FINAL PETROLEUM HYDROCARBONS CORRECTIVE ACTION PLAN, REVISION 2009 (CD COPY ENCLOSED) [SEE RECORD # 1638 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	CAA 000006 CAA 000007 CAA 000008 CAA 000008A CAA 000009 CAA 000009A CAA 000010 CAA 000012 CAA 000015 CAA 000016 CAA 000019 PARCEL E
AR_N00217_001703 CORRESPONDENCE 7	12-30-2009	BRAC PMO WEST	TRANSMITTAL OF THE FINAL WETLANDS MITIGATION AND MONITORING PLAN (ENCLOSURE IS RECORD # 1704)	YES	PARCEL B PARCEL E PARCEL E-2
AR_N00217_001704 REPORT 144	12-30-2009	SHAW ENVIRONMENTAL, INC.	FINAL WETLANDS MITIGATION AND MONITORING PLAN (CD COPY ENCLOSED) [SEE RECORD # 1703 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	PARCEL B PARCEL E PARCEL E-2
AR_N00217_001732 CORRESPONDENCE 6	01-25-2010	BRAC PMO WEST	TRANSMITTAL OF THE FINAL EXECUTION PLAN, CRISP ROAD SANITARY SEWER AND STORM DRAIN REMOVAL (ENCLOSURE IS RECORD # 1734)	YES	PARCEL E
AR_N00217_001734 REPORT 174	01-25-2010	TETRA TECH EC, INC.	FINAL EXECUTION PLAN, CRISP ROAD SANITARY SEWER AND STORM DRAIN REMOVAL (CD COPY ENCLOSED) [SEE RECORD # 1732 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	BLDG 0000406 BLDG 0000414 BLDG 0000701 BLDG 0000810 PARCEL E-1 PARCEL UC-3
AR_N00217_004321 CORRESPONDENCE 7	04-19-2010	CALIFORNIA DEPARTMENT OF FISH AND GAME - SACRAMENTO, CA	REVIEW AND COMMENTS ON THE FINAL WETLANDS MITIGATION AND MONITORING PLAN (SEE RECORD # 1704 - FINAL WETLANDS MITIGATION AND MONITORING PLAN)	YES	PARCEL B PARCEL E PARCEL E-2

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<b>Record Type</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_001874 CORRESPONDENCE 6	04-21-2010	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT PROJECT WORK PLAN PETROLEUM HYDROCARBON CORRECTIVE ACTION IMPLEMENTATION REPORT (ENCLOSURE IS RECORD # 1875)	YES	PARCEL E
AR_N00217_001858 CORRESPONDENCE 6	04-23-2010	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT RADIOLOGICAL ADDENDUM TO THE FEASIBILITY STUDY REPORT (ENCLOSURE IS RECORD # 1859)	YES	PARCEL E
AR_N00217_001821 REPORT 56	04-30-2010	CHADUX - TT, JOINT VENTURE	FINAL MEMORANDUM: APPROACH FOR DEVELOPING SOIL GAS ACTION LEVELS FOR VAPOR INTRUSION EXPOSURE (CD COPY ENCLOSED)	YES	PARCEL B PARCEL C PARCEL D-1 PARCEL D-2 PARCEL E PARCEL E-2 PARCEL F PARCEL G PARCEL UC-1 PARCEL UC-2
AR_N00217_002057 REPORT 2536	06-17-2010	SHAW ENVIRONMENTAL, INC.	FINAL WORK PLAN ADDENDUM TIME-CRITICAL REMOVAL ACTION FOR THE POLYCHLORINATED BIPHENYL HOT SPOT AREA	YES	PARCEL E PARCEL E-2

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_001961 REPORT 1516	07-01-2010	CE2 - KLEINFELDER, JOINT VENTURE	TECHNICAL MEMORANDUM FOR NON-BASEWIDE GROUNDWATER MONITORING PROGRAM GROUNDWATER SAMPLING (JULY 2008 - MARCH 2009) [CD COPY ENCLOSED]	YES	PARCEL B PARCEL D-1 PARCEL E PARCEL G WELL IR-07-MW- 024A WELL IR-07-MW- 026A WELL IR-18-MW- 100B WELL IR-24-MW- 005A WELL IR-26-MW- 047A WELL IR-26-MW- 049A WELL IR-46-MW- 048A WELL IR-46-MW- 049A WELL IR-46-MW- 050A WELL IR-46-MW- 051A WELL IR-46-MW- 052A
AR_N00217_001987 REPORT 508	07-30-2010	TETRA TECH EC, INC.	FINAL PROJECT WORK PLAN, BASE-WIDE STORM DRAIN AND SANITARY SEWER REMOVAL, REVISION 4 (CD COPY ENCLOSED)	YES	BASEWIDE BLDG 0000364 BLDG 0000815 BLDG 0000816 BLDG 0000819 PARCEL B PARCEL C PARCEL D PARCEL E PARCEL E-2

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_002055 REPORT 406	09-01-2010	CE2 - KLEINFELDER, JOINT VENTURE	TECHNICAL MEMORANDUM FOR NON-BASEWIDE GROUNDWATER MONITORING PROGRAM SAMPLING (APRIL 2009 - FEBRUARY 2010) [CD COPY ENCLOSED]	YES	PARCEL B PARCEL C PARCEL D-1 PARCEL D-2 PARCEL E PARCEL E-2 PARCEL G PARCEL UC-1 PARCEL UC-2 WELL IR-05-MW-085A WELL IR-09-MW-038A WELL IR-10-MW-028A WELL IR-12-B-069 WELL IR-12-MW-013A WELL IR-12-MW-014A WELL IR-12-MW-018A WELL IR-12-MW-019A WELL IR-33-MW-002A WELL IR-36-MW-004A WELL IR-36-MW-125A WELL IR-36-MW-127A WELL IR-36-MW-128A WELL IR-56-MW-039A WELL IR-72-MW-032A WELL PA-36-MW-003A

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WELL PA-36-  
MW-004A

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_002539 CORRESPONDENCE 12	11-10-2010	CE2 - KLEINFELDER, JOINT VENTURE	MEMORANDUM: GROUNDWATER ANALYTICAL RESULTS EXCEEDING REMEDIATION GOALS OR TRIGGER LEVELS, THIRD QUARTER 2010 (CD COPY ENCLOSED) [SEE RECORD # 2538 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	PARCEL B PARCEL C PARCEL E PARCEL E-2 PARCEL G PARCEL UC-2 SITE 00007 SITE 00018 WELL IR-01-MW- 038A WELL IR-01-MW- 048A WELL IR-01-MW- 060A WELL IR-01-MW- 062A WELL IR-01-MW- 063A WELL IR-01-MW- 366B WELL IR-01-MW- 403B WELL IR-02-MW- 373A WELL IR-02-MW- B-002 WELL IR-03-MW- 218A-1 WELL IR-03-MW- 218A-2 WELL IR-03-MW- O-001 WELL IR-06-MW- 022A WELL IR-06-MW- 032A WELL IR-06-MW- 040A WELL IR-06-MW- 054A WELL IR-06-MW- 059A-1

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Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
Approx. # Pages					WELL IR-09-MW-051A
					WELL IR-10-MW-013A-1
					WELL IR-10-MW-059A
					WELL IR-10-MW-061A
					WELL IR-12-MW-017A
					WELL IR-12-MW-019A
					WELL IR-20-MW-017A
					WELL IR-25-MW-016A
					WELL IR-26-MW-049A
					WELL IR-26-MW-051A
					WELL IR-28-MW-125A
					WELL IR-28-MW-151A
					WELL IR-28-MW-188F
					WELL IR-28-MW-190F
					WELL IR-28-MW-211F
					WELL IR-28-MW-355F
					WELL IR-28-MW-407
					WELL IR-33-MW-064A
					WELL IR-58-MW-031A
					WELL IR-71-MW-003A

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Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
Approx. # Pages					
AR_N00217_002336	11-19-2010	TETRA TECH EC, INC.	FINAL STORMWATER POLLUTION PREVENTION PLAN (CD COPY ENCLOSED) [SEE RECORD # 2335 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	PARCEL C PARCEL D-1 PARCEL E PARCEL UC-3 SITE 00002 SITE 00003 SITE 00004 SITE 00005 SITE 00006 SITE 00008 SITE 00011 SITE 00012 SITE 00013 SITE 00014 SITE 00015 SITE 00016 SITE 00017 SITE 00025 SITE 00027 SITE 00028 SITE 00029 SITE 00030 SITE 00032 SITE 00035 SITE 00036 SITE 00038 SITE 00039 SITE 00053 SITE 00054 SITE 00055 SITE 00056 SITE 00058 SITE 00063 SITE 00064 SITE 00068 SITE 00069 SITE 00070

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
					SITE 00072 SITE 00073
AR_N00217_002326 REPORT 519	12-29-2010	TETRA TECH EC, INC.	FINAL ACCIDENT PREVENTION PLAN/SITE SAFETY AND HEALTH PLAN, 500 SERIES AREA RADIOLOGICAL REMEDIATION AND SUPPORT (CD COPY ENCLOSED)	YES	PARCEL E
AR_N00217_002531 CORRESPONDENCE 6	01-20-2011	BRAC PMO WEST	TRANSMITTAL OF THE FINAL EXECUTION PLAN, 500 SERIES AREA RADIOLOGICAL REMEDIATION AND SUPPORT (ENCLOSURE IS RECORD # 2535)	YES	PARCEL E
AR_N00217_002535 REPORT 451	01-20-2011	TETRA TECH EC, INC.	FINAL EXECUTION PLAN, 500 SERIES AREA RADIOLOGICAL REMEDIATION AND SUPPORT (CD COPY ENCLOSED) [SEE RECORD # 2531 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	BLDG 0000500 BLDG 0000503 BLDG 0000506 BLDG 0000507 BLDG 0000508 BLDG 0000509 BLDG 0000510 BLDG 0000510A BLDG 0000517 BLDG 0000520 BLDG 0000521 BLDG 0000527 PARCEL E
AR_N00217_002436 CORRESPONDENCE 6	02-16-2011	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT GROUNDWATER TREATABILITY STUDY TECHNICAL REPORT (ENCLOSURE IS RECORD # 2437)	YES	PARCEL E

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Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_002541 CORRESPONDENCE 9	03-04-2011	CE2 - KLEINFELDER, JOINT VENTURE	MEMORANDUM: GROUNDWATER ANALYTICAL RESULTS EXCEEDING REMEDIATION GOALS OR TRIGGER LEVELS, FOURTH QUARTER 2010 (CD COPY ENCLOSED) [SEE RECORD # 2540 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	PARCEL C PARCEL D-1 PARCEL E PARCEL E-2 PARCEL G PARCEL UC-1 PARCEL UC-2 WELL IR-01-MW- 038A WELL IR-01-MW- 060A WELL IR-02-MW- 373A WELL IR-02-MW- B-002 WELL IR-03-MW- 218A-1 WELL IR-03-MW- 218A-2 WELL IR-03-MW- 371A WELL IR-03-MW- O-001 WELL IR-04-MW- 039A WELL IR-06-MW- 022A WELL IR-06-MW- 040A WELL IR-06-MW- 059A-1 WELL IR-12 - MW-017A WELL IR-12-MW- 019A WELL IR-25-MW- 016A WELL IR-28-MW- 125A WELL IR-28-MW- 211F

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
					WELL IR-28-MW-355F WELL IR-28-MW-407 WELL IR-36-MW-237A WELL IR-36-MW-239A WELL IR-58-MW-031A
AR_N00217_002973 REPORT 818	04-20-2011	CE2 - KLEINFELDER, JOINT VENTURE	FINAL AMENDED SAMPLING AND ANALYSIS PLAN (FIELD SAMPLING PLAN AND QUALITY ASSURANCE PROJECT PLAN) FOR BASEWIDE GROUNDWATER MONITORING PROGRAM (CD COPY ENCLOSED)	YES	BASEWIDE PARCEL B PARCEL C PARCEL D-1 PARCEL E PARCEL E-2 PARCEL G PARCEL UC-2
AR_N00217_002910 REPORT 188	05-01-2011	CH2M HILL - KLEINFELDER, JOINT VENTURE	FINAL COMMUNITY INVOLVEMENT PLAN (CD COPY ENCLOSED) [SEE RECORD # 2908 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	PARCEL A PARCEL B PARCEL C PARCEL D-1 PARCEL D-2 PARCEL E PARCEL E-2 PARCEL G PARCEL UC-1 PARCEL UC-2

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_002774 CORRESPONDENCE 6	05-03-2011	CE2 - KLEINFELDER, JOINT VENTURE	MEMORANDUM: GROUNDWATER ANALYTICAL RESULTS EXCEEDING REMEDIATION GOALS OR TRIGGER LEVELS, FIRST QUARTER 2011 (CD COPY ENCLOSED) [SEE RECORD # 2772 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	PARCEL B PARCEL C PARCEL D-1 PARCEL E PARCEL E-2 PARCEL G PARCEL UC-1 PARCEL UC-2 SITE 00007 SITE 00018 WELL IR-01-MW- 038A WELL IR-01-MW- 048A WELL IR-01-MW- 060A WELL IR-01-MW- 063A WELL IR-01-MW- 064A WELL IR-01-MW- 403B WELL IR-02-MW- 373A WELL IR-02-MW- B-002 WELL IR-03-MW- 218A-1 WELL IR-03-MW- 218A-2 WELL IR-03-MW- 371A WELL IR-03-MW- O-001 WELL IR-04-MW- 039A WELL IR-06-MW- 022A WELL IR-06-MW- 032A WELL IR-06-MW- 040A

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Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
Approx. # Pages					WELL IR-06-MW-054F
					WELL IR-06-MW-059A-1
					WELL IR-09-MW-007A
					WELL IR-10-MW-013A-1
					WELL IR-10-MW-059A
					WELL IR-10-MW-061A
					WELL IR-10-MW-071A
					WELL IR-12-MW-019A
					WELL IR-20-MW-017A
					WELL IR-25-MW-016A
					WELL IR-26-MW-049A
					WELL IR-28-MW-125A
					WELL IR-28-MW-151A
					WELL IR-28-MW-190F
					WELL IR-28-MW-200A
					WELL IR-28-MW-211F
					WELL IR-28-MW-355F
					WELL IR-28-MW-407
					WELL IR-36-MW-237A
					WELL IR-36-MW-239A
					WELL IR-71-MW-003A

UIC No. \_ Rec. No.

Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_002905 CORRESPONDENCE 6	05-16-2011	BRAC PMO WEST	TRANSMITTAL OF THE FINAL GROUNDWATER TREATABILITY STUDY TECHNICAL (ENCLOSURE IS RECORD # 2907)REPORT	YES	WELL PA-28- MW-052A PARCEL E

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_002907 REPORT 8262	05-16-2011	SHAW ENVIRONMENTAL, INC.	FINAL GROUNDWATER TREATABILITY STUDY TECHNICAL REPORT (CD COPY ENCLOSED) [SEE RECORD # 2905 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	PARCEL E SITE 00004 SITE 00005 SITE 00012A SITE 00012B SITE 00012C SITE 00036 SITE 00039 SITE 00056 WELL IR-12-MW- 043A WELL IR-12-MW- 044A WELL IR-12-MW- 045A WELL IR-12-MW- 046A WELL IR-36-MW- 230A WELL IR-36-MW- 231A WELL IR-36-MW- 232A WELL IR-36-MW- 233A WELL IR-36-MW- 234A WELL IR-36-MW- 235A WELL IR-36-MW- 236B WELL IR-36-MW- 237A WELL IR-36-MW- 238A WELL IR-36-MW- 239A WELL IR-36-MW- 240A WELL IR-36-MW- 241A

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
					WELL IR-36-MW-242A
AR_N00217_003298 CORRESPONDENCE 6	05-16-2011	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT WORK PLAN SITE CHARACTERIZATION AND BENCH-SCALE TREATABILITY STUDY (ENCLOSURE IS RECORD # 3299)	YES	PARCEL E SITE 00003
AR_N00217_003315 CORRESPONDENCE 6	07-08-2011	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL FEASIBILITY STUDY REPORT (ENCLOSURE IS RECORD # 3316)	YES	PARCEL E

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_003554 CORRESPONDENCE 7	08-05-2011	CE2 - KLEINFELDER, JOINT VENTURE	MEMORANDUM: GROUNDWATER ANALYTICAL RESULTS EXCEEDING REMEDIATION GOALS OR TRIGGER LEVELS, SECOND QUARTER 2011 (CD COPY ENCLOSED) [SEE RECORD # 3575 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	PARCEL B PARCEL C PARCEL D-1 PARCEL E PARCEL E-2 PARCEL G PARCEL UC-1 PARCEL UC-2 SITE 00007 SITE 00018 WELL IR-01-MW- 038A WELL IR-01-MW- 048A WELL IR-01-MW- 060A WELL IR-01-MW- 064A WELL IR-02-MW- 373A WELL IR-02-MW- B-002 WELL IR-03-MW- 218A-1 WELL IR-03-MW- 218A-2 WELL IR-03-MW- O-001 WELL IR-06-MW- 022A WELL IR-06-MW- 032A WELL IR-06-MW- 035A WELL IR-06-MW- 040A WELL IR-06-MW- 059A-1 WELL IR-25-MW- 016A WELL IR-28-MW- 125A

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
					WELL IR-28-MW-200A WELL IR-28-MW-211F WELL IR-28-MW-298A WELL IR-28-MW-355F WELL IR-28-MW-407 WELL PA-28-MW-052A
AR_N00217_003631 CORRESPONDENCE 6	08-19-2011	BRAC PMO WEST	TRANSMITTAL OF THE FINAL WORK PLAN SITE CHARACTERIZATION AND BENCH-SCALE TREATABILITY STUDY (ENCLOSURE IS RECORD # 3632)	YES	PARCEL E SITE 00003
AR_N00217_003632 REPORT 906	08-22-2011	INNOVATIVE TECHNICAL SOLUTIONS, INC.	FINAL WORK PLAN SITE CHARACTERIZATION AND BENCH-SCALE TREATABILITY STUDY (CD COPY ENCLOSED) [SEE RECORD # 3631 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	PARCEL E SITE 00003

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_003615 CORRESPONDENCE 9	11-04-2011	CE2 - KLEINFELDER, JOINT VENTURE	MEMORANDUM: GROUNDWATER ANALYTICAL RESULTS EXCEEDING REMEDIATION GOALS OR TRIGGER LEVELS, THIRD QUARTER 2011 (CD COPY ENCLOSED)	YES	PARCEL B PARCEL C PARCEL D-1 PARCEL E PARCEL E-2 PARCEL G PARCEL UC-1 PARCEL UC-2 SITE 00007 SITE 00018 WELL IR-01-MW-026B WELL IR-01-MW-038A WELL IR-01-MW-048A WELL IR-01-MW-060A WELL IR-01-MW-062A WELL IR-01-MW-063A WELL IR-01-MW-064A WELL IR-02-MW-126A WELL IR-02-MW-218A-2 WELL IR-02-MW-373A WELL IR-02-MW-403B WELL IR-02-MW-B-002 WELL IR-03-MW-O-001 WELL IR-04-MW-039A WELL IR-06-MW-022A WELL IR-06-MW-032A

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Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
Approx. # Pages					WELL IR-06-MW-054F
					WELL IR-06-MW-059A-1
					WELL IR-09-MW-007A
					WELL IR-10-MW-013A-1
					WELL IR-10-MW-059A
					WELL IR-10-MW-061A
					WELL IR-12-MW-019A
					WELL IR-19-MW-040A
					WELL IR-20-MW-017A
					WELL IR-25-MW-016A
					WELL IR-26-MW-049A
					WELL IR-26-MW-051A
					WELL IR-28-EW-001A
					WELL IR-28-IW-901A
					WELL IR-28-IW-902A
					WELL IR-28-IW-903A
					WELL IR-28-MW-125A
					WELL IR-28-MW-151A
					WELL IR-28-MW-200A
					WELL IR-28-MW-211F
					WELL IR-28-MW-298A

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
					WELL IR-28-MW-354A WELL IR-28-MW-355F WELL IR-28-MW-407 WELL IR-28-MW-475A WELL IR-28-MW-476A WELL IR-28-MW-916A WELL IR-28-MW-919A WELL IR-28-MW-920A WELL IR-28-MW-921A WELL IR-28-MW-932A WELL IR-28-MW-933A WELL IR-28-MW-934A WELL IR-28-MW-936A WELL IR-36-MW-237A WELL IR-71-MW-003A
AR_N00217_003627 CORRESPONDENCE 6	11-17-2011	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL RADIOLOGICAL ADDENDUM TO THE FEASIBILITY STUDY REPORT (ENCLOSURE IS RECORD # 3628)	YES	PARCEL E

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_004241 REPORT 61	12-02-2011	CHADUX - TT, JOINT VENTURE	REVISED FINAL MEMORANDUM: APPROACH FOR DEVELOPING SOIL GAS ACTION LEVELS FOR VAPOR INTRUSION EXPOSURE (CD COPY ENCLOSED)	YES	PARCEL B PARCEL C PARCEL D-1 PARCEL D-2 PARCEL E PARCEL E-2 PARCEL F PARCEL G PARCEL UC-1 PARCEL UC-2
AR_N00217_004387 REPORT 1857	12-20-2011	TETRA TECH EC, INC.	FINAL EXECUTION PLAN, REVISION 1, BASEWIDE RADIOLOGICAL SUPPORT (CD COPY ENCLOSED) [SEE RECORD # 4386 - BRAC PMO WEST TRANSMITTAL LETTER; AND RECORD # 2537 - FINAL EXECUTION PLAN, BASEWIDE RADIOLOGICAL SUPPORT]	YES	BASEWIDE PARCEL A PARCEL B PARCEL C PARCEL D-1 PARCEL D-2 PARCEL E PARCEL E-2 PARCEL F PARCEL G PARCEL UC-1 PARCEL UC-2
AR_N00217_004293 REPORT 162	02-03-2012	TETRA TECH EC, INC.	FINAL BASEWIDE RADIOLOGICAL MANAGEMENT PLAN (CD COPY ENCLOSED) [THIS DOCUMENT SUPERSEDES RECORD # 4235 AND # 1987]	YES	BASEWIDE PARCEL B PARCEL C PARCEL D-1 PARCEL D-2 PARCEL E PARCEL E-2 PARCEL F PARCEL G PARCEL UC-1 PARCEL UC-2 PARCEL UC-3

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<b>Approx. # Pages</b> AR_N00217_004268 CORRESPONDENCE 6	<b>02-22-2012</b>	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT WORK PLAN ADDENDUM TO THE GROUNDWATER TREATABILITY STUDY (ENCLOSURE IS RECORD # 4269)	YES	PARCEL E
AR_N00217_004326 REPORT 263	<b>02-22-2012</b>	CE2 - KLEINFELDER, JOINT VENTURE	REVISED FINAL ACCIDENT PREVENTION PLAN, BASEWIDE GROUNDWATER MONITORING PROGRAM (CD COPY ENCLOSED) {SEE RECORD # 2225 - FINAL ACCIDENT PREVENTION PLAN BASEWIDE GROUNDWATER MONITORING PROGRAM}	YES	BASEWIDE PARCEL B PARCEL C PARCEL D-1 PARCEL D-2 PARCEL E PARCEL E-2 PARCEL F PARCEL G PARCEL UC-1 PARCEL UC-2
AR_N00217_004375 CORRESPONDENCE 6	<b>04-09-2012</b>	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT SOIL EXCAVATION CHARACTERIZATION WORK PLAN (ENCLOSURE IS RECORD # 4376)	YES	PARCEL E

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Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
Approx. # Pages					
AR_N00217_004381 REPORT 49233	04-18-2012	TETRA TECH EC, INC.	FINAL RADIOLOGICAL CONSTRUCTION SUMMARY REPORT (INCLUDES ANALYTICAL DATA PROVIDED IN PAPER ONLY, AND CD COPY)	YES	AREA 00020 AREA 00022 AREA 00023 BLDG 0000406 BLDG 0000414 BLDG 0000701 BLDG 0000704 BLDG 0000810 PARCEL E SITE 00004 SURVEY UNIT 0152 SURVEY UNIT 0154 SURVEY UNIT 0155 SURVEY UNIT 0156 SURVEY UNIT 0157 SURVEY UNIT 0158 SURVEY UNIT 0159 SURVEY UNIT 0160 SURVEY UNIT 0161 SURVEY UNIT 0162 SURVEY UNIT 0163 SURVEY UNIT 0165 SURVEY UNIT 0201

UIC No. \_ Rec. No.

Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_004841 REPORT 8	06-20-2012	CE2 - KLEINFELDER, JOINT VENTURE	MEMORANDUM: GROUNDWATER ANALYTICAL RESULTS EXCEEDING REMEDIATION GOALS OR TRIGGER LEVELS, FIRST QUARTER 2012 (CD COPY ENCLOSED)	NO	PARCEL B PARCEL C PARCEL E PARCEL E-2 PARCEL G PARCEL UC-2 WELL IR-01-MW-038A WELL IR-01-MW-048A WELL IR-01-MW-060A WELL IR-01-MW-063A WELL IR-01-MW-064A WELL IR-01-MW-366B WELL IR-01-MW-403B WELL IR-02-MW-373A WELL IR-02-MW-B-002 WELL IR-04-MW-039A WELL IR-06-MW-022A WELL IR-06-MW-040 WELL IR-06-MW-054F WELL IR-06-MW-059A-1 WELL IR-10-MW-059A WELL IR-10-MW-061A WELL IR-10-MW-071A WELL IR-12-MW-019A

UIC No. \_ Rec. No.

Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
Approx. # Pages					WELL IR-20-MW-017A
					WELL IR-25-MW-062A
					WELL IR-25-MW-063A
					WELL IR-25-MW-064A
					WELL IR-25-MW-065B
					WELL IR-25-MW-066B
					WELL IR-25-MW-068A
					WELL IR-26-MW-041A
					WELL IR-26-MW-049A
					WELL IR-26-MW-051A
					WELL IR-28-EW-001A
					WELL IR-28-IW-901A
					WELL IR-28-IW-902A
					WELL IR-28-IW-903A
					WELL IR-28-MW-151A
					WELL IR-28-MW-151A
					WELL IR-28-MW-190F
					WELL IR-28-MW-200A
					WELL IR-28-MW-211F
					WELL IR-28-MW-354A
					WELL IR-28-MW-355F
					WELL IR-28-MW-475A

UIC No. \_ Rec. No.

Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
					WELL IR-28-MW-916A WELL IR-28-MW-919A WELL IR-28-MW-921A WELL IR-28-MW-931A WELL IR-28-MW-932A WELL IR-28-MW-933A WELL IR-28-MW-934A WELL IR-28-MW-936A WELL IR-33-MW-064A WELL IR-36-MW-237A WELL IR-36-MW-239A WELL IR-71-MW-003A
AR_N00217_004478 CORRESPONDENCE 7	07-09-2012	BRAC PMO WEST	TRANSMITTAL OF THE FINAL WORK PLAN ADDENDUM TO THE GROUNDWATER TREATABILITY STUDY (ENCLOSURE IS RECORD # 4479)	YES	PARCEL E
AR_N00217_004479 REPORT 527	07-09-2012	SHAW ENVIRONMENTAL AND INFRASTRUCTURE, INC.	FINAL WORK PLAN ADDENDUM TO THE GROUNDWATER TREATABILITY STUDY (CD COPY ENCLOSED) [SEE RECORD # 4478 - BRAC PMO WEST TRANSMITTAL LETTER; RECORD # 1709 - FINAL WORK PLAN FOR THE GROUNDWATER TREATABILITY STUDY]	YES	BLDG 0000406 BLDG 0000413 PARCEL E SITE 00004 SITE 00005 SITE 00006 SITE 00012A SITE 00012B SITE 00012C SITE 00036 SITE 00039 SITE 00056

## UIC No. \_ Rec. No.

Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_004477 REPORT 75	07-17-2012	CKY, INC.	LANDFILL GAS MONITORING REPORT FOR APRIL-JUNE 2012, POST-REMOVAL ACTION, INDUSTRIAL LANDFILL (CD COPY ENCLOSED) [SEE RECORD # 4476 - BRAC PMO WEST TRANSMITTAL LETTER]	YES	BLDG 0000830 PARCEL E PARCEL E-2 SITE 00001 SITE 00021
AR_N00217_004837 REPORT 1195	08-01-2012	ARCADIS U.S., INC.	FINAL SOIL EXCAVATION CHARACTERIZATION WORK PLAN (CD COPY ENCLOSED) [SEE RECORD # 4836 - BRAC PMO WEST TRANSMITTAL LETTER] {DOCUMENT ALSO CONTAINS SENSITIVE STREET LEVEL MAPS}	NO	PARCEL E
AR_N00217_004836 CORRESPONDENCE 4	08-06-2012	BRAC PMO WEST	TRANSMITTAL OF THE FINAL SOIL EXCAVATION CHARACTERIZATION WORK PLAN (ENCLOSURE IS RECORD # 4837)	NO	PARCEL E
AR_N00217_004487 CORRESPONDENCE 8	08-28-2012	BRAC PMO WEST	LETTER DOCUMENTING A BOUNDARY CHANGE (CD COPY ENCLOSED) [W/ ENCLOSURE]	YES	PARCEL E PARCEL E-2
AR_N00217_004630 CORRESPONDENCE 4	08-31-2012	BRAC PMO WEST	TRANSMITTAL OF THE FINAL FEASIBILITY STUDY REPORT (ENCLOSURE IS RECORD # 4631)	NO	PARCEL E
AR_N00217_004631 REPORT 1463	08-31-2012	ENGINEERING/REMEDIAION RESOURCES GROUP, INC.	FINAL FEASIBILITY STUDY REPORT (CD COPY ENCLOSED) [SEE RECORD # 4630 - BRAC PMO WEST TRANSMITTAL LETTER]	NO	PARCEL E
AR_N00217_004632 CORRESPONDENCE 4	08-31-2012	BRAC PMO WEST	TRANSMITTAL OF THE FINAL RADIOLOGICAL ADDENDUM TO THE FEASIBILITY STUDY REPORT (ENCLOSURE IS RECORD # 4633)	NO	PARCEL E
AR_N00217_004633 REPORT 4457	08-31-2012	ENGINEERING/REMEDIAION RESOURCES GROUP, INC.	FINAL RADIOLOGICAL ADDENDUM TO THE FEASIBILITY STUDY REPORT (CD COPY ENCLOSED) [SEE RECORD # 4632 - BRAC PMO WEST TRANSMITTAL LETTER, AND RECORD # 4631 - FINAL FEASIBILITY STUDY REPORT]	NO	PARCEL E
AR_N00217_004504 CORRESPONDENCE 7	09-24-2012	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT SITE CHARACTERIZATION AND BENCH-SCALE TREATABILITY STUDY REPORT (ENCLOSURE IS RECORD # 4505)	YES	PARCEL E SITE 00003

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<b>Record Type</b>	<b>Approx. # Pages</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_004537 CORRESPONDENCE 2	10-26-2012	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT PROPOSED PLAN (ENCLOSURE IS RECORD # 4538)	NO	PARCEL E PARCEL UC-3	
AR_N00217_004638 CORRESPONDENCE 3	11-21-2012	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT PROPOSED PLAN (SEE RECORD # 4538 - DRAFT PROPOSED PLAN)	NO	PARCEL E PARCEL UC-3 SITE 00003	
AR_N00217_004639 CORRESPONDENCE 3	11-27-2012	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT PROPOSED PLAN (SEE RECORD # 4538 - DRAFT PROPOSED PLAN)	NO	PARCEL E PARCEL UC-3	
AR_N00217_004641 CORRESPONDENCE 7	11-27-2012	DEPARTMENT OF PUBLIC HEALTH - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT PROPOSED PLAN (SEE RECORD # 4538 - DRAFT PROPOSED PLAN)	NO	PARCEL E PARCEL UC-3	
AR_N00217_004640 CORRESPONDENCE 4	11-29-2012	CRWQCB - OAKLAND, CA	REVIEW AND COMMENTS ON THE DRAFT PROPOSED PLAN (SEE RECORD # 4538 - DRAFT PROPOSED PLAN)	NO	PARCEL E PARCEL UC-3	
AR_N00217_004558 CORRESPONDENCE 3	12-20-2012	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT GROUNDWATER TREATABILITY STUDY TECHNICAL REPORT ADDENDUM (ENCLOSURE IS RECORD # 4559)	NO	PARCEL E	

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Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_004842 REPORT 6	12-20-2012	CE2 - KLEINFELDER, JOINT VENTURE	MEMORANDUM: GROUNDWATER ANALYTICAL RESULTS EXCEEDING REMEDIATION GOALS OR TRIGGER LEVELS, THIRD QUARTER 2012 (CD COPY ENCLOSED)	NO	PARCEL B PARCEL C PARCEL E PARCEL E-2 PARCEL G PARCEL UC-2 WELL IR-01-MW- 038A WELL IR-01-MW- 048A WELL IR-01-MW- 060A WELL IR-01-MW- 064A WELL IR-01-MW- 366B WELL IR-01-MW- 403B WELL IR-02-MW- 126A WELL IR-02-MW- 373A WELL IR-02-MW- B-002 WELL IR-03-MW- 218A-1 WELL IR-03-MW- 218A-2 WELL IR-03-MW- 226A WELL IR-03-MW- O-001 WELL IR-06-MW- 022A WELL IR-06-MW- 042A WELL IR-06-MW- 054F WELL IR-06-MW- 059A-1 WELL IR-10-MW- 059A

UIC No. \_ Rec. No.

Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
Approx. # Pages					WELL IR-10-MW-061A
					WELL IR-20-MW-017A
					WELL IR-25-MW-016A
					WELL IR-25-MW-062A
					WELL IR-25-MW-063A
					WELL IR-25-MW-064A
					WELL IR-25-MW-065B
					WELL IR-26-MW-041A
					WELL IR-26-MW-049
					WELL IR-26-MW-051A
					WELL IR-28-EW-001A
					WELL IR-28-IW-902A
					WELL IR-28-IW-903A
					WELL IR-28-MW-125A
					WELL IR-28-MW-190F
					WELL IR-28-MW-211F
					WELL IR-28-MW-352A
					WELL IR-28-MW-354A
					WELL IR-28-MW-355F
					WELL IR-28-MW-407
					WELL IR-28-MW-475A

UIC No. \_ Rec. No.

Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
					WELL IR-28-MW-476A WELL IR-28-MW-916A WELL IR-28-MW-919A WELL IR-28-MW-931A WELL IR-28-MW-932A WELL IR-28-MW-933A WELL IR-28-MW-934A WELL IR-28-MW-936A WELL IR-36-MW-125A WELL IR-36-MW-237A WELL IR-58-MW-031A WELL IR-71-MW-003A
AR_N00217_004593 CORRESPONDENCE 2	12-21-2012	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT FINAL PROPOSED PLAN (ENCLOSURE IS RECORD # 4594)	NO	PARCEL E PARCEL UC-3
AR_N00217_004535 CORRESPONDENCE 3	01-08-2013	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT POTHOLE AREA CHARACTERIZATION WORK PLAN (ENCLOSURE IS RECORD # 4536)	NO	PARCEL E
AR_N00217_004567 CORRESPONDENCE 4	01-08-2013	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT TECHNICAL MEMORANDUM FOR SOIL EXCAVATION CHARACTERIZATION (ENCLOSURE IS RECORD # 4568)	NO	PARCEL E
AR_N00217_004877 CORRESPONDENCE 5	01-22-2013	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT POTHOLE AREA CHARACTERIZATION WORK PLAN (SEE RECORD # 4536 - DRAFT POTHOLE AREA CHARACTERIZATION WORK PLAN)	NO	PARCEL E

## UIC No. \_ Rec. No.

Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_004705 PUBLIC NOTICE 2	02-01-2013	SAN FRANCISCO BAY VIEW - SAN FRANCISCO, CA	PUBLIC NOTICE ANNOUNCING THE PUBLIC COMMENT PERIOD FOR THE PROPOSED PLAN (CD COPY ENCLOSED)	NO	PARCEL E PARCEL UC-3
AR_N00217_004720 REPORT 42	02-01-2013	ENGINEERING/REMEDATION RESOURCES GROUP, INC.	FINAL PROPOSED PLAN FOR CLEANUP (INCLUDES FACT SHEET OF SUMMARY OF THE PROPOSED PLAN; AND CD COPY)	NO	BLDG 0000406 PARCEL E PARCEL E-2 PARCEL UC-1 PARCEL UC-3 SITE 00002
AR_N00217_004752 REPORT 6643	02-06-2013	ITSI GILBANE COMPANY	FINAL SITE CHARACTERIZATION AND BENCH-SCALE TREATABILITY STUDY REPORT (CD COPY ENCLOSED) [DOCUMENT ALSO CONTAINS SENSITIVE STREET LEVEL MAPS]	NO	PARCEL E SITE 00003
AR_N00217_004874 CORRESPONDENCE 3	02-06-2013	DTSC - BERKELEY, CA	REVIEW AND COMMENTS ON THE DRAFT POTHOLE AREA CHARACTERIZATION WORK PLAN (SEE RECORD # 4536 - DRAFT POTHOLE AREA CHARACTERIZATION WORK PLAN)	NO	PARCEL E
AR_N00217_004706 PUBLIC NOTICE 2	02-07-2013	SUN-REPORTER - SAN FRANCISCO, CA	PUBLIC NOTICE ANNOUNCING THE PUBLIC COMMENT PERIOD FOR THE PROPOSED PLAN (CD COPY ENCLOSED)	NO	PARCEL E PARCEL UC-3
AR_N00217_004875 CORRESPONDENCE 3	02-07-2013	DEPARTMENT OF PUBLIC HEALTH - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE DRAFT POTHOLE AREA CHARACTERIZATION WORK PLAN (SEE RECORD # 4536 - DRAFT POTHOLE AREA CHARACTERIZATION WORK PLAN)	NO	PARCEL E
AR_N00217_004707 PUBLIC NOTICE 2	02-10-2013	SAN FRANCISCO CHRONICLE - SAN FRANCISCO, CA	PUBLIC NOTICE ANNOUNCING THE PUBLIC COMMENT PERIOD FOR THE PROPOSED PLAN (CD COPY ENCLOSED)	NO	PARCEL E PARCEL UC-3
AR_N00217_004876 CORRESPONDENCE 2	02-12-2013	CRWQCB - OAKLAND, CA	REVIEW AND COMMENTS ON THE DRAFT POTHOLE AREA CHARACTERIZATION WORK PLAN (SEE RECORD # 4536 - DRAFT POTHOLE AREA CHARACTERIZATION WORK PLAN)	NO	PARCEL E
AR_N00217_004755 CORRESPONDENCE 4	02-15-2013	BRAC PMO WEST	TRANSMITTAL OF THE FINAL SITE CHARACTERIZATION AND BENCH-SCALE TREATABILITY STUDY REPORT (ENCLOSURE IS RECORD # 4752)	NO	PARCEL E SITE 00003

## UIC No. \_ Rec. No.

Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_004891 REPORT 592	02-25-2013	CABRERA - INSIGHT, JOINT VENTURE	FINAL ACCIDENT PREVENTION PLAN NONAQUEOUS PHASE LIQUID TREATMENT PILOT STUDY, FORMER OILY WASTE PONDS (CD COPY ENCLOSED) [DOCUMENT ALSO CONTAINS SENSITIVE STREET LEVEL MAPS]	NO	PARCEL E SITE 00003
AR_N00217_004756 REPORT 1860	03-19-2013	SHAW ENVIRONMENTAL AND INFRASTRUCTURE, INC.	FINAL GROUNDWATER TREATABILITY STUDY TECHNICAL REPORT ADDENDUM (CD COPY ENCLOSED) [SEE RECORD # 2907 - FINAL GROUNDWATER TREATABILITY STUDY TECHNICAL REPORT AND RECORD # 4761 - BRAC PMO WEST TRANSMITTA LETTER]	NO	PARCEL E SITE 00004 SITE 00036
AR_N00217_004761 CORRESPONDENCE 3	03-21-2013	BRAC PMO WEST	TRANSMITTAL OF THE FINAL GROUNDWATER TREATABILITY STUDY TECHNICAL REPORT ADDENDUM (ENCLOSURE IS RECORD # 4756)	NO	PARCEL E SITE 00004 SITE 00036
AR_N00217_004882 CORRESPONDENCE 2	04-05-2013	U.S. EPA - SAN FRANCISCO, CA	REVIEW AND COMMENTS ON THE RESPONSES TO COMMENTS ON THE DRAFT POTHOLE AREA CHARACTERIZATION WORK PLAN (SEE RECORD # 4878 - RESPONSES TO COMMENTS)	NO	PARCEL E
AR_N00217_004879 CORRESPONDENCE 2	04-08-2013	DTSC - BERKELEY, CA	REVIEW AND NO COMMENTS ON THE RESPONSES TO COMMENTS ON THE DRAFT POTHOLE AREA CHARACTERIZATION WORK PLAN (SEE RECORD # 4878 - RESPONSES TO COMMENTS)	NO	PARCEL E
AR_N00217_004880 CORRESPONDENCE 3	04-15-2013	DEPARTMENT OF PUBLIC HEALTH - SAN FRANCISCO, CA	REVIEW AND NO COMMENTS ON THE RESPONSES TO COMMENTS ON THE DRAFT POTHOLE AREA CHARACTERIZATION WORK PLAN (SEE RECORD # 4878 - RESPONSES TO COMMENTS)	NO	PARCEL E
AR_N00217_004881 CORRESPONDENCE 4	04-16-2013	CRWQCB - OAKLAND, CA	REVIEW AND COMMENTS ON THE RESPONSES TO COMMENTS ON THE DRAFT POTHOLE AREA CHARACTERIZATION WORK PLAN (SEE RECORD # 4878 - RESPONSES TO COMMENTS)	NO	PARCEL E
AR_N00217_004851 REPORT 214	05-01-2013	TRIECO - TETRA TECH EM, INC., JOINT VENTURE	FINAL ACCIDENT PREVENTION PLAN FOR POTHOLE AREA CHARACTERIZATION (CD COPY ENCLOSED) [DOCUMENT ALSO CONTAINS SENSITIVE STREET LEVEL MAPS]	NO	PARCEL E

**UIC No. \_ Rec. No.**

<b>Record Type Approx. # Pages</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_004850 REPORT 772	<b>05-24-2013</b>	TRIECO - TETRA TECH EM, INC., JOINT VENTURE	FINAL POT HOLE AREA CHARACTERIZATION WORK PLAN (INCLUDES RESPONSES TO COMMENTS WITH DCN TRIE-2205-0024-0003 ON THE DRAFT, AND CD COPY) [SEE RECORD # 4849 - BRAC PMO WEST TRANSMITTAL LETTER] (DOCUMENT ALSO CONTAINS SENSITIVE STREET LEVEL MAPS}	NO	PARCEL E
AR_N00217_004849 CORRESPONDENCE 6	<b>05-31-2013</b>	BRAC PMO WEST	TRANSMITTAL OF THE FINAL POT HOLE AREA CHARACTERIZATION WORK PLAN (ENCLOSURE IS RECORD # 4850)	NO	PARCEL E
AR_N00217_004878 CORRESPONDENCE 20	<b>05-31-2013</b>	TRIECO - TETRA TECH EM, INC., JOINT VENTURE	RESPONSES TO COMMENTS ON THE DRAFT POT HOLE AREA CHARACTERIZATION WORK PLAN (CD COPY ENCLOSED)	NO	PARCEL E

**UIC No. \_ Rec. No.**

<b>Record Type</b>	<b>Record Date</b>	<b>Author Affiliation</b>	<b>Title</b>	<b>Imaged?</b>	<b>Sites</b>
AR_N00217_004843 REPORT 6	06-12-2013	CE2 - KLEINFELDER, JOINT VENTURE	MEMORANDUM: GROUNDWATER ANALYTICAL RESULTS EXCEEDING REMEDIATION GOALS OR TRIGGER LEVELS, FIRST QUARTER 2013 (CD COPY ENCLOSED)	NO	PARCEL B PARCEL C PARCEL E PARCEL E-2 PARCEL G PARCEL UC-2 WELL IR-01-MW-038A WELL IR-01-MW-048A WELL IR-01-MW-060A WELL IR-01-MW-063A WELL IR-01-MW-064A WELL IR-01-MW-366B WELL IR-01-MW-403B WELL IR-02-MW-373A WELL IR-03-MW-218A-1 WELL IR-03-MW-218A-2 WELL IR-03-MW-O-001 WELL IR-06-MW-022A WELL IR-06-MW-032A WELL IR-06-MW-054F WELL IR-06-MW-059A-1 WELL IR-10-MW-013A-1 WELL IR-10-MW-059A WELL IR-10-MW-061A

UIC No. \_ Rec. No.

Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
Approx. # Pages					WELL IR-10-MW-071A
					WELL IR-20-MW-017A
					WELL IR-25-MW-011A
					WELL IR-25-MW-016A
					WELL IR-25-MW-062A
					WELL IR-25-MW-063A
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					WELL IR-25-MW-065B
					WELL IR-25-MW-066B
					WELL IR-25-MW-068A
					WELL IR-26-MW-049A
					WELL IR-26-MW-051A
					WELL IR-28-EW-001A
					WELL IR-28-IW-902A
					WELL IR-28-IW-903A
					WELL IR-28-MW-125A
					WELL IR-28-MW-151A
					WELL IR-28-MW-188F
					WELL IR-28-MW-190F
					WELL IR-28-MW-211F
					WELL IR-28-MW-352A

UIC No. \_ Rec. No.

Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
Approx. # Pages					WELL IR-28-MW-354A WELL IR-28-MW-355F WELL IR-28-MW-407 WELL IR-28-MW-475A WELL IR-28-MW-476A WELL IR-28-MW-916A WELL IR-28-MW-919A WELL IR-28-MW-931A WELL IR-28-MW-932A WELL IR-28-MW-933A WELL IR-28-MW-934A WELL IR-28-MW-936A WELL IR-33-MW-064A WELL IR-58-MW-031A WELL IR-71-MW-003A
AR_N00217_004747 CORRESPONDENCE 7	06-21-2013	BRAC PMO WEST	TRANSMITTAL OF THE DRAFT RECORD OF DECISION (ENCLOSURE IS RECORD # 4748)	NO	PARCEL E

UIC No. \_ Rec. No.

Record Type Approx. # Pages	Record Date	Author Affiliation	Title	Imaged?	Sites
AR_N00217_004901 REPORT 6	10-31-2013	CE2 - KLEINFELDER, JOINT VENTURE	MEMORANDUM: GROUNDWATER ANALYTICAL RESULTS EXCEEDING REMEDIATION GOALS OR TRIGGER LEVELS, THIRD QUARTER 2013 (CD COPY ENCLOSED)	NO	PARCEL B PARCEL C PARCEL E PARCEL E-2 PARCEL G PARCEL UC-2 WELL IR-01-MW- 038A WELL IR-01-MW- 048A WELL IR-01-MW- 060A WELL IR-01-MW- 062A WELL IR-01-MW- 063A WELL IR-01-MW- 403B WELL IR-02-MW- 126A WELL IR-02-MW- 373A WELL IR-02-MW- B-002 WELL IR-03-MW- 218A-1 WELL IR-03-MW- 218A-2 WELL IR-03-MW- O-001 WELL IR-06-MW- 022A WELL IR-06-MW- 040A WELL IR-06-MW- 042A WELL IR-06-MW- 054F WELL IR-06-MW- 059A-1 WELL IR-10-MW- 013A-1

UIC No. \_ Rec. No.

Record Type	Record Date	Author Affiliation	Title	Imaged?	Sites
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					WELL IR-10-MW-071A
					WELL IR-12 - MW-017A
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					WELL IR-20-MW-017A
					WELL IR-25-MW-011A
					WELL IR-25-MW-016A
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					WELL IR-25-MW-068A
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					WELL IR-26-MW-051A
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					WELL IR-28-MW-190F
					WELL IR-28-MW-211F
					WELL IR-28-MW-352A
					WELL IR-28-MW-355F
					WELL IR-28-MW-407

UIC No. \_ Rec. No.

Record Type

Approx. # Pages

Record Date

Author Affiliation

Title

Imaged?

Sites

WELL IR-28-MW-475A  
WELL IR-28-MW-931A  
WELL IR-28-MW-932A  
WELL IR-28-MW-934A  
WELL IR-33-MW-064A  
WELL IR-36-MW-237A  
WELL IR-58-MW-031A  
WELL IR-71-MW-003A  
WELL PA-28-MW-052A  
WELL PA-50-MW-002A

AR\_N00217\_004899  
CORRESPONDENCE  
3

11-29-2013

BRAC PMO WEST

TRANSMITTAL OF THE DRAFT FINAL PROJECT WORK  
PLAN PETROLEUM HYDROCARBON CORRECTIVE  
ACTION IMPLEMENTATION (ENCLOSURE IS RECORD #  
4900)

NO

PARCEL E

**Total Estimated Record Page Count: 506,128**

**Total Records: 477**

(( OWNER="R") AND ( [SSIC NUMBER]="5090.3.A.") ) AND [UIC NUMBER]='N00217'

No Keywords

Sites=PARCEL E;PARCEL UC-3;SITE 00004;SITE 00052;SITE 00056

No Distribution

No FRC Box number

No Litigation Case Number

## Attachment B References

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Item #	Reference or Phrase in ROD	Location in ROD	Identification of the Referenced Document Available in the Administrative Record
1	Historical Radiological Assessment	Section 2.1	Final Historical Radiological Assessment - History of the Use of General Radioactive Materials 1939 - 2003, Volume II, Tetra Tech EM, Inc., August 31, 2001. Record No. 4056.
2	Parcel UC-3	Section 2.1	Proposed Plan Hunters Point Naval Shipyard Parcels E and UC-3, San Francisco, California, February 2013. Page 4.
3	discharging waste oil	Section 2.1	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc., August 2012. Table 2-1.
4	geologic units	Section 2.2	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc., August 2012. Pages 2-13 to 2-15.
5	hydrostratigraphic units	Section 2.2	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc., August 2012. Pages 2-13 to 2-15.
6	monitoring well IR74MW01A	Section 2.2	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc., August 2012. Table 2-9.
7	summary of groundwater flow characteristics in Parcel E	Section 2.2	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc., August 2012. Pages 2-17 to 2-18.
8	historical shell mound	Section 2.2	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc., August 2012. Pages 2-10 to 2-11.
9	radiologically impacted storm drain and sewer lines	Section 2.2	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc., August 2012. Pages 1-2 to 1-3. Record No. Not yet assigned.  Radiological Addendum to the Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc. and Radiological Survey and Remedial Services, LLC., August 2012. Pages 2-14 to 2-15. Record No. 4259.
10	basewide removal action	Section 2.2	Final Radiological Removal Action Completion Report, Parcel UC3, Hunters Point Naval Shipyard, San Francisco, California, Tetra Tech EC, Inc., March 16, 2012.

Item #	Reference or Phrase in ROD	Location in ROD	Identification of the Referenced Document Available in the Administrative Record
11	environmental investigations	Section 2.3	Revised Remedial Investigation Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Barajas & Associates, Inc., May 2, 2008. Tables 2-1 and 2-3 and 2-5. Record No. 1344.
12	all concentrations were below established radiological release criteria	Section 2.3	Final Radiological Removal Action Completion Report, Parcel UC3, Hunters Point Naval Shipyard, San Francisco, California, Tetra Tech EC, Inc., March 16, 2012.
13	Revised Parcel E RI Report	Section 2.3.1	Revised Remedial Investigation Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Barajas & Associates, Inc., May 2, 2008. Record No. 1344.
14	1997 Redevelopment Plan	Section 2.3.1	Hunters Point Shipyard Redevelopment Plan, San Francisco Redevelopment Agency, 1997.
15	concentrations that exceeded industrial screening criteria	Section 2.3.1	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc., August 2012. Table 2-5.
16	three redevelopment units based on the 1997 Redevelopment Plan	Section 2.3.1	Revised Remedial Investigation Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Barajas & Associates, Inc., May 2, 2008. Figure 1-4. Record No. 1344.
17	Well IR74MW01A was sampled	Section 2.3.2	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc., August 2012. Table 2-9.
18	groundwater treatability study	Section 2.3.2	Parcel E Groundwater Treatability Study Technical Report, Shaw Environmental, Inc., May 2011. Record No. 2907.
19	plume delineation	Section 2.3.2	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc., August 2012. Page 2-32.
20	radiological RACR	Section 2.3.3	Final Radiological Removal Action Completion Report, Parcel UC3, Hunters Point Naval Shipyard, San Francisco, California, Tetra Tech EC, Inc., March 16, 2012.
21	Parcel E FS Report	Section 2.3.4	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering /Remediation Resources Group, Inc., August 2012.
22	2010 Redevelopment Plan	Section 2.3.4	Redevelopment Plan for Bayview Hunters Point Redevelopment Project, San Francisco Redevelopment Agency, 2010.

Item #	Reference or Phrase in ROD	Location in ROD	Identification of the Referenced Document Available in the Administrative Record
23	concentrations exceeding industrial screening criteria	Section 2.3.4	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc., August 2012. Table 2-5.
24	amended redevelopment plan	Section 2.4	Proposed Plan Hunters Point Naval Shipyard Parcels E and UC-3, San Francisco, California, February 2013. Page 8.
25	RWQCB concurred	Section 2.4	Concurrence that A-Aquifer Groundwater at Hunters Point Naval Shipyard, San Francisco, Meet the Exemption Criteria in the SWRCB Sources of Drinking Water Resolution 88-63, RWQCB, 2003.
26	CSM for human health	Section 2.5.1	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc., August 2012. Pages 2-34 to 2-36.
27	a quantitative HHRA	Section 2.5.1	Revised Remedial Investigation Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Barajas & Associates, Inc., May 2, 2008. Tables 5-10 to 5-17. Record No. 1344.
28	Potential cancer Risks and noncancer risks	Section 2.5.1	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc., August 2012. Pages 2-37 to 2-41.
29	total and incremental risks	Section 2.5.1	Revised Remedial Investigation Report for Parcel E, Hunters Point Shipyard San Francisco, California, Barajas & Associates, Inc., May 2, 2008. Pages 5-5 to 5-11. Record No. 1344.  Radiological Addendum to the Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc. and Radiological Survey and Remedial Services, LLC, August 2012. Record No. 4259.
30	HHRA results for chemicals in soil and groundwater	Section 2.5.1	Revised Remedial Investigation Report for Parcel E, Hunters Point Shipyard San Francisco, California, May 2, 2008. Tables 5-2 to 5-10. Record No. 1344.
31	Assumptions and uncertainties	Section 2.5.1	Revised Remedial Investigation Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Barajas & Associates, Inc., May 2, 2008. Appendix I, Table I-25. Record No. 1344.  Radiological Addendum to the Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc. and Radiological Survey and Remedial Services, LLC, August 2012. Appendix B7. Record No. 4259.

Item #	Reference or Phrase in ROD	Location in ROD	Identification of the Referenced Document Available in the Administrative Record
32	RAOs	Section 2.7	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc., August 2012. Pages 3-1 to 3-4 and 3-6 to 3-10.
33	Table 7 of the final soil gas memorandum	Section 2.7.1	Revised Final Memorandum: Approach for Developing Soil Gas Action Levels for Vapor Intrusion Exposure at Hunters Point Naval Shipyard, ChaduxTt, December 2011. Table 7. Record No. 4241.
34	nine evaluation criteria	Section 2.8.2	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc., August 2012. Pages 5-2,
35	Additional investigation of the underground stream line system	Section 2.9.2.1	Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California, Engineering/Remediation Resources Group, Inc., August 2012. Page 4-8.
36	Community Involvement Plan	Section 2.10	Final Community Involvement Plan, Hunters Point Shipyard, San Francisco, California U.S. Department of the Navy (Navy) Base Realignment and Closure (BRAC) Program Management Office West, CH2M HILL Kleinfelder, a Joint Venture, May 2011. Record No. 2910.
37	IR Program Website	Section 2.10	<a href="http://www.bracpmo.navy.mil/">http://www.bracpmo.navy.mil/</a>
38	transcript of the public meeting	Section 2.10	Appendix C

## Attachment C Responsiveness Summary

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## **Attachment 3. Responsiveness Summary**

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**Proposed Plan for Parcel E, Hunters Point Naval Shipyard (HPNS), San Francisco, California**


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**Spoken Comments by Saul Bloom (Arc Ecology) at the public meeting held on February 28, 2013**


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Comment No.	Comment	Response
1.	<p>I have four comments, the first of which I'll make right now, which is that we are formally requesting that the Navy, regulators, extend the public comment period for the Proposed Plan to March 31.</p>	<p>After consulting with the HPNS<sup>1</sup> regulators, the Navy extended the public comment deadline from March 15, 2013, to April 1, 2013.</p>
2.	<p>In 2009, the Regional Water Control Board entered into an order with — amendment with the San Francisco Airport in which it established a research program that Arc Ecology is involved in engineering to establish a wetlands on the property in — on Parcel E midway from the point in between the two zones that the Proposed Plan calls for riprapping or at least doing some additional shore armoring.</p> <p>We look forward to seeing more detail within the final Proposed Plan and the ROD that indicates how the Navy is contemplating making this area accessible for doing that kind of wetlands restoration activity on that site.</p> <p>So, that is something that we'll be going into in further detail in our formal written comments, but I wanted to raise that issue as an oral comment right now for you to consider.</p> <p>And that final point on that is that my understanding, according — based on the settlement of litigation between the City and the Sierra Club and the Audubon Society with regard to the Environmental Impact Report for the site, that is now the preferred alternative use for — that wetlands is now the preferred alternative use consistent with the redevelopment plan for this particular site.</p>	<p>During preparation of the FS Report for Parcel E (ERRG, 2012), the Navy previously responded to Arc Ecology comments regarding the compatibility of the CERCLA remedial alternatives with the CCSF's future redevelopment plans (as guided by the 2010 HPNS Redevelopment Plan [SFRA, 2010b]). The previous responses are briefly summarized in the following paragraphs.</p> <p>The CCSF's EIR (SFRA, 2010a) was prepared pursuant to CEQA, and was the subject of litigation between the CCSF and Sierra Club/Audubon Society. The court-approved settlement agreement between the CCSF and Sierra Club/Audubon Society identified design concepts (including constructed wetlands for stormwater management) for portions of Parcel E that were to be implemented by the CCSF's developer (i.e., Lennar Corporation). CEQA does not apply to the Navy's cleanup decisions under CERCLA, and there is no legal requirement for the Navy to conform to CEQA. Nonetheless, the Navy reviewed the CCSF's EIR and determined that the remedial alternatives presented in the FS Report (which formed the basis of the selected remedy in this ROD) are compatible with the future reuses identified in the 2010 HPNS Redevelopment Plan.</p> <p>The Navy evaluated an appropriate range of shoreline protection technologies and process options in Appendix D of the FS Report. This evaluation concluded that the most viable shoreline protection options for the Parcel E shoreline are armoring (rock revetment) and hybrid stabilization using natural shoreline materials with underlying rock armor. Section 4.2.2.3 of the FS Report identifies a conceptual design for implementing these two options along different sections of the Parcel E shoreline. The conceptual designs presented in the FS Report will be further refined in the RD and will not conflict with CCSF's plans to construct stormwater management systems (including constructed wetlands).</p>

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<sup>1</sup> Abbreviations and acronyms are defined at the end of this appendix.

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**Proposed Plan for Parcel E, Hunters Point Naval Shipyard (HPNS), San Francisco, California**

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**Spoken Comments by Saul Bloom (Arc Ecology) at the public meeting held on February 28, 2013** *(continued)*

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3. With regard to liquefaction and community acceptance with regard to the ultimate remedy of the site, we would encourage the Navy to — in its presentation about the engineering for site stabilization and that sort of thing to talk about the impacts of failure in more detail, not just because we are concerned about necessarily failure, but because we think that in co— — in discussing the impacts of failure with regard to health risk and that sort of thing will help clarify for the community the relative risk of failure for these remedies.
- People become confused. When people talk about the site fissuring; when people talk about any of these institutional controls failing, often times we don't talk enough about is what is in fact the ramification of such a failure. And in many cases, what we are finding is that the ramifications of these failures are far less than what people are concerned about.
- As a result, articulating these assessments will be much more helpful to the community in terms of understanding why a particular remedy is selected and how that remedy will be engineered and what — the ramifications of that remedy's failure. I think those are going to be very, very helpful in terms of translating these decisions back to the community.
- The Navy will describe the potential risks associated with liquefaction in the RD and will further evaluate this very important part of the design, including consulting with other technical experts, to make sure that the final cover is built to withstand the appropriate design earthquake and comply with numerous other regulatory requirements.
- Specifically, the Navy will perform, as part of the RD, a comprehensive static and seismic slope stability evaluation for the covers at Parcel E to ensure that the proposed design can, consistent with the requirements of Title 22 Cal. Code Regs. § 66264.310(a)(5), accommodate the inertial forces generated by the maximum credible earthquake while maintaining the integrity of the cover system. Also, in accordance with the requirements of Title 22 Cal. Code Regs. § 66264.310(b)(1) and (b)(5), the Navy will maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events throughout the post-closure period (which will extend for as long as necessary to protect human health and the environment).
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**Proposed Plan for Parcel E, Hunters Point Naval Shipyard (HPNS), San Francisco, California**

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**Spoken Comments by Saul Bloom (Arc Ecology) at the public meeting held on February 28, 2013** *(continued)*

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4. I would be remiss if I did not mention Proposition P.
- Again, my recommendation to the Navy with regard — and to the regulators with regard to the discussion of Proposition P is to acknowledge Proposition P for what it is, which is the community’s concern about the quality of the cleanup at the site.
- And in terms of presentation of why specific remedies and health risks are selected, I would highly recommend that the discussion take place in light of Prop P as a reference point getting what the difficulties are, meeting the criteria of what the relative benefits would be.
- That way, again, as with the liquefaction question, the community would be better able to understand why a particular remedial decision is selected versus the sense that most people get, which is that Prop P is just simply not a topic for discussion among the regulators and the Navy, which I don’t believe is in fact the case.
- I understand that everybody is trying hard to figure out how to address the community’s selectio— — cleanup criterion. And I think the best way to do that, as a friendly suggestion, would be to talk about it effect — positively and say: It’s a recognized concern of the community. Here’s why we are doing what we are doing relative to that. And I think that will go a long way to address people’s concerns about the selection of remedies for the site.
- As described on page 18 of the Proposed Plan, the community acceptance criterion is one of two modifying criteria and has been evaluated based on comments provided in the course of the CERCLA remedy selection process, including those received on the Proposed Plan, and other community input, including Proposition P. Consistent with the NCP [Title 40 CFR § 300.430(e) and (f)], the Navy’s evaluation of the community acceptance criterion is documented in this ROD, which includes the subject responsiveness summary. The Navy notes that several engaged residents who live in close proximity to HPNS have agreed with the preferred alternatives published in the Proposed Plan, and their agreement documents community acceptance.
- Proposition P was adopted by the CCSF Board of Supervisors in Resolution 634-01 in August 2001. Although Proposition P does express a recommendation from the Hunters Point Bayview community for cleanup to a level allowing unrestricted use of the property, Proposition P also urges the Navy to clean up the shipyard in a manner that does not rely on future owners to maintain barriers to protect the public from exposure unless other remedies are technically infeasible. The Navy, in its FS Report that was concurred upon by the other Federal Facility Agreement signatories, has determined that the selected remedies are the most feasible and effective.
- The Navy also notes that Proposition P is a local governmental resolution and is not a federal or state statute or promulgated regulation. Therefore, Proposition P is not a CERCLA federal or state ARAR for purposes of CERCLA remedy selection in Parcel E.
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**Proposed Plan for Parcel E, Hunters Point Naval Shipyard (HPNS), San Francisco, California**


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**Spoken Comments by Raymond Tompkins at the public meeting held on February 28, 2013**


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Comment No.	Comment	Response
1.	<p>My concern on that in terms of the comment is that, as I've stated in the letter previously when we reviewed E-2 and to the regulators as well for consideration in that matter, that I believe the presumptive remedy is incorrect being utilized here for the remediation work on this particular site of "E."</p> <p>Given the definition and the supporting evidence that I looked at and reviewed, I do not — for the volume, according to RASO and Dr. Lowmax [sic], Laurie Lowmax, who gave a report to the RAB in that her projection of the total volume of soil what was impacted at the E-2 site that it was 23 acres; in some areas it goes to 36 feet deep, and the soil volume is 20 percent of the total volume. I do not see that as municipal waste and that the remedy is inappropriate being used there. I don't see radiation coming out of people's sinks.</p> <p>I think also for consideration on this — on this issue of presumptive remedy, given the type of radiation from the radium dials — and I'm an old baby boomer, and they used to make kids watches with the glow stuff on it and that as a child, yes, it crumbled in my hand. It came off real quick, and that we know the second product is radon gas. Great radon gas as being a gas means that it's mobile. The possibility of this, especially with land use and rise being in the area, this could migrate.</p> <p>And then the third product is polonium, which has a life span — half—life span of 1,600 years being radioactive. That's a long time for the government to be dealing with that.</p> <p>Again, I do not feel that this — and also under the section that talked about being close to tides — thank you — that given all these variables and limitations, that we're scoting — scoting very close to the edge in terms of what the law and it's up to interpretation. I think for human safety, a more rigid and vigorous approach should be used in the analysis and approach in terms of solving this problem.</p>	<p>The Navy wishes to clarify that it has not relied upon the containment presumption in developing or evaluating the remedial alternatives for Parcel E. Further, the Navy wishes to clarify that Parcel E is distinct from the adjoining Parcel E-2. Parcel E is one of six parcels (Parcels A through F) originally designated for environmental restoration. In September 2004, the Navy divided Parcel E into two parcels (Parcels E and E-2) to facilitate closure of the Parcel E-2 Landfill and its adjacent areas. Parcel E-2 was the subject of a separate evaluation process, performed in accordance with CERCLA<sup>2</sup> and the NCP, that culminated with a signed ROD in November 2012. This ROD addresses Parcel E and is unrelated to the Parcel E-2 Landfill referred to in this comment.</p>

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<sup>2</sup> Abbreviations and acronyms are defined at the end of this appendix.

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**Proposed Plan for Parcel E, Hunters Point Naval Shipyard (HPNS), San Francisco, California**


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**Spoken Comments by Raymond Tompkins at the public meeting held on February 28, 2013**


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2. I have to concur with Mr. Bloom's statement 100 percent.
- As I was talking to — and then I was told I can't discuss that. But in this point, confirmation, confirmation, confirmation. My criticism was: In the presenting of this evening, there was a lot of assumptions without confirmation, in my view.
- And that in the future studies for those holes, those — in 2000 — no — 1996, I believe, in '93 when those bores were done, I would like to see confirmation for a couple of reasons. Synergistic effect.
- After the fire, what other harmful products can be possibility in that how is that brought up in your plan to address that and to then put the limitation? Because one of the issues when — as Mr. Bloom just talked about, when the systems or whatever we create — we're human beings. There's always a possibility of failure. Then what are the protections safeguard?
- And would the Navy pay for damages from this failure of the site to the community as it affects their impact in health or property under, for example, a serious earthquake? I haven't heard or — in our discussions or presented publicly how will this hold up under an earthquake?
- Since Japan had a 9, the earth is changing. We've had historically a 8.2. We had the echoing effect of the Cypress Freeway, although it was a 7 because of the rever— — re— — I'm not a geologist, but the wavelength being not — what do they call it? — increase because of the bouncing to and forth. This property is susceptible to this under certain conditions. How is that going to be addressed, and how are the safeguards going to be placed over there?
- I haven't seen it or any of the public presentations. You may have it on record, but we haven't heard about it, since it's no longer a RAB or technically to talk about it.
- Could you please in future discuss that to the public and the Navy's responsibility and liability of these. Unfortunately, the times we live in drastic situations, and how would that be respond that would hold down confusion under serious situation?

As stated in the response to comment 3 from Mr. Bloom, the Navy will perform, as part of the RD, a comprehensive static and seismic slope stability evaluation for the covers at Parcel E to ensure that the proposed design can, consistent with the requirements of Title 22 Cal. Code Regs. § 66264.310(a)(5), accommodate the inertial forces generated by the maximum credible earthquake while maintaining the integrity of the cover system. Also, in accordance with the requirements of Title 22 Cal. Code Regs. § 66264.310(b)(1) and (b)(5), the Navy will maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events throughout the post-closure period (which will extend for as long as necessary to protect human health and the environment).

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**Proposed Plan for Parcel E, Hunters Point Naval Shipyard (HPNS), San Francisco, California**


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**Spoken Comments by John Njoroge at the public meeting held on February 28, 2013**


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Comment No.	Comment	Response
1.	<p>Hi. I'm intending to make some comments about CEQA and the environmental impact of this project as well as the impact it has on other people here in the Bay Area who are churchgoers and people struggling in this community basically.</p> <p>From James, Chapter 5:</p> <p>Look here, you rich men, now is the time to cry and groan with anguished grief because of all the terrible troubles ahead of you.</p> <p>Your wealth is even now rotting away, and your fine clothes are becoming mere moth-eaten rags. The value of your gold and silver is dropping fast, yet it will stand as evidence against you, and eat your flesh like fire. That is what you have stored up for yourselves to receive on that coming day of judgment.</p> <p>For listen! Hear the cries of the field workers whom you have cheated of their pay. Their cries have reached the ears of the Lord of Hosts.</p> <p>You have spent your years here on earth having fun, satisfying your every whim, and now your fat hearts are ready for the slaughter. You have condemned and killed good men who had no power to defend themselves against you.</p> <p>Now as for you, dear brothers who are waiting for the Lord's return, be patient, like a farmer who waits until the autumn for his precious harvest to ripen. Yes, be patient. And take courage, for the coming of the Lord is near.</p> <p>Don't grumble about each other, brothers. You are yourselves above criticism [sic]. For see! The great Judge is coming. He is almost here (let Him do whatever criticizing must be done).</p>	<p>The Navy wishes to clarify that the cleanup decision being made for Parcel E is following a process established by CERCLA<sup>3</sup> and the NCP. CEQA does not apply to the Navy's cleanup decisions under CERCLA, and there is no legal requirement for the Navy to conform to CEQA.</p> <p>The Navy has worked with EPA, DTSC, and the Water Board to perform the environmental cleanup work at HPNS in a manner that achieves the environmental justice goals (consistent with Executive Order 12898) of fully protective cleanup actions, fair and equal treatment, and meaningful involvement for all people in the Bayview-Hunters Point community. Our efforts to satisfy these goals include:</p> <ul style="list-style-type: none"> <li>▪ Substantial regulatory review and oversight of all Navy cleanup activities. The EPA, DTSC, Water Board, CCSF, California Department of Public Health, Bay Area Air Quality Management District, and San Francisco Bay Conservation and Development Commission all have dedicated significant additional staff to HPNS to ensure that the Navy's cleanup work is performed in a way that is protective of the Bayview-Hunters Point community and complies with federal and state laws and regulations.</li> <li>▪ Substantial financial commitment from the Navy to HPNS cleanup. The Navy has spent approximately \$716 million over the past 20 years on the HPNS cleanup program, and these expenditures have made HPNS one of the nation's largest BRAC cleanup programs. The Navy's cleanup efforts to date have successfully removed, treated, or contained a significant volume of contamination that would otherwise pose an unacceptable risk to site workers and future occupants.</li> <li>▪ Meaningful community engagement under the Navy's Updated CIP. The Navy updated their CIP in 2011 (and will update the CIP again in summer 2013) to present the communication and community involvement program activities that were designed to meet the specific needs and desires of the HPNS community (Navy, 2011).</li> </ul>

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<sup>3</sup> Abbreviations and acronyms are defined at the end of this appendix.

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**Proposed Plan for Parcel E, Hunters Point Naval Shipyard (HPNS), San Francisco, California**

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**Spoken Comments by John Njoroge at the public meeting held on February 28, 2013 (continued)**

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Comment No.	Comment	Response
1. (cont.)	<i>(see above)</i>	<ul style="list-style-type: none"> <li>▪ Employment. The Navy works closely with their existing contractors to emphasize the importance of hiring community members to assist in the cleanup program, and works with interested stakeholders (such as the CCSF) to promote job training programs. These efforts have proven successful based on recent estimates—from 2009 to 2011 over 1,000 community members have been employed under Navy contracts (on either full-time, part-time, or temporary basis) to assist in the cleanup program. In addition, the Navy and their contractors have identified a large network of local businesses to assist in the cleanup program, such as those providing document production services, supplying building materials and consumables (drinking water and ice), renting heavy equipment, and transporting soil and rock. These efforts have proven successful based on recent estimates of over \$11 million worth of goods and services from local businesses.</li> <li>▪ Commitment to protective cleanup actions. Most importantly, the Navy, EPA, and the State of California regulatory agencies are committed to fully protective cleanup actions at Parcel E and throughout HPNS. The selected remedies for Parcel E will remove significant amounts of contaminants and safely contain the remaining material, and will prevent unacceptable exposure to humans (both future site users and the surrounding community) and wildlife.</li> </ul>

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**Proposed Plan for Parcel E, Hunters Point Naval Shipyard (HPNS), San Francisco, California**

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**Written Comments by Andrea Ibarra-Tacdol received on March 12, 2013 via email**

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Comment No.	Comment	Response
1.	<p>My name is Andrea Tacdol. I am a mother of two living on Van Dyke Avenue in the Bayview, less than a mile from Parcels E and UC-3 of the Hunters Point Naval Shipyard. One of my biggest concerns is that my family already lives beside an industrial zone where trucks are coming and going on our residential street. Residents of our community and neighborhood are feeling the impacts of the air pollution and excess noise.</p> <p>I believe that the Proposed Plan for clean-up for all parcels must include a requirement that trucks coming and going to the Naval Shipyard do NOT go through residential streets. Not only do the trucks inundate our community with even more diesel pollution that is a major cause of asthma and linked to cancer, but the trucks will also be carrying toxic waste. As you remove and dispose of contaminated soil, remove the oil source at the Former Oily Waste Ponds, remove radiologically contaminated soil, please assure us that the trucks are safely carrying the materials out of our community without chance of spillage and avoiding residential streets.</p> <p>The shipyard must have an agreement with the trucking companies to utilize the SF MTA's advised truck routes. There should be a community hotline to call when we see large trucks passing through our neighborhood and the city should find a way to enforce these rules and address violations quickly. Ultimately, we'd like to see the city move beyond having these truck routes as only advisory.</p>	<p>The Navy and their contractors have established strict protocols for all offsite hauling from HPNS cleanup activities. These protocols have been implemented on numerous past cleanup actions at HPNS and serve to minimize the impact of offsite hauling on the local community. Similar protocols would be implemented for the final cleanup at Parcel E. The procedures for offsite hauling, which are detailed in plans that are subject to regulatory agency review and approval, are summarized below.</p> <p><b>Dust Control:</b> Dust control is a top priority on all HPNS cleanup projects. All trucks are covered (tarped) and their exterior areas (most notably the fenders and tires) are cleaned prior to leaving the cleanup site. While driving on paved roads within HPNS property, all trucks adhere to a speed limit of 15 miles per hour. In addition, water is applied to the onsite roads during hauling operations. These onsite actions serve to minimize dust emissions once the trucks leave HPNS property.</p> <p><b>Additional Controls for Contaminated Waste:</b> All contaminated material is properly characterized prior to offsite disposal, and all offsite disposal is performed in accordance with pertinent federal and state requirements. For example, the U.S. Department of Transportation Hazardous Material Transportation regulations require the proper packaging, labeling, and tracking of hazardous wastes while being transported to a licensed disposal facility.</p> <p><b>Truck Hauling Route:</b> The Navy has a qualification process for all truck drivers to ensure that they are properly licensed, and that they fully understand and will adhere to the HPNS protocols for offsite hauling. This qualification process includes a requirement to follow a prescribed hauling route from the HPNS main gate to either Highway 101 or Interstate 280:</p> <ul style="list-style-type: none"> <li>▪ Trucks exit the HPNS main gate and turn right on Innes Avenue.</li> <li>▪ Trucks bear right at the fenced vacant lot as Innes Avenue becomes Hunters Point Boulevard (which again changes to Evans Avenue at the former Pacific Gas &amp; Electric power plant).</li> <li>▪ Trucks follow Evans Avenue across Third Street to Cesar Chavez.</li> </ul> <p>The qualification process, which would be implemented for the final cleanup at Parcel E, includes obtaining each truck driver's signature acknowledging their understanding and acceptance of all protocols for offsite hauling.</p>

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**Proposed Plan for Parcel E, Hunters Point Naval Shipyard (HPNS), San Francisco, California**

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**Written Comments by Christopher Mooney received on March 14, 2013 via e-mail**

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Comment No.	Comment	Response
1.	I write in support of the Navy's proposed plan for cleanup of HPNS Parcels E and UC-3. The February 2013 written proposal provides detailed explanations of cleanup alternatives and adequately considers the cost-to-benefit impacts of each alternative. I agree with the Navy's proposed solutions and hope the cleanup proceeds expeditiously.	Thank you for your comment.

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**Written Comments by Philip Ragozziano received on March 18, 2013 via mail**

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Comment No.	Comment	Response
1.	After having read and considered the alternatives, I support the conclusion on page 18 of the pamphlet "Hunters Point Naval Shipyard – Parcels E and UC-3." I have been a resident of the neighborhood outside the shipyard for more than twenty years, have had the opportunity on occasion to tour the shipyard, and thought no clean-up would ever occur. I would rather see the remediation, even if not to the ultimate degree, than nothing done. So please move on with the process right away. Do what's most expedient and will both clean and contain the toxic elements and which can be paid for. Thanks for the opportunity to be heard. Keep me informed with your mailings.	Thank you for your comment.

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**Proposed Plan for Parcel E, Hunters Point Naval Shipyard (HPNS), San Francisco, California**

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**Written Comments by Jaron Browne (POWER<sup>4</sup>) and Marie Harrison (Greenaction ) received on April 1, 2013 via e-mail**

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Comment No.	Comment	Response
1.	<p>POWER and Greenaction are submitting the following comments on the Proposed Plan for Parcels E and UC3, with support and consultation from environmental scientist Wilma Subra. There are two core areas of concern where we differ with the Navy's recommendations in the Proposed Plan:</p> <ul style="list-style-type: none"> <li>• First, in relation to remediation of residual radiological contamination in the proposed plan, we strongly urge the Navy to use the 3-foot thick soil cover that was proposed in remedy R-3, rather than the 2-foot soil cover.</li> <li>• Second, in relation to the former oily waste ponds, we strongly urge the Navy to pursue Alternative O-6, because of how much information is still needed to understand the level of contamination. Alternative O-6 is the most comprehensive remedy for minimizing risk for the community.</li> </ul>	Please refer to the responses to comments 2 and 3 below.
2.	<p><b>Residual Radiological Contamination</b></p> <p>The preferred alternative R-2 is an appropriate remedy. However, R-3 proposes a 3-foot thick soil cover versus a 2-foot thick soil cover proposed in R-2 and would be more protective. The R-3, 3-foot thick soil cover would provide an added depth of cover material. However, the Navy states the 2-foot thick soil cover is easier to carry out. <i>We strongly urge that the Navy adhere to the precautionary principle and apply the 3-foot cover in order to best protect the health of residents.</i></p>	As described on pages 17 and 18 of the Proposed Plan (and illustrated in Table 15), Alternatives R-2 and R-3 are both protective of human health and the environment and are equally effective in the long-term. The Navy reached this conclusion based on an evaluation performed in the Radiological Addendum to the FS Report for Parcel E ( <a href="#">ERRG and RSRS, 2012</a> ). The Navy's evaluation, which was reviewed and accepted by the EPA, DTSC, and Water Board, includes risk modeling that demonstrates the 2-foot-thick soil cover, combined with institutional controls and long-term inspection and maintenance, would prevent unacceptable exposure to people. The information presented in the Proposed Plan, as supported by the Radiological Addendum to the FS Report, demonstrates that the 3-foot-thick cover is not more effective but would be more difficult to carry out. Accordingly, the Navy has selected Alternative R-2 to address residual radiological contamination at Parcel E because it complies with the two threshold criteria, and provides the best balance of tradeoffs with respect to the five balancing criteria specified in the NCP. The Navy's evaluation of the two modifying criteria did not warrant changes to the preferred alternative for residual radiological contamination at Parcel E.

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<sup>4</sup> [Abbreviations and acronyms](#) are defined at the end of this appendix.

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**Proposed Plan for Parcel E, Hunters Point Naval Shipyard (HPNS), San Francisco, California**

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**Written Comments by Jaron Browne (POWER) and Marie Harrison (Greenaction) received on April 1, 2013 via e-mail (continued)**

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Comment No.	Comment	Response
2. (cont.)	<i>(see above)</i>	<p>The State of California, through DTSC and the Water Board, and several engaged residents who live in close proximity to HPNS have agreed with the preferred alternative published in the Proposed Plan. The information presented by members of the community that disagree with the preferred alternative does not justify modification of the preferred alternative based upon the “community acceptance” criteria of the NCP. The preferred alternative will remove significant amounts of radiological contamination, safely contain the remaining contamination, and will prevent unacceptable exposure to humans (both future site users and the surrounding community) and wildlife.</p> <p>The Navy wishes to clarify that the precautionary principle, incorporated as a policy statement in Chapter 1 of the San Francisco Environment Code, is a local governmental policy and is not a federal or state statute or promulgated regulation. Therefore, the precautionary principle is not a CERCLA federal or state ARAR for purposes of the CERCLA remedy selection for Parcel E. In addition, the precautionary principle policy statement, as reflected in Chapter 1 of the San Francisco Environment Code, contains no substantive provisions that would pertain to evaluation and selection of a CERCLA remedial action. The Navy believes that the nine NCP evaluation criteria, which were used to evaluate each remedial alternative for Parcel E, adequately capture the elements described in the CCSF’s policy statement.</p>
3.	<p><b>Former Oily Waste Ponds</b></p> <p>The Navy’s preferred alternative for the former oily waste ponds consist of O-4. The remedy consists of removal of contaminated oil or in-situ treatment, a soil cover, liner and below ground barrier and active groundwater treatment. This alternative leaves much information to be determined before the actual remedy is selected. Alternative O-5 consists of removal of all contaminated oil above the groundwater. Alternative O-6 consists of the removal of all contaminated oil above and below the groundwater. <i><b>We strongly urge the Navy to pursue Alternative O-6 because it will result in the removal of all the contaminated oil. The contaminated oil in the former oily waste ponds is a principal threat waste in Parcel E.</b></i></p>	<p>As described on page 18 of the Proposed Plan, the Navy’s evaluation identified major differences between Alternative O-6 and Alternatives O-2, O-3, and O-4 relative to short-term effectiveness, implementability, and cost. In comparison with Alternatives O-2, O-3, and O-4, Alternative O-6 presents more short-term risks (for example, increased risk of accidents for site workers), would be more difficult to carry out, and would cost more. The ratings for Alternative O-6 were based on several factors, the most significant being the deep excavation (potentially up to 35 feet) required to completely remove the contaminated oil. Alternatives O-2, O-3, and O-4 present fewer short-term risks, would be easier to carry out, and would cost significantly less in comparison with Alternative O-6.</p>

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**Proposed Plan for Parcel E, Hunters Point Naval Shipyard (HPNS), San Francisco, California**

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**Written Comments by Jaron Browne (POWER) and Marie Harrison (Greenaction) received on April 1, 2013 via e-mail (continued)**

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Comment No.	Comment	Response
3. (cont.)	<i>(see above)</i>	<p>Alternative O-2 would be the easiest and least expensive because it involves only containment, while Alternatives O-3 and O-4 balance ease of implementation and cost because they would involve removing or treating the contaminated oil without major excavations.</p> <p>Accordingly, the Navy has selected Alternative O-4 to address the contaminated oil source at Parcel E because it complies with the two threshold criteria and provides the best balance of tradeoffs with respect to the five balancing criteria specified in the NCP. The Navy's evaluation of the two modifying criteria did not warrant changes to the preferred alternative for residual radiological contamination at Parcel E. The State of California, through DTSC and the Water Board, and several engaged residents who live in close proximity to HPNS have agreed with the preferred alternative published in the Proposed Plan. The information presented by members of the community that disagree with the preferred alternative does not justify modification of the preferred alternative based upon the "community acceptance" criteria of the NCP. The preferred alternative will either remove or treat the contaminated oil source and will safely contain the residual contamination in a manner that prevents unacceptable exposure to humans (both future site users and the surrounding community) and wildlife.</p> <p>Although the complex site conditions at the Former Oily Waste Ponds result in some uncertainty regarding the effectiveness and implementability of certain remediation technologies, the Navy, with the support of EPA, DTSC, and the Water Board, believes that there is adequate information to select a remedy for the contaminated oil source. Further, the Navy believes that Alternative O-4 incorporates a broad range of removal and treatment technologies that could be used in combination to cost-effectively achieve the RAOs. As described on page 26 of the Proposed Plan, the Navy will perform additional studies to select the best combination of technologies to remove or treat the contaminated oil source at the Former Oily Waste Ponds. The Navy has begun developing the approach for these additional studies in consultation with EPA, DTSC, and the Water Board. A field study is planned for later in 2013 and is expected to help refine the cleanup approach at the Former Oily Waste Ponds in support of the RD.</p>

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**Proposed Plan for Parcel E, Hunters Point Naval Shipyard (HPNS), San Francisco, California**

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**Written Comments by Jaron Browne (POWER) and Marie Harrison (Greenaction) received on April 1, 2013 via e-mail (continued)**

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Comment No.	Comment	Response
4.	<p>In review of the soil and shoreline sediment and groundwater contamination, we are aligned with the preferred alternatives recommended by the Navy.</p> <p><b>Soil and Shoreline Sediment</b></p> <p>Alternative S-4 is the most robust and protective of the alternatives proposed for contaminants in soil and shoreline sediments. Alternative S-4 is the only alternative that will result in excavation and off site disposal of contaminated soil from Tier 2 and Total Petroleum Hydrocarbon locations. Tier 2 locations contain chemicals at concentrations greater than five times the preliminary remedial goal. Total petroleum hydrocarbons locations exceed the preliminary remedial goal. Alternative S-4 is the only alternative that will address VOC contamination associated with the building 406 TCE plume using soil vapor extraction.</p>	Thank you for your comment.
5.	<p><b>Groundwater Contamination</b></p> <p>Alternative GW-3 and GW-4 are the most protective alternatives proposed for groundwater contamination. The two alternatives consist of active groundwater treatment for VOC plumes under parcels E and UC-3. Alternative GW-3 consists of either biological nutrients or zero valent iron treatment while alternative GW-4 consists of air sparging for the building 406 TCE plume. The Navy selected GW-3 as the preferred alternative remedy. That alternative, as well as GW-4, will treat the groundwater contaminants appropriately.</p>	Thank you for your comment.
6.	<p>We urge the Navy to reconsider the preferred plans for the residual radiological contamination and select a 3-foot soil cover, and select alternative O-6 the former oily waste ponds based on the need to minimize risk and provide the highest level of protection of the health of residents in the community.</p>	Please refer to the responses to comments 2 and 3 above.

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**ABBREVIATIONS AND ACRONYMS**

ARAR	applicable or relevant and appropriate requirement
BRAC	Base Realignment and Closure
Cal. Code Regs.	California Code of Regulations
CCSF	City and County of San Francisco
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CIP	Community Involvement Plan
DTSC	Department of Toxic Substances Control
EPA	U.S. Environmental Protection Agency
ERRG	Engineering/Remediation Resources Group, Inc.
EIR	Environmental Impact Report
FS	Feasibility Study
Greenaction	Greenaction for Health and Environmental Justice
HPNS	Hunters Point Naval Shipyard
Navy	Department of the Navy
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
POWER	People Organized to Win Employment Rights
RAB	Restoration Advisory Board
RAOs	remedial action objectives
RASO	Radiological Affairs Support Office
RD	Remedial Design
ROD	Record of Decision
RSRS	Radiological Survey and Remedial Services, LLC
SF MTA	San Francisco Municipal Transportation Agency
SFRA	San Francisco Redevelopment Agency
Water Board	San Francisco Bay Regional Water Quality Control Board
§	Section

**REFERENCES**

Department of the Navy (Navy), 2011. "Final Community Involvement Plan. Hunters Point Shipyard, San Francisco, California." May.

Engineering/Remediation Resources Group, Inc., 2012. "Final Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California." August.

Engineering/Remediation Resources Group, Inc., and Radiological Survey and Remedial Services, LLC, 2012. "Final Radiological Addendum to the Feasibility Study Report for Parcel E, Hunters Point Shipyard, San Francisco, California." August.

San Francisco Redevelopment Agency (SFRA), 2010a. "Final Environmental Impact Report, Candlestick Point-Hunters Point Phase II." Volumes I through X. May 13.

SFRA, 2010b. "Hunters Point Shipyard Redevelopment Plan." August 3 (amendment to July 14, 1997, redevelopment plan).

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**Attachment D**  
**Applicable or Relevant and Appropriate Requirements**

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Requirement	Prerequisite	Citation <sup>b</sup>	ARAR Determination	Comments
<b>Federal Chemical-Specific<sup>a</sup></b>				
<b>Groundwater</b>				
<b>Safe Drinking Water Act (42 USC, ch. 6A, § 300[f] through 300[j]-26)<sup>c</sup></b>				
National primary drinking water standards are health-based standards for public water systems (MCLs).	Public water system	40 CFR § 141.61(a) and § 141.62(b)	Relevant and appropriate	The Navy considers the B-aquifer a Class II aquifer under federal criteria and a potential source of drinking water based on an evaluation of site-specific factors. The Navy has identified MCLs for three COCs (PCE, TCE, and arsenic) as chemical-specific ARARs for the B-aquifer for clean closure of contaminated groundwater. The Navy and the Water Board have determined that the A-aquifer is not a potential source of drinking water; therefore, drinking water standards (MCLs) are not ARARs for the A-aquifer.
MCLGs pertain to known or anticipated adverse health effects (also known as recommended MCLs).	Public water system	40 CFR § 141.51(b)	Relevant and appropriate	The Navy considers the B-aquifer a Class II aquifer under federal criteria and a potential source of drinking water based on an evaluation of site-specific factors. The Navy has identified the non-zero MCLG for thallium as a chemical-specific ARAR for the B-aquifer for clean closure of contaminated groundwater plumes. The Navy and the Water Board have determined that the A-aquifer is not a potential source of drinking water; therefore, drinking water standards (MCLGs) are not ARARs for the A-aquifer.
<b>Resource Conservation and Recovery Act (42 USC, ch. 82, §§ 6901 through 6991[i])<sup>c</sup></b>				
Groundwater protection standards. Owners and operators of RCRA treatment, storage, or disposal facilities must comply with conditions in these sections that are designed to ensure that hazardous chemicals entering groundwater from a regulated unit do not exceed concentration limits for chemicals of concern set forth under Cal. Code Regs. tit. 22, § 66264.94 in the uppermost aquifer underlying the waste management area of concern at the POC.	A regulated unit that receives or has received hazardous waste before July 26, 1982, or regulated units that ceased receiving hazardous waste prior to July 26, 1982, where chemicals in or derived from waste may pose a threat to human health or the environment	Cal. Code Regs, tit. 22, § 66264.94 (a)(1), (a)(3), (c), (d), (e)	Relevant and appropriate	There is no RCRA-regulated unit at Parcel UC-3; therefore, these standards are not applicable. These standards are relevant and appropriate for the A-aquifer for clean closure of contaminated groundwater plumes outside of Parcel UC-3, for which concentration limits based on unacceptable risk from the vapor intrusion pathway, pursuant to Cal. Code Regs. tit. 22, §§ 66264.94, are ARARs for groundwater in the A-aquifer throughout the contaminated plumes. Actions and decisions to address the indoor inhalation of vapors will be based on soil gas data and the soil gas action levels. Soil gas action levels are calculated based on a cumulative excess cancer risk level of 10 <sup>-6</sup> using the accepted methodology for risk assessments at HPNS. Preliminary soil gas action levels have been developed for HPNS but will be refined using data from future soil gas surveys following active treatment (to be performed at contaminated groundwater plumes outside of Parcel UC-3).

Requirement	Prerequisite	Citation <sup>b</sup>	ARAR Determination	Comments
<b>Surface Water</b>				
<b>Clean Water Act of 1977, as Amended (33 USC, ch. 26, §§ 1313–1314)<sup>c</sup></b>				
Surface water quality standards	Discharges to waters of the United States	40 CFR § 131.38	Applicable	These standards, known as the CTR, are applicable surface water ARARs. The Navy has identified the CTR as ARARs for HPNS Parcel UC-3 because groundwater discharges to San Francisco Bay. The Navy will meet these ARARs for chemicals that do not have a promulgated standard in Table 3-3 of the Basin Plan at the interface of the A-aquifer and the bay. The Navy has identified MCLs as ARARs for the B-aquifer, which will be protective of the discharge of B-aquifer groundwater to the bay. Therefore, these are not ARARs for the interface of the B-aquifer and the bay.
<b>Soil</b>				
<b>Resource Conservation and Recovery Act (42 USC, ch. 82, §§ 6901 through 6991[i])<sup>c</sup></b>				
This requirement defines RCRA hazardous waste. Solid wastes are characterized as toxic based on the TCLP results if the wastes exceed the TCLP maximum concentrations.	Waste	Cal. Code Regs, tit. 22, §§ 66261.21, 66261.22(a)(1), 66261.23, 66261.24(a)(1), and 66261.100	Applicable	These regulations are ARARs for all waste generated by the Navy in implementing Alternatives S-4, GW-3, and R-2. The Navy will determine if the waste is RCRA hazardous at the time it is generated.
<b>Toxic Substances Control Act (15 USC, ch. 53, §§ 2601–2692)<sup>c</sup></b>				

Requirement	Prerequisite	Citation <sup>b</sup>	ARAR Determination	Comments
<p>Standards for cleanup of land and buildings contaminated with radium-226, radium-228, and thorium from inactive uranium processing sites.</p> <p>As a result of residual radioactive materials from any designated processing site:</p> <p>(a) The concentration of radium-226 in land averaged over any area of 100 square meters shall not exceed the background level by more than:</p> <p>(1) 5 pCi/g, averaged over the first 15 cm of soil below the surface, and</p> <p>(2) 15 pCi/g, averaged over 15-cm-thick layers of soil more than 15 cm below the surface.</p>	<p>UMTRCA sites</p>	<p>40 CFR §§ 192.12(a) and 192.32(b)(2)</p>	<p>Relevant and appropriate</p>	<p>Not applicable because Parcel UC-3 is not an UMTRCA site, but is relevant and appropriate for sites with soil contaminated with radioactive waste.</p> <p>The surface and subsurface concentration of 5 pCi/g is relevant and appropriate for all radiologically impacted areas at Parcel UC-3. All sewer and storm drain lines were removed from 2009 to 2011 and DTSC concurred on unrestricted release for radiological contamination at Parcel UC-3 in October 2012.</p>
<p>In any occupied or habitable building, the objective of the remedial action shall be, and reasonable effort shall be made to achieve, an annual average (or equivalent) radon decay product concentration (including background) not to exceed 0.02 WL. In any case, the radon decay product concentration (including background) shall not exceed 0.03 WL. Provisions applicable to radon-222 shall also apply to radon-220.</p>	<p>UMTRCA sites</p>	<p>40 CFR § 192.12(b)(1) and § 192.41(b)</p>	<p>Relevant and appropriate</p>	<p>Not applicable because Parcel UC-3 is not an UMTRCA site. Relevant and appropriate because the alternative resulted in excavation of material with radiological contamination that may have produced this level of dose. All storm and sewer drain lines were removed from 2009 to 2011 and DTSC concurred on unrestricted release for radiological contamination at Parcel UC-3 in October 2012.</p>
<p>Concentration limits for cleanup of gamma radiation in buildings at inactive uranium processing sites designated for remedial action.</p> <p>In any occupied or habitable building, the level of gamma radiation shall not exceed the background level by more than 20 microrentgens per hour.</p>	<p>UMTRCA sites</p>	<p>40 CFR § 192.12(b)(2)</p>	<p>Relevant and appropriate</p>	<p>Not applicable because Parcel UC-3 is not an UMTRCA site. Relevant and appropriate because the alternative resulted in excavation of material with radiological contamination that may have produced this level of dose. All storm and sewer drain lines were removed from 2009 to 2011 and DTSC concurred on unrestricted release for radiological contamination at Parcel UC-3 in October 2012.</p>

Requirement	Prerequisite	Citation <sup>b</sup>	ARAR Determination	Comments
<b>Radiological Criteria for License Termination</b>				
A site will be considered acceptable for unrestricted use if residual radioactivity that is distinguishable from background radiation results in a TEDE to an average member of the critical group that does not exceed 25 mrem/yr, including that from groundwater sources of drinking water, and that the residual radioactivity has been reduced to ALARA.	Existing NRC-licensed site	10 CFR § 20.1402	Relevant and appropriate	Not applicable because Parcel UC-3 is not an NRC-licensed site. This ARAR is relevant and appropriate for all radiologically impacted areas at Parcel UC-3. EPA does not believe this NRC regulation is protective of human health and the environment, and believes the RGs are more protective. All storm and sewer drain lines were removed from 2009 to 2011 and DTSC concurred on unrestricted release for radiological contamination at Parcel UC-3 in October 2012.

**Air**

<b>NESHAPs under CAA that Apply to Radionuclides</b>				
Emissions of radionuclides to ambient air from DOE facilities shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem/yr.	Facility owned or operated by the DOE that emits any radionuclide other than radon-222 and radon-220 into the air	40 CFR pt. 61, subpt. H, § 61.92	Relevant and appropriate	Not applicable because Parcel UC-3 is not a DOE site, but may be relevant and appropriate if there is the potential for airborne emissions of radionuclides other than radon. Only an ARAR until cleanup action is completed. Not an ARAR for residual contamination after cleanup.
Emissions of radionuclides, including iodine, to ambient air from a facility regulated under this subpart shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem/yr. Emissions of iodine to ambient air from a facility regulated under this subpart shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 3 mrem/yr.	Facilities owned or operated by any federal agency other than the DOE and not licensed by the NRC	40 CFR pt. 61 subpt. I, § 61.102	Applicable	The requirements are applicable because fugitive dust may be generated during implementation of the remedial action at Parcel UC-3. Exposure to the public from remedial action operations at Parcel UC-3 is not likely to exceed 10 mrem/y because of the following reasons: <ol style="list-style-type: none"> <li>1. the concentrations of any radionuclide in dust are relatively low as previously measured in air samples, and</li> <li>2. the concentration of any radionuclide in dust will be reduced by use of engineering controls such as wetting of soil.</li> </ol>

Notes:  
a = Many chemical-specific ARARs also contain action-specific requirements; these ARARs are not repeated in the action-specific ARAR tables.  
b = Only the substantive provisions of the requirements cited in this table are ARARs.

c = Statutes and policies and their citations are provided as headings to identify general categories of ARARs for the convenience of the reader; listing the statutes and policies does not indicate that the Navy accepts the entire statutes or policies as ARARs; specific ARARs are addressed in the table below each general heading; only pertinent substantive requirements of the specific citations are considered ARARs.

ALARA = as low as reasonable achievable  
ARARs = applicable or relevant and appropriate requirements  
CAA = Clean Air Act  
Cal. Code Regs. = California Code of Regulations  
CFR = Code of Federal Regulations  
ch. = Chapter

cm = centimeter  
COCs = chemicals of concern  
CTR = California Toxics Rule  
DOE = U.S. Department of Energy  
EPA = U.S. Environmental Protection Agency  
HPNS = Hunters Point Naval Shipyard

IR = Installation Restoration  
LLRW = low-level radioactive waste  
MCLs = maximum contaminant levels  
MCLGs = maximum contaminant level goals  
mg/kg = milligrams per kilogram  
mrem = millirem

mrem/y = millirems per year  
Navy = Department of the Navy  
NESHAPs = National Emissions Standards for Hazardous Air  
Pollutants  
NRC = U.S. Nuclear Regulatory Commission  
PCB = polychlorinated biphenyls  
PCE = tetrachloroethene  
pCi/g = picocuries per gram  
POC = point of compliance

pt. = part  
RCRA = Resource Conservation and Recovery Act  
RGs = remediation goals  
ROCs = radionuclides of concern  
subpt. = subpart  
TCE = trichloroethene  
TCLP = toxicity characteristic leaching procedure  
TEDE = total effective dose equivalent  
tit. = title

UMTRCA = Uranium Mill Tailings Radiation Control Act  
USC = United States Code  
Water Board = San Francisco Regional Water Quality  
Control Board  
WL = working level  
§ = Section

Requirement	Prerequisite	Citation <sup>b</sup>	ARAR Determination	Comments
<b>State Chemical-Specific ARARs<sup>a</sup></b>				
<b>Groundwater</b>				
<b>State and Regional Water Quality Control Boards <sup>c</sup></b>				
Authorizes SWRCB and Water Board to establish, in water quality control plans, beneficial uses and numerical and narrative standards to protect both surface water and groundwater quality.	Waters of the state	California Water Code, div. 7, §§ 13241, 13243, 13263(a), 13269, and 13360	Applicable	The Navy accepts the substantive provisions of these sections of the California Water Code as enabling legislation, as implemented through the beneficial uses, WQOs, waste discharge requirement, and promulgated policies of the San Francisco Basin Plan as ARARs.
Describes the water basins in the San Francisco Region, establishes beneficial uses of groundwater and surface water, and establishes WQOs, including narrative and numerical standards.	Waters of the state	Comprehensive Water Quality Control Plan for the San Francisco Region (Basin Plan) Chapters 2 and 3 (California Water Code § 13240), except the MUN designation for the A-aquifer	Applicable	The substantive groundwater provisions of Chapters 2 and 3 of the Basin Plan, except the MUN designation, are ARARs. According to the Basin Plan, which incorporates SWRCB Resolution 88-63, A-aquifer groundwater at Parcel UC-3 is not a potential drinking water source. The only beneficial use of A-aquifer groundwater is freshwater replenishment of San Francisco Bay. B-aquifer groundwater has a moderate potential for use as a drinking water source.
Designates all groundwater and surface waters of the state as drinking water, except where total dissolved solids are greater than 3,000 ppm, the well yield is less than 200 gpd from a single well, the water is a geothermal resource or in a water conveyance facility, or the water cannot reasonably be treated for domestic use using either best management practices or best economically achievable treatment practices.	Waters of the state	SWRCB Resolution 88-63	Applicable	The Navy has evaluated the groundwater characteristics in the A-aquifer and B-aquifer at Parcel E against the criteria listed in SWRCB Resolution 88-63. The Navy has determined that groundwater in the A-aquifer is not a potential source of drinking water and groundwater in the B-aquifer has a moderate potential for use as a drinking water source. The Water Board has concurred with the Navy's determination that groundwater in the A-aquifer is not a potential drinking water source.

Requirement	Prerequisite	Citation <sup>b</sup>	ARAR Determination	Comments
<b>Groundwater</b>				
<p>Establishes the policy that high quality waters of the state “shall be maintained to the maximum extent possible” consistent with the “maximum benefit to the people of the State.” It provides that whenever the existing quality of water is better than that required by applicable water quality policies, such existing high quality water will be maintained until it has been demonstrated to the state that any change will be consistent with 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 that prescribed in the policies. It also states that any activity that produces or may produce a waste or increased volume or concentration of waste and that discharges or proposes to discharge to existing high-quality waters will be required to meet waste discharge requirements that will result in the best practicable treatment or control of the discharge.</p>	<p>High quality waters of the state</p>	<p>Statement of Policy With Respect to Maintaining High Quality of Waters in California, SWRCB Res. 68-16</p>	<p>Not an ARAR</p>	<p>SWRCB Res. 68-16 is not a chemical-specific ARAR because it is not more stringent than the federal Cal. Code Regs. tit. 22 groundwater protection standard [Cal. Code Regs. tit. 22, § 66264.94(a)(1) and (3),(c), (d), and (e)]. SWRCB Res. 68-16 is also not an action-specific ARAR because the selected remedy does not include discharge of treated groundwater to surface water. The Navy has determined that further migration of contaminants through groundwater is not a discharge governed by the language in Res. 68-16. More specifically, the language of SWRCB Res. 68-16 indicates that it is prospective in intent, applying to new discharges in order to maintain existing high-quality waters. It is not intended to apply to restoration of waters that are already degraded.</p> <p>The state does not agree with the Navy’s determination that SWRCB Res. 92-49 and 68-16 are not ARARs for this response action. SWRCB has interpreted the term “discharges” in the California Water Code to include the movement of waste from soils to groundwater and from contaminated to uncontaminated water (SWRCB 1994). However, the state agrees that the proposed action would comply with SWRCB Res. 92-49 and 68-16. The state does not intend to dispute the ROD, but reserves its rights if implementation of the provisions at Cal. Code Regs. tit. 22 is not as stringent as state implementation of the provisions at Cal. Code Regs. tit. 23. Because Cal. Code Regs. tit. 22 regulation is part of the state’s authorized hazardous waste control program, it is also the state’s position that Cal. Code Regs. tit. 22, § 66264.94 is a state ARAR and not a federal ARAR (<i>United States v. State of Colorado</i>, 990 F.2d 1565 [1993]).</p>

Requirement	Prerequisite	Citation <sup>b</sup>	ARAR Determination	Comments
<b>Groundwater</b>				
<p>Describes requirements for Water Board oversight of investigation and cleanup and abatement activities resulting from discharges of hazardous substances. Water Board may decide on cleanup and abatement goals and objectives for the protection of water quality and beneficial uses of water within each region. Establishes criteria for “containment zones” where cleanup to established water quality goals is not economically or technically practicable.</p>	<p>Discharge of hazardous substance into waters of the state</p>	<p>Policies and procedures for investigation and cleanup and abatement of discharges under California Water Code § 13304, SWRCB Res. 92-49</p>	<p>Not an ARAR</p>	<p>SWRCB Res. 92-49 is not an ARAR because it is not more stringent than the federal Cal. Code Regs. tit. 22 monitoring requirements [Cal. Code Regs. tit. 22, § 66264.94(a)(1) and (3),(c), (d), and (e)].</p> <p>The state does not agree with the Navy’s determination that SWRCB Res. 92-49 and 68-16 are not ARARs for this response action. SWRCB has interpreted the term “discharges” in the California Water Code to include the movement of waste from soils to groundwater and from contaminated to uncontaminated water (SWRCB, 1994). However, the state agrees that the proposed action would comply with SWRCB Res. 92-49 and 68-16. The state does not intend to dispute the ROD, but reserves its rights if implementation of the provisions at Cal. Code Regs. tit. 22 is not as stringent as state implementation of the provisions at Cal. Code Regs. tit. 23. Because Cal. Code Regs. tit. 22 regulation is part of the state’s authorized hazardous waste control program, it is also the state’s position that Cal. Code Regs. tit. 22, § 66264.94 is a state ARAR and not a federal ARAR (<i>United States v. State of Colorado</i>, 990 F.2d 1565 [1993]).</p>

Requirement	Prerequisite	Citation <sup>b</sup>	ARAR Determination	Comments
<b>Groundwater</b>				
State MCL list.	Source of drinking water	Cal. Code Regs. tit. 22, § 64444	Relevant and appropriate	The Navy considers the B-aquifer a Class II aquifer under federal criteria and a potential source of drinking water based on an evaluation of site-specific factors. The Navy has identified State primary MCLs for two COCs (1,4-dichlorobenzene, and vinyl chloride) as chemical-specific ARARs for the B-aquifer because they are more stringent than the corresponding federal MCL. State primary MCLs are state ARARs for the clean closure of contaminated groundwater plumes outside of Parcel UC-3, for which State primary MCLs are ARARs for groundwater in the B-aquifer throughout the contaminated plumes. The Navy and the Water Board have determined that the A-aquifer is not a potential source of drinking water; therefore, drinking water standards (MCLs) are not ARARs for the A-aquifer.
<b>Surface Water</b>				
<b>State Water Resources Control Board <sup>c</sup></b>				
Surface water quality standards.	Marine water with salinities equal to or greater than 10 parts per thousand	Basin Plan Table 3-3	Applicable	These standards are applicable to San Francisco Bay. The Navy has identified Table 3-3 as ARARs for Parcel UC-3 because groundwater discharges to the bay. The Navy will meet these ARARs in the Bay, at a point past the interface of the A-aquifer (or surface water bodies) and the bay. The Navy has identified MCLs as ARARs for the B-aquifer, which will be protective of any discharge of B-aquifer groundwater to the permeable zones underlying the bay. Therefore, these are not ARARs for the interface of the B-aquifer and the permeable zones underlying the bay.
<b>Soil, Sediment, and Groundwater</b>				
Definition of non-RCRA hazardous waste.	Waste	Cal. Code Regs, tit. 22, §§ 66261.22(a)(3) and (a)(4), 66261.24(a)(2)-(a)(8), 66261.101, 66261.3(a)(2)(C) and (a)(2)(F)	Applicable	These requirements are ARARs for all waste the Navy generates in implementing Alternatives S-4, GW-3, and R-2. The Navy will determine if the waste meets the definition of non-RCRA hazardous waste when it is generated.

Requirement	Prerequisite	Citation <sup>b</sup>	ARAR Determination	Comments
Definition of designated waste and nonhazardous waste.	Waste	Cal. Code Regs, tit. 27, §§ 20210 and 20220	Applicable	These requirements are ARARs for all waste the Navy generates in implementing Alternatives S-4, GW-3, and R-2. The Navy will determine if the waste meets the definition of non-RCRA hazardous waste when it is generated

Notes:

a = The chemical-specific ARARs also contain action-specific requirements; these ARARs are not repeated in the action-specific ARAR tables.

b = Only the substantive provisions of the requirements cited in this table are ARARs.

c = Statutes and policies and their citations are provided as headings to identify general categories of ARARs for the convenience of the reader; listing the statutes and policies does not indicate that the Navy accepts the entire statutes or policies as ARARs; specific ARARs are addressed in the table below each general heading; only pertinent substantive requirements of the specific citations are considered ARARs.

ARAR = applicable or relevant and appropriate requirement

Cal. Code Regs = California Code of Regulations

COCs = chemicals of concern

div. = Division

gpd = gallons per day

IR = Installation Restoration

MCL = maximum contaminant level

MUN = municipal and domestic supply

Navy = Department of the Navy

POC = point of compliance

ppm = parts per million

RCRA = Resource Conservation and Recovery Act

Res. = Resolution

ROD = Record of Decision

SWRCB = State Water Resources Control Board

tit. = title

Water Board = Regional Water Quality Control Board

WQOs = water quality objectives

§ = Section

Reference: SWRCB, 1994. "Application of State Water Board Resolution No. 68-16 to Cleanup of Contaminated Groundwater." February.

Location	Requirement	Prerequisite	Citation <sup>a</sup>	ARAR Determination	Comments
<b>Federal Location-Specific ARARs<sup>a</sup></b>					
<b>National Historic Preservation Act of 1966, as Amended (16 USC § 1470-470x-6) <sup>b</sup></b>					
Historic project owned or controlled by federal agency	Action to preserve historic properties; planning of action to minimize harm to properties listed on or eligible for listing on the National Register of Historic Places.	Property included in or eligible for the National Register of Historic Places	16 USC § 470-470x-6 36 CFR Part 800 40 CFR § 6.301(b)	Applicable	The substantive provisions are potential ARARs for a response action impacting property listed on or eligible for listing on the National Register of Historic Places. A sensitive archaeological area (potential shellmound site) has been identified in Parcel UC-3 (along Crisp Road).
<b>Migratory Bird Treaty Act of 1972 (16 USC §§ 703 through 712) <sup>b</sup></b>					
Migratory bird area	Protects almost all species of native migratory birds in the United States from unregulated "take," which can include poisoning at hazardous waste sites.	Presence of migratory birds	16 USC § 703	Relevant and appropriate	This section is relevant and appropriate because migratory birds have been observed at Parcel UC-3.
<b>Coastal Zone Management Act (16 USC §§ 1451 through 1464) <sup>b</sup></b>					
Within coastal zone	Conduct activities in a manner consistent with approved state management programs to the maximum extent practicable.	Activities affecting the coastal zone, including lands there under and adjacent shore land	16 USC § 1456(c) 15 CFR § 930.30	Relevant and appropriate	Remedial alternatives will comply with the CZMA and San Francisco Bay Plan to the maximum extent practicable.

Notes:

a = Only the substantive provisions of the requirements cited in this table are ARARs.

b = Statutes and policies and their citations are provided as headings to identify general categories of ARARs for the convenience of the reader; listing the statutes and policies does not indicate that the Navy accepts the entire statute or policy as an ARAR; specific ARARs are addressed in the table below each general heading; only substantive requirements of the specific citations are considered ARARs.

ARAR = applicable or relevant and appropriate requirement

CFR = Code of Federal Regulations

CZMA = Coastal Zone Management Act

FS = Feasibility Study

USC = United States Code

§ = Section

Location	Requirement	Prerequisite	Citation <sup>a</sup>	ARAR Determination	Comments
<b>State Location-Specific ARARs<sup>a</sup></b>					
<b>McAteer-Petris Act (California Government Code §§ 66600 through 66661) <sup>b</sup></b>					
Within the San Francisco Bay coastal zone	Reduce fill and disposal of dredged material in San Francisco Bay, maintain marshes and mudflats to the fullest extent possible to conserve wildlife, abate pollution, and protect the beneficial uses of the San Francisco Bay.	Activities affecting the San Francisco Bay and 100 feet landward of the shoreline	Bay Plan at Cal. Code Regs, tit. 14, §§ 10110 through 11990	Relevant and appropriate	The Bay Plan, developed under the authority of the McAteer-Petris Act, is an approved state coastal zone management program. Any remedial actions taken by the Navy that will affect San Francisco Bay or that will occur within 100 feet landward of the shoreline will be consistent with the enforceable policies of the Bay Plan to the maximum extent practicable. See action-specific ARARs table for analysis of the substantive provisions of the Bay Plan.
<b>California Department of Fish and Wildlife (California Fish &amp; Wildlife Code) <sup>b</sup></b>					
Fully protected birds	Fully protected birds or parts thereof may not be taken or possessed at any time. The following are fully protected birds: American Peregrine Falcon, California Brown Pelican, California Black Rail, California Clapper Rail, California Condor, California Least Tern, Golden Eagle, Greater Sandhill Crane, Light-footed Clapper Rail, Southern Bald Eagle, Trumpeter Swan, White-tailed Kite, and Yuma Clapper Rail.	A fully protected species must be potentially affected	California Fish & Wildlife Code § 3511	Relevant and appropriate	California Fish & Game Wildlife § 3511 is not applicable because the United States of America has not waived sovereign immunity in the FESA for this State of California requirement. The American peregrine falcon is present at the site and the White-tailed Kite is potentially present at the site, and these species are protected under California Fish & Wildlife Code § 3511. The substantive provisions of California Fish & Wildlife Code § 3511 meet the pertinent NCP criteria under 40 CFR § 300.400(g)(2)(viii) and are “relevant and appropriate” because the American peregrine falcon is present at the site and the White-tailed Kite is potentially present at the site, and protection of these vulnerable resources allows them to be “used” in the sense that they continue to provide their unique value to the State of California.  The Navy accepts California Fish & Wildlife Code § 3511 as a state ARAR subject to the following conditions. The State of California, through CDFW-OSPR, concurs that this statute addresses prohibited conduct but does not provide for or prescribe affirmative measures to avoid a “taking.”

Location	Requirement	Prerequisite	Citation <sup>a</sup>	ARAR Determination	Comments
Fully protected birds	<i>(see above)</i>	<i>(see above)</i>	<i>(see above)</i>	<i>(see above)</i>	Notwithstanding the absence of specific affirmative measures in the statute, the Navy will implement reasonable measures to ensure adequate protection of ecological receptors during response action construction following issuance of a CERCLA decision document pursuant to the Navy's obligations under CERCLA to select removal or remedial actions that are protective of human health and the environment (see Section 121[b][1] of CERCLA). The Navy will coordinate with the State, through CDFW-OSPR, prior to implementation of such reasonable measures. The Navy understands that the State of California reserves the right to conduct periodic site visits during removal or remedial activities to confirm implementation of avoidance measures.

Notes:

a = Only the substantive provisions of the requirements cited in this table are ARARs.

b = Statutes and policies and their citations are provided as headings to identify general categories of ARARs for the convenience of the reader; listing the statutes and policies does not indicate that the Navy accepts the entire statute or policy as an ARAR; specific ARARs follow each general heading; only substantive requirements of the specific citations are considered ARARs.

ARAR = applicable or relevant and appropriate requirement

Bay Plan = San Francisco Bay Plan

Cal. Code Regs. = California Code of Regulations

CDFW = California Department of Fish and Wildlife

CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

CFR = Code of Federal Regulations

FESA = Federal Endangered Species Act

Navy = Department of the Navy

NCP = National Oil and Hazardous Substances Pollution Contingency Plan

OSPR = Office of Spill Prevention and Response

tit. = Title

§ = Section

Action	Requirement	Prerequisite	Citation <sup>a</sup>	ARAR Determination	Comments
<b>Federal Action-Specific ARARs<sup>a</sup></b>					
<b>Stormwater Discharge</b>					
<b>Clean Water Act, as Amended (Title 33 USC, ch. 26, §§ 1251–1387) <sup>b</sup></b>					
Excavation and grading activities	Construction that disturbs at least 1 acre must use best management practices to control stormwater discharges.	Construction activities at least 1 acre in size	Clean Water Act § 402 40 CFR § 122.44(k)(2) and (4)	Relevant and appropriate (for Alternative S-4)	Implementation of Alternative S-4 will not disturb more than 1 acre. The Navy will implement the substantive provisions of state general stormwater discharge permit, Orders 09-09-DWQ and 10-14-DWQ (adopted pursuant to Clean Water Act § 402), to comply with the federal Clean Water Act ARARs and water quality state ARARs for discharge to surface water. The federal and state ARARs require implementing best management practices and meeting the substantive numeric effluent limit and action level requirements. Although procedural requirements do not qualify as CERCLA ARARs, the Navy shall voluntarily prepare a CERCLA storm water plan as a component of CERCLA remedial design to address the substantive provisions.
<b>Groundwater Monitoring</b>					
<b>Resource Conservation and Recovery Act (Title 42 USC, ch. 82, §§ 6901-6991[ij]) <sup>b</sup></b>					
Monitor groundwater	Chemicals of concern are the waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in or derived from the waste contained in the regulated unit.	RCRA hazardous waste management unit	Cal. Code Regs. tit. 22, § 66264.93	Relevant and appropriate (for Alternatives GW-3 and R-2)	These requirements are applicable to RCRA hazardous waste facilities; however, the Navy has determined that they are relevant and appropriate to the monitoring component of Alternatives GW-3 and R-2.
<b>Resource Conservation and Recovery Act (Title 42 USC, ch. 82, §§ 6901-6991[ij]) <sup>b</sup></b>					
Monitor groundwater	Owner or operator of shall establish a groundwater monitoring system for each regulated unit and include a sufficient number of monitoring points installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater passing the POC.	RCRA hazardous waste management unit	Cal. Code Regs. tit. 22, § 66264.97(b)(1)(A), (b)(1)(D)(1) and (b)(1)(D)(2)	Relevant and appropriate (for Alternatives GW-3, O-4, and R-2)	These requirements are applicable to RCRA hazardous waste facilities; however, the Navy has determined that they are relevant and appropriate to the monitoring component of Alternatives GW-3, O-4, and R-2.

Action	Requirement	Prerequisite	Citation <sup>a</sup>	ARAR Determination	Comments
Monitor groundwater	Requirements for monitoring well construction and sampling intervals.	RCRA hazardous waste management unit	Cal. Code Regs. tit. 22, § 66264.97(b)(4), (5), (6), and (7)	Relevant and appropriate (for Alternatives GW-3, O-4, and R-2)	These requirements are applicable to RCRA hazardous waste facilities; however, the Navy has determined that they are relevant and appropriate to the monitoring component of Alternatives GW-3, O-4, and R-2.
<b>Resource Conservation and Recovery Act (Title 42 USC, ch. 82, §§ 6901-6991[i]) <sup>b</sup></b>					
Monitor groundwater	Requirements for collecting samples.	RCRA hazardous waste management unit	Cal. Code Regs. tit. 22, § 66264.97(e)(6), (e)(12)(A), (e)(12)(B), (e)(13), and (e)(15)	Relevant and appropriate (for Alternatives GW-3, O-4, and R-2)	These requirements are applicable to RCRA hazardous waste facilities; however, the Navy has determined that they are relevant and appropriate to the monitoring component of Alternatives GW-3, O-4, and R-2.
Monitor groundwater	Requirements for a detection monitoring program.	RCRA hazardous waste management unit	Cal. Code Regs. tit. 22, § 66264.98(e)(1-5), (i), (j), (k)(1-3), (4)(A) and (D), (5), (7)(C) and (D), (n)(1), (2)(B), and (C)	Relevant and appropriate (for Alternative R-2)	These requirements are applicable to RCRA hazardous waste facilities; however, the Navy has determined that they are relevant and appropriate to the monitoring component of Alternative R-2, which will require continued groundwater monitoring to demonstrate, consistent with the findings of previous radiological investigations, that radionuclides are not present in groundwater at activity levels that are both statistically significant and pose an unacceptable risk to human health. No other response action is required for radionuclides in groundwater.
<b>Groundwater Monitoring / Excavation and Offsite Disposal / In-Situ Treatment</b>					
<b>Resource Conservation and Recovery Act (Title 42 USC, ch. 82, §§ 6901-6991[i]) <sup>b</sup></b>					
Monitor groundwater	In conjunction with corrective action measures, the owner or operator shall establish and implement a water quality monitoring program to demonstrate the effectiveness of the corrective action program. The program shall be effective in determining compliance and in determining the success of the corrective action measures.	RCRA hazardous waste management unit	Cal. Code Regs. tit. 22, § 66264.100(d)	Relevant and appropriate (for Alternative GW-3)	These requirements are applicable to RCRA hazardous waste facilities; however, the Navy has determined that they are relevant and appropriate to the monitoring component of Alternative GW-3 (which involves response actions for non-radioactive chemicals in groundwater).

Action	Requirement	Prerequisite	Citation <sup>a</sup>	ARAR Determination	Comments
Onsite generation of waste	Person who generates waste shall determine if the waste is a RCRA hazardous waste.	Generator of waste	Cal. Code Regs. tit. 22, §§ 66262.10 (a), 66262.11	Applicable (for Alternatives S-4, GW-3, and R-2)	These regulations are applicable to any operation that generates waste. Alternatives S-4, GW-3, and R-2 will generate waste to be disposed of offsite. The Navy will decide whether the waste is RCRA hazardous waste when it is generated.
Onsite generation of waste	Requirements for analyzing waste for determining whether waste is hazardous.	Generator of waste	Cal. Code Regs. tit. 22, § 66264.13 (a) and (b)	Applicable (for Alternatives S-4, GW-3, and R-2)	These regulations are applicable to any operation that generates waste. Alternatives S-4, GW-3, and R-2 will generate waste to be disposed of offsite. The Navy will decide whether the waste is RCRA hazardous waste when it is generated.
Hazardous waste accumulation	Onsite hazardous waste accumulation is allowed for up to 90 days as long as the waste is stored in containers or tanks, on drip pads, inside buildings, is labeled and dated, etc.	Accumulate hazardous waste	Cal. Code Regs. tit. 22, § 66262.34	Applicable (for Alternative GW-3)	Substantive provisions are applicable to onsite storage of contaminated groundwater classified as hazardous waste. Waste classification will be made at the time the groundwater is generated.
<b>Excavation and Offsite Disposal</b>					
<b>Clean Air Act (Title 42 USC, § 7401 et seq.) <sup>b</sup></b>					
Excavation	Sets forth opacity limitations.	Excavation.	BAAQMD Regulation 6, Rule 302	Applicable (for Alternative S-4)	Applicable for excavation activities.
<b>Resource Conservation and Recovery Act (Title 42 USC, ch. 82, §§ 6901-6991[j]) <sup>b</sup></b>					
Stockpiling soil for offsite disposal	Allows generators to accumulate solid remediation waste in an EPA-designated pile for storage only up to 2 years during remedial operations without triggering LDRs.	RCRA hazardous waste temporarily stored in piles.	40 CFR § 264.554(a), (d), (g), (h), (i), (j), and (k)	Relevant and appropriate (for Alternatives S-4 and R-2)	The Navy will temporarily stockpile soil in staging piles for offsite disposal. The Navy does not anticipate that all soil will be RCRA hazardous waste; however, the Navy has determined that these requirements are relevant and appropriate for all stockpiled soil.
Temporary units	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.	Temporary units may be used and are not subject to RCRA LDRs.	Cal. Code Regs. tit. 22, §§ 66264.553 (b), (d), (e), and (f)	Applicable (for Alternatives S-4 and R-2)	The substantive portions are applicable for temporary onsite storage of liquid generated during excavation of saturated soil or sediments and prior to offsite disposal.

Action	Requirement	Prerequisite	Citation <sup>a</sup>	ARAR Determination	Comments
<b>Groundwater Containment or Extraction</b>					
<b>Clean Water Act (General Pretreatment Regulations) <sup>b</sup></b>					
Discharge of treated groundwater to publicly owned treatment works	Identifies prohibited discharges, categorical standards, and monitoring requirements.	Pollutants from nondomestic sources that are discharged indirectly into publicly owned treatment works.	40 CFR Part 403	Relevant and appropriate (for Alternative GW-3)	If onsite groundwater extracted or treated under Alternative GW-3 is discharged to a publicly owned sanitary sewer system, the substantive provisions of the pretreatment standards are relevant and appropriate federal ARARs.
<b>In-Situ Treatment</b>					
<b>Safe Drinking Water Act (42 USC § 300[f]-300[j]-26) <sup>b</sup></b>					
Inject biological amendment or zero-valent iron into groundwater.	The underground injection control program prohibits injection that allows movement of contaminants into underground sources of drinking water that may result in violations of MCLs or adversely affect health.	An approved UIC program is required in states listed under SDWA Section 1422. Class I wells and Class IV wells are the relevant classifications for CERCLA sites. Class I wells are used to inject hazardous waste beneath the lowermost formation that contains an underground source of drinking water within 0.25 mile of the well.	40 CFR § 144.12(a) excluding the reporting requirements in § 144.12(b) and 144.12(c)(1)	Applicable (for Alternative GW-3)	This requirement is applicable to the Navy's injection of biological amendment or zero-valent iron into the groundwater. The Navy will use the basic information requirements contained in 40 CFR §144.83 as TBCs for complying with the requirement in 40 CFR §144.12(a).
<b>Radionuclides</b>					
Radioactive material and waste storage and control	The licensee shall secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas.	Existing NRC-licensed site	10 CFR § 20.1801	Relevant and appropriate (for Alternative R-2)	Not applicable because Parcel UC-3 is not an existing NRC-licensed site. The substantive provisions of this requirement are relevant and appropriate for staging excavated soil containing ROCs activities exceeding the RGs prior to offsite disposal.
	The licensee shall control and maintain constant surveillance of licensed material that is in a	Existing NRC-licensed site	10 CFR § 20.1802	Relevant and appropriate	Not applicable because Parcel UC-3 is not an existing NRC-licensed site. The substantive provisions of this requirement are relevant and

Action	Requirement	Prerequisite	Citation <sup>a</sup>	ARAR Determination	Comments
	controlled or unrestricted area and that is not in storage.			(for Alternative R-2)	appropriate for staging excavated soil containing ROCs activities exceeding the RGs prior to offsite disposal.
Radioactive waste disposal	Performance objectives for the land disposal of LLRW. Concentrations of radioactive material that may be released to the general environment must not result in an annual dose exceeding 25 mrem to the body or any organ of a member of the general public.	NRC-licensed LLRW disposal site	10 CFR § 61.41	Relevant and appropriate (for Alternative R-2)	Not applicable because Parcel UC-3 is not an NRC-licensed disposal site. Relevant and appropriate for sites with radionuclides.

**Covers**

**Resource Conservation and Recovery Act (Title 42 USC, ch. 82, §§ 6901-6991[j]) <sup>b</sup>**

Cover seismic	The final cover shall accommodate lateral and vertical shear forces generated by the maximum credible earthquake so that the integrity of the cover is maintained.	Landfill closure	Cal. Code Regs. tit. 22 § 66264.310(a)(5)	Relevant and appropriate	
Post-closure care	Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events throughout the post-closure period.	Landfill closure	Cal. Code Regs. tit. 22 § 66264.310(b)(1) and (4)	Relevant and appropriate	
Benchmark	Protect and maintain surveyed benchmarks throughout the post-closure period.	Landfill closure	Cal. Code Regs. tit. 22 § 66264.310(b)(5)	Relevant and appropriate	
Compaction	If waste is to remain in a unit, the unit shall be compacted before any portion of the final cover is installed	Landfill closure	Cal. Code Regs. tit. 22 § 66264.228(e)(1)	Relevant and appropriate	
Post-closure water entry	The final cover will be designed to prevent the downward entry of water into the closed landfill throughout a period of at least 100 years.	Landfill closure	Cal. Code Regs. tit. 22 § 66264.310(a)(1)	Relevant and appropriate	

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ARAR = applicable or relevant and appropriate requirement

BAAQMD = Bay Area Air Quality Management District

Cal. Code Regs. = California Code of Regulations

CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

CFR = Code of Federal Regulations

ch. = Chapter

EPA = U.S. Environmental Protection Agency  
FS = feasibility study  
IR = Installation Restoration  
LDRs = land disposal restrictions  
LLRW = low-level radioactive waste  
MCLs = maximum contaminant levels  
mrem = millirem  
Navy = Department of the Navy  
NRC = Nuclear Regulatory Commission  
POC = point of compliance  
RAOs = remedial action objectives

RCRA = Resource Conservation and Recovery Act  
RGs = remediation goals  
RI = Remedial Investigation  
ROCs = radionuclides of concern  
SVE = soil vapor extraction  
SWDA = Safe Drinking Water Act  
TBC = to be considered  
tit. = Title  
UIC = underground injection control  
USC = United States Code  
§ = Section

Action	Requirement	Prerequisite	Citation <sup>a</sup>	ARAR Determination	Comments
<b>State Action-Specific ARARs<sup>a</sup></b>					
<b>Covers</b>					
<b>State Water Resources Control Board / California Department of Resources Recycling and Recovery <sup>b</sup></b>					
Erosion control	Erosion and related damage of the final cover due to drainage must be prevented throughout the post-closure maintenance period.	Cal. Code Regs. tit. 27, requirements are only applicable for waste discharged after July 18, 1997 (the effective date of the consolidated regulations), unless otherwise noted.	Cal. Code Regs. tit. 27, § 21090(c)(4)	Relevant and appropriate (for Alternative S-4)	Relevant and appropriate for covers throughout Parcel UC-3.
<b>State Water Resources Control Board / California Department of Resources Recycling and Recovery <sup>b</sup></b>					
Survey monuments	Closed units shall be provided with at least two permanent monuments installed by a licensed land surveyor or a registered civil engineer, from which the location and elevation of containment structures can be determined throughout the post-closure maintenance period.	Cal. Code Regs. tit. 27, requirements are only applicable for waste discharged after July 18, 1997 (the effective date of the consolidated regulations), unless otherwise noted.	Cal. Code Regs. tit. 27, § 20950(d)	Relevant and appropriate (for Alternative S-4)	Relevant and appropriate for covers throughout Parcel UC-3.
Aerial photograph survey	For a closed landfill, when all closure activities are complete for the unit, the discharger shall conduct an aerial photographic survey. The data obtained shall be used to produce a topographic map of the site at a scale and contour interval sufficient to depict the as-closed topography of each portion of the unit. The map produced pursuant to this paragraph shall act as a baseline against which to measure the total settlement, through time.	Cal. Code Regs. tit. 27, requirements are only applicable for waste discharged after July 18, 1997 (the effective date of the consolidated regulations), unless otherwise noted.	Cal. Code Regs. tit. 27, § 21090(e)(1) and (3)	Relevant and appropriate (for Alternative S-4)	Relevant and appropriate for covers throughout Parcel UC-3.
<b>State Water Resources Control Board / California Department of Resources Recycling and Recovery <sup>b</sup></b>					
Final cover	Contains general standards for the design of the final cover.	Cal. Code Regs. tit. 27, requirements are only applicable for waste discharged after July 18, 1997 (the effective date of the consolidated	Cal. Code Regs. tit. 27, §21140(a) and (b)	Relevant and appropriate (for Alternative S-4)	Relevant and appropriate for covers throughout Parcel UC-3.

Action	Requirement	Prerequisite	Citation <sup>a</sup>	ARAR Determination	Comments
		regulations), unless otherwise noted.			
<b>State Water Resources Control Board / California Department of Resources Recycling and Recovery <sup>b</sup></b>					
Slope stability	Contains general standards for slope stability.	Cal. Code Regs. tit. 27, requirements are only applicable for waste discharged after July 18, 1997 (the effective date of the consolidated regulations), unless otherwise noted.	Cal. Code Regs. tit. 27, § 21145(a)	Relevant and appropriate (for Alternative S-4)	Relevant and appropriate for covers throughout Parcel UC-3.
Erosion control	The drainage and erosion control system will be designed and maintained to (1) ensure integrity of post-closure land uses, roads, and structures; (2) prevent public contact with waste and leachate; (3) ensure the integrity of gas monitoring and control systems; (4) prevent safety hazards; and (5) prevent exposure of waste.	Cal. Code Regs. tit. 27, requirements are only applicable for waste discharged after July 18, 1997 (the effective date of the consolidated regulations), unless otherwise noted.	Cal. Code Regs. tit. 27, § 21150(a)	Relevant and appropriate (for Alternative S-4)	Relevant and appropriate for covers throughout Parcel UC-3.
<b>State Water Resources Control Board <sup>b</sup></b>					
Remediation activities	Actions taken by or at the direction of public agencies to clean up or abate conditions of pollution or nuisance resulting from unintentional or unauthorized releases of waste or pollutants to the environment are exempt from the Cal. Code Regs. tit. 27 requirements identified in Cal. Code Regs. tit 27, div. 2, subdiv. 1, provided that wastes, pollutants, or contaminated materials removed from the immediate place of release shall be discharged according to the SWRCB-promulgated sections of div. 2, subdiv. 1, ch. 3, subch. 2 and further provided that remedial actions intended to contain such wastes at the place of release shall implement applicable SWRCB-promulgated	Action taken by or at the direction of a public agency to cleanup release of pollutant.	Cal. Code Regs, tit. 27 § 20090(d)	Relevant and appropriate (for Alternative S-4)	The substantive provisions of this regulation are relevant and appropriate.

Action	Requirement	Prerequisite	Citation <sup>a</sup>	ARAR Determination	Comments
	provisions of div. 2 to the extent feasible.				
<b>Groundwater Monitoring / Excavation and Offsite Disposal</b>					
<b>State Water Resources Control Board <sup>b</sup></b>					
Generating IDW	Sampling and analysis of discharges shall be used for accurate characterization of wastes.	Waste.	Cal. Code Regs. tit. 27, §20200(c)	Applicable (for Alternatives S-4, GW-3, and R-2)	This regulation is applicable to excavation of soil and generation of IDW. The Navy will characterize soil or any IDW when it is generated.
Offsite disposal of soil and IDW	Requires that designated waste as defined at California Water Code §13173 be discharged to Class I or Class II waste management units.	Discharge of designated waste after July 18, 1997 (nonhazardous waste that could cause degradation of surface or ground waters) to land for treatment, storage, or disposal.	Cal. Code Regs. tit. 27, §20210	Applicable (for Alternatives S-4, GW-3, and R-2)	This regulation is applicable to excavation of soil and generation of IDW. The Navy will characterize soil or any IDW when it is generated.
Offsite disposal of soil and IDW	Requires that nonhazardous solid waste as defined at Cal. Code Regs. tit. 27, §20220(a) be discharged to a classified waste management unit.	Discharge of nonhazardous solid waste after July 18, 1997, to land for treatment, storage, or disposal.	Cal. Code Regs. tit. 27, § 20220(b), (c), and (d)	Applicable (for Alternatives S-4, GW-3, and R-2)	This regulation is applicable to excavation of soil and generation of IDW. The Navy will characterize soil or any IDW when it is generated.
<b>Institutional Controls</b>					
<b>California Civil Code <sup>b</sup></b>					
Land use controls	Provides conditions under which land use restrictions will apply to successive owners of land.	Transfer of property from the federal government to a nonfederal agency.	California Civil Code § 1471	Relevant and appropriate (for Alternatives S-4, GW-3, and R-2)	Generally, California Civil Code § 1471 allows an owner of land to make a covenant to restrict the use of land for the benefit of a covenantee. The covenant runs with the land to bind successive owners, and the restrictions must be reasonably necessary to protect present or future human health or safety or the environment as a result of the presence on the land of hazardous materials, as defined in California Health & Safety Code § 25260. Substantive provisions are the following general narrative standard: "Each act that the owner or grantee will do or refrain from doing relates to the use of land and

Action	Requirement	Prerequisite	Citation <sup>a</sup>	ARAR Determination	Comments
					<p>each act is reasonably necessary to protect present or future human health or safety or the environment as a result of the presence on the land of hazardous materials, as defined in Section 25260 of the California Health &amp; Safety Code.” This narrative standard would be implemented through incorporation of restrictive covenants in the deed and Environmental Restriction and Covenant Agreement at the time of transfer.</p>
<b>California Health and Safety Code <sup>b</sup></b>					
Land use controls	Allows DTSC to enter into an agreement with the owner of a hazardous waste facility to restrict present and future land uses.	Transfer of property from the federal government to a nonfederal agency.	California Health and Safety Code § 25202.5	Relevant and appropriate (for Alternatives S-4, GW-3, and R-2)	The substantive provisions of California Health & Safety Code § 25202.5 are the general narrative standards to restrict “present and future uses of all or part of the land on which the...facility...is located...”
Land use controls	Prohibits certain uses of land containing hazardous waste without a specific variance.	Transfer of property from the federal government to a nonfederal agency.	California Health and Safety Code § 25232(b)(1)(A)-(E)	Relevant and appropriate (for Alternatives S-4, GW-3, and R-2)	Land use restrictions will be used to prohibit the following activities at Parcel UC-3: residential use of the site, construction of hospitals for humans, schools for persons under 21 years of age, daycare centers for children, or any permanently occupied human habitation.
Land use controls	Provides processes and criteria for obtaining written variances from a land use restriction and for removal of the land use restrictions.	Transfer of property from the federal government to a nonfederal agency.	California Health & Safety Code §§ 25223(c) and 25224	Relevant and appropriate (for Alternatives S-4, GW-3, and R-2)	California Health & Safety Code § 25223(c) sets forth “relevant and appropriate” substantive criteria for granting variances based upon specified environmental and health criteria.” California Health & Safety Code § 25224 sets forth the following “relevant and appropriate” substantive criteria for the removal of a land use restriction on the grounds that “...the waste no longer creates a significant existing or potential hazard to present or future public health or safety.”

Action	Requirement	Prerequisite	Citation <sup>a</sup>	ARAR Determination	Comments
<b>California Health and Safety Code <sup>b</sup></b>					
Land use controls	Provides a streamlined process to be used to enter into an agreement to restrict specific use of property.	Transfer of property from federal government to a nonfederal agency.	California Health & Safety Code §§ 25221 and 25355.5(a)(1)(C)	Relevant and appropriate (for Alternatives S-4, GW-3, and R-2)	<p>Generally, California Health &amp; Safety Code §§ 25221 and 25355.5(a)(1)(C) provide the authority for DTSC to enter into voluntary agreements with land owners to restrict the use of property. The agreements run with the land restricting present and future uses of the land.</p> <p>The substantive requirements of the following California Health &amp; Safety Code § 25221 provisions are "relevant and appropriate": (1) the general narrative standard: "restricting specified uses of the property..." and (2) "...the agreement is irrevocable, and shall be recorded by the owner, ...as a hazardous waste easement, covenant, restriction, or servitude, or any combination of those servitudes, as appropriate, upon the present and future uses of the land."</p> <p>The substantive requirements of the following California Health &amp; Safety Code § 25355.5(a)(1)(C) provisions are "relevant and appropriate": "...execution and recording of a written instrument that imposes an easement, covenant, restriction, or servitude, or combination thereof , as appropriate, upon the present and future uses of the site."</p>

Action	Requirement	Prerequisite	Citation <sup>a</sup>	ARAR Determination	Comments
<b>Department of Toxic Substances Control <sup>b</sup></b>					
Land use covenants	A land use covenant imposing appropriate limitations on land use shall be executed and recorded when facility closure, corrective action, remedial or removal action, or other response actions are undertaken and hazardous materials, hazardous wastes or constituents, or hazardous substances will remain at the property at levels that are not suitable for unrestricted use of the land.	Transfer of property from federal government to a nonfederal agency.	Cal. Code Regs. tit. 22, § 67391.1	Relevant and appropriate (for Alternatives S-4, GW-3, and R-2)	The Navy is evaluating ICs for soil and groundwater. These requirements are ARARs for those ICs. EPA agrees that the substantive portions of the regulations referenced are ARARs. EPA specifically considers sections (a), (d), and (e) of Cal. Code Regs. tit. 22 § 67391.1, to be ARARs for this ROD. DTSC's position is that all of the state regulation is an ARAR.
<b>Groundwater Monitoring</b>					
Land use covenants	A land use covenant imposing appropriate limitations on land use shall be executed and recorded when facility closure, corrective action, remedial or removal action, or other response actions are undertaken and hazardous materials, hazardous wastes or constituents, or hazardous substances will remain at the property at levels that are not suitable for unrestricted use of the land.	Transfer of property from federal government to a nonfederal agency.	Cal. Code Regs. tit. 22, § 67391.1	Relevant and appropriate (for Alternatives S-4, GW-3, and R-2)	The Navy is evaluating ICs for soil and groundwater. These requirements are ARARs for those ICs. EPA agrees that the substantive portions of the regulations referenced are ARARs. EPA specifically considers sections (a), (d), and (e) of Cal. Code Regs. tit. 22 § 67391.1, to be ARARs for this ROD. DTSC's position is that all of the state regulation is an ARAR.

Notes:

a = Only the substantive provisions of the requirements cited in this table are ARARs.

b = Statutes and policies and their citations are provided as headings to identify general categories of ARARs for the convenience of the reader. Listing the statutes and policies does not indicate that the Navy accepts the entire statutes or policies as ARARs; specific ARARs are addressed in the table below each general heading; only substantive requirements of specific citations are considered ARARs.

ARAR = applicable or relevant and appropriate requirement

Bay Plan = San Francisco Bay Plan

Cal. Code Regs. = California Code of Regulations

ch. = Chapter

div. = Division

DTSC = Department of Toxic Substances Control

EPA = U.S. Environmental Protection Agency

FS = Feasibility Study

ICs = institutional controls

IDW = investigation-derived waste

IR = Installation Restoration

Navy = Department of the Navy

ROD = Record of Decision

subch. = Subchapter

subdiv. = Subdivision

SWRCB = State Water Resources Control Board

TBC = to be considered

tit. = Title

§ = Section

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**Attachment E**  
**Response to Comments**

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**RESPONSE TO COMMENTS ON  
DRAFT RECORD OF DECISION FOR PARCEL UC-3  
HUNTERS POINT NAVAL SHIPYARD  
SAN FRANCISCO, CALIFORNIA**

Comments from:  
Craig Cooper, USEPA - August 1, 2013

Comment Number	Section/ Page	Comment	Response
<b>General Comments:</b>			
1.	<b>Clarify the administrative record for Parcel UC-3.</b>	As currently written, the ROD does not present a sufficient administrative record for what constitutes the remedial investigation (RI) and feasibility study (FS) for Parcel UC-3. As a result, the basis for selection of the final remedial alternatives for Parcel UC-3 is insufficient. The ROD (e.g. Sections 2.3, 2.4, 2.5, etc.) must clearly summarize and reference supporting documentation which constitute the remedial investigation (RI) and feasibility study (FS) for the Parcel UC-3 environmental media (i.e. soil and groundwater) being addressed by this ROD. The ROD does include a number of general descriptions which relate to Parcel E as a whole but much of which is information that is not relevant to the Parcel UC-3 RI/FS or the remedy decision. The early sections of the ROD must describe all remedial investigations in Parcel UC-3 including a summary of data results of all soil samples from all soil borings. It appears that the first reference to an important set of soil borings is presented in the description of the selected remedy (Section 2.9). It is not clear if the borings referenced in Section 2.9 are the same borings shown in Section 2.3 (Figure 3). Section 2.3 must present references to all approved final investigations workplans for soil and groundwater within the area now known as Parcel UC-3.	<p>The Record of Decision (ROD) will be edited to summarize the conclusions of the Parcel E Remedial Investigation, the Parcel E Feasibility Study (FS), and other investigations at Parcel UC-3. For data results, the reader should reference these documents. References to the appropriate documents will be provided throughout the ROD.</p> <p><b>The following text will be added to the end of the third paragraph of Section 2.1:</b></p> <p>“The Navy prepared RI and FS reports for Parcel E that were approved by the Federal Facilities Agreement (FFA) Signatories. These documents were finalized May 2008 and August 2012. The Navy subsequently decided, with FFA Signatory concurrence, to “carve out” Parcel UC-3 from Parcel E to support a real property conveyance strategy and schedule. The decision was made that the draft RODs for the amended Parcel E and the new Parcel UC-3 would be based on the Parcel E RI and FS reports and supporting administrative record. The Draft RODs for both the amended Parcel E and new Parcel UC-3 generally address the same investigatory information and the same remedial alternatives evaluated in the Parcel E RI and FS reports.”</p> <p><b>Section 2.3 will be rewritten to provide more clarity, as follows:</b></p> <p><b>The first paragraph of Section 2.3 will be removed and replaced with the following:</b></p> <p>“Prior to the preparation of this ROD, Parcel UC-3 was included within Parcel E. Located within Parcel E are several environmental investigation sites identified during the Initial Assessment Study conducted by the Navy in 1984. Since that time, the Navy has performed multiple environmental investigations at Parcel E to further evaluate the 21 identified IR sites associated with former shipyard operations. Four current IR sites are within or partially within the Parcel UC-3 boundary (Figure 2). The Navy also performed a treatability study for IR Site 56 that involved testing of technology to reduce VOCs in groundwater and a removal action of radiologically impacted sewer and storm drain lines within Parcel UC-3 in 2011.</p>

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			<p>The May 2008 Revised Parcel E RI Report, February 2011 Parcel E Groundwater Treatability Study, March 2012 Parcel E Radiological RACR, August 2012 Parcel E FS Report, and June 2013 Parcel UC-3 Soil Excavation Characterization collectively summarize the results of the environmental investigations and removal actions, and document the site conditions at Parcel UC-3. Brief summaries of these documents are provided in Sections 2.3.1 through 2.3.4. Based on previous investigations and removal actions, the sources and extent of the remaining contamination in soil and groundwater have been adequately characterized to evaluate site risks, develop remedial alternatives, and support the remedy decision made in this ROD. Table 1 summarizes the previous investigations, treatability studies, and removal actions performed at Parcel UC-3. Since Parcel UC-3 was recently separated from Parcel E, Table 1 includes investigations and removal actions that were basewide or specific to Parcel E (which previously included Parcel UC-3.)</p> <p><b>A new section (2.3.1 Revised Parcel E RI Report) will be added as follows:</b></p> <p>“The Revised Parcel E RI Report used residential and industrial screening criteria to screen chemical data for redevelopment areas based on the 1997 Redevelopment Plan. Additionally, human health risk was evaluated for various exposure scenarios: planned reuse (as of 1997), residential, industrial, recreational, and construction worker. A baseline ecological risk assessment (BERA) was also completed and no ecological concerns were found in Parcel UC-3. Human health and ecological risks are summarized in Section 2.5.</p> <p>The Revised Parcel E RI identified four IR sites that are located within or partially within Parcel UC-3:</p> <ul style="list-style-type: none"> <li>• IR Site 4 (partial) – A scrapyard and scrap material area where the Navy stored used submarine batteries, electrical capacitors, and steel. The area was leased to Triple A in 1976 who also used it as a scrapyard. Drums, pipe lagging, batteries, liquid wastes, and scrap metal were found at the site. Stained soil was observed at the site.</li> <li>• IR Site 45 (partial) – Basewide steam line system. Triple A is</li> </ul>

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			<p>suspected of using the steam line system to transport waste oil.</p> <ul style="list-style-type: none"> <li>• IR Site 52 – The railroad and its surrounding right-of-way, which was leased to Triple A in 1976. Stained soil, spilled paint, household waste, and abandoned buildings were observed during past investigations.</li> <li>• IR Site 56 (partial) – The Railroad Yard Area. Use of wood preservatives and railroad cleaning solvents was suspected. Evidence of paint leakage from storage containers was observed.</li> </ul> <p>Soil investigations at Parcel UC-3 identified SVOCs, metals, and TPH at concentrations that exceeded industrial screening criteria used in the Revised Parcel E RI. The Navy completed 55 soil borings within Parcel UC-3 to evaluate the nature and extent of contamination (Figure 3). Additionally, one monitoring well (IR74MW01A) was installed in Parcel UC-3, and soil samples were collected from the boring. Well IR74MW01A was installed as part of the investigation of former IR Site 74 and is located south of the former IR Site 74 boundary but within Parcel UC-3. IR Site 74 is now part of the Formerly Utilized Defense Sites (FUDS) program.</p> <p>The Revised Parcel E RI identified three redevelopment units based on the 1997 Redevelopment Plan that were located within or partially within Parcel UC-3: all of EOS-5, most of EOS-4, and a small part of redevelopment block 45.</p> <p>The planned reuse for EOS-5 was open space. IR Site 52 is located completely within EOS-5. One of 39 soil samples collected within EOS-5 contained metals at concentrations above the industrial screening criteria used in the Revised Parcel E RI (Table 2). One of 39 soil samples collected within EOS-5 contained SVOC concentrations above the industrial screening criteria used in the Revised Parcel E RI (Table 3). No other soil samples had concentrations above the industrial screening criteria used in the Revised Parcel E RI.</p> <p>The 1997 Redevelopment Plan did not identify a planned reuse for EOS-4. EOS-4 contains railroad tracks that leave the former Golden</p>

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			<p>Gate Railroad Museum and merge onto EOS-5. There have been no reports of observed chemical releases such as stained soil within EOS-4. No areas exceeding the industrial screening criteria used in the Revised Parcel E RI were identified.</p> <p>Based on the 1997 Redevelopment Plan, the planned reuse for Redevelopment Block 45 was research and development. IR Site 56 and a small portion of IR Site 5 were located within Redevelopment Block 45. Concentrations of metals above the residential screening criteria used in the Revised Parcel E RI were found throughout Redevelopment Block 45, including the portion within Parcel UC-3. Concentrations of one SVOC (benzo(a)pyrene) and TPH were above the residential screening criteria used in the Revised Parcel E RI at one location within Parcel UC-3 (IR56B037). However, this location will not be addressed in this ROD because the area near IR56B037 is being managed by the Navy under the Hunters Point TPH program. One groundwater plume (IR Site 56 plume) within Parcel UC-3 was identified, with TCE concentrations above vapor intrusion criteria.”</p> <p><b>The fifth and sixth paragraphs of Section 2.3 will be used for a new section, Section 2.3.2 Parcel E Groundwater Investigations, and will be revised as follows:</b></p> <p>“Groundwater conditions at Parcel UC-3 were evaluated only at monitoring well IR74MW01A, as part of the basewide groundwater monitoring program. Groundwater investigations at and near Parcel UC-3 have identified a groundwater plume (IR Site 56) with concentrations of TCE that exceeded the vapor intrusion criterion used in the Revised Parcel E RI [2.9 micrograms per liter (µg/L)]. Well IR74MW01A was sampled during 1996, 2004, 2006, 2008, and 2009, and TCE concentrations ranged from less than 0.5 µg/L to 4 µg/L. In 2009, groundwater samples were also collected from five direct-push sampling locations to evaluate baseline conditions during a groundwater treatability study (GWTS). Data from the well and direct-push sampling locations in 2009 indicated that the plume delineation presented in the RI had not changed (Figure 4).</p> <p>The Navy performed the GWTS to evaluate the effectiveness of zero-valent iron (ZVI) injection in treating groundwater contamination. The GWTS was implemented in two phases: (1) a plume characterization phase, during which groundwater and soil vapor samples were</p>

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			<p>collected to better delineate the groundwater plumes identified in the Revised Parcel E RI Report (Phase I); and (2) treatment, if necessary, of selected plumes using ZVI (Phase II). Based on the Phase I characterization, ZVI injections were not recommended for the IR Site 56 TCE plume because concentrations of COCs did not significantly exceed their respective project-specific goals.”</p> <p><b>The second paragraph of Section 2.3 will be used for a new section, Section 2.3.3 Parcel E Radiological RACR, and will be revised as follows:</b></p> <p>“A history of radiological operations by the Navy at HPNS is presented in the HRA. The HRA identified radiologically affected sewer and storm drain lines across Parcel UC-3. The source of potential radioactive contamination at Parcel UC-3 is research activities at various buildings formerly occupied by Naval Radiological Defense Laboratory (NRDL). NRDL performed practical and applied research on radiation decontamination methods and on the effects of radiation on living organisms and natural and synthetic materials. NRDL activities may have discharged small amounts of low-level radioactive liquids into sanitary sewer, storm drain, and septic sewer lines. As a result, sanitary sewer, storm drain, and septic sewer lines throughout Parcel UC-3 may have been radiologically affected. Therefore, storm drain and sewer lines throughout Parcel UC-3 were removed between 2009 and 2012 pursuant to the Final Basewide Radiological Action Memorandum. The removal action included all sewer and storm drain lines within Parcel UC-3 as well as potentially impacted soil. A radiological RACR for Parcel UC-3 was submitted on March 16, 2012, and received concurrence for free release for unrestricted use from DTSC on October 31, 2012. All work required by the selected radiological remedy, Alternative R-2, has been completed, and no additional actions are required. Selection of Alternative R-2 is documented in this ROD.”</p> <p><b>A new section (2.3.4 Parcel E FS Report) will be added as follows:</b></p> <p>“The Parcel E FS Report was based on the 2010 Redevelopment Plan and evaluated alternatives for soil and groundwater. Excavation options were focused on removing COCs at concentrations significantly above PRGs (by either 5 or 10 times) and COCs indicative of a potential source of groundwater contamination.</p>

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			<p>Based on the 2010 Redevelopment Plan, Parcel UC-3 contains two redevelopment units: the railroad right-of-way and a portion of Redevelopment Block MU-3. No redevelopment unit was identified for the former EOS-4 redevelopment unit. The 2010 Redevelopment Plan proposed light industrial use for the railroad right-of-way and mixed use for Redevelopment Block MU-3. Based on existing surrounding uses, the former EOS-4 redevelopment unit has been screened for industrial use in this ROD.</p> <p>During the process of identifying potential soil areas for removal, the Navy focused the list of COCs to those nonradioactive chemicals present at concentrations that exceeded the PRGs, which generally correspond to a cancer risk of greater than 1 in 1,000,000 or a noncancer Hazard Index (HI) greater than 1. Areas in soil that contain elevated COC concentrations that pose the most significant risk to humans are referred to as hot spots. Hot spot locations were initially categorized as Tier 1 or Tier 2 locations. Tier 1 locations contain COCs at concentrations greater than 10 times the PRGs (the Tier 1 action levels). Tier 2 locations contain COCs at concentrations greater than 5 times the PRGs (the Tier 2 action levels), thus Tier 2 locations include all Tier 1 locations. Tier 1 and Tier 2 action levels do not apply to TPH concentrations. Instead, TPH locations were defined as soil that contains TPH at concentrations greater than the PRG.</p> <p>In the eastern portion of Parcel UC-3 (which corresponds to the portion of Redevelopment Block MU-3 that lies in Parcel UC-3), no areas in soil exceeded the residential screening criteria used in the Revised Parcel E RI, except for one location that is being addressed under the Hunters Point TPH program. The Revised Parcel E RI did not identify areas exceeding the RI screening criteria within the area between Redevelopment Block MU-3 and the railroad right-of-way. A limited amount of soil samples have been collected in this area because no IR Sites or evidence of spills or soil staining were identified in this area. In the railroad right-of-way, the Revised Parcel E RI screening process identified no contiguous areas that exceeded screening criteria for soil. However, at three isolated boring locations, SVOCs, TPH, or metals concentrations exceeded industrial screening criteria used in the Revised Parcel E RI. Two of the locations exceeded the Tier 2 action levels of 5 times the PRGs for either SVOCs or metals and one location exceeded the PRG for TPH. At</p>

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			<p>boring IR52B009, in a soil sample collected at approximately 3.5 feet bgs, concentrations of six SVOCs exceeded industrial screening criteria used in the Revised Parcel E RI. At boring PA52SS02, in a soil sample collected at approximately 0.5 foot bgs, a TPH concentration exceeded industrial screening criteria used in the Revised Parcel E RI. At boring PA52SS06, in a soil sample collected at approximately 0.5 foot bgs, copper and lead concentrations exceeded the Tier 2 action levels. In 2012, the Navy collected soil samples surrounding each of these boring locations to identify the extent of contamination at each location to define the appropriate excavation area. These locations are further discussed in Section 2.9.2.1. Soil samples show that the excavation areas are adequately bound on four sides.”</p> <p><b>Section 2.9 will be revised to refer to the soil borings presented in Section 2.3 instead of the excavation borings currently presented in Section 2.9.</b></p> <p><b>The second paragraph of Section 2.9.2.1 will be revised as follows:</b></p> <p>“In the Parcel E FS, areas to be excavated were identified. The extents of the excavations are based on data collected during characterization efforts in 2012.and the industrial screening criteria used in the Revised Parcel E RI. The three excavations in Parcel UC-3 are shown in Figure 8 and defined as follows:</p> <ul style="list-style-type: none"> <li>• Excavation EX52B009 is located where SVOC concentrations exceeded Tier 2 action levels, at soil boring IR52B009. The total proposed excavation area is approximately 1,103 square feet, and the total volume to be excavated to 5 feet bgs is approximately 204 yd<sup>3</sup> of soil.</li> <li>• Excavation EX52SS02 is located where TPH concentrations exceeded the TPH action level at soil boring PA52SS02. The total proposed excavation area is approximately 694 square feet, and the total volume to be excavated to 3 feet bgs is approximately 77 yd<sup>3</sup> of soil.</li> <li>• Excavation EX52SS06 is located where copper and lead concentrations exceeded Tier 2 action levels at soil boring PA52SS06. The total proposed excavation area is approximately 1,097 square feet, and the total volume to be</li> </ul>

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			excavated to 3 feet bgs is approximately 122 yd <sup>3</sup> of soil."
2.	<b>Clarification of Current and Future Anticipated Land Uses.</b>	The ROD currently identifies a significant section of Parcel UC-3 as "No Identified Reuse". The ROD is unclear what if any land uses assumptions were applied to this area, how remedial goals were developed, how remedial data were screened against those remedial goals, and how institutional controls (ICs) for this area were ultimately based upon. The ROD should clarify what land use assumptions were used for all portions of Parcel UC-3.	<b>A following text will be added to the end of the first paragraph of Section 2.4:</b>  "For this ROD, the area designated as "no identified reuse" in the 2010 amended redevelopment plan has been screened against criteria for light industrial use. This is consistent with existing surrounding land use, and this area (the western half of Crisp Road) along with the railroad right-of-way will have institutional controls (ICs) restricting residential development."
3.	<b>Rationale for Institutional Controls (ICs).</b>	Without a clear identification and basis for future anticipated land uses within Parcel UC-3, the rationale and basis for the development and selection of ICs unclear. After editing the ROD concerning EPA comments on the RI, FS, land use, and the general scope of selected remedies, then the ROD should be edited so it is clear how and why ICs are integrated and become an essential component of the selected remedies. Terms and zones used in Figure 4 (Planned Reuses) must have a clear and transparent connection to the terms and zones presented in Figure 9 (Areas Requiring Institutional Controls).	Per the response to USEPA General Comment #2, all areas of Parcel UC-3 have identified future land uses. Figures 5 and Figure 9 will be edited to be consistent with land uses and ICs.
4.	<b>Clarification of Risk.</b>	The Draft ROD does not include a sufficient description of the nature and extent of contamination to explain why the "chemical cancer risk" in redevelopment block MU-3 is 1 in 1000 and the Hazard Index (HI) is 65. The ROD should discuss or summarize the types of contamination, the concentration of contaminants of concern (COCs), etc. as indicated in A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents (the ROD Guidance). For example, the Recommended Outline and Checklist for a Record of Decision (the Checklist) in the ROD Guidance lists items that should be included in this discussion on page 6-61. Please revise the ROD to discuss the types of contamination, the concentration of COCs, and other missing information as listed in the Checklist.	Please see the response to USEPA General Comment #1. Section 2.3 will be edited to summarize the types and extent of contamination.  <b>A paragraph will be added to Section 2.5.1 stating:</b>  "The cancer risk and HI presented in Table 4 for Redevelopment Block MU-3 were calculated utilizing soil data from the Revised Parcel E RI within Redevelopment Block MU-3. Parcel UC-3 includes only a small portion of Redevelopment Block MU-3, and none of the Tier 2 hot spot locations are present within the Parcel UC-3 portion of Redevelopment Block MU-3. A separate HHRA was not conducted for the Parcel UC-3 portion of Redevelopment Block MU-3."
5.	<b>Clarification of the Soil RGs.</b>	The ROD is currently does not clearly identify effective soil remedial goals for all portions of Parcel UC-3. Table 5 (Remedial Goals for Soils) is presented without any reference or connection to Table 4	The terms "Tier 1" and "Tier 2" refer to specific levels of contamination in soil that were used to define the removal action portions of soil alternatives S-3 and S-4. While the term "Tier 1" is not applicable to

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		<p>(Chemicals of Concern and Remedial Goals for Soil at Hot Spots). It is unclear which RGs are applicable to the various land use zones in Parcel UC-3. In addition, the terms "Tier 1" and "Tier 2" are used; but without any definition, context or linkage to Tables 4 or 5. Are Tables 4 and 5 somehow connected to the Tier 1 and Tier 2 concepts? If so, then only Tier 2 is needed since Table 4 defines Hot Spot as 5 times Residential RGs. Why is Tier 1 (10 times Residential RGs) presented at all in this ROD since it does not appear to be applicable to any portion of the Parcel UC-3 soil remedial action?</p>	<p>the selected remedy for Parcel UC-3, it is applicable to Alternative S-3 and the remedy selection process.</p> <p>Please see the response to USEPA General Comment #1 for discussion regarding a new Section 2.3.5, which further explains revisions to be made based on USEPA comments.</p> <p><b>The second paragraph of Section 2.5.3 will be revised as follows:</b></p> <p>"The HHRA identified COCs in soil and groundwater present at concentrations that posed an unacceptable cancer risk or noncancer hazard. The elevated concentrations of COCs in soil were found to be located in noncontiguous areas of Parcel UC-3. The Navy identified an approach that proposed removal of soil areas that posed the most significant risk to humans, identified as hot spots on Figure 7, and proposed cover for the soil areas within Redevelopment Block MU-3 that posed a lower risk to humans (see Sec. 2.8.1).</p> <p>During the process of identifying potential areas for soil removal, the Navy focused the list of COCs to those nonradioactive chemicals present at concentrations that exceeded the RGs, which generally correspond to a cancer risk of 1 in 1,000,000 or a noncancer HI greater than 1. Areas in soil that contain elevated COC concentrations that pose the most significant risk to humans are referred to as hot spots. Hot spot locations were initially categorized as Tier 1 (COCs at concentrations greater than 10 times the RGs) or Tier 2 (COCs at concentrations greater than 5 times the RGs). Additionally, TPH hot spot locations were defined as soil that contains TPH at concentrations greater than the RG. Figure 7 identifies the locations of Tier 2 and TPH hot spot locations in the railroad right-of-way. Table 6 identifies the COCs at the Tier 2 and TPH hot spots, along with residential RGs and Tier 2 and TPH action levels for each COC.</p> <p>For groundwater, the Navy proposed anaerobic in situ bioremediation (ISB), followed by monitored natural attenuation (MNA) (Section 2.8.1), and ICs in the IR Site 56 plume area. Figure 4 identifies the location of the IR Site 56 plume."</p> <p><b>The third bullet of Section 2.8.1 will be revised as follows:</b></p> <p><b>Alternative S-3 – Excavation and Offsite Disposal of Soil from Tier 1 Locations, Followed by Covers and Institutional Controls:</b> Alternative S-3 includes (1) excavation and offsite disposal of soil from</p>

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			<p>Tier 1 locations (soil that contains COCs at concentrations greater than 10 times the RGs) at a permitted facility, (2) covers at Redevelopment Block MU-3 and ICs to limit unacceptable exposure to COCs in soil that is left in place, (3) cleaning and closure of buried steam lines, and (4) soil-gas monitoring at the IR Site 56 plume area.”</p> <p><b>The fourth bullet of Section 2.8.1 will be revised as follows:</b></p> <p><b>“Alternative S-4 – Excavation and Offsite Disposal of Soil from Tier 2 and TPH Locations, Followed by Covers and Institutional Controls:</b> Alternative S-4 consists of (1) excavation and offsite disposal of soil from Tier 2 locations (soil that contains COCs at concentrations greater than 5 times the RGs) and TPH locations (soil that contains TPH at concentrations greater than the RG) at a permitted facility, (2) covers at Redevelopment Block MU-3 and ICs to limit unacceptable exposure to COCs in soil that is left in place, (3) cleaning and closure of buried steam lines, and (4) soil-gas monitoring at the IR Site 56 plume area.</p> <p><b>The Soil Gas Monitoring portion of Section 2.9.2.6 will be revised as follows:</b></p> <p>“IR Site 56, located partially within Parcel UC-3, will be evaluated as a potential soil gas survey area. Soil gas surveys will be conducted in consultation with regulatory agencies (1) in focused areas where concerns continue about residual VOCs in soil, (2) where VOCs are present in groundwater, (3) at groundwater remediation areas following completion of the remedial action for groundwater, and (4) to evaluate the need for remedial action or the reduction or retention of an Area Requiring Institutional Control (ARIC) for potential VOC chemicals in groundwater and soil gas.”</p>
5. (referred to as 5b)	<b>Clarification of the Scope of the Groundwater Remedy.</b>	The text of the ROD states that the focus of the selected groundwater alternative, GW-3, is the IR-56 groundwater contaminant plume, but remediation of this plume may not be necessary given the 370 microgram per liter (ug/L) RG for TCE listed in Table 6. The Final Feasibility Study Report for Parcel indicates that the TCE concentration in IR-56 is 4 ug/L. Since the TCE concentrations in the IR-56 plume are significantly below 370 ug/L, it would appear the selected alternative (GW-3) is unnecessary for IR-56. However, Alternative GW-3 may still be necessary to address the TCE	While this alternative may not be required for IR Site 56, the alternative is carried forward in this ROD as it was recommended in the Parcel E FS and presented in the Proposed Plan. The Navy’s ROD for Parcel E is being prepared in parallel with this ROD. The Remedial Design stage for Parcel UC-3 will establish if RGs have been met for IR Site 56 and this alternative could be considered complete. Groundwater Remediation alternatives for Parcel E will address other plumes on Parcel E. There are no other known or suspected groundwater plumes within Parcel UC-3.

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		concentrations in other plumes like the Building 406 TCE plume. Please resolve the discrepancy between the TCE concentrations in the IR-56 plume, the RG for TCE in groundwater and the selection of alternative GW-3 to address the IR-56 plume. In addition, please revise the text describing Alternative GW-3 to discuss the other contaminant plumes to which it could or will be applied.	
6.	<b>Clarification of the Scope of the Radiological Remedy.</b>	The ROD appears to state that all required radiological response actions within Parcel UC-3 have already been completed. Does this mean that all work required by the selected radiological remedy, Alternative R-2, has already been completed by the Navy? If this is the case, then the early sections of the ROD should describe, reference and document those response actions and any regulatory findings or certifications regarding those previous response actions. In addition, in the remedy selection section of the ROD, the Navy needs to clarify what steps, if any, is needed after the selection of Alternative R-2.	<p><b>The second item on the bulleted list in Section 1.1 will be revised as follows:</b></p> <p>“Excavation of radiologically impacted sewer and storm drain lines and disposal of material associated with the excavation.</p> <ul style="list-style-type: none"> <li>• The excavation of radiologically impacted sewer and storm drains was completed at Parcel UC-3 under a Time-Critical Removal Action (TCRA) in 2011. The removal action included all sewer and storm drain lines within Parcel UC-3 as well as potentially impacted soil. A Radiological Removal Action Completion Report (RACR) for Parcel UC-3 was submitted on March 16, 2012, and received concurrence for free release for unrestricted use from DTSC on October 31, 2012. All work required by the selected radiological remedy (Alternative R-2) has been completed, and no additional actions are required. Selection of Alternative R-2 is documented in this ROD.”</li> </ul>
7.	<b>Clarification of the Remedy for Waste Oil in the Steam Lines.</b>	The discussion in Section 2.9 (Selected Remedy) related to the potential for waste oil contamination in the Steam lines lacks context. The administrative record for the steam lines investigations, development of COCs and RGs, FS and basis for remedy selection for the steam lines is unclear. If the Navy is proposing a response action under CERCLA for the steam lines, then what standards will be used to determine whether a line should be excavated or closed in place? The early sections of the ROD, must lay out the RI/FS documentation for the steam lines so the basis for the decision to take action and establish standards for excavation is ultimately clear in Section 2.9. If the final exact scope of the steam line response action is unknown, then Section 2.9 should generally frame the scope of the selected remedial action and state that further details will be defined in the remedial design.	<p>Please see the response to USEPA General Comment #1 for responses related to the administrative record.</p> <p><b>The last paragraph of Section 2.9.2.2 will be used for a new Section 2.9.2.3 Steam Line Closure (Alternative S-4) and will be revised as follows:</b></p> <p>“Additional investigation of the underground steam line system (IR Site 45) will be required to assess whether individual steam lines within Parcel UC-3 were used to transfer waste oil and, if so, whether they leaked into the concrete utility corridors. A general procedure was provided in the Parcel E FS for steam line investigation and closure, including:</p> <ul style="list-style-type: none"> <li>• Geophysical mapping of pipelines</li> <li>• Asbestos abatement of protective wrap and pipe insulation</li> </ul>

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			<ul style="list-style-type: none"> <li>• Inspection and tightness testing of steam lines, with excavation to expose steam lines as needed</li> <li>• Sampling and analysis of fluids or, if none, wipe sampling to identify pipe segments with potential impact to soil and groundwater</li> <li>• Pressure testing of pipeline segments where contaminants were found</li> <li>• Removal of pipeline segments that fail pressure testing</li> <li>• Pressure washing of remaining pipeline segments and confirmatory wipe sampling</li> <li>• Utility corridor cleaning and inspection with excavation</li> </ul> <p>Detailed excavation and confirmation sampling plans will be developed in the RD. If soil samples are collected as part of the steam line closure activities, they will be compared to Tier 2 and TPH action levels (Table 6) to determine if remediation is required."</p> <p><b>The following paragraph will be added after the last paragraph of Section 2.1:</b></p> <p>"The Crisp Road portion of Parcel UC-3 is located adjacent to the northern boundary of HPNS and the western edge is adjacent to areas where the former Triple A Company had a scrapyard to store metal, drums, pipe lagging, liquid waste, and batteries. Triple A also had disposal trenches for waste liquids and a concrete pad where waste liquid drums were crushed. Chemical contamination at Crisp Road likely resulted from Triple A operations which allegedly disposed of hazardous wastes at various locations at HPNS, including possibly discharging waste oil using below-ground fuel and steam lines."</p>
8.	<b>ARARs Table and Parcel UC-3.</b>	The ARARs Table includes a number of references to Parcel E and a host of listed items, activities and or descriptions that have no connection with the selected remedies for Parcel UC-3. Please ensure that the ARARs Table applies to the selected remedies for Parcel UC-3.	The ARARs table was reviewed to ensure that all ARARs apply to Parcel UC-3. A portion of the Toxic Substances Control Act will be removed from the ARARs table since there are no PCBs in Parcel UC-3. Waters of the State will be removed from the ARARs table, since there is no shoreline in Parcel UC-3.
9.	<b>Clarification of Costs.</b>	The ROD does not include a table that breaks out the costs for the selected remedy using a format that identifies costs for each	Cost estimates in this ROD were derived using a ratio of the soil volumes and groundwater plume area size in Parcel UC-3 to the

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		component of the remedy as shown in Highlight 6-29 in the ROD Guidance. Please revise the ROD to include a table that identifies costs for each component of the selected remedy.	overall Parcel E costs. A breakdown of costs will be added to conform as best as possible to the ROD Guidance. In addition, reference to the cost tables of the Parcel E Feasibility Study has been added to Section 2.8.1.
<b>Specific Comments</b>			
1.	<b>Page 1-1; Section 1.1, Selected Remedy.</b>	The ROD Guidance indicates that the description of the selected remedy should describe in detail how principle threats and other contamination at the site are addressed. Please review the Guidance and revise the ROD to describe in detail how this operable unit addresses principle threats and other contamination at the site.	Section 1.1 will be edited to comply with the ROD Guidance.
2.	<b>Page 1-2, Section 1.1.</b>	The top bullet on this page uses the term "high concentrations" of chemicals regarding soil contamination that receives removal and offsite disposal. However, in Section 1.2 on this same page, it states that "low-level" soil contamination as a reason why there is no cost-effective way to comply with the statutory requirement for treatment (concerning the contaminated soil in Parcel UC-3). Please re-check uses of "high concentration" and "low level" on this page and edit as appropriate.	The selected remedy includes removal of high concentration hot spots in soil and leaving low-level soil concentrations in place. <b>The fourth sentence of Section 1.2 will be revised to delete the term "low-level" and will read as follows:</b> "The selected remedy does not satisfy the statutory preference for treatment as a principal element because there is no cost-effective means of treating soil contamination located in separate areas of Parcel UC-3."
3.	<b>Figure 1.</b>	Should Parcels A-1 and A-2 be colored yellow, the same color as the portions of the Shipyard that is still under Navy ownership and control? This comment also applies to Figure 2.	Borders, yellow shading, and labels for Parcels A-1 and A-2 will be removed from Figures 1 and 2.
4.	<b>Figure 1 and Figure 2.</b>	(a) Please add some location information (i.e. street names) that is presented in the text so the reader can better understand these figures. For example, Crisp Road, and few key streets in the Bayview neighborhood (e.g. Palou Ave, Griffith St, Carroll Ave, and Ingalls Street) should be added to the figures.  (b) Consider adding Yosemite Slough on at least one of these figures.	(a) Select street names will be added to Figures 1 and 2.  (b) Yosemite Slough will be labeled on Figures 1 and 2.
5.	<b>Figure 2.</b>	Steam lines referenced in the text could not be found in this Figure. Ultimately, response actions to steam lines in Parcel UC-3 are a component of the selected remedy. Therefore, location of these steam lines should be clear throughout the ROD.	The steam line will be added to Figure 2.

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6.	<b>Page 2-2, Top Paragraph.</b>	It is suggested that this paragraph state that railroad right of portion of UC-3 is located in San Francisco's Bayview Neighborhood.	<p><b>The fourth of the last paragraph of Section 2.1 will be revised as follows:</b></p> <p>"The railroad right-of-way portion of Parcel UC-3 is located in San Francisco's Bayview neighborhood. The railroad was originally used to transport materials and equipment to and from the shipyard. The chemical contamination of the railroad right-of-way likely resulted from miscellaneous spills while the Navy operated the HPNS. The railroad right-of-way is about 30 feet wide and extends about 3,200 feet west from the end of Crisp Road (near the intersection of Paluo Avenue and Griffith Street) to a location near the intersection of Carroll Avenue and Ingalls Street."</p>
7.	<b>Page 2-2, bottom paragraph.</b>	Recheck text to confirm that information on stormwater flow is true for all portions of the Parcel UC-3.	<p><b>The second sentence of the second paragraph of Section 2.2 will be revised as follows:</b></p> <p>"Surface water at HPNS drains toward the San Francisco Bay primarily as sheet flow."</p>
8.	<p><b>Page 2-3.</b></p> <p><b>(a) Hydrostratigraphy Section.</b></p> <p><b>(b) Historic Area.</b></p>	<p>This text is written with certainty for all of Parcel UC-3. However, EPA is aware of only one (former) groundwater monitoring well in this parcel where hydrogeology was investigated and that one well has since been abandoned. What information was used to write this section? Please caveat the text so it is commensurate with the level of data upon which it is based</p> <p>Please reference Figure 2 and indicate the likely depth of the shellmound.</p>	<p><b>Section 2.2 will be edited to include the caveat:</b> "The following discussion of hydrostratigraphy is based on information presented in the Parcel E FS Report. The information was collected across Parcel E and has been extrapolated to be applicable to Parcel UC-3."</p> <p>A reference to Figure 2 will be added to the Historic Area description. The potential historic shellmound in this area has not been investigated, so depth to the potential resources is not known.</p>
9.	<b>Figure 3.</b>	<p>(a) In the Legend, after Radiological TCRA, please insert "Storm drain and sewer line removal" in parentheses afterwards to provide clarity to this TCRA.</p> <p>(b) Considering showing the Rad TCRA confirmation samples (or any other removal confirmation samples) in this figure. Currently, Figure 3 indicates that the zone of the Rad TCRA appears to have had no soil samples.</p>	<p>(a) The following text will be added after "Radiological TCRA" in the legend:</p> <p>"(storm drain and sewer line removal)."</p> <p>(b) TCRA confirmation samples were collected in the referenced zone and followed MARSSIM protocol and were all below established radiological release criteria. There is minimal value to showing these locations as they were not analyzed for COCs and only analyzed for radiological clearance. Addition of these locations could be misinterpreted as additional chemical soil sample</p>

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			locations.
10.	<b>Section 2.3.</b>	Please insert a table with an appropriate summary remedial investigation data (e.g. number of samples, detections, max/min concentrations) in soil and groundwater in Parcel UC-3. Without this information, subsequent portions of the ROD that cover COCs, risk, and remedial goals are without sufficient context.	Please see the response to USEPA General Comment #1 which added additional text summarizing remedial investigation data. Tables summarizing the data you request can be found in the Revised Parcel E RI and the Parcel E Technical Memorandum for Soil Excavation Characterization.
11.	<b>Table 1, Previous Investigations and Removal Actions, Pages 2-4 through 2-8.</b>	<p>(a) In the header for this table, it may be prudent to remind that reader about what was stated in Footnote 2 (i.e. Documents prior to February 2013 concern Parcel E and not just Parcel UC-3 only).</p> <p>(b) For previous actions that were not relevant to Parcel UC-3, you may wish to indicate them as such so the reader is not lead to believe that all these actions listed in this table occurred in Parcel UC-3 only. For example, the Area Study conducted in 1987 to identify asbestos containing materials, the Basewide Removal of PCB [polychlorinated biphenyl]-containing Electrical Transformers, the Solid Waste Air Quality Assessment Test, and the Removal and Closure of ASTs and USTs do not appear to be applicable to Parcel UC-3. Table 1-1 and the ROD would be more streamlined if entries that are not applicable to Parcel UC-3 were removed from Table 1-1.</p>	<p>(a) <b>The header of Table 1 will be revised as follows:</b> "Previous Investigations and Removal Actions (Parcel UC-3 was included in Parcel E in documents published prior to February 2013)"</p> <p>(b) Table 1 will be reviewed and revised. The Basewide Removal of PCB containing Electrical Transformers, the Solid Waste Air Quality Assessment Test, and the Removal and Closure of ASTs and USTs will be removed from the table because they are not applicable to Parcel UC-3. The Area Study conducted in 1987 will not be removed because it is applicable to IR Site 04 which is partially within Parcel UC-3.</p>
12.	<b>Page 2-9. 3rd Paragraph.</b>	<p>(a) This paragraph seems to have several inconsistencies and is hard to follow. Please re-check and edit as appropriate.</p> <p>(b) Please provide a summary of concentration data for key contaminants (e.g. TCE) found in Well IR74MW01A.</p> <p>(c) The last sentence in this section references "data from well and direct-push sample locations" but no year is given and this event is not described in Table 1.</p>	(a), (b), (c), and (d) Please see the response to USEPA General Comment #1.

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		(d) Reference to the "changes to the RI plume delineation" seems out of place since a map show the VOC groundwater plume is not presented until later in the ROD in Figure 7. For clarity, it may be helpful to add a text discussion covering the year that the TCE groundwater plume was originally delineated and the year the extent of the TCE groundwater plume was re-checked. Before addressing this comment, please address EPA's general comment regarding the general scope of the groundwater remedy for this ROD.	
13.	<b>Figure 4.</b>	In the Legend, the zone identified as "No Identified Reuse" should have in parentheses identifying what the Navy assumed for reuse in this zone for purposed of this ROD. It appears that Light Industrial was assumed based on information presented elsewhere in the ROD (see Figure 9 for example); but the Navy should clarify this point. Upon clarifying the Legend of this figure to address this point, please edit the associated text in Section 2.4 at the text at bottom paragraph on Page 2-9.	<p><b>Figure 5 (formerly Figure 4) will be changed to show the former "No Identified Reuse" area as "Light Industrial" with the following note:</b></p> <p>"2010 Redevelopment Plan did not identify reuse for this area. The Navy assumed light industrial reuse based on the current surrounding land use."</p> <p><b>The third sentence of the first paragraph of Section 2.4 will be revised as follows:</b></p> <p>"The data analysis, risk evaluations, and remedial alternatives presented in the Revised Parcel E RI Report and Parcel E FS Report assumed that the future reuse of Redevelopment Block MU-3 will be mixed use, and the future reuse of the western half of Crisp Road and the railroad right-of-way will be light industrial (Figure 5)."</p>
14.	<b>Page 2-9, bottom paragraph.</b>	The last sentence in this paragraph is inconsistent. The beginning clause implies that Mixed Use was assumed for all of Parcel UC-3 and the end of the sentence implies that the railroad right-of-way is not part of the Parcel UC-3. Please edit this paragraph as appropriate.	Please see the response to USEPA Specific Comment #13.
15.	<b>Table 2.</b>	There appears to be no risk calculation for the "no identified reuse zone" in between MU-3 and the Railroad Right-of-Way. Please add a risk evaluation or explain why this zone was not evaluated for risk.	<p><b>The following sentence will be added to the new Section 2.3.4, as discussed in the response to USEPA General Comment #1:</b></p> <p>"The Revised Parcel E RI did not identify areas exceeding the RI screening criteria within the area between Redevelopment Block MU-3 and the railroad right-of-way."</p> <p><b>The following sentence will be added to Section 2.5.1:</b></p>

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			"The HHRA did not calculate a risk for the western half of Crisp Road (the area between the railroad right-of-way and Redevelopment Block MU-3) (Figure 5) because no results exceeded the screening criteria used in the RI, and there are no IR Sites in this area."
16.	<b>Sections 2.5.1 and 2.5.2.</b>	Please recheck the text in this section and edit as appropriate. As stated previously, without an adequate introduction to and identification of Parcel UC-3 COCs in Section 2.3, discussion of risk from COCs is without context. The 3rd paragraph on Page 2-12, states that total risk was evaluated based on all chemicals (and identifies the few exceptions by name) but never explains what chemicals are actually driving the risk in the parcel. In Section 2.5.2, lead, copper and PCBs are presented without any previous introduction in Section 2.3.	Section 2.3 will be revised to provide context. See response to USEPA General Comment 1.  The chemicals that are driving the risk in the railroad right-of-way are explained in the eighth paragraph of Section 2.5.1 as follows: "The highest cancer risks and HI in soil were driven by concentrations of SVOCs, TPH, and metals (copper and lead) in three separate locations in the railroad right-of-way."  <b>The following sentence will be added to Section 2.5.1 to explain the risk driver in Redevelopment Block MU-3:</b>  "Metals drive the cancer risk and HI in the portion of Redevelopment Block MU-3 that is within Parcel UC-3."
17.	<b>Page 2-13.</b>	Bottom Paragraph. Please re-check this paragraph and insert the word "soil" as appropriate for clarity.	<b>The third sentence of Section 2.5.2 will be revised as follows:</b>  "Results of the risk evaluation indicated carnivorous birds (such as the American kestrel) and small omnivorous mammals (such as the house mouse) may be at risk from ingested doses of copper, lead, and PCBs at Parcel E (PCBs are not a COC in Parcel UC-3)."  Please see response to USEPA General Comment #5, which addresses changes to Section 2.5.3.
18.	<b>Figure 6.</b>	Insert some street names; otherwise this map cannot be understood with respect to the location of the soil contamination.	Ingalls Street, Thomas Avenue, and Griffith Street will be labeled on Figure 7.
19.	<b>Section 2.5.3 and Table 4.</b>	(a) This section does not provide a clear basis for the response action. Please re-think how the remedial goals are introduced, explained in terms of risk, and finalized in the ROD. It is not clear if the RGs are based on Residential or Industrial risk assumptions and it is unclear what are the final and effective RGs for soil and groundwater. The explanation provided in the "Basis for Hot Spot Remediation Goal" does not explain why hot spots should only be cleaned up to "5 times the RG [remediation goal]" for the	(a) Most of the action levels for soil at hot spots described in Table 6 (formerly Table 4) are based on 5 times the RG for the residential exposure scenario as indicated in the last column of the table. The effective RGs for soil that will be left in place are described in Table 7 (formerly Table 5).  The second paragraph of Section 2.5.3 will be revised as described in the response to USEPA General Comment #5.

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		residential exposure scenario."	
		<p>(b) The purpose of Table 4 and introduction of the term Hot Spot and Hot Spot Remediation Goal are not understood. Later in the ROD, soil RGs are presented in the Table 5 without any reference or connection to Table 4. And then, further in the ROD, the terms Tier 1 and Tier 2 are used; but without any definition, context or linkage to Tables 4 or 5. Are Tables 4 and 5 somehow connected to the concepts around Tier 1 and Tier 2? If so, then only Tier 2 is needed since Table 4 defines Hot Spot only as 5 times Residential RGs. Therefore, Tier 1 (10 times Residential RGs) is not applicable to any Parcel UC-3 soil excavation area and should be completely removed from the ROD.</p> <p>(c) Is the text in this section and Tables 4 and 5 consistent with how the Final FS and Proposed Plan presented risk, the basis for a response action, and RGs for the soil and groundwater remedies for Parcel UC-3? If not, then the Navy should first consult with Regulatory Agencies regarding the exact remedial approach for this parcel and write up any modifications to the approach to the Final FS and Proposed Plan in a new section of this ROD in accordance with EPA ROD Guidance.</p> <p>(d) When the final, effective RGs are prepared (i.e. in Tables 4 or 5), please be sure that all of Parcel UC-3 is covered, including the zone with no identified re-use. In addition, as was done in the draft Parcel E ROD, please include a color-coded map indicating the exact location of the Tiered soil excavation areas (i.e. Tier 2).</p>	<p>(b) Please see the responses to USEPA General Comment #5 and USEPA Comment #19a. Tier 1 action levels are applicable to remedial alternatives that are described in this ROD. The text will be revised in Section 2.3.1 and 2.5.3 to clarify the description of hot spots and the purpose of Tables 4 and 5.</p> <p>(c) This section as well as Tables 4 and 5 are consistent with the FS and Proposed Plan.</p> <p>(d) Tables 4 and 5 will be edited for clarification. The RGs apply to all of Parcel UC-3. Figure 8 identifies the Tier 2 hot spot excavation areas.</p>
20.	<b>Section 2.7.1.</b>	(a) Please begin bullets 2 through 5 with the word "prevent" so they are consistent with the way the groundwater RAOs are written. The first bullet would need to be edited in this case. Alternatively, you could indent bullets 2 through 5 so it is clear that the "Prevent" from the first bullet applies to bullets 2 through 5.	(a) Bullets 2 through 5 will be indented.

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		(b) Because VOC vapor intrusion into indoor air was identified as a potential unacceptable risk in the Mixed Use Zone (see Section 2.5), please add a Soil Gas RAO to Section 2.7.1. EPA recommends that the Navy use the same Soil Gas RAO that was listed in the Draft Parcel E ROD.	(b) <b>Section 2.7.1 will be revised to add the following Soil Gas RAO consistent with the Parcel E ROD:</b>  “Prevent exposure of humans to VOCs in soil gas at concentrations that would pose unacceptable risk via indoor inhalation of vapors. Table 7 of the final soil gas memorandum lists risk-based action levels for various volatile chemicals that pose an unacceptable risk via indoor inhalation of vapors. These soil gas action levels will be used for an initial risk-based screening of data collected during future soil gas surveys (such as the surveys to be performed at the IR Site 56 VOC groundwater plume following active treatment). After the initial risk-based screening, areas with unacceptable risk will be further evaluated using location-specific data (i.e., physical characteristics of the soil) to assess potential exposures consistent with the State of California and USEPA vapor intrusion guidance. In addition, risks and hazards at these areas will be further characterized using the accepted methodology for risk assessments at HPNS.”
21.	<b>Section 2.7 and Table 5.</b>	As stated previously, the final, effective soil RGs for the various reuse zones in Parcel UC-3 are not clear in Table 4; nor are they clear in text of Section 2.7 or Table 5.	Text will be added to previous sections to clarify that Table 7 (formerly Table 5) shows the effective soil RGs for soil that will be left in place. As stated in the text, the RAO for soil is to “Prevent unacceptable exposure of humans to chemicals in soil at concentrations exceeding the RGs...” A reference to Table 7, the RGs for soil, will be added to this text.
22.	<b>Table 6.</b>	Table 6 does not include remedial goals (RGs) for groundwater contaminants other than trichloroethene (TCE). Since the IR Site 12 plume consists of tetrachloroethene (PCE) and anaerobic biodegradation of TCE and PCE will generate daughter products like cis-1,2-dichloroethene and vinyl chloride, the RGs should include all contaminants present in groundwater and daughter compounds that could be generated during bioremediation. Please revise the list of groundwater RGs to include all groundwater contaminants and daughter products that could be generated during bioremediation.	RGs for 1,2-dichloroethene (total) and vinyl chloride, as presented in the Proposed Plan, will be added to Table 8 (formerly Table 6).

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23.	<b>Section 2.8.1.</b>	Use of the terms Tier 1 and Tier 2 are presented for the first time in the document when Alternative S-3 and S-4, are described. These terms need to be introduced and defined much earlier in the ROD (e.g. Tables 4 and/or 5), so the risk-based context of these terms can be understood in the context of Alternatives S-3 and S-4. This comment also applies to Table 7 and anywhere the terms Tier 1 and Tier 2 are used in Section 2.8 and 2.9.	Please see the response to USEPA General Comment #5.
24.	<b>Table 7.</b>	<p>(a) Section 2.8 and Table 7 do not include the total number of years over which the remedy cost estimates are projected. Further, the time to complete each remedy is not included in the ROD text or tables. Please revise the text of the ROD and Table 7 to include the total number of years over which the remedy cost estimates are projected (i.e., the time to complete each remedy).</p> <p>(b) The costs for each alternative are not presented in sufficient detail. The ROD Guidance indicates that costs should be broken down into estimated capital costs and annual operations and maintenance (O&amp;M) costs, but only a single cost is provided. Please revise the costs in Table 7 to include both the estimated capital costs and annual O&amp;M costs.</p> <p>(c) Alternative S-4 in this table should not be divided between Page 2-19 and 2-20. Please re-format this table.</p>	<p>(a) Please see the response to USEPA General Comment #9. The appropriate breakdown of costs will be added to the respective sections and tables.</p> <p>(b) Please see the response to USEPA General Comment #9.</p> <p>(c) Table 9 (formerly Table 7) will be reformatted so Alternative S-4 is not split onto two pages.</p>
25.	<b>Table 8.</b>	<p>(a) Do the fill symbols in this table match what was presented in the Proposed Plan?</p> <p>(b) It is unclear what basis the Navy used to fill the symbols for Community Acceptance, especially for Alternatives S-3 and S-4. At a minimum, EPA suggests removing a quarter of shading for both S-3 and S-4 since it is unclear that these alternatives received "excellent" community support.</p>	(a)(b) Tables 10, 11, and 12 (formerly Tables 8, 9, and 10) will be edited to match the Proposed Plan and the State and Community acceptance ranking will be edited as suggested.
26.	<b>Section 2.8.2 and Table 8.</b>	The text for comparative analysis is not clear since the difference between S-3 and S-4 are not clear. Does the Navy wish to remove	The fourth bullet in Section 2.8.1 will be revised as described in the response to USEPA General Comment #5.

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		<p>"Tier 1" from the title of S-4? EPA will review this section again after the scope of Alternatives S-3 and S-4 are clarified.</p>	<p><b>The first section of the description of Alternative S-4 in Table 9 (formerly Table 7) will be revised as follows:</b></p> <p><b>“Excavation and Offsite Disposal of Soil from Tier 2 and TPH Locations, Followed by Covers and Institutional Controls:</b> At Tier 2 locations, remove soil that contains chemicals at concentrations greater than 5 times the RGs (Tier 2 locations include Tier 1 locations). At TPH locations, remove soil that contains TPH at concentrations greater than the RG.”</p> <p><b>In Table 10 (formerly Table 8), the column heading for Alternative S-4 will be revised as follows:</b></p> <p>“Alternative S-4* Excavation and Offsite Disposal of Soil from Tier 2 and TPH Locations, Followed by Covers and ICs.”</p> <p><b>The first sentence of the first bullet of Section 2.9.1 will be revised as follows:</b></p> <p>“Soil – Alternative S-4. Excavation and offsite disposal of soil from Tier 2 and TPH locations (Figure 6), followed by covers within Redevelopment Block MU-3 and ICs.”</p> <p><b>The first sentence of the third paragraph of Section 2.9.1 will be revised as follows:</b></p> <p>“Alternative S-4 will achieve RAOs by permanently removing soil in selected areas where chemicals exceed 5 times the RGs (Tier 2 locations, including Tier 1 locations) or the RG (TPH locations), thus protecting human health under the anticipated future land use of Parcel UC-3.”</p> <p><b>The first sentence of section 2.9.2 will be revised as follows:</b></p> <p>“The selected remedy for soil and groundwater at Parcel UC-3 consists of two primary components: (1) excavation and offsite disposal of soil from Tier 2 and TPH locations, steam line closure, and soil-gas monitoring at the IR Site 56 plume, followed by covers within Redevelopment Block MU-3 and ICs; and (2) ISB, MNA, and ICs at the IR Site 56 plume.”</p> <p><b>The second sentence of the first paragraph of Section 2.9.3 will be revised as follows:</b></p>

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			<p>“Excavation and offsite disposal of soil from Tier 2 and TPH locations will reduce site risks, and the cover will prevent contact with remaining contamination that might pose an unacceptable risk.”</p> <p><b>The first bullet of Section 2.9.4 will be revised as follows:</b></p> <p>“Protection of Human Health and the Environment. The selected remedy will protect human health and the environment by preventing exposure to COCs through the excavation of soil from Tier 2 and TPH locations near the ground surface, installation of covers, closure of steam lines, monitoring of soil gas, ISB, MNA, and implementation of ICs.”</p>
27.	<b>State Acceptance (in Sections 2.8.2 and 2.8.3).</b>	Since USEPA is not a State agency, USEPA should not be included in discussion of the State Acceptance criteria.	USEPA will be removed from the discussion of State Acceptance criteria in Sections 2.8.2 and 2.8.3.
28.	<b>Section 2.9.</b>	<p>(a) In the bottom paragraph on Page 2-26, what does the term "actual RGs" mean? The last sentence in this paragraph should be edited to read: "...deed restrictions to maintain covers, enforce access restrictions, and control future land uses."</p> <p>(b) Fix the font in the last sentence in the top paragraph on Page 2-27.</p>	<p>(a) The first sentence of the third paragraph of Section 2.9.1 will be revised as described in the response to USEPA Specific Comment #26 which addresses a similar comment.</p> <p><b>The last sentence of the third paragraph of Section 2.9.1 will be revised as follows:</b></p> <p>“Alternative S-4 also provides long-term effectiveness in meeting the RAOs through reliance on continual enforcement of deed restrictions to maintain covers and access restrictions, and control of future land uses.”</p> <p>(b) The font of the last sentence of the last paragraph of Section 2.9.1 will be changed to match the main text font.</p>
29.	<b>Section 2.9.1.</b>	(a) Please modify the first sentence in the second paragraph so it is consistent with the same sentence in Section 1.0. For example, this sentence could be edited as follows: "The Navy and EPA, in consultation with USEPA, DTSC, and RWQCB, selected the remedy based on an evaluation of the remedial alternatives, as described in Section 2.8, relative to the nine evaluation criteria."	<p><b>The first sentence of the second paragraph of Section 2.9.1 will be revised as follows:</b></p> <p>“The Navy and USEPA, in consultation with DTSC and RWQCB, selected the remedy based on an evaluation of the remedial alternatives, as described in Section 2.8, relative to the nine evaluation criteria.”</p>
30.	<b>Section 2.9.2.</b>	Without any explanation, reference to Alternative R-2 has disappeared from this section (Description of the Selected Remedy). As was done for other components of the final selected remedy (S-4	<b>A new section (Section 2.9.2.4 Excavation and Offsite Disposal of Radiologically Impacted Sewer and Storm Drain Lines) will be added to Section 2.9.2 as follows:</b>

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		<p>and GW-3), please add a paragraph to explain the rationale for Alternative R-2. EPA currently understands that Alternative R-2 is the selected final remedial action for radionuclides in Parcel UC-3. However, this final decision needs to be documented in final Parcel UC-3 ROD. If Navy wishes to also document that R-2 has been fully and successfully completed via previous removal actions, then the Navy should add a new subsection to the ROD concerning R-2 and document why this component of the final remedial action is complete and a remedial design and further remedial action is not needed. Also, please check the Navy's Parcel UC-3 Proposed Plan, and check to see if Alternative R-2 was proposed by the Navy for Parcel UC-3. Any differences between the proposed remedies in the Parcel UC-3 Proposed Plan and the selected remedies in this ROD will need to be documented in the ROD in accordance with the EPA ROD guidance.</p>	<p>"Alternative R-2 will achieve ROAs by performing the following actions: (1) scanning radiologically impacted sewer and storm drain lines at Parcel UC-3; (2) screening, separating, and disposing of radiologically contaminated debris and soil at an approved landfill; and (3) performing final surveys to demonstrate RGs have been met. As discussed in Sections 1.1 and 2.8.1, this alternative was completed at Parcel UC-3 under a TCRA in 2011. All work required by the selected radiological Alternative R-2 has been completed, and no additional actions are required. A Radiological Removal Action Completion Report (RACR) for Parcel UC-3 was submitted on March 16, 2012, and received concurrence for free release for unrestricted use from DTSC on October 31, 2012."</p> <p>The Proposed Plan did not propose Alternative R-2 for Parcel UC-3 because the storm drain and sewer lines had already been removed from Parcel UC-3. Page 16 of the Proposed Plan states "the Navy has also removed storm drain and sewer lines throughout Parcel UC-3...as part of the Navy's investigation for residual radiological contamination". However, Alternative R-2 was the preferred alternative for Parcel E.</p>
31.	<b>Section 2.9.2.1.</b>	<p>(a) This section includes extensive references to boring numbers that have not been introduced previously in the ROD and therefore have no meaning in this section. If the Navy wishes to present how the preliminary boundaries of the soils excavation areas have been characterized, then that information should be first presented and documented in Section 2.3 of the ROD.</p> <p>(b) The last paragraph in this section is not acceptable. Once the final, effective soil RGs are identified in this ROD (see previous EPA comments on this point), then this paragraph should provide a clear statement that confirmation samples will be collected for analysis to verify that the effective soil RGs are achieved (not "adequately addressed") at each soil excavation area.</p>	<p>(a) Please see the response to USEPA general Comment #1. The reference to the boring numbers from the Parcel E Soil Excavation Characterization have been removed and instead the section refers to the borings presented in Section 2.3.</p> <p>(b) <b>The first sentence of the third paragraph of Section 2.9.2.1 will be revised as follows:</b></p> <p>"Following excavation and before the voids are backfilled, confirmation samples will be collected for analysis to verify that soil Tier 2 and TPH action levels have been achieved at each soil excavation area."</p>

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32.	<b>Section 2.9.2.2.</b>	<p>(a) The first sentence of this section states that durable covers will be applied on parts of Parcel UC-3. This implies that there will be more than one durable cover. However, the selected remedy implies that one durable cover will be built over MU-3 reuse area.</p> <p>(b) The third sentence implies that an asphalt cover is used in industrial areas and 2 feet of new soil for residential areas. However, previous sections of the ROD and Figure 8 suggest that asphalt or concrete will be used in reuse area MU-3 (which is a Mixed Use/Residential Area). Please edit this sentence so it is consistent with the rest of the ROD and Figure 8.</p>	<p>(a) <b>The first sentence of Section 2.9.2.2 will be revised as follows:</b>            “A durable cover is required at Parcel UC-3 in the eastern portion of Crisp Road (specifically within Redevelopment Block MU-3) to meet the RAO by breaking the exposure pathway for contamination left in place. Durable covers are not required in the western portion of Crisp Road and the railroad right-of-way.”</p> <p>(b) <b>The (now) fourth sentence of Section 2.9.2.2 will be revised as follows:</b>            “The durable cover will consist of a minimum of 4 inches of asphalt or concrete paving.”</p>
		<p>(c) The last two sentences of the first paragraph in this section would be best used as the first sentences of the paragraph. These two sentences clearly establish where durable covers are required and where they are not required.</p> <p>(d) Section 2.9 should avoid presenting new risk-based rationales or limitations to the selected remedy. In addition, this section does not provide an adequate justification for why durable covers are not needed outside Reuse area MU-3. The risk-based rationale for the lack of durable covers should first be presented and documented in previous sections of the ROD (i.e. Sections 2.3 through 2.8). Section 2.9 should simply identify and describe the selected final remedy; the scope and rationale of which should already be described in the ROD.</p> <p>(e) This section must include a clear statement that Soil RAOs and Soil RGs will be achieved.</p> <p>(f) In the Steam Line Closure paragraph, the term IR Site 45 is used in the ROD for the first time. Please identify this IR site previously in the ROD.</p>	<p>(c) The last two sentences of the first paragraph will be moved to the beginning of the second paragraph.</p> <p>(d) Please see the response to USEPA General Comments #1, #3, and #7, in response to this comment.</p> <p>(e) This section discusses durable covers and a statement will be added that RAOs will be met. A durable cover is not intended to meet soil RGs.</p> <p>(f) The fourth bullet of Section 1.1 and the second bullet of Section 2.8.1 will be revised to identify IR Site 45.</p>

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33.	<b>Figure 8.</b>	(a) The Legend should identify what the yellow-colored zone means. For example, is this the portion of Parcel UC-3 without a durable cover? If so, please clarify. (b) The inset blow-up of the middle soil excavation area implies that the Navy will excavate partially outside Parcel UC-3. Is this correct?	(a) The yellow shading will be removed from Figure 8. (b) The inset blow-up of the middle soil excavation area will be revised to show excavation only within Parcel UC-3 boundaries.
34.	<b>Section 2.9.2.3.</b>	(a) In the first sentence of this section, please delete "would" and use "will" instead. This comment generally applies throughout Section 2.9.2. Use of the word "would" seems awkward for describing a selected remedy. (b) The last sentence of the third paragraph uses the term "intermediate remediation endpoints". This term is not defined in the ROD. Please replace this term and instead use the term "Groundwater RAOs and RGs". In this section, there must be a clear statement that Groundwater RAOs and RGs will be achieved.	(a) The word "would" will be changed to "will" throughout Section 2.9.2, as appropriate. (b) <b>The last sentence of the third paragraph of Section 2.9.2.5 will be revised as follows:</b> "ISB performance monitoring will continue until groundwater RAOs and RGs are met and no rebound is observed, even after depletion of amendments."
		(c) The last paragraph on this section is very confusing. Why are Building 406 TCE Plume, IR Site 12 PCE Plume, and IR Site 04 TCE Plume mentioned here for the first time? Will 16 additional wells be installed in Parcel UC-3? Please re-write this paragraph.	(c) The last paragraph will be edited to delete discussion of IR sites outside Parcel UC-3.
35.	<b>Section 2.9.2.7 and Figure 9.</b>	(a) The text frequently uses the term VOC ARIC however Figure 9 has no term called VOC ARIC. Please make text and Figure consistent. (b) Why is the term "Initially" used at the beginning of the second sentence? (c) Use of the term 1 in 1,000,000 in the last sentence of this section is vague and without context. (d) In Figure 9, is the VOC ARIC the Yellow zone or is it the Green Zone? EPA assumes that the VOC ARIC is the Yellow Zone but it's not clear. If the VOC ARIC is for the Green Zone only, has the Navy conducted an adequate soil gas survey to remove the VOC ARIC from the rest of the Yellow Zone (i.e. Re-Use Area MU-3)? (e) How will the Navy inspect and enforce the IC restricting residential reuse in the Railroad Right-of-Way zone?	(a) The text will be revised to refer to "ARIC for potential VOC chemicals in groundwater and soil gas." (b) The word "initially" will be removed from the beginning of the second sentence of Section 2.9.2.7. (c) Please see the response to RWQCB Comment #12. (d) The VOC ARIC is the green area and is based on soil gas surveys and data presented in the Feasibility Study. VOCs are not a COC in the remaining portions of Redevelopment Block MU-3. (e) The Navy will address this issue in a LUC RD report, as the Navy has for other HPNS parcels.

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		(f) The Legend has inadvertently cut-off the Parcel F label in South Basin.	(f) The Parcel F label was not cut off by the legend. The label reads as follows: "F (Water and Piers)"
36.	<b>Section 2.9.3 and 2.9.4.</b>	Check use of Tier 1 and Tier 2 and make consistent with the rest of the ROD as appropriate. On page 2-34, please review and edit the first bulleted paragraph on this page. Much of the text in this paragraph appears to stray from the stated purpose of the paragraph.	Please see the response to USEPA General Comment #1. The referenced paragraph within section 2.9.4 will be edited.
37.	<b>Appendix D.</b>	Have the ARARs been specifically checked by the Navy for applicability to the selected remedies in Parcel UC-3 as opposed to the selected remedy in Parcel E? If not, please check and edit as appropriate.	Please see the response to USEPA General Comment #8.

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<b>General Comments:</b>			
1.	<b>Selected Remedy/p.1-2</b>	The second item in the bulleted list states the remedy includes “removal and disposal of materials and soil with radiological contamination”. Please revise the text to clarify this action refers to excavation of radiologically impacted sewer and storm drain lines, and disposal of material associated with such excavation. It is our understanding that the only radiologically impacted material is that associated with the sewer and storm drain lines.	Please see the response to USEPA General Comment #6.
2.	<b>Figure 2 - Parcel UC-3 Existing Site Features</b>	For clarity, please label Crisp Road and the Railroad Right-of-Way on this figure, and revise the figure to clearly show the steam lines.	Crisp Road, the railroad right-of-way, and the steam lines will be identified on Figure 2.
3.	<b>Figure 3 - Previous Soil and Groundwater Sampling Locations and Section 2.3 Previous Investigations and Removal Actions/p.2-4</b>	No soil sampling locations are shown in the area between the Railroad Right-of-Way and MU-3. Was this area not sampled for soil? If no soil samples were taken from this area, please revise the Section 2.3 text to explain why this area was not sampled.	Please see the response to USEPA Specific Comment #15.
4.	<b>Table 1 - Previous Investigation and Removal Areas</b>	We understand that Parcel UC-3 was formerly part of Parcel E, and previous investigations and removal actions were conducted as part of Parcel E work. It seems several of the investigations and removal actions listed in Table 1 do not pertain to the area that is now Parcel UC-3. Please review the table and either remove investigations/removal actions that do not pertain to Parcel UC-3, or highlight the ones that do pertain. Please also revise the text in Section 2.3 to explain what Table 1 is presenting (e.g., all Parcel E work with Parcel UC-3 highlighted, only Parcel UC-3- relevant work, etc.). On page 2-7, the table entry on the bottom of the page states “TCRA activities in Parcel UC-3 E...”—please correct this typo.	Please see the responses to USEPA General Comment #1 and USEPA Specific Comment #11b.  The typographical error on page 2-7 will be corrected.
5.	<b>Section 2.3 Previous</b>	The last paragraph on page 2-8 discusses soil data and refers to Figure 4. Figure 4 does not present any soil data. Please revise the	References to Figure 4 in the last paragraph on Page 2-8 will be removed. Figure 3 shows soil sample locations, but not soil data.

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	<b>Investigations and Removal Actions/p.2-8, 2-9</b>	text to refer to Figure 3. In addition, please clarify the industrial screening criteria used to compare concentrations in soil samples. Were the three areas selected for excavation determined based on exceedance of industrial screening criteria, on Tier 2 action levels, or exceedance of either? This section also discusses the IR-Site 56 groundwater plume, stating that ZVI injections were not recommended because the concentrations of COCs “did not exceed their respective project-specific goals”. Yet the following paragraph states that groundwater sampling results from this plume indicated TCE concentrations above Remedial Goals (RGs). Please revise the text to reconcile and clarify these statements. Was ZVI not recommended because the TCE concentrations in groundwater were not high enough for ZVI to be efficient? Please also add text to refer to a figure showing the IR Site 56 groundwater plume. The plume is discussed in the section, but no reference to a figure is provided and the plume is not shown in any of the preceding figures.	References to screening criteria will be revised to reference screening criteria used in the Revised Parcel E RIRGs. See the response to USEPA General Comment #1.  The text will be revised to clarify that three areas selected for excavation were determined based on exceedance of the Tier 2 action levels (five times the RGs for constituents other than TPH, and the RG for TPH).  The last sentence of the second paragraph on page 2-9 states “ZVI injections were not recommended for the IR Site 56 TCE plume because concentrations of COCs did not <b>significantly</b> exceed their respective project-specific goals.” This does not conflict with the statement in the next paragraph that TCE concentrations exceeded RGs. Note that the description of groundwater has been revised (see the response to USEPA General Comment #1).  A reference to Figure 4 will be added to the text.
6.	<b>Issue: Description of Tier 1, Tier 2, and Hot Spot RGs/p. 2-14, Table 4, Table 5/p.2-18</b>	The description of Tier 1, Tier 2, and “hot spot RGs” (from pages 2-13 through 2-19, including the tables) is confusing because the information presented is hard to follow. On page 2-14, the term hot spot is used without explanation or definition. Then on Table 4, “remediation goals” are presented without specifying which scenario (e.g., residential, construction worker, industrial). Previously, in section 2.3, industrial screening levels are discussed for these areas now identified as “hot spots” on Figure 6. How do “hot spot remediation goals” and industrial screening criteria relate? Are hot spot remediation goals more protective? The text states that the future land use is industrial and then presents multipliers of residential RGs as the basis for hot spot RGs without explanation. On pages 2-18 and on Table 17, the Tier 1 and Tier 2 locations are described as locations that contain soil with chemicals at concentrations greater than 10 and 5 times “the RGs”, respectively. Please revise the text to specify which RGs the Tier 1 and Tier 2 locations refer to. It may be helpful to state that hot spot RGs equal Tier 2 concentrations for non-TPH chemicals, or similar language. Please revise all relevant text, figures, and tables to clearly describe the basis for selecting soil excavation areas.	Discussions regarding Tier 1 and Tier 2 action levels, hot spots, RGs, and screening criteria will be clarified throughout the document. See the response to USEPA General Comment #1.

**RESPONSE TO COMMENTS ON  
DRAFT RECORD OF DECISION FOR PARCEL UC-3  
HUNTERS POINT NAVAL SHIPYARD  
SAN FRANCISCO, CALIFORNIA**

Comments from:

Tina Low, P.E., San Francisco Bay Regional Water Quality Control Board – August 8, 2013

Comment Number	Section/ Page	Comment	Response
7.	<b>Table 5 Remediation Goals for Soil</b>	Why are residential RGs not presented for benzo(k)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene? Residential RGs for these chemicals are presented in Table 4 of this draft ROD, as well as in Table 4 of the draft ROD for Parcel E.	Residential RGs for benzo(k) fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene will be added to Table 7. However, benzo(k)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene are not chemicals of concern under the residential exposure scenario.
8.	<b>Issue: Lack of soil gas or groundwater RGs protective of exposure of humans to VOCs in soil-gas in a residential scenario</b>	Section 2.5.1 Human Health Risk Assessment discusses cancer risks and noncancer hazards in groundwater for future residents (in the MU-3 reuse area) who could breathe VOC vapors that may have migrated from shallow groundwater through shallow soil beneath Parcel UC-3. However, this draft ROD does not include soil gas or groundwater RGs protective of this exposure scenario. No soil gas RGs are presented. The RGs for groundwater (as shown in Table 6) only includes the construction worker exposure scenario, not the residential scenario. As the MU-3 reuse area includes residential use, a residential scenario RG for soil gas or groundwater is needed. For reference, the Water Board's groundwater ESL (residential use) for the groundwater to indoor air pathway for TCE is 130 ug/L, which is more stringent than the TCE construction worker RG of 370 ug/L presented in Table 6. Please include soil gas or groundwater RGs protective of residential exposure to VOCs in indoor air migrating from groundwater or soil.	Please see the response to USEPA Specific Comment #20b, which describes discussion of soil gas RAOs that will be added to Section 2.7.1. The RGs for groundwater are consistent with the Parcel E FS and the Parcel E ROD. Additionally, please see the response to USEPA General Comment #5b.
9.	<b>Table 6 Remediation Goals for Groundwater</b>	Biological treatment of groundwater containing TCE will produce daughter products. Therefore, RGs for TCE daughter products (cis-1,2,-DCE, trans-1,2,-DCE, and vinyl chloride) should be included in Table 6. The groundwater RGs should be protective of residential exposure to VOCs via indoor air.	Please see the response to USEPA Specific Comment #22.
10.	<b>Table 7 Remedial Alternatives Identified for Parcel UC-3</b>	The cost estimates listed for the remedial alternatives do not appear to have been accurately broken out to isolate Parcel UC-3 costs. The costs for alternative R-2 (\$6.8M) seem high for the amount of sewer and storm drain lines in Parcel UC-3. We assume that the cost estimates presented in the Proposed Plan for Parcels E and UC-3 are the sum of the costs for Parcels E and UC-3. In other words, for each alternative, we assume Proposed Plan cost estimate (Parcels E and UC-3) = Parcel E cost estimate + Parcel UC-3 cost estimate. The costs do not add up for many alternatives, including GW-3. In addition, the cost for alternative R-2 is listed as \$6,882,000 in	The cost estimate for Alternative R-2 was obtained directly from the contractor who performed the TCRA and reflects the actual costs. The storm and sewer lines within Parcel UC-3 required excavation in excess of 10 feet at many areas.  <b>The following note will be added to Table 9 (formerly Table 7):</b> "Alternative R-2 was completed as part of the basewide TCRA. The cost listed for alternative R-2 is the approximate actual cost and includes removal and disposal actions, confirmation sampling, and

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Comment Number	Section/ Page	Comment	Response
		Table 7, and NA in Table 9. Please revise the tables to show a consistent cost for alternative R-2, and check that the cost estimates are isolated (or calculated based on unit costs) for Parcel UC-3.	<p>completion of the RACR.”</p> <p>Similarly, the cost for Alternative R-2 and the note listed above will be added to Table 11 (formerly Table 9).</p> <p>The Parcel E ROD did not subtract the costs described in the Parcel UC-3 ROD because the cost was considered small compared to the overall cost of the Parcel E remedy. Therefore the Proposed Plan does not reflect the addition of the two costs. A breakdown of estimated costs for Parcel UC-3 will be added to the ROD.</p>
11.	<b>Section 2.9.2.3 In Situ Bioremediation (Alternative GW-3)</b>	The last paragraph of this section (p.2-29) discusses groundwater monitoring in areas of in situ bioremediation implementation of Parcel E groundwater plumes (Building 406 TCE plume, IR Site 12 PCE plume, IR Site 04 TCE plume). Please clarify how this monitoring relates to the IR Site 56 TCE plume in Parcel UC-3, or delete the text discussing monitoring of Parcel E plumes. It is not clear why Parcel E plumes are discussed in this draft Parcel UC-3 ROD.	Please see the response to USEPA Specific Comment #34. This paragraph has been edited to remove discussion of plumes outside of Parcel UC-3.
12.	<b>Section 2.9.2.7 Activity Restrictions Relating to VOC Vapors at Specific Locations with Parcel UC-3</b>	The last sentence of this sentence is not grammatically correct and suggests that the Area Requiring Institutional Controls (ARIC) for VOC vapors may be modified when groundwater contaminant plumes are reduced to less than 1 in 1,000,000. Suggested edit: The ARIC for VOC vapors may be modified by the FFA signatories <u>as the soil contamination areas and groundwater contaminant plumes that are producing when unacceptable vapor inhalation risks (produced from soil contamination areas and groundwater contaminant plumes) are reduced over time</u> to less than 1 in 1,000,000.	<p><b>The last sentence of section 2.9.2.9 will be revised as follows:</b></p> <p>“The ARIC for potential VOC chemicals in groundwater and soil gas may be modified by the FFA signatories when vapor inhalation risks for cancer (produced from soil contamination areas and groundwater contaminant plumes) are reduced to less than 1 in 1,000,000.”</p>

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Comments from:  
Ronald Pilorin, California Department of Public Health – August 9, 2013

Comment Number	Section/ Page	Comment	Response
<b>General Comments:</b>			
1.		CDPH continues to assert, as more fully described previously, that Title 17 California Code of Regulations Section 30256 meets the requirements of an applicable or relevant and appropriate requirement for the cleanup of Hunters Point Naval Shipyard.	Thank you for your comment. ARARs were established in coordination with regulatory agencies during the RI and FS for Parcel E. Please see Appendix C Section C2.2 of the <i>Radiological Addendum to the Feasibility Study Report for Parcel E</i> for a description the Navy's position that Cal. Code Regs. tit. 17§ 30256 is not an ARAR for Parcel UC-3.
2.	<b>Page 2-3, Section 2.2</b>	"Site Characteristics", under subsection "radiological operations", does not include radiological impacted buildings from NRDL work. Include a description of the site characteristics for radiological impacted buildings.	Parcel UC-3 does not contain radiologically impacted buildings.
3.	<b>Page 2-3, Section 2.2</b>	Radiological Impacted Media does not include a description on what radiological sources are found and how the radiological sources impact the media etc. Include a description of how radiological sources or spills have impacted the media in drains and sewer lines?	Sections 2.1 and 2.3 will be revised to add discussion regarding potential contamination from radionuclides. In addition, a section for Radionuclides in soil was added to Section 2.3.
4.	<b>Page 2-12, Section 2.3</b>	Previous Investigations and Removal Actions", states regarding radiological impacted sites outside of IR-02 and IR-03 states the removal action will not be completed by the time this ROD is signed, the removal action is intended to achieve cleanup goals identical to the remedial action objectives specified in this ROD". The RAO specified in the ROD are not specific for the radiological impacted sites outside of IR Site 2 and 3. Explain in more detail the RAO specified for radiological impacted sites outside of IR Site 2 and 3.	The Parcel UC-3 ROD does not contain this language. This comment may refer to the Parcel E ROD, which does include this language.
5.	<b>Page 2-14, Section 2.3.4</b>	"Radionuclides in Soil, Shoreline Sediment and Groundwater, "states that data is inadequate to support a detailed evaluation of the nature extent of radionuclides impacted subsurface soil, structures. This ROD assumes that radiological impacted sediment, subsurface soil and structures will require remediation". In a statement explaining the RAO's for remediation.	The Parcel UC-3 ROD does not contain this language. This comment may refer to the Parcel E ROD, which does include this language.
6.	<b>2-19, Section 2.5</b>	"Summary of Site Risks" after reading the sections on radiological risks and basis for response action. I don't see a radiological summary for soil, includes a description in this section.	The Parcel UC-3 ROD does not contain this language. This comment may refer to the Parcel E ROD, which does include this language.

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Comments from:  
Ronald Pilorin, California Department of Public Health – August 9, 2013

Comment Number	Section/ Page	Comment	Response
7.	Page 2-26, Section 2.9	"Selected Remedy", states the selected remedy is to excavate and disposal of all radiological affected material". The previous section Remedial Action" Objectives (RAO's) does not include radiological RAO's. Include a description for radiological RAO's.	An RAO for radiological contamination will be added to Section 2.7. In addition, Sections 2.1 and 2.3 will be revised to add discussion regarding potential contamination from radionuclides. A section for Radionuclides in soil will also be added to Section 2.3.

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Comments from:  
Ryan Miya, Department of Toxic Substances Control – August 15, 2013

Comment Number	Section/ Page	Comment	Response
<b>General Comments:</b>			
1.	<b>Section 1.1 – Selected Remedy</b>	The text states that this ROD identifies the selected remedy for Parcel UC-3 for addressing soil affected by radionuclides. However, radionuclides in soil have been already addressed in previous removal actions as the parcel has already received a radiological unrestricted release recommendation from CDPH in October 2012. Please clarify this detail in the Draft ROD accordingly.	Please see the response to USEPA General Comment #6.
2.	<b>Section 2.3 – Previous Investigations and Removal Actions. First paragraph</b>	The text should clarify that the soil sample locations presented in Figure 3 do not include soil confirmation sample locations (all below established radiological release criteria) that were collected and analyzed as a required component for implementation of the basewide removal action to address radiological contamination.	The first paragraph of Section 2.3 will be edited with this explanation. In addition, please see the response to USEPA Specific Comment #9.
3.	<b>Section 2.3, Table 1 – Previous Investigations and Removal Actions</b>	The items listed and described in this table should only include items that apply to the Parcel UC-3 area. All others should be removed.	Please see the response to USEPA Specific Comment #11b.
4.	<b>Section 2.4 – Current and Potential Future Site Uses</b>	<p>(a) If the area south of A-2 presented in Figure 4 does not have a defined reuse, then the most conservative and health protective reuse (residential) goals should be applied to this area accordingly.</p> <p>(b) If the A-aquifer groundwater at Parcel UC-3 is included in the Regional Water Quality Control Board's 2003 concurrence that it meets the exemption criteria for State Water Resources Control Board Resolution 88-63 and is not a potential source of drinking water, this should be noted and referenced in the text accordingly.</p>	<p>(a) The western half of Crisp Road did not have a designated use in the redevelopment plan. The Navy assumes the future use of the western half of Crisp Road will be light industrial. Based on the surrounding land use, light industrial is the most appropriate land use for the western half of Crisp Road. Institutional controls will be in place to restrict residential use.</p> <p>(b) The following sentence will be added after the second sentence of the second paragraph of Section 2.4:            “The Revised Parcel E RI Report did not evaluate the A-aquifer with respect to state criteria because the Water Board concurred with the Navy’s determination that the A-aquifer is not suitable or potentially suitable as a municipal or domestic water supply and meets exemption criteria in State Water Resources Control Board (SWRCB) Resolution 88-63 and RWQCB Resolution 89-39.”</p>

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Comments from:  
Ryan Miya, Department of Toxic Substances Control – August 15, 2013

Comment Number	Section/ Page	Comment	Response
5.	<b>Section 2.5.3 – Basis for Response Action</b>	Given what appears to be very localized soil hot spot areas as presented in Figure 6, the Navy may want to reconsider the soil hot spot remediation goal concept (“Hot Spot Remediation Goal” column in Table 4). If the most stringent residential remediation goals are achieved during soil hotspot removals, institutional controls, covers, and long-term monitoring and cover maintenance may no longer be necessary for soil after remedy implementation.	At this time, there is not sufficient data in this area to show residential land use restrictions can be lifted. Additionally, this would be a new alternative that was not previously presented or evaluated during the FS process.
6.	<b>Table 6 – Remediation Goals for Groundwater</b>	(a) The technical basis for the trichloroethene remediation goal should be provided in a table footnote.  (b) The trichloroethene groundwater remediation goal should be provided for the residential exposure scenario given that the IR-56 plume is located within an area currently identified as Mixed Use (which includes residential).	(a) The technical basis will be added as a footnote to Table 8 (formerly Table 6).  (b) The residential RG for TCE was not included as the risk pathway to residential receptors would result from soil gas rather than contact with groundwater.
7.	<b>Section 2.8.1 – Description of Remedial Alternatives.</b>	(a) For soil remedial alternatives S-3 and S-4, it is necessary to describe and define what Tier 1 and Tier 2 locations are in the text prior to presenting these terms as part of the remedial alternatives description.  (b) For soil remedial alternatives S-2, S-3, and S-4, it would be useful to include a map providing approximate location(s) and extent of the buried steam lines, if known. Figure 2 has a steam line label in the legend, but the figure does not appear to clearly present the steam line location(s).  (c) Please add that soil gas surveys will be conducted in consultation with regulatory agencies (1) in focused areas where concerns continue about residual volatile organic compounds (VOCs) in soil or where VOCs are present in groundwater, (2) at the groundwater remediation areas following completion of the remedial action for groundwater (after the areas have re-equilibrated), and (3) to evaluate the need for remedial action or the reduction or retention of an Area Requiring Institutional Control (ARIC) for VOCs.	(a) Please see the response to USEPA General Comment #5.  (b) The steam line locations will be added to Figure 2.  (c) Please see the response to USEPA General Comment #5. The suggested text will be added to Section 2.8.1.

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Comments from:  
Ryan Miya, Department of Toxic Substances Control – August 15, 2013

Comment Number	Section/ Page	Comment	Response
8.	<b>Section 2.8.2 – Comparative Analysis of Alternatives for Soil and Radionuclides</b>	Cost subsection. Last sentence. While no future costs remain for implementation of Alternative R-2, the text should be modified to briefly describe some of the cost components that went into the \$6,882,000 figure already spent and presented in Table 7.	The cost estimate for Alternative R-2 was obtained directly from the contractor who performed the work. The steam and storm drain lines within Parcel UC-3 required excavation in excess of 10 feet at many areas. Costs included all physical removal and disposal actions as well as confirmation sampling and completion of the RACR. Please see the response to RWQCB Comment #10.
9.	<b>Section 2.9.1 – Description of Selected Remedy</b>	The description provided for Alternative S-4 in this section should also be expanded to include the soil gas monitoring component.	The soil gas monitoring component will be added to this Section.
10.	<b>Section 2.9.2 – Rationale for Selected Remedy</b>	The description provided for Alternative S-4 in this section should also be expanded to include the soil gas monitoring component.	The soil gas monitoring component will be added to the Monitoring section of Section 2.9.2.
11.	<b>Section 2.9.2.2 – Durable Covers (Alternative S-4). First paragraph</b>	The text states that durable covers are not required in the western portion of Crisp Road because soil and groundwater in this area are not contaminated. However, if the excavation areas in the western portion of Crisp Road exceed applicable soil Remediation Goals (Table 5), it is unclear why a cover would not be required.	<b>The last sentence of this paragraph will be moved to be the second sentence and will be revised as follows:</b> “Durable covers are not required in the western portion of Crisp Road and the railroad right-of-way because soil and groundwater in this area are not contaminated above the RGs for the industrial worker exposure scenario, except for the hot spot locations in the railroad right-of-way, which will be excavated.”
12.	<b>Section 2.9.2.7 – Activity Restrictions Relating to VOC Vapors at Specific Locations within Parcel UC-3</b>	In the absence of any soil gas data to date, the area requiring institutional controls for potential VOC chemicals in groundwater and soil gas should include all of the MU-3 area of Parcel UC-3 at a minimum based on the currently available data and historic land use. Future soil gas survey(s) conducted in consultation with regulatory agencies will be necessary in all the areas generally described in comment 7(c).	The ARIC for potential VOC chemicals in groundwater and soil gas was derived from investigations presented in the RI and FS for Parcel E. VOCs are not a COC in the remaining portions of Redevelopment Block MU-3; therefore, it is not appropriate to require ICs for VOCs for the entire MU-3 area.
13.	<b>Editorial comments</b>	(a) Section 1.0 – Declaration. Last sentence. “This ROD documents the final remedial action for Parcel UC-3 and does not include or affect any other sites at HPNS.”	(a) The sentence will be revised as suggested.

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Ryan Miya, Department of Toxic Substances Control – August 15, 2013

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		<p>(b) Section 2.8.1 – Description of Remedial Alternatives. Soil remedial alternative S-4 should be presented in bold text for consistency with other remedial alternatives.</p> <p>(c) General comment. Please modify “free release for unrestricted use” to “radiological unrestricted release.” This applies at a minimum to text in Sections 2.8.2 and 2.9.1.</p> <p>(d) Section 2.10 - Community Participation. Paragraph five. Please specify that the public meeting to present the Proposed Plan was held at the Southeast Community Facility Commission (located at 1800 Oakdale Avenue in San Francisco, California) from 6:00 to 9:00 p.m. on February 28, 2013.</p>	<p>(b) Soil remedial alternative S-4 will be presented in bold text.</p> <p>(c) The suggested change will be made where applicable.</p> <p>(d) The fifth paragraph of Section 2.10 will be revised to include the location of the public meeting.</p>

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Comments from:

Amy D. Brownell, P.E., San Francisco Department of Public Health – August 16, 2013

Comment Number	Section/ Page	Comment	Response
<b>Specific Comments:</b>			
1.	<b>Section 1, 1st paragraph, footnote 1</b>	Please check that the hyperlinks to reference information are working correctly. For example, the initial blue text references in Section 2 are all linking to the word “Materials” under reference Item 1, Historical Radiological Assessment, in Attachment B. Is this your intent? It may serve the average document reader better to include a footnote to each reference item number.	The hyperlinks will be checked to make sure they are working correctly.
2.	<b>Section 2.2, Site Characteristics, Figure 2, page 2-2</b>	The legend lists steam lines as indicated by green lines but there do not appear to be any green lines on the Figure. Please clarify or remove from the legend.	The steam lines will be added to Figure 2.
3.	<b>Section 2.3, Table 1, Previous Investigations and Removal Actions, page 2-4</b>	It is unclear which of the previous investigation/removal action activities occurred at Parcel UC-3. Please clarify within Table 1 which Parcel E installation restoration site activities correspond with Parcel UC-3. In the second paragraph of Section 1.0, footnote 2 indicates that this ROD references documents that refer to the portion of Parcel E that became Parcel UC-3, but this does not appear to be the case. For example, did any of the eight sites included in the IAS for Parcel E correspond to present-day Parcel UC-3 limits? Did a PCB TCRA occur within Parcel UC-3?	Please see the response to USEPA Specific Comment #11b.
4.	<b>Section 2.3, Previous Investigations and Removal Actions, Table 1 and descriptions on pages 2-8 and 2-9</b>	The Navy has conducted over 10 years of landfill gas monitoring that has included soil gas testing for methane and other chemicals on Parcel UC-3 in Crisp Road. This monitoring has included many samples (hundreds?) in Crisp Road. The reference for this sampling should be added to Table 1 of this ROD and a short description of this testing and the monitoring reports added to the text.	The Landfill Gas Monitoring program will be added to Table 1.
5.	<b>Section 2.3, Previous Investigations and Removal Actions, page 2-9</b>	Please clarify that previous investigations have shown the central portion of UC-3, which has no identified reuse designation, does not contain chemicals in soil, soil gas and ground water at concentrations above RGs (see also comment #4).	Please see the response to RWQCB Comment #3.

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Comments from:

Amy D. Brownell, P.E., San Francisco Department of Public Health – August 16, 2013

Comment Number	Section/ Page	Comment	Response
6.	<b>Section 2.5.3, Basis for Response Action, Table 4, pages 2-14 and 2-15</b>	Please provide an explanation for the hot spot remediation goals at 5 times the residential RG, label the second column in Table 4 Residential Remediation Goal, and reword the last sentence to replace “Most Stringent” with residential. Please consider identifying soil and groundwater samples and corresponding chemical concentrations contributing to area designation as hotspots (Tier 1 and 2 COCs). It may also be helpful to identify other COCs that are present above RGs, if any.	Please see the response to USEPA General Comment #5. The phrase “most stringent” will be removed due to the revisions discussed in the response to USEPA General Comment #5.
7.	<b>Section 2.7 Remedial Action Objectives, page 2-15 and Section 2.7.1, page 2-16</b>	<p>In order to be consistent with the draft Parcel E ROD, please change the heading of Section 2.7.1 to Soil and Soil Gas RAOs and then move and reword the first bullet under the Groundwater RAOs (2.7.2) to Section 2.7.1 and list it as:</p> <ul style="list-style-type: none"> <li>• Prevent exposure of humans to VOCs in soil gas at concentrations that would pose unacceptable risk via indoor inhalation of vapors.</li> </ul> <p>Please note: Regulatory Agencies have recognized that the correct methodology for examining the vapor intrusion into indoor air pathway starts with examining soil gas levels and related parameters. While VOC groundwater contamination can indicate an area where there might be a concern – sampling for soil gas and comparing results to soil gas action levels is the best method of defining areas of potential indoor air vapor intrusion concern.</p>	The heading of Section 2.7.1 will be changed to “Soil and Soil Gas ROAs.” The first bullet in Section 2.7.2 will be moved to Section 2.7.1 and reworded as suggested.
8.	<b>Section 2.7.1 Soil and Soil Gas RAOs (see comment #7), page 2-16</b>	Similar to the draft Parcel E ROD, please add text to the bullet you’ve just added (comment #7) to outline how future soil gas action levels will be determined and how data from future soil gas surveys will be used to determine the soil gas action levels OR if you already have established soil gas remediation goals then please add a table with those goals. Can you excerpt numbers from Table 7 from the final soil gas memorandum (referenced in the draft Parcel E ROD) as the remediation goals for soil gas for this ROD?	A discussion of soil gas surveys will be added to Sections 2.7, 2.8, and 2.9.
9.	<b>Section 2.7.1, Soil RAOs, Table 5, page 2-16</b>	It is not clear why benzo(k)flouranthene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene are not considered COCs under the residential exposure scenario in Table 5. This also seems to conflict with Table 4 on page 2-15, which lists residential remediation goals	Please see the response to RWQCB Comment #7 for clarification.

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Amy D. Brownell, P.E., San Francisco Department of Public Health – August 16, 2013

Comment Number	Section/ Page	Comment	Response
		for these compounds. Please clarify.	
10.	<b>Section 2.7.1, Soil RAOs, Table 5, page 2-16</b>	Please clarify why remediation goals are listed only for those compounds in soil with concentrations five times residential risk levels or higher. Within the context of the overall site RAOs, it seems that all compounds above RGs should be listed in this table.	Table 7 (formerly Table 5) lists all of the RGs for the COCs that are relevant to Parcel UC-3 only. Parcel E COCs listed in the FS that were not found above 5 times the PRGs in Parcel UC-3 were not included in the table.
11.	<b>Section 2.7.2, Groundwater RAOs, Table 6, page 2-17</b>	Given that the selected alternative of reductive dechlorination results in a remediation pathway through daughter products of dichloroethene and vinyl chloride, please add remediation goals for these compounds.	Please see the response to USEPA Specific Comment #22.
12.	<b>Section 2.9.2 Description of Selected Remedy</b>	The Parcel E Feasibility Study (Section 3.1.1.1) states that “a focused soil gas survey is currently being implemented to identify locations where concentrations of COCs in soil gas may exceed SGALs and to evaluate the extent of the VOC area requiring institutional controls.” Has this survey been completed? If not, is it possible that the data from the landfill gas monitoring that has been conducted for 10 years on Crisp Road (see comment #4) has been summarized or could be summarized to address this issue? If additional work, even if it is only paperwork, needs to be conducted to address this issue then please add a subsection to Section 2.9.2 or add additional wording to Section 2.9.2.4 Monitoring, Soil-gas Monitoring, to explain the work that will be conducted. The wording should clarify that the past Crisp Road sampling will be summarized or future sampling, that has yet to be conducted, will evaluate locations where concentrations of VOCs in soil gas (from soil or groundwater sources) may pose unacceptable risk via indoor inhalation of vapors. For the record, we support the Navy in using the existing ten years of data, if it meets data quality objectives, rather than conducting a duplicative data effort.	The ARIC for potential VOC chemicals in groundwater and soil gas was derived from investigations presented in the RI and FS for Parcel E. There are no recent data from the landfill gas survey that support the removal of this ARIC or the groundwater remedy.
13.	<b>Section 2.9.2.1, Excavation and Offsite Disposal (Alternative S-4), and Figure 8, page 2-27</b>	Please identify the boring locations that are used to define the excavation areas or label the excavations on Figure 8, Excavation and Cover Plan. Also, please explain whether confirmation sample results be compared to RGs or tiered RGs.	The boring locations used to identify excavation areas are shown on Figure 3. The figures have been renumbered and reorganized as a result of regulatory comments. Confirmation sample results will be compared to Tier 2 action levels (5 times the residential RGs).

**RESPONSE TO COMMENTS ON  
DRAFT RECORD OF DECISION FOR PARCEL UC-3  
HUNTERS POINT NAVAL SHIPYARD  
SAN FRANCISCO, CALIFORNIA**

Comments from:

Amy D. Brownell, P.E., San Francisco Department of Public Health – August 16, 2013

Comment Number	Section/ Page	Comment	Response
14.	<b>Section 2.9.2.2, Durable Covers (Alternative S-4), page 2-28</b>	Section 2.9.2.2 states that durable covers are not required for the western portion of Parcel UC-3 because soil and groundwater are not contaminated. Since soil contamination is already identified and excavation is already planned in the Railroad right-of-way, shouldn't it state that, after excavation and removal of the contamination, sampling will be conducted to verify that the contamination has been removed? Please also add some explanation in terms of risk and planned reuse.	Section 2.9.2.2 states that durable covers are not required for the western portion of Crisp Road, which is not the railroad right-of-way (western portion of Parcel UC-3). The western portion of Crisp Road is located between the railroad right-of-way and Redevelopment Block MU-3. Please see the response to DTSC Comment #11, which addresses durable covers for the western portion of Crisp Road.
15.	<b>Section 2.9.2.2, Durable covers (Alternative S-4), page 2-28</b>	Explain what Tier 1 and Tier 2 locations represent.	Please see the response to USEPA General Comment #5.
16.	<b>Figure 8, page 2-28</b>	Please identify the steam line locations within Parcel UC-3 or at least indicate the location of IR Site 45 on Figure 8, Excavation and Cover Plan.	The steam line locations will be added to Figure 8.
17.	<b>Section 2.9.2.3, In Situ Bioremediation (Alternative GW-3), page 2-29, second paragraph</b>	The paragraph regarding quarterly progress monitoring should be revised to be specific to Parcel UC-3. Please identify the wells that will be monitored during the treatment and MNA phase for the IR Site 56 TCE plume. Will additional wells be installed for either treatment or MNA?	References to groundwater plumes outside of Parcel UC-3 will be removed from this section. The Remedial Design will contain details such as the well(s) to be monitoring and the possible installation of new wells.
18.	<b>Section 2.9.2.4, Monitoring, Monitored Natural Attenuation, page 2-29, first sentence</b>	Please explain the methodology for the vapor intrusion risk evaluation that will determine whether MNA can be discontinued. Will RGs for soil gas be provided for evaluation of indoor air vapor intrusion risk?	Preliminary Soil Gas action levels are presented in Table 7 of the "Revised Final Memorandum: Approach for Developing Soil Gas Action Levels for Vapor Intrusion Exposure at Hunters Point Naval Shipyard. ChaduxTt. December 2011." Discussion with regulatory agencies will assist in determining when MNA can be discontinued.

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Comments from:

Amy D. Brownell, P.E., San Francisco Department of Public Health – August 16, 2013

Comment Number	Section/ Page	Comment	Response
19.	<b>2.9.2.6, Activity Restrictions That Apply to Mixed Use Area 3, Restricted Activities, second sentence, page 2-31</b>	You have inadvertently included a second sentence that changes the meaning of these restricted activities and makes the restrictions contrary to what has been agreed to in the past. And you don't need the second sentence because the first sentence adequately explains the intent of the restrictions. Please delete the whole second sentence as follows: <del>In addition, the following restricted activities must be further reviewed and approved by the FFA signatories (see Mixed Use Area 3 (MU-3) Requiring Institutional Controls (ARIC) on Figure 9)</del>	The last sentence of the second paragraph of Section 2.9.2.6 will be deleted.
20.	<b>2.9.2.6, Activity Restrictions That Apply to Mixed Use Area 3, Prohibited Activities, page 2-32</b>	Please correct item #b after the phrase "the following activities are prohibited throughout..." It should have been written:  b. Use of groundwater  It currently reads "Use of or access to groundwater". A prohibition on access to groundwater is not acceptable in an area where redevelopment activities are going to occur.  The Parcel B, C, D-1, G, UC-1, and UC-2 RODs all list the prohibition as only "Use of groundwater".	Item b. in the Prohibited Activities portion of Section 2.9.2.6 will be revised as suggested.
21.	<b>Figure 9, page 2-32</b>	As described in comment 12, the Navy has ten years of soil gas data collected on Crisp Road that we think supports that there are no soil gas issues on Crisp Road. Have you verified that there really is an indoor air vapor concern based on soil gas at that location designated in green on Figure 9? Or is that green spot based only on groundwater data. The correct parameter to measure for analyzing indoor air concerns is soil gas (see note for comment #7). We suggest examining current or future soil gas data and changing the legend for that green spot, if it still exists, to say "Area Requiring Institutional Controls for Potential VOC chemicals in groundwater and soil gas"	See response to SFDPH Comment #12.  ICs for VOCs in groundwater are also required to protect the future construction worker from dermal contact. Further, groundwater VOC measurements are often used as a second line of evidence for vapor intrusion assessments.
22.	<b>Section 2.5.3, Basis for Response Action, page 2-16</b>	Suggest switching the order of the last two sentences.	This section will be revised. Please see the response to USEPA General Comment #5.

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Comments from:

Amy D. Brownell, P.E., San Francisco Department of Public Health – August 16, 2013

Comment Number	Section/ Page	Comment	Response
23.	<b>Section 2.9.2.7, Activity Restrictions Relating to VOC Vapors at Specific Locations within Parcel UC-3, page 2-32, third sentence</b>	The period is missing at the end of this sentence.	A period will be added to the end of the third sentence of the first paragraph of Section 2.9.2.7.
24.	<b>Section 2.9.2.7, Activity Restrictions Relating to VOC Vapors at Specific Locations within Parcel UC-3, page 2-32, last sentence</b>	Please clarify that the 1 in 1,000,000 risk refers to cancer risk.	Please see the response to RWQCB Comment #12.

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Comments from:

Amy D. Brownell, P.E., San Francisco Department of Public Health – December 17, 2013. **Responses to RTCs.**

Comment Number	Section/ Page	Comment	Response
<b>General Comments:</b>			
1.	<b>Remediation Goals for Soil, Table 7, page 2-22</b>	The Table 7 note states “The listed chemicals are those found in soil at concentrations at least 5 times higher than the levels considered safe for future human receptors, except total TPH, which is found in soil at concentrations higher than the levels considered safe for human receptors.” We interpret that footnote to mean that you are not listing RGs for COCs that are between one and five times the RG. Table 7 needs to include all the RGs for all COCs in UC-3. You need to list all RGs for all COCs because you need to sample for all COCs when you conduct your confirmation sampling during remedial action excavations. The concern is that it is possible that concentrations above 5xRGs could be discovered during confirmation sampling efforts even though a particular COC is currently not above 5x RGs.	Table 7 has been edited to include the RG for all COCs within Parcel UC-3. COCs above action levels (five times the RG) were identified with a footnote that reads “These chemicals are those found in soil at concentrations that exceed Soil Action Levels identified in Table 6”. Remedial excavations will only take place in the railroad right of way. There were no COCs identified in the railroad right of way that are between one and five times the RG. Confirmation sampling of an excavation will only include COCs above the soil action levels within that excavation area.
2.	<b>2.9.2.3 Steam Line Closure (Alternative S-4), page 2-33</b>	It is suspected that steam lines may have been used to transfer waste oil. Pressure testing is included in the procedure for steam line closure. Pressure testing is normally completed by pressurizing pipes with water or air and monitoring for pressure changes. A decrease in pressure would indicate a leak. The pressure test itself may result in the release of product if the pipe has not maintained its integrity. Please review whether pressure testing of contaminated steam lines can be completed without potential release of product.	Thank you for your comment. The Navy will ensure that this concern is considered in the Remedial Design phase for Parcel UC-3. The description of steam line closure is consistent with other RODs at Hunters Point Naval Shipyard.
3.	<b>Section 2.9.2.8, Activity Restrictions That Apply to Mixed Use Area 3, page 2-37</b>	Please make Section 2.9.2.8 specific to Parcel UC-3 by removing references to shoreline protection and other Parcel E remedy components	Section 2.9.2.8 has been edited to remove the reference to shoreline protection.

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Comments from: Ryan Miya, DTSC – December 17, 2013. Responses to RTCs.

Comment Number	Section/ Page	Comment	Response
<b>General Comments:</b>			
1.	<b>DTSC original comment 13(c) provided on 8/15/2013</b>	The original comment requested that the text "free release for unrestricted use" be modified instead to "radiological unrestricted release" throughout the document where applicable. Sections where the original text still remains is presented in Sections 1.1, 2.3.3, 2.7.2, 2.8.1 (twice), Table 9, 2.8.2, and 2.9.2.4 at a minimum. Please verify and incorporate this editorial comment throughout the ROD text where applicable.	Thank you for your comment. This change has been incorporated throughout the document.

Comments from: Craig Cooper, USEPA – December 26, 2013. Responses to RTCs.

Comment Number	Section/ Page	Comment	Response
<b>General Comments:</b>			
1.	<b>Page 2-2, top paragraph</b>	On two occasions, please delete the word "draft" before ROD.	Thank you for your comment, the word "draft" has been deleted from this page.
2.	<b>Page 2-4, paragraph 4</b>	Correct typo and technical content of this phrase: "...in the FS Report, groundwater flow at Parcel UC-3 is direction ranges from southeast to southwest, toward the San Francisco Bay."	Thank you for your comment, this sentence has been rewritten to read "...in the FS Report, groundwater flow at Parcel UC-3 is from southeast to southwest, toward the San Francisco Bay."
3.	<b>Page 2-22, Table 7</b>	The second footnote in Table 7 does not appear correct. Perhaps the Navy should rewrite this footnote so that it states the following: "The listed chemicals are those found in soil at concentrations that exceed Soil Action Levels identified in Table 6."	Thank you for your comment, the footnote has been changed as suggested.
4.	<b>Page 2-25, Table 9</b>	At the end of the description of Alternative R-2, please add the following: (See Note below).	Thank you for your comment, the parens (see note below) has been added at the end of the description.
5.	<b>Page 2-28, Top paragraph</b>	The underlined text in the following paragraph is not understood by EPA. How are access restrictions being used throughout Parcel UC-3 at this time? Please revise this text as appropriate.  "Alternative S-3 provides long-term effectiveness and permanence for soil contaminated with metals and organic chemicals <u>but relies on access restrictions for other COCs</u> until the ICs are implemented."	Thank you for your comment, the text has been revised to read "Alternative S-3 provides long-term effectiveness and permanence for soil contaminated with metals and organic chemicals but relies on a cover and ICs for other COCs".

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Comments from: Craig Cooper, USEPA – December 26, 2013. Responses to RTCs.

<b>Comment Number</b>	<b>Section/ Page</b>	<b>Comment</b>	<b>Response</b>
6.	<b>Page 2-30 Third paragraph</b>	Please correct the typos in this : “Alternative GW-3 complies with all of the pertinent ARARs, thereby satisfying this threshold criterion and making these alternatives eligible for selection as the final remedial action.”	Thank you for your comment, the text has been revised to read “Alternative GW-3 complies with all of the pertinent ARARs, thereby satisfying this threshold criterion and making alternative GW-3 eligible for selection as the final remedial action.”
7.	<b>Page 2-31. Top paragraph, second sentence</b>	Please delete the phrase “after property transfer” at the end of this sentence.	Thank you for your comment, this phrase has been deleted from the sentence.
8.	<b>Page 2-33, top paragraph</b>	As appropriate, please insert “(Table 6)” after the reference to Soil Action Levels.	Thank you for your comment, “(Table 6)” has been added after the reference to Soil Action Levels.
9.	<b>Page 2-38, Section 2.9.2.9, second to last sentence</b>	Please remove the parenthetical: (through approval of RACR or similar document). The reason for this suggestion is because the CERCLA RACR will be approved well before any design reviews of infrastructure facilities are considered.	Thank you for your comment, this parenthetical has been deleted from the sentence
10.	<b>Page 2-39. Section 2.9.4, Cost Effectiveness subsection</b>	Use of the terms “Alternative 2”, “Alternative 3”, and “Alternative 4” are not understood since the Proposed Plan and ROD always used a media indicator with the alternative name (i.e. Alternative S-1, S-2, etc).	Thank you for your comment, the text has been revised to read “The selected remedy will provide high overall effectiveness proportional to its costs, as demonstrated by the improved overall effectiveness of Alternatives S-4 and GW-3 relative to Alternatives S-3 and GW-2 for a modest incremental cost increase. Therefore, the selected remedy is considered cost effective. In contrast, Alternatives S-3 and GW-2 are not considered cost effective because of lower overall effectiveness.”
11.	<b>Attachment B</b>	Please complete Record Number information for each entry.	Thank you for your comment, Record Numbers were included where applicable. Many documents are in the process of submission and acceptance into the administrative record. A new download from the Administrative Record will be included with the Final ROD and Record Numbers will be updated.

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Comments from: Tina J. Low, P.E., San Francisco Bay Regional Water Quality Control Board – January 06, 2014. Responses to RTCs.

Comment Number	Section/ Page	Comment	Response
<b>General Comments:</b>			
1.	<b>General Comment #3:</b>	My original comment requested clarification as to why Figure 3 does not show any soil sampling locations in the area between the Railroad Right-of-Way and MU-3. In response to agency comments, the Navy added a new section 2.3.4 Parcel E FS Report, which states "A limited number of soil samples have been collected in this area because no IR Site or evidence of spills or soil staining were identified in this area." Please either revise Figure 3 to show where these soil samples were collected, or explain why they are not visible on the figure (e.g., sample locations were bordering MU-3, sample locations are hidden under Radiological TCRA storm drain or sewer lines, etc.). If no soil samples were taken from this area, please revise the text to clarify.	Thank you for your comment. The text has been revised to read "No soil samples have been collected in this area because no IR Sites or evidence of spills or soil staining were identified."