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MCAS EL TORO
SSIC NO. 5090.3.A

United States Marine Corps

Base Realignment and Closure Cleanup Plan (BCP)

For

Marine Corps Air Station El Toro, CA

March 1997

M60054.001745

BECHTEL NATIONAL INC.

CLEAN II TRANSMITTAL/DELIVERABLE RECEIPT

Contract No. N-68711-92-D-4670 **Document Control No.:** CTO-0103/0144

File Code: 0324

TO: Commanding Officer
Naval Facilities Engineering Command
Southwest Division
Mr. Richard Selby, Code 57CS.RS (O)
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1220 Pacific Highway
San Diego, CA. 92132-5187

DATE: February 24, 1997
CTO #: 0103
LOCATION: MCAS El Toro

FROM: C. L. Carlisle, Project Manager — J. W. Kluesener, Operations Manager

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February 24, 1997

Commanding Officer
Naval Facilities Engineering Command
Southwest Division
Mr. Richard Selby, Code 57CS.RS
Building 128
1220 Pacific Highway
San Diego, CA 92132-5187

Subject: Base Realignment and Closure (BRAC) Cleanup Plan (BCP)
Marine Corps Air Station, El Toro

Dear Mr. Selby:

Enclosed is the 1997 Base Realignment and Closure (BRAC) Cleanup Plan (BCP) for Marine Corps Air Station, El Toro.

If you have any questions, please do not hesitate to contact Dimitri Hallerbach at (619) 687-8855 or me at (619) 687-8804.

Very truly yours,

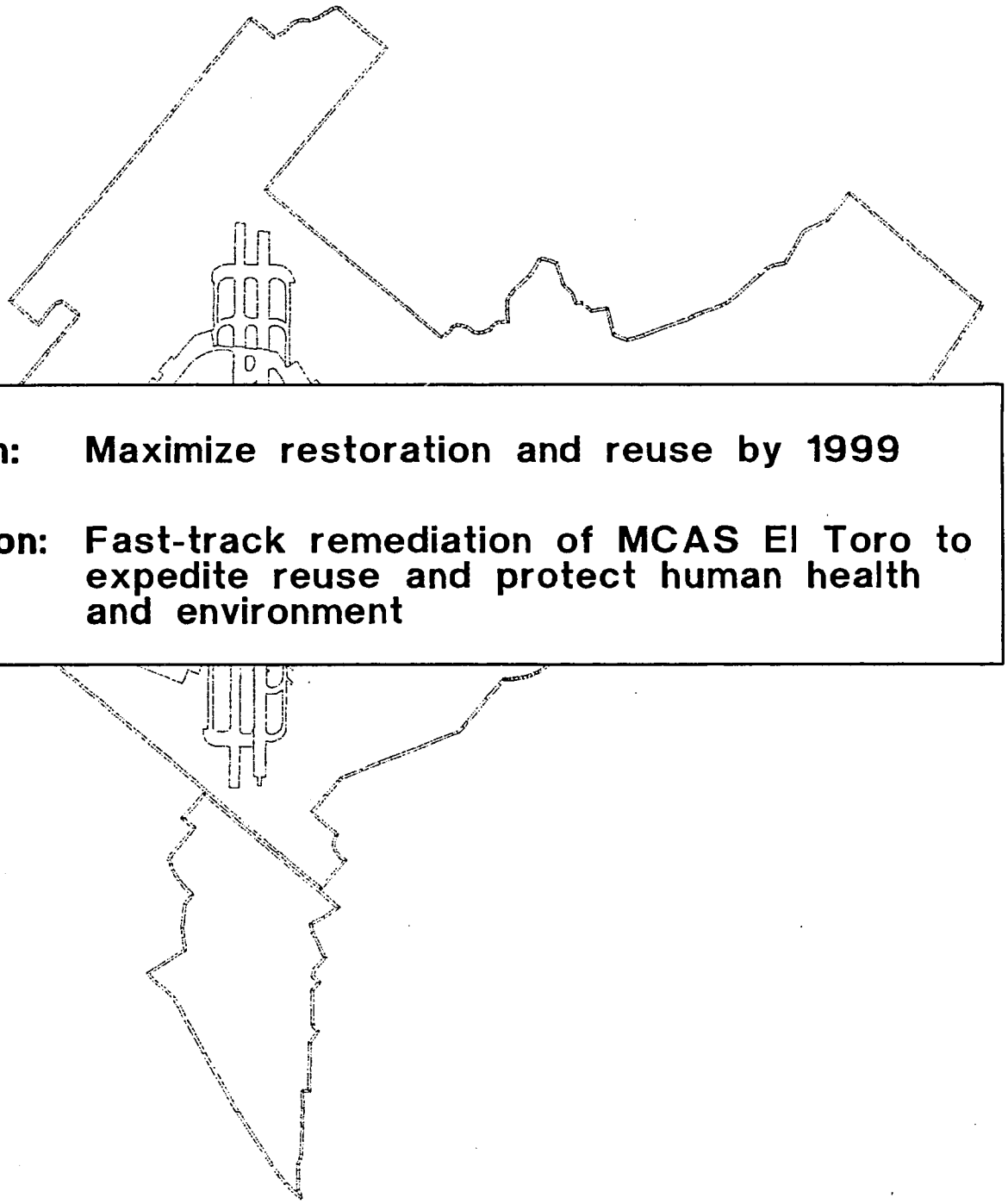
Craig L. Carlisle

Craig L. Carlisle
Project Manager

CLC/sp

Enclosure: Base Realignment and Closure (BRAC) Cleanup Plan (BCP)

MCAS El Toro BRAC Cleanup Plan
Vision and Mission Statements



Vision: Maximize restoration and reuse by 1999

Mission: Fast-track remediation of MCAS El Toro to expedite reuse and protect human health and environment

MARINE CORPS AIR STATION
EL TORO, CALIFORNIA
BASE REALIGNMENT AND CLOSURE
(BRAC) CLEANUP PLAN

This BRAC Cleanup Plan provides current summary information on the status of, and strategies for, the cleanup of Marine Corps Air Station El Toro. We, the BRAC Cleanup Team, with consideration of community and stakeholder advice, have cooperatively developed this plan to provide for the safe, effective, timely, and cost-efficient environmental restoration and productive reuse of this closing DoD facility. This plan will be updated periodically to reflect new information regarding the environmental condition of the property, reuse priorities, and availability of funds.

Tayseer Mahmoud
Remedial Project Manager
California Environmental Protection Agency,

Department of Toxic Substances Control

Glenn Kistner
Remedial Project Manager
United States Environmental Protection Agency

Joseph Joyce
BRAC Environmental Coordinator
MCAS El Toro

30 January 1997

List of Acronyms

AB	Assembly Bill
accumulation areas	less-than-90-day accumulation areas
ACM	asbestos-containing materials
AC/S	Assistant Chief of Staff
AFB	Air Force Base
AOC	area of concern
AQMP	Air Quality Management Plan
AR	Administrative Record
ARAR	applicable or relevant and appropriate requirement
ASN	Assistant Secretary of the Navy
AST	aboveground storage tank
Basin	the Los Angeles Basin
BCP	BRAC Cleanup Plan
BCT	BRAC Cleanup Team
BEC	BRAC Environmental Coordinator
BFI	Browning Ferris Industries
bgs	below ground surface
BNI	Bechtel National, Inc.
BRAC	Base Realignment and Closure
BRAC III	Base Closure and Realignment Act of 1993
CAC	Citizens Advisory Committee
Cal-EPA	California Environmental Protection Agency
CBCEC	California Base Closure Environmental Committee
CCR	*California Code of Regulations*
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Community Environmental Response Facilitation Act
CFR	*Code of Federal Regulations*
CLEAN	Comprehensive Long-Term Environmental Action Navy
CMC	Commandant of the Marine Corps
COE	(United States) Army Corps of Engineers
COMCABWEST	Commander, Marine Corps Air Bases Western Area
COPC	chemical of potential concern
County	Orange County
CP	Compliance Program
CRP	Community Reuse Plan
CTO	Contract Task Order
D&M	Dames & Moore
DFSC	Defense Fuel Supply Center
the Districts	the County Sanitation Districts of Orange County
DoD	Department of Defense
DON	Department of the Navy

DRMO	Defense Reutilization and Marketing Office
DTSC	(Cal-EPA) Department of Toxic Substances Control
EBS	Environmental Baseline Survey
ECP	environmental condition of property
EE/CA	Engineering Evaluation/Cost Analysis
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EO	Environmental Office
EOD	explosive ordnance disposal
ETRPA	El Toro Reuse Planning Authority
°F	degrees Fahrenheit
FA	further action
FAA	Federal Aviation Administration
FDS	Federal Disposal Services
FFA	Federal Facilities Agreement
FOSL	finding of suitability to lease
FOST	finding of suitability to transfer
FS	feasibility study
ft/day	feet per day
GIS	geographical information system
HAS	Homeless Assistance Submission
HUD	(United States Department of) Housing and Urban Development
IAFS	Interim Action Feasibility Study
IDW	investigation-derived waste
IRP	Installation Restoration Program
IT	International Technology Corporation
IWTP	industrial wastewater treatment plant
JMM	James M. Montgomery Engineers
LBP	lead-based paint
LOC	location of concern
LRA	Local Redevelopment Authority
MAW	marine air wing
MCAS	Marine Corps Air Station
MCL	maximum contaminant level
mg/L	milligrams per liter
MSL	mean sea level
NAVFAC	Naval Facilities

NAVFACENGCOM	Naval Facilities Engineering Command
NAVRAMP	Navy Radon Assessment and Mitigation Program
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEDTS	Navy Environmental Data Transfer Standards
NFA	no further action
NEPA	National Environmental Policy Act
NFI	no further investigation
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List
OCHCA	Orange County Health Care Agency
OCWD	Orange County Water District
OEA	Office of Economic Adjustment
OHM	OHM Remediation Services Corporation
OU	operable unit
OWS	oil/water separator
PAH	polynuclear aromatic hydrocarbon
PBR	Permit by Rule
PCB	polychlorinated biphenyl
pCi/L	picocuries per liter
ppm	parts per million
PRG	preliminary remediation goal
Project Team	BRAC Project Team
PWC	Navy Public Works Center
QAPP	quality assurance project plan
RAB	Restoration Advisory Board
RAC	remedial action contract
RAP	Remedial Action Plan
RCRA	Resource Conservation and Recovery Act
RECLAIM	Regional Clean Air Initiatives Market
RFA	RCRA Facility Assessment
RI	Remedial Investigation
ROD	Record of Decision
RPM	Remedial Project Manager
RWQCB	Regional Water Quality Control Board
SAIC	Science Applications International Corporation
SCAQMD	South Coast Air Quality Management District
Station	Marine Corps Air Station El Toro
STP	sewage treatment plant
SVE	soil vapor extraction
SVOC	semivolatile organic compound
SWDIV	Southwest Division Naval Facilities Engineering Command

SWMU	solid waste management unit
TAA	temporary accumulation area
TCRA	time-critical removal action
TDS	total dissolved solids
TRC	Technical Review Committee
TSCA	Toxic Substances Control Act
UCL	upper confidence limit
U.S. EPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USMC	United States Marine Corps
UST	underground storage tank
VOC	volatile organic compound
WW	World War
XFMR	transformer

Executive Summary

The Navy is planning the closure and disposal of Marine Corps Air Station (MCAS) El Toro (Station) by July 1999, in accordance with the Base Closure and Realignment Act (1993) (BRAC III). The Navy has organized a Base Realignment and Closure (BRAC) Cleanup Team (BCT) to manage and coordinate closure activities and to prepare a BRAC Cleanup Plan (BCP). The BCP describes the status of, management and response strategies for, and action items related to MCAS El Toro environmental restoration and compliance programs. These programs support the environmental restoration of station property and its disposal and reuse. The scope of the BCP considers the following regulatory mechanisms:

- BRAC III;
- National Environmental Policy Act (NEPA);
- Resource Conservation and Recovery Act (RCRA);
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act, and the Community Environmental Response Facilitation Act (CERFA); and
- other applicable state and local laws.

MCAS El Toro was listed on the National Priority List under CERCLA in February 1990.

The BCP is a planning document; therefore, the information and assumptions presented may not have complete approval from the federal and state regulatory agencies. The BCP is a dynamic document that is updated regularly to reflect the current status of response actions, and the changes in strategies or plans that affect the ultimate restoration and disposal of MCAS El Toro property. Comments from various sources, including major claimants, naval activities, and federal and state regulatory agencies, will be evaluated and considered for inclusion in updates of this BCP. This document represents information available as of 31 December 1996. The next update of the BCP is scheduled for March 1998.

STATUS OF DISPOSAL, REUSE, AND INTERIM LEASE PROCESS

In March 1994, the County of Orange (County), along with the Cities of Irvine and Lake Forest, formed a joint powers authority to develop a reuse plan for MCAS El Toro. In January 1995, the County withdraw from the joint powers authority in response to the passage of Measure A, a countywide ballot initiative approved by Orange County voters in November 1994. Measure A anticipates that the principal feature of a County-adopted reuse plan for MCAS El Toro should be a commercial airport. Measure A also established the 13-member El Toro Airport Citizens Advisory Commission to advise the Board of Supervisors and Orange County Planning Commission on base reuse.

In April 1995, the Office of Economic Adjustment formally recognized the Orange County Board of Supervisors as the official Local Redevelopment Authority (LRA) for MCAS El Toro. As the recognized LRA, the Board of Supervisors was given sole responsibility for preparing a Community Reuse Plan (CRP) for submittal to the Department of the Navy (DON). Eight Department of Defense (DoD) and federal agencies submitted formal applications for MCAS El Toro property during the federal

screening process conducted by the Military Department. They are listed in Chapter 2.

The LRA provided its recommendations on each of these requests to the Assistant Secretary of the Navy in early 1995. The LRA has endorsed requests by the Department of Interior for the Habitat Reserve, the Federal Aviation Administration, and the California Air National Guard. The LRA recommended that the remaining requests be denied. No surplus property determination has been made, and none of the transfer actions has been approved by the Assistant Secretary of the Navy as of 15 January 1997.

In the fall of 1995, the LRA conducted the state/local and homeless provider screening process in accordance with the Base Closure Community Redevelopment and Homeless Assistance Act of 1994 and implementing regulations issued by the DoD and the U.S. Department of Housing and Urban Development (HUD) in August 1995.

The LRA prepared a final CRP and draft Environmental Impact Report (EIR) which evaluated three reuse alternatives for the Station. Reuse Alternative A—Commercial Passenger/Cargo Use (the proposed project)—provided for a full service commercial passenger and cargo airport and compatible nonaviation uses. Reuse Alternative B—Cargo/General Aviation Use—provided for a cargo and general aviation airport and compatible non-aviation uses. Reuse Alternative C—Nonaviation—provided for nonaviation uses including an educational campus, visitor-oriented attractions, research and development, and other uses.

In August 1996, the LRA issued the draft MCAS El Toro CRP, Homeless Assistance Submission (HAS) and draft EIR for a 67-day public review and comment period. The written public comment period ended on 15 October 1996. In the fall of 1996, the Orange County Airport Commission, the El Toro Airport Citizens Advisory Commission, and the Orange County Planning Commission conducted public meetings/hearings and adopted recommendations to the Board of Supervisors on the draft CRP, HAS and EIR.

On 11 December 1996, the Board of Supervisors adopted the final MCAS El Toro CRP (P&D Consultants Team, December 1996), which provides for more detailed study of a full-service commercial passenger and cargo airport, as well as compatible nonaviation uses.

The final CRP also incorporates the LRA's previously transmitted recommendations on each of the DoD and federal agency requests for property at the base and the 47 Notice of Interest applications submitted during the state/local and homeless provider screening process conducted by the LRA. The final CRP and HAS were submitted to the Assistant Secretary of the Navy and the Secretary of HUD on 13 December 1996.

Through the final Environmental Baseline Survey (EBS) Report (Jacobs Engineering 1995), and the preparation of this BCP, approximately 3,209 acres (67 percent) of the real property at the Station is eligible under CERFA for transfer as uncontaminated

property (area type 1: no disposal, release, and/or migration of contaminants has occurred). Property designated as area types 1 through 4 is suitable for transfer by deed. This property totals approximately 4,077 acres (85 percent) of Station property. The remaining real property has been identified as area type 5 (disposal, release, and/or migration has occurred, and removal or remedial actions are underway, but all required remedial actions have not yet been taken), area type 6 (disposal, release, and/or migration of contaminants has occurred, but no response actions have been taken), and area type 7 (unevaluated areas or areas requiring additional evaluation). The areal extent of land classified as area types 5, 6, and 7 is approximately 99 acres (2 percent), 469 acres (10 percent), and 167 acres (3 percent), respectively. Environmental restoration activities during 1996 have increased the Station land available for transfer (area types 1 through 4) from 2,992 acres to 4,077 acres. Currently, the Bake Parkway/Interstate 5 public highway expansion project is completed and will result in transfer of approximately 25 acres of MCAS El Toro property during 1997.

The scheduling and prioritizing of parcels for reuse based on the final CRP, will be provided by the LRA in 1997. The BCP will be updated as this information becomes available.

The County and the DON have entered into agreements permitting the transfer by quitclaim deed of the Bake Parkway/Interstate 5 right-of-way at fair market value. The DON issued a license for construction of the road for the Bake Parkway/Interstate 5 project, pending completion of a Finding of Suitability to Transfer and transfer deeds.

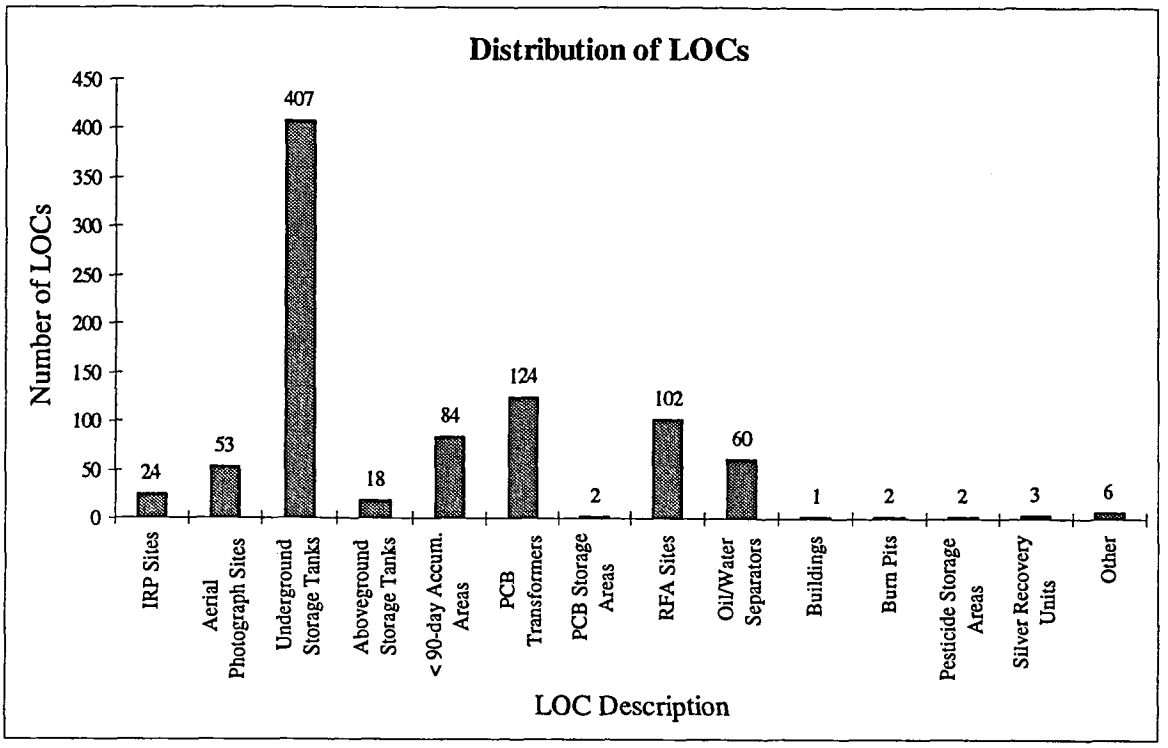
STATUS OF ENVIRONMENTAL RESTORATION PROGRAM

A total of 888 locations of concern (LOCs) has been identified at MCAS El Toro. An LOC is defined as any identified location or area that is potentially contaminated or is a potential source of contamination. Exhibit ES-1 summarizes the types and number of different LOCs at the Station.

Environmental Program Highlights. The following accomplishments highlight the progress of environmental restoration activities at MCAS El Toro:

- initiation of two time-critical removal actions at Sites 2 and 17, and one non-time-critical removal action at Site 19;
- agency approval of the draft final Remedial Investigation (RI) reports for operable unit (OU)-2A, -2B, and -2C, and the approval of the draft OU-2A feasibility study (FS) for the vadose zone;
- continuing operation of a soil vapor extraction (SVE) unit at Tank Farm 2 that has removed 35,000 pounds of petroleum product to date;
- removal of 8,000 gallons (to date) of free-phase petroleum product from the water table at underground storage tank (UST) 398;
- regulatory closure of 178 USTs to date (150 during 1996), including complete closure of Tank Farms 1, 3, and 5;

Exhibit ES-1



Source: Table 3-1a

- continuation of groundwater monitoring, with two sampling rounds completed in 1996;
- SVE pilot testing at 22 Site 24 wells which is effectively removing contamination; on-site investigation-derived waste treatment plant that reduces disposal costs and provides irrigation water for the Station;
- agency approval of the polynuclear aromatic hydrocarbon (PAH) Reference Study (BNI 1996a) that allowed the recategorization of 448 acres of land from area type 7 to area type 3, thus potentially allowing this land to be transferred by deed; and
- continued progress on an agreement between Orange County Water District and MCAS El Toro in support of a multipurpose project to clean up OU-1.

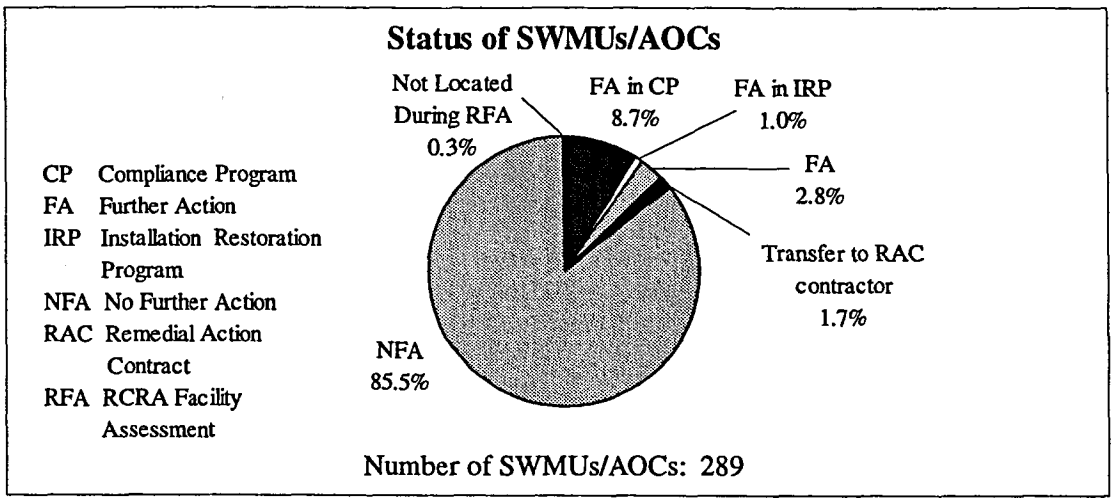
Installation Restoration Program. Currently, a total of 24 sites are being investigated in the Installation Restoration Program (IRP) at the Station (Sites 1 through 22, 24, and 25). Of these, 22 sites were evaluated during the Phase I RI, which was completed in May 1993. Two additional sites were established for investigation in Phase II, bringing the total number of IRP sites to 24. The final Work Plan for the Phase II RI/FS was prepared in July 1995, and these sites are in various stages of the RI/FS process. These 24 sites have been grouped into three OUs: OU-1,

OU-2, and OU-3. The following is a brief summary of the site groupings, current status, and Federal Facilities Agreement schedule for each of the three OUs.

- OU-1 addresses contaminated groundwater on- and off-Station and consists of one IRP Site (Site 18). The final interim RI/FS report for OU-1 was submitted in August 1996, and the draft interim Record of Decision (ROD) is scheduled for September 1997.
- OU-2 consists of three subunits (OU-2A, OU-2B, and OU-2C) and addresses potential source areas of groundwater contamination.
  - OU-2A addresses Sites 24 and 25. The draft final Phase II RI and draft Phase II FS Reports for Site 24 were submitted in June and August 1996, respectively. The draft Phase II RI Report for Site 25 will be submitted in January 1997. The draft ROD for OU-2A is scheduled for July 1997.
  - OU-2B addresses landfill Sites 2 and 17. The draft final Phase II RI and draft FS Reports for OU-2B were both submitted in September 1996. The draft ROD is scheduled for July 1997.
  - OU-2C addresses landfill Sites 3 and 5. The draft final Phase II RI and draft FS Reports for OU-2C were both submitted in October 1996. The draft ROD is scheduled for July 1997.
- OU-3 consists of two subunits (OU-3A and OU-3B) and addresses the remaining 17 sites. Portions of three sites (Sites 15, 19, and 20) are no longer part of the IRP; they have been withdrawn via the CERCLA petroleum exclusion.
  - OU-3A addresses all or portions of 14 IRP sites (Sites 4, 6, 8, 9, 10, 11, 12, 13, 15, 16, 19, 20, 21 and 22). The draft RI Report for OU-3A was submitted in November 1996. The draft FS Report is scheduled for March 1997, and the draft ROD is scheduled for December 1997.
  - OU-3B addresses three IRP sites (Sites 1, 7, and 14). The RI Work Plan for OU-3B is scheduled for May 1997, and fieldwork is scheduled to begin in July 1997.

RCRA Facility Assessment Sites. A RCRA Facility Assessment (RFA) was performed at the Station between 1990 and 1993. The RFA included the investigation of 307 solid waste management units (SWMUs)/areas of concern (AOCs). However, 3 units were located at MCAS Tustin, and 15 units were duplicates of other SWMUs/AOCs. Therefore, a total of 289 SWMUs/AOCs is of interest at the Station. Of these, 140 were included in a sampling effort. The RFA was approved by the Department of Toxic Substances Control contingent upon performance of additional investigation at 14 SWMUs/AOCs. A final addendum to the RFA was completed on 31 May 1996 (BNI 1996a). The addendum presents results and recommendations for the 14 SWMUs/AOCs and recommends closure strategies for 73 temporary accumulation areas. Exhibit ES-2 summarizes the status of SWMUs/AOCs. The number of SWMUs/AOCs in Exhibit ES-2 is greater than the

Exhibit ES-2

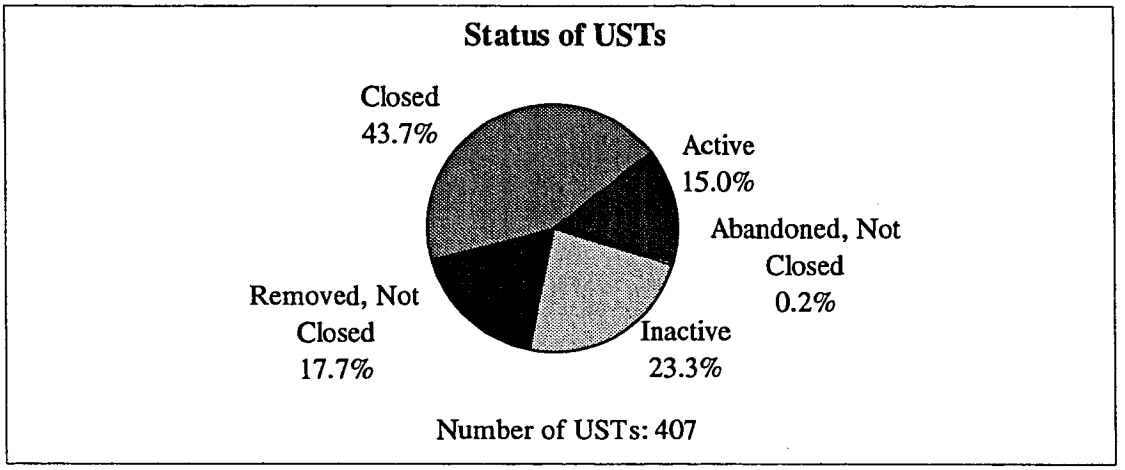


Source: Table 3-13

number of RFA sites indicated in Exhibit ES-1, because some LOCs have been designated as both SWMUs/AOCs and as other types of LOCs. For example, there are USTs that have been identified as SWMUs/AOCs. Exhibit ES-1 refers to these SWMUs/AOCs as USTs instead of as RFA sites.

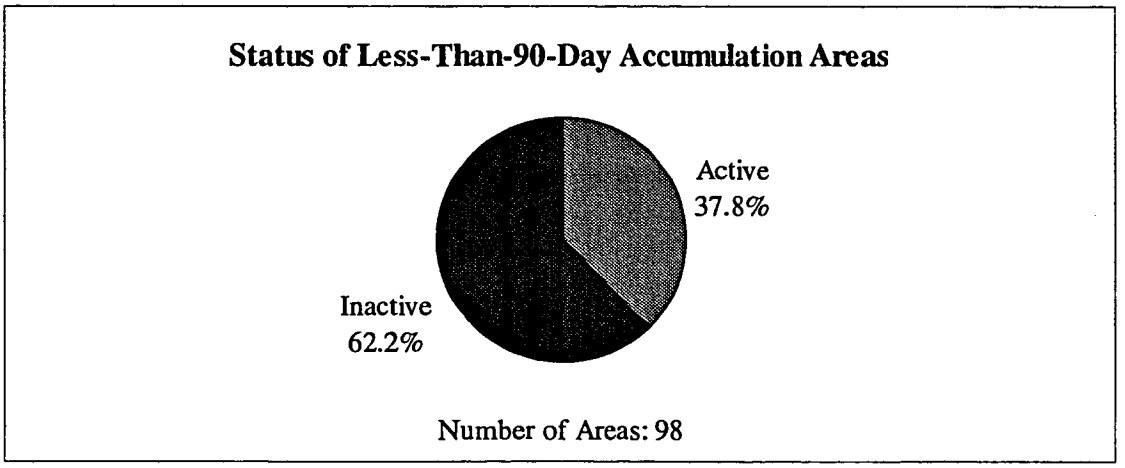
Compliance Program Sites and Other LOCs. There are a number of compliance programs in progress at MCAS El Toro that involve different types of LOCs including USTs, less-than-90-day accumulation areas, polychlorinated biphenyls (PCBs) transformers, and oil/water separators. The status of each of these types of LOCs are summarized in Exhibits ES-3 through ES-6. The status of the remaining types of LOCs (aboveground storage tanks, PCB storage sites, burn pits, silver recovery units, pesticide storage sites, and aerial photograph sites) is discussed in Chapter 3.

Exhibit ES-3



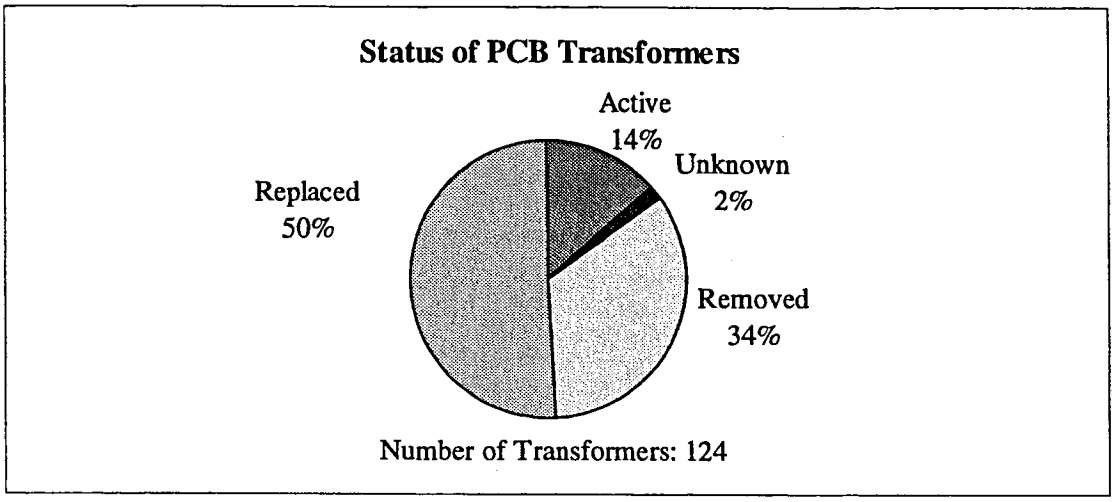
Source: Table 3-7

Exhibit ES-4



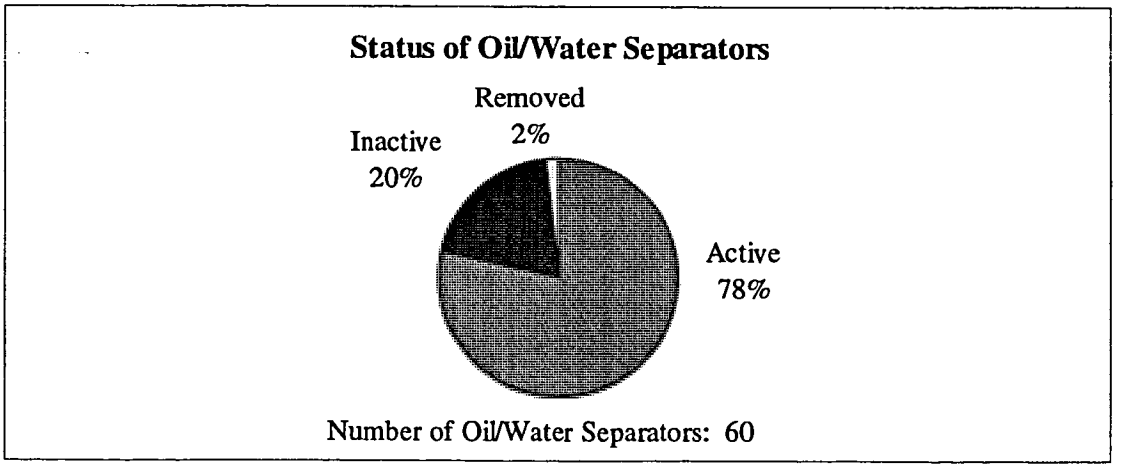
Source: Table 3-9

Exhibit ES-5



Source: Table 3-10

Exhibit ES-6



Source: Table 3-14

INITIATIVES FOR ACCELERATING CLEANUP

The BCT has conducted a "bottom up" review of the environmental programs at MCAS El Toro in accordance with DoD guidance on establishing base realignment and closure cleanup teams (DoD 1993). During the review process, the following ten issues were addressed to identify opportunities for accelerating cleanup activities necessary to facilitate conveyance of real property at the Station.

Technology Review. Publications such as Treatment Technologies Applications Matrix for Base Closure Activities, prepared by the California Base Closure Environmental Committee, dated November 1994 (CBCEC 1994a) and the latest

information from the United States and California Environmental Protection Agencies (U.S. EPA and Cal-EPA) and DoD will be reviewed as part of the evaluations performed in selecting technologies.

Immediate Removal Actions. A UST Tiger Team has been formed at the Station to address compliance and closure issues related to USTs on-Station. In 1996, 150 USTs received regulatory closure, bringing the total number of closed USTs to 178. All of Tank Farms 1, 3, and 5 have been closed. All 95 remaining inactive tanks are scheduled for removal in 1997, and all 61 currently active tanks are scheduled to be removed upon base closure in 1999.

The Tiger Team will continue to develop strategies for the removal of the remaining USTs as the Station closure approaches in 1999. Two time-critical removal action memoranda were submitted for public review in October 1996 for IRP Sites 2 and 17 (landfills), for public safety and to abate erosion of landfill materials. A non-time-critical action memorandum was also submitted for public review in October 1996 for IRP Site 19 (Unit 2). These removal actions are designed to remove the risk to human health and the environment and expedite cost-effective cleanup.

Clean Properties. A basewide EBS for MCAS El Toro was submitted to the United States Environmental Protection Agency (U.S. EPA) and California Environmental Protection Agency (Cal-EPA) on 01 April 1995. The Navy, Marine Corps, and regulators have concurred on the designation of area type 1 parcels as CERFA eligible. The EBS designated approximately 2,982 acres of land as CERFA-eligible. Review of information available since April 1995 indicates that approximately 3,209 acres of land is currently CERFA-eligible. Since uncontaminated areas do not coincide with the zone designations based on current land use, the BCT and the LRA will need to determine how to transfer these properties expeditiously. Options include subdividing the existing zones based on area type.

Overlapping Phases. As an ongoing effort, the BCT will continue to identify phases of the cleanup process that can be overlapped to reduce the time required for completion. Areas of overlap at MCAS El Toro include the following:

- the RFA was conducted concurrently with the Phase I RI;
- treatability studies are being conducted concurrently with the early stages of the OU-2 RI;
- Phase II RI/FS activities for the volatile organic compound (VOC) source area, landfills, and OU-3 sites were conducted simultaneously;
- a Comprehensive Long-Term Environmental Action Navy (CLEAN)/remedial action contract (RAC) contractor integration during the pilot testing at Site 24, and planned integration during future pilot tests; and
- cooperative facilities for conducting RCRA, UST, and RI/FS activities are being used.

Contracting Procedures. A RAC was executed with OHM Remediation Services Corporation to conduct response actions on installations within the purview of

Southwest Division Naval Facilities Engineering Command (SWDIV). SWDIV management of the CLEAN, RAC, and indefinite-quantity contracts has been based on a cooperative and interactive approach. Active participation by all members of the Project Team results in a bias for action.

Community Reuse Interface. In an effort to carry out strategies for environmental restoration activities, while assuring proactive community involvement, the Station has adopted an approach to meet the needs of the public as well as the requirements of NEPA, CERCLA, CERFA, and the California Health and Safety Code Section 25356.1. The approach provides for a number of services to inform interested parties (e.g., the city of Irvine, the city of Lake Forest, and Orange County) of environmental restoration activities while maintaining a commitment for efficient and cost-effective cleanup at MCAS El Toro.

Bias for Cleanup. The BCT will continue to emphasize expedited remedial actions and attempt to avoid lengthy site characterization studies and prolonged RI/FS activities. As such, the BCT members will continue to collaborate in devising work plans, identifying cleanup criteria, and selecting remedial actions in an effort to aggressively pursue cleanup instead of studies and data collection. To date, the BCT has successfully expedited environmental restoration by initiating removal actions under the Superfund Accelerated Cleanup Model at three IRP sites.

Validation of Technology: The BCT and BRAC Project Team have been formed to include technical, operational, reuse, and administrative specialists who provide input and support for efforts to achieve accelerated cleanup and transfer of Station property. Some of the project team members include representatives from the following:

- U.S. EPA, Cal-EPA, and other local regulatory agencies (e.g., Orange County Health Care Agency);
- SWDIV;
- MCAS El Toro BRAC Department;
- MCAS El Toro Environmental Department;
- MCAS El Toro Installations Department;
- CLEAN I and CLEAN II contractors; and
- RAC contractor.

The effectiveness of immunoassay field screening kits was validated in the PAH Reference Study (BNI 1996a). The use of these kits allowed for quick, accurate analysis of on-site contaminants during RI field activities.

Presumptive Remedies. Presumptive remedies are preferred technologies for common categories of sites, based on previous remedy selection and U.S. EPA scientific and engineering evaluation of performance data on technology implementation. The presumptive remedy approach is one tool used to accelerate

cleanup under the Superfund Accelerated Cleanup Model. By using presumptive remedies, site investigations and selection of cleanup strategies can be streamlined. Presumptive remedies are expected to assure consistency in remedy selection and reduce time and cost required to clean up similar types of sites. Currently, presumptive remedies are recognized by U.S. EPA for VOC remedies and municipal and military landfill remedies. Presumptive remedies are being considered for the four landfill sites (Sites 2, 3, 5, and 17) and the VOC source area (Site 24).

Partnering: A partnering agreement among the Project Team is essential for efficient management of the base closure process. The BCT has established a partnering agreement and team charter that incorporates the latest and most efficient management techniques to coordinate installation restoration activities.

The following team charter agreement for MCAS El Toro was developed during a team-building seminar held in October 1994.

> We, the MCAS El Toro partners, commit to effectively working together to maximize restoration and reuse of MCAS El Toro by 1999. We will accomplish this goal through teamwork, dedicated and focused participation, our ethics outlined below, and effective communication between all partners.
>
> We want the project to be enjoyable to work on and will work together with trust and respect, and will ensure that all team members' interests impact decisions. Problems will be resolved quickly or escalated if appropriate by team members closest to the issue. As partners, we commit to communicating our mission and partnership goals to new project members and encourage them to embrace this partnership.
>
> Involvement of the regulatory agencies during pre-proposal meetings for new work to gain concurrence from the entire BCT at the earliest possible phases of investigation and cleanup.

Our mutually agreed upon ethical standards are listed below.

CODE OF ETHICS

- Integrity
- Trust
- Leadership
- Sincerity
- Empathy
- Responsibility
- Objectivity
- Dependability
- Accountability
- Credibility
- Candor
- Honesty

Additionally, we will listen to and value others' opinions, honor diversity, model the behavior we expect from others, and have fun.

Through frequent meetings and conference calls, the BCT has worked together as a team to discuss and resolve issues related to environmental restoration activities at MCAS El Toro with a focus on expediting reuse while protecting human health and the environment. One manifestation of this partnering is involvement of the regulatory agencies during preproposal meetings for new environmental work in order to gain concurrence from the entire BCT at the earliest possible phases of investigation and cleanup.

SUMMARY OF CURRENT BCP ACTION ITEMS

Table ES-1 provides a list of recommendations and issues associated with the environmental restoration and compliance that require further evaluation and action by the BCT. The list covers key items identified during the course of the BCP preparation and includes the BCT activities relating to the base closure.

The BCT has coordinated and managed a number of tasks relating to the BRAC cleanup activities at MCAS El Toro during the past year. A brief list of accomplishments includes:

- continuing progress by the UST Tiger Team to address UST compliance and closure issues;
- acceleration of an expedited UST removal program for the removal of the remaining 95 inactive USTs in 1997;
- reduction in the number of IRP sites investigated under CERCLA via the CERCLA petroleum exclusion;
- continued Restoration Advisory Board meetings during 1997; and
- publication of fact sheets for public information and awareness.

Table ES-1
BCT/Project Team Action Items
(Sheet 1 of 3)

Action Items	STATUS		
	In Progress	To Be Performed	Completed
COMPLIANCE ACTIVITIES			
UST Removal/Compliance			
Install UST monitoring systems	X		
Remove remaining inactive USTs in 1997	X		
Obtain regulatory closure on removed USTs	X		
RCRA Facilities			
Implement closure strategies for 73 temporary accumulation areas		X	
OWSs			
Remove inactive OWSs		X	
Evaluate active OWSs for removal after 1999		X	
PCBs			
Evaluate past PCB transformer storage areas	X		
Perform survey of and inventory all transformers on station to evaluate potential PCB content	X		
Hazardous Waste Management			
Maintain current compliance program	X		
Wastewater Discharges			
Maintain compliance with NPDES Permit	X		
Air Emissions			
Maintain current compliance program	X		
Comply with air regulations when implementing remedial actions		X	
Lead-Based Paint			
Maintain current compliance program	X		

Table ES-1
BCT/Project Team Action Items
(Sheet 2 of 3)

Action Items	STATUS		
	In Progress	To Be Performed	Completed
Asbestos			
Conduct survey of housing facilities			X
Perform abatement as needed.	X		
Cleanup Standards			
Develop cleanup standards for various media	X		
Conceptual Models			
Update conceptual site models	X		
Risk Assessments			
Update risk assessment	X		
Early Action Items			
Identify opportunities	X		
Implement opportunities – One non-time-critical removal action memorandum and two time-critical removal action memoranda are in public review. – To date, portions of three sites have been eliminated from the RI/FS process through the petroleum exclusion process. – To date, one unit of one site has been eliminated from the RI/FS process with a no further investigation decision.	X		
CERCLA 120(h)(3) CONSIDERATIONS			
Develop an inventory of sites recommended for no further action	X		
Evaluate identified features of potential environmental concern through BCT site walks (e.g., aerial photograph sites, Desert Storm hazardous waste storage area, pesticide storage areas, PCB storage areas, former silver recovery units, and possible mercury leaks)		X	
COMMUNITY RELATIONS			
Update the community relations plan as required			X
Maintain and update the mailing list	X		
Maintain the information in the repository	X		
Update the administrative record quarterly	X		
Publish updated fact sheets	X		
Publish public notices as needed	X		

Table ES-1
BCT/Project Team Action Items
(Sheet 3 of 3)

Action Items	STATUS		
	In Progress	To Be Performed	Completed
MANAGEMENT AND ADMINISTRATIVE SUPPORT ACTIVITIES			
Data Management			
Update and maintain Geographic Information System	X		
Update and maintain database of analytical results from environmental sampling programs	X		

Abbreviations:
BCT – Base Realignment and Closure (BRAC) Cleanup Team
UST – underground storage tank
RCRA – Resource Conservation and Recovery Act
SWMU/AOC – solid waste management unit/area of concern
DTSC – California Environmental Protection Agency Department of Toxic Substances Control
OWS – oil/water separator
PCB – polychlorinated biphenyl
NPDES – National Pollution Discharge Elimination System
RI/FS – Remedial Investigation/Feasibility Study
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act

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Chapter 1
Introduction

This document presents the Base Realignment and Closure (BRAC) Cleanup Plan (BCP) for Marine Corps Air Station (MCAS) El Toro (Station). This report was prepared in fulfillment of Contract Task Order (CTO)-103 issued by Southwest Division Naval Facilities Engineering Command (SWDIV) under the Comprehensive Long-Term Environmental Action Navy (CLEAN) II Program.

In March 1993, MCAS El Toro was placed on the proposed Base Closure and Realignment Act (BRAC III) list of military facilities considered for base closure. In September 1993, MCAS El Toro was formally selected for closure. Closure of MCAS El Toro is planned to be completed by July 1999.

As a result of past waste management practices at MCAS El Toro, some areas are known or suspected to have become affected by various hazardous substances, pollutants, contaminants, or wastes. In response to these conditions, a number of environmental restoration programs have been performed and/or are ongoing at the Station. In addition, compliance programs are in place at the Station to assure that waste and resource management practices are conducted in a manner that protects human health and the environment.

This BCP summarizes the current status of the MCAS El Toro environmental restoration and compliance programs and provides a comprehensive strategy for implementing response actions necessary to protect human health and the environment. This strategy integrates activities performed under both the Installation Restoration Program (IRP) and the associated environmental compliance programs to support full restoration of the Station.

The BCP is a dynamic planning document, which is updated annually. The initial BCP was submitted to Naval Facilities Engineering Command (NAVFACENGCOM) on 21 March 1994. This March 1997 version of the BCP was prepared based on information available as of 31 December 1996. There have been two updates since 1994, one in 1995 and one in 1996. As such, information, schedules, and response actions presented in this document are subject to change. Because some of the information that is currently available is incomplete, certain assumptions and interpretations were made to develop strategies and cost estimates for future environmental work. As additional information becomes available, programs, schedules, and costs will change. This BCP will be updated as required to reflect changes that occur.

This BCP has been organized and prepared according to guidance presented in the BCP Guidebook (DoD 1993, 1996) as follows.

Chapter 1 discusses the objectives of the environmental restoration program, the purpose of the BCP, the BRAC Project Team (Project Team), and the history of MCAS El Toro.

Chapter 2 summarizes the current status of the property disposal planning process for MCAS El Toro and describes the relationship of the disposal process with other environmental programs. It also discusses various property disposal methods under consideration for MCAS El Toro.

Chapter 3 summarizes the current status of the IRP and environmental compliance programs at MCAS El Toro. This chapter also presents the status of natural and cultural resources, environmental condition of property at the Station, and the community relations activities that have been conducted to date.

Chapter 4 describes the Stationwide environmental restoration and compliance program strategy for MCAS El Toro. This chapter discusses current plans for remedial activities and other responses associated with the IRP sites and compliance program issues. This chapter also addresses the strategies for natural and cultural resources and community involvement for the Station.

Chapter 5 provides master schedules of planned and anticipated activities to be performed throughout the duration of the MCAS El Toro environmental restoration program.

Chapter 6 presents discussions of specific technical and other issues associated with the environmental restoration that are yet to be resolved and provides strategies for resolving these issues.

Chapter 7 contains references relevant to this BCP.

In addition to the main text of this document, the following appendices are included:

- Appendix A – tabular summaries of funding requirements and past costs for the environmental restoration program;
- Appendix B – listings of previous environmental restoration program deliverables by program and by site;
- Appendix C – summaries of decision documents for remedial action selections for IRP sites (none currently exist for MCAS El Toro);
- Appendix D – summaries of decision documents for no further response action decisions for IRP sites (none currently exist for MCAS El Toro); and
- Appendix E – conceptual site models for IRP sites.

1.1 ENVIRONMENTAL RESPONSE OBJECTIVES

The objectives of the environmental restoration program for MCAS El Toro are as follows:

- expedite and improve environmental response actions to facilitate the disposal and reuse of MCAS El Toro property;
- protect human health and the environment;
- comply with existing federal, state, and local statutes and regulations;
- conduct IRP activities in a manner consistent with Section 120 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act;
- meet the provisions of the Federal Facilities Agreement (FFA);
- continue efforts to identify potentially contaminated areas;

- establish priorities for environmental restoration and restoration-related compliance activities (so that property disposal and reuse goals can be met);
- design schedules and estimate costs for performing remedial activities for IRP sites and compliance program issues; and
- identify and map areas suitable for transfer by deed/lease and areas unsuitable for transfer by deed.

1.2 BCP PURPOSE, UPDATES, AND DISTRIBUTION

The purpose of this BCP is to summarize the status of the MCAS El Toro environmental restoration and compliance programs and to provide a comprehensive strategy for addressing environmental restoration and restoration-related compliance activities. This BCP also provides schedules of restoration activities in support of Station closure. In addition, it defines the status of efforts to resolve technical issues so that continued progress and implementation of scheduled activities can occur.

The BCP will be updated and modified annually to reflect status, strategy, and schedule changes, as well as issue resolution.

This BCP document and subsequent update materials will be distributed to the BRAC Cleanup Team (BCT) and identified interested parties. Updated BCP documents will also be kept at various MCAS El Toro information repository locations. Currently, the established repository for MCAS El Toro restoration information is Heritage Park Public Library located in Irvine, California. After the Station is closed, this information repository will continue to house Station restoration information.

1.3 BRAC CLEANUP TEAM/PROJECT TEAM

The MCAS El Toro BCT was established in October 1993. The responsibilities of the BCT include management of the BCP process and preparation of the MCAS El Toro BCP. The BCT will also serve as the decision-making body for the efforts of the Project Team. Members of the BCT include representatives from the Department of the Navy (DON)/United States Marine Corps (USMC), United States Environmental Protection Agency (U.S. EPA), and the California Environmental Protection Agency (Cal-EPA) Department of Toxic Substances Control (DTSC). The DON representative serves as the BRAC Environmental Coordinator (BEC).

The BCT is supported by the Project Team, which is composed of individuals capable of providing technical, operational, reuse, and administrative assistance. Table 1-1 identifies the current BCT and Project Team members, along with their roles and responsibilities.

1.4 BRIEF HISTORY OF INSTALLATION

The following subsections summarize the location, site history, and environmental setting for MCAS El Toro. Included is information on activities that may have contributed to environmental contamination at the Station.

1.4.1 Site Location

MCAS El Toro is located in south-central Orange County, California, about 7 miles east of MCAS Tustin (Figure 1-1, MCAS El Toro Location Map). MCAS El Toro is bordered on the northwest, south, and west by the city of Irvine and on the east by the city of Lake Forest. The exact location of MCAS El Toro is 33° 38' to 33° 41' north latitude, 117° 41' to 117° 45' west longitude, Township 6 South, Range 6 West (T6S/R6W) (Sections 2–5, 7–11, 16–17, 20–21) and T5S/R8W (Sections 32–33, 35).

MCAS El Toro encompasses approximately 4,738 acres (about 7.4 square miles). Approximately 800 acres of Station property are currently designated for agricultural outleases. Agricultural outleased lands are located at the corners of the Station and are used for plant nurseries and crop production. Crops grown on-Station include strawberries, winter celery, tomatoes, and oranges (MCAS El Toro 1991).

1.4.2 Site History

Construction of a USMC pilots fleet operational training facility began in July 1942 on 2,319 acres in Orange County, California. On 17 March 1943, that facility was commissioned as MCAS El Toro. In 1950, the Station was selected for development as a master jet air station and permanent center for Marine aviation on the West Coast to support the operations and combat readiness of Fleet Marine Forces, Pacific. Between 1944 and 1986, an additional 2,419 acres of land were acquired to bring the Station to its current size of 4,738 acres.

The mission of MCAS El Toro has been to maintain and operate facilities and to provide services and material to support the operation of aviation activities and the units of the operating forces of the USMC. MCAS El Toro also provides support for other activities designated by the Commandant of the Marine Corps, in coordination with the Chief of Naval Operations. MCAS El Toro is currently expediting the closure of MCAS Tustin by using vacated spaces to temporarily house helicopters departing from Tustin.

A history of operations at the Station is provided in Table 1-2 (History of Installation Operations). Table 1-2 also summarizes past hazardous substance activities at the Station. The locations of these activities are shown in Figure 1-2 (Location of Past Hazardous Substance Activities).

The mission of MCAS El Toro has involved the operation and lower-echelon maintenance of military aircraft and ground-support equipment. An inventory of hazardous wastes generated at the Station is provided in Table 1-3 (Hazardous Waste-Generating Activities). The generation of hazardous wastes resulted from operations at various locations throughout the Station, including:

- aircraft maintenance hangars;
- maintenance shops for automobiles, aircraft ground-support equipment, vehicle equipment, and construction equipment;
- auto hobby shop, Marine Corps Exchange, and auto repair station;

- wash racks and steam-cleaning facilities;
- hazardous, flammable, and unused chemical materials storage areas; and
- aircraft fueling stations, Tactical Airfield Fuel Dispensing System, and fuel farms.

Hazardous wastes are typically generated from aircraft and vehicle maintenance, degreasing processes, and painting operations that produce waste oil, fuels, hydraulic fluid, lube oil, antifreeze, cleaning solvents, paints, paint stripper, paint thinner, batteries, and contaminated rags and absorbents. Hazardous waste is also generated at the fuel storage areas when fuel storage tanks are cleaned and sludge is pumped out, or when fueling/defueling or loading/unloading operations result in spills.

Wash water from wash racks passes through oil/water separators (OWSs). The effluent water is discharged to the sanitary sewer or the storm drain, and the waste oil is handled as hazardous waste. OWSs are located at various buildings throughout the Station.

Detailed below are previous operations at MCAS El Toro that were or may have been significant in past waste generation and disposal procedures.

- For approximately 6 months during the 1940s, aircraft refurbishing operations were conducted in the southwest portion of the Station and were centered in Buildings 296, 297, and 324. Refurbishing operations consisted of cleaning and plating activities that may have included the use of solvent materials. (The types of materials used in the tanks is unknown.) Wastewater from this 6-month operation was discharged to currently abandoned industrial wastewater sewer lines and treated at the former Industrial Wastewater Treatment Plant. Based on aerial photographs, this plant existed in the 1940s and was demolished by 1965.
- Sewage was treated at an on-Station plant that was constructed in 1943, abandoned in 1972, and demolished in the late 1970s.
- Incineration was performed at a facility operated between 1943 and 1955 to burn municipal-type waste generated by Station housing and other activities. The purpose of the incinerator was to reduce waste volume. Ash from the incinerator was disposed in the Original Landfill (IRP Site 3).
- Solid waste was disposed at four landfills on-Station. The Original Landfill (IRP Site 3) operated from 1943 to 1955 and received wastes, including municipal solid waste, paint residues, oily wastes, and industrial solvents. Ash from an incinerator formerly located adjacent to the landfill was also disposed at this site. Perimeter Road Landfill (IRP Site 5) operated from 1955 to the late 1960s and received municipal solid waste, unspecified fuels, solvents and cleaning fluids,

scrap metals, paint residues, and unspecified oily wastes. Solid wastes were burned in place at the Perimeter Road Landfill for volume reduction. After open burning at the Station was discontinued in the late 1960s, garbage was transported to Magazine Road Landfill (IRP Site 2), where it was landfilled through 1980. Materials landfilled at this site included municipal solid wastes, unspecified industrial wastes, lead batteries, transformers, various petroleum wastes, and industrial solvents. The Communication Station Landfill (IRP Site 17) was also used for disposal of municipal debris, cooking grease, oils, and fuels. It was in use from 1981 until 1983

- Two burn pit areas were operated for fire-fighting training exercises. Crash Crew Pit No. 1 (IRP Site 9), located in the southwest portion of the Station, was operated from 1965 through 1971. Crash Crew Pit No. 2 (IRP Site 16), located near the center of the Station, was operated from 1972 to about 1975. The sites consisted of unlined pits that were filled with water and layered with various flammable liquids including JP-5 fuel, aviation gasoline, and other waste liquids. A third lined burn pit area is currently operational.
- Pesticides/herbicides have historically been used at the Station to control rodents and weeds. Chemicals used in the past include Thurshan, Diazinon™, chlordane, Crovar, malathion, Kelthane, strychnine, dichlorodiphenyltrichloroethane, and Retard-X.

1.4.3 Environmental Setting

Climate. The climate at MCAS El Toro is a typical Mediterranean climate, characterized by cool, moist winters and warm, dry summers. Temperatures in the winter seldom drop below 37 degrees Fahrenheit (°F). Summer temperatures rarely exceed 100°F. Average annual precipitation is about 12 inches and occurs primarily in the winter.

Early morning light fog and low clouds are common in the late spring and early summer. Dry winds, known as Santa Ana winds, with velocities up to 70 miles per hour, occur for short periods during the late fall and early winter (Brown and Caldwell 1986).

Setting and topography. MCAS El Toro is situated on the southeastern edge of the Tustin Plain, a gently sloping surface of alluvial fan deposits derived mainly from the Santa Ana Mountains (Yerkes et al. 1965). The Tustin Plain, bounded on the north and east by the Santa Ana Mountains and on the south by the San Joaquin Hills, is at the southeast end of the Los Angeles Basin (the Basin), a large sedimentary basin in the Peninsular Ranges Geologic Province (Yerkes et al. 1965). The plain also lies in the "Central Block" of the Basin, which is bound on the north by the Whittier Fault zone and on the south by the Newport-Inglewood Fault zone (CDMG 1978).

The MCAS El Toro boundaries extend across the Tustin Plain into the Santa Ana Mountains. Most of the Station slopes gently down to the west-southwest. Elevations range from about 215 feet above mean sea level (MSL) in the west corner of the facility to about 800 feet above MSL in the east corner in the foothills of the Santa Ana Mountains. The Santa Ana Mountains rise steeply north and east of the Station; their highest peak (6,698 feet) is 10 miles east of the Station. The San Joaquin Hills slope up gradually to the south; their highest point (1,170 feet above MSL) is 10 miles south of the Station (Brown and Caldwell 1986). The land to the northwest of the Station is relatively level.

Surface water. Surface drainage near MCAS El Toro generally flows southwest, following the slope of the land perpendicular to the trend of the Santa Ana Mountains. Several washes originate in the hills northeast of the Station and flow through or adjacent to the Station en route to San Diego Creek. Off-Station drainage from the hills and upgradient irrigated farmlands combines with on-Station runoff (generated from the Station's extensive paved surfaces) at the Station and flows into four main drainage channels. Three of these drainage channels are contiguous with natural washes that originate in the Santa Ana Mountains (Borrego Canyon, Agua Chinon, and Bee Canyon); the fourth channel is Marshburn Channel. All four drainages become confluent with San Diego Creek southwest of the Station.

Geology. MCAS El Toro lies on alluvial fan deposits derived mainly from the Santa Ana Mountains. These Holocene materials consist of isolated coarse-grained stream channel deposits contained within a matrix of fine-grained overbank deposits that range in thickness up to a maximum of 300 feet (Herndon and Reilly 1989).

The Holocene alluvial materials conformably overlie Pleistocene Age sediments predominantly composed of interlayered fine-grained lagoonal and near-shore marine deposits. These materials become increasingly mixed with beach sands, terrace, and stream-channel deposits in the eastern portion of the Tustin Plain and along the plain margins. Thus, the Quaternary deposits form a heterogeneous mixture of silts and clays with interbedded sands and fine gravels that range in thickness up to 500 feet in the western portion of the Tustin Plain (Singer 1973).

The deeper Quaternary sediments may be equivalent to the lower Pleistocene San Pedro Formation, which consists of semiconsolidated silts, clays, and sands with interbedded limestone. These lagoonal and shallow marine deposits are considered to be a major water-bearing unit in the region (Brown and Caldwell 1986).

The Pleistocene deposits unconformably overlie older semiconsolidated marine sandstones, siltstones, and conglomerates of late Miocene to late Pliocene age. These Miocene to Pliocene deposits are divided into the Niguel, Fernando, and Capistrano Formations and are considered as bedrock near MCAS El Toro. The lower Pliocene Fernando Formation, considered to be the major aquifer in the Irvine area, is the base of the water-bearing units (Herndon and Reilly 1989). This formation probably interfingers with marine clayey and sandy siltstones of the Capistrano and Niguel Formations west of MCAS El Toro, which together range up to 1,500 feet in thickness (JMM 1988).

Beneath the semiconsolidated rocks lies a thick sequence of interbedded marine and nonmarine sedimentary rocks and volcanic rocks of the Monterey, Puente, Vaqueros, and Sespe Formations. These units, which are deposited on a basement of crystalline metamorphic and igneous rocks, have been considered to be non-water-bearing in previous studies (JMM 1988).

Groundwater. MCAS El Toro is situated over the Irvine Subbasin in the Main Orange County Basin. Although the aquifers beneath the Tustin Plain are in hydraulic contact with the Main Orange County Groundwater Basin, it is difficult to make correlations among specific aquifer zones. In the Irvine area, aquifers are much thinner and separated by thicker sequences of fine-grained materials (Banks 1984). Aquifers tend to be composed of lenticular clayey and silty sands and fine gravels contained within a complex assemblage of sandy clays and sandy silts. Thus, instead of identifiable aquifers that may be correlated from place to place, the groundwater may be considered to flow in a single, large-scale, heterogeneous system (Herndon and Reilly 1989).

The groundwater system beneath the Irvine Subbasin has been divided into a forebay area and a pressure area. The forebay area lies along the margin of the basin where relatively shallow and coarse-grained sediments overlie semiconsolidated rock. Groundwater is thought to occur under unconfined conditions in this area. Recharge to the regional system takes place in the forebay area, primarily along washes that exit the Santa Ana Mountains. The pressure area lies in the central portion of the basin, where sediments are thicker and relatively finer-grained. Productive aquifers in this area are present mainly in deeper zones that become increasingly confined with depth. The groundwater has historically been discharged through irrigation wells or has moved westward to the Main Orange County Groundwater Basin (Banks 1984).

In 1988, along the southwest perimeter of the Station, the depth to groundwater ranged from 82 to 122 feet below ground surface (bgs) (JMM 1988). Reduced pumping and increased water imports in the past 20 years have allowed groundwater levels to rise as much as 100 feet (Herndon and Reilly 1989). Groundwater within the foothills where it occurs is reported to be within 50 feet of the ground surface (JMM 1988). Information gathered during the Phase I and Phase II Remedial Investigations (RIs) drilling shows that depth to groundwater is generally consistent with those above. Groundwater is most shallow in the foothills, where it lies about 45 to 60 feet beneath the washes.

According to 1989 water levels, the direction of flow along the southwest boundary of MCAS El Toro was northwest at a gradient of 0.0066 (JMM 1988). Regional flow has been west and northwest since the 1940s and has been controlled locally by large pumping depressions. Phase I RI data indicated that regional groundwater flow is still toward the northwest, with an average groundwater gradient of about 0.008.

Groundwater data were acquired during the 1995/96 RI (BNI 1996b-f), Phase II RI and subsequent groundwater pump tests were performed at Site 24. The average hydraulic gradient for the shallow aquifer was interpreted to be 0.008, consistent with the 1989 findings.

Phase I data indicated average linear groundwater flow velocities in the uppermost aquifer across the Station in the range of 0.02 to 1.9 feet per day (ft/day). Average linear groundwater flow velocities in localized areas in the deeper coarse-grained portion of the aquifer that supplies groundwater to production wells are likely to be higher than the linear groundwater velocity in the uppermost aquifer. An average linear groundwater velocity of 1.5 ft/day was calculated based on the hydraulic conductivity of 56.8 ft/day estimated from a 24-hour pumping test completed by Orange County Water District (OCWD) (Geotechnical Consultants 1993), an average hydraulic gradient of 0.008, and a porosity of 0.3.

Groundwater chemistry. In addition to the regional volatile organic compound (VOC) groundwater contamination being investigated at the Station (refer to Section 3.1.1), historical degradation of shallow groundwater quality associated with other contaminants has occurred in the Irvine area. Increases in the levels of total dissolved solids (TDS), selenium, and nitrates in the groundwater have been related to agricultural activities and incursions of lower-quality water from the margins of the Basin under the influence of pumping wells. The largest area of groundwater not affected by this contamination lies in deeper zones in the central pressure area of the Basin (Banks 1984).

Investigations by OCWD northwest of the Station have revealed the presence of three hydrochemical facies in groundwater related to depth in the aquifer. The first facies, characteristic of shallow groundwater lying within approximately 200 feet of the ground surface, contains relatively high levels of TDS and nitrate, and is dominated by calcium and sulfate ions. The second facies, characteristic of groundwater lying between approximately 200 and 450 feet bgs, contains lower levels of TDS and nitrate, and is dominated by sodium, calcium, and bicarbonate ions. The off-Station VOC contamination has migrated from the ground surface through the first and into the second facies. The third facies lies within the lower hydrogeologic system at depths greater than 450 feet, contains relatively high levels of TDS and relatively low levels of nitrate, and is dominated by sodium and sulfate ions (Herndon and Reilly 1989). Preliminary work performed at MCAS El Toro by James M. Montgomery Engineers (JMM) and Phases I and II RI data have generally confirmed these findings (JMM 1988; Jacobs Engineering 1993a; BNI 1996b-f).

1.5 OFF-BASE PROPERTY/TENANTS

The following discussion presents information regarding on-Station tenants, existing off-Station land use, historic property acquisitions, and off-Station properties.

Tenant units. A list of buildings and tenants at MCAS El Toro is provided in Table 1-4 (On-Base Tenant Units).

Existing off-base land use. Historically, the land use around MCAS El Toro has been largely agricultural. However, land to the south, southeast, and southwest has been developed recently as commercial, light industrial, and residential. Currently expanding commercial areas include the Irvine Industrial Complex-East, located on the southeast border of the Station, and the Irvine Technology Center, located along

the southwest border of the Station. Adjacent land on the northwest and northeast is used for agriculture. Regional land use around the Station is shown in Figure 1-3 (Existing Off-Base Land Use).

Property acquisitions. MCAS El Toro has more than doubled in size since the original acquisition of 2,319 acres in 1942. The Station currently consists of 4,738 acres. A summary of MCAS El Toro property acquisitions is provided in Table 1-5 (Property Acquisition Summary). The tracts referenced in this table correspond to Figure 1-4 (History of Land Acquisitions).

Off-base property. Approximately 73.4 acres of off-Station property, currently owned by MCAS El Toro, is used for military housing units (Table 1-6, Off-Base Properties). Figure 1-5 (Off-Base Parcels) shows the location of this property relative to El Toro.

Table 1-1
Current BCT/Project Team Members
(Sheet 1 of 3)

Name	Title/Organization	Phone	Role/Responsibility
BCT Members			
Joyce, Joseph	BRAC Environmental Coordinator - MCAS El Toro and Navy Southwest Division Naval Facilities Engineering Command (SWDIV)	714/726-3470 619/532-3873 fax: 714/726-6586	Department of Defense Component Project Manager (Lead Agency)
Kistner, Glenn	Project Manager - U.S. Environmental Protection Agency (U.S. EPA), Region IX	415/744-2210 fax: 415/744-1796	U.S. EPA Region IX, Lead
Mahmoud, Tayseer	Project Manager - California EPA (Cal-EPA) Department of Toxic Substances Control (DTSC)	310/590-4891 fax: 310/590-4932	Cal-EPA DTSC, Lead
Other Key Participants			
Archuletta, Phil	MCAS El Toro, Installations	714/726-6595 fax: 714/726-2639	Mechanical Engineer Assist - UST/AST Update
Baynard, Major Frank	MCAS El Toro BRAC Office	714/726-3389 fax: 714/726-3394	El Toro Closure Project Manager
Broussard, Theodoris	SWDIV	619/556-0250 x227 fax: 619/556-0248	Contract Specialist
Carrier, Terry	Orange County Health Care Agency	714/667-3679 fax: 714/972-0749	UST Program Oversight
Ciesla, Pete	MCAS El Toro BRAC Office	714/726-3389 fax: 714/726-3394	Assistant Base Transition Coordinator
Coate, Al	MCAS El Toro, Installations	714/726-6595 fax: 714/726-2639	Electrical Engineer Assist-PCB XFMR Update
Crawley, David	SWDIV	714/726-4146 fax: 714/726-2255	Fieldwork Coordination and Logistics
Dotson, Ann	COMCABWEST	714/726-6599 fax: 714/726-2639	MCAS El Toro Planning Director
Felter, Fraser	U.S. EPA	800/231-3075	Community Relations Coordinator
Fowler, Captain Brad	MCAS El Toro, Installations	619/726-2369 fax: 714/726-2639	MCAS El Toro Assistant Chief of Staff, Installations
Garelick, Virginia	SWDIV	619/532-2962 fax: 619/532-2469	Remedial Technical Manager, Technical Support

Table 1-1
Current BCT/Project Team Members
(Sheet 2 of 3)

Name	Title/Organization	Phone	Role/Responsibility
Hornecker, Lynn	SWDIV	619/556-0250 x241 fax: 619/556-0248	RPM, Compliance Program Issues
Jones, Lt. Col. Mike	MCAS El Toro Environment & Safety Department	714/726-6610 fax: 714/726-6586	Deputy Assistant Chief of Staff, Environment and Safety
Katcharian, Lt. Hope	MCAS El Toro Environment & Safety Department	714/726-6607 fax: 714/726-6586	Director, Environmental Engineering Division
Lee, Wayne	MCAS El Toro Environment & Safety Department	714/726-3705 fax: 714/726-6586	Assistant Chief of Staff, Environment and Safety COMCABWEST
Lindsey, Bernie	SWDIV	619/556-0250 x242 fax: 619/556-0248	RPM, BCP Update
Mathews, Thomas B.	County of Orange, Planning and Development Services Department	714/834-4643 fax: 714/834-2771	LRA Representative to the RAB
Mingay, Marsha	DTSC	310/590-4881 fax: 310/590-4932	Public Participation Specialist
Okuda, Ron	DTSC	310/590-4885 fax: 310/590-4901	Environmental Assessment and Reuse Specialist
Piszkin, Andy	SWDIV	619/556-0250 x240 fax: 619/556-0248	Lead RPM/Technical Support
Potacka, Marianna	BRAC Environmental Program Manager - Marine Corps Headquarters	703/696-2138 fax: 703/696-1020	CMC Marine Corps Headquarters
Ritchie, Colonel Jim	MCAS El Toro, BRAC	714/726-3389 fax: 714/726-3394	AC/S BRAC; Base Transition Coordinator
Rumsey, Ed	MCAS El Toro, Installations	714/726-2270 fax: 714/726-2639	MCAS El Toro Director, Engineering Division
Sherwood, Paul	MCAS El Toro, Installations	714/726-6807 fax: 714/726-2639	Operations Manager
Vitale, Larry	Project Manager - Cal-EPA, Regional Water Quality Control Board (RWQCB), Santa Ana	909/782-4998 fax: 909/781-6288	RWQCB - Santa Ana, Lead

Table 1-1
Current BCT/Project Team Members
(Sheet 3 of 3)

Name	Title/Organization	Phone	Role/Responsibility
Wiemert, Carole (Charly)	MCAS El Toro, Environment & Safety	714/726-2840 fax: 714/726-6586	Environmental Program Support Specialist
Yeschanin, Eric	MCAS El Toro, Environment & Safety Department	714/726-2164 fax: 714/726-6586	Hazardous Waste Division
Contractors			
Brooks, George P. (Pat)/ Kleinfelder	CLEAN II CTO Leader	619/687-8851 fax: 619/687-8787	CLEAN II Lead for OU-2A
Carlisle, Craig/ Bechtel	CLEAN II El Toro Project Manager	619/687-8804 fax: 619/687-8787	Project Manager for CLEAN II, El Toro CTOs; CLEAN II Lead for OU-3
Hallerbach, Dimitri/ Bechtel	CLEAN II CTO Leader	619/687-8855 fax: 619/687-8787	CLEAN II BCP Lead
Latas, Tim/ Kleinfelder	CLEAN II CTO Leader	619/687-8848 fax: 619/687-8787	CLEAN II Lead for OU-2B and OU-2C
Schwartz, Amy/ Bechtel	CLEAN II CTO Leader	415/768-7790 fax: 415/768-4898	Lead for Community Relations
Sedlak, Bill/ OHM	Project Manager/OHM Remediation Services	714/263-1146 fax: 714/263-1147	SWDIV Remedial Action Contract Project Manager
Tedaldi, Dante/ Bechtel	CLEAN II CTO Leader	619/687-8780 fax: 619/687-8787	CLEAN II Lead for El Toro RODs

Abbreviations:

AC/S – Assistant Chief of Staff
AST – aboveground storage tank
BCP – BRAC Cleanup Plan
BCT – Base Realignment and Closure (BRAC) Cleanup Team
BRAC – Base Realignment and Closure
Cal-EPA – California Environmental Protection Agency
CMC – Commandant of the Marine Corps
CLEAN – Comprehensive Long-Term Environmental Action Navy
COMCABWEST – Commander, Marine Corps Air Bases Western Area
CTO – Contract Task Order
DTSC – Department of Toxic Substances Control
LRA – Local Redevelopment Authority
MCAS – Marine Corps Air Station
OHM – OHM Remediation Services Corporation
OU – Operable Unit
PCB – polychlorinated biphenyl
RAB – Restoration Advisory Board
ROD – Record of Decision
RPM – Remedial Project Manager
RWQCB – Regional Water Quality Control Board
SWDIV – Southwest Division Naval Facilities Engineering Command
U.S. EPA – United States Environmental Protection Agency
UST – underground storage tank
XFMR – transformer

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Table 1-2
History of Installation Operations
(Sheet 1 of 4)

Period	Type of Operation	Weapon System	Hazardous Substance Activity	Map Reference[1]
Pre-1943	Agricultural	None	Potential pesticide use	VL
1943	New construction MCAS El Toro formally commissioned	None	Construction Landfilling STP and sludge drying beds Fuel/oil/chemical storage Discharge to washes Waste burning	VL 1 2 VL 3 8
1943 to 1945	465 aircraft assigned (F4U, TBM, R5C, C-54, SNJ) 15,470 personnel assigned	Fighter, Bombing, and Training Aircraft	Construction Landfilling Fuel/oil/chemical storage STP and sludge drying beds Discharges to washes UST petroleum/waste storage Oil/water separators Aircraft refurbishing operations Waste burning IWTP	VL 1 VL 2 3 VL VL 4 8 9
1946 to 1952	Marine aircraft groups assigned Aircraft (F4U, F7F, TBM, C-54, SNJ) 4,000 personnel assigned	Fighter, Bombing, Transport, and Training Aircraft	Petroleum disposal area Landfilling Fuel/oil/chemical storage STP and sludge drying beds Discharges to washes UST petroleum/waste storage Oil/water separators Aircraft refurbishing operations Waste burning IWTP	5 1 VL 2 3 VL VL 4 8 9

Table 1-2
History of Installation Operations
(Sheet 2 of 4)

Period	Type of Operation	Weapon System	Hazardous Substance Activity	Map Reference[1]
1952 to 1955	Aircraft fleet marine force assigned Marine aircraft groups assigned Aircraft (F3D, F9F, F6F, C-119, C-54, AD, HRS)	Fighter, Attack, Transport, Training Aircraft, and Helicopters	Explosive ordnance disposal Petroleum disposal area Landfilling Fuel/oil/chemical storage STP and sludge drying beds Discharges to washes UST petroleum/waste storage Oil/water separators Waste burning IWTP	6 5 1 VL 2 3 VL VL 8 9
1955 to 1960	One marine air wing (3d MAW relocated to MCAS El Toro from Miami, Florida) Aircraft (AD, A4D, F3D, F4D, F8U, F9F, C-119, C-54)	Fighter, Attack, Transport, Photographic, Reconnaissance, and Tanker Aircraft	Explosive ordnance disposal Petroleum disposal area Landfilling Fuel/oil/chemical storage STP and sludge drying beds Discharges to washes UST petroleum/waste storage Oil/water separators Waste burning IWTP	6 5 1 VL 2 3 VL VL 8 9
1961 to 1975	One marine air wing (3d MAW) Aircraft (AD, A4D, F4H, C-130) 8,600 personnel assigned	Fighter, Attack, and Tanker Aircraft	Explosive ordnance disposal Petroleum disposal area Landfilling Fuel/oil/chemical storage STP and sludge drying beds Discharges to washes UST petroleum/waste storage Oil/water separators Fire training area burn pits	6 5 1 VL 2 3 VL VL 7

Table 1-2
History of Installation Operations
(Sheet 3 of 4)

Period	Type of Operation	Weapon System	Hazardous Substance Activity	Map Reference[1]
1976 to 1985	One Marine Air Wing (3d MAW) Aircraft (A4D, F4H, C-130)	Fighter, Attack, and Tanker Aircraft	Explosive ordnance disposal Petroleum disposal area Landfilling Fuel/oil/chemical storage Discharges to washes UST petroleum/waste storage Oil/water separators Fire training burn pits	6 5 1 VL 3 VL VL 7
1986 to 1991	One Marine Air Wing (3d MAW). Includes: MAG -11 90 F/A-18 fighter attack aircraft 12 KC-130 MAG -46 12 F/A-18 fighter attack aircraft 12 aircraft (CH-46) Station 3 aircraft (UH-1) 3 aircraft (UC-12) 1 aircraft (CT-39) 7,200 personnel assigned	Fighter, Attack, and In-flight Refueler Aircraft, Helicopters and Logistic Transport	Petroleum disposal area Fuel/oil/chemical storage Discharges to washes UST petroleum/waste storage Oil/water separators Fire training burn pits	5 VL 3 VL VL 7

Table 1-2
History of Installation Operations
(Sheet 4 of 4)

Period	Type of Operation	Weapon System	Hazardous Substance Activity	Map Reference[1]
1991 to 1995	One Marine Air Wing (3d MAW). Includes: MAG -11 125 F/A-18 fighter attack aircraft 12 KG-130 MAG -46 12 F/A-18 fighter attack aircraft (Reserve) 12 CH-46 helicopters Station UH-1 search and rescue helicopter UC-12, CT-39 logistic aircraft 8,000 personnel assigned	Fighter, Attack, and In-flight Refueler Aircraft, Helicopters and Logistic Transport	Fuel/oil/chemical storage Discharges to washes UST petroleum/waste storage Oil/water separators Petroleum disposal area Fire training burn pits	VL 3 VL VL 5 7
1995 to present	One Marine Air Wing (3d MAW). Includes: MAG -11 24 F/A-18 fighter attack aircraft T-34C trainer aircraft 12 KC-130 aerial refueler/transport aircraft MAG -16 84 CH46 transport helicopters 3 UH-1 search and rescue helicopters 3 UC-12 aircraft CT-39 logistic aircraft; MAG-46 12 CH-46 (reserve) helicopters 8 CH-53 (reserve) helicopters 6,581 personnel assigned (civilians included)	Fighter, Attack, and In-flight Refueler Aircraft, Helicopters and Logistic Transport	Fuel/oil/chemical storage Discharges to washes UST petroleum/waste storage Oil/water separators Petroleum disposal area Fire training burn pits	VL 3 VL VL 5 7

Sources: MCAS El Toro Master Plan, 1991
MCAS El Toro & Tustin Unofficial Guide and Directory, 1992
MCAS El Toro Command Museum Personnel

Notes: [1] reference numbers correspond to locations shown in Figure 1-2

Abbreviations: VL – various locations
STP – sewage treatment plant
UST – underground storage tank
IWTP – industrial wastewater treatment plant

Table 1-3
Hazardous Waste-Generating Activities
(Sheet 1 of 6)

Facility (Building)[1]	Activity	Name of Waste Material	Generation Rate (lb./2 months)[2]	Disposition
Aero Club (10)	Small aircraft maintenance, (G, TAA)	Oil	480	Recycle
Auto Hobby Shop (626)	Auto repair shop (G, TAA)	Absorbent w/fuel, oil Oil filters Antifreeze	518 736 544	DRMO Recycle Recycle
C-Pool (386)	Base auto and truck repair shop (G, TAA)	Gas/Oil/filters Oil	119 2,600	Recycle Recycle
CSSD-14 (388)	Hum V/support engine repair station (G, TAA)	Petroleum oil w/water Aerosol prime coating Aerosol vinyl spray Absorbent w/fuel, oil Petroleum oil w/solvents Petroleum oil w/fuel PD-680 Antifreeze Rags w/fuel, oil	368 53 52 2,564 996 178 124 260 1,104	DRMO DRMO DRMO DRMO DRMO Recycle DRMO Recycle DRMO
FMD (370)	Maintain base/buildings (G, TAA)	Paint remover Miscellaneous paint Spill debris w/oil Antifreeze	5,503 55 65 98	DRMO DRMO DRMO Recycle
Fuels Division (314)	Gas and diesel supply to units (G, TAA)	Petroleum Oil	937	Recycle
MATCS-38 (22)	Ground control unit (G, TAA)	Used oil/diesel filters Paint thinner Batteries (mercury) Calcium hypochlorite Rags w/fuel, oil Petroleum oil Antifreeze	98 203 74 52 102 332 338	DRMO DRMO DRMO DRMO DRMO Recycle Recycle
MACG-38 (5)	Transportation and power electricity for MATCS-38 (G, TAA)	Antifreeze Aerosol spray paint Miscellaneous paint	178 94 368	Recycle DRMO DRMO

Table 1-3
Hazardous Waste-Generating Activities
(Sheet 2 of 6)

Facility (Building)[1]	Activity	Name of Waste Material	Generation Rate (lb./2 months)[2]	Disposition
MAG-46	Helicopters	Rags w/fuel, oil	410	DRMO
Helo (295)	(G, TAA)	Rags w/synthetic oil	145	DRMO
HMM 764		Petroleum oil	878	Recycle
HMM 769		PD-680	314	DRMO
MWSS 473		Acidic cleaning compound	684	DRMO
		Absorbent w/fuel, oil	1,523	DRMO
		Aerosol paint	124	DRMO
		Synthetic oil	868	Recycle
		Rags w/sealing compound	152	DRMO
HMM 161	Helicopters	Rags w/fuel, oil	410	DRMO
(115)	(G, TAA)	Rags w/synthetic oil	145	DRMO
		Petroleum oil	878	Recycle
		PD-680	314	DRMO
		Acidic cleaning compound	684	DRMO
		Absorbent w/fuel, oil	1,523	DRMO
		Aerosol paint	124	DRMO
		Synthetic oil	868	Recycle
		Rags w/sealing compound	152	DRMO
HMM 163	Helicopters	Rags w/fuel, oil	410	DRMO
(606)	(G, TAA)	Rags w/synthetic oil	145	DRMO
		Petroleum oil	878	Recycle
		PD-680	314	DRMO
		Acidic cleaning compound	684	DRMO
		Absorbent w/fuel, oil	1,523	DRMO
		Aerosol paint	124	DRMO
		Synthetic oil	868	Recycle
		Rags w/sealing compound	152	DRMO
HMM 364	Helicopters	Rags w/fuel, oil	410	DRMO
(605)	(G, TAA)	Rags w/synthetic oil	145	DRMO
		Petroleum oil	878	Recycle
		PD-680	314	DRMO
		Acidic cleaning compound	684	DRMO
		Absorbent w/fuel, oil	1,523	DRMO
		Aerosol paint	124	DRMO
		Synthetic oil	868	Recycle
		Rags w/sealing compound	152	DRMO

Table 1-3
Hazardous Waste-Generating Activities
(Sheet 3 of 6)

Facility (Building)[1]	Activity	Name of Waste Material	Generation Rate (lb./2 months)[2]	Disposition
HMM 164 (453)	Helicopters (G, TAA)	Rags w/fuel, oil	410	DRMO
		Rags w/synthetic oil	145	DRMO
		Petroleum oil	878	Recycle
		PD-680	314	DRMO
		Acidic cleaning compound	684	DRMO
		Absorbent w/fuel, oil	1,523	DRMO
		Aerosol paint	124	DRMO
		Synthetic oil	868	Recycle
		Rags w/sealing compound	152	DRMO
HMM 165 (462)	Helicopters (G, TAA)	Rags w/fuel, oil	410	DRMO
		Rags w/synthetic oil	145	DRMO
		Petroleum oil	878	Recycle
		PD-680	314	DRMO
		Acidic cleaning compound	684	DRMO
		Absorbent w/fuel, oil	1,523	DRMO
		Aerosol paint	124	DRMO
		Synthetic oil	868	Recycle
		Rags w/sealing compound	152	DRMO
HMM 166 (114)	Helicopters (G, TAA)	Rags w/fuel, oil	410	DRMO
		Rags w/synthetic oil	145	DRMO
		Petroleum oil	878	Recycle
		PD-680	314	DRMO
		Acidic cleaning compound	684	DRMO
		Absorbent w/fuel, oil	1,523	DRMO
		Aerosol paint	124	DRMO
		Synthetic oil	868	Recycle
		Rags w/sealing compound	152	DRMO
HMM 268 (606)	Helicopters (G, TAA)	Rags w/fuel, oil	410	DRMO
		Rags w/synthetic oil	145	DRMO
		Petroleum oil	878	Recycle
		PD-680	314	DRMO
		Acidic cleaning compound	684	DRMO
		Absorbent w/fuel, oil	1,523	DRMO
		Aerosol paint	124	DRMO
		Synthetic oil	868	Recycle
		Rags w/sealing compound	152	DRMO

Table 1-3
Hazardous Waste-Generating Activities
(Sheet 4 of 6)

Facility (Building)[1]	Activity	Name of Waste Material	Generation Rate (lb./2 months)[2]	Disposition
MALS-11 Avionics (856)	Repair avionics equipment (G, TAA)	Sulfuric acid spent	538	DRMO
		Rags w/fuel, oil	343	DRMO
		Batteries (lead acid)	126	DRMO
		Synthetic oil	145	Recycle
		Paint thinner	66	DRMO
		Rags w/PD-680	56	DRMO
		Corrosion preventative compound	138	DRMO
		Miscellaneous paint	185	DRMO
		Primer	47	DRMO
		Sealing compound	39	DRMO
		Petroleum oil	269	Recycle
		Aerosol enamel paint	108	DRMO
		Alodine corrosive resistant	37	DRMO
		Absorbent w/hydraulic fluid	49	DRMO
		Aerosol cleaning compound	97	DRMO
MALS-11 GSE North (392)	Equipment provide power/test electrical system/ service hydraulics fuels/start engine/ maintain and tow tractors (G, TAA)	Synthetic oil	474	Recycle
		Used oil/diesel filters	218	Recycle
		Latex gloves w/synthetic oil	52	DRMO
		Petroleum oil w/synthetic oil	230	DRMO
		25% Freon w/75% hydraulic fluid	436	DRMO
		Aerosol cleaning compound	35	DRMO
		Rags w/fuel, oil	252	DRMO
MALS-11 Power plants (634)	Fix and maintain F404 and T54 Engine (G, TAA)	Rags w/fuel, JP-5, synthetic oil	1,129	DRMO
		JP-5 w/synthetic oil	487	Recycle
MALS-16 GSE North (673)	Ground equipment provide power/test electrical system/ service hydraulics fuels/start engine/ maintain and tow tractors (G, TAA)	Oil w/antifreeze	199	DRMO
		Synthetic oil	474	
		Used oil/diesel filters	218	
		Latex gloves w/synthetic oil	52	
		Petroleum oil w/synthetic oil	230	
		25% Freon w/75% hydraulic fluid	436	
		Aerosol cleaning compound	35	
		Rags w/fuel, oil	252	

Table 1-3
Hazardous Waste-Generating Activities
(Sheet 5 of 6)

Facility (Building)[1]	Activity	Name of Waste Material	Generation Rate (lb./2 months)[2]	Disposition
MWR-Auto #1(651)	Auto repair shop (G, TAA)	Grease Fuel w/water Used oil/diesel filters Petroleum oil	142 108 698 522	DRMO DRMO Recycle Recycle
MWSS-373 Headquarters (800)	Repair and maintenance of tactical vehicles (G, TAA)	Aerosol spray paint Rags w/fuel, oil Aerosol enamel spray paint Absorbent w/fuel, oil Used oil/diesel filters Antifreeze	171 755 238 925 164 154	DRMO DRMO DRMO DRMO Recycle Recycle
MWSS-373 Refuelers (671)	Refuel by truck (G, TAA)	Absorbent w/fuel, oil Petroleum oil PD-680 Acidic cleaning compound	374 878 314 684	DRMO Recycle DRMO DRMO
MWSS-373 Utilities (31)	Fix and maintain generator/refer equipment/ laundry unit shower/runoff water system (G, TAA)	Absorbent w/fuel, oil Rags w/solvents Petroleum oil	438 164 338	DRMO DRMO Recycle
MWSS-374 Refuelers (671)	Refuel by truck (G, TAA)	Absorbent w/fuel, oil Petroleum oil PD-680 Acidic cleaning compound	374 878 314 684	DRMO Recycle DRMO DRMO
SOMS HQ (289)	Emergency arrestment (G, TAA)	Absorbent w/fuel, oil Petroleum oil	104 218	DRMO Recycle
SOMS Recovery (307) SOMS ACM	Emergency arrestment (G, TAA)	Absorbent w/oil debris Aerosol spray paint Petroleum oil Absorbent w/fuel, oil Diesel w/water Batteries (lead, acid)	78 193 1,298 136 574 150	DRMO DRMO Recycle DRMO Recycle Recycle

Table 1-3
Hazardous Waste-Generating Activities
(Sheet 6 of 6)

Facility (Building)[1]	Activity	Name of Waste Material	Generation Rate (lb./2 months)[2]	Disposition
VMFAT-101 (371)	FA-18 aircraft (G, TAA)	Corrosion preventative compound	67	DRMO
		Miscellaneous paint	173	DRMO
		Enamel paint	101	DRMO
		Rags w/fuel, oil	1,063	DRMO
		Rags w/AC paint thinner	159	DRMO
		Absorbent w/fuel, oil	1,213	DRMO
		Cleaning compound (sodium hydroxide)	66	DRMO
		Cleaning compound (orthocresol)	687	DRMO
		Hydraulic fluid	1,966	Recycle
		Paint thinner	404	DRMO
		JP-5	1,192	Recycle
		Methyl ethyl ketone	96	DRMO
		Aliphatic isocyanate	168	DRMO
		Water w/oil	1,500	DRMO
		Sulfuric acid, spent	550	DRMO
		Rags w/synthetic oil	100	DRMO
		Paint booth filters	218	DRMO
VMGR-352 (297)	KC-130 aerial transport, refuel tow line (G, TAA)	25% Freon w/75% hydraulic fluid	442	DRMO
		Rags w/fuel, oil	403	DRMO
		Miscellaneous paint	360	DRMO
		Enamel paint	105	DRMO
		Batteries (lead, acid)	400	Recycle
		Adhesive	60	DRMO
		Paint stripper	72	DRMO
		Aerosol spray paint	70	DRMO
		Synthetic oil	868	Recycle
		Hydraulic fluid	444	Recycle
		Absorbent w/fuel, oil	1,260	DRMO

Source: Input from Station Environmental Engineering Division, September 1996.

Notes: [1] The column in the BCP table entitled "Unit" is not included; according to EO staff, the unit column is the same as facility building
[2] pounds per two-month period

Abbreviations: G - generator
TAA - temporary accumulation area (less than 90-day accumulation area)
DRMO - Defense Reutilization and Marketing Office

Table 1-4
On-Base Tenant Units
(Sheet 1 of 4)

Tenant	Building Number(s)
13th Dental	20,105, 439, 457
3rd Marine Air Wing	139, 797, 829, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921
Adjutant	46, 420, 692
Aero Club	766
Aviation Physiology Training Unit	684
Aviation Weapons Training Unit-3	405, 406, 407, 409
CACI	456
CEO	757, 773, 774, 775, 776, 777
Chaplain	83, 581, 833
Comptroller	66, 475
Crash Crew	850, 851
Credit Union	304
Combat Service Support Detachment-14	147, 273, 313, 333, 387, 388, 655, 744, 759, 760
Defense Commissary Agency	317, 329
Defense Logistics Agency	197, 198, 199, 200, 201, 202, 203, 204, 205, 547, 548, 549, 550, 551
Defense Reutilization Marketing Office	319, 633, 784, 926, 927, 928
Environmental	53, 56, 300, 326, 769, 770, 772, 778, 779, 882
Explosive Ordnance Disposal	240, 780, 794, 795
Federal Aviation Administration	416
Fleet Aviation Specialized Operational Training Group	629
Food Service	364, 457
G-1 Personnel	75, 83, 121, 279, 376, 581, 656, 873
G-3 Air Operations	349, 372, 414, 588, 596, 597, 598, 638, 677
G-4 Logistics	29, 32, 33, 34, 35, 38, 46, 50, 65, 96, 298, 299, 248, 251, 375, 386, 616, 441, 742, 744, 942
G-4 Transients	249, 250
G-6 Ground Electronic Maintenance Division	1, 138, 321, 394, 399, 404, 573, 584, 730, 860, 861
G-6 Training	874
G-6/Federal Aviation Administration	372
Guard Safety	523
Headquarters and Headquarters Squadron	1
Headquarters and Headquarters-37	245, 305
Headquarters and Headquarters-38	8, 9, 11, 22, 23, 56
Marine Medium Helicopter Squadron-764	295, 947, 948
Housing	582, 614, 678

Table 1-4
On-Base Tenant Units
(Sheet 2 of 4)

Tenant	Building Number(s)
Human Resources Office	304
Installation	58, 146, 152, 155, 156, 174, 175, 293, 300, 301, 302, 306, 324, 335, 357, 358, 368, 370, 374, 377, 380, 382, 383, 384, 385, 386, 445, 446, 448, 496, 529, 530, 566, 567, 568, 579, 582, 583, 610, 619, 639, 640, 641, 642, 643, 659, 662, 674, 675, 685, 689, 733, 735, 742, 753, 789, 796, 818, 834, 836, 837, 838, 852, 855, 862, 1595, 1601, 1710
Joint Public Affairs Office	59
Marine Air Control Group-38	328
Marine Air Control Squadron-38	169, 955, 956
Marine Air Federal Credit Union	743
Marine Aircraft Group-11	136, 137, 391, 415, 457, 701, 711, 712, 713, 734, 761, 763, 767, 816, 843, 854, 856, 886, 887, 923
Marine Aviation Logistics Squadron-11	105, 127, 129, 130, 131, 132, 142, 165, 290, 291, 308, 341, 371, 392, 442, 447, 456, 469, 602, 631, 634, 636, 658, 664, 716, 745, 749, 750, 751, 756, 764, 786, 831, 840, 856, 931, 932, 933, 934, 935, 952, 953, 954, 964, 965, 1650, 1651, 1787, 1791
Marine Aviation Logistics Squadron - 16	673
Marine Air Group - 46	310, 315
Marine Aviation Logistics Squadron-46	295, 957, 958, 959, 960
Marine Air Traffic Control Squadron-38 (DETD)	137
Marine Air Traffic Control Squadron-48	47, 49
Marine Corps Combat-3	748
Marine Wing Communications Squadron	5, 13, 14, 15, 16, 17, 21, 56, 600, 844, 971
Marine Wing Headquarters Squadron	7, 12, 19, 20, 48, 52, 275, 787, 832, 967, 968, 1720
Morale, Welfare, and Recreation	10, 390, 402, 410, 421, 422, 427, 430, 432, 703, 704, 881, 882, 883, 884, 894, 943
Morale, Welfare, and Recreation-Hospital	347, 649, 718, 791, 793, 823
Morale, Welfare, and Recreation-Headquarters	75
Morale, Welfare, and Recreation-Recreation	75, 94, 264, 272, 280, 459, 460, 464, 578, 601, 607, 615, 625, 626, 679, 680, 681, 686, 687, 736, 782, 788, 790, 792, 817, 828, 830, 859, 885, 922, 924, 925, 941, 1774, 1775, 1798
Morale, Welfare, and Recreation-Retail	77, 637, 649, 650, 651, 783, 799, 930, 944, 961, 966, 1702
Morale, Welfare, and Recreation-Support	77, 285
Marine Wing Support Group-37	309, 758, 762, 771

Table 1-4
On-Base Tenant Units
(Sheet 3 of 4)

Tenant	Building Number(s)
Marine Wing Support Squadron-371	765
Marine Wing Support Squadron-373	25, 26, 27, 28, 31, 307, 313, 671, 672, 800, 801, 802, 803, 804, 825, 962, 963
National Guard	669
Naval Aviation Engineering Service Unit	745, 829
Naval Air Station Field Office	29
Naval Hospital	256, 439, 876
Nuclear Biological Chemical	1655, 1656, 1662, 1719, 1789
NWSSP	292
Provost Marshal's Office	6, 27, 133, 657, 702, 707, 708, 725, 729, 835, 856, 858, 929
Reserve Support Unit	60
Security	75, 311, 665, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872
Staff Judge Advocate	54, 257
Staff Non-Commissioned Officer Academy	874
Station Operations Maintenance Squadron	2, 3, 4, 98, 99, 288, 289, 307, 372, 435, 586, 587, 594, 595, 624, 644, 645, 646, 647, 717, 721, 824, 877,878, 879, 880, 969, 970, 1815
Station Operations Maintenance Squadron/ Federal Aviation Administration	372
Station Ordnance	536, 537, 538, 539, 540, 542, 543, 544, 545, 546, 611, 781, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 841, 893, 1752, 1810
Station Training	242, 819
MCAS El Toro	1, 58, 124, 296, 297, 366, 367, 376, 389, 440, 449, 450, 451, 452, 660, 661, 666, 667, 668, 731, 732, 739, 740, 741, 842, 889, 890, 895, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 972
Station/Provost Marshal's Office	898
Supply	189, 206, 207, 241, 285,314, 317, 318, 319, 320, 321, 359, 360, 363, 369, 379, 396, 419, 534, 552, 555, 556, 558, 559, 560, 561, 599, 635, 670, 699, 700, 747, 752, 755, 797, 827, 853, 1580, 1703, 1721
Training	57, 243, 244, 251, 263, 271, 443, 471, 472, 519, 520, 693, 746, 839

Table 1-4
On-Base Tenant Units
(Sheet 4 of 4)

Tenant	Building Number(s)
Vacant	47, 49, 51, 124, 135, 163, 164, 166, 167, 170, 171, 172, 292, 296, 297, 307, 321, 322, 324, 325, 355, 372, 405, 406, 407, 408, 409, 445, 457, 408, 445, 634, 669, 682, 683, 688, 698, 709, 710, 722, 826, 936, 937, 938, 1538, 1721, 1809
Vacant (G-4)	276, 277, 297, 324, 310
Vacant (DLA)	176, 177, 178, 179, 180, 181, 182, 183, 561
Vacant (Inst)	222, 373
Vacant (MAG-11)	230, 231, 1804
Vacant (STA)	312
Vacant (Supply)	191, 553, 554
Maintennce Hangar - 163	606
Maintennce Hangar - 164	461,714, 727
Maintennce Hangar - 165	462
Maintennce Hangar - 166	114, 124, 125, 126
Maintennce Hangar - 161	115, 122, 123
Maintennce Hangar - 364	118, 119, 697
Maintennce Hangar - 268	120, 121, 605
Marine Fighter Attack Squadron 314	695, 892, 939, 940
Marine Fighter Attack Squadron 323	606, 696
Marine Fighter Attack Training Squadron-101	371, 463, 487, 726, 785, 845, 847, 848, 849
Marine Fighter Attack Squadron-235	292, 728
Marine Aerial Refueler/Transport Squadron-352	297, 945, 946
West Coast Commissary Complex/Defense Commissary Agency	694
Wing Nuclear Biological Chemical	798

Source: MCAS El Toro Building List 1993

Abbreviations: CEO - Chief Executive Officer
PMTC - Pacific Missile Test Center

Table 1-5
Property Acquisition Summary
(Sheet 1 of 1)

Tract Number[1]	Previous Land Owner	ACREAGE			Type of Acquisition
		Fee Land	Easement Land	Acquisition Date	
A	Irvine Ranch	2318.833	Not Available	27 October 1942	Acquired from the Irvine Ranch Corporation under the authority of an Act of Congress, approved 27 March 1942
B	Irvine Ranch	21.525	Not Available	01 July 1945	Acquired from the Irvine Ranch Corporation under the authority of an Act of Congress, approved 24 February 1942
C	El Toro Development Company	160.734	Not Available	09 January 1952	Acquired by a Grant Deed from El Toro Development Company
D	The Irvine Company	1403.42	Not Available	13 August 1953	Acquired pursuant to a Declaration of Taking filed with the U.S. District Court for the Southern District of California
E	The Irvine Company	86.95	Not Available	April 1972	Acquired by exchange from The Irvine Company
F	The Irvine Company	729	Not Available	1976	Acquired by exchange from The Irvine Company
G	The Irvine Company	17.74	Not Available	December 1986	Purchased from The Irvine Company
Total Acreage:		**4738.202**			

Sources: MCAS El Toro Master Plan 1991
Brown and Caldwell 1986

Note: [1] tract numbers correspond to Figure 1-4

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Table 1-6
Off-Base Properties
(Sheet 1 of 1)

Description	Acreage	Date of Acquisition	Environmental Status	Location	Remarks
Military Housing at MCAS Tustin	73.4	TBS	Unevaluated	MCAS Tustin	None

Abbreviations: MCAS – Marine Corps Air Station
TBS – data to be supplied

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M60050_001745
MCAS EL TORO

SENSITIVE RECORD

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FIGURE 1-1 – LOCATION MAP

FOR ADDITIONAL INFORMATION, CONTACT:

DIANE C. SILVA, RECORDS MANAGER
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1220 PACIFIC HIGHWAY
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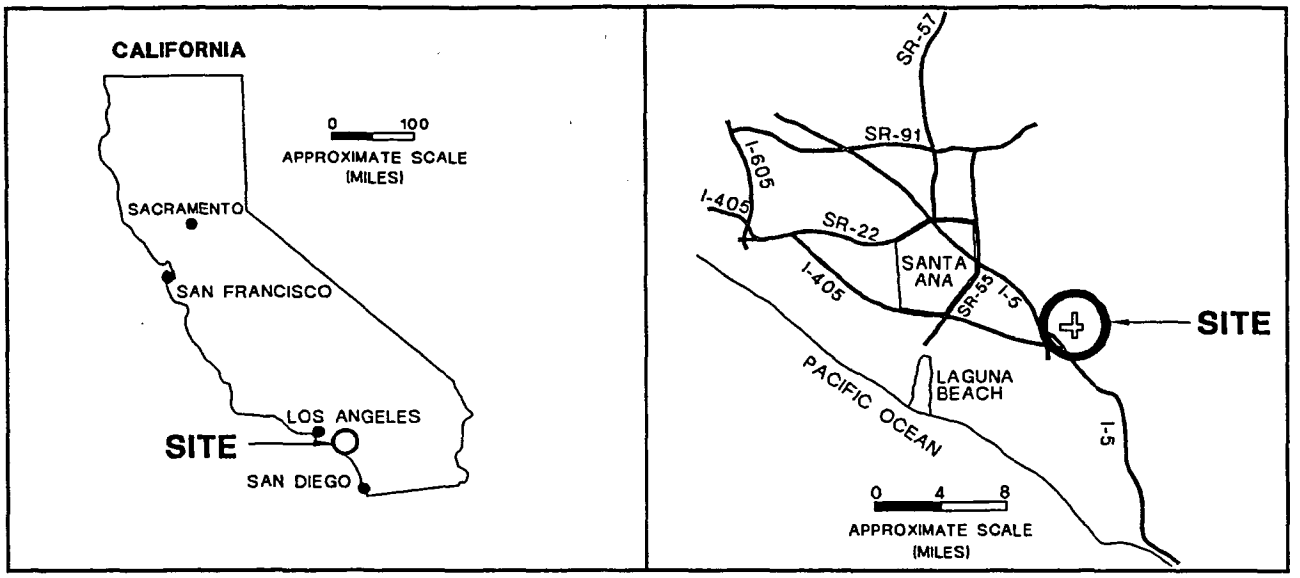

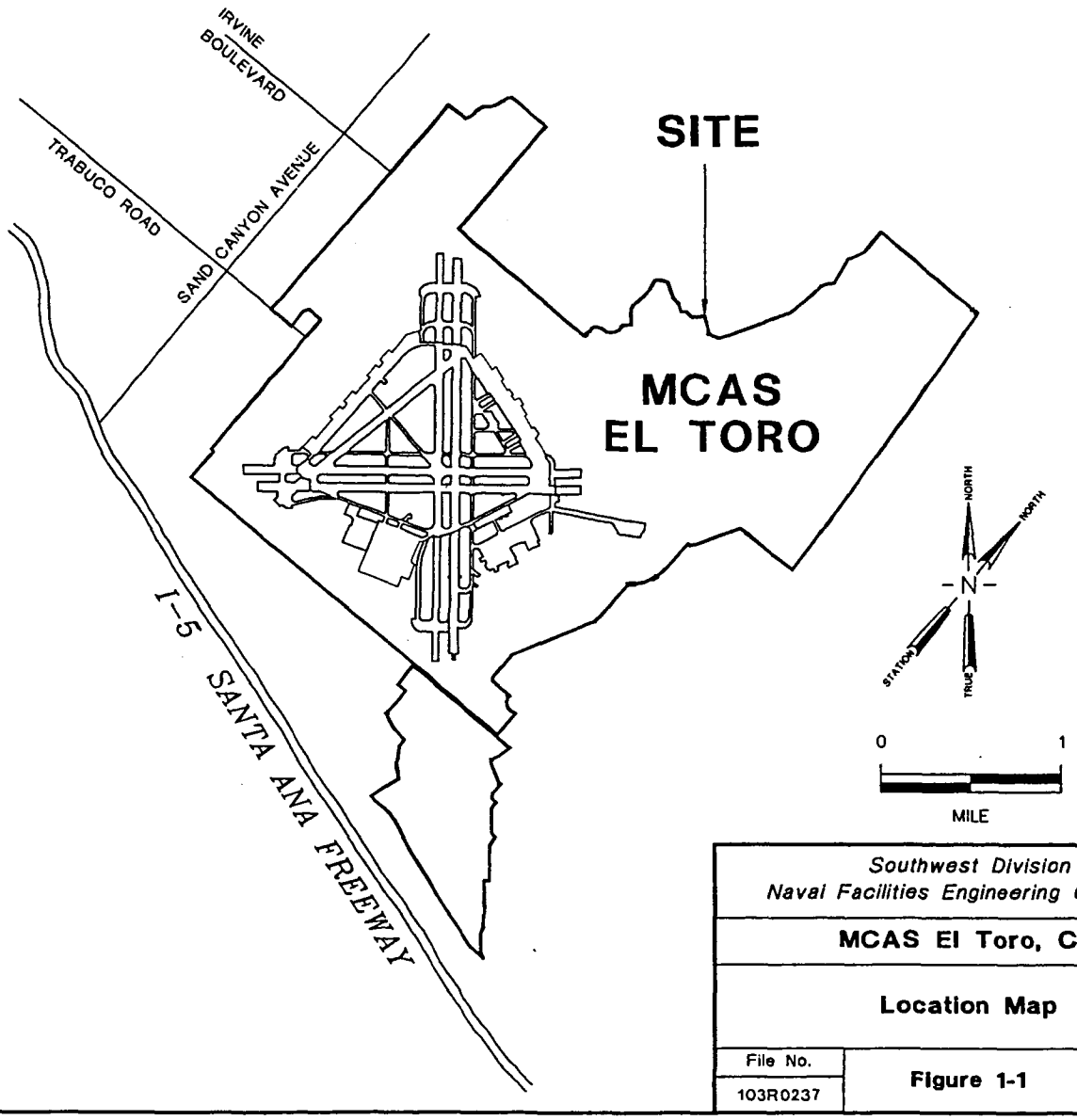

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Location Map		
File No.	**Figure 1-1**	Date
103R0237		3/1/97

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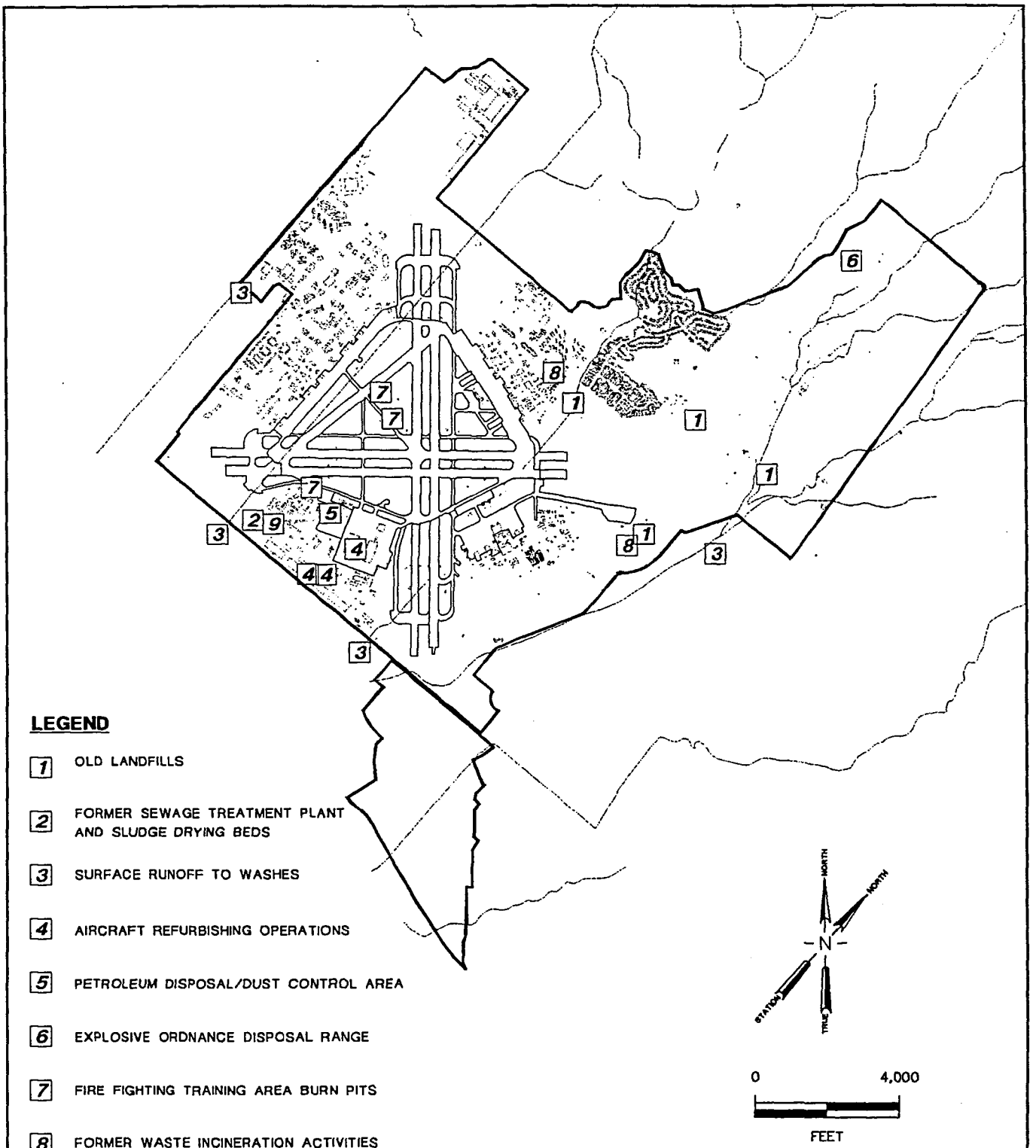

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Location of Past Hazardous Substance Activities		
File No.	**Figure 1-2**	Date
103Q0248		3/1/97

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Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

Existing Off-Base Land Use

File No.		Date
103R0240	**Figure 1-3**	3/1/97

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MCAS EL TORO

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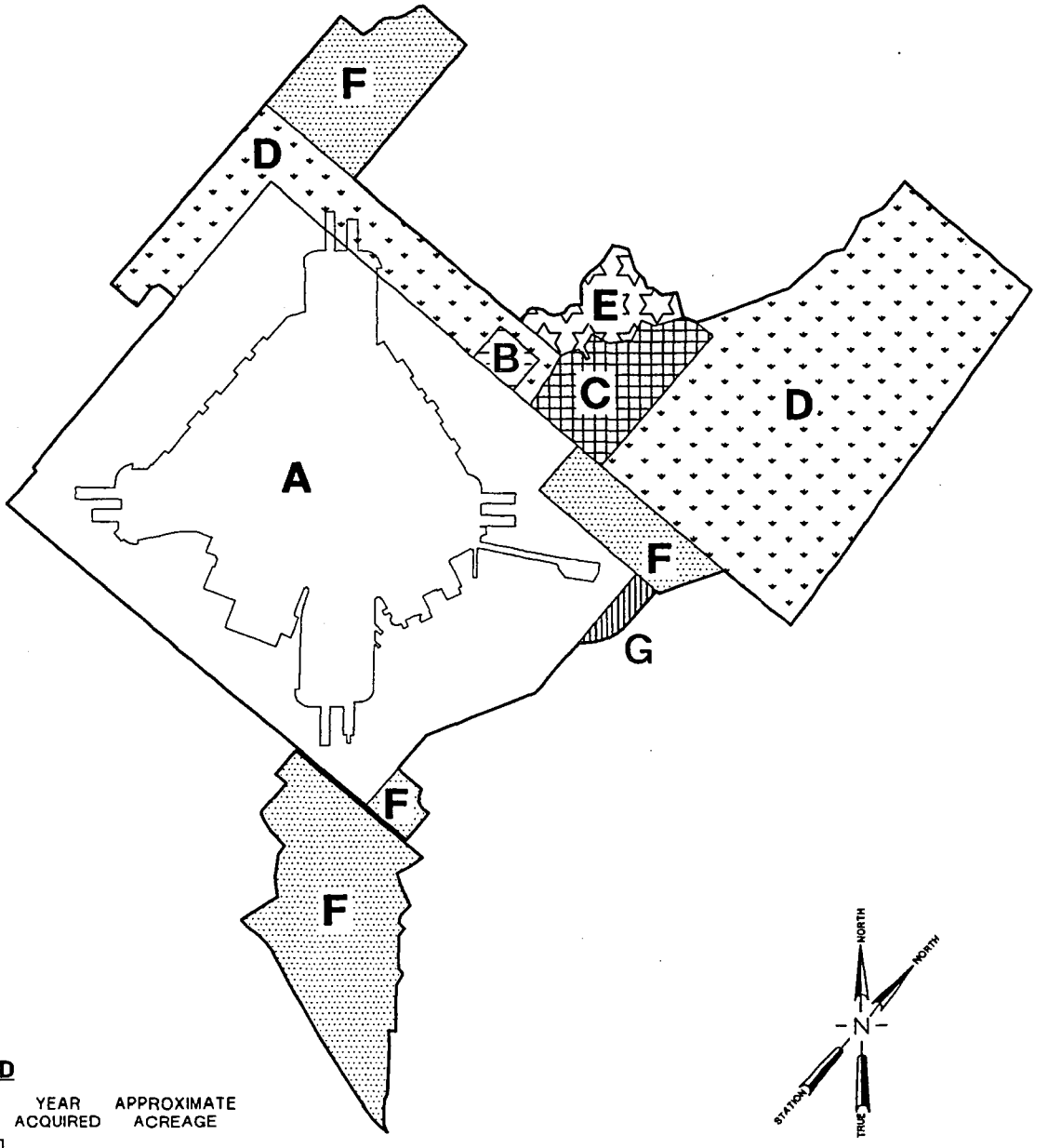

LEGEND

	YEAR ACQUIRED	APPROXIMATE ACREAGE
A	1942	2,319
B	1945	22
C	1952	161
D	1953	1,403
E	1972	87
F	1976	729
G	1986	18

0 4,000

FEET

Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

History of Land Acquisitions

File No.	Figure 1-4	Date
103P0238		3/1/97

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MCAS EL TORO

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FIGURE 1-5 – OFF-BASE PARCELS

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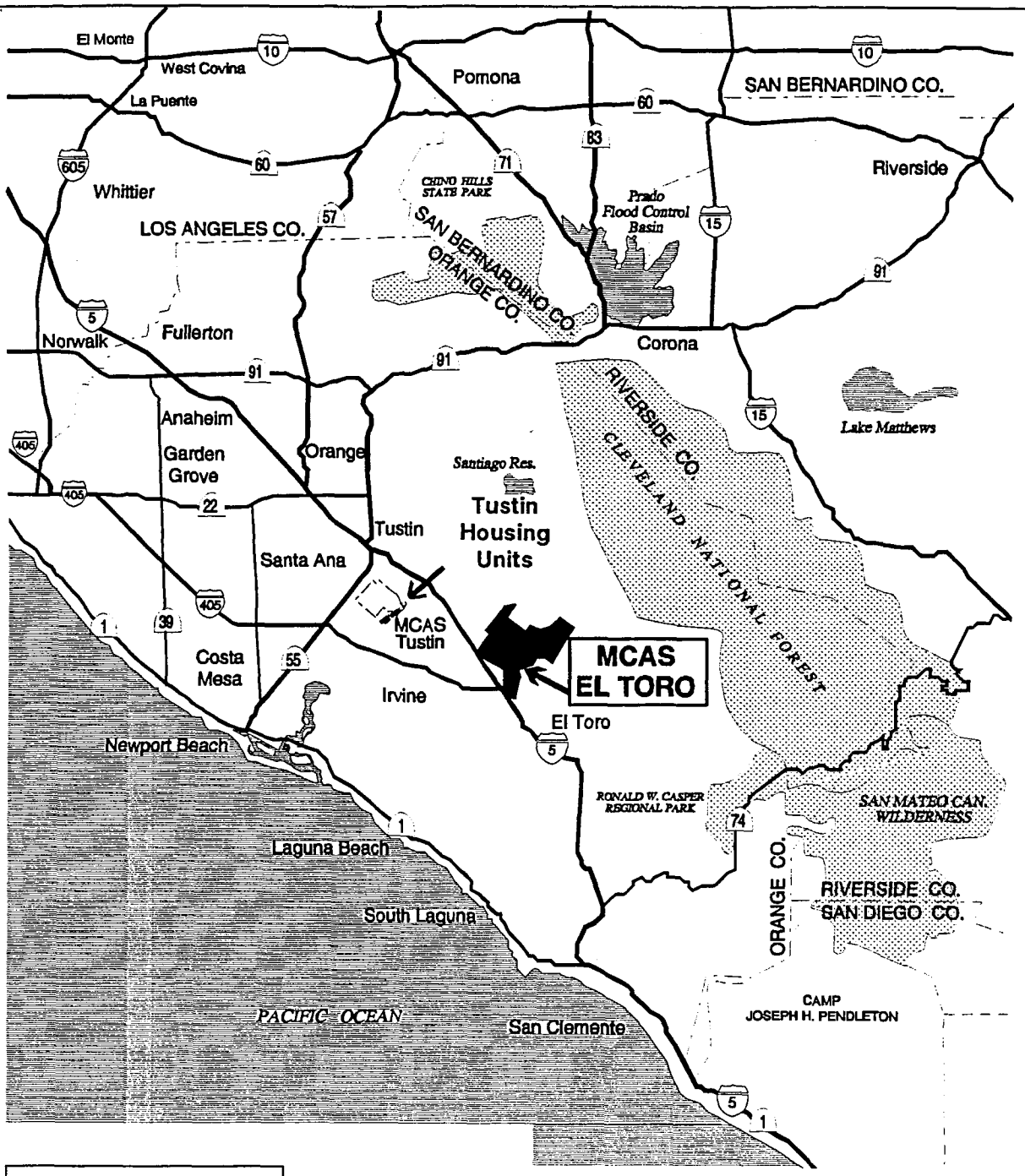

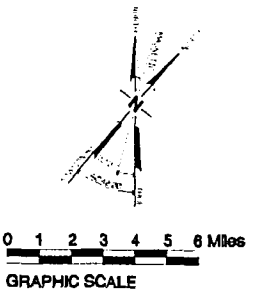

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Off-Base Parcels		
File No.	Figure 1-5	Date
103R2048		3/1/97

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Chapter 2

Property Disposal and Reuse Plan

This chapter describes the status of, and strategy for, real property disposal efforts at MCAS El Toro and the relationship between these property disposal efforts and environmental cleanup efforts. This chapter also includes a discussion of the various property disposal methods under consideration for MCAS El Toro.

On 11 December 1996, the Orange County Board of Supervisors, as the officially recognized Local Redevelopment Authority (LRA) for MCAS El Toro, adopted the final MCAS El Toro Community Reuse Plan (CRP), approved the final Homeless Assistance Submission (HAS), and certified final Environmental Impact Report (EIR) No. 563 for the Reuse Plan (all prepared by P&D Consultants Team 1996). The final CRP and HAS were submitted to the Assistant Secretary of the Navy (ASN) and the U.S. Department of Housing and Urban Development (HUD) on 13 December 1996.

Approximately 3,209 acres (67 percent) of Station property is considered uncontaminated and is eligible for disposal under Community Environmental Response Facilitation Act (CERFA) provisions. Efforts guided by CERCLA and other relevant federal and local regulations are underway to increase the amount of land suitable for transfer. The current estimate of Station property suitable for transfer is 4,077 acres, or approximately 85 percent of the Station area.

2.1 STATUS OF DISPOSAL PLANNING PROCESS

In March of 1994, the County of Orange (County), along with the cities of Irvine and Lake Forest formed a joint powers authority to develop a reuse plan for MCAS El Toro and undertook the first phase of this planning effort. On 31 January 1995, the County withdrew from the joint powers authority in response to Measure A, a countywide ballot initiative approved by County voters in November 1994. Measure A anticipates that the principal feature of a County-adopted reuse plan for MCAS El Toro should be a commercial airport serving a substantial portion of the County's demand for commercial passenger and air cargo service. Measure A also established the 13-member El Toro Airport Citizens Advisory Commission (CAC) to advise the Board of Supervisors and Orange County Planning Commission on base reuse.

In April 1995, the Office of Economic Adjustment (OEA) formally recognized the Orange County Board of Supervisors as the official LRA for MCAS El Toro. As the recognized LRA, the Board of Supervisors was given sole responsibility for preparing a CRP for submittal to the DON.

Although invited and encouraged to participate in the LRA's reuse effort, a group of nine cities in southern Orange County remain opposed to the LRA's reuse planning structure, process, and adopted CRP. These nine cities formed the El Toro Reuse Planning Authority (ETRPA) as a joint powers authority created for the purpose of developing its own redevelopment plan for submittal to the DON. The OEA has indicated to ETRPA in writing that it will accept a redevelopment plan only from the County which is the officially recognized LRA and which is intended as the single point of contact on all base reuse matters.

The LRA prepared a draft CRP and EIR which included three reuse alternatives. The LRA conducted an analysis of these three alternatives and provided extensive opportunities for public participation and input. Reuse Alternative A—Commercial Passenger/Cargo Use (the proposed project)—provided for a full service commercial passenger and cargo airport and compatible non-aviation uses. Reuse Alternative B—Cargo/General Aviation Use—provided for a cargo and general aviation airport and compatible non-aviation uses. Reuse Alternative C—Nonaviation—provided for non-aviation uses including educational campus, visitor-oriented attractions, research and development, and other uses.

In August 1996, the LRA issued the draft MCAS El Toro CRP, draft HAS, and draft EIR for a 67-day public review and comment period. In the Fall of 1996, the Orange County Airport Commission, the El Toro Airport CAC, and the Orange County Planning Commission conducted public meetings/hearings and adopted recommendations to the Board of Supervisors on the draft CRP, HAS, and EIR.

On 11 December 1996, the Orange County Board of Supervisors adopted the final MCAS El Toro CRP (P&D Consultants Team 1996), which provides for future study of a full service commercial passenger and cargo airport and compatible nonaviation uses. The nonaviation uses include a 998-acre habitat reserve, an educational campus, a research and development/light industrial area, commercial office space, a multimodal transportation center, recreation area, golf course, public facility and institutional use area, and housing and various support services for the homeless. Figure 2-1a (Recommended Disposal and Reuse Parcels) illustrates the land uses included in the final CRP, and Table 2-1a (Community Reuse Plan Parcel Data Summary) summarizes the land uses by acre.

Disposal of MCAS El Toro land for reuse will be conducted in accordance with the Base Closure and Realignment Act (BRAC) of 1990, the Pryor amendment to the National Defense Authorization Act, the Base Closure Community Redevelopment and Homeless Assistance Act of 1994, and its implementing regulations, the Base Reuse Implementation Manual of July 1995.

As part of the BRAC process, the DON conducted the required Department of Defense (DoD) and federal screening process of available property at MCAS El Toro as identified in the 1993 closure actions. During this process, the following DoD and federal agencies submitted formal applications for MCAS El Toro property:

- Defense Commissary Agency;
- Department of the Air Force/California Air National Guard;
- Department of the Army/Army Reserve Command;
- Department of Interior–Habitat Reserve;
- Department of Interior–Land Exchange;
- Department of Justice/Federal Bureau of Prisons; and
- Federal Aviation Administration.

Immigration and Naturalization Service applications submitted by the Department of Interior for a land exchange and the Department of Justice/Federal Bureau of Prisons were subsequently withdrawn by the applicants. Six other applications by the DoD and federal agencies are pending.

The LRA provided its recommendations on each of these requests to the ASN in early 1995. The LRA recommended that requests by the Department of Interior for a habitat reserve, the Federal Aviation Administration and the California Air National Guard be approved. The LRA recommended that the remaining requests be denied. No surplus property determination has been made by MCAS El Toro and none of the transfer actions has been approved by the ASN as of 15 January 1997.

On 26 October 1994, President Clinton signed into law the Base Closure Community Redevelopment and Homeless Assistance Act of 1994. Implementing regulations for this Act were subsequently published by the DoD and U.S. Department of HUD in August 1995. This Act and implementing regulations significantly changed the process which was formerly the responsibility of the Military Department under the McKinney Act. Under the new requirements, responsibility for this screening process was assigned to the LRA.

In accordance with the Base Closure Community Redevelopment and Homeless Assistance Act, the LRA requested that MCAS El Toro be included under the provisions set forth by the Act. In the fall of 1995, the LRA conducted the state/local and homeless provider screening process in accordance with the Act and its implementing regulations.

The LRA's CRP reflects local needs as identified by the LRA and indicates the LRA's preference for the use of parcels available at MCAS El Toro. The CRP will generally be used as the basis for the proposed action when conducting the environmental analysis, or Environmental Impact Statement (EIS) as required under the National Environmental Policy Act (NEPA).

The EIS and a disposal plan will be prepared by the Military Department no later than 12 months after receipt of the final CRP. The disposal plan will specifically address the methods for disposal of base property at the installation, including conveyances for homeless assistance, public benefit transfers, public sales, economic development conveyances, and other disposal methods. Parcel recipients and disposal methods cannot be finalized until a disposal and reuse Record of Decision (ROD) is issued.

Currently, one public highway expansion project will result in the transfer of MCAS El Toro property. This project is the Bake Parkway/Interstate 5 project. The County and DON have entered into an agreement permitting transfer by quitclaim deed for the Bake Parkway Interstate 5 right-of-way at fair market value.

As mandated by CERFA, a basewide Environmental Baseline Survey (EBS) was completed in April 1995. One of the central objectives of the EBS was to evaluate the environmental condition of the property and to identify parcels that are potentially eligible for disposal under CERFA provisions. Information compiled in the final EBS

and updated through the preparation of this BCP is reflected in the Environmental Condition of Property (ECP) map (Chapter 3).

The final MCAS El Toro EBS report (Jacobs Engineering 1995) was submitted to the DON, U.S. EPA, and Cal-EPA on 01 April 1995. The final EBS report identified all DoD ECP type 1 areas as being uncontaminated under CERFA. ECP area type 1 land is property where no release, or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas). U.S. EPA concurred with the identification of ECP area type 1 properties as CERFA eligible. Cal-EPA agreed with the U.S. EPA decision.

Based on the results of recently completed investigations, some sites have been determined to be qualified as ECP area type 1. Through the final EBS and review of currently available information, approximately 3,209 acres of land have been designated as area type 1 and may be considered uncontaminated under CERFA. Land designated as ECP area types 1 through 4 is suitable for transfer. Approximately 4,077 acres of Station property are considered suitable for transfer. Section 3.4 defines all seven ECP area types and presents a discussion of these properties.

In addition to identifying CERFA-eligible parcels, information from the EBS will be used to support findings of suitability to transfer (FOSTs) and findings of suitability to lease (FOSLs). The regulatory agencies will be involved in the development of FOST and FOSL documentation.

Parcels, based on current land use, have been identified according to the existing Station land-use map presented in the MCAS El Toro Master Plan (MCAS El Toro 1991). For simplification of parcel boundaries and reduction of the number of parcels, similar land uses (e.g., housing and community support) were grouped in some instances. The parcel boundaries were also set up so that buildings are not split and the various locations of concern (LOCs) are typically contained within a single parcel.

As shown in Figure 2-1b (Current Land Use Parcels), the primary existing land use at the Station is the airfield operation (designated as parcels 5A through 5D). A description of the parcels at MCAS El Toro is provided in Table 2-1b (Current Land Use Parcel Data Summary).

2.2 RELATIONSHIP TO ENVIRONMENTAL PROGRAMS

MCAS El Toro property may be transferred to other federal agencies or nonfederal parties. Transfers of federal property to nonfederal parties are governed by CERCLA 120(h), as amended by CERFA in 1992. However, property transfers between federal agencies are exempt from covenants requiring environmental response action, CERCLA 120(h)(3)(b).

Federal property transfer to nonfederal parties is dependent on the environmental condition of the subject property. The DON remains responsible for contaminated land and must conduct any necessary action to protect human health and the environment with respect to any hazardous substances or petroleum products that

were present at the time of transfer. Remedial and removal actions must be selected and implemented before the property can be transferred to private parties, the state, or local government.

The property may be transferred by deed provided that the deed contains a covenant stating that remedial actions necessary to protect human health and the environment, with respect to any hazardous substances remaining on the property, have been taken before the date of transfer. CERFA amended CERCLA Section 120(h)(3) by clarifying that remedial action has been taken if the construction and installation of an approved remedial design have been completed, and the remedy has been demonstrated to be operating properly and successfully to the satisfaction of the U.S. EPA administrator. It further states that carrying out extended pump-and-treat or long-term operation and maintenance will not preclude the property transfer if the remedy has been demonstrated to be operating properly and successfully.

Notwithstanding the preceding paragraphs, Section 2908 of the National Defense Authorization Act for fiscal year 1994 authorizes the Secretary of Defense to enter into agreements to transfer contaminated property to any person who agrees to perform all environmental restoration, waste management, and environmental compliance activities required for the property under federal and state laws, administrative decisions, agreements (including schedules and milestones), and concurrence. This section does not modify or alter the provisions of CERCLA. Therefore, the property will have to be in the condition required by CERCLA before the deed is executed on behalf of the United States. No such agreement to transfer may be entered into until the Secretary of Defense, in consultation with the U.S. EPA administrator, has prescribed implementing regulations.

CERFA mandates expeditious transfer of uncontaminated land at federal installations undergoing closure or realignment. DoD policy on CERFA implementation defines uncontaminated land as "any real property on which no hazardous substances and no petroleum products or their derivatives, including aviation fuel and motor oil, were known to have been released or disposed."

The cleanup strategy for MCAS El Toro will incorporate the information from the environmental restoration program into the disposal and reuse process. A summary of the known locations of environmental concern identified within each reuse parcel is presented in Chapter 3. The scheduling and prioritizing of parcels for reuse, based on the draft final CRP (P&D Consultants Team 1996), will be provided by the LRA in 1997. The BCP will be updated as this information becomes available.

2.3 PROPERTY DISPOSAL METHODS

A discussion of the various methods that will be considered for disposal of MCAS El Toro property is presented in the following subsections.

2.3.1 Federal Transfer of Property

As listed in Section 2.1, several federal agencies have submitted requests for MCAS El Toro property. To date, none of the requested land transfers has been approved by

the ASN. Upon approval, the DON will commence transfer proceedings of the subject property (or properties) to the sponsoring service via Form 1334, Request for Property Transfer process. This will include an appraisal of the subject property and a funds transfer from the receiving service to the DON. In lieu of this monetary compensation, required environmental cleanup can be considered, or the monetary compensation may be waived. Infrastructure support for these facilities will be the responsibility of the agencies receiving the property. It will be incumbent upon the receiving agency to negotiate with the LRA and utility service providers for services.

2.3.2 No-Cost Public-Benefit Conveyance

In October 1995, the LRA requested that the Marine Corps begin the No-Cost Public-Benefit Discount Conveyance process before completion of the CRP. However, in September 1996, the LRA requested the required notifications to be submitted upon completion of the CRP.

The No-Cost Public-Benefit Conveyance process is a screening for public benefit users normally based upon the uses proposed in the CRP. From 15 September through 30 November 1995, the LRA solicited and received applications for property from state and local governments, homeless agency providers, and other interested parties. The draft CRP identifies all parties that submitted a notice of interest for property at MCAS El Toro, along with the LRA's assessment of each applicant's compatibility with the three reuse alternatives. The draft CRP also shows the potential method of conveyance of property for those applicants, to include public-benefit discount conveyance. Eighteen requests for property by state and local agencies have been recommended by the LRA to be conveyed in support of the CRP.

Of the 18 requests for property, 16 are proposed for No-Cost Public-Benefit Discount Conveyance to complete the Alton Parkway Extension Project.

The Military Department will notify applicable sponsoring federal agencies, not later than the completion of the CRP, of property that may become available for public benefit conveyances. The interested sponsoring federal agencies will subsequently make recommendations to the Military Department on proposed users of the available property. The authority to transfer the property has been delegated to the military services from the Government Services Administration under 32 *Code of Federal Regulations* (CFR), Part 91.

2.3.3 Negotiated Sale

Properties not conveyed via the public-benefit conveyance method, or those not identified for economic-development conveyance to the reuse committee, will be disposed in accordance with established regulations. These properties may be purchased by public agencies through negotiated purchase based on fair market value. Depending on the environmental condition of the property, property acquired through negotiated purchase may be used or resold without deed restrictions. Negotiated sales permit the local reuse authority to control the ultimate disposal of MCAS El Toro property without the uncertainty of the public-bid process.

2.3.4 Widening of Public Highways

Currently, one public highway expansion project, the Bake Parkway/Interstate 5 intersection, is completed and will result in transfer of MCAS El Toro property. This intersection is located at the south end of MCAS El Toro at the edge of the southern flight corridor, within CERFA Parcel (CP)-16 as identified in the EBS. The County and the DON have entered into an agreement permitting the transfer, by quitclaim deed, of the Bake Parkway/Interstate 5 right-of-way to Caltrans at fair market value.

2.3.5 Donated Property

There are currently no plans to donate any MCAS El Toro real property.

2.3.6 Interim Leases

Operational closure of MCAS El Toro is not scheduled until July 1999. As of 31 December 1996, numerous leases exist at the Station, as listed in Table 2-2 (Existing Legal Agreements/Interim Leases). Additional interim leases prior to operational closure of the Station will be considered on a case-by-case basis. No interim leases will be considered favorably if the result would impede current military operations. Certain leases prior to, or after, operational closure of MCAS El Toro may be appropriate and compatible with a CRP. Such leases may help defray costs for the DON.

2.3.7 Competitive Public Sales

If MCAS El Toro property is not transferred via the public conveyance or negotiated sales processes, the federal government may elect to dispose the property via a competitive public sale. These sales would be conducted in accordance with the established federal regulations and would use land-use designations provided by the reuse committee. This information would be included in the announcement of sale.

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Table 2-1a
Community Reuse Plan Parcel Data Summary
(Sheet 1 of 1)

Land Uses	Approximate Gross Acres	Percentage of Total Area
Aviation Uses		
Airfield/Restricted Use/Airport Support	1,184	25%
Passenger Terminal/Parking	549	12%
Cargo	165	3%
Aviation Related Uses	174	4%
Airport Surveyance Radar (Federal Aviation Administration)	2	<<1%
Subtotal	**2,074**	**44%**
Nonaviation Uses		
Residential	97	2%
Commercial/Office	157	3%
Habitat Reserve	998	21%
Institutional	21	<1%
Education/Institutional	163	3%
Transportation Center	16	<1%
Marshburn Basin	39	1%
Office and Conference Center/Meeting Center	22	<1%
Open Space/Institutional	68	1%
Recreation	174	4%
Recreation (Golf Course)	271	6%
R&D/Light Industrial/Institutional	615	13%
California Air National Guard	23	<1%
Subtotal	2,664	**56%**
Total Gross Acres	**4,738**	**100%**

Notes: [1] Acreage are approximate according to broad land use categories for large land areas. Many types of uses will comprise single categories, as discussed in the Final Community Reuse Plan recommendations (P&D Consultants Team 1996).

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Table 2-1b
Current Land Use Parcel Data Summary
(Sheet 1 of 3)

Parcel	Acres[1]	Priority	Parcel Description	Known Sites	Projected Transfer Date	Transfer Mechanism	Recipient
1A	55.2	TBD	Supply/storage, admin., maintenance/TBD	IRP-13, 14; 9 APHOs, 31 USTs, 1 AST, 7 TAAs, 2 PCB Ts, 4 RFAs, 3 OWSs	TBD	TBD	TBD
1B	96.9	TBD	Community support, housing/TBD	IRP-20; 1 APHO, 70 USTs, 1 AST, 2 TAAs, 18 PCB Ts, 2 RFAs, 6 OWSs	TBD	TBD	TBD
1C	38.5	TBD	Admin., recreation, housing, training/TBD	27 USTs, 13 PCB Ts	TBD	TBD	TBD
1D	110.07	TBD	Housing, community support, maintenance, recreation, admin./TBD	IRP-15; 2 APHOs, 36 USTs, 6 TAAs, 15 PCB Ts, 5 RFAs	TBD	TBD	TBD
1E	2.6	TBD	Northern flight corridor (agriculture)/TBD	None	TBD	TBD	TBD
1F	55.5	TBD	Recreation/TBD	6 PCB Ts, 2 RFAs	TBD	TBD	TBD
1G	106.8	TBD	Housing, community support, training/TBD	26 USTs, 2 ASTs, 4 TAAs, 6 PCB Ts, 1 RFA, 2 OWSs, 2 silver recovery units, 2 possible mercury leaks	TBD	TBD	TBD
2A	139.6	TBD	Airfield operations, supply/storage, maintenance, training/TBD	IRP-3, 4; 8 APHOs, 46 USTs, 3 ASTs, 11 TAAs, 17 PCB Ts, 8 RFAs, 4 OWSs	TBD	TBD	TBD
2B	110.7	TBD	Community support, housing, school district, supply/storage/TBD	5 APHOs, 30 USTs, 2 PCB Ts, 2 RFAs, 1 OWS	TBD	TBD	TBD
2C	241.9	TBD	Housing, open land/TBD	13 USTs, 3 PCB Ts, possible landfill area next to family housing.	TBD	TBD	TBD
2D	7.4	TBD	Supply/storage (Tank Farm 555)/TBD	8 USTs, 1 PCB T	TBD	TBD	TBD
2E	33.3	TBD	Northern flight corridor (agriculture)/TBD	None	TBD	TBD	TBD
2F	644.3	TBD	EOD Range, open land/TBD	IRP-1; 1 RFA	TBD	TBD	TBD

Table 2-1b
Current Land Use Parcel Data Summary
(Sheet 2 of 3)

Parcel	Acres[1]	Priority	Parcel Description	Known Sites	Projected Transfer Date	Transfer Mechanism	Recipient
3A	67.8	TBD	Maintenance, admin., supply/storage, training/TBD	4 APHOs, 19 USTs, 2 ASTs, 13 TAAs, 6 PCB Ts, 9 RFAs, 3 OWSs, 1 RCRA storage facility Bldg. 673 T-3	TBD	TBD	TBD
3B	60.8	TBD	Ordnance, supply/storage/TBD	IRP-5; 5 APHOs, 6 RFAs, Desert Storm waste storage area and possible landfill area south of IRP Site 5	TBD	TBD	TBD
3C	20.4	TBD	Agriculture/TBD	None	TBD	TBD	TBD
3D	8.8	TBD	Agriculture/TBD	None	TBD	TBD	TBD
3E	17.2	TBD	Agriculture/TBD	None	TBD	TBD	TBD
3F	178.6	TBD	Golf course/TBD	2 USTs, 1 AST, 2 TAAs, 3 PCB Ts, 6 RFAs, 1 OWS, 2 past pesticide storage areas.	TBD	TBD	TBD
3G	27.7	TBD	Southern flight corridor (agriculture)/TBD	None	TBD	TBD	TBD
3H	6.5	TBD	Southern flight corridor (agriculture)/TBD	None	TBD	TBD	TBD
3I	1.7	TBD	Southern flight corridor (agriculture)/TBD	None	TBD	TBD	TBD
4A	74.5	TBD	Maintenance, admin., training, community support/TBD	IRP-11, 24[2]; 6 APHOs, 32 USTs, 1 AST, 15 TAAs, 11 PCB Ts, 13 RFAs, 13 OWSs, 2 PCB equipment storage areas, 1 former photo lab silver recovery unit	TBD	TBD	TBD
4B	89.3	TBD	Supply/storage, maintenance/TBD	IRP-8, 12, 24[1]; 13 USTs, 4 ASTs, 5 TAAs, 6 PCB Ts, 8 RFAs, 7 OWSs	TBD	TBD	TBD
4C	0.8	TBD	Southern flight corridor (agriculture)/TBD	None	TBD	TBD	TBD

Table 2-1b
Current Land Use Parcel Data Summary
(Sheet 3 of 3)

Parcel	Acres[1]	Priority	Parcel Description	Known Sites	Projected Transfer Date	Transfer Mechanism	Recipient
4D	6	TBD	Southern flight corridor (agriculture)/TBD	None	TBD	TBD	TBD
4E	7	TBD	Southern flight corridor (agriculture)/TBD	None	TBD	TBD	TBD
5A	1548.6	TBD	Runways and airfield operations/TBD	IRP-6, 7, 9, 10, 16, 19, 22, 24[2]; 11 APHOs, 53 USTs, 3 ASTs, 19 TAAs, 13 PCB Ts, 31 RFAs, 17 OWSs, 1 active and 1 inactive burn pit	TBD	TBD	TBD
5B	168.2	TBD	Northern flight corridor (agriculture)/TBD	1 APHO	TBD	TBD	TBD
5C	431.7	TBD	Eastern flight corridor (agriculture and open land)/TBD	IRP-2, 17; 1 APHO, 1 UST, 1 RFA	TBD	TBD	TBD
5D	369.4	TBD	Southern flight corridor (agriculture)/TBD	None	TBD	TBD	TBD

Notes: [1] Acre estimates unchanged from 1996 BCP, changes not calculated into this document.
[2] Site 24 (possible volatile organic compound source area) traverses three parcels (4A, 4B, and 5A)

Abbreviations:
EOD – explosive ordnance disposal
IRP – Installation Restoration Program
TBD – to be determined
APHO - aerial photograph
UST - underground storage tank
AST - aboveground storage tank
TAA - temporary accumulation area
PCBT - PCB transformer
RFA - RCRA (Resource Conservation and Recovery Act) Facility Assessment
OWS - oil/water separator

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Table 2-2
Existing Legal Agreements/Interim Leases
(Sheet 1 of 4)

Title of Interim Lease/ Legal Agreement	Building No./Areas	Date of Agreement	Parcel	Type of Outgrant
Alton Business Association	Landscaping & Maintenance Contract No. N6871192RP02Q18	1988 to 30 June 1997	NA	License
Bordiers Nursery	Agricultural Lease/205.52 Acres Contract No. N6871103RP02021	Expires 31 October 1997	NA	Agricultural Lease
Boy Scouts	Scout Activities/Bldg. 38 Contract No. N6871192RP02Q25	1987 to 31 July 1995	NA	License
Boy Scouts	Scout Activities Contract No. N6247487RP00Q70	1987 to 31 July 1995	NA	License
Civil Air Patrol	Admin. Office, Training & Support Facility Bldg. 328/Pending Availability of Bldg. 38 Contract No. N6871193RP03P84	1991 to 31 Mar 1995	NA	License
El Toro Marine Corps Federal Credit Union	Credit Union/0.91 Acres Bldg. 743 Contract No. N6071193RP03P21	Expires 30 April 1997	NA	Lease
El Toro MCAS Civilian Credit Union	Credit Union/1500 SF Bldg. 304 Contract No. N6247490RP00Q09	1990 to 30 June 1995	NA	License
FAA	Moving Target Indicator/Runway 7R-25L Contract No. N6871190RP00P87	1990 to Unknown	NA	Lease
FAA	Moving Target Indicator/Runways 16L&34R Contract No. N6871190RP00Q02	1990 to 19 May 1995	NA	License
FAA	Control Tower Contract No. N6871191RP00P68	1991 to 29 February 1996	NA	License
FAA & Department of Transportation	Air Traffic Control/0.33 acres at Bldg. 372 Contract No. N6071191RP00P11	1991 to 27 August 1995	NA	Agreement
The Irvine Company	Easement/1.32 acres Contract No. N6247479RP00P91	1979 onward. No expiration date	NA	Agreement
The Irvine Company	Storm Drain/0.09 Acres Contract No. N6247479RP00P92	1979 onward. Perpetual Easement	NA	Easement

Table 2-2
Existing Legal Agreements/Interim Leases
(Sheet 2 of 4)

Title of Interim Lease/ Legal Agreement	Building No./Areas	Date of Agreement	Parcel	Type of Outgrant
The Irvine Company	Underground Electrical Line 0.52 Acres Contract No. N6247479RP00P93	1979 onward. Perpetual Easement	NA	Easement
The Irvine Company	Irrigation Water Pipeline 2.06 Acres Contract No. N6247479RP00P95	1979 onward. Perpetual Easement	NA	Easement
The Irvine Company	Construct Slopes/1.32 Acres Contract No. N6247479RP00P96	1979 onward. Perpetual Easement	NA	Easement
The Irvine Company	Easement/86.44 Acres	1983 to Indefinite	NA	Easement
The Irvine Company	Barranca Pkway Contract No. N6247483RP00P77	NA	NA	Easement
The Irvine Company	Flood Control Improvements Contract No. N6871192RP02Q17	Expires 14 September 1995	NA	License
The Irvine Company	56 ft Access Road Project No. SW90 - 085	16 April 1992	NA	Easement
Irvine Industrial Research/Development	Landscape & Maintenance Contract No. N6871192RP00P13	1992 to 30 August 1996	NA	License
Irvine Ranch Water District	Water Transmission Line Contract No. NP (R) - 32778	Perpetual Easement	NA	Easement
Irvine Ranch Water District	For Reservoir Contract No. N6871192RP02P82	17 April 1993	NA	License
Irvine Ranch Water District	Enlarge Flow Control Facility Contract No. N6247481RP00P20	25 February 1993	NA	Easement
Irvine Ranch Water District	Water Pipeline/0.20 Acres Contract No. N6247479RP09025	1979 onward. Perpetual Easement	NA	Easement
Irvine Ranch Water District	Water Transmission Line Contract No. NF(R) 1483	NA	NA	Lease
Irvine Unified School District	School Site/10.73 Acres Contract No. N6871191RP00P96	1991 to 30 June 1996	NA	Lease
Los Alisos & El Toro Water Districts	Water Transmission Main 3.78 Acres Contract No. NOY (R) - 59550	Permanent Easement	NA	Easement

Table 2-2
Existing Legal Agreements/Interim Leases
(Sheet 3 of 4)

Title of Interim Lease/ Legal Agreement	Building No./Areas	Date of Agreement	Parcel	Type of Outgrant
Magarro Farms	Agricultural Lease/421 Acres Contract No. N6247489RP00Q14	1989 to Unknown	NA	Agricultural Lease
Not Known	Sale of severed parcels 1801 and 1802 (Alton Pkway) SW92 - 116	9 July 1992	NA	Major Disposal
Orange County	Bake Parkway/Interstate 5 Expansion 25 Acres	9 July 1992	NA	Major Disposal
Orange County	Right of Way	1987 to Indefinite	NA	Easement
Orange County	Easement - Irvine Blvd. Contract No. N6247488RP00T05	1988 to Indefinite	NA	Easement
Orange County	Interim Road/3.06 Acres Contract No. NOY (R) - 56107	Temporary	NA	Easement
Orange County	Water Pipeline/0.34 Acres Contract No. NOY (R) - 69386	Permanent Easement	NA	Easement
Orange County	Road - Irvine Blvd. Contract No. N6871192RP00P19	NA	NA	Easement
Orange County	Sale to Orange Co. for Alton Parkway (Congressional) SW92 - 041	9 July 1992	NA	Major Disposal
Orange County Environmental Management Group	Traffic Signal at G-2/ Vehicle Detector Loop Contract No. N6871193RP03Q08	31 July 1993 to 31 July 1996	NA	License
Orange County Water District	Construction and O & M of Wells and Pipelines related to Treatment of Groundwater (Desalter Project)	1992 to Indefinite	NA	Easement
Orange County Flood Control	Flood Control Channel/2.87 Acres Contract No. N6247479RP00P94	1979 onward. Perpetual Easement	NA	Easement
Orange County Water District	Water Pipeline/8.89 Acres Contract No. N6247481RP00P20	1981 onward. Perpetual Easement	NA	Easement

Table 2-2
Existing Legal Agreements/Interim Leases
(Sheet 4 of 4)

Title of Interim Lease/ Legal Agreement	Building No./Areas	Date of Agreement	Parcel	Type of Outgrant
Pacific Tel.	Underground Telephone Line 0.19 Acres NOY (R) - 64721	Expires 13 June 2013	NA	Easement
SD Pipeline Co.	Petrol Transmission Pipeline Contract No. NOY (R) - 67877	Expires 29 Mar 2013	NA	Easement
Sea Tree Nurseries	Access & Storage Contract No. N6247489RP00Q15	1989 to Unknown	NA	License
SCE	Water Pipeline/0.01 Acres Contract No. N6247482RP00P09	1982 to 15 October 2025	NA	Easement
SCE	Electrical Dist. Contract No. N6247482RP00Q60	1982 to 11 June 2032	NA	Easement
SCE	Electrical District Lines 0.032 Acres Contract No. N6871191RP00P67	1991 to 14 May 1996	NA	License
SCE	Fuse/Switch Slab Box Contract No. N68711912RP00P85	1991 to 1 June 1996	NA	License
SCE	Relocate Utility Contract No. NOY (R) - 65723	Indefinite Agreement	NA	Agreement
Southern California Gas Company	Gas Pipeline/0.11 Acres Contract No. NOY (R) - 62897	Expires 27 June 2012	NA	Easement
Young Marine Organization	Space for Weekend Use Contract No. N6871192RP02Q23	30 June 1992 to 30 June 1995	NA	License
Young Marine Organization	Space for Weekend Use Contract No. N6247487RP00Q65	Expired 30 June 1995	NA	License

Sources: MCAS El Toro Outgrant & Ingrant Listing as of 30 September 1991
MCAS El Toro Installations Department Database Records, 06 January 1994
SWDIV Real Estate Department, 11, September 1996

Abbreviations: FAA – Federal Aviation Administration
NA – not available
SCE – Southern California Edison
AT&SF - Atchinson, Topeka, and Santa Fe Railroad
O&M - Operation and Maintenance

M60050_001745
MCAS EL TORO

SENSITIVE RECORD

PORTIONS OF THIS RECORD ARE CONSIDERED SENSITIVE AND ARE NOT AVAILABLE FOR PUBLIC VIEWING

FIGURE 2-1A – RECOMMENDED DISPOSAL AND REUSE PARCELS

FOR ADDITIONAL INFORMATION, CONTACT:

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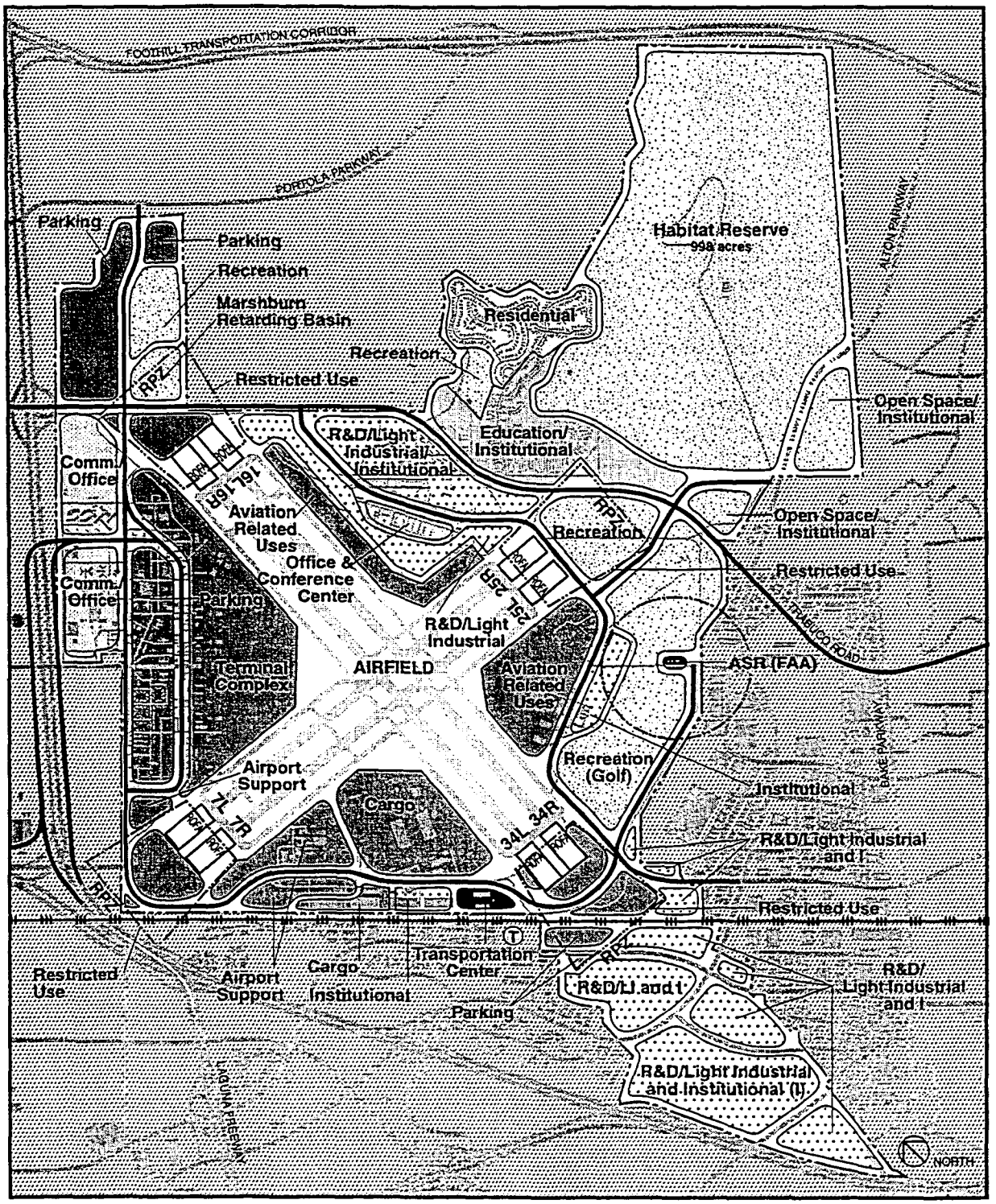

NOTE: SCALE IS APPROXIMATE. 1000 0 1000 2000 ft

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Recommended Disposal and Reuse Parcels		
File No.	**Figure 2-1a**	Date
103P1778		3/1/97

Source: Final Community Reuse Plan (P&D Consulting, 1996)

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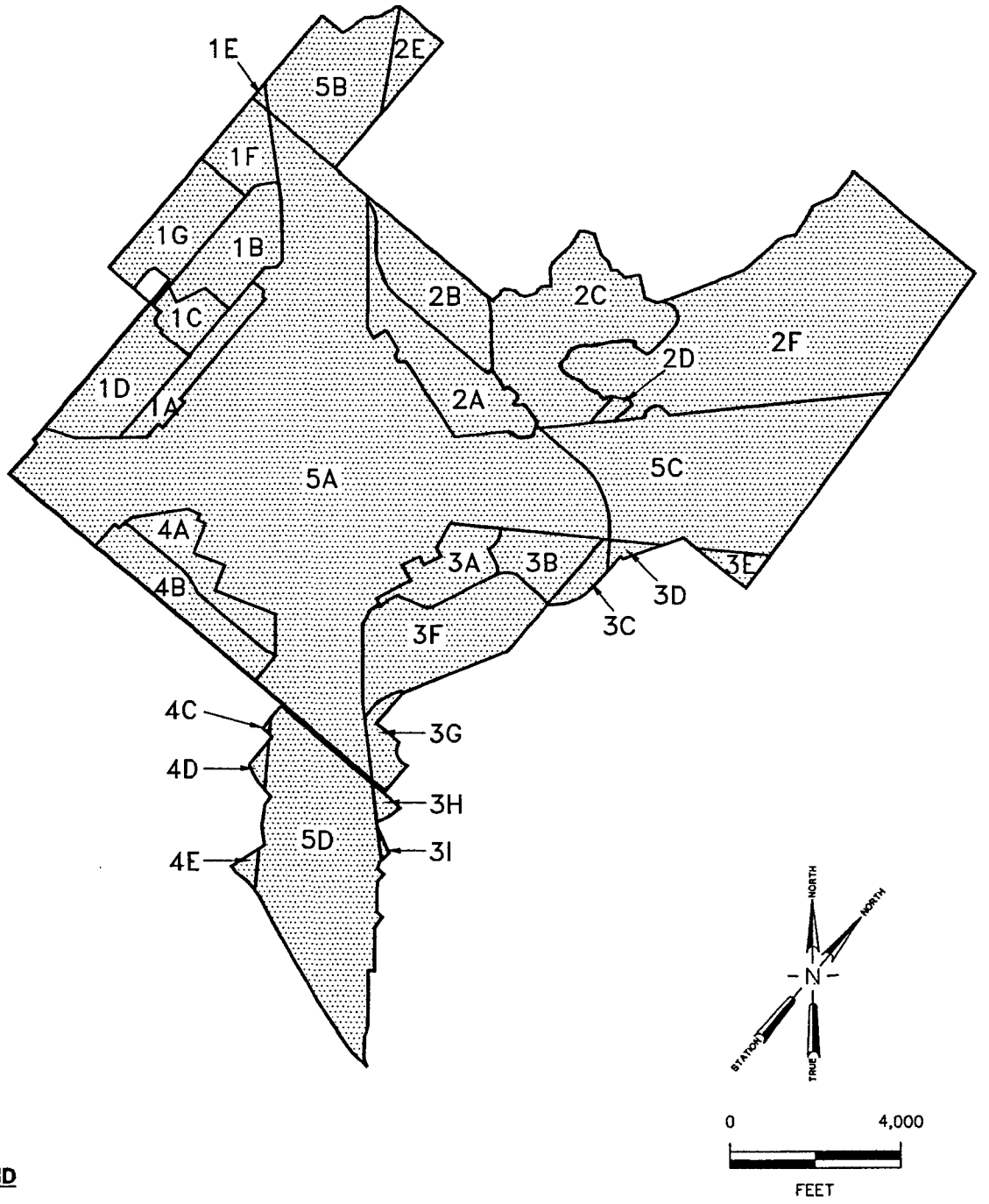

LEGEND

4E — PARCEL IDENTIFIER: NUMBER REPRESENTS THE ZONE NUMBER WITHIN WHICH THE PARCEL IS LOCATED

MCAS EL TORO BOUNDARY

PARCEL BOUNDARY

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Current Land Use Parcels		
File No.	**Figure 2-1b**	Date
103P0239		3/1/97

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Chapter 3
Installationwide Environmental Program Status

This chapter provides a summary of the current status of environmental restoration activities, installationwide source discovery and assessment activities, and ongoing compliance activities at MCAS El Toro. This chapter also summarizes the natural and cultural resources at the Station, the seven ECP area types, and the status of community involvement.

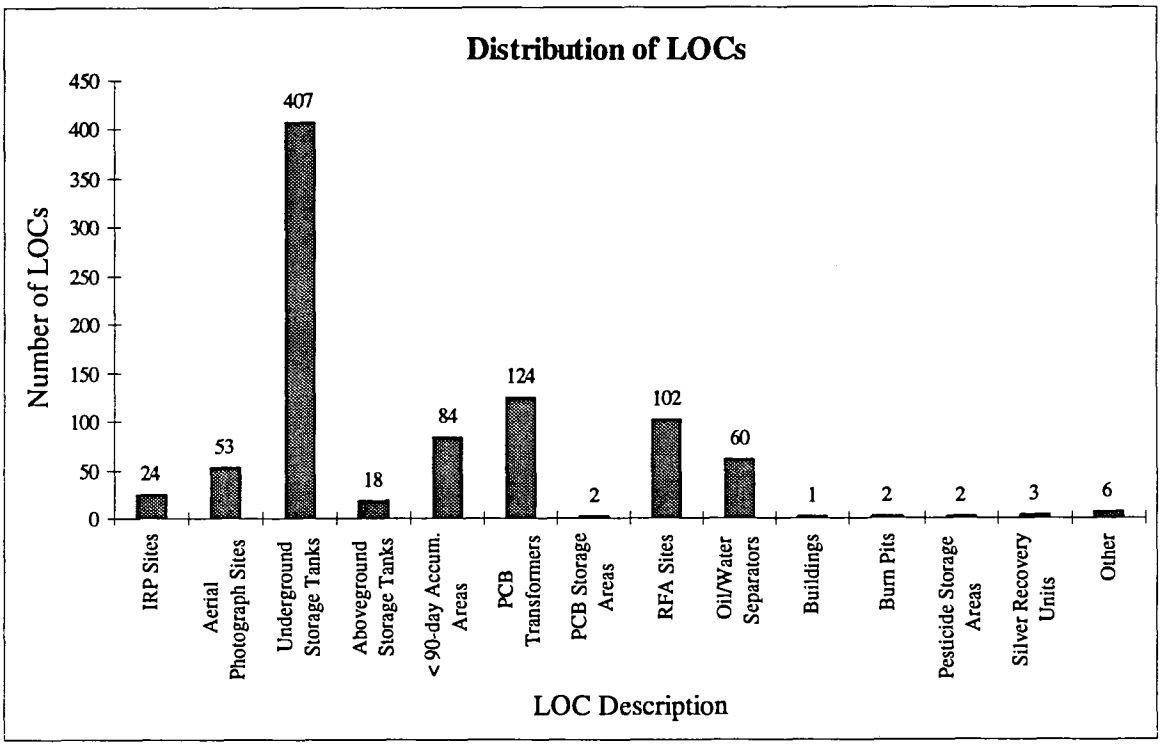
As part of the environmental restoration and compliance activities at the Station, 888 LOCs have been identified. These LOCs fall into the following categories:

- IRP sites;
- sites identified by aerial photographs;
- underground storage tanks (USTs);
- aboveground storage tanks (ASTs);
- less-than-90-day accumulation areas;
- polychlorinated biphenyl (PCB) transformers;
- PCB storage areas;
- Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) sites;
- OWSs;
- buildings;
- burn pits;
- pesticide storage areas;
- silver recovery units; and
- other (including one possible landfill, the Desert Storm waste storage area, JP-5 fuel supply lines, and possible mercury leaks).

Exhibit 3-1 shows the distribution of LOCs at the Station. The number of RFA sites in Exhibit 3-1 does not include those LOCs that have been designated as both a particular type of LOC mentioned above and as a solid waste management unit (SWMU)/area of concern (AOC) (i.e., a UST or OWS that has been designated as a SWMU/AOC). Similarly, there are two additional PCB storage areas (for a total of four) that have been identified as other types of LOCs and are not listed as PCB storage areas. Table 3-1a (Site Summary) summarizes the LOCs that have been identified at the Station.

Of the sites requiring further investigation, 24 IRP sites are currently in the Phase II RI/Feasibility Study (FS) process: Sites 1 through 22, 24, and 25. These sites have been grouped into three main operable units (OUs): OU-1, OU-2, and OU-3. Detailed descriptions and status of each of the OUs are discussed in Section 3.1. The following is a brief summary of the site groupings and current status of each of the three OUs.

Exhibit 3-1



Source: Table 3-1a

- OU-1 addresses contaminated groundwater on and off-Station and consists of one IRP site (Site 18). The final Interim (RI/FS) Report for OU-1 was submitted in August 1996, and the draft interim ROD is scheduled for September 1997.
- OU-2 consists of three subunits (OU-2A, OU-2B, and OU-2C) and addresses potential source areas of the Site 18 groundwater contamination.
  - OU-2A addresses Sites 24 and 25. The draft final Phase II RI and draft Phase II FS Reports for Site 24 were submitted in June and August 1996, respectively. The draft Phase II RI Report for Site 25 is scheduled for January 1997. The draft ROD for OU-2A is scheduled for July 1997.
  - OU-2B addresses landfill Sites 2 and 17. The draft final Phase II RI and draft FS Reports for OU-2B were both submitted in September 1996. The draft ROD is scheduled for July 1997.
  - OU-2C addresses landfill Sites 3 and 5. The draft final Phase II RI and draft FS Reports for OU-2C were both submitted in October 1996. The draft ROD is scheduled for July 1997.
- OU-3 consists of two subunits (OU-3A and OU-3B) and addresses the remaining 17 sites. Portions of three sites (Sites 15, 19 and 20) are no longer part of the IRP; they have been withdrawn via the CERCLA petroleum exclusion.

- OU-3A addresses all or portions of 14 IRP sites (Sites 4, 6, 8, 9, 10, 11, 12, 13, 15, 16, 19, 20, 21, and 22). The draft RI Report for OU-3A was submitted in November 1996. The draft FS Report is scheduled for March 1997, and the draft ROD is scheduled for December 1997.
- OU-3B addresses three IRP sites (Sites 1, 7 and 14). The RI Work Plan for OU-3B is scheduled for May 1997, and fieldwork is scheduled to begin in July 1997.

In addition, investigations are currently ongoing for sites associated with compliance programs, including storage tanks, hazardous materials and waste management, solid waste management, PCBs, asbestos, radon, RCRA facilities, National Pollution Discharge Elimination System (NPDES) permits, Regional Clean Air Initiatives Market (RECLAIM) permits, OWSs, silver-recovery units, and lead-based paints (LBPs). These compliance programs are in various stages of operation and closure, and are detailed in Section 3.2.

Furthermore, this chapter addresses the status of natural and cultural resources including threatened and endangered species, wetlands, surface waters, floodplains, archaeological resources, historic structures, and paleontological resources (Section 3.3).

Real property at MCAS El Toro was assigned one of seven DoD ECP area types, which identify the environmental condition of the property. According to the BCP Guidebook, area types 1 through 4 are designated as suitable for transfer by deed, and area types 5 through 7 are unsuitable for transfer by deed. The area-type designations will eventually aid in determining the suitability of Station property transfer. Regulatory agencies, U.S. EPA, Cal-EPA, and USMC have concurred that area type 1 parcels, which encompass approximately 3,209 acres, will be identified as CERFA uncontaminated and, therefore, will be suitable for transfer. These ECP area types are further detailed in Section 3.4.

This chapter also addresses community relations activities at MCAS El Toro (Section 3.5). Key components of the DON community relations activities associated with IRP and RCRA activities include Restoration Advisory Board (RAB) meetings, fact sheets, site tours, workshops, and press releases as required by regulations and as needed by the impacted community. The community relations program is designed to be flexible to address changing site conditions and community concerns. The DON has taken a proactive approach to community relations activities and intends to be open and responsive to the community during the Station restoration activities.

3.1 ENVIRONMENTAL PROGRAM STATUS

The following subsections provide a description and the status of IRP activities at MCAS El Toro.

3.1.1 Restoration Sites

In June 1988, the U.S. EPA recommended listing MCAS El Toro on the National Priorities List (NPL) under CERCLA. The listing was predicated on the presence of VOC contamination in the groundwater at the Station boundary and the detection of VOCs in the agricultural wells to the west. MCAS El Toro was listed on the NPL in February 1990.

In October 1990, U.S. EPA, DTSC, the California Regional Water Quality Control Board (RWQCB) Santa Ana Region, and the DON signed an FFA to conduct an RI/FS for MCAS El Toro following the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and U.S. EPA guidance.

Under the FFA, the DON is the lead agency; U.S. EPA and Cal-EPA, including both the DTSC and the RWQCB Santa Ana Region, perform oversight.

Under the IRP, the RI investigations at MCAS El Toro are being performed in two phases. Twenty-two sites were evaluated during the Phase I investigation, which was completed in May 1993. Site 23 (Wastewater Treatment Plant Sewer Lines) was evaluated in the RFA performed at the Station. In the RFA, the sewer lines were recommended for no further action. The sewer lines are located in a newly identified site, Site 24 (Possible VOC Source Area), which encompasses most of the southwest quadrant of the Station. This area was evaluated during a soil gas survey in mid-1994 (Phase I) and was further evaluated during the Phase II RI.

The final Work Plan for the Phase II RI was submitted in July 1995 (BNI 1995). Two new sites, Sites 24 and 25 (Major Drainages), were established for investigation in Phase II. Because Site 23 is excluded from the IRP, the total number of IRP sites is 24. Table 3-1a includes a summary and description of each of the 24 IRP sites. The site locations are depicted in Figure 3-1 (Sites, Zones, and OUs Currently Under Investigation). The locations and extent of the IRP sites shown in Figure 3-1 are based on site boundaries as modified and are updated during Phase II field investigation activities conducted in 1996. Figure 3-1 also shows the location and extent of three groundwater contamination plumes that are or may be associated with the IRP sites. These groundwater contaminant plumes include:

- main chlorinated VOC plume in the southwest quadrant (Sites 18 and 24);
- chlorinated VOC plume at Site 2; and
- chlorinated VOC plume at Site 16.

The plumes shown in Figure 3-1 represent composites of contaminant contours and are contoured to the respective U.S. EPA maximum contaminant levels (MCLs) and/or analytical detection limits. That is, overlapping plumes have been mapped as a single plume. The plume delineations are based on groundwater quality monitoring performed during Phase II RI field activities in 1996.

The 24 IRP sites have been grouped into three main OUs. The OU definitions and individual IRP site groupings are described below.

- OU-1 addresses on- and off-Station groundwater that is contaminated with constituents that have migrated from sources at MCAS El Toro into the regional groundwater system. OU-1 consists of Site 18.
- OU-2 consists of the potential source areas of groundwater contamination. OU-2 has been subdivided into three units (OU-2A, OU-2B, and OU-2C) by the BCT as follows for funding and prioritization reasons:

- OU-2A addresses the sites that are believed to be contributing to the regional VOC groundwater plume emanating from the southwest portion of the Station. OU-2A includes Site 24 (Possible VOC Source Areas) and Site 25 (Major Drainages).
- OU-2B addresses two of the Station landfills, Site 2 (Magazine Road Landfill) and Site 17 (Communication Station Landfill), that required full investigation and groundwater monitoring based on Phase I RI data.
- OU-2C includes two additional Station landfills, Site 3 (Original Landfill) and Site 5 (Perimeter Road Landfill).

• OU-3 consists of the remaining 17 IRP sites not addressed in OU-1 and OU-2. These sites were primarily established under the IRP before MCAS El Toro was included on the NPL, and do not necessarily relate to contamination in groundwater. OU-3 has been subdivided into two units (OU-3A and OU-3B) by the BCT for funding and prioritization reasons.

- OU-3A consists of all or portions of the following 14 IRP sites:

  Site 4 (Ferrocene Spill Area);

  Site 6 (Drop Tank Drainage Area No. 1);

  Site 8 (Defense Reutilization and Marketing Office [DRMO] Storage Yard);

  Site 9 (Crash Crew Pit No. 1);

  Site 10 (Petroleum Disposal Area);

  Site 11 (Transformer Storage Area);

  Site 12 (Sludge-Drying Beds);

  Site 13 (Oil Change Area);

  Site 15 (Suspended Fuel Tanks), Unit 2;

  Site 16 (Crash Crew Pit No. 2);

  Site 19 (Aircraft Expeditionary Refueling Site), Units 2 and 3;

  Site 20 (Hobby Shop), Units 1 and 4;

  Site 21 (Materials Management Group, Building 320); and

  Site 22 Tactical Airfield Fuel Dispensing System.

- OU-3B consists of the following three IRP sites:

  Site 1 (Explosive Ordnance Disposal [EOD] Range),

  Site 7 (Drop Tank Drainage Area No. 2), and

  Site 14 (Battery Acid Disposal Area).

- Portions of the following three IRP sites were formerly part of OU-3, and have been withdrawn from the IRP via the CERCLA petroleum exclusion:

  Site 15, Unit 1;

  Site 19, Units 1 and 4; and

Site 20, Units 2 and 3.

As new data become available, the OU definitions may be reevaluated and refined. The OU definitions can be modified at any time by agreement among the parties to the FFA.

There are six environmental sites that are of the highest priority for restoration at MCAS El Toro: Sites 18, 24, 2, 17, 3, and 5 (OU-1, -2A, -2B, and -2C). Below is a description of the contaminants, risks, and preferred remedial strategy for each of these six sites, as presented in respective RI and FS documents.

- **Site 18** regional groundwater contamination. Elevated concentrations of VOCs exist in shallow and deeper aquifers that extend up to 3 miles off-Station. Risks include exposure to the general public through the use of groundwater from the affected area of this beneficial use groundwater basin. The preferred remedial alternative consists of removal and treatment of groundwater to prevent further migration of higher concentrations of VOCs from the on-Station source area. MCAS El Toro and OCWD are working toward an agreement in support of a multipurpose treatment project to clean up OU-1.
- **Site 24** vadose zone and shallow groundwater contamination. Elevated concentrations of VOCs exist in shallow soil to the water table and into shallow groundwater beneath the Site 24 area. Cancer slope risk factor of 2.2×10^{-8} for soil and 2.0×10^{-3} for groundwater (U.S. EPA residential adult scenario) were calculated for exposure to the general public through the migration of contamination to the beneficial use aquifer. The preferred remedial alternative consists of a combination of soil vapor extraction and groundwater pumping to prevent further migration of higher concentrations of VOCs from the source area into beneficial use aquifer.
- **Site 2** inactive military landfill, inert and municipal solid waste, various industrial waste, and scrap metal. The contaminants of concern include metals in soil and VOCs in groundwater. Cancer slope risk factors of 9×10^{-6} for soil and 5.7×10^{-4} for groundwater (Cal-EPA recreational child scenario) were calculated for exposure to the general public. The preferred remedial alternative consists of constructing a monolithic soil cap and groundwater monitoring.
- **Site 17** inactive military landfill, cooking grease, fuel oil, and municipal waste including scrap metal. The contaminants of concern include metals in soil and VOCs in groundwater. Cancer slope risk factors of 1.4×10^{-5} for soil and 7.1×10^{-4} for groundwater (Cal-EPA recreational child scenario) were calculated for exposure to the general public. The preferred remedial alternative consists of constructing a monolithic soil cap, and groundwater monitoring.
- **Site 3** inactive military landfill, municipal solid waste, various waste including scrap metal. The contaminants of concern include metals in soil and VOCs in groundwater. Cancer slope risk factors of 5.6×10^{-7} for soil and 2×10^{-4} for groundwater (Cal-EPA industrial worker scenario) were calculated for exposure to the general public. The preferred remedial alternative consists of constructing a monolithic soil cap, and monitoring groundwater.
- **Site 5** inactive military landfill, cooking grease, fuel oil, and municipal waste including scrap metal. The contaminants of concern include metals in soil and VOCs in groundwater. Cancer slope risk factors of 1.4×10^{-5} for soil and

7.1×10^{-4} for groundwater (Cal-EPA recreational child scenario) were calculated for exposure to the general public. The preferred remedial alternative consists of constructing a monolithic soil cap, and groundwater monitoring.

Schedules for investigation and remediation of all the IRP sites at MCAS El Toro are specified in the FFA. A summary of the status and current FFA schedules for the OUs is presented below (detailed schedules for the OUs are provided in Chapter 5 of this report).

- The final Interim RI/FS Report for OU-1 was submitted on 09 August 1996 by the CLEAN I contractor. It consists of five reports: the Interim RI Report, the Human-Health Risk Assessment, the Interim Action Feasibility Study (IAFS), the Interim RI Report Addendum, and the IAFS Addendum. The draft Proposed Plan is currently under review, and the draft interim ROD for OU-1 is scheduled for September 1997.
- For OU-2A, OU-2B, and OU-2C, the final Phase II RI/FS Work Plan was submitted in July 1995. RI fieldwork for all OU-2 sites began in mid-1995, and was completed in January 1996 for OU-2A, and in February 1996 for OU-2B and -2C.
  - OU-2A: The draft final Phase II RI Report for Site 24 was submitted on 12 June 1996 and has been approved by U.S. EPA and DTSC. The draft final Phase II FS Report was submitted in November 1996. Regulatory agencies have approved the vadose zone portion of the draft final FS. The draft Proposed Plan is scheduled for completion in March 1997. The draft Phase II RI Report for Site 25 was submitted to regulators during January 1997. The draft ROD for OU-2A is scheduled to be completed in July 1997.
  - OU-2B: The draft final Phase II RI and draft FS Reports were both submitted on 06 September 1996 by the CLEAN II contractor. The draft final RI has been approved by U.S. EPA and DTSC. The draft Proposed Plan for OU-2B is scheduled for May 1997 and the draft ROD is scheduled for July 1997.
  - OU-2C: The draft final Phase II RI and draft FS Reports were both submitted on 04 October 1996 by the CLEAN II contractor. The draft final RI has been approved by U.S. EPA and DTSC. The draft Proposed Plan for OU-2C is scheduled for May 1997, and the draft ROD is scheduled for July 1997.
- For OU-3, the final Phase II RI/FS Work Plan was completed in July 1995, and fieldwork was completed by June 1996.
  - OU-3A: The draft Phase II RI Report for OU-3A was submitted on 20 November 1996 by the CLEAN II contractor. The draft FS, the draft Proposed Plan, and the draft ROD are scheduled for March, July, and December 1997, respectively.

    OU-3B: The portions of Site 1, 7, and 14 that are contained in OU-3B will be addressed in an RI work plan scheduled for May 1997; fieldwork is projected to begin in July 1997.
  - Portions of Sites 15, 19 and 20 (formerly part of OU-3) were withdrawn from the IRP via the CERCLA petroleum exclusion.

To date, several early action processes have been initiated for the IRP sites (Table 3-3 [Early Action Status]). A brief description of the early actions is provided below.

- Removal actions at IRP Site 2 and IRP Site 17 were proposed by USMC in October 1996. The public review and comment period for these removal actions was from 10 October through 10 November 1996. The removal actions include the construction of security fencing to restrict access to the landfill sites, the construction of erosion protection structures to abate the erosion of landfill materials by surface runoff, and the relocation of previously eroded landfill debris to central locations within each landfill site. These removal actions are intended as interim measures to protect human health and the environment until the final remedies are implemented at each site.
- An Action Memorandum for IRP Site 19, Unit 2 was completed by USMC in October, 1996. The public review and comment period for these removal actions was from 10 October through 10 November 1996. The action involves backfilling and covering soil contaminated with PCBs located in a large pit with a 10-foot-deep layer of clean soil. This action meets the U.S. EPA requirements for PCB-contaminated soil.
- Portions of Sites 15, 19 and 20 (formerly part of OU-3) were withdrawn from the IRP via the CERCLA petroleum exclusion.
- Soil vapor extraction (SVE) pilot tests at 22 wells at Site 24 are effectively removing soil contamination.

Table 3-3 will be revised in updates of this BCP as early actions for IRP sites are implemented or completed.

3.1.2 Installationwide Source Discovery and Assessment Status

An EBS for MCAS El Toro was completed on 01 April 1995. One of the main objectives of the EBS was to evaluate the ECP at the Station to facilitate property disposal. Information from this study related to source discovery and assessment are detailed below.

3.1.2.1 Aerial Photograph Features/Anomalies

In 1993, a survey of historical aerial photographs of MCAS El Toro was performed by Science Applications International Corporation (SAIC) (SAIC 1993). The survey included photographs dating back to 1946. The photographs were reviewed for features/anomalies of potential environmental concern. Over 500 features/anomalies were identified by SAIC. The features/anomalies that related to IRP sites were evaluated and incorporated, as appropriate, in the Phase II RI Work Plan. As part of the EBS, the remaining aerial photograph features/anomalies were evaluated. The final EBS Report identified a total of 53 features/anomalies requiring further evaluation. These 53 features/anomalies are described in Table 3-1b and are shown in Figure 3-1. These features/anomalies will be evaluated by the BCT in 1997.

3.1.2.2 Features of Potential Environmental Concern Identified in Personnel Interviews

Interviews with current and former MCAS El Toro personnel were conducted on 26 May 1994. The interviewers included Station personnel, staff from SWDIV, the CLEAN I contractor, Cal-EPA representatives, and the U.S. EPA consultant. The purpose of these interviews was to obtain additional information regarding past hazardous substance management practices, activities, and releases at the Station. As a result of the interviews, the following two additional features of potential environmental concern were identified.

- A former landfill area was identified near Station family housing. During grading activities for housing construction in the early 1980s, the area located between Building 722, Connor Avenue, and Chosen Drive was filled with general construction refuse to stop water from collecting. Hazardous wastes are not known to have been disposed in this fill area. Additional evaluation of this area will be performed by the BCT in 1997.
- An additional landfill area identified south of Perimeter Road was found to coincide with IRP Site 5, the Perimeter Road Landfill. IRP Site 5 was investigated under OU-2C.

These locations of potential environmental concern are shown in Figure 3-1.

During preparation of the draft EBS Report, a former Station employee reported that mercury leaks occurred at the two elevated water towers formerly located in the northwest portion of the Station. The former locations of these towers are shown in Figure 3-1. The towers had mercury water-level gauges near the ground surface. According to the former Station employee, these gauges leaked small quantities of mercury onto the unpaved ground surface at the base of the towers. These towers were constructed in 1943 (Building 222, east tower) and 1953 (Building 373, west tower); they were demolished in 1992. The BCT will evaluate these locations in 1997.

3.2 COMPLIANCE PROGRAM STATUS

The following sections provide a summary of the status of compliance programs at MCAS El Toro. The status of mission/operational-related compliance program activities is summarized in Table 3-4 (Mission/Operational-Related Compliance Projects). Closure-related compliance projects and early actions related to compliance are summarized in Tables 3-5 (Closure-Related Compliance Projects) and 3-6 (Compliance Early Action Status), respectively.

3.2.1 Storage Tanks

Storage tanks, including USTs and ASTs, are addressed in the following sections. Also included is a discussion of the fuel distribution systems (fuel pipelines) at the Station.

3.2.1.1 Underground Storage Tanks

There are a total of 407 USTs at MCAS El Toro. This total includes 61 active, 95 inactive, 249 removed, and 2 abandoned tanks. Of the removed and abandoned tanks, the

Station has received letters confirming regulatory closure on 178 of them, including all of Tank Farms 1, 3, and 5. These totals are continuously modified to reflect the most current information. The overall total of 407 tanks differs slightly from previous BCPs. The changes reflect deletions from the list as Station staff discover duplicate listings or "phantom tanks" that never existed but were added to the tank list in error. Likewise, the list reflects additions of previously undocumented tanks discovered during the course of the site assessment or closure activities. Memoranda documenting each change to the overall tank list are maintained by the Environmental Engineering Division at the Station.

A comprehensive inventory of MCAS El Toro USTs is provided in Table 3-7 (Underground Storage Tank Inventory). This table includes available information on tank characteristics, compliance actions, known releases, current status, and future actions. Exhibit 3-2 shows a summary of the status of USTs at MCAS El Toro.

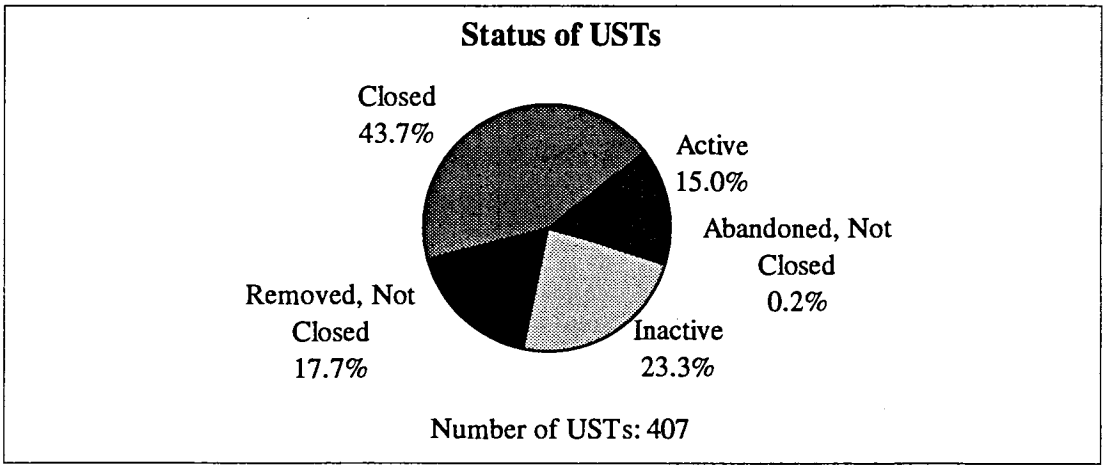
The UST locations are plotted in a series of figures. Figure 3-2a (Key to UST Location Maps) describes the sections of the Station encompassed by four area-specific maps. Figure 3-2b shows the northwest quadrant of the Station; Figure 3-2c shows the northeast quadrant of the Station; Figure 3-2d shows the southeast quadrant of the Station; and Figure 3-2e shows the southwest quadrant of the Station. These area-specific maps include all known UST locations at the Station with the exception of those noted in Table 3-7. The plotted UST locations are based on available information, including Station maps, UST surveys, UST removal drawings, RFA site visits, and interviews with Station personnel. Information on the locations for some of the USTs was unavailable. In these cases, the UST location maps show the UST in the center of the nearest building. Figures 3-2b through 3-2e indicate the status of each UST plotted as either active, inactive, removed, closed, or abandoned in place. Each figure also provides a list of the USTs that appear in that figure.

Compliance issues for USTs are managed by the MCAS El Toro Environmental Office (EO). Maintenance activities for USTs are the responsibility of the Station Assistant Chief of Staff (AC/S) Installations Department. Operational responsibilities are split among Station organizations and tenants. Information on USTs was obtained from the Station UST Inventory Database. These data were supplemented with information obtained from the RFA performed at the Station and other UST reports prepared for the Station.

The Orange County Health Care Agency (OCHCA), Environmental Health Division regulates USTs within the County and is the lead agency for UST compliance for the Station. However, if a UST leaks and causes significant contamination, the RWQCB oversees cleanup and issues closure.

The Station has a current tank-and-pipeline integrity testing and monitoring system certification contract. There are five USTs on-Station at Tank Farm 555 (547, 548, 549, 550, and 551) for which current monitoring technologies do not exist. These 567,000-gallon tanks store JP-5 fuel.

Exhibit 3-2



Source: Table 3-7

One UST location at the Station (Tank 398) was the subject of extensive investigations performed under the CLEAN I Program (CTO-0150). This UST site is located in the northeast quadrant of the Station, approximately 1,500 feet northwest of Tank Farm 6. Tank 398 has been removed and replaced with USTs 902A, 902B, and 902C. Field investigations have identified JP-5, as well as benzene, toluene, ethylbenzene, and xylenes, in groundwater in the vicinity of this location. The extent of the contaminant plume is shown in Figure 3-1. This plume represents a composite of contaminant contours (contours correspond to analytical detection limits) based on a 1993 investigative report (Jacobs Engineering 1993b). Construction of a free-product recovery system began in July 1995, and the system began operation in November 1995. This system is now fully operational, and approximately 8,000 gallons of product (JP-5) have been recovered to date.

Petroleum hydrocarbon plumes in groundwater have been identified in two other areas at the Station. In the northeast quadrant of the Station, elevated petroleum hydrocarbon levels have been found in groundwater downgradient of Tank Farms 5 and 6. This area is currently included in routine groundwater monitoring. In the northwest quadrant of the Station, elevated petroleum hydrocarbons have been found in wells located crossgradient and downgradient of Tank Farm 2. Continuing operation of an SVE unit at Tank Farm 2 has removed 35,000 pounds of petroleum products to date. Other potential sources of these contaminants include IRP Site 3 (plume near Tank Farms 5 and 6) and IRP Sites 13 and 15 (plume near Tank Farm 2). These tank farms are planned for investigation as potential sources of the benzene detected in groundwater in these two areas. The locations of these tank farms are shown in Figure 3-2c.

The Station has formed a UST Tiger Team to address UST issues. Members of the Tiger Team include representatives from the Station EO, Engineering Department, BRAC office, and SWDIV. The goals and objectives of the Tiger Team include the following:

- develop strategies for UST management with respect to compliance;

- prioritize UST removals;
- develop plans for eventual closure of all USTs; and
- update and maintain the UST inventory database presented in Table 3-7.

The Tiger Team meets regularly to assess the status of the UST program with respect to compliance and base closure issues.

3.2.1.2 Aboveground Storage Tanks

An inventory of ASTs at the Station is currently being conducted. To date, 18 ASTs that contain petroleum products or other regulated substances have been verified as existing at the Station. These tanks are listed in Table 3-8 (Aboveground Storage Tank Inventory). This table does not include water storage tanks or tanks used for compressed air. All of the ASTs listed in Table 3-8 are considered LOCs. Compliance issues for ASTs are managed by the MCAS El Toro EO. Operation and maintenance activities for ASTs are the responsibility of the Station AC/S Installations Department.

The RWQCB Santa Ana Region regulates ASTs storing petroleum products under the state 1990 Aboveground Petroleum Storage Act, amended in 1991. The law requires petroleum AST facilities with a single-tank capacity of greater than 660 gallons or a cumulative capacity of greater than 1,320 gallons to 1) file a storage statement, 2) take action to prevent spills, and 3) monitor groundwater, if necessary.

3.2.1.3 Fuel Supply Pipelines

Fuel supply facilities at MCAS El Toro are the responsibility of the Station Supply Department. JP-5 is received at MCAS El Toro via pipeline from an off-Station source and is distributed at the Station through a series of underground pipelines. The layout of the fuel supply pipelines is shown in Figures 3-1, 3-2c, and 3-2d.

JP-5 is supplied to MCAS El Toro via a 12-inch-diameter pipeline from Norwalk, California. The pipeline enters the Station from the northwest and supplies JP-5 to USTs in Tank Farm 555 located in the northeast portion of the Station. The pipeline is operated by the Defense Fuel Supply Center (DFSC) and, therefore, is not an asset of MCAS El Toro. Any contamination resulting from the past or present operation of the pipeline will be addressed by DFSC.

Tank Farm 555 supplies JP-5 jet fuel through two steel pipelines (12- and 8-inch-diameter pipe) to Tank Farm 5. In the past, Tank Farm 5 supplied fuel to UST 398, which has been removed and replaced with three USTs (902A, 902B, and 902C). These tanks supply eight direct refueling pantographs (Buildings 903, 904, 905, 906, 907, 908, 909, and 910).

A 6-inch-diameter carbon steel fuel line is tied into one of the pipelines that extends from Tank Farm 555 to Tank Farm 5. This 6-inch pipeline supplies JP-5 to two 2-day, 30,000-gallon USTs (891A and 891B) located in the southeast quadrant of the Station. A 400-gallon fuel recovery tank (891C) is also located in the vicinity of USTs 891A and

891B. From these USTs, the fuel is pumped to two high-speed refueling lanes located in the same area.

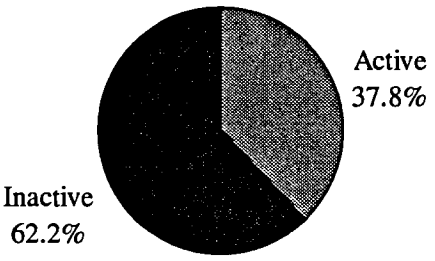
3.2.2 Hazardous Materials/Waste Management

Hazardous wastes generated at MCAS El Toro are accumulated in containers at tenant-managed, less-than-90-day accumulation areas (accumulation areas). A total of 98 past and current accumulation areas have been identified on-Station. Of these, 37 accumulation areas are currently in operation and 61 are inactive. Investigation and mitigation of the inactive accumulation areas is underway. A work plan designed to decontaminate and close these inactive accumulation areas is pending, with implementation of the fieldwork planned for 1997. A list of all accumulation areas is provided in Table 3-9 (Less-Than-90-Day Accumulation Area Inventory). Many of these accumulation areas were investigated during the RFA performed at the Station from 1990 to 1993 (Section 3.2.7).

Accumulation areas at the Station are managed in accordance with all applicable federal, state, and local environmental laws and regulations. Exhibit 3-3 shows the status of less-than-90-day accumulation areas. Hazardous wastes are generated by various on-Station tenants. The tenants are responsible for day-to-day management of the accumulation areas; the MCAS El Toro EO oversees the tenants' operation at the accumulation areas. It is Station policy to store hazardous wastes at the accumulation areas for no longer than 45 days after the accumulation date indicated on the storage containers. For up to 45 days beyond the accumulation date, wastes at the accumulation areas are managed according to waste type as described in the following subparagraphs.

Exhibit 3-3

Status of Less-Than-90-Day Accumulation Areas



Number of Areas: 98

Source: Table 3-9

3.2.2.1 Waste Oil

Waste oil is stored in 55-gallon drums at the tenant accumulation areas. The drums are transferred to Building 326, located in the southwest quadrant of the Station, for pickup by a recycling contractor. The contractor transports the waste oil off-Station to be

recycled. Some Station tenants generate large amounts of waste oil. In these cases, the recycling contractor picks up the waste oil directly at the tenant accumulation areas.

3.2.2.2 Waste JP-5

Waste jet fuel is stored in 55-gallon drums at the tenant accumulation areas. The AC/S Installations Department pump truck is used to collect the waste fuel and transfers it to AST 862, located in the southwest quadrant of the Station. Accumulation dates are recorded at the tank. A recycling contractor picks up the waste fuel from the tank within 90 days of the oldest accumulation date. The JP-5 is recycled off-Station.

3.2.2.3 Miscellaneous Hazardous Wastes

Various other hazardous wastes are transferred to the Station EO accumulation area located at Building 900. The DRMO is responsible for arranging for the wastes to be transferred off-Station within 90 days of the accumulation date.

On-site visual inspections for evidence of release have been performed at most of the accumulation areas by the CLEAN II contractor as a part of the RFA addendum. The contractor has developed removal and/or decontamination strategies for each of the accumulation areas (BNI 1996a).

Solvent cleaning machines manufactured by Safety-Kleen™ are used at various locations at the Station. Safety-Kleen regularly replaces the solvents in these machines at the Station. The waste solvents are transported off-Station by Safety-Kleen.

The Station operated a RCRA-permitted storage facility at Building 673-T3 until August 1994. On 21 December 1994, the Station notified DTSC that waste storage at this building had ceased and closure would be performed. The Station submitted its Final Closure Certification Report for Building 673-T3 to DTSC on 15 November 1995. The DTSC approved closure on 08 March 1996.

In addition to the accumulation areas described previously, hazardous wastes generated overseas during Desert Storm operations were temporarily stored on-Station in 1991. From approximately August to November 1991, wastes, including lubricants, adhesives, paints, and cleaning compounds, were stored in the southeast portion of the Station, east of DRMO Storage Yard No. 3. The location of this area is shown in Figure 3-1. Because most of this area is unpaved, the waste containers were stored on plastic sheeting. The wastes were transported off-Station by contractors in 1991. Although no releases were reported by the Station EO, the BCT will evaluate this area in 1997.

Pesticides and herbicides have been used at the Station to control rodents and weeds. The AC/S Installations Department, Utilities and Maintenance Division, currently maintains a 6-month to 1-year supply of pesticides in Building 753. Pesticides were formerly stored in Building 493. In addition, the golf course has stored pesticides in Building 1687 and, prior to 1959, in the area occupied by Building 464 (Brown and Caldwell 1986). Buildings 493 and 1687 were demolished in 1987. The locations of these pesticide storage areas will be evaluated by the BCT and are shown in Figure 3-1. In addition to the pesticide and herbicide application operations that are conducted by Station

personnel, a certified pest controller is contracted to control roaches, spiders, ants, and other pests.

3.2.3 Solid Waste Management

The Solid Waste Management Program at MCAS El Toro is handled primarily through contracts with disposal services. Federal Disposal Services (FDS) currently provides the disposal service to both the operational and housing areas at MCAS El Toro. In addition, FDS provides curbside recycling in the housing areas and has set up several locations on-Station where dumpsters for recyclable materials can be accessed. FDS provides some small-scale asbestos disposal services for abatement projects performed by MCAS El Toro Maintenance personnel. When asbestos materials are transported, FDS provides the Station with the manifest (The Environment Company 1992).

Infectious waste generated at the medical and dental clinics is handled by Browning Ferris Industries (BFI). BFI picks up the infectious waste and transports it off-Station for incineration. BFI provides a disposal manifest to the Station for the activity (The Environment Company 1992). Prior to using BFI for infectious waste disposal, these wastes were trucked from MCAS El Toro to the Naval Station Long Beach, California (Brown and Caldwell 1986).

3.2.4 Polychlorinated Biphenyls

A PCB management plan was developed for MCAS El Toro in April 1994 (SAIC 1994). It presents all applicable federal, state, and local requirements, and describes the Station system for handling and disposing PCBs in compliance with applicable regulations and USMC policy. PCB-containing equipment at the Station is managed by MCAS El Toro AC/S Installations.

PCBs are regulated under the Toxic Substances Control Act (TSCA) (40 CFR 761). U.S. EPA classifies PCB units as follows:

- 0 to 49 parts per million (ppm) – non-PCB item;
- 50 to 499 ppm – PCB-contaminated item; and
- 500 ppm or greater – PCB item.

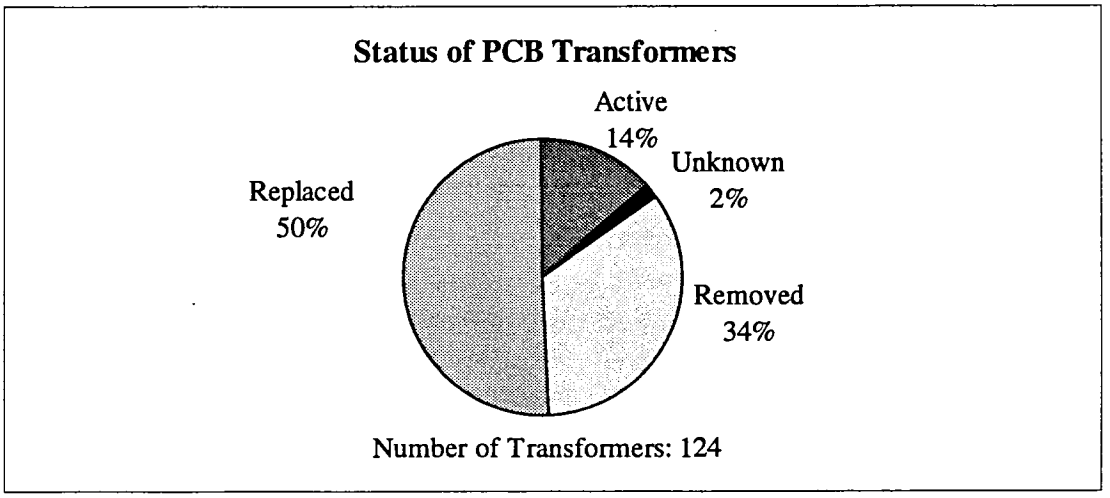
In addition, *California Code of Regulations* (CCR) Title 22 classifies PCB-containing liquids removed from equipment as hazardous waste. According to Title 22, liquids with PCB concentrations greater than or equal to 5 milligrams per liter (mg/L) must be disposed by incineration or treated to achieve a PCB concentration of less than 2 mg/L.

3.2.4.1 PCB Transformers

There are approximately 594 existing or former transformers at MCAS El Toro. To date, due to nonexistent or missing historical records, 219 transformers have required sampling to determine whether they contain PCBs. During the sampling work, one transformer was overlooked (Database Tracking No. PCB T48) and is noted to be included in additional sampling requirements at MCAS El Toro. Analytical testing results of the 219 transformers have indicated that all but ten PCB-containing

(concentrations greater than 50 ppm) transformers have either been removed or replaced with non-PCB transformers. Exhibit 3-4 and Table 3-10 summarizes 115 previously suspected and 9 newly identified PCB transformers (PCB T116 through PCB T124) that have been or are scheduled for removal and/or replacement by Station personnel.

Exhibit 3-4



Source: Table 3-10

The update on historical records and the PCB testing, removal, or replacement of transformers is an ongoing process expected to be completed by June 1997. The final 1997 BCP update will include the complete status of all transformers at MCAS El Toro.

Of the PCB transformer locations identified at the Station in Table 3-10, releases are known to have occurred at two PCB transformer locations (Database Tracking Nos. PCBT56 and PCBT74). Transformer T74 was investigated during RFA addendum activities, and transformer T56 requires further evaluation.

3.2.4.2 PCB Transformers and Equipment Storage Areas

Four locations at MCAS El Toro have been used previously as storage areas for inactive PCB-containing transformers and/or equipment. These storage areas are located in the southwest quadrant of the Station (Figure 3-1). The first two of these locations are addressed under other types of LOCs (RFA 7 and IRP Site 11), and the third and fourth locations are identified as PCB storage areas.

One former transformer storage area is located southwest of South Marine Way, east of Bee Canyon Wash. The area was investigated as SWMU/AOC 7 (Database Tracking No. RFA 7) in the RFA and the addendum to the RFA (1996) (Jacobs Engineering 1993, BNI 1996a). This unpaved, fenced, 2-acre storage area was established in 1990 or 1991. It was intended to temporarily store transformers until they could be disposed off-Station. Approximately 20 to 30 transformers were stored in this area at the time of the RFA

visual site inspection in 1991. No transformers are currently stored in this area. As part of the RFA and the addendum to the RFA, soil samples were collected in the storage area.

A second transformer storage area is located on the north side of Building 369 (Database Tracking No. IRP 11). Portions of the area are paved. A portion of this storage area is being investigated in the RI/FS. IRP Site 11 (Transformer Storage Area) is a 30-square-foot concrete pad located in the south-central portion of the storage area where leaks from PCB transformers have been documented.

Approximately 50 to 75 transformers were stored on this pad from 1968 to 1983 (Jacobs Engineering 1993d). The Site 11 boundaries encompass the storage pad, the unpaved areas bordering and to the north of the pad, and a lined drainage ditch south of the pad along the north side of Building 369.

A third transformer storage area is located adjacent to Tank 175 (water reservoir) (Database Tracking No. PCB A1). This area was constructed in 1991 and consists of a concrete pad with concrete berms. This area is currently used for storage of non-PCB transformers only. However, according to MCAS El Toro Installations Department staff, one PCB-containing transformer was stored in this area for a short time (Sherwood, pers. com. 1994).

A fourth PCB equipment storage area was identified at the equipment and drum storage area located on the north side of Building 324 (Database Tracking No. PCB A2). During a routine site visit to MCAS El Toro, the CLEAN I contractor discovered miscellaneous electronic equipment (e.g., switches, capacitors) stored in the vicinity of a drum storage area near Building 324. The items were labeled with hazardous waste stickers that indicated the contents as PCB-containing. The labels indicated that the items were in the custody of the DRMO. These items have been removed from the storage area and disposed off-Station by an authorized disposal contractor.

3.2.4.3 Non-Transformer PCB Items

In 1991, Kennedy/Jenks Consultants conducted a survey of MCAS El Toro for items and equipment that possibly contain PCBs (Kennedy/Jenks Consultants 1991). The objective of the survey was to identify PCB items and equipment, other than PCB transformers, that are regulated under federal and state regulations. Approximately 400 buildings were surveyed for possible PCB-containing items and equipment. Transformers and fluorescent light fixtures were excluded from this survey. Items containing dielectric fluid suspected of containing PCBs were sampled and analyzed. The survey identified 54 items suspected of containing PCB insulation or fluid. Twenty-nine of these items contained dielectric fluid and were sampled and analyzed for PCB content. Table 3-11 (Non-Transformer PCB Equipment) lists these 29 items and summarizes their analytical results. Because these 29 items are below 50 ppm, they are classified in TSCA as non-PCB items and are not required to be removed from service. However, when these 29 items are disposed, the oil must be manifested as PCB oil.

Ballasts in fluorescent light fixtures made prior to 1980 may contain PCBs. However, a survey of Station buildings for PCB light ballasts is not required, nor is one scheduled to be performed as part of base closure.

3.2.5 Asbestos

MCAS El Toro manages asbestos-containing materials (ACM) according to DoD policy established in a letter dated 02 November 1994. The policy requires the Station to manage "ACM in a manner protective of human health and the environment, and to comply with all applicable Federal, State, and local laws and regulations governing ACM."

Prior to property disposal, the Station is required to document all available information concerning ACM. Documented information should include:

- readily available information on the type, location, and condition of asbestos;
- any results of testing for asbestos;
- description of any asbestos control measures taken;
- any available information on costs or time necessary to remove the remaining ACM; and
- results of a site-specific update of the asbestos inventory performed to revalidate the condition of ACM.

Identified ACM will be remediated only if it is not in compliance with applicable laws and regulations or if it poses a threat to human health at the time of property transfer. In the property transfer process, remediation of ACM is not required for the following scenarios:

- the building is scheduled for demolition by the transferee;
- the transfer document prohibits occupation of the buildings prior to its demolition; and
- the transferee assumes responsibility for the management of any ACM in accordance with applicable laws.

A draft Asbestos Management Plan and a draft Asbestos Operating Plan were prepared for the Station in January and February 1992, respectively. The objectives of the Asbestos Management Plan were to:

- identify ACM in facility buildings;
- assess the hazard potential of identified ACM;
- establish policies for handling ACM on-Station;

- define organizational roles and responsibilities of the Asbestos Management Program; and
- assure that maintenance workers, as well as building occupants, are not exposed to elevated airborne asbestos fiber concentrations as a result of deteriorated ACM or inappropriate work practices.

The goals and objectives of the Asbestos Operating Plan include:

- establishing policies for conducting maintenance activities on or around known ACM;
- defining proper procedures for handling an emergency response to an asbestos hazard;
- outlining policies for remediation activities; and
- detailing proper disposal procedures for ACM.

Several ACM surveys in buildings at MCAS El Toro have been conducted (Ecology and Environment 1991a,b, 1992; IT Corporation 1989). According to the Station P-164 building database, a total of 506 nonresidential buildings are located on-Station. Approximately 54 percent (273 buildings) of these 506 buildings at MCAS El Toro were inspected during the surveys. ACM was identified in 164 of the buildings; 3 of these buildings have been demolished, bringing the total number of buildings with identified ACM to 161. Of the 164 buildings with identified ACM, 52 contained friable ACM.

Friable ACM is ACM that is easily pulverized (e.g., with light contact) and thus can become airborne, making it a human-health hazard. All 273 buildings, along with the results of the surveys, are listed in Table 3-12 (Buildings with Known Asbestos) and are summarized in Exhibit 3-5. No ACM was identified in the other 109 buildings surveyed. Although ACM was not found in these 109 buildings, an asbestos survey may be performed before remodeling or demolition activities are undertaken. If ACM is encountered, the DON will voluntarily implement appropriate measures to minimize exposure to the public.

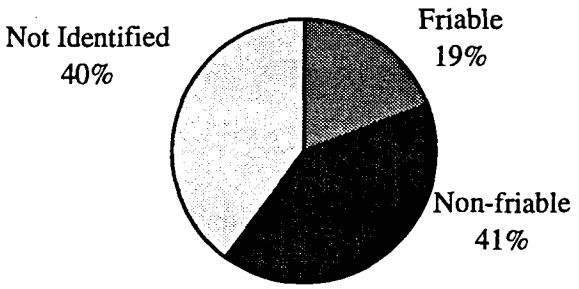
The Navy Public Works Center (PWC) San Diego recently completed a survey of family housing communities at MCAS El Toro and MCAS Tustin. Five family housing units were located at MCAS El Toro. As part of this survey, the family housing units were tested in accordance with the applicable standards and Naval Facilities (NAVFAC) guidance. Final results indicated that asbestos was present in many of the units surveyed; however, none of the ACM is considered to be a threat to human health (DON 1995a–e).

3.2.6 Radon

Radon is a radioactive gas produced by the disintegration of elemental uranium. Uranium, which originates from magma, predominantly occurs in granitic rock. Radon is a chemically inert gas that readily migrates from bedrock and soil into the groundwater or air. The decay of radon (Ra-222) produces several short-lived radioisotopes. These

Exhibit 3-5

Status of Asbestos in Surveyed Buildings Where Asbestos Was Suspected



Number of Buildings: 273

Source: Table 3-12

nuclides can become attached to dust particles, forming a radioactive aerosol. Radon levels in buildings are a function of underlying soils and rock, and building construction and ventilation. Radon may enter structures through basements, openings around pipes, sumps, cracks in floors, furnaces, and vents. Because radon can readily migrate into groundwater, the levels of radon in groundwater can provide information on levels of radon that could migrate into air. Literature indicates that groundwater in Orange County, California, generally has the lowest radon concentrations in the nation at less than 100 picocuries per liter (pCi/L) (Michael 1990). Therefore, elevated levels of radon would not be expected in buildings at MCAS El Toro.

TSCA requires that radon studies be conducted in federal buildings and that the results be reported to U.S. EPA. Navy guidance requires naval buildings and housing units occupied for more than 4 hours per day to be tested for radon.

In accordance with the Indoor Radon Abatement provisions of Subchapter III of TSCA, the DoD directed the Station to assess radon levels in a representative sample of its buildings. As part of the voluntary DoD approach to reducing radon exposure, the DoD has required that U.S. EPA guidelines for residential structures be applied to remedial actions for radon.

In 1991, a radon survey was conducted at MCAS El Toro in response to the Navy Radon Assessment and Mitigation Program (NAVRAMP). The NAVRAMP program followed U.S. EPA guidelines that consider airborne radon levels of 4 pCi/L or less as low-risk levels that do not require mitigative action.

The radon survey included the Station hospital (Building 431), the child-care center (Building 656), and approximately 185 locations in the family housing area. The radon screening results indicated that no facilities or housing units sampled exceeded radon levels of 4 pCi/L. Thus, additional testing or mitigation is not required.

Although DoD policy does not require that radon assessment and mitigation be performed prior to transfer of BRAC property, any available and relevant radon assessment data should be included in property transfer documents.

Station building records indicate that radium paint was used previously in Building 296. According to a building plan from 1944, a radium paint room was present on the second floor in the northeast corner of Building 296. Aircraft refurbishing operations are known to have occurred in Buildings 296 and 297 for a short period in the 1940s; however, information on waste management associated with radium painting activities is not available. Former Station personnel interviewed in 1994 were asked about radium paint usage on-Station, but they were not able to provide additional information.

3.2.7 RCRA Facilities (SWMUs)

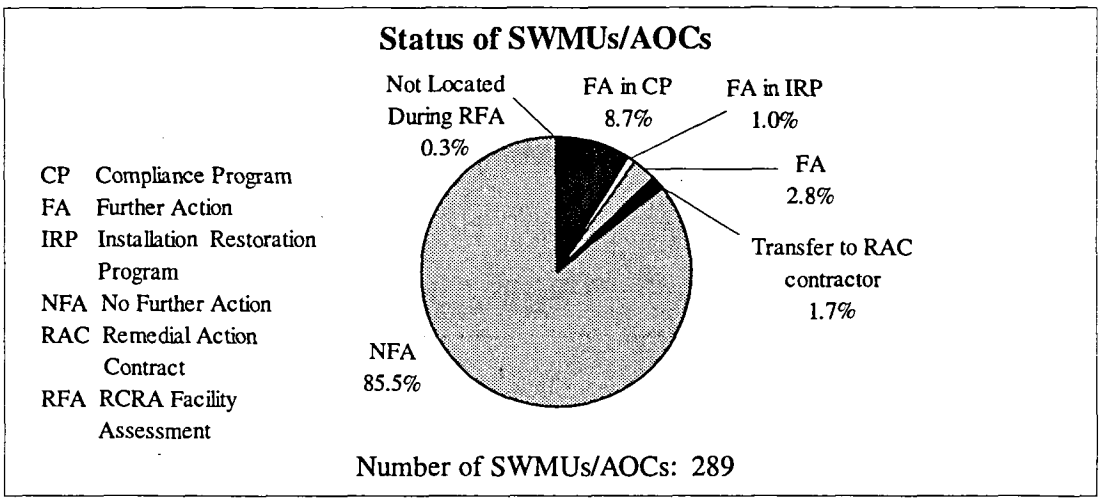
An RFA was performed at the Station from 1990 to 1993. The objectives of this initial RFA were to identify and evaluate SWMUs and other AOCs with respect to the potential for releases of hazardous wastes to the environment, to assess the need for further action at the SWMUs/AOCs, and to identify potential sites for a fourth OU for the IRP (OU-4).

The final RFA report was submitted on 16 July 1993. This study identified 307 SWMUs/AOCs. Of these, 304 SWMUs/AOCs were located at MCAS El Toro (3 SWMUs/AOCs were located at MCAS Tustin) and 15 SWMUs/AOCs were duplicates of other SWMUs/AOCs, resulting in a total of 289 SWMUs/AOCs that are of interest at MCAS El Toro. Based on the results of the preliminary review and visual site inspection, 140 SWMUs/AOCs were initially sampled during the RFA sampling visit to determine whether a release had occurred. The analytical results and recommendations for further action for the each of the SWMUs/AOCs sampled are provided in the final RFA report (Jacobs Engineering 1993c).

As a condition of approval for the final RFA report, DTSC required the additional sampling of 13 SWMUs and one temporary accumulation area (TAA). The results of this additional investigation were presented in the final Addendum to the RFA report on 31 May 1996 (BNI 1996a). In a letter dated 23 July 1996, the DTSC approved the final RFA report and the final Addendum to the RFA.

A comprehensive inventory of the 289 SWMUs/AOCs is provided in Table 3-13 (Summary of SWMUs/AOCs). Exhibit 3-6 summarizes the current status of SWMUs and AOCs. Of the 289 SWMUs/AOCs, 207 were recommended for no further action and 40 SWMUs/AOCs were not located during RFA field visits. 39 of these SWMU/AOCs were located since the completion of RFA activities. Based on activities since the RFA, regulatory agencies have concurred with recommendations for no further action on 247 SWMUs/AOCs, as shown in Exhibit 3-6.

Exhibit 3-6



Source: Table 3-13

The recommendations for the remaining 41 SWMUs/AOCs have been categorized into four types of further action:

1. **Include SWMU/AOC in the IRP.** Three SWMUs/AOCs were recommended for further action in the IRP:
   - 90 (former sewage treatment plant) (IRP Site 12),
   - 194 (former incinerator) (IRP Site 3), and
   - 300 (solvent spill area) (IRP Site 3).
2. **Evaluate SWMU/AOC in a state program.** SWMUs/AOCs with petroleum hydrocarbon contamination only and unknown extent of contamination were recommended for additional borings. SWMUs/AOCs with moderate levels of petroleum hydrocarbon adjacent to a tank bottom were recommended for a leak test/inspection to assess the possibility of leakage from the tank. Many SWMUs/AOCs are located within the boundaries of an IRP site, but will be addressed under the relevant compliance program. A total of 26 SWMUs/AOCs of these types were recommended for further action in the Compliance Program:
   - Leak test/inspection recommended:
     - 84 (OWS 298C),
     - 85 (UST 298D) (combined with SWMU 84),
     - 151 (OWS 605C),
     - 199 (OWS 759A),
     - 200 (UST 759B) (combined with SWMU 199), and

- 298 (UST 392A).

- Additional borings recommended:
  - 145 (UST 529),
  - 173 (OWS 671),
  - 175 (OWS 672A), and
  - 176 (UST 672B).

- Located within boundaries of an IRP site, but will be addressed under compliance program:
  - 159 (OWS 626-1) (IRP Site 20),
  - 218 (OWS 765B) (IRP Site 13),
  - 217 (UST 765A) (IRP Site 13),
  - 288 (UST 392A) (IRP Site 16),
  - 289 (UST 850B) (IRP Site 16),
  - 290 (UST 850C) (IRP Site 16),
  - 71 (accumulation area) (IRP Site 7),
  - 72 (accumulation area) (IRP Site 7),
  - 94 (accumulation area) (IRP Site 21),
  - 104 (accumulation area) (IRP Site 8),
  - 105 (accumulation area) (IRP Site 8),
  - 106 (accumulation area) (IRP Site 8),
  - 158 (accumulation area) (IRP Site 20),
  - 236 (accumulation area) (IRP Site 20),
  - 10 (abandoned well No. 24-4274) (IRP Site 3), and
  - 157 (Vehicle wash rack) (IRP Site 20).

3. **Further action by pavement repair or excavation recommended.** The final RFA and the final RFA Addendum recommended six SWMUs/AOCs for repair of the cracks in the pavement and two SWMUs/AOCs for excavation of shallow, stained soil, followed by proper disposal. In addition, it was recommended that the Station no longer store drums outside the storage areas. A total of eight SWMUs/AOCs were recommended for further action in the final RFA Report and the final RFA Addendum:

   - Repair of cracks in pavement recommended:
     - 14 (drop tank fuel storage area),
     - 110 (vehicle wash rack),

- 198 (vehicle wash rack),
- 201 (vehicle wash rack),
- 204 (vehicle wash rack), and
- 213 (vehicle wash rack).

- Excavation of shallow, stained soil recommended:
  - 26 (accumulation area), and
  - 33 (accumulation area).

4. **Recommended transfer to the RAC Contractor.** Five SWMUs/AOCs were recommended for transfer to the RAC contractor for limited removal/clean-up of surface soils:
   - 7 (transformer storage area), clean-up of PCBs;
   - 46 (vehicle maintenance and parking/DRMO), clean-up of diesel;
   - 88 (< 90 day accumulation area), clean-up of PCBs;
   - 131 (engine test area), clean-up of semivolatile organic compounds (SVOCs); and
   - 244 (PCB spill area), clean-up of SVOCs.

Some SWMUs/AOCs not recommended for further action by the RFA have been included in the Station IRP. In response to agency comments, SWMU/AOC 90 (Former Sewage Treatment Plant) has been included for further investigation in IRP Site 12. IRP Site 25 will address the four Station washes identified as SWMUs/AOCs in the RFA (i.e., SWMUs/AOCs 3 [Marshburn Channel], 4 [Bee Canyon Wash], 5 [Borrego Canyon Wash], and 11 [Agua Chinon Wash]).

No SWMUs/AOCs were recommended for inclusion into a fourth OU. In a letter dated 17 May 1994, DTSC approved the RFA under the conditions that further investigation (i.e., sampling) be performed. During the RFA addendum field activities, 13 SWMUs/AOCs and 1 TAA were investigated. Five of the SWMUs/AOCs had already been recommended for further investigation in the RFA (SWMUs/AOCs 39, 46, 88, 131, and 171). The eight additional SWMUs/AOCs and one TAA investigated were:

- SWMU/AOC 7 (Transformer Storage Area);
- SWMU/AOC 9 (Fuel Bladder East of Agua Chinon Wash);
- SWMU/AOC 165 (Drum Storage Area);
- SWMU/AOC 229 (Hazardous Waste Storage Area);
- SWMU/AOC 244 (PCB Spill Area);
- SWMU/AOC 260 (Former AST) (RFA recommended further action [e.g., repair cracks in pavement], but not further investigation at this SWMU/AOC);

- SWMU/AOC 264 (DRMO Storage Yard No. 3);
- SWMU/AOC 267 (Drop Tank Fuel Storage Area); and
- TAA 7 (Hazardous Waste Storage Area).

The final addendum to the RFA was completed on 31 May 1996. The report presented the results and recommendations for remedial actions for 13 SWMUs/AOCs and 1 TAA in addition to recommendations for closure strategies of 73 additional TAAs. Five of the 14 locations sampled were duplicates of TAAs. Therefore, a total of 82 sites was investigated during the preparation of the addendum to the RFA. Of the 14 sites sampled, 5 were recommended for transfer to the RAC contractor for limited surface soil removal (SWMUs 7, 46, 88, 131, and 244), and 9 were recommended for no further action (SWMUs 9, 39, 171, 229, 260, 264, 267, and TAA 7).

Of the 73 TAAs surveyed, the addendum to the RFA recommended the following:

- twenty-one TAAs are clean and vacant (as of November 1995),
- forty-two are recommended for wash-down after removal of stored material,
- eight are recommended for simple decontamination and wash-down after material removal,
- one is recommended for transfer to the RAC contractor for surface-soil removal (PCBs), and
- one will be reevaluated upon base closure.

As part of the Phase I RI, a soil gas survey for IRP Sites 24 and 25 was completed in October 1994. Sites 24 and 25 were further investigated in the Phase II RIs, completed in 1996. These surveys encompassed numerous SWMUs/AOCs located in the southwest quadrant of the Station.

3.2.8 NPDES Permits

Storm-water runoff from the aircraft runways, parking areas, aircraft and vehicle maintenance areas, wash rack areas, and fueling areas from the Station is discharged into three washes (Marshburn Channel, Bee Canyon Wash, and Agua Chinon Wash), which are tributaries of San Diego Creek. Discharges from these washes are addressed by a NPDES permit (Order No. 93-16, NPDES No. CA 0106593) issued to the Station by the RWQCB, Santa Ana Region. The Station EO is responsible for collecting discharge samples that result from significant rainstorm events or other water discharge events. The Station is currently in compliance with the NPDES permit. The permit expires on 01 March 1998.

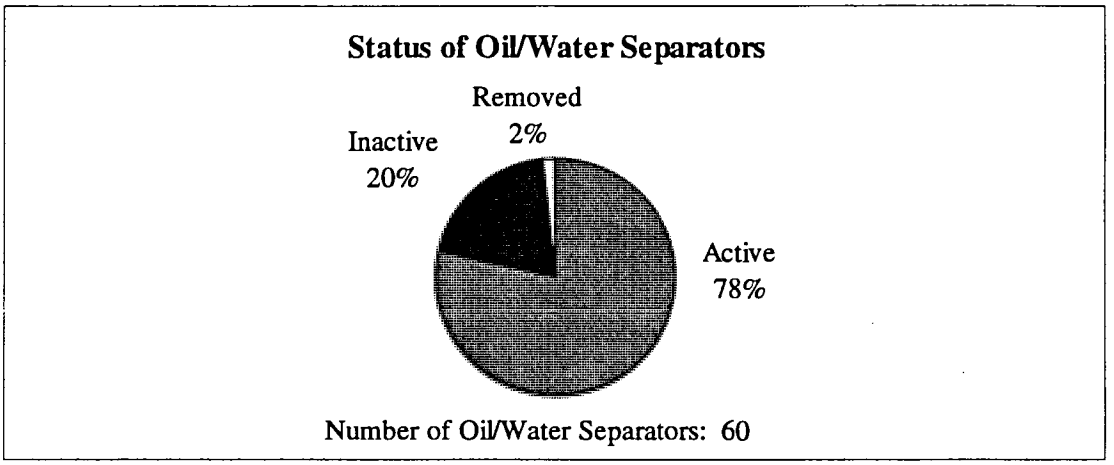
Discharges to the sanitary sewer at MCAS El Toro are regulated by the County Sanitation Districts of Orange County (the Districts). The Districts have issued Station Industrial Wastewater Discharge Permit No. 14-1-135, which specifies effluent limits, monitoring, and reporting requirements. The Station EO is responsible for monthly, quarterly, and

semiannual monitoring of wastewater effluent. The permit was renewed on 01 May 1995 and is effective through 30 April 1997.

3.2.9 Oil/Water Separators

OWSs are used at various locations at MCAS El Toro for wastewater pretreatment and fulfillment of storm-water discharge requirements. Sixty OWSs are currently located at the Station. This total includes 47 active, 12 inactive and 1 removed OWSs. Nineteen of the OWSs have USTs associated with them. A comprehensive list of the OWSs is provided in Table 3-14 (Oil/Water Separator Inventory). Exhibit 3-7 illustrates the status of OWSs.

Exhibit 3-7



Source: Table 3-14

OWSs are managed by the MCAS El Toro EO and are maintained by the Station Installations Department. Information on OWSs was obtained from the Station UST Inventory Database and an OWS survey that was conducted in 1993 (Law/Crandall 1993). This data was supplemented with information obtained from the RFA performed at the Station and interviews with Station personnel.

Most of the OWSs are underground units; however, five OWSs have been constructed above ground. Four of these are located at Agua Chinon Wash and Bee Canyon Wash, and the fifth one is located at Building 658.

Under federal regulations, treatment units that are part of wastewater systems regulated under the NPDES program or which discharge to a publicly owned treatment works are exempt from hazardous-waste-permitting regulations. All OWSs at the Station are exempt from federal hazardous-waste-permitting regulations because the OWSs are used for treatment of wastewater discharge.

Under state regulations, treatment units with specified hazardous waste streams are subject to Permit by Rule (PBR) regulations under the CCR Title 22, Division 4.5. These regulations require facilities having treatment units defined under PBR regulations to

notify the DTSC. Additional requirements include contingency and closure plans, and certification that releases have not occurred. PBR regulations have been amended under Assembly Bill 1772 to create a multiple-tiered permitting program. Under the tiered system, some treatment units (e.g., OWSs) are conditionally exempt from PBR regulations. The revised PBR regulations became effective in January 1993; notifications to DTSC were due by 01 April 1993. Effective 29 March 1996 all OWS were permitted under conditionally exempt limited tier permitting.

The Station Installations Department has placed all active OWSs on a regular cleaning and maintenance cycle, which takes place every 15 days. Some of the repairs include cleaning and/or replacing butterfly control valves, replacing faulty pumps, and adjusting alarm systems.

Removal and closure requirements for OWSs are described in CCR Title 22. USTs associated with the OWSs have different closure requirements and must be closed under CCR Title 23.

3.2.10 Silver-Recovery Units

In addition to the treatment units (i.e., OWSs) discussed in Section 3.2.9, two silver-recovery units are operated at the Station. Silver-recovery units are located at the medical clinic (Building 439) and the Station photography laboratory (Building 443).

These treatment units are regulated in the same manner as OWSs under PBR regulations. On 17 April 1996, the units were permitted conditionally exempt small quantity treatment permits. When the silver-recovery units are removed, they must be closed under CCR Title 22.

In 1993, the Station photography laboratory was moved from Building 312 (located in the southwest portion of the Station) to Building 443 (the conditional exemption lists the photography laboratory in Building 312). Because silver-recovery units were formerly located in Building 312, the BCT will evaluate this location for possible releases. Both the current and former silver-recovery unit locations are shown in Figure 3-1.

3.2.11 Lead-Based Paint

Navy policy regarding LBP on nonresidential structures was established in a policy letter dated 26 March 1992. This letter outlines policies on the use and control of LBP during maintenance, repair, and construction of new and existing nonresidential structures and facilities. The Navy policy regarding nonresidential structures states that for painted surfaces of all facilities constructed, repaired, and/or maintained prior to 1980, it should be assumed they contain lead.

According to Station building records, a total of 450 nonresidential buildings currently located on-Station was constructed prior to 1980. Navy guidance states that these structures should be assumed to contain LBP.

DoD policy regarding LBP for residential structures was addressed in a policy letter dated 02 November 1994. This policy states that LBP will be managed in a manner protective of human health and the environment, and must comply with all applicable federal, state,

and local laws and regulations. Transfer of federal property for residential use will be conducted in accordance with the Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X of Public Law 102-550). Under this provision, the following actions must be taken prior to the transfer of property.

- Housing constructed after 1960 and before 1978 must be inspected for LBP and LBP hazards. Results of the inspection must be provided to the prospective transferee of the property. These results must identify the presence of LBP and LBP hazards on a surface-by-surface basis. Abatement of the LBP or LBP hazard is not required. However, the prospective transferee must be provided a lead-hazard information pamphlet, and the contract for sale or lease must include a lead-warning statement.
- Housing constructed before 1960 must be inspected for LBP and LBP hazards. Results of the inspection must be provided to the prospective transferee of the property. These results must identify the presence of LBP and LBP hazards on a surface-by-surface basis. Abatement of all LBP or LBP hazard is required. A description of the abatement activities must be provided to the prospective transferee. Also, the prospective transferee must be provided a lead-hazard information pamphlet, and the contract for sale or lease must include a lead-warning statement.

The above requirements do not apply in the following cases:

- the building is scheduled for demolition by the transferee and the transfer document prohibits occupation of the building prior to the demolition;
- the building is scheduled for nonresidential use; or
- the building is scheduled for residential use and the transferee conducts renovation activities consistent with regulatory requirements for the abatement of LBP hazards.

According to the Station P-164 Building Database, there are a total of 2,511 residential structures (including 387 detached housing facilities). These MCAS El Toro facilities are located at both MCAS El Toro and MCAS Tustin.

The Navy PWC, San Diego, completed a survey of MCAS El Toro and MCAS Tustin family housing and related facilities for LBP in 1995. As part of this survey, family housing units were tested in accordance with the applicable standards and NAVFACENGCOM guidance. A total of five housing areas at MCAS El Toro was surveyed for LBP:

- Moffett Meadows/Saddleback Terrace Community (17 units located at MCAS El Toro);
- Namar Housing Community (216 units located at MCAS El Toro);
- San Joaquin Housing Community (300 units located at MCAS El Toro);

- Wherry Housing Community (553 units located at MCAS El Toro); and
- Saddleback Terrace/Vista Terrace Housing Communities (100 units located at MCAS El Toro).

Results indicated that LBP was detected at high levels (Hazard Risk Assessment levels are identified as high, medium, and low) in three of the housing communities: Moffett Meadows/Saddleback Terrace Community (built in 1964), Wherry Housing Community (built in 1954), and Saddleback Terrace/Vista Terrace Housing Communities (built in 1947) (DON 1995a–e). Lead levels in all soil and dust sample results were either not detected or were below threshold limits.

Moffett Meadows/Saddleback Terrace Community will not require abatement since it was built after 1960. However, the prospective transferee must be provided all results of the LBP inspection. These results must identify the presence of LBP or LBP hazard on a surface-by-surface basis. Abatement of LBP is currently ongoing and is scheduled for completion in 1997 for all units of the Wherry Housing Community. The two measures being used are replacement and encapsulation. Depending on the reuse scenario, Saddleback Terrace/Vista Terrace Housing Community may also require abatement to eliminate LBP hazards in accordance with standards established by appropriate federal agencies. The following abatement terms must be met:

- the removal of LBP and lead-contaminated dust, the replacement of lead-painted surfaces or fixtures, and the removal or covering of lead-contaminated soil; and
- all preparation cleanup, disposal, and postabatement clearance testing activities associated with such measures.

Abatement measures currently being considered include:

- replacement,
- encapsulation,
- paint removal on-site, and
- paint removal off-site.

3.2.12 Air

The Station currently operates under a single RECLAIM permit. The permit was initially issued to the Station by the South Coast Air Quality Management District (SCAQMD) in July 1994 and was last renewed on 01 October 1996. The RECLAIM permit outlines all recording, monitoring, and reporting requirements for the Station. Under the RECLAIM permit, the Station is required to submit an annual air-emissions report to the SCAQMD.

Currently, there are 193 pieces of equipment at MCAS El Toro that are addressed under the RECLAIM permit. An additional 27 permit applications have been submitted and are awaiting approval and incorporation into the RECLAIM facility permit. Many other

emissions sources at the Station are exempt from testing under SCAQMD Rule 219 due to their small size.

The SCAQMD is also currently revising its 20-year Air Quality Management Plan (AQMP). The goal of the AQMP is to reduce the total air emissions in California to bring the state into compliance with the U.S. EPA air quality standards. An investigation has been conducted by the Station to assess the impact potential of the AQMP to the Station. It was recommended in the 1991 Master Plan that the AQMP should continue to be monitored by the Station.

In addition to the air permits discussed above, the Station aircraft fire-fighting training exercises are also overseen by the SCAQMD. The Station has two concrete-lined burn pits located adjacent to IRP Site 16. The locations of these burn pits are shown in Figure 3-1. Both pits were constructed in 1988, but only one is being used. The western burn pit was only used once. It was retired because the concrete deteriorated during the initial burn event; however, no significant cracks are evident in the floor of the pit.

Only JP-5 is burned in the eastern pit. Burns typically last 3 to 10 minutes and are conducted approximately four to six times per month. According to MCAS El Toro Crash Crew Department staff, Station policy is to notify the SCAQMD of all planned burns.

Assembly Bill (AB) 531 was passed by the California Assembly and signed into law on 12 October 1995. Briefly, it states that tactical military equipment will be exempt from local district permitting requirements. Instead, the state will establish a statewide registration program by 01 January 1997. Furthermore, any registered portable internal combustion engines, including any turbine engines, used by the DoD or the National Guard exclusively for military tactical support or other federal emergency purposes, will not be subjected to any statewide or district emission control or emission limit. Since the interim guidance for the period 12 October 1995 through 31 December 1996 complies with local district regulations, no changes will be made to this BCP. Future revisions of this document will reflect changes that may result from the enactment of AB 531.

3.3 STATUS OF NATURAL AND CULTURAL RESOURCES

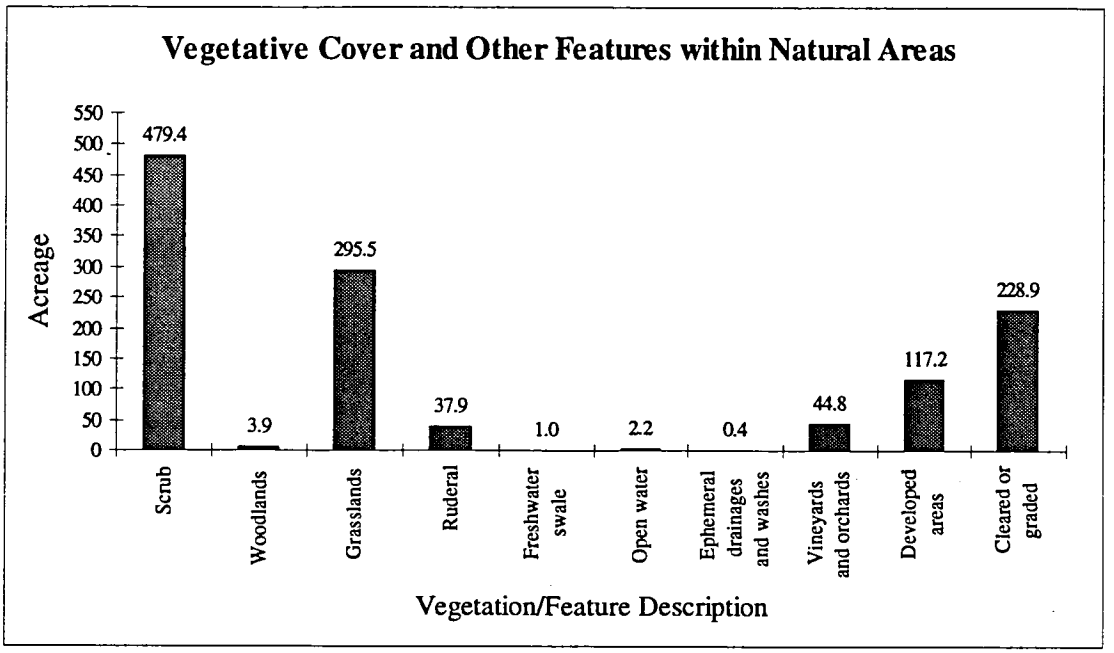
The following sections discuss the status of identification of natural and cultural resources at MCAS El Toro. These sections address threatened and endangered species, wetlands, surface waters, floodplains, archaeological resources, historic structures, and paleontological resources.

3.3.1 Ecological Resources

Approximately 75 percent of the native habitats of MCAS El Toro have been cleared for agriculture, housing, and Station operations. Native vegetation and animal species are primarily condensed in an approximately 1,200-acre area located in the northeast portion of the Station. Much of this natural area is undeveloped, although the EOD range, ordnance storage areas, pistol range, Fuel Farm 555, communications station, archery range, and firebreaks are within this area. Undisturbed areas within this natural area are generally covered with native vegetation, including coastal sage scrub, riparian scrub, and

grassland communities. The extent of vegetation in this area is shown in Figure 3-3a (Vegetation Communities in Natural Area). A summary of the types of vegetative cover and other features within the natural area is provided in Table 3-15 (Vegetative Cover and Other Features Within Natural Area). Exhibit 3-8 illustrates the extent of vegetative cover and other features within natural areas.

Exhibit 3-8



Source: Table 3-15

Military training operations that occur within this natural area include unit conditioning marches, land navigation courses, and combat vehicle training. It is also used by residents of Station housing (located on the northern site of the natural area) for jogging, hiking, and biking (D&M 1994).

The natural habitat located in this portion of the Station is inhabited by many wildlife species. The area is heavily used by numerous wintering avian species, including neotropical birds and birds of prey. In addition to bird species, reptiles and mammals are also present in the natural area, as well as a smaller number of amphibian species (D&M 1994).

Based on recent field surveys by U.S. Fish and Wildlife Service (USFWS) in 1993 and a study by Dames and Moore (D&M), various sensitive species are known to occur at MCAS El Toro. These sensitive species include 1 amphibian, 3 reptilian, 12 avian, and 4 mammalian species that are known to occur at MCAS El Toro. Of these, only one species, the California gnatcatcher, is listed as threatened under the Federal Endangered Species Act, and none are listed under the California Endangered Species Act. Information on the presence of sensitive species was acquired through literature searches, including the California Natural Diversity Database Rarefind Reports, the Orange County

database, and contacts with the USFWS and California Department of Fish and Game (D&M 1994). The sensitive species present at the Station are listed in Table 3-16 (Special-Status Wildlife Species at MCAS El Toro).

3.3.2 Wetlands and Waters

Based on a review of National Wetland Inventory maps and field surveys (D&M 1996), two seasonal ponds and one spring are evident at MCAS El Toro. The locations of these features are shown in Figure 3-3b (Wetlands and Water in Natural Areas).

One area, the stock pond, is artificial but functions as a wetland. A 0.67-acre area of the pond qualifies as a jurisdictional wetland. The second area is a dense stand of mulefat scrub in a topographic depression that covers 0.24 acres, and is also considered a jurisdictional wetland (D&M 1996). A third area, a natural spring area located adjacent to the Magazine Road Landfill site, has recently been added to the wetland inventory. The size varies from based on groundwater seepage during wet to dry seasons with an average of 0.6 acres.

The D&M study identified two other features in the natural area that are considered "waters of the United States": Borrego Canyon Wash and Agua Chinon Wash. These features are shown in Figure 3-3b. Borrego Canyon Wash and its branches support some riparian vegetation. The average width of the ordinary high-water mark is up to 6 feet in most branches. These are identified as reaches A through D in Figure 3-3b. Agua Chinon Wash is located along the west side of the natural area and is a broad, shallow dry wash with mulefat scrub and a large stand of willows (D&M 1996).

3.3.3 Floodplains

MCAS El Toro is situated at the outlets of four large canyons that produce storm flows during periods of heavy rainfall. Storm runoff from these canyons is channeled into Marshburn Channel, Bee Canyon Wash, Agua Chinon Wash, and Borrego Canyon Wash. The drainage channels flow southwesterly and are tributaries of San Diego Creek located southwest of the Station. Existing storm-drain facilities on-Station consist of ditches and subsurface pipes that direct local runoff to the drainage channels (MCAS El Toro 1991).

The MCAS El Toro Master Plan indicates that much of the Station lies within the 100-year floodplain due to existing agricultural drains that cannot carry the urbanized 100-year flood. The predicted 100-year floodplain resulting from off-Station runoff covers nearly 40 percent of the Station. The area encompassed by the predicted 100-year flood is shown in Figure 3-3c (Natural and Cultural Resources Features). The Master Plan indicates that the potential flooding problems at the Station would be alleviated by the year 2001 from the phased implementation of the Orange County Flood Control District, San Diego Creek Flood Control Master Plan.

3.3.4 Archaeological Resources

In 1987, the U.S. Army Corps of Engineers (COE) conducted an Archaeological Resources Assessment to identify possible archaeological sites at MCAS El Toro (COE 1987). The area surveyed was confined to the approximate 900-acre area of undisturbed

native soils located in the northeast portion of the Station. Ten minor archaeological sites and eight isolated artifactual findings contained wholly or partially within the Station boundaries were identified.

A 1996 study (KEA 1996) covered approximately 1,100 acres in, around, and to the south of the natural area. Eight of the ten locations identified in the 1987 report were visited, and one additional location was identified on the central part of the Station near Building 772 and the golf course. Two sites from the 1987 study could not be located. All eleven archaeological site locations are shown in Figure 3-3c. The recent study recommended that no further action be taken at the eight sites that could be located in the natural area because this area will be maintained as a wildlife preserve after the Station closes. The remaining site near the golf course was recommended for further evaluation of its archeological significance.

An archaeological survey has not been performed for the remainder of MCAS El Toro.

3.3.5 Historic Structures

MCAS El Toro was established during World War (WW) II and no structures earlier than this period are present at the Station. A survey of WW II-age buildings at the Station was performed by the COE as part of a nationwide effort funded by DoD and approved by the Council on Historic Preservation. The survey reported that the majority of the remaining WW II buildings at the Station have been greatly modified and are located in highly altered settings. The only building identified as possibly being eligible for listing on the National Historic Register was the Station theater (Building 271).

A 1996 study (JPR 1996) concluded that there is no evidence that a historic district of WW II-era buildings exists; that none of the post-WW II buildings is significant in the context of Cold War military developments; and that the possibility exists that four large, unmodified buildings from WW II (Buildings 271, 295, 296, and 297) could be significant individually, and should be further evaluated for potential National Register eligibility. The locations of these four buildings are shown in Figure 3-3c. Further, the report presents a proposal to accomplish inventory and evaluation efforts for Station buildings.

3.3.6 Paleontological Resources

A paleontological resources survey has not been performed at the Station. The area surrounding MCAS El Toro is known for its rich paleontological resources. Due to the impacts of construction on the main portion of the Station, it is unlikely that any valuable paleontological resources still remain in this area. Therefore, a conservation plan would not be required for this developed portion of the Station. Because the natural area (approximately 1,200 acres) is in a relatively undisturbed state, any significant construction related to reuse will be addressed in the disposal/reuse EIS (Wilson, pers. com. 1994, 1995).

3.4 ENVIRONMENTAL CONDITION OF PROPERTY

Determining the ECP at MCAS El Toro involves categorizing the various LOCs identified at the Station into one of the seven DoD ECP categories identified in the BCP guidebook. LOCs are defined as locations or areas of environmental concern such as IRP sites, USTs, ASTs, OWSs, less-than-90-day accumulation areas, PCB transformer locations, RFA SWMUs/AOCs, buildings with ACM, and miscellaneous areas such as areas of potential environmental concern identified in aerial photographs and personnel interviews. These items are discussed and tabulated in Sections 3.1 (Environmental Program Status) and 3.2 (Compliance Program Status).

The BCP Guidebook (August 1996 Addendum) defines the seven area types as follows:

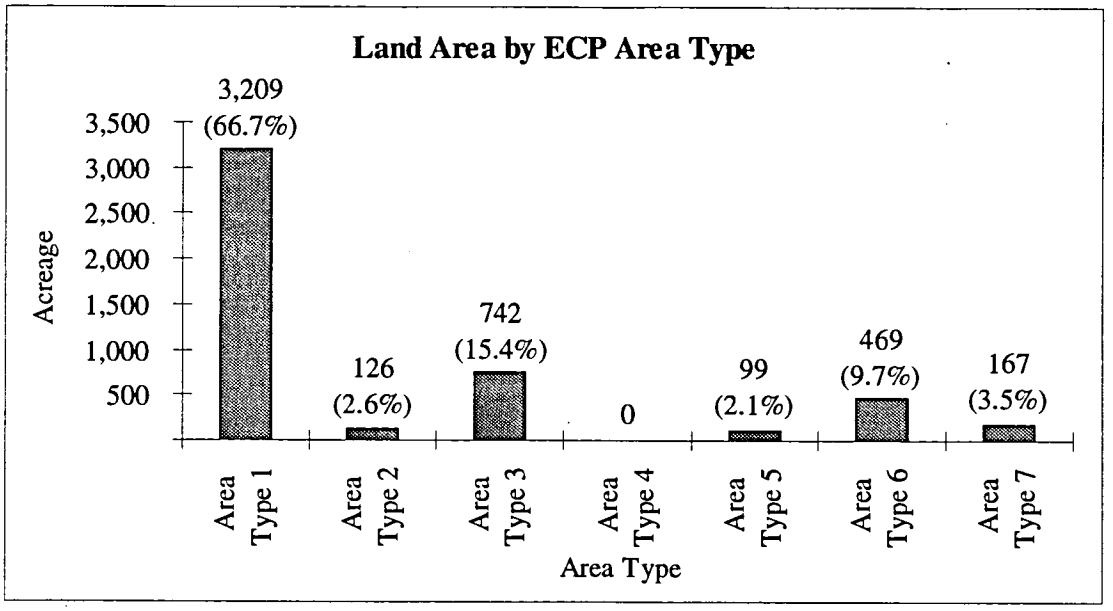
1. areas where no release or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas);
2. areas where release or disposal of only petroleum products has occurred;
3. areas where release of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action;
4. areas where release of hazardous substances has occurred, and all remedial actions necessary to protect human health and the environment have been taken;
5. areas where release of hazardous substances has occurred, and removal or remedial actions are underway, but not all required remedial actions have yet been taken;
6. areas where release of hazardous substances has occurred, but required actions have not yet been implemented; and
7. areas that are not evaluated or require additional evaluation.

The terms "contaminant" and "hazardous substance" used in these definitions and in the guidance refer to all CERCLA hazardous substances [42 *United States Code* 9601(14)]. Furthermore, area type 1, as defined by Section 120(h)(4) of CERCLA, specifically includes petroleum, petroleum products, oil, and lubricants.

Regulatory agencies, U.S. EPA, Cal-EPA, and the USMC have concurred that area type 1 parcels, which currently encompass approximately 3,209 acres, will be identified as CERFA uncontaminated and, therefore, will be suitable for transfer by deed. Area types 2 through 4 may also be suitable for transfer by deed; however, they will not be recognized as CERFA uncontaminated parcels. The total land area available for transfer by deed (e.g. area types 1 through 4) equals 4,077 acres. Area types 5 through 7 are considered to be unsuitable for transfer by deed and will require additional investigation and/or remediation prior to transfer. Figure 3-5 (Suitability of Property for Transfer) shows the property that is suitable for transfer.

The current status of the ECP at MCAS El Toro has been evaluated for the BCP. Based on this evaluation, each LOC identified at the Station (Table 3-1a) has been assigned an area type. The area type boundaries are delineated in Figure 3-4 (Environmental Condition of Property). In this figure, each LOC is displayed with the buffer zone that was used in the final EBS. Each area type is assigned a unique color; a more limiting area type overwrites a less limiting area type when overlap of LOCs occurs. For example, area type 6 LOCs overwrite area type 3 LOCs. Exhibit 3-9 shows the breakdown of Station land by area type. This information is taken from the final EBS and current information and is summarized in Table 3-17 (Summary of Land Area by ECP Area Type). The following sections summarize the types of LOCs in each of the seven area types.

Exhibit 3-9



Source: Table 3-17

3.4.1 Area Type 1 (Areas Where No Release or Disposal of Hazardous Substances or Petroleum Products [including migration] Has Occurred)

LOCs at the Station qualifying as area type 1 include the following:

- SWMUs/AOCs that were evaluated in the preliminary review and visual site inspection portions of the RFA, and were found to be areas where no release, or disposal of hazardous materials occurred;
- UST locations where no releases have occurred, based on sampling results;
- PCB transformer locations where transformers are or were formerly operated, and no release is known to have occurred;

- accumulation areas and RFA SWMUs/AOCs that have shown no evidence of release as determined by visual inspections and/or soil sampling results; and
- Station buildings, including housing at MCAS Tustin. The presence of building materials such as ACMs, LBP, and/or PCBs (in light ballasts) will not affect the ability to transfer the building "as is." However, the DON will need to disclose the known presence of these materials in buildings to any potential purchaser of the property.

3.4.2 Area Type 2 (Areas Where Only Release or Disposal of Petroleum Products Has Occurred)

LOCs identified at the Station as area type 2 include the following:

- petroleum UST sites where soil sample analytical results are available and indicate a release;
- petroleum hydrocarbon plumes;
- OWS sites where soil sample analytical results are available; and
- the fuel supply lines which have contained only petroleum products (since any related releases would consist of only petroleum products).

3.4.3 Area Type 3 (Areas of Contamination Below Action Levels)

Area type 3 includes those LOCs where available information indicates that a release has occurred, but sampling results indicate that no remedial action is required. Area type 3 LOCs identified at the Station include:

- RFA SWMUs/AOCs that were included in the site visit and, based on the soil sample results, were recommended for no further action;
- portions of nonpetroleum contaminant plumes that have reported contaminant concentrations between nondetects and applicable standards; and
- land between and under runways addressed in the polynuclear aromatic hydrocarbon (PAH) reference study (BNI 1996g). This land may have been contaminated through the use of herbicides and the spraying of oil (for dust control), but sampling results indicate no evidence of residual contamination.

3.4.4 Area Type 4 (Areas Where All Remedial Action Has Been Taken)

Currently, no area type 4 LOCs are known to exist on-Station.

3.4.5 Area Type 5 (Areas of Known Contamination With Removal and/or Remedial Action Underway)

Area type 5 sites include those sites that have removal actions planned or response actions are being taken. LOCs identified on-Station as area type 5 include:

- IRP sites that have removal actions planned (Sites 2, 17, and 19); and
- IRP sites or where other response actions are being taken (Site 24).

3.4.6 Area Type 6 (Areas of Known Contamination Where Required Response Actions Have Not Been Implemented)

Area type 6 sites are those areas where response actions have been identified but have not been implemented. LOCs identified on-Station as area type 6 include:

- IRP sites being evaluated in the ongoing RI/FS phase of the program;
- UST removal sites with known soil contamination that have not yet been remediated;
- RFA SWMUs/AOCs recommended for response actions in the RFA (e.g., repair of cracks in pavement, excavation of shallow stained soil);
- OWSs with RFA sampling results that indicate releases have likely occurred and will possibly require remediation (SWMUs/AOCs 173 and 175); and
- portions of nonpetroleum contaminant plumes that have reported contaminant concentrations above applicable standards and required response actions have not been taken.

3.4.7 Area Type 7 (Areas That are Unevaluated or That Require Further Evaluation)

This category encompasses areas at the Station that, based on available information, are unevaluated or require additional evaluations. LOCs where data gaps exist are included in this category. Area type 7 LOCs include the following:

- USTs and ASTs that do not contain petroleum products, (these LOCs will require some further investigation to determine whether a release has occurred);
- USTs or ASTs that have not been evaluated;
- miscellaneous LOCs, including the following:
  - fuel supply pipelines,
  - silver-recovery unit locations,
  - former Desert Storm waste storage area near DRMO Storage Yard No. 3,
  - former water-tower locations (possible mercury releases),
  - active and inactive lined burn pits,
  - current and former pesticide storage areas,
  - PCB-transformer-storage areas,
  - PCB-equipment-storage area, and
  - inactive former RCRA-permitted facility (Building 673-T3).
- accumulation areas that were constructed after completion of the RFA and have not been visually inspected or sampled;

- aerial photograph features/anomalies recommended for further evaluation; and
- locations of potential environmental concern identified in interviews with current and former Station personnel.

3.4.8 Suitability of Installation Property for Transfer by Deed

Final determinations on the suitability of Station property for transfer have not yet been made. Identification of uncontaminated parcels under CERFA was made after preparation of CERFA and EBS documents. The USMC nominated area type 1 parcels as CERFA eligible. The U.S. EPA reviewed the final CERFA and EBS reports, dated April 1995, and concurred that 2,982 acres of MCAS El Toro is CERFA uncontaminated. Cal-EPA agreed with the U.S. EPA decision. Based on information compiled for the preparation of this BCP, area type 1 land currently totals 3,209 acres.

Based on the information presented in Section 3.4.7, none of the reuse parcels identified at MCAS El Toro appear to be currently suitable for transfer as a whole. Creation of subdivisions of parcels may be considered to expedite property transfer. Subdivisions may be based on CERFA parcels identified at the Station.

3.5 STATUS OF COMMUNITY INVOLVEMENT

Key components of the DON community relations activities associated with IRP and RCRA activities include RAB meetings, fact sheets, site tours, workshops, and press releases as required by regulations and as needed by the impacted community. The community relations program is designed to be flexible, and to address changing site conditions and community concerns. The DON has taken a proactive approach to community relations activities and intends to be open and responsive to the community during the IRP.

3.5.1 Community Relations Plan

As part of the IRP, a final updated Community Relations Plan was prepared and issued for MCAS El Toro in March 1996. The Community Relations Plan describes the approach USMC will use to address community concerns and issues. It also details outreach and participation activities designed to address community concerns and assure adequate and timely public participation in IRP activities. MCAS El Toro will modify its Community Relations Plan by the third quarter, 1997, to address changes in cleanup activities and community concerns, and to remain consistent with regulatory guidelines.

3.5.2 Designated Contacts

The designated MCAS El Toro contacts are:

Joseph Joyce
BRAC Environmental Coordinator
MCAS El Toro
P.O. Box 95001
Santa Ana, CA 92709-5001
(714) 726-3470

Fraser Felter
Community Relations Coordinator
U.S. Environmental Protection Agency
75 Hawthorne Street (H-1-1)
San Francisco, CA 94105
(800) 231-3075

Marsha Mingay
Public Participation Specialist
California Environmental Protection Agency
245 West Broadway, Suite 350
Long Beach, CA 90802-4444
(310) 590-4881

3.5.3 Information Repositories

An information repository has been established at the Heritage Park Regional Library in Irvine. This location contains documents related to the IRP process, including work plans, technical reports, and community relations materials (the Community Relations Plan, fact sheets, news releases, and RAB meeting minutes). After the Station is closed, the information repository will continue to house the IRP materials.

3.5.4 Administrative Record

The Administrative Record (AR) file has been maintained at SWDIV in San Diego along with a duplicate AR file at the MCAS El Toro EO. Both are updated quarterly in accordance with CERCLA. The AR file includes all records of public involvement and all information on which the decisions for IRP remedial actions are based. A complete listing of the AR file is available at the MCAS El Toro information repository at the Heritage Park Regional Library.

3.5.5 Restoration Advisory Board

A Technical Review Committee (TRC) was formed in 1991 to provide a forum for public communications on proposed environmental issues. The TRC included representatives from MCAS El Toro, DON, RWQCB Santa Ana Region, DTSC, and the local community. In September 1993, DoD issued guidance to implement President Clinton's Five-Point Plan for economic recovery, which resulted in conversion of MCAS El Toro TRC to a RAB.

The RAB, which uses the TRC membership as a nucleus, has been formed to provide input into the cleanup program at MCAS El Toro and the transfer of property to the local community for reuse. Membership to the RAB was sought through public notification in the *Orange County Register* and the Orange County edition of the *Los Angeles Times*. An introductory formation meeting was held on 13 January 1994. RAB members were initially selected from the responses to the notification and membership applications received. Final selection of RAB members was completed in April 1994. Ms. Marcia Rudolf, a community representative, is a cochair for the RAB, along with the MCAS

El Toro BEC. A mission statement and operating procedures document have been developed to provide a framework for the functions and administration of the RAB. The mission statement and operating procedures were updated by RAB members in July 1996.

The RAB holds organizational, informational, and formal meetings. Subcommittees have been formed to review documents associated with categories of major environmental activities occurring at the Station. The subcommittees will provide comments on the documents associated with these activities as they become available for review. Subcommittees have a standard 30-day review period in which to provide recommendations and comments to the BCT. The RAB and its subcommittees do not, however, serve as formal advisory bodies.

In 1996, the RAB and its subcommittees reviewed a number of RI/FS reports for MCAS El Toro [comment due dates are noted in brackets]:

- OU-1 (Site 18)
  - Draft Interim RI/FS Report and Addendum [08 October 1996]
- OU-2A (Site 24)
  - Draft RI Report [22 April 1996]
  - Draft FS Report [08 October 1996]
- OU-2B (Sites 2 and 17)
  - Draft RI Report [20 May 1996]
  - Draft FS Report [05 November 1996]
- OU-2C (Sites 3 and 5)
  - Draft RI Report [19 June 1996]
  - Draft FS Report [08 October 1996]
- OU-3A (all or portions of 14 IRP sites)
  - Draft RI Report [20 January 1997]

A subcommittee has been formed to review and provide comments on this revised BCP, as well.

All RAB meetings are open to the public and are announced in the *Orange County Register, Los Angeles Times,* and *Irvine World News* 1 week in advance. Technical presentations to assist RAB members in understanding complex environmental issues have been provided on an ongoing basis.

3.5.6 Mailing List

A mailing list of all interested parties in the community is maintained by the CLEAN II contractor. This list is updated on an ongoing basis. It contains all RAB members,

Station housing residents, regulatory agencies, and interested members of the general public.

3.5.7 Fact Sheets

Fact sheets are used to inform the public of the status of the IRP and of significant events associated with environmental cleanup at MCAS El Toro. These fact sheets are required by both state and federal regulations at key milestones of the cleanup process. Some of these milestones are listed below:

- establishment of the RAB,
- commencement of the RI/FS,
- announcement of a proposed plan,
- completion of a final remedial design, and
- prior to the start of a planned removal action.

Fact sheets issued to date are as follows:

- November 1991, Information Update/IRP Process;
- December 1992, Information Update;
- December 1993, Phase I RI Results;
- December 1993, RAB Formation;
- July 1995, Information Update/Tank 398;
- October 1995, Information Update/Engineering Evaluation/Cost Analysis (EE/CA) Process;
- November 1995, MCAS El Toro Building 673-T3 Certification for Closure; and
- April 1996, Looking Back - Moving Forward/Update on IRP Progress.

These fact sheets are available at the information repositories.

3.5.8 Technical Assistance Grants

A Technical Assistance Grant program has been established by U.S. EPA to assist citizens' groups in understanding technical information that assesses potential hazards and the selection and design of appropriate response actions at Superfund sites. To date, no local community or environmental group in the MCAS El Toro area has requested or received such a grant.

3.5.9 Public Meetings

To date, the following public meetings on the environmental programs at MCAS El Toro have been held:

- 18 November 1991, Public Meeting;
- 19 and 20 June 1992, Open House;
- 13 January 1994, RAB Formation Meeting;

- 28 April 1994, First RAB Meeting;
- 02 June 1994, RAB Meeting;
- 25 August 1994, RAB Meeting;
- 12 October 1994, RAB Meeting;
- 13 December 1994, RAB Meeting;
- 31 January 1995, RAB Meeting;
- 28 February 1995, RAB Meeting;
- 30 March 1995, RAB Meeting;
- 21 and 22 April 1995, Site Tours;
- 27 April 1995, RAB Meeting;
- 25 May 1995, RAB Meeting;
- 27 July 1995, RAB Meeting;
- 31 August 1995, RAB Meeting;
- 28 September 1995, RAB Meeting;
- 26 October 1995, RAB Meeting;
- 30 November 1995, RAB Meeting;
- 31 January 1996, RAB Meeting;
- 23 and 24 February 1996, Site Tours;
- 28 February 1996, RAB Meeting;
- 24 April 1996, RAB Meeting;
- 29 May 1996, RAB Meeting;
- 31 July 1996, RAB Meeting;
- 25 September 1996, RAB Meeting; and
- 04 December 1996, RAB Meeting.

3.5.10 Federal Facility Agreement Process

In October 1990, the Navy, U.S. EPA, and Cal-EPA (DTSC and RWQCB Santa Ana Region) signed an FFA. This agreement established a schedule for each environmental study and defined the responsibilities of each party. This cooperative agreement is intended to help accelerate and streamline the IRP at MCAS El Toro. Based on preliminary agreements with U.S. EPA, DTSC, MCAS El Toro, and SWDIV, the FFA schedule will be updated using the BCP. (The IRP is the Navy equivalent to the U.S. EPA CERCLA process.)

3.5.11 Environmental Impact Statement Process

At this time, no EIS for base closure has been prepared for MCAS El Toro. An EIS will be developed as a component of property disposal and reuse. During development of an EIS, several public scoping meetings will be held. Public comments on the draft EIS document will be considered and addressed in the final versions of the EIS.

Table 3-1a
Site Summary
(Sheet 1 of 28)

Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
1	IRP 1	2F	Explosive Ordnance Disposal Range (OU-3B)	Excess ordnance including sulfur trioxide chlorosulfonic acid.	1952 to 1982	RI to begin in 1997.		FFA			6
2	IRP 2	5C	Magazine Road Landfill (OU-2B)	Inert and municipal solid waste, unspecified industrial wastes, lead batteries, transformers, household refuse, hydraulic fluid, unspecified waste fuels, crankcase oil, lead-based paint residue, and scrap metal.	1950 to 1980	RI and FS complete.	Scenario: Recreational Child Cancer Risk soil: 6.6×10^{-6} (9.0×10^{-6}) gw: 2.9×10^{-4} (5.7×10^{-4}) Noncancer Risk soil: 0.99; gw: 6.6	FFA			5*
3	IRP 3	2A	Original Landfill (OU-2C)	Municipal solid waste, scrap metal, incinerator ash, construction debris, paint residues, unspecified oily wastes, industrial solvents, hydraulic fluid, and engine coolants.	1943 to 1955	RI and FS complete.	Scenario: Industrial Worker Cancer Risk - entire site soil: 5.6×10^{-7} (5.6×10^{-7}) gw: 6.1×10^{-6} (2.0×10^{-4}) Noncancer Risk - entire site soil: 0.066; gw: 1.9	FFA		Includes SWMUs/AOCs 10, 194, & 300	6
4	IRP 4	2A	Ferrocene Spill Area (OU-3A)	Ferrocene spill material from engine test cell.	1983	Draft RI submitted in 1996.					6
5	IRP 5	3B	Perimeter Road Landfill (OU-2C)	Municipal solid waste, unspecified fuels, solvents and cleaning fluids, scrap metals, paint residues, and unspecified oily wastes.	1955 to late 1960s	RI and FS complete.	Scenario: Recreational Child Cancer Risk soil: 8.0×10^{-8} (8.0×10^{-8}) gw: 8.1×10^{-5} (1.3×10^{-3}) Noncancer Risk soil: 0.0049; gw: 5.8	FFA		Coincides with INT LF2, formerly identified in interviews.	6
6	IRP 6	5A	Drop Tank Drainage Area No. 1 (OU-3A)	Rinsed aircraft drop tanks. Wastes included JP-5 and lubrication oils.	1969 to 1983	Draft RI submitted in 1996.		FFA		Includes SWMU/AOC 236	6
7	IRP 7	5A	Drop Tank Drainage Area No. 2 (OU-3B)	JP-5 and lubrication oils in rinse water from aircraft drop tanks.	1969 to 1983	RI to begin in 1997.		FFA			6

Table 3-1a
Site Summary
(Sheet 2 of 28)

Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
8	IRP 8	4B	DRMO Storage Yard (OU--3A)	Release of PCB-containing transformer fluid.	Mid-1970s to present	Draft RI submitted in 1996.		FFA		Includes SWMUs/AOCs 71& 72	6
9	IRP 9	5A	Crash Crew Pit No. 1 (OU-3A)	Burned leaded AVGAS, JP-5, and crankcase oil in unlined pits for fire training.	1965 to 1971	Draft RI submitted in 1996.		FFA		Includes SWMUs/AOCs 104, 105, & 106	6
10	IRP 10	5A	Petroleum Disposal Area (OU-3A)	Crankcase oil, antifreeze, hydraulic and transmission fluids, motor fuel and solvent.	1952 to present	Draft RI submitted in 1996.		FFA			6
11	IRP 11	4A	Transformer Storage Area (OU-3A)	Stored PCB-containing transformers.	1968 to 1983	Draft RI submitted in 1996.		FFA			6
12	IRP 12	4B	Sludge Drying Beds (OU-3A)	Wastewater sludges applied to land.	1943 to 1972	Draft RI submitted in 1996.		FFA		Includes SWMU/AOC 90	6
13	IRP 13	1A	Oil Change Area (OU-3A)	Releases of crankcase oil.	1977 to 1983	Draft RI submitted in 1996.		FFA			6
14	IRP 14	1A	Battery Acid Disposal Area (OU-3B)	Vehicle battery acid, lubrication oil, and paint residue.	1977 to 1983	RI to begin in 1997.		FFA			6
15	IRP 15	1D	Suspended Fuel Tanks (OU-3A)	Diesel fuel leaked onto soil.	1979 to 1984	Unit 2: Draft RI submitted in 1996. Unit 1: removed from IRP.		FFA			6
16	IRP 16	5A	Crash Crew Pit No. 2 (OU-3A)	Burned JP-5, AVGAS, hydraulic fluid, crankcase oil, white phosphorus, magnesium phosphate, and napalm in unlined pits for fire training.	1972 to 1985	Draft RI submitted in 1996.		FFA			6
17	IRP 17	5C	Communications Station Landfill (OU-2B)	Landfilled cooking grease, oils, fuels, and municipal debris.	1981 to 1983	Draft RI and FS complete.	Scenario: Recreational Child Cancer Risk soil: 7.9×10^{-6} (1.4×10^{-5}) gw: 3.0×10^{-4} (7.1×10^{-4}) Noncancer Risk soil: 0.14; gw: 6.9	FFA			5*
18	IRP 18	NA	VOC Contaminated Groundwater Emanating from Southwest Quadrant[2] (OU-1)	VOC contaminants in groundwater from source in southwest quadrant of Station.		RI/FS complete. PP in progress.		FFA			6

Table 3-1a
Site Summary
(Sheet 3 of 28)

Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
19	IRP 19	5A	Aircraft Expeditionary Refueling (ACER) Site (OU-3A)	Fuel storage area experienced minor fuel spills and leaks throughout operational history. A 15,000-gallon JP-5 spill occurred in 1986. Affected soil was excavated and replaced.	1964 to 1987	Units 2 & 3: Draft RI submitted in 1996. Units 1 & 4: removed from IRP.		FFA			5*
20	IRP 20	1B	Hobby Shop (OU-3A)	Kerosene formerly used to wash down pavement, collected in oil/water separators that discharged to nearby drainage ditches; stained soil from petroleum products.	1967 to present	Units 1 & 4: Draft RI submitted in 1996. Units 2 & 3: removed from IRP.		FFA			6
21	IRP 21	4B	Materials Management Group, Bldg. 320 (OU-3A)	Outdoor drum storage area for chemical storage, including temporary storage of chemicals with expired shelf lives.	1964 to 1986	Draft RI submitted in 1996.		FFA		Includes SWMU/AOC 94	6
22	IRP 22	5A	Tactical Air Fuel Dispensing System (TAFDS) (OU-3A)	Air fueling station with history of undocumented fuel spills and leaks; location of several fuel bladder revetments.	1980 to 1986	Draft RI submitted in 1996.		FFA			6
23	IRP 24	4A, 4B,5A	VOC Source Area[4] (OU-2A)	Various activities in this area, including former metal plating operations, may have contributed to the regional VOC groundwater contamination.		RI and FS complete.	Scenario: Resident Adult Cancer Slope Factors soil: 2.2×10^{-8} gw: 2.0×10^{-3} (downgradient) Scenario: Resident Child Cancer Slope Factors soil: 9.4×10^{-9} gw: 7.4×10^{-4} (downgradient)	FFA		Includes SWMU/AOC 265	5*
24	IRP 25	NA	Major Drainages (OU-2A)	Four drainage channels that flow through or adjacent to the Station and receive storm water discharges from the Station.		Draft RI submitted in 1997.		FFA		Includes SWMUs/AOCs 3, 4, 5, and 11	6
25	APHO 1	1A	Stain							See Table 3-1b	7
26	APHO 2	2A	Open storage, drum							See Table 3-1b	7
27	APHO 3	2A	Open storage, drum							See Table 3-1b	7
28	APHO 4	2A	Stain							See Table 3-1b	7
29	APHO 5	1D	Open storage							See Table 3-1b	7
30	APHO 6	4A	Impoundment							See Table 3-1b	7
31	APHO 7	4A	Wet soil, stain, open storage							See Table 3-1b	7
32	APHO 8	5A	Open storage, refuse, excavation, fill area							See Table 3-1b	7
33	APHO 9	5A	Liquid							See Table 3-1b	7
34	APHO 10	5A	Open storage							See Table 3-1b	7
35	APHO 11	4A	Trench, disturbed ground							See Table 3-1b	7

Table 3-1a
Site Summary
(Sheet 4 of 28)

Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[3]
36	APHO 12	3A	Wet soil							See Table 3-1b	7
37	APHO 13	2B	Drum							See Table 3-1b	7
38	APHO 14	2B	Stain, wet soil							See Table 3-1b	7
39	APHO 15	5A	Stain							See Table 3-1b	7
40	APHO 16	1A	Wet soil, liquid							See Table 3-1b	7
41	APHO 17	4A	Stain							See Table 3-1b	7
42	APHO 18	4A	Stain							See Table 3-1b	7
43	APHO 19	4A	Stain, liquid							See Table 3-1b	7
44	APHO 20	3B	Excavation, liquid							See Table 3-1b	7
45	APHO 21	3A	Open storage, drum							See Table 3-1b	7
46	APHO 22	1A	Stain, Drum							See Table 3-1b	7
47	APHO 23	5A	Fuel bladder revetment, stain							See Table 3-1b	7
48	APHO 24	5A	Extraction							See Table 3-1b	7
49	APHO 25	2A	Mounded material, refuse							See Table 3-1b	7
50	APHO 26	2A	Excavation, liquid							See Table 3-1b	7
51	APHO 27	1A	Stain, wet soil							See Table 3-1b	7
52	APHO 28	2A	Liquid							See Table 3-1b	7
53	APHO 29	1A	Wet soil, liquid							See Table 3-1b	7
54	APHO 30	5B	Unidentified object							See Table 3-1b	7
55	APHO 31	3B	Disturbed ground, mounded material dark-toned, unidentified object							See Table 3-1b	7
56	APHO 32	5A	Stain							See Table 3-1b	7
57	APHO 33	1D	Open storage							See Table 3-1b	7
58	APHO 34	1A	Stain, unidentified object, vertical tank							See Table 3-1b	7
59	APHO 35	2A	Open storage							See Table 3-1b	7
60	APHO 36	2A	Wet soil							See Table 3-1b	7
61	APHO 37	5A	Stain							See Table 3-1b	7
62	APHO 38	3A	Excavation							See Table 3-1b	7
63	APHO 39	5A	Wet soil, stain, horizontal tank							See Table 3-1b	7
64	APHO 40	1B	Drum							See Table 3-1b	7
65	APHO 41	1A	Stain, wet soil							See Table 3-1b	7
66	APHO 42	3A	Wet soil							See Table 3-1b	7
67	APHO 43	3B	Excavation							See Table 3-1b	7
68	APHO 44	5C	Disturbed ground, mounded material							See Table 3-1b	7
69	APHO 45	2B	Wet soil, stain, liquid, drum							See Table 3-1b	7
70	APHO 46	3B	Impoundment, fill area, excavation							See Table 3-1b	7
71	APHO 47	2B	Open storage, bldg., debris							See Table 3-1b	7
72	APHO 48	2B	Open storage, drum							See Table 3-1b	7
73	APHO 49	5A	Wet soil, liquid							See Table 3-1b	7
74	APHO 50	5A	Trench							See Table 3-1b	7
75	APHO 51	3B	Stain							See Table 3-1b	7
76	APHO 52	1A	Stain							See Table 3-1b	7
77	APHO 53	1A	Stain							See Table 3-1b	7
78	UST 1A	1C	500 gal.	Diesel (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
79	UST 1B	1C	500 gal.	Diesel (stored)	Inst. 1943	Removed		R/O		See Table 3-7	2*
80	UST 6A	5A	1000 gal.	Fuel oil (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	7
81	UST 6B	5A	500 gal.	Fuel oil (stored)	Inst. 1943	Removed		R/O		See Table 3-7	2*

Table 3-1a
Site Summary
(Sheet 5 of 28)

Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[3]
82	UST 11	1A	500 gal.	Diesel (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
83	UST 12	1A	500 gal.	Diesel (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
84	UST 13	1A	500 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
85	UST 14	1A	500 gal.	Diesel (stored)	Inst. 1943	Removed		R/O		See Table 3-7	2*
86	UST 24	1A	500 gal.	Diesel (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
87	UST 32	1D	500 gal.	Diesel (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
88	UST 33	1D	500 gal.	Diesel (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
89	UST 34	1D	500 gal.	Fuel oil (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
90	UST 35	1D	500 gal.	Fuel oil (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
91	UST 37	1D	500 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
92	UST 38	1D	1500 gal.	Fuel oil (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	7
93	UST 40	1D	500 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
94	UST 41	1D	500 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
95	UST 42	1D	500 gal.	Fuel oil (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2
96	UST 43	1D	500 gal.	Fuel oil (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
97	UST 44	1D	500 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
98	UST 45	1D	500 gal.	Fuel oil (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
99	UST 46	1D	500 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
100	UST 47A	1D	1500 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
101	UST 47B	1D	1500 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
102	UST 47C	1D	500 gal.	Fuel oil (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
103	UST 53	1D	500 gal.	Diesel (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
104	UST 54A	1C	500 gal.	Diesel (stored)	Inst. 1943	Removed		R/O		See Table 3-7	2*
105	UST 54B	1C	500 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
106	UST 54C	1C	1400 gal.	Diesel (stored)		Removed		R/O		See Table 3-7	7*
107	UST 55A	1C	5000 gal.	Unknown	Inst. 1943	Inactive		R/O		See Table 3-7	2*
108	UST 55B	1C	5000 gal.	Unknown	Inst. 1943	Inactive		R/O		See Table 3-7	2*
109	UST 56A	1C	550 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
110	UST 56B	1C	1400 gal.	Fuel oil (stored)	Inst. 1943	Removed		R/O		See Table 3-7	7
111	UST 56C	1C	500 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
112	UST 57	1C	15000 gal.	Fuel oil (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
113	UST 58	1C	5300 gal.	Diesel (stored)	Inst. 1943	Removed		R/O		See Table 3-7	2*
114	UST 59	1C	5300 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
115	UST 60	1C	2000 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
116	UST 62	1C	500 gal.	Fuel oil (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
117	UST 63A	1B	500 gal.	Diesel (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
118	UST 63B	1B	500 gal.	Diesel (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
119	UST 65A	1C	1400 gal.	Fuel oil (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
120	UST 65B	1C	2000 gal.	Fuel oil (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
121	UST 66A	1B	1100 gal.	Diesel (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
122	UST 66B	1B	1500 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
123	UST 67A	1B	1500 gal.	Fuel oil (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
124	UST 67B	1B	1500 gal.	Fuel oil (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
125	UST 68	1B	500 gal.	Diesel (stored)	Inst. 1943	Removed		R/O		See Table 3-7	2*
126	UST 69	1B	500 gal.	Fuel oil (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	1*
127	UST 70	1B	500 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	7
128	UST 71	1B	500 gal.	Fuel oil (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
129	UST 72	1B	500 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	7

Table 3-1a
Site Summary
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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
130	UST 73	1B	500 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
131	UST 74	1B	500 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	1*
132	UST 75A	1B	500 gal.	Diesel (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
133	UST 75B	1B	500 gal.	Diesel (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
134	UST 75C	1B	500 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	7
135	UST 77	1B	500 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	1*
136	UST 78	1B	500 gal.	Diesel (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
137	UST 79	1B	500 gal.	Fuel oil (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
138	UST 80	1B	500 gal.	Diesel (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
139	UST 81	1B	500 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	1*
140	UST 82	1B	500 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	1*
141	UST 83A	1B	1500 gal.	Fuel oil (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2
142	UST 83B	1B	1500 gal.	Fuel oil (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
143	UST 84A	1B	1500 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
144	UST 84B	1B	1500 gal.	Fuel oil (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
145	UST 94	1B	1500 gal.	Fuel oil (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
146	UST 98A	1B	1500 gal.	Fuel oil (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
147	UST 98B	1B	500 gal.	Fuel oil (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
148	UST 105A	2A	1000 gal.	Fuel oil (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
149	UST 105B	2A	500 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
150	UST 114A	5A	1500 gal.	Fuel oil (stored)	Inst. 1966	Removed		R/O		See Table 3-7	2*
151	UST 114B	5A	560 gal.	Diesel (stored)	Inst. 1966	Removed		R/O		See Table 3-7	2*
152	UST 115A	5A	650 gal.	Fuel oil (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
153	UST 115B	5A	560 gal.	Fuel oil (stored)	Inst. 1966	Inactive		R/O		See Table 3-7	7*
154	UST 116	5A	500 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
155	UST 117	5A	500 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
156	UST 126	2A	500 gal.	Diesel (stored)	Inst. 1943	Closed		RWQCB	X	See Table 3-7	2*
157	UST 130A	2A	1500 gal.	Diesel (stored)	unknown	Inactive		R/O		See Table 3-7	2*
158	UST 130B	2A	1500 gal.	Diesel (stored)	unknown	Inactive		R/O		See Table 3-7	2*
159	UST 133	2A	500 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	1*
160	UST 138	2A	1000 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
161	UST 146	1C	2600 gal.	Unknown	unknown	Closed		OCHCA	X	See Table 3-7	2*
162	UST 159	4B	200 gal.	Fuel oil (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
163	UST 175	1D	10000 gal.	Kerosene (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
164	UST 176	1A	25000 gal.	Av.Gas, wastewater (stored)	Inst. 1943	Removed		R/O		See Table 3-7	2*
165	UST 177	1A	50000 gal.	Av.Gas, wastewater, fuel oil (stored)	Inst. 1943	Removed		R/O		See Table 3-7	2*
166	UST 178	1A	50000 gal.	Av.Gas, wastewater, fuel oil (stored)	Inst. 1943	Removed		R/O		See Tables 3-7 and 3-13 SWMU/AOC 48	2*
167	UST 179	1A	25000 gal.	Av.Gas, wastewater, fuel oil (stored)	Inst. 1943	Removed		R/O		See Tables 3-7 and 3-13 SWMU/AOC 49	2*
168	UST 180	1A	25000 gal.	Av.Gas, wastewater (stored)	Inst. 1943	Removed		R/O		See Tables 3-7 and 3-13 SWMU/AOC 51	2*
169	UST 181	1A	50000 gal.	Av.Gas, wastewater, fuel oil (stored)	Inst. 1943	Removed		R/O		See Table 3-7	2*
170	UST 182	1A	50000 gal.	Av.Gas, wastewater, fuel oil (stored)	Inst. 1943	Removed		R/O		See Tables 3-7 and 3-13 SWMU/AOC 52	2*
171	UST 183	1A	25000 gal.	Av.Gas, wastewater, fuel oil (stored)	Inst. 1943	Removed		R/O		See Table 3-7	2*
172	UST 184	1D	25000 gal.	Unknown	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*

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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
173	UST 185	1D	50000 gal.	Unknown	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
174	UST 186	1D	25000 gal.	Unknown	Inst. 1943	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 275	2*
175	UST 187	1D	50000 gal.	Aviation Gas/JP-5 (stored)	Inst. 1943	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 276	2*
176	UST 188	1A	25000 gal.	Unknown	Inst. 1943	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 277	2*
177	UST 189	1A	50000 gal.	Waste Oil (stored)	Inst. 1943	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 57	2*
178	UST 190	1A	50000 gal.	Unknown	Inst. 1943	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 278	2*
179	UST 191	1A	25000 gal.	Waste Oil (stored)	Inst. 1943	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 59	2*
180	UST 192	1A	25000 gal.	Unknown	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
181	UST 193	1A	50000 gal.	Unknown	Inst. 1943	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 279	2*
182	UST 194	1A	50000 gal.	Unknown	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
183	UST 195	1A	25000 gal.	Waste Fuel (stored)	Inst. 1943	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 280	2*
184	UST 196	2A	25000 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
185	UST 197	2A	50000 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
186	UST 198	2A	50000 gal.	JP-5 (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
187	UST 199	2A	25000 gal.	JP-5 (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
188	UST 200	2A	25000 gal.	JP-5 (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
189	UST 201	2A	50000 gal.	JP-4 (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
190	UST 202	2A	50000 gal.	JP-4 (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
191	UST 203	2A	25000 gal.	JP-4 (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
192	UST 204	5A	50000 gal.	Diesel (stored)	Inst. 1943	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 60	2*
193	UST 205	5A	25000 gal.	R JP-5 (stored)	Inst. 1943	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 61	2*
194	UST 206	5A	50000 gal.	Unleaded (stored)	Inst. 1943	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 62	7
195	UST 207	5A	50000 gal.	Unleaded (stored)	Inst. 1943	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 63	7
196	UST 208	2A	50000 gal.	Aviation Gas (stored)	Inst. 1943	Removed		R/O		See Table 3-7	7
197	UST 209	2A	25000 gal.	Aviation Gas (stored)	Inst. 1943	Removed		R/O		See Table 3-7	7
198	UST 210	2A	25000 gal.	Aviation Gas, JP-5 (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
199	UST 211	2A	50000 gal.	Aviation Gas (stored)	Inst. 1943	Removed		R/O		See Table 3-7	7
200	UST 212	2A	50000 gal.	Aviation Gas, JP-5 (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
201	UST 213	2A	25000 gal.	Aviation Gas (stored)	Inst. 1943	Removed		R/O		See Table 3-7	7
202	UST 214	2A	25000 gal.	Aviation Gas, JP-5 (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
203	UST 215	2A	50000 gal.	Aviation Gas (stored)	Inst. 1943	Removed		R/O		See Table 3-7	7
204	UST 216	2A	50000 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
205	UST 217	2A	25000 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
206	UST 218	2A	25000 gal.	Diesel (stored)	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
207	UST 219	1B	50000 gal.	Unknown	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*

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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
208	UST 220	1B	25000 gal.	Unknown	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
209	UST 221	1B	25000 gal.	Unknown	Inst. 1943	Closed		OCHCA	X	See Table 3-7	2*
210	UST 224	1D	500 gal.	Fuel Oil (stored)	Inst. 1943	Removed		R/O		See Table 3-7	2*
211	UST 240A	1A	8000 gal.	Aviation Gas (stored)	Inst. 1944	Removed		R/O		See Table 3-7	2*
212	UST 240B	1A	185 gal.	Waste Oil (stored)	Inst. 1982	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 65	2*
213	UST 241	1A	850 gal.	Diesel (stored)	Inst. 1945	Closed		RWQCB	X	See Table 3-7	2*
214	UST 243	1A	1500 gal.	Fuel oil (stored)	Inst. 1944	Removed		R/O		See Table 3-7	2*
215	UST 247	1D	1400 gal.	Fuel oil (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
216	UST 248	1D	1500 gal.	Fuel oil (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2*
217	UST 249	1D	1500 gal.	Fuel oil (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
218	UST 250	1D	1500 gal.	Fuel oil (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2*
219	UST 251	1D	2000 gal.	Fuel oil (stored)	Inst. 1944	Removed		R/O		See Table 3-7	2*
220	UST 252	1D	1400 gal.	Diesel (stored)		Removed		R/O		See Tables 3-7 and 3-13 SWMU/AOC 281	2*
221	UST 253	1D	1400 gal.	Fuel oil (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
222	UST 254	1D	1400 gal.	Fuel oil (stored)	Inst. 1958	Inactive		R/O		See Table 3-7	2*
223	UST 255	1D	1400 gal.	Fuel oil (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
224	UST 256	1C	2000 gal.	Fuel oil (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
225	UST 257	1C	1400 gal.	Fuel oil (stored)	Inst. 1944	Inactive		R/O		See Table 3-7	2*
226	UST 258	1C	1400 gal.	Fuel oil (stored)	Inst. 1944	Inactive		R/O		See Table 3-7	2*
227	UST 259	1C	2600 gal.	Fuel oil (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	7
228	UST 260	1C	2600 gal.	Fuel oil (stored)	Inst. 1945	Removed		R/O		See Table 3-7	2*
229	UST 262A	1B	2600 gal.	Diesel (stored)	Inst. 1944	Removed		R/O		See Table 3-7	2*
230	UST 262B	1B	2600 gal.	Diesel (stored)	Inst. 1944	Removed		R/O		See Table 3-7	2*
231	UST 263	1B	3400 gal.	Diesel (stored)	Inst. 1945	Closed		RWQCB	X	See Table 3-7	2*
232	UST 264	1B	3400 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2*
233	UST 265	1B	1400 gal.	Diesel (stored)	unknown	Removed		R/O		See Table 3-7	2*
234	UST 266	1B	1400 gal.	Fuel oil (stored)	Inst. 1945	Removed		R/O		See Table 3-7	2*
235	UST 267	1B	1400 gal.	Unknown	Inst. 1945	Removed		R/O		See Table 3-7	2*
236	UST 268	1B	1400 gal.	Fuel oil (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
237	UST 269	1B	1400 gal.	Fuel oil (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
238	UST 270	1B	1400 gal.	Fuel oil (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
239	UST 271A	1B	1500 gal.	Fuel oil (stored)	Inst. 1944	Closed		OCHCA	X	See Table 3-7	2*
240	UST 271B	1B	1500 gal.	Fuel oil (stored)	Inst. 1944	Closed		OCHCA	X	See Table 3-7	2*
241	UST 271C	1B	650 gal.	Fuel oil (stored)	Inst. 1944	Closed		OCHCA	X	See Table 3-7	2*
242	UST 271D	1B	650 gal.	Fuel oil (stored)	Inst. 1944	Closed		OCHCA	X	See Table 3-7	2*
243	UST 272	1B	1500 gal.	Fuel oil (stored)	Inst. 1944	Removed		R/O		See Table 3-7	2*
244	UST 273	1B	300 gal.	Fuel oil (stored)	Inst. 1944	Closed		RWQCB	X	See Table 3-7	2*
245	UST 274	1B	1400 gal.	Fuel oil (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
246	UST 275	1B	1500 gal.	Fuel oil (stored)	Inst. 1944	Inactive		R/O		See Table 3-7	2*
247	UST 276	1B	1500 gal.	Fuel oil (stored)	Inst. 1945	Closed		RWQCB	X	See Table 3-7	2*
248	UST 277	1B	1500 gal.	Fuel oil (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2*
249	UST 278A	1B	1500 gal.	Fuel oil (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	7
250	UST 278B	1B	1400 gal.	Fuel oil (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
251	UST 279	1B	1500 gal.	Fuel oil (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	7
252	UST 280	1B	2000 gal.	Diesel (stored)	Inst. 1945	Closed		RWQCB	X	See Table 3-7	2*

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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
253	UST 281	1B	2000 gal.	Fuel oil (stored)	Inst. 1944	Inactive		R/O		See Table 3-7	2*
254	UST 282	1B	1400 gal.	Fuel oil (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
255	UST 283	1B	1400 gal.	Fuel oil (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
256	UST 284	1B	2000 gal.	Fuel oil (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
257	UST 285	1B	2000 gal.	Fuel oil (stored)	Inst. 1944	Removed		R/O		See Table 3-7	2*
258	UST 288	5A	1500 gal.	Fuel oil (stored)	Inst. 1944	Closed		OCHCA	X	See Table 3-7	2*
259	UST 292	2A	1400 gal.	Diesel (stored)	Inst. 1944	Removed		R/O		See Table 3-7	2*
260	UST 294	5A	1500 gal.	Fuel oil (stored)	Inst. 1944	Removed		R/O		See Table 3-7	2*
261	UST 295	5A	1000 gal.	Diesel (stored)	Inst. 1984	Removed		R/O		See Table 3-7	2
262	UST 296	5A	6000 gal.	Diesel (stored)	Inst. 1984	Removed		R/O		See Table 3-7	2
263	UST 297A	5A	6000 gal.	Diesel (stored)	Inst. 1984	Closed		OCHCA	X	See Table 3-7	2*
264	UST 297C	5A	185 gal.	Waste Oil (stored)	Inst. 1982	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 77	2*
265	UST 298A	4A	3000 gal.	Unleaded (stored)	Inst. 1944	Active		R/O		See Table 3-7	7
266	UST 298B	4A	2000 gal.	Diesel (stored)	Inst. 1944	Active		R/O		See Table 3-7	7
267	UST 298D	4A	185 gal.	Waste Oil (stored)	Inst. 1982	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 85	2*
268	UST 304	4A	1500 gal.	Fuel oil (stored)	Inst. 1944	Closed		OCHCA	X	See Table 3-7	2*
269	UST 306	4A	500 gal.	Diesel (stored)	Inst. 1944	Closed		RWQCB	X	See Table 3-7	2*
270	UST 314A	4A	50000 gal.	Diesel (stored)	Inst. 1945	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 91	2*
271	UST 314B	4A	50000 gal.	Diesel (stored)	Inst. 1945	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 92	2*
272	UST 321	4B	1000 gal.	Diesel (stored)	Inst. 1984	Closed		OCHCA	X	See Table 3-7	2
273	UST 322B	4B	530 gal.	Diesel (stored)	unknown	Closed		RWQCB	X	See Tables 3-7 and 3-13 SWMU/AOC 282	2*
274	UST 324A	4A	8000 gal.	JP-5 (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
275	UST 324B	4A	8000 gal.	JP-5 (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
276	UST 324C	4A	8000 gal.	JP-5 (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
277	UST 324D	4A	8000 gal.	JP-5 (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
278	UST 324E	4A	2000 gal.	Diesel (stored)	Inst. 1984	Closed		OCHCA	X	See Table 3-7	2*
279	UST 324F	4A	2000 gal.	Fuel Oil (stored)	unknown	Inactive		R/O		See Table 3-7	7
280	UST 326A	4A	1700 gal.	JP-5 (stored)	Inst. 1945	Inactive		R/O		See Table 3-7	2*
281	UST 326B	4A	250 gal.	JP-5 (stored)	Inst. 1945	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 283	2*
282	UST 327	1C	2600 gal.	Diesel (stored)	Inst. 1945	Closed		RWQCB	X	See Table 3-7	2*
283	UST 328	1C	2600 gal.	Diesel (stored)	Inst. 1945	Removed		R/O		See Table 3-7	2*
284	UST 329	1C	3100 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2*
285	UST 335	4A	4000 gal.	Fuel oil (stored)	Inst. 1945	Removed		R/O		See Table 3-7	2*
286	UST 337A	1B	2600 gal.	Fuel oil (stored)	Inst. 1946	Inactive		R/O		See Table 3-7	2*
287	UST 337B	1B	2600 gal.	Fuel oil (stored)	Inst. 1946	Inactive		R/O		See Table 3-7	2*
288	UST 347A	1B	5000 gal.	Gasoline (stored)	Inst. 1948	Closed		OCHCA	X	See Table 3-7	2*
289	UST 347B	1B	7500 gal.	Gasoline (stored)	Inst. 1948	Closed		OCHCA	X	See Table 3-7	2
290	UST 347C	1B	10000 gal.	Gasoline (stored)	Inst. 1948	Closed		OCHCA	X	See Table 3-7	2*
291	UST 347D	1B	300 gal.	Waste oil (stored)	Inst. 1948	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 284	2*
292	UST 351	1D	500 gal.	Fuel oil (stored)	Inst. 1944	Removed		R/O		See Table 3-7	2*

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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
293	UST 359A	4B	1000 gal.	Diesel (stored)	Inst. 1984	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 303	2
294	UST 359C	4B	500 gal.	Hazardous Waste (stored)	Inst. 1982	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 102	2*
295	UST 364A	1G	2000 gal.	Fuel oil (stored)	Inst. 1952	Removed		R/O		See Table 3-7	2*
296	UST 364B	1G	5300 gal.	Fuel oil (stored)	Inst. 1952	Removed		R/O		See Table 3-7	2*
297	UST 365	1G	2500 gal.	Diesel (stored)	Inst. 1954	Removed		R/O		See Table 3-7	2*
298	UST 366	1G	2500 gal.	Diesel (stored)	Inst. 1954	Closed		RWQCB	X	See Table 3-7	2*
299	UST 367	1G	2500 gal.	Diesel (stored)	Inst. 1954	Abandoned		R/O		See Table 3-7	2*
300	UST 368	4A	2000 gal.	Diesel (stored)	Inst. 1984	Closed		OCHCA	X	See Table 3-7	2
301	UST 369	4A	4000 gal.	Diesel (stored)	Inst. 1984	Closed		OCHCA	X	See Table 3-7	2
302	UST 372A	5A	1000 gal.	Diesel (stored)	Inst. 1954	Active		R/O		See Table 3-7	2*
303	UST 372B	5A	2500 gal.	Diesel (stored)	Inst. 1954	Closed		RWQCB	X	See Table 3-7	2*
304	UST 374A	3A	42000 gal.	Diesel (stored)	Inst. 1954	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 263	2*
305	UST 374B	3A	10000 gal.	Diesel (stored)	Inst. 1954	Removed		R/O		See Table 3-7	2*
306	UST 375	1D	10000 gal.	Fuel oil (stored)	Inst. 1954	Removed		R/O		See Table 3-7	2
307	UST 380A	2A	10500 gal.	Diesel (stored)	Inst. 1954	Removed		R/O		See Table 3-7	2*
308	UST 380B	2A	600 gal.	Motor Gas (stored)	Inst. 1954	Removed		R/O		See Table 3-7	2*
309	UST 386A	4A	1500 gal.	Fuel Oil (stored)	Inst. 1984	Inactive		R/O		See Table 3-7	2*
310	UST 386C	4A	185 gal.	Waste Oil (stored)	Inst. 1982	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 113	2*
311	UST 388A	4A	500 gal.	Diesel (stored)	Inst. 1955	Closed		OCHCA	X	See Table 3-7	2
312	UST 388B	4A	2000 gal.	Diesel (stored)	Inst. 1955	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 117	7
313	UST 390A	3A	550 gal.	Diesel (stored)	Inst. 1955	Removed		R/O		See Table 3-7	2*
314	UST 390B	3A	2000 gal.	Diesel (stored)	Inst. 1955	Removed		R/O		See Table 3-7	2*
315	UST 392A	2A	500 or 550 gal.	Unleaded (stored)	Inst. 1955	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 298	2*
316	UST 392B	2A	2000 gal.	Gasoline (stored)	Inst. 1955	Removed		R/O		See Table 3-7	7
317	UST 392C	2A	size unknown	Diesel (stored)	unknown	Inactive		R/O		See Table 3-7	2*
318	UST 392D	2A	2000 gal.	Gasoline (stored)	Inst. 1955	Removed		R/O		See Table 3-7	2*
319	UST 392E	2A	2000 gal.	Gasoline (stored)	Inst. 1988	Active		R/O		See Table 3-7	2*
320	UST 392F	2A	2000 gal.	Gasoline (stored)	Inst. 1988	Active		R/O		See Table 3-7	2*
321	UST 398	5A	108000 gal.	JP-5 (stored)	Inst. 1956	Removed		R/O		See Table 3-7	2*
322	UST 399	5A	500 gal.	Diesel (stored)	Inst. 1955	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 285	2*
323	UST 404	5A	500 gal.	Diesel (stored)	Inst. 1957	Active		R/O		See Table 3-7	7
324	UST 405	3A	1200 gal.	Diesel (stored)	Inst. 1956	Closed		RWQCB	X	See Table 3-7	2*
325	UST 406	3A	1200 gal.	Diesel (stored)	Inst. 1956	Closed		RWQCB	X	See Table 3-7	2*
326	UST 435	5A	1000 gal.	Diesel (stored)	Inst. 1959	Removed		R/O		See Table 3-7	2*
327	UST 439A	1G	5000 gal.	Fuel oil (stored)	Inst. 1959	Closed		OCHCA	X	See Table 3-7	2*
328	UST 439B	1G	5000 gal.	Fuel oil (stored)	Inst. 1959	Closed		OCHCA	X	See Table 3-7	2*
329	UST 442	3A	110 gal.	Fuel oil (stored)	Inst. 1959	Closed		OCHCA	X	See Table 3-7	2
330	UST 443	1G	1000 gal.	Diesel (stored)	Inst. 1959	Closed		RWQCB	X	See Table 3-7	2*
331	UST 445A	4A	10000 gal.	Unknown	Inst. 1959	Inactive		R/O		See Table 3-7	2*
332	UST 445B	4A	10000 gal.	JP-5 (stored)	Inst. 1959	Inactive		R/O		See Table 3-7	2*

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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
333	UST 445C	4A	100 gal.	Waste oil (stored)	Inst. 1959	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 129	2*
334	UST 447A	3A	10000 gal.	JP-5 (stored)	Inst. 1959	Inactive		R/O		See Table 3-7	7
335	UST 447B	3A	10000 gal.	JP-5 (stored)	Inst. 1959	Inactive		R/O		See Table 3-7	7
336	UST 449	1G	3000 gal.	Fuel oil (stored)	Inst. 1959	Closed		RWQCB	X	See Table 3-7	2*
337	UST 450	1G	3000 gal.	Diesel (stored)	Inst. 1959	Closed		OCHCA	X	See Table 3-7	2*
338	UST 451	1G	3000 gal.	Diesel (stored)	Inst. 1959	Closed		RWQCB	X	See Table 3-7	2*
339	UST 452	1G	3000 gal.	Diesel (stored)	Inst. 1959	Closed		OCHCA	X	See Table 3-7	2*
340	UST 453	3A	1500 gal.	Diesel (stored)	Inst. 1960	Inactive		R/O		See Table 3-7	2*
341	UST 454	3A	1500 gal.	Diesel (stored)	Inst. 1960	Inactive		R/O		See Table 3-7	2*
342	UST 455	3A	1500 gal.	Diesel (stored)	Inst. 1960	Removed		R/O		See Table 3-7	2
343	UST 457	3A	2000 gal.	Diesel (stored)	Inst. 1960	Closed		OCHCA	X	See Table 3-7	2
344	UST 461	5A	550 gal.	Diesel (stored)	Inst. 1960	Removed		R/O		See Tables 3-7 and 3-13 SWMU/AOC 137	2*
345	UST 462	5A	550 gal.	Diesel (stored)	Inst. 1960	Removed		R/O		See Tables 3-7 and 3-13 SWMU/AOC 139	2*
346	UST 463	3A	1500 gal.	Diesel (stored)	Inst. 1960	Closed		RWQCB	X	See Tables 3-7 and 3-13 SWMU/AOC 249	2*
347	UST 473A	1B	1500 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	7
348	UST 473B	1C	1500 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	7
349	UST 493	4B	1500 gal.	Diesel (stored)	Inst. 1944	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 143	7
350	UST 529	4A	25000 gal.	Waste Oil (stored)	Inst. 1944	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 145	2*
351	UST 547	2D	567000 gal.	JP-5 (stored)	Inst. 1953	Active		R/O		See Table 3-7	7
352	UST 548	2D	567000 gal.	JP-5 (stored)	Inst. 1953	Active		R/O		See Table 3-7	7
353	UST 549	2D	567000 gal.	JP-5 (stored)	Inst. 1953	Active		R/O		See Table 3-7	7
354	UST 550	2D	567000 gal.	JP-5 (stored)	Inst. 1953	Active		R/O		See Table 3-7	7
355	UST 551	2D	567000 gal.	JP-5 (stored)	Inst. 1953	Active		R/O		See Table 3-7	7
356	UST 553	2D	10000 gal.	Gasoline (stored)	Inst. 1956	Removed		R/O		See Table 3-7	2*
357	UST 554	2D	10000 gal.	Kerosene (stored)	Inst. 1956	Removed		R/O		See Table 3-7	2*
358	UST 568	5C	500 gal.	Diesel (stored)	Inst. 1956	Active		R/O		See Table 3-7	7
359	UST 574	5A	25000 gal.	JP-5 (stored)	Inst. 1955	Removed		R/O		See Table 3-7	2*
360	UST 575	5A	25000 gal.	JP-5 (stored)	Inst. 1955	Removed		R/O		See Table 3-7	2*
361	UST 576	5A	25000 gal.	JP-5 (stored)	Inst. 1955	Removed		R/O		See Table 3-7	2*
362	UST 577	5A	25000 gal.	JP-5 (stored)	Inst. 1955	Removed		R/O		See Table 3-7	2*
363	UST 579	3F	320 gal.	Unknown	Inst. 1957	Closed		OCHCA	X	See Table 3-7	2
364	UST 581	2B	550 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2*
365	UST 605A	5A	1700 gal.	Diesel (stored)	Inst. 1965	Removed		R/O		See Table 3-7	2*
366	UST 605B	5A	500 gal.	Diesel (stored)	Inst. 1965	Inactive		R/O		See Table 3-7	2*
367	UST 606A	5A	1700 gal.	Diesel (stored)	Inst. 1965	Removed		R/O		See Table 3-7	2*
368	UST 606B	5A	500 gal.	Diesel (stored)	Inst. 1965	Inactive		R/O		See Table 3-7	7
369	UST 610	2A	300 gal.	Gasoline (stored)	Inst. 1966	Closed		OCHCA	X	See Table 3-7	2
370	UST 625	1B	1500 gal.	Waste Oil (stored)	Inst. 1967	Closed		RWQCB	X	See Tables 3-7 and 3-13 SWMU/AOC 156	2*
371	UST 627	3F	size unknown	Diesel (stored)	unknown	Removed		R/O		See Table 3-7	2*
372	UST 634	2A	10000 gal.	Fuel oil (stored)	Inst. 1969	Closed		OCHCA	X	See Table 3-7	2*

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Site Summary
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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
373	UST 636	3A	1500 gal.	Diesel (stored)	Inst. 1969	Removed		R/O		See Table 3-7	2*
374	UST 637-1	2A	12000 gal.	Unleaded (stored)	Inst. 1969	Active		R/O		See Table 3-7	7
375	UST 637-2	2A	12000 gal.	Unleaded (stored)	Inst. 1969	Active		R/O		See Table 3-7	7
376	UST 637-3	2A	12000 gal.	Unleaded (stored)	Inst. 1969	Active		R/O		See Table 3-7	7
377	UST 643A	5A	185 gal.	Waste oil (stored)	Inst. 1982	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 162	2*
378	UST 651-1	1G	12000 gal.	Unleaded (stored)	Inst. 1971	Active		R/O		See Table 3-7	7
379	UST 651-2	1G	12000 gal.	Unleaded (stored)	Inst. 1971	Active		R/O		See Table 3-7	7
380	UST 651-3	1G	12000 gal.	Unleaded (stored)	Inst. 1971	Active		R/O		See Table 3-7	7
381	UST 651-4	1G	12000 gal.	Unleaded (stored)	Inst. 1971	Active		R/O		See Table 3-7	7
382	UST 651-5	1G	500 gal.	Waste Oil (stored)	Inst. 1971	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 166	7
383	UST 651-6	1G	500 gal.	Motor Oil (stored)	Inst. 1971	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 167	7
384	UST 651-7	1G	500 gal.	Motor Oil (stored)	Inst. 1971	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 168	7
385	UST 655	4A	2000 gal.	Diesel (stored)	Inst. 1984	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 250	2
386	UST 658A	2A	10000 gal.	JP-5 (stored)	Inst. 1972	Active		R/O		See Table 3-7	7
387	UST 658B	2A	10000 gal.	JP-5 (stored)	Inst. 1972	Active		R/O		See Table 3-7	7
388	UST 662	1G	10000 gal.	Fuel oil (stored)	Inst. 1973	Closed		OCHCA	X	See Table 3-7	2
389	UST 672	4A	500 gal.	Waste JP-5 (stored)	Inst. 1972	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 174	7
390	UST 672B	4A	1000 gal.	Waste Oil (stored)	Inst. 1972	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 176	2*
391	UST 673B	3A	300 gal.	Waste Oil (stored)	Inst. 1982	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 180	2*
392	UST 674A	4B	500 gal.	Waste oil (stored)	Inst. 1982	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 187	2*
393	UST 675A	4B	500 gal.	Waste oil (stored)	Inst. 1982	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 188	5*
394	UST 693A	1G	500 gal.	Diesel (stored)	Inst. 1975	Closed		OCHCA	X	See Table 3-7	2*
395	UST 693B	1G	500 gal.	Diesel (stored)	Inst. 1975	Closed		OCHCA	X	See Table 3-7	1*
396	UST 706	3A	100 gal.	Diesel (stored)	Inst. 1984	Removed		R/O		See Tables 3-7 and 3-13 SWMU/AOC 191	2*
397	UST 716A	5A	3000 gal.	Waste Oil (stored)	Inst. 1976	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 192	7
398	UST 718	1B	4000 gal.	Fuel oil (stored)	Inst. 1978	Closed		OCHCA	X	See Table 3-7	2
399	UST 724A	5A	1000 gal.	Diesel (stored)	unknown	Active		R/O		See Table 3-7	2*
400	UST 730	1A	1000 gal.	Diesel (stored)	Inst. 1978	Active		R/O		See Table 3-7	7
401	UST 733A	1G	10000 gal.	Diesel (stored)	Inst. 1980	Closed		OCHCA	X	See Table 3-7	2*
402	UST 733B	1G	10000 gal.	Diesel (stored)	Inst. 1980	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 286	2*
403	UST 733C	1G	10000 gal.	Diesel (stored)	Inst. 1980	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 287	2*
404	UST 733D	1G	10000 gal.	Diesel (stored)	Inst. 1980	Inactive		R/O		See Table 3-7	2*

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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP[4] Area Type[5]
405	UST 758B	4A	185 gal.	Waste Oil (stored)	Inst. 1982	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 197	2*
406	UST 759B	4A	185 gal.	Waste Oil (stored)	Inst. 1982	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 200	2*
407	UST 760A	4A	185 gal.	Waste Oil (stored)	Inst. 1982	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 202	2*
408	UST 761B	5A	500 gal.	Waste Oil (stored)	Inst. 1982	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 206	2*
409	UST 762B	3A	185 gal.	Waste Oil (stored)	Inst. 1982	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 209	2*
410	UST 763B	5A	500 gal.	Waste Oil (stored)	Inst. 1982	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 212	2*
411	UST 764A	2A	500 gal.	Waste Oil (stored)	Inst. 1982	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 214	2*
412	UST 765A	1A	185 gal.	Waste Oil (stored)	Inst. 1982	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 217	7
413	UST 766B	1A	500 gal.	Waste Oil (stored)	Inst. 1982	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 221	2*
414	UST 782	3A	1000 gal.	Gasoline (stored)	unknown	Inactive		R/O		See Table 3-7	2*
415	UST 797	1A	10000 gal.	Aviation Gas (stored)	Inst. 1985	Active		R/O		See Table 3-7	7
416	UST 800A	4B	10000 gal.	Diesel (stored)	Inst. 1984	Active		R/O		See Table 3-7	7
417	UST 800B	4B	10000 gal.	Kerosene (stored)	Inst. 1984	Active		R/O		See Table 3-7	7
418	UST 800C	4B	10000 gal.	Diesel (stored)	Inst. 1984	Active		R/O		See Table 3-7	7
419	UST 800D	4B	1000 gal.	Waste Oil (stored)	Inst. 1984	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 230	7
420	UST 800E	4B	1000 gal.	Waste Oil (stored)	Inst. 1984	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 231	2*
421	UST 850A	5A	5000 gal.	JP-5 (stored)	Inst. 1988	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 288	7
422	UST 850B	5A	5000 gal.	JP-5 (stored)	Inst. 1988	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 289	7
423	UST 850C	5A	500 gal.	Water (stored)	Inst. 1988	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 290	7
424	UST 891A	5A	30000 gal.	JP-5 (stored)	Inst. 1990	Active		R/O		See Table 3-7	7
425	UST 891B	5A	30000 gal.	JP-5 (stored)	Inst. 1990	Active		R/O		See Table 3-7	7
426	UST 891C	5A	2500 gal.	JP-5 (stored)	Inst. 1990	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 20	7
427	UST 902A	5A	50000 gal.	JP-5 (stored)	Inst. 1993	Active		R/O		See Table 3-7	7
428	UST 902B	5A	50000 gal.	JP-5 (stored)	Inst. 1993	Active		R/O		See Table 3-7	7
429	UST 902C	5A	2500 gal.	JP-5 (stored)	Inst. 1993	Active		R/O		See Table 3-7	7
430	UST 5101	1D	500 gal.	Diesel (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
431	UST 5102	1D	500 gal.	Fuel oil (stored)	Inst. 1943	Inactive		R/O		See Table 3-7	2*
432	UST 5201	2B	300 gal.	Fuel oil (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
433	UST 5202	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
434	UST 5203	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
435	UST 5204	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
436	UST 5205	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2

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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[1]
437	UST 5206	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
438	UST 5207	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
439	UST 5208	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
440	UST 5209	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
441	UST 5210	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2*
442	UST 5211	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2*
443	UST 5212	2C	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
444	UST 5213	2C	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
445	UST 5214	2C	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
446	UST 5215	2C	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
447	UST 5216	2C	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
448	UST 5217	2C	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
449	UST 5218	2C	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
450	UST 5219	2C	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
451	UST 5220	2C	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2*
452	UST 5221	2C	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2*
453	UST 5222	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2*
454	UST 5223	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2*
455	UST 5224	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2*
456	UST 5225	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
457	UST 5226	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
458	UST 5227	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
459	UST 5228	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
460	UST 5229	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
461	UST 5230	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
462	UST 5231	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
463	UST 5232	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
464	UST 5233	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
465	UST 5234	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
466	UST 5235	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
467	UST 5236	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
468	UST 5237	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2*
469	UST 5238	2C	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2*
470	UST 5239	2C	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
471	UST 5240	2C	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
472	UST 5241	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
473	UST 5242	2B	300 gal.	Diesel (stored)	Inst. 1945	Closed		OCHCA	X	See Table 3-7	2
474	UST T-1	2D	2000 gal.	Waste JP-5 (stored)	Inst. 1988	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 23	2*
475	UST T-2	5A	2000 gal.	Waste JP-5 (stored)	Inst. 1988	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 18	2*
476	UST T-3	2A	2000 gal.	Waste JP-5 (stored)	Inst. 1988	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 19	2*
477	UST T-4	1A	2000 gal.	Waste Oil (stored)	Inst. 1988	Closed		OCHCA	X	See Tables 3-7 and 3-13 SWMU/AOC 58	2*
478	UST T-5	1A	2000 gal.	Waste JP-5 (stored)	Inst. 1988	Removed		R/O		See Tables 3-7 and 3-13 SWMU/AOC 17	2*

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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
479	UST T-6	2A	2000 gal.	Waste JP-5 (stored)	Inst. 1988	Removed		R/O		See Tables 3-7 and 3-13 SWMU/AOC 21	2*
480	UST T-7	5A	2000 gal.	Waste JP-5 (stored)	Inst. 1988	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 24	2*
481	UST T-8	2A	2000 gal.	Waste JP-5 (stored)	Inst. 1988	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 22	2*
482	UST T-9	5A	2000 gal.	JP-5 (stored)	Inst. 1988	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 228	2*
483	UST T-10	5A	1000 gal.	JP-5 (stored)	Inst. 1988	Inactive		R/O		See Tables 3-7 and 3-13 SWMU/AOC 108	2*
484	UST T-11	5A	1000 gal.	JP-5 (stored)	Inst. 1988	Active		R/O		See Tables 3-7 and 3-13 SWMU/AOC 75	2*
485	AST 126	2A	300 gallons	Oil (stored)		Removed			X	See Table 3-8 Not plotted on BCP Figures	1*
486	AST 155	5A	200 gallons - HT	Lube Oil or Diesel Fuel (stored)		Active				See Table 3-8	2
487	AST 245	1A	1,000 gallons - HT	Propane or Air (stored)		Active				See Table 3-8	2
488	AST 317	4B	275 gallons - HT	Fuel Oil (stored)		Inactive				See Table 3-8	2
489	AST 318	4B	275 gallons - HT	Fuel Oil (stored)		Inactive				See Table 3-8	2
490	AST 319	4B	275 gallons - HT	Fuel Oil (stored)		Inactive				See Table 3-8	2
491	AST 390A	3A	500 gallons - VT	Unleaded (stored)		Active				See Table 3-8	2
492	AST 390B	3A	500 gallons - VT	Diesel (stored)		Active				See Table 3-8	2
493	AST 610	2A	300 gallons - HT (formerly AST "610B")	Diesel Fuel Oil (stored)		Active				See Table 3-8	2*
494	AST 619	3F	size unknown	Diesel (stored)		Active				See Table 3-8	2
495	AST 637	2A	500 gallons	Propane (stored)		Removed			X	See Table 3-8 Not plotted on BCP Figures	1*
496	AST 651	1G	1,000 gallons - HT	Propane (stored)		Active				See Table 3-8	2
497	AST 670	1G	1,000 gallons	Liquid Propane Gas (stored)		Removed			X	See Table 3-8 Not plotted on BCP Figures	1*
498	AST 717	5A	500 gallons - HT	Diesel (stored)		Active				See Table 3-8	2
499	AST 753	4A	200 gallons - HT	Pesticides (stored)		Active				See Table 3-8	7*
500	AST 797	5A	1,000 gallons - HT	Waste Oil (stored)		Active				See Table 3-8	2
501	AST 862	4B	30,000 gallons - HT	JP-5 (stored)		Active				See Table 3-8	2
502	AST 883	1B	1,000 gallons - rectangular tank (relocated from B626)	empty, formerly waste oil (stored)		Inactive				See Table 3-8	2
503	TAA 2	1A	< 90-day accumulation area - Hanger 2			Active				See Table 3-9	3*
504	TAA 5A	5A	< 90-day accumulation area-Bldg. 5			Inactive				See Table 3-13; SWMU/AOC 25	1
505	TAA 5B	1A	< 90-day accumulation area-Bldg. 5			Active				See Table 3-13; SWMU/AOC 26	6
506	TAA 7	5A	< 90-day accumulation area-Bldg. 7			Inactive				See Table 3-9	1
507	TAA 10	1A	< 90-day accumulation area-Bldg. 10			Active				See Table 3-13; SWMU/AOC 27	1
508	TAA 19	1A	< 90-day accumulation area-Bldg. 19			Inactive				See Table 3-9	7
509	TAA 22	1A	< 90-day accumulation area-Bldg. 22			Active				See Table 3-9	3*

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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
510	TAA 29A	1D	< 90-day accumulation area-Bldg. 29			Inactive				See Table 3-13; SWMU/AOC 30	3
511	TAA 29B	1D	< 90-day accumulation area-Bldg. 29			Inactive				See Table 3-13; SWMU/AOC 31	3
512	TAA 31A	1D	< 90-day accumulation area-Bldg. 31			Active				See Table 3-13; SWMU/AOC 272	1*
513	TAA 31B	1D	< 90-day accumulation area-Bldg. 31			Inactive				See Table 3-9	3*
514	TAA 51	1D	< 90-day accumulation area-Bldg. 51			Inactive				See Table 3-13; SWMU/AOC 33	6
515	TAA 77	1B	< 90-day accumulation area-Bldg. 77			Inactive				See Table 3-9	7
516	TAA 114	5A	< 90-day accumulation area-Bldg. 114			Inactive				See Table 3-13; SWMU/AOC 38	1
517	TAA 115	5A	< 90-day accumulation area-Bldg. 115			Inactive				See Table 3-13; SWMU/AOC 39	3
518	TAA 130A	2A	< 90-day accumulation area-Bldg. 130			Inactive				See Table 3-13; SWMU/AOC 294	1
519	TAA 130B	2A	< 90-day accumulation area-Bldg. 130			Active				See Table 3-13; SWMU/AOC 295	1
520	TAA 130C	2A	< 90-day accumulation area-Bldg. 130			Inactive				See Table 3-13; SWMU/AOC 42	1
521	TAA 155A	5A	< 90-day accumulation area-Bldg. 155			Inactive				See Table 3-13; SWMU/AOC 240	1
522	TAA 155B	5A	< 90-day accumulation area-Bldg. 155			Inactive				See Table 3-13; SWMU/AOC 241	1*
523	TAA 155C	5A	< 90-day accumulation area-Bldg. 155			Inactive				See Table 3-13; SWMU/AOC 45	1*
524	TAA 240	1A	< 90-day accumulation area-Bldg. 240			Inactive				See Table 3-13; SWMU/AOC 64	1
525	TAA 242	1A	< 90-day accumulation area-Bldg. 242			Inactive				See Table 3-13; SWMU/AOC 67	1*
526	TAA 289	5A	< 90-day accumulation area-Bldg. 289			Active				See Table 3-13; SWMU/AOC 70	1*
527	TAA 297	5A	< 90-day accumulation area-Bldg. 297			Active				See Table 3-13; SWMU/AOC 73	1*
528	TAA 298	4A	< 90-day accumulation area-Bldg. 298			Inactive				See Table 3-13; SWMU/AOC 83	1
529	TAA 306	4A	< 90-day accumulation area-Bldg. 306			Inactive				See Table 3-13; SWMU/AOC 88	6
530	TAA 307	4A	< 90-day accumulation area-Bldg. 307			Active				See Table 3-9	7
531	TAA 314	4A	Fuel storage locker-Bldg. 314			Inactive				See Table 3-13; SWMU/AOC 269	1*
532	TAA 317	4B	< 90-day accumulation area-Bldg.,317			Inactive				See Table 3-13; SWMU/AOC 93	1
533	TAA 357	4A	< 90-day accumulation area -Bldg. 357			Inactive				See Table 3-13; SWMU/AOC 97	1

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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
534	TAA 359A	4B	< 90-day accumulation area-Bldg. 359			Inactive				See Table 3-13; SWMU/AOC 254	1
535	TAA 359B	4B	< 90-day accumulation area-Bldg. 359			Inactive				See Table 3-13; SWMU/AOC 99	1*
536	TAA 370	4A	Hazardous material storage/ < 90-day accumulation area-Bldg. 370			Active				See Table 3-9	7
537	TAA 371A	5A	< 90-day accumulation area-Bldg. 371			Active				See Table 3-13; SWMU/AOC 107	1
538	TAA 371B	5A	< 90-day accumulation area-Bldg. 371			Inactive				See Table 3-13; SWMU/AOC 242	1*
539	TAA 386	4A	< 90-day accumulation area-Bldg. 386			Active				See Table 3-13; SWMU/AOC 114	1
540	TAA 388A	4A	< 90-day accumulation area-Bldg. 388			Active				See Table 3-13; SWMU/AOC 116	1*
541	TAA 388B	4A	< 90-day accumulation area-Bldg. 388			Inactive				See Table 3-13; SWMU/AOC 251	1
542	TAA 389A	3A	< 90-day accumulation area-Bldg. 389			Inactive				See Table 3-13; SWMU/AOC 119	1
543	TAA 389B	3A	< 90-day accumulation area-Bldg. 389			Inactive				See Table 3-13; SWMU/AOC 259	1
544	TAA 390A	3A	< 90-day accumulation area-Bldg. 390			Active				See Table 3-13; SWMU/AOC 122	1
545	TAA 390B	3A	< 90-day accumulation area-Bldg. 390			Inactive				See Table 3-13; SWMU/AOC 261	1*
546	TAA 392A	2A	< 90-day accumulation area-Bldg. 392			Active				See Table 3-13; SWMU/AOC 124	1*
547	TAA 392B	2A	< 90-day accumulation area-Bldg. 392			Inactive				See Table 3-13; SWMU/AOC 271	1*
548	TAA 398	5A	< 90-day accumulation area-Bldg. 398			Inactive				See Table 3-13; SWMU/AOC 252	1*
549	TAA 441	3A	< 90-day accumulation area-Bldg. 441			Inactive				See Table 3-13; SWMU/AOC 256	1*
550	TAA 442	3A	< 90-day accumulation area-Bldg. 442			Inactive				See Table 3-13; SWMU/AOC 126	1
551	TAA 443	1G	< 90-day accumulation area-Bldg. 443			Active				See Table 3-9	7
552	TAA 445	4A	< 90-day accumulation area-Bldg. 445			Inactive				See Table 3-13; SWMU/AOC 127	1
553	TAA 447	3A	< 90-day accumulation area-Bldg. 447			Inactive				See Table 3-13; SWMU/AOC 130	1*
554	TAA 456	3A	< 90-day accumulation area-Bldg. 456			Inactive				See Table 3-13; SWMU/AOC 135	1
555	TAA 461	5A	< 90-day accumulation area-Bldg. 461			Inactive				See Table 3-13; SWMU/AOC 138	1
556	TAA 462	5A	< 90-day accumulation area-Bldg. 462			Inactive				See Table 3-13; SWMU/AOC 140	1
557	TAA 529	4A	< 90-day accumulation area-Bldg. 529			Inactive				See Table 3-13; SWMU/AOC 144	1

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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[3]
558	TAA 534	4B	< 90-day accumulation area-Bldg. 534			Inactive				See Table 3-13; SWMU/AOC 146	1
559	TAA 602	2A	< 90-day accumulation area-Bldg. 602			Inactive				See Table 3-13; SWMU/AOC 147	1*
560	TAA 605	5A	< 90-day accumulation area-Bldg. 605			Active				See Table 3-13; SWMU/AOC 149	1*
561	TAA 606	5A	< 90-day accumulation area-Bldg. 606			Inactive				See Table 3-13; SWMU/AOC 255	1
562	TAA 626	1B	< 90-day accumulation area-Bldg. 626			Active				See Table 3-13; SWMU/AOC 158	6
563	TAA 634	2A	< 90-day accumulation area-Bldg. 634			Active				See Table 3-9	1*
564	TAA 636	3A	< 90-day accumulation area-Bldg. 636			Inactive				See Table 3-13; SWMU/AOC 160	1*
565	TAA 651	1G	< 90-day accumulation area-Bldg. 651			Active				See Table 3-13; SWMU/AOC 165	1*
566	TAA 658	2A	< 90-day accumulation area-Bldg. 658			Inactive				See Table 3-13; SWMU/AOC 171	3
567	TAA 671	4A	< 90-day accumulation area-Bldg. 671			Active				See Table 3-13; SWMU/AOC 172	1
568	TAA 672	4A	< 90-day accumulation area-Bldg. 672			Inactive				See Table 3-13; SWMU/AOC 177	1
569	TAA 673	3A	< 90-day accumulation area-Bldg. 673			Active				See Table 3-13; SWMU/AOC 186	1
570	TAA 693	1G	< 90-day accumulation area-Bldg. 693			Active				See Table 3-9	7
571	TAA 698	5A	< 90-day accumulation area-Bldg. 698			Inactive				See Table 3-9	1
572	TAA 744	1G	< 90-day accumulation area-Bldg. 744			Active				See Table 3-9	1*
573	TAA 746	2A	< 90-day accumulation area-Bldg. 746			Active				See Table 3-9	7
574	TAA 747	2A	< 90-day accumulation area-Bldg. 747			Active				See Table 3-9	7
575	TAA 761	3A	< 90-day accumulation area-Bldg. 761			Inactive				See Table 3-13; SWMU/AOC 236	7
576	TAA 765	3F	< 90-day accumulation area-Bldg. 765			Inactive				See Table 3-13; SWMU/AOC 266	1
577	TAA 769	4A	< 90-day accumulation area-Bldg. 769			Inactive				See Table 3-13; SWMU/AOC 222	1
578	TAA 770	4A	< 90-day accumulation area-Bldg. 770			Inactive				See Table 3-13; SWMU/AOC 223	1
579	TAA 771	1D	< 90-day accumulation area-Bldg. 771			Inactive				See Table 3-13; SWMU/AOC 224	1
580	TAA 772	3F	< 90-day accumulation area-Bldg. 772			Inactive				See Table 3-13; SWMU/AOC 225	1
581	TAA 778	5A	< 90-day accumulation area-Bldg. 778			Inactive				See Table 3-13; SWMU/AOC 226	1
582	TAA 779	5A	< 90-day accumulation area-Bldg. 779			Inactive				See Table 3-13; SWMU/AOC 227	1

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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
583	TAA 800	4B	< 90-day accumulation area-Bldg. 800			Active				See Table 3-13; SWMU/AOC 229	1
584	TAA 831	3A	< 90-day accumulation area-Bldg. 831			Active				See Table 3-9	7
585	TAA 856	3A	< 90-day accumulation area-Bldg. 856			Active				See Table 3-13; SWMU/AOC 234	1*
586	TAA 900	2A	EO accumulation area-Bldg. 900			Active				See Table 3-9	7
587	PCB T1	5A	Transformer - F503496-65P, Pad 1311-Bldg. 6			Active			X	See Table 3-10	1
588	PCB T2	1A	Transformer-5KL505, Bldg. 12			Replaced			X	See Table 3-10	1
589	PCB T3	1A	Transformer-1350660, Pole 507B-Bldg. 19			Unknown			X	See Table 3-10	1
590	PCB T4	1D	Transformer- Pole 599-Bldg. 35			Removed			X	See Table 3-10	1
591	PCB T5	1C	Transformer-23971, Pole 157-Bldg. 58			Unknown			X	See Table 3-10	1
592	PCB T6	1C	Transformer-6954405, Pad 142-Bldg. 59			Replaced			X	See Table 3-10	1
593	PCB T7	1C	Transformer-6954539, Pad 142-Bldg. 59			Replaced			X	See Table 3-10	1
594	PCB T8	1C	Transformer-6956179, Pad 142-Bldg. 59			Replaced			X	See Table 3-10	1
595	PCB T9	1C	Transformer-7092522, Pole 80-Bldg. 60			Unknown			X	See Table 3-10	1
596	PCB T10	1C	Transformer-645B17826, Pole 654-Bldg. 65			Removed			X	See Table 3-10	1
597	PCB T11	1C	Transformer-645B17827, Pole 654-Bldg. 65			Removed			X	See Table 3-10	1
598	PCB T12	1C	Transformer-645B17855, Pole 654-Bldg. 65			Removed			X	See Table 3-10	1
599	PCB T13	2A	Transformer-7093890, Pole 904-Bldg. 105			Removed			X	See Table 3-10	1
600	PCB T14	5A	Transformer-177072, Pad 412-Bldg. 114			Replaced			X	See Table 3-10	1
601	PCB T15	5A	Transformer-177071, Pad 4112-Bldg. 115			Replaced			X	See Table 3-10	1
602	PCB T16	2A	Transformer-681549, Pole 812-Bldg. 118			Unknown			X	See Table 3-10	1
603	PCB T17	2A	Transformer-7093966, Pole 823A-Bldg. 120			Unknown			X	See Table 3-10	1
604	PCB T18	2A	Transformer-7092506P, Pole 823A-Bldg.120			Unknown			X	See Table 3-10	1
605	PCB T19	2A	Transformer-7093966P, Pole 823A-Bldg.120			Unknown			X	See Table 3-10	1
606	PCB T20	2A	Transformer-53233, Pad 4111-Bldg. 125			Replaced			X	See Table 3-10	1
607	PCB T21	2A	Transformer-6160963, Pad 4111-Bldg. 125			Replaced			X	See Table 3-10	1
608	PCB T22	2A	Transformer-7092697, Pole 871-Bldg. 129			Unknown			X	See Table 3-10	1
609	PCB T23	2A	Transformer-7092974, Pole 871-Bldg. 129			Unknown			X	See Table 3-10	1
610	PCB T24	2A	Transformer-7093975, Pole 871-Bldg. 129			Unknown			X	See Table 3-10	1
611	PCB T25	3A	Transformer-14346-1, NA-Bldg. 165			Replaced			X	See Table 3-10	1
612	PCB T26	2A	Transformer-5638241, Pole 802-Bldg. 203			Unknown			X	See Table 3-10	1
613	PCB T27	2A	Transformer-6455115, Pole 802-Bldg. 203			Unknown			X	See Table 3-10	1
614	PCB T28	1D	Transformer-6687930, NA-Bldg. 248			Removed			X	See Table 3-10	1
615	PCB T29	1D	Transformer-66F2983-Bldg. 248			Removed			X	See Table 3-10	1
616	PCB T30	1D	Transformer-66F3028-Bldg. 248			Removed			X	See Table 3-10	1
617	PCB T31	1D	Transformer-66K117-Bldg. 248			Removed			X	See Table 3-10	1
618	PCB T32	1D	Transformer-66K154-Bldg. 248			Removed			X	See Table 3-10	1
619	PCB T33	1F	Transformer-NA-Bldg. 248			Removed			X	See Table 3-10	1
620	PCB T34	1B	Transformer-9750379, Pad 143-Bldg. 264			Replaced			X	See Table 3-10	1
621	PCB T35	1B	Transformer-9750997, Pad 143-Bldg. 264			Replaced			X	See Table 3-10	1
622	PCB T36	1B	Transformer-3700258, Pad 138-Bldg. 272			Replaced			X	See Table 3-10	1
623	PCB T37	1B	Transformer-6962781, Pad 138-Bldg. 272			Replaced			X	See Table 3-10	1
624	PCB T38	1B	Transformer-7093990, Pad 138-Bldg. 272			Replaced			X	See Table 3-10	1
625	PCB T39	1B	Transformer-7093256, Pad 128-Bldg. 281			Removed			X	See Table 3-10	1
626	PCB T40	1B	Transformer-7093261, Pad 128-Bldg. 281			Removed			X	See Table 3-10	1
627	PCB T41	1B	Transformer-7220136, Pad 128-Bldg. 281			Removed			X	See Table 3-10	1

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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
628	PCB T42	1B	Transformer-6224013, Pad 141-Bldg. 285			Replaced			X	See Table 3-10	1
629	PCB T43	1B	Transformer-7093682, Pad 141-Bldg. 285			Replaced			X	See Table 3-10	1
630	PCB T44	1B	Transformer-7220241, Pad 141-Bldg. 285			Replaced			X	See Table 3-10	1
631	PCB T45	4A	Transformer-B58240, Pad 263-Bldg. 311			Replaced			X	See Table 3-10	1
632	PCB T46	1C	Transformer-72535, Pole 73-Bldg. 327			Removed			X	See Table 3-10	1
633	PCB T47	1C	Transformer-6587555, Pole 74-Bldg. 327			Unknown			X	See Table 3-10	1
634	PCB T48	1C	Transformer-65875666, Pole 74-Bldg. 327			Unknown			X	See Table 3-10	1
635	PCB T49	4A	Transformer-1888163, Pad 254-Bldg. 335			Replaced			X	See Table 3-10	1
636	PCB T50	4B	Transformer-B335346, Pad 264-Bldg. 359			Replaced			X	See Table 3-10	1
637	PCB T51	4B	Transformer-B335627, Pad 269-Bldg. 360			Replaced			X	See Table 3-10	1
638	PCB T52	1G	Transformer-62194, Pad 162-Bldg. 365			Removed			X	See Table 3-10	1
639	PCB T53	4A	Transformer-62220, Pad 259-Bldg. 368			Removed			X	See Table 3-10	1
640	PCB T54	4A	Transformer-62221, Pad 2510-Bldg. 369			Replaced			X	See Table 3-10	1
641	PCB T55	4A	Transformer-62222, Pad 2511-Bldg. 370			Replaced			X	See Table 3-10	1
642	PCB T56	5A	Transformer-10097-1, Pad 335-Bldg. 371			Active				See Table 3-10; Leak requires evaluation	7
643	PCB T57	5A	Transformer-10098-1, Pad 335-Bldg. 371			Active			X	See Table 3-10	1
644	PCB T58	5A	Transformer-14538, Pad 425-Bldg. 372			Replaced			X	See Table 3-10	1
645	PCB T59	3A	Transformer-14440 , Pad 321-Bldg. 374			Replaced			X	See Table 3-10	1
646	PCB T60	5A	Transformer-06577-1-Bldg. 378			Replaced			X	See Table 3-10	1
647	PCB T61	4A	Transformer-B684198, Pad SS-2-Bldg. 383			Replaced			X	See Table 3-10	1
648	PCB T62	4A	Transformer-4418 , Pad 257-Bldg. 386			Replaced			X	See Table 3-10	1
649	PCB T63	3A	Transformer-9908129, Pad 316-Bldg. 406			Replaced			X	See Table 3-10	1
650	PCB T64	1F	Transformer-NA , Pole 248-Bldg. 410			Removed			X	See Table 3-10	1
651	PCB T65	1F	Transformer- Pole 248-Bldg. 410			Removed			X	See Table 3-10	1
652	PCB T66	2B	Transformer-C379541, Pad 404-Bldg. 415			Replaced			X	See Table 3-10	1
653	PCB T67	1G	Transformer-C-861785, Pad 111-Bldg. 439			Removed			X	See Table 3-10	1
654	PCB T68	4A	Transformer-C861997A, Pad 256-Bldg. 445			Replaced			X	See Table 3-10	1
655	PCB T69	3A	Transformer-C861997B, Pad 331-Bldg. 447			Replaced			X	See Table 3-10	1
656	PCB T70	1G	Transformer-7371282, Pad 165-Bldg. 449			Removed			X	See Table 3-10	1
657	PCB T71	1G	Transformer-7371279, Pad 166-Bldg. 450			Removed			X	See Table 3-10	1
658	PCB T72	1G	Transformer-7371281, Pad 167-Bldg. 451			Removed			X	See Table 3-10	1
659	PCB T73	1G	Transformer-7371280, Pad 168-Bldg. 452			Removed			X	See Table 3-10	1
660	PCB T74	3A	Transformer-C-862139, Pad 327-Bldg. 457			Replaced				See Table 3-10; SWMU/AOC 244	7
661	PCB T75	5A	Transformer-Missing, Pad 318-Bldg. 458			Unknown			X	See Table 3-10	1
662	PCB T76	3F	Transformer-9845884, Pad 311-Bldg. 460			Replaced			X	See Table 3-10	1
663	PCB T77	3F	Transformer-D317654, Pad 311-Bldg. 460			Replaced			X	See Table 3-10	1
664	PCB T78	3F	Transformer-[illegible], Pad 319-Bldg. [illegible]			Replaced			X	See Table 3-10	1
665	PCB T79	5A	Transformer-151103, Pad 251-Bldg. 482			Removed			X	See Table 3-10	1
666	PCB T80	2C	Transformer-B336887, Pad 401- Bldg. 582			Replaced			X	See Table 3-10	1
667	PCB T81	5A	Transformer-F-6947158, Pad 4114-Bldg. 605			Replaced			X	See Table 3-10	1
668	PCB T82	5A	Transformer-E-694715A, Pad 4113-Bldg. 606			Replaced			X	See Table 3-10	1
669	PCB T83	1C	Transformer-NA , Pole 166A-Bldg. 630			Unknown			X	See Table 3-10	1
670	PCB T84	4A	Transformer-10096-1, Pad 215-Bldg. 631			Replaced			X	See Table 3-10	1
671	PCB T85	2A	Transformer-PAV 1646-01, Pad 431-Bldg. 634			Removed			X	See Table 3-10	1
672	PCB T86	2A	Transformer-YAP-70141, Pad 431-Bldg. 634			Removed			X	See Table 3-10	1

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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
673	PCB T87	3A	Transformer-10832-1, Pad 323-Bldg. 636			Replaced			X	See Table 3-10	1
674	PCB T88	4A	Transformer-12945-1, Pad 2513-Bldg. 655			Replaced			X	See Table 3-10	1
675	PCB T89	2A	Transformer-C173562, Pad 414-Bldg. 658			Replaced			X	See Table 3-10	1
676	PCB T90	4A	Transformer-H344577P73AA, Pad 216-Bldg. 617			Replaced			X	See Table 3-10	1
677	PCB T91	1D	Transformer-786787895, Pole 648-Bldg. 692			Removed			X	See Table 3-10	1
678	PCB T92	1D	Transformer-786787910, Pole 648-Bldg. 692			Removed			X	See Table 3-10	1
679	PCB T93	1D	Transformer-786787919, Pole 648-Bldg. 692			Removed			X	See Table 3-10	1
680	PCB T94	5A	Transformer-Westinghouse-Bldg. 716			Replaced			X	See Table 3-10	1
681	PCB T95	NL	Transformer-959077-Bldg. 1765			Unknown			X	See Table 3-10	1
682	PCB T96	2A	Transformer-5635257, Pole 917-Bldg. 5014			Unknown			X	See Table 3-10	1
683	PCB T97	2B	Transformer-6963930P, Pole 942-Bldg. 5201			Unknown			X	See Table 3-10	1
684	PCB T98	2C	Transformer-6969510, Pole 946-Bldg. 5240			Removed			X	See Table 3-10	1
685	PCB T99	1D	Transformer-7794141, Pole 666-Bldg. 5417			Removed			X	See Table 3-10	1
686	PCB T100	1D	Transformer-7794142, Pole 666-Bldg. 5417			Removed			X	See Table 3-10	1
687	PCB T101	1D	Transformer-7794143, Pole 666-Bldg. 5417			Removed			X	See Table 3-10	1
688	PCB T102	2C	Transformer-69680882, Pole 952A-Bldg. 5125			Unknown			X	See Table 3-10	1
689	PCB T103	1D	Transformer-793397, Pole 687-Bldg. 687			Removed			X	See Table 3-10	1
690	PCB T104	1D	Transformer-794144, Pole 687-Bldg. 687			Removed			X	See Table 3-10	1
691	PCB T105	1D	Transformer-6900519, Pole 687-Bldg. 687			Removed			X	See Table 3-10	1
692	PCB T106	5A	Transformer-6833177, Pad 215-Gate 9			Replaced			X	See Table 3-10	1
693	PCB T107	NA	Transformer-66F2984			Unknown			X	See Table 3-10	1
694	PCB T108	1F	Transformer- Pole 251			Removed			X	See Table 3-10	1
695	PCB T109	2A	Transformer- Pole 852-Tank Farm 6			Unknown			X	See Table 3-10	1
696	PCB T110	1B	Transformer-70609-Bldg. 271			Active			X	See Table 3-10	1
697	PCB T111	1B	Transformer-70465-Bldg. 271			Active			X	See Table 3-10	1
698	PCB T112	1B	Transformer-704464-Bldg. 271			Active			X	See Table 3-10	1
699	PCB T113	1B	Transformer-8335541-Bldg. 833			Active			X	See Table 3-10	1
700	PCB T114	1B	Transformer-8335544-Bldg. 833			Active			X	See Table 3-10	1
701	PCB T115	1B	Transformer-8335543-Bldg. 833			Active			X	See Table 3-10	1
702	PCB T116	1B	Transformer-7093988-Bldg. 263			Active				See Table 3-10	1
703	PCB T117	4B	Transformer-7093571-Bldg. 305			Active				See Table 3-10	1
704	PCB T118	4B	Transformer-7220244-Bldg. 305			Active				See Table 3-10	1
705	PCB T119	4B	Transformer-7220246-Bldg. 305			Active				See Table 3-10	1
706	PCB T120	4B	Transformer-57A8236-Bldg. 313			Active				See Table 3-10	1
707	PCB T121	1C	Transformer-B684199-Bldg. 382			Active				See Table 3-10	1
708	PCB T122	2D	Transformer-B33639-Bldg. 555			Active				See Table 3-10	1
709	PCB T123	NL	Transformer-C647622-Bldg. 711			Active				See Table 3-10	1
710	PCB T124	NL	Transformer-D477681-60P-Bldg. 2600			Active				See Table 3-10	1
711	PCB A1	4A	Transformer storage area near water tank 175								7
712	PCB A2	4A	PCB equipment storage area near Bldg. 324								7
713	RFA 1	3F	Former scrap metal yard						X	See Table 3-13	1
714	RFA 2	3F	Vegetation Piles						X	See Table 3-13	1
715	RFA 6	5A	Landfarming site						X	See Table 3-13	3
716	RFA 7	4B	Transformer storage area			Transfer to RAC				See Table 3-13	6*

Table 3-1a
Site Summary
(Sheet 22 of 28)

Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
717	RFA 8	2F	Abandoned Well 50-3285						X	See Table 3-13	1
718	RFA 9	5A	Fuel bladder						X	See Table 3-13	2
719	RFA 10	2A	Abandoned Well 24-4274			FA				See Table 3-13	6
720	RFA 12	NA	Active sanitary sewer lines						X	See Table 3-13	1
721	RFA 13	2A	Drop tank storage area						X	See Table 3-13	1
722	RFA 14	5A	Drop tank fuel storage area			FA				See Table 3-13	6
723	RFA 15	5A	Wash water runoff site						X	See Table 3-13	3
724	RFA 16	5A	Wash water runoff site						X	See Table 3-13	3
725	RFA 28	5A	Fuel spill site						X	See Table 3-13	2
726	RFA 32	1D	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
727	RFA 35	4A	< 90-day accumulation area			Not Located During RFA			X	See Table 3-13	1*
728	RFA 40	2A	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
729	RFA 41	2A	Vehicle wash rack						X	See Table 3-13	3
730	RFA 43	2A	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
731	RFA 50	1A	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
732	RFA 44	2A	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
733	RFA 46	3A	Vehicle Maintenance and Parking / DRMO			Transfer to RAC				See Table 3-13	2
734	RFA 47	3F	< 90-day accumulation area			Not Located During RFA			X	See Table 3-13	1*
735	RFA 55	1D	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
736	RFA 56	1D	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
737	RFA 69	1B	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
738	RFA 71	5A	< 90-day accumulation area			FA				See Table 3-13	6
739	RFA 72	5A	< 90-day accumulation area			FA				See Table 3-13	6
740	RFA 74	5A	Aircraft wash area						X	See Table 3-13	1
741	RFA 78	5A	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
742	RFA 79	5A	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
743	RFA 80	5A	Drum storage area			Not Located During RFA			X	See Table 3-13	1*

Table 3-1a
Site Summary
(Sheet 23 of 28)

Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
744	RFA 81	5A	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
745	RFA 82	5A	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
746	RFA 89	4A	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
747	RFA 94	4B	< 90-day accumulation area			FA				See Table 3-13	6
748	RFA 95	4A	Engine test cell						X	See Table 3-13	3
749	RFA 96	5A	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
750	RFA 98	4B	Vehicle wash rack						X	See Table 3-13	1
751	RFA 100	4B	TCE degreaser						X	See Table 3-13	3
752	RFA 103	4B [4]	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
753	RFA 104	5A	< 90-day accumulation area			FA				See Table 3-13	6
754	RFA 105	5A	< 90-day accumulation area			FA				See Table 3-13	6
755	RFA 106	5A	< 90-day accumulation area			FA				See Table 3-13	6
756	RFA 109	4A	< 90-day accumulation area			Not Located During RFA			X	See Table 3-13	1*
757	RFA 110	4A	Vehicle wash rack			FA				See Table 3-13	6
758	RFA 120	3A	Vehicle wash rack						X	See Table 3-13	3
759	RFA 121	3A	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
760	RFA 125	2B	< 90-day accumulation area						X	See Table 3-13	3
761	RFA 128	4A	Storage area						X	See Table 3-13	1*
762	RFA 131	3A	Engine test cell			Transfer to RAC				See Table 3-13	6
763	RFA 133	3A	< 90-day accumulation area			Not Located During RFA			X	See Table 3-13	1*
764	RFA 134	3A	< 90-day accumulation area			Not Located During RFA			X	See Table 3-13	1*
765	RFA 136	5A	Aircraft wash area						X	See Table 3-13	1
766	RFA 141	5A	Aircraft wash area						X	See Table 3-13	1
767	RFA 142	5A	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
768	RFA 150	5A	Aircraft wash area						X	See Table 3-13	1
769	RFA 152	5A	Aircraft wash area						X	See Table 3-13	1
770	RFA 157	1B	Vehicle wash rack			FA				See Table 3-13	6
771	RFA 164	1G	Vehicle wash rack						X	See Table 3-13	3

Table 3-1a
Site Summary
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Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[3]
772	RFA 170	4A	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
773	RFA 178	3A	Vehicle wash rack						X	See Table 3-13	1
774	RFA 181	3B	Landfarming area						X	See Table 3-13	3
775	RFA 182	3B	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
776	RFA 183	3B	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
777	RFA 184	3B	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
778	RFA 185	3B	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
779	RFA 195	4A	Vehicle wash rack						X	See Table 3-13	1
780	RFA 198	4A	Vehicle wash rack			FA				See Table 3-13	6
781	RFA 201	4A	Vehicle wash rack			FA				See Table 3-13	6
782	RFA 204	5A	Vehicle wash rack			FA				See Table 3-13	6
783	RFA 210	5A	Vehicle wash rack						X	See Table 3-13	1
784	RFA 213	2A	Vehicle wash rack			FA				See Table 3-13	6
785	RFA 216	1A	Vehicle wash rack						X	See Table 3-13	1
786	RFA 219	1A	Vehicle wash rack						X	See Table 3-13	1
787	RFA 237	NL	< 90-day accumulation area			Not Located During RFA			X	See Table 3-13	1*
788	RFA 238	4A	< 90-day accumulation area			Not Located During RFA			X	See Table 3-13	1*
789	RFA 239	2B	Drum storage area			Not Located During RFA			X	See Table 3-13	1*
790	RFA 243	4A	Wash rack						X	See Table 3-13	3
791	RFA 245	3F	Golf course						X	See Table 3-13	1
792	RFA 246	3F	Golf course irrigation tank						X	See Table 3-13	1
793	RFA 247	NA	Irrigation pipeline						X	See Table 3-13	1
794	RFA 253	4B	Wash rack						X	See Table 3-13	1
795	RFA 257	5A	Wash water runoff site						X	See Table 3-13	1
796	RFA 258	5A	Wash water runoff site						X	See Table 3-13	1
797	RFA 260	3A	Aboveground storage tank (former)						X	See Table 3-13	3
798	RFA 262	3A	Fuel storage area						X	See Table 3-13	1
799	RFA 264	3B	DRMO Storage Yard #3						X	See Table 3-13	1

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Table 3-1a
Site Summary
(Sheet 25 of 28)

Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
800	RFA 267	5A	Drop tank fuel storage area						X	See Table 3-13	1*
801	RFA 268	1A	Vehicle wash rack						X	See Table 3-13	1
802	RFA 270	3F	Wash rack						X	See Table 3-13	2
803	RFA 273	1D	Wash rack						X	See Table 3-13	1
804	RFA 274	1D	Stockpiled soil						X	See Table 3-13	1
805	RFA 291	4A	Oil/water separator						X	See Table 3-13;	2
806	RFA 293	2A	Cleaning tank						X	See Table 3-13	1
807	RFA 297	5A	Former asphalt pavement plant						X	See Table 3-13	1
808	RFA 299	4B	Wash rack						X	See Table 3-13	1
809	RFA 301	5A	Mark arrest system						X	See Table 3-13	1
810	RFA 302	5A	Mark arrest system						X	See Table 3-13	1
811	RFA 304	4B	Trenches inside Bldg. 359						X	See Table 3-13	1
812	RFA 305	1F	Septic tank						X	See Table 3-13	1
813	RFA 306	1F	Septic tank						X	See Table 3-13	1
814	RFA 307	5C	Septic tank						X	See Table 3-13	1
815	OWS 240C	1A	OWS 240C	Oil/water	Inst. 1982	Active				See Table 3-14; SWMU/AOC 66	2
816	OWS 244	5A	OWS 244	Oil/water	Inst. 1944	Active				See Table 3-14; SWMU/AOC 68	7
817	OWS 280A	1B	OWS 280A	Oil/water	Unknown	Active				See Table 3-14	7
818	OWS 297B	5A	OWS 297B	Oil/water	Inst. 1982	Active				See Table 3-14; SWMU/AOC 76	2
819	OWS 298C	4A	OWS 298C	Oil/water	Inst. 1982	Active				See Table 3-14; SWMU/AOC 84	2
820	OWS 314C	4A	OWS 314C	Oil/water	Unknown	Inactive				See Table 3-14	7
821	OWS 324-1	4A	OWS 324-1	Oil/water	Unknown	Inactive				See Table 3-14	7
822	OWS 324-2	4A	OWS 324-2	Oil/water	Unknown	Inactive				See Table 3-14	7
823	OWS 357	4A	OWS 357	Oil/water	Unknown	Active				See Table 3-14; SWMU/AOC 296	2
824	OWS 359B	4B	OWS 359B	Oil/water	Inst. 1952	Active				See Table 3-14; SWMU/AOC 101	2
825	OWS 371	3A	OWS 371	Oil/water	Unknown	Active				See Table 3-14	7
826	OWS 386B	4A	OWS 386B	Oil/water	Inst. 1982	Active				See Table 3-14; SWMU/AOC 112	2
827	OWS 388C	4A	OWS 388C	Oil/water	Inst. 1955	Active				See Table 3-14; SWMU/AOC 118	2

Table 3-1a
Site Summary
(Sheet 26 of 28)

Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
828	OWS 392		OWS 392	Oil/water	Unknown	Active				See Table 3-14	7
829	OWS 445	4A	OWS 445	Oil/water	Unknown	Inactive				See Table 3-14	7
830	OWS 447C	5A	OWS 447C	Oil/water	Inst. 1959	Active				See Table 3-14; SWMU/AOC 132	2
831	OWS 461A	5A	OWS 461A	Oil/water	Unknown	Active				See Table 3-14	7
832	OWS 462	5A	OWS 462	Oil/water	Unknown	Active				See Table 3-14	7
833	OWS 602	2A	OWS 602	Oil/water	Inst. 1964	Inactive				See Table 3-14; SWMU/AOC 148	2
834	OWS 605C	5A	OWS 605C	Oil/water	Inst. 1984	Inactive				See Table 3-14; SWMU/AOC 151	2
835	OWS 606C	5A	OWS 606C	Oil/water	Inst. 1965	Active				See Table 3-14; SWMU/AOC 154	2
836	OWS 626-1	1B	OWS 626-1	Oil/water	Inst. 1967	Active				See Table 3-14; SWMU/AOC 159	2
837	OWS 626-2	1B	OWS 626-2	Oil/water	Unknown	Active				See Table 3-14	7
838	OWS 626-3	1B	OWS 626-3	Oil/water	Unknown	Active				See Table 3-14	7
839	OWS 626-4	1B	OWS 626-4	Oil/water	Unknown	Active				See Table 3-14	7
840	OWS 643B	5A	OWS 643B	Oil/water	Inst. 1982	Inactive				See Table 3-14; SWMU/AOC 163	2
841	OWS 651-8	1G	OWS 651-8	Oil/water	Inst. 1971	Active				See Table 3-14; SWMU/AOC 169	2
842	OWS 652		OWS 652	Oil/water	Unknown	Active				See Table 3-14	7
843	OWS 658C	2A	OWS 658C	Oil/water	Inst. 1972	Active				See Table 3-14	7
844	OWS 658D	2A	OWS 658D	Oil/water	Inst. 1995	Active				See Table 3-14	7
845	OWS 671	4A	OWS 671	Oil/water	Unknown	Active				See Table 3-14; SWMU/AOC 173	2
846	OWS 672A	4A	OWS 672A	Oil/water	Inst. 1982	Active				See Table 3-14; SWMU/AOC 175	2
847	OWS 673A	3A	OWS 673A	Oil/water	Inst. 1982	Active				See Table 3-14; SWMU/AOC 179	2
848	OWS 674	4B	OWS 674	Oil/water	Unknown	Active				See Table 3-14; SWMU/AOC 189	2
849	OWS 674B	4B	OWS 674B	Oil/water	Inst. 1995	Active				See Table 3-14;	7
850	OWS 675B	4B	OWS 675B	Oil/water	Unknown	Active				See Table 3-14; SWMU/AOC 292	2
851	OWS 675C	4B	OWS 675C	Oil/water	Inst. 1995	Active				See Table 3-14;	7
852	OWS 676	2B	OWS 676	Oil/water	Unknown	Inactive				See Table 3-14; SWMU/AOC 189	7

Table 3-1a
Site Summary
(Sheet 27 of 28)

Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
853	OWS 696	5A	OWS 696	Oil/water	Unknown	Inactive				See Table 3-14; SWMU/AOC 163	2
854	OWS 716B	5A	OWS 716B	Oil/water	Inst. 1976	Active				See Table 3-14; SWMU/AOC 193	2
855	OWS 744	1G	OWS 744	Oil/water	Unknown	Active				See Table 3-14	7
856	OWS 758A	4A	OWS 758A	Oil/water	Inst. 1982	Active				See Table 3-14; SWMU/AOC 196	2
857	OWS 759A	4A	OWS 759A	Oil/water	Inst. 1982	Active				See Table 3-14; SWMU/AOC 199	2
858	OWS 760B	4A	OWS 760B	Oil/water	Inst. 1982	Active				See Table 3-14; SWMU/AOC 203	2
859	OWS 761A	5A	OWS 761A	Oil/water	Inst. 1982	Active				See Table 3-14; SWMU/AOC 205	2
860	OWS 762A	3A	OWS 762A	Oil/water	Inst. 1982	Inactive				See Table 3-14; SWMU/AOC 208	2
861	OWS 763A	5A	OWS 763A	Oil/water	Inst. 1982	Active				See Table 3-14; SWMU/AOC 211	2
862	OWS 764B	2A	OWS 764B	Oil/water	Inst. 1982	Active				See Table 3-14; SWMU/AOC 215	2
863	OWS 765B	1A	OWS 765B	Oil/water	Inst. 1982	Active				See Table 3-14; SWMU/AOC 218	2
864	OWS 766A	1A	OWS 766A	Oil/water	Inst. 1982	Active				See Table 3-14; SWMU/AOC 220	2
865	OWS 800F	4B	OWS 800F	Oil/water	Inst. 1984	Active				See Table 3-14; SWMU/AOC 232	2
866	OWS 802	4B	OWS 802	Oil/water	Unknown	Active				See Table 3-14	7
867	OWS 817	3F	OWS 817	Oil/water	Unknown	Active				See Table 3-14; SWMU/AOC 233	2
868	OWS 845	5A	OWS 845	Oil/water	Unknown	Inactive				See Table 3-14; SWMU/AOC 248	2
869	OWS 850	5A	OWS 850	Oil/water	Unknown	Active				See Table 3-14	7
870	OWS 851		OWS 851		Unknown	Active				See Table 3-14	7
871	OWS 892	5A	OWS 892	Oil/water	Unknown	Active				See Table 3-14	7
872	OWS 896	5A	OWS 896	Oil/water	Inst. 1982	Active				See Table 3-14	7
873	OWS 897	5A	OWS 897	Oil/water	Unknown	Active				See Table 3-14	7
874	OWS 1702	1B	OWS 1702	Oil/water	Unknown	Active				See Table 3-14	7
875	BLD 673	3A	RCRA storage facility-Bldg. 673 T-3			Closed		RCRA	X		7
876	MSC B1	5A	Active burn pit adjacent to IRP Site 16	burns JP-5	current	Active					7
877	MSC B2	5A	Inactive burn pit adjacent to IRP Site 16		1988, once	Inactive				Only used once	7
878	MSC P1	3F	Past pesticide storage area at Bldg. 1687			Inactive					7
879	MSC P2	3F	Past pesticide storage area near Bldg. 464			Inactive					7
880	SRU 1	1G	Silver recovery unit at hospital/dental clinic-Bldg. 439			Active				Site conditions unknown	7
881	SRU 2	1G	Silver recovery unit at photo lab-Bldg. 443			Active				Site conditions unknown	7
882	SRU 3	4A	Former photo lab silver recovery unit location-Bldg. 312			Inactive				Site conditions unknown	7

Table 3-1a
Site Summary
(Sheet 28 of 28)

Seq. No.	Database Tracking	Parcel	Description	Material Disposed	Date of Operation	Status	Risk to Human Health and the Environment[1]	Regulatory Mechanism	NFA	Comments	ECP Area Type[5]
883	INT LF1	2C	Possible landfill area next to family housing			Inactive				Identified in interviews	7
884	INT LF2	3B,3F	Possible landfill area south of IRP Site 5			Part of IRP Site 5				Identified in interviews	1*
885	MSC D1	3B	Desert Storm waste storage area near DRMO Yard #3			Inactive					7
886	MSC JP5	NA	JP-5 fuel supply pipelines			Active					2*
887	MSC W1	1G	Former elevated water reservoir (west tower)			Inactive				Reported past mercury releases from level gauge	7
888	MSC W2	1G	Former elevated water reservoir (east tower)			Inactive				Reported past mercury releases from level gauge	7

Notes:

[1] The risk values shown for IRP sites 2, 3, 5 and 17 were calculated by using U.S. EPA and Cal EPA toxicity values. Risk estimates shown in parentheses are based on Cal-EPA cancer slope factors. The risk values shown for IRP site 24 were calculated by using U.S. EPA and Cal EPA Cancer Slope Factors.

[2] IRP Site 18 is defined as groundwater only and does not include source areas.

[3] IRP Site 23 was evaluated in the RCRA Facility Assessment as SWMU/AOC 12.

[4] IRP Site 24 was identified in the Draft Phase II RI Work Plan and consists of most of the southwest quadrant of the Station. This area encompasses numerous LOCs; however, LOCs located within the Site 24 boundary are considered independently from IRP Site 24.

[5] Area types with an asterisks (*) have changed since the March 1996 BCP.

Abbreviations:

APHO - aerial photograph
AST - aboveground storage tank
BLD - building
ECP - environmental condition of property
EE/CA - Engineering Evaluation/Cost Analysis
EO - Environmental Office, MCAS El Toro
FA - further action
FFA - Federal Facilities Agreement
gal - gallon(s)
Inst. - installed
INT LF - possible landfills identified during interviews
IRP - Installation Restoration Program
LOC - location of concern
LPG - liquid propane gas
MSC B - miscellaneous LOC - burn pit
MSC P - miscellaneous LOC - pesticide storage area
NA - not applicable. The LOC location is either unknown, or it covers multiple parcels
NFA - no further action
OWS - oil/water separator
PCB - polychlorinated biphenyl
PCB A - PCB transformer storage area
PCB T - PCB transformer
R/O - RWQCB or OCHCA
RFA - RCRA (Resource Conservation and Recovery Act) Facility Assessment
RI - Remedial Investigation
SAIC - Science Applications International Corporation (refers to features/anomalies identified in SAIC report)
SRU - silver recovery unit
SWMU/AOC - Solid Waste Management Unit/Area of Concern
TAA - temporary accumulation area
UST - underground storage tank
VOC - volatile organic compound

This table does not include buildings with known asbestos.

Table 3-1b
Aerial Photograph Features/Anomalies
(Sheet 1 of 4)

Database Tracking	SAIC Anomaly ID No.	Parcel	Point of Reference	Year	SAIC Observations[1]	SAIC Comments[2]	Comments	ECP Area Type
APHO1	7	1A	Tank Farm 3	1946	ST	C	The stains appear adjacent to the southeastern side of Tank Farm 3 where a former fuel bladder may have been located. Also see anomalies 113, 173, 190, 227, 235, and 272.	7
APHO2	14	2A	Bldg. 136	1946	OS, D	C	Miscellaneous equipment is stored along the southeast side of Bldg. 135. The ground surface is paved with asphalt, and surface runoff flows in a southwest direction.	7
APHO3	21	2A	Bldg. 120	1946	OS, D	C	Miscellaneous equipment is stored along the southeast side of Bldg. 120. The ground surface is paved with asphalt, and surface runoff flows in a southwest direction.	7
APHO4	22	2A	Tank Farm 4	1946	ST	C	Miscellaneous equipment is stored along all sides of this building. Portions of the ground surface along the east and west sides of the building are unpaved. Surface runoff flows in a southwesterly direction.	7
APHO5	25	1D	Bldg. 50	1946	OS	C	This area is commonly used for open storage. The ground surface is unpaved.	7
APHO6	39	4A	Bldg. 306	1946	IM	C	Unknown impoundments. Additional investigation recommended.	7
APHO7	46	4A	Bldg. 1389	1946	WS, ST, OS	C	The liquid is probably surface runoff.	7
APHO8	52	5A	Golf Course Hole 12	1946	OS, R, EX, FA	C	Portions of this storage area has been covered by the extension of runways 34 L and 34-R.	7
APHO9	53	5A	Agua Chinon Wash	1946	LQ	C	The liquid could be surface runoff flowing into Agua Chinon Wash.	7
APHO10	79	5A	Bldg. 286	1955	OS	A	The open storage area may be associated with Bldg. 286.	7
APHO11	81	4A	Bldg. 307	1955	TR, DG	C	This feature is located adjacent to the NW side of the storage yard for the trade shops and NE of Bldg. 307. Activities associated with the disturbed ground are unknown.	7
APHO12	92	3A	DRMO Yard 2	1958	WS	C	Two areas of wet soil are identified in this anomaly. One is located near the SE corner of the DRMO storage yard #2 (SWMU 46) and the other is located SW of Bldg. 457. No analytical data has been collected for the general area SW of Bldg. 457.	7
APHO13	102	2B	Bldg. 415	1960	D	C	SWMU 125 is located on the NE side of Bldg. 415. The storage area featured in the photograph is located in an unpaved area on the NW side of the building. Also see anomalies 289 and 431	7
APHO14	105	2B	Horse Stables	1960	ST, WS	C	This feature is located near the horse stables. No HW-generating activities are known to have occurred at the stable area.	7
APHO15	113	5A	Tank Farm 3	1960	ST	C	Several stains appear at various locations adjacent to the parking apron near Tank Farm 3. It is possible that the stains could be due to runoff from the apron.	7

Table 3-1b
Aerial Photograph Features/Anomalies
(Sheet 2 of 4)

Database Tracking	SAIC Anomaly ID No.	Parcel	Point of Reference	Year	SAIC Observations[1]	SAIC Comments[2]	Comments	ECP Area Type
APHO16	115	1A	Tank Farm 3	1960	WS, LQ	C	The wet soil appears in a storage yard located adjacent to the SW side of Tank Farm 3. The storage yard is used to store vehicles and miscellaneous equipment.	7
APHO17	139	4A	Bldg. 357	1964	ST	C	Currently, this area is unpaved. A hazardous materials storage locker is located approximately 20 feet north of the anomaly.	7
APHO18	140	4A	Bldg. 324	1964	ST	C	These stains are located atop an asphalt parking area located west of Bldg. 446.	7
APHO19	141	4A	Bldg. 309	1964	ST, LQ	C	Liquid flow could be due to surface runoff.	7
APHO20	164	3B	DRMO Yard 3	1967	EX, LQ	C	This anomaly is located near the corner of "Z" St. and North 3rd St. in an equipment storage yard. Also see anomalies 93 and 165.	7
APHO21	165	3A	DRMO Yard 3	1967	OS, D	C	This anomaly is located near the corner of "Z" St. and North 3rd St. in an equipment storage yard. Also see anomalies 93 and 164.	7
APHO22	172	1A	Bldg. 9	1967	ST, D	C	This area is currently unpaved and used as an equipment storage area.	7
APHO23	173	5A	Bldg. 14	1967	FBR, ST	C	The stains appear in the vicinity of Tank Farm 3 where a former fuel bladder may have been located. Also see anomalies 7,113, 190, 227, 235, and 272.	7
APHO24	176	5A	Runway 34-L & 34-R	1968	EXT	C	This anomaly is located in the unpaved area between Runways 34-L and 34-R. Could be surface water runoff.	7
APHO25	188	2A	Agua Chinon Wash	1968	MM, R	C	This feature is SW of RI Site 3/4. The mounded material could be soil dredged from Agua Chinon Wash.	7
APHO26	189	2A	Crash Crew Pit #2	1968	EX, LQ	C	This feature is located SW of the Crash Crew training pits. Unknown excavation activities.	7
APHO27	190	1A	Tank Farm 3	1968	ST, WS	C	The stains appear in the vicinity of Tank Farm 3 where a former fuel bladder may have been located. Also see anomalies 7,113, 173, 227, 235, and 272.	7
APHO28	199	2A	Bldg. 138	1971	LQ	A	Probably surface runoff. No known washracks are in this area. An equipment storage area is located near Bldg. 138. Also see anomaly 238.	7
APHO29	206	1A	Bldg. 10	1971	WS, LQ	A	The liquid appears to be flowing across an unpaved area near SWMU 27. A benzene plume has been identified in the groundwater in this area. Also see anomaly 482.	7
APHO30	208	5B	Bodiers Nursery	1971	UO	C	Unknown object is located within the boundaries of Bodiers Nursery.	7
APHO31	215	3B	Golf Course Hole 5	1971	DG, MMDT, UO	C	Same as anomalies 161 and 287. This area has been known to store HW generated during Desert Storm.	7
APHO32	227	5A	Tank Farm 3	1971	ST	C	The stains appear in the vicinity of Tank Farm 3 where a former fuel bladder may have been located. Also see anomalies 7,113, 173, 190, 235, and 272.	7

Table 3-1b
Aerial Photograph Features/Anomalies
(Sheet 3 of 4)

Database Tracking	SAIC Anomaly ID No.	Parcel	Point of Reference	Year	SAIC Observations[1]	SAIC Comments[2]	Comments	ECP Area Type
APHO33	233	1D	Bldg. 256	1973	OS	C	Mobile radar and communication equipment is commonly stored in this area. No samples have been collected from this area.	7
APHO34	235	1A	Tank Farm 3	1973	ST, UO, VT	C	The stains appear in the vicinity of Tank Farm 3 where a former fuel bladder may have been located. Also see anomalies 7,113, 173, 190, 227, and 272.	7
APHO35	238	2A	Bldg. 137	1973	OS	C	Miscellaneous equipment is commonly stored adjacent to Bldgs. 137, 138, and 139. The activities that occur at these buildings is unknown. Also see anomaly 199.	7
APHO36	239	2A	Bldg. 291	1973	WS	C	In the 1970 U.S. EPA photograph, this area appears to be unpaved. No storage activities are identified in the U.S. EPA photograph.	7
APHO37	241	5A	Bldg. 115	1973	ST	C	SWMU 39 is located in this area. SWMU 39 was sampled and additional soil borings were recommended. Therefore, further investigation is recommended.	7
APHO38	252	3A	Bldg. 1789	1973	EX	C	Three pits are also identified in this general area in the 1970 U.S. EPA photograph. The use of the pits is unknown.	7
APHO39	258	5A	Bldg. 381	1973	WS, ST, HT	C	This structure appears to be Bldg. 381, former Crash Crew Station. According to the Station Building List, Bldg. 381 was demolished in 1986. Also see anomaly 449.	7
APHO40	271	1B	Bldg. 279	1974	D	C	The stain appears adjacent to Bldg. 281 (Admin./Class IV Package Store), which was demolished in 2/87. Currently, this area is an asphalt-paved parking lot.	7
APHO41	272	1A	Bldg. 287	1974	ST, WS	C	The stains appear in the vicinity of Tank Farm 3 where a former fuel bladder may have been located. Also see anomalies 7,113, 173, 190, 227, and 235.	7
APHO42	281	3A	Bldg. 457	1974	WS	C	The 1970 U.S. EPA photographs also identified a few stains in this general area. U.S. EPA identified this area as an open storage area with drums. Currently, this area is a park. Also see anomalies 351 and 366.	7
APHO43	287	3B	Golf Course Hole 5	1974	EX	C	Same as anomalies 215 and 161. Unknown excavation.	7
APHO44	288	5C	Quarry Rd.	1974	DG, MM	C	Unknown reason for disturbed ground. No HW-generating activities are known to have occurred in this area.	7
APHO45	289	2B	Bldg. 415	1974	WS, ST, LQ, D	C	The storage area is located in an unpaved area on the NW side of Bldg. 415. Also see anomalies 102 and 431.	7
APHO46	416	3B	Golf Course Hole 5	1979	IM, FA, EX	C	May have been investigated as part of Site 5. Also see anomaly 452	7
APHO47	427	2B	Horse Stables	1980	OS, B, DB	C	Unknown activity. This area is located in the northern most corner of the rodeo area.	7

Table 3-1b
Aerial Photograph Features/Anomalies
(Sheet 4 of 4)

Database Tracking	SAIC Anomaly ID No.	Parcel	Point of Reference	Year	SAIC Observations[1]	SAIC Comments[2]	Comments	ECP Area Type
APHO48	431	2B	Bldg. 415	1980	OS, D	C	Bldg. 415 is a warehouse used to store miscellaneous. The HWSA associated with this activity (SWMU 125) was investigated and sampled during the RFA. NFA recommended. Also see anomalies 102 and 289.	7
APHO49	449	5A	Runways 34-R & 7-L	1981	WS, LQ	C	Also see anomaly 258.	7
APHO50	450	5A	Tank Farm 5	1981	TR	C	Unknown trench.	7
APHO51	452	3B	Bldg. 673	1981	ST	C	Also see anomaly 416	7
APHO52	482	1A	Bldg. 240	1984	ST	C	Stain appears to be on unpaved area near SWMU 27. SWMU 27 was sampled during the RFA and NFA recommended. Also see anomaly 206.	7
APHO53	502	1A	Perimeter Rd. & Magazine Rd.	1987	ST	C		7

Notes: [1] The abbreviations in this column correspond to the following:

B - Building
D - Drums
DB - Debris
DG - Disturbed ground
DT - Dark-toned
EX - Excavation
EXT - Extraction
FA - Fill area
FBR - Fuel bladder revetment
HT - Horizontal tank
IM - Impoundment
LQ - Liquid
M - Material
MM - Mounded material
OS - Open storage
R - Refuse
ST - Stain
TR - Trench
UO - Unidentified object
VT - Vertical tank
WS - Wet soil

[2] The letters in this column correspond to the following:

A - Verification of a feature identified in U.S. EPA, 1991, "Site Analysis, El Toro MCAS" and occurring within the Sampling and Analysis Plan (SAP) Amendment RI/FS site boundaries.

B - Features identified in SAIC assessment that occur within the SAP Amendment IRP site boundaries.

C - Sites outside of the SAP Amendment RI/FS site boundaries

Abbreviations:

APHO - aerial photograph anomaly
DRMO - Defense Reutilization Marketing Office
EPA - Environmental Protection Agency
HW - hazardous waste
HWSA - hazardous waste storage area
NE - northeast
NW - northwest
RFA - Resource Conservation and Recovery Act (RCRA) Facility Assessment
RI - Remedial Investigation
SE - southeast
SW - southwest
SWMU - Solid Waste Management Unit

Table 3-2
Preliminary Location Summary
(Sheet 1 of 1)

POI Number	Description	PA/SI REPORT RESULTS/FINDINGS			Final Determination
		PA	SI	Findings	

Various Locations of Concern (LOCs) are identified in Table 3-1a. Additional Points of Interest (POIs) have not yet been identified for inclusion in this BCP. Table 3-2 will be revised as POIs are identified at the Station.

Abbreviations: PA – Preliminary Assessment
SI – Site Inspection
POI – point of interest

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Table 3-3
Early Action Status
(Sheet 1 of 1)

IRP Site No.	Action	Purpose	Status
2	Time-Critical Removal Action	• Restrict access to landfill sites. • Abate erosion of landfill materials by surface runoff. • Relocate previously eroded landfill debris to central locations within landfills.	Public review and comment period on action memorandum from 10 October to 10 November 1996.
15 (Unit 1)	Removed from the IR Program via CERCLA petroleum exclusion.	Expedite environmental restoration	Removed from the IRP via CERCLA petroleum exclusion.
17	Time-Critical Removal Action	• Restrict access to landfill sites. • Abate erosion of landfill materials by surface runoff. • Relocate previously eroded landfill debris to central locations within landfills.	Public review and comment period on action memorandum from 10 October to 10 November 1996.
19 (Units 1 and 4)	Removed from the IR Program via CERCLA petroleum exclusion.	Expedite environmental restoration	Removed from the IRP via CERCLA petroleum exclusion.
19 (Unit 2)	Non-Time-Critical Removal Action	• Cover the PCB-contaminated soil with a 10 foot thick layer of clean soil. • Comply with USEPA requirements for PCB-contaminated soil.	Public review and comment period 10 on action memorandum October to 10 November 1996.
20 (Units 2 and 3)	Removed from the IR Program via CERCLA petroleum exclusion.	Expedite environmental restoration	Removed from the IRP via CERCLA petroleum exclusion.
24	Soil vapor extraction pilot testing at 22 wells.	• Remove soil contamination. • Test effectiveness of the recommended remedial alternative.	Testing is ongoing.

Table 3-3 will be updated as additional early actions at IRP sites are implemented and completed.

Abbreviations: PCB – polychlorinated biphenyl
IRP – Installation Restoration Program
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act

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Table 3-4
Mission/Operational-Related Compliance Projects
(Sheet 1 of 1)

Project	Status	Regulatory Program
Asbestos and Lead-Based Paint Inspections	The Navy Public Works Center completed an asbestos and LBP investigation at the Station Family Housing and other related units.	TSCA
Repair/modification of various OWS units	Repair/modification activities have been completed on all but two OWS units.	NPDES
Comprehensive Tank and Piping Integrity Testing and Annual Monitoring System Certification for Active USTs	Multi-year contract to conduct necessary annual testing	CWA
Tank Integrity Testing for AST 862	One-time integrity test performed in January 1997	OPA

Abbreviations:
LBP – lead-based paint
TSCA – Toxic Substances Control Act
OWS – oil/water separator
NPDES – National Pollution Discharge Elimination System
CWA – Clean Water Act
OPA – Oil Pollution Act (40 CFR 112)

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Table 3-5
Closure-Related Compliance Projects
(Sheet 1 of 1)

Project	Status	Regulatory Program
Removal of remaining inactive USTs. 249 USTs removed to date, 178 sites closed, including all of Tank Farms 1, 3, and 5.	Removal began in 1996. Work is currently being performed under CLEAN II.	California UST Regulations OCHCA and RWQCB, Santa Ana
Free-product removal at Tank 398	Construction of the free-product removal system has been completed. System is in operation.	California UST Regulations OCHCA and RWQCB, Santa Ana
Soil vapor extraction at Tank Farm 2	35,000 pounds of petroleum product removed to date.	California UST Regulations OCHCA and RWQCB, Santa Ana
Closure of RCRA storage facility (Building 673-T3)	The facility was closed in November 1995. Site remediated and sampled. Closure letter from DTSC dated 08 March 1996.	RCRA
Follow-up sampling at RFA SWMUs/AOCs recommended for further action	13 SWMUs/AOCs and one TAA were addressed in the final RFA addendum (May 1996).	RCRA
Evaluation of the less-than-90-day accumulation areas (TAAs)	73 TAAs on-Station are being evaluated for removal and/or decontamination strategies.	RCRA
Removal, remediation and closure activities of inactive ASTs, OWSs and TAAs	Removals will begin in 1997 under the Remedial Action Contract, DO # 70.	Various

Abbreviations:
UST – underground storage tank
OCHCA – Orange County Health Care Agency
CLEAN – Comprehensive Long-Term Environmental Action Navy
RWQCB – Regional Water Quality Control Board
RCRA – Resource Conservation and Recovery Act
RFA – RCRA Facility Assessment
SWMU/AOC – solid waste management unit/area of concern
TAA – temporary accumulation area
OWS – oil/water separator

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Table 3-6
Compliance Early Action Status
(Sheet 1 of 1)

Site Number	UST Number	Action	Purpose	Status
Various[1]		Evaluation of less-than-90-day accumulation areas	Evaluate accumulation areas for removal and/or decontamination strategies	In progress
Tank Farm 2	various	Operation of a Soil Vapor Extraction remediation system	Removal of petroleum vapor from the soil	In progress, approximately 35,000 pounds of petroleum product has been removed to date
Building 398	398	Installation and operation of free-product recovery system	Removal of free-phase petroleum product from the water table	In progress, approximately 8,000 gallons of free product removed to date

Notes: [1] refer to Table 3-9 for a list of accumulation areas being evaluated

Abbreviations: UST – underground storage tank

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Table 3-7
Underground Storage Tank Inventory
(Sheet 1 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 1A	1A	1	1C	1943	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by RWQCB in a letter dated 10/2/96.	No further action required.		2*
UST 1B	1B	1	1C	1943	500	Steel	Diesel	Removed		Tank removed by JTL Environmental, a subcontractor to PNI. The excavation was backfilled with the contaminated soil, lined with the LDPE lining, and covered with washed concrete sand. Removal completed by 2/6/92.	Tank included in a remediation contract with OHM.		2*
UST 6A	6A	6	5A	1943	1,000	Steel	Fuel oil	Inactive		From 1993 Station UST Inventory: Deactivated on 1/1/81.	Tank scheduled for removal in 1997.		7
UST 6B	6B	6	5A	1943	500	Steel	Fuel oil	Removed		Tank removed by Geofon. Removal completed by 12/3196			2*
UST 11	11	11	1A	1943	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by RWQCB in a letter dated 8/16/96.	No further action required.		2*
UST 12	12	12	1A	1943	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by RWQCB in a letter dated 12/12/95.	No further action required.		2*
UST 13	13	13	1A	1943	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by OCHCA in a letter dated 11/12/96.	No further action required.		2*
UST 14	14	14	1A	1943	500	Steel	Diesel	Removed		Tank removed by JTL Environmental, a subcontractor to PNI. From JTL report: The excavation was backfilled with clean sand and native soil from excavation. Removal completed by 2/6/92.			2*
UST 24	24	24	1A	1943	500	Steel	Diesel	Removed	X	Tank removal verified by Station Environmental Office. Site closed by RWQCB in a letter dated 12/9/95.	No further action required.		2*
UST 32	32	32	1D	1943	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by RWQCB in a letter dated 3/12/96.	No further action required.		2*
UST 33	33	33	1D	1943	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by RWQCB in a letter dated 10/30/96.	No further action required.		2*
UST 34	34	34	1D	1943	500	Steel	Fuel oil	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by RWQCB in a letter dated 3/12/96.	No further action required.		2*
UST 35	35	35	1D	1943	500	Steel	Fuel oil	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by RWQCB in a letter dated 10/30/96.	No further action required.		2*
UST 37	37	37	1D	1943	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by OCHCA in a letter dated 11/7/96.	No further action required.		2*
UST 38	38	38	1D	1943	1,500	Steel	Fuel oil	Inactive			Tank scheduled for removal in 1997.		7

Table 3-7
Underground Storage Tank Inventory
(Sheet 2 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 40	40	40	1D	1943	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by OCHCA in a letter dated 11/7/96.	No further action required.		2*
UST 41	41	41	1D	1943	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by OCHCA in a letter dated 11/7/96.	No further action required.		2*
UST 42	42	42	1D	1943	500	Steel	Fuel oil	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by OCHCA in a letter dated 11/7/96.	No further action required.		2
UST 43	43	43	1D	1943	500	Steel	Fuel oil	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by RWQCB in a letter dated 12/11/95.	No further action required.		2*
UST 44	44	44	1D	1943	500	Steel	Diesel	Inactive		Location was verified by OHM	Tank scheduled for removal in 1997.		2*
UST 45	45	45	1D	1943	500	Steel	Fuel oil	Inactive		Location was verified by OHM	Tank scheduled for removal in 1997.		2*
UST 46	46	46	1D	1943	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by OCHCA in a letter dated 11/12/96.	No further action required.		2*
UST 47A	47A	47	1D	1943	1,500	Steel	Diesel	Inactive			Tank scheduled for removal in 1997.		2*
UST 47B	47B	47	1D	1943	1,500	Steel	Diesel	Inactive			Tank scheduled for removal in 1997.		2*
UST 47C	47C	47	1D	1943	500	Steel	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 53	53	53	1D	1943	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by RWQCB in a letter dated 10/3/96.	No further action required.		2*
UST 54A	54A	54	1C	1943	500	Steel	Diesel	Removed		Tank removed by JTL Environmental, a subcontractor to PNI, on 2/4/92. Excavation was lined with LDPE liner and backfilled with washed concrete sand.			2*
UST 54B	54B	54	1C	1943	500	Steel	Diesel	Removed	X	Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 12/27/96	No further action required.		2*
UST 54C	54C	54			1,400	Concrete	Diesel	Removed		Tank discovered and removed by OHM.			7*
UST 55A	55A	55	NL	1943	5,000	Steel	Unknown	Inactive			Tank scheduled for removal in 1997.		2*
UST 55B	55B	55	NL	1943	5,000	Steel	Unknown	Inactive			Tank scheduled for removal in 1997.		2*
UST 56A	56A	56	1C	1943	550	Steel	Diesel	Inactive			Tank scheduled for removal in 1997.		2*
UST 56B	56B	56	1C	1943	1,400	Steel	Fuel oil	Removed		Tank removal verified by Station Environmental Office.			7
UST 56C	56C	56	1C	1943	500	Steel	Diesel	Inactive			Tank scheduled for removal in 1997.		2*

Table 3-7
Underground Storage Tank Inventory
(Sheet 3 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 57	57	57	1C	1943	15,000	Concrete	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by OCHCA on 12/2/96.	No further action required.		2*
UST 58	58	58	1C	1943	5,300	Concrete	Diesel	Removed		Tank removed by AP. Removal completed by 2/28/94.	Tank included in a remediation contract with OHM.		2*
UST 59	59	59	1C	1943	5,300	Concrete	Diesel	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by OCHCA on 12/2/96.	No further action required.		2*
UST 60	60	60	1C	1943	2,000	Steel	Diesel	Inactive			Tank scheduled for removal in 1997.		2*
UST 62	62	62	1C	1943	500	Steel	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 63A	63A	63	1B	1943	500	Steel	Diesel	Removed	X	From 1993 Station UST Inventory: 2 tanks connected by a manifold found and removed on 11/1/91. Tank removal verified by Station Environmental Office. Site closed by RWQCB in letter dated 12/18/96.	No further action required.		2*
UST 63B	63B	63	1B	1943	500	Steel	Diesel	Removed	X	From 1993 Station UST Inventory: 2 tanks connected by a manifold found and removed on 11/1/91. Excavation lined w/ plastic sheeting and backfilled. Tank removal verified by Station Environmental Office. Site closed by RWQCB in a letter dated 12/18/96	No further action required.		2*
UST 65A	65A	65	1C	1943	1,400	Concrete	Fuel oil	Inactive		From 1993 Station UST Inventory: In 1987 Survey tank size listed as 1400 gal; in the EPA registration form the tank size is listed as 1000 gal.	Tank scheduled for removal in 1997.		2*
UST 65B	65B	65	1C	1943	2,000	Concrete	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 66A	66A	66	1B	1943	1,100	Steel	Diesel	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by RWQCB in a letter dated 12/11/95.	No further action required.		2*
UST 66B	66B	66	1B	1943	1,500	Steel	Diesel	Inactive		AP unable to locate tank.	Tank scheduled for removal in 1997.		2*
UST 67A	67A	67	1B	1943	1,500	Steel	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 67B	67B	67	1B	1943	1,500	Steel	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 68	68	68	1B	1943	500	Steel	Diesel	Removed		Tank removed by JTL Environmental, a subcontractor to PNI. Excavation was lined with LDPE liner and then backfilled with washed concrete sand. Removal completed by 2/6/92.			2*
UST 69	69	69	1B	1943	500	Steel	Fuel oil	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by OCHCA in a letter dated 11/6/96.	No further action required.		1*
UST 70	70	718	1B	1943	500	Steel	Diesel	Inactive		From 1993 Station UST Inventory: UST located under Building 718 on 12-4-91. Tank could not be removed.	Tank scheduled for removal in 1997.		7

Table 3-7
Underground Storage Tank Inventory
(Sheet 4 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 71	71	71	1B	1943	500	Steel	Fuel oil	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by OCHCA in a letter dated 10/31/96.	No further action required.		2*
UST 72	72	718	1B	1943	500	Steel	Diesel	Inactive		From 1993 Station UST Inventory: UST located under Building 718 on 12-4-91. Tank could not be removed.	Tank scheduled for removal in 1997.		7
UST 73	73	73	1B	1943	500	Steel	Diesel	Removed	X	Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 10/31/96.	No further action required.		2*
UST 74	74	74	1B	1943	500	Steel	Diesel	Removed	X	Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 11/12/96.	No further action required.		1*
UST 75A	75A	75	1B	1943	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by RWQCB in a letter dated 12/12/95.	No further action required.		2*
UST 75B	75B	75	1B	1943	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by RWQCB in a letter dated 3/12/96.	No further action required.		2*
UST 75C	75C	75	1B	1943	500	Steel	Diesel	Inactive		From 1993 Station UST Inventory: Tank is located under 2-ft concrete dock supporting mechanical units.	Tank scheduled for removal in 1997.		7
UST 77	77	77	1B	1943	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by OCHCA in a letter dated 11/6/96.	No further action required.		1*
UST 78	78	78	1B	1943	500	Steel	Diesel	Removed	X	Tank removal verified by Station Environmental Office. Site closed by RWQCB in a letter dated 8/16/96.	No further action required.		2*
UST 79	79	79	1B	1943	500	Steel	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 80	80	80	1B	1943	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by RWQCB in a letter dated 8/16/96.	No further action required.		2*
UST 81	81	81	1B	1943	500	Steel	Diesel	Removed	X	Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 11/6/96.	No further action required.		1*
UST 82	82	82	1B	1943	500	Steel	Diesel	Removed	X	Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 11/12/96.	No further action required.		1*
UST 83A	83A	83	1B	1943	1,500	Steel	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by OCHCA on 12/2/96.	No further action required.		2
UST 83B	83B	83	1B	1943	1,500	Steel	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by OCHCA on 12/2/96.	No further action required.		2*
UST 84A	84A	84	1B	1943	1,500	Steel	Diesel	Inactive		From 1993 Station UST Inventory: Deactivated in 1978. Facility demolished in 1984.	Tank scheduled for removal in 1997.		2*
UST 84B	84B	84	1B	1943	1,500	Steel	Fuel oil	Inactive		From 1993 Station UST Inventory: Deactivated in 1978. Facility demolished in 1984.	Tank scheduled for removal in 1997.		2*
UST 94	94	94	1B	1943	1,500	Steel	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by RWQCB in a letter dated 12/11/95.	No further action required.		2*
UST 98A	98A	98	1B	1943	1,500	Concrete	Fuel oil	Inactive		From 1993 Station UST Inventory: Deactivated and filled with sand in 1974.	Tank scheduled for removal in 1997.		2*

Table 3-7
Underground Storage Tank Inventory
(Sheet 5 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 98B	98B	98	1B	1943	500	Steel	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 105A	105A	105	2A	1943	1,000	Steel	Fuel oil	Removed	X	Tank was removed on 11/27/92, according to personnel at the Station Installation Department. Site closed by RWQCB in a letter dated 10/30/96.	No further action required.		2*
UST 105B	105B	105	2A	1943	500	Steel	Diesel	Removed	X	Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 11/12/96.	No further action required.		2*
UST 114A	114A	114	5A	1966	1,500	Steel	Fuel oil	Removed		Tank removed 10/11/91, and verified by Station Environmental Office. Excavation was backfilled and resurfaced with asphalt.			2*
UST 114B	114B	114	5A	1966	560	Steel	Diesel	Removed		Tank removed 10/11/91, and verified by Station Environmental Office.			2*
UST 115A	115A	115	5A	1943	650	Steel	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by RWQCB in a letter dated 12/16/96	No further action required.		2*
UST 115B	115B	115	5A	1966	560	Steel	Fuel oil	Inactive		(From 1993 Station UST report: 560-gal UST removed 6/17/93.)	Tank scheduled for removal in 1997.		7*
UST 116	116	116	5A	1943	500	Steel	Diesel	Inactive		From 1993 Station UST Inventory: Deactivated and filled with sand in 1964.	Tank scheduled for removal in 1997.		2*
UST 117	117	117	5A	1943	500	Steel	Diesel	Inactive		From 1993 Station UST Inventory: Deactivated and filled with sand in 1964.	Tank scheduled for removal in 1997.		2*
UST 126	126	126	2A	1943	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by RWQCB in a letter dated 3/12/96.	No further action required.		2*
UST 130A	130A	130	2A	unknown	1,500	Steel	Diesel	Inactive			Tank scheduled for removal in 1997.		2*
UST 130B	130B	130	2A	unknown	1,500	Steel	Diesel	Inactive			Tank scheduled for removal in 1997.		2*
UST 133	133	133	2A	1943	500	Steel	Diesel	Removed	X	Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 11/12/96.	No further action required.		1*
UST 138	138	138	2A	1943	1,000	Steel	Diesel	Inactive		From 1993 Station UST Inventory: Deactivated and filled with sand in 1974.	Tank scheduled for removal in 1997.		2*
UST 146	146	146	1C	unknown	2,600	Concrete	Unknown	Removed	X	Tank removal verified by Station Environmental Office. Site closed by OCHCA on 12/9/96.	No further action required.		2*
UST 159	159	159	4B	1943	200	Steel	Fuel oil	Inactive		From 1993 Station UST Inventory: Tank filled with sand on an unknown date.	Tank scheduled for removal in 1997.		2*
UST 175	175	TF 1	1D	1943	10,000	Steel	Kerosene	Removed	X	Tank was removed by AP in conjunction with the other removals at Tank Farm #1. Site closed by OCHCA in a letter dated 1/17/97.	No further action required.		2*
UST 176	176	TF 2	1A	1943	25,000	Cylindrical Concrete	Av.Gas, wastewater	Removed		Tank removed by Toxguard Systems, Inc. in 1995.	Tank included in a remediation contract with OHM.		2*
UST 177	177	TF 2	1A	1943	50,000	Cylindrical Concrete	Av.Gas, wastewater, fuel oil	Removed		Tank removed by Toxguard Systems, Inc. in 1995.	Tank included in a remediation contract with OHM.		2*

Table 3-7
Underground Storage Tank Inventory
(Sheet 6 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 178	178	TF 2	1A	1943	50,000	Cylindrical Concrete	Av.Gas, wastewater, fuel oil	Removed		Tank removed by Toxguard Systems, Inc. in 1995.	Tank included in a remediation contract with OHM.	48	2*
UST 179	179	TF 2	1A	1943	25,000	Cylindrical Concrete	Av.Gas, wastewater, fuel oil	Removed		Tank removed by Toxguard Systems, Inc. in 1995.	Tank included in a remediation contract with OHM.	49	2*
UST 180	180	TF 2 (242)	1A	1943	25,000	Cylindrical Concrete	Av.Gas, wastewater	Removed		Tank removed by Toxguard Systems, Inc. in 1995.	Tank included in a remediation contract with OHM.	51	2*
UST 181	181	TF 2 (242)	1A	1943	50,000	Cylindrical Concrete	Av.Gas, wastewater, fuel oil	Removed		Tank removed by Toxguard Systems, Inc. in 1995.	Tank included in a remediation contract with OHM.		2*
UST 182	182	TF 2 (242)	1A	1943	50,000	Cylindrical Concrete	Av.Gas, wastewater, fuel oil	Removed		Tank removed by Toxguard Systems, Inc. in 1995.	Tank included in a remediation contract with OHM.	52	2*
UST 183	183	TF 2 (242)	1A	1943	25,000	Cylindrical Concrete	Av.Gas, wastewater, fuel oil	Removed		Tank removed by Toxguard Systems, Inc. in 1995.	Tank included in a remediation contract with OHM.		2*
UST 184	184	TF 1 (184)	1D	1943	25,000	Cylindrical Concrete	Unknown	Removed	X	From 1993 Station UST Inventory: Tank decommissioned in 1965. Tank removed by AP in 1996. Site closed by OCHCA in a letter dated 1/17/97.	No further action required.		2*
UST 185	185	TF 1 (185)	1D	1943	50,000	Cylindrical Concrete	Unknown	Removed	X	From 1993 Station UST Inventory: Tank decommissioned in 1965. Tank removed by AP in 1996. Site closed by OCHCA in a letter dated 1/17/97.	No further action required.		2*
UST 186	186	TF 1	1D	1943	25,000	Cylindrical Concrete	Unknown	Removed	X	From 1993 Station UST Inventory: Tank decommissioned in 1965. Tank removed by AP in 1996. Site closed by OCHCA in a letter dated 1/17/97.	No further action required.	275	2*
UST 187	187	TF 1	1D	1943	50,000	Cylindrical Concrete	Aviation Gas/JP-5	Removed	X	From 1993 Station UST Inventory: Tank decommissioned in 1965. Tank removed by AP in 1996. Site closed by OCHCA in a letter dated 1/17/97.	No further action required.	276	2*
UST 188	188	TF 3	1A	1943	25,000	Cylindrical Concrete	Unknown	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.	277	2*
UST 189	189	TF 3	1A	1943	50,000	Cylindrical Concrete	Waste Oil	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.	57	2*
UST 190	190	TF 3	1A	1943	50,000	Cylindrical Concrete	Unknown	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.	278	2*
UST 191	191	TF 3 (272)	1A	1943	25,000	Cylindrical Concrete	Waste Oil	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.	59	2*
UST 192	192	TF 3	1A	1943	25,000	Cylindrical Concrete	Unknown	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.		2*
UST 193	193	TF 3	1A	1943	50,000	Cylindrical Concrete	Unknown	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.	279	2*
UST 194	194	TF 3	1A	1943	50,000	Cylindrical Concrete	Unknown	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.		2*

Table 3-7
Underground Storage Tank Inventory
(Sheet 7 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 195	195	TF 3	1A	1943	25,000	Cylindrical Concrete	Waste Fuel	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.	280	2*
UST 196	196	TF 4	2A	1943	25,000	Cylindrical Concrete	Diesel	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.		2*
UST 197	197	TF 4	2A	1943	50,000	Cylindrical Concrete	Diesel	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.		2*
UST 198	198	TF 4	2A	1943	50,000	Cylindrical Concrete	JP-5	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.		2*
UST 199	199	TF 4	2A	1943	25,000	Cylindrical Concrete	JP-5	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.		2*
UST 200	200	TF 4	2A	1943	25,000	Cylindrical Concrete	JP-5	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.		2*
UST 201	201	TF 4	2A	1943	50,000	Cylindrical Concrete	JP-4	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.		2*
UST 202	202	TF 4	2A	1943	50,000	Cylindrical Concrete	JP-4	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.		2*
UST 203	203	TF 4	2A	1943	25,000	Cylindrical Concrete	JP-4	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.		2*
UST 204	204	TF 6	5A	1943	50,000	Concrete	Diesel	Active		According to El Toro Tank Farm Staff, tank was deactivated 8/93 and remained inactive for 10 years. Tank was reactivated when TF 5 was de-activated.	Tank will be removed following operational closure.	60	2*
UST 205	205	TF 6	5A	1943	25,000	Cylindrical Concrete	R JP-5	Inactive		From 1993 Station UST Inventory: Tank not needed; can be removed; Deactivated 8/93. According to El Toro Tank Farm Staff, tank inactive for 10 years.	Tank scheduled for removal in 1997.	61	2*
UST 206	206	TF 6	5A	1943	50,000	Concrete	Unleaded	Active			Tank will be removed following operational closure.	62	7
UST 207	207	TF 6	5A	1943	50,000	Concrete	Unleaded	Active			Tank will be removed following operational closure.	63	7
UST 208	208	TF 5	2A	1943	50,000	Concrete	Aviation Gas	Removed		Tank removed by AP. Removal completed by 12/16/96.			7
UST 209	209	TF 5	2A	1943	25,000	Concrete	Aviation Gas	Removed		Tank removed by AP. Removal completed by 12/16/96.			7
UST 210	210	TF 5	2A	1943	25,000	Cylindrical Concrete	Aviation Gas, JP-5	Removed	X	Tank removed by Toxguard Systems, Inc. Removal completed by 6/14/96. Site closed by OCHCA in a letter dated 9/20/96.	No further action required.		2*
UST 211	211	TF 5	2A	1943	50,000	Concrete	Aviation Gas	Removed		Tank removed by AP. Removal completed by 12/16/96.			7
UST 212	212	TF 5	2A	1943	50,000	Cylindrical Concrete	Aviation Gas, JP-5	Removed	X	Tank removed by Toxguard Systems, Inc. Removal completed by 6/14/96. Site closed by OCHCA in a letter dated 9/20/96.	No further action required.		2*
UST 213	213	TF 5	2A	1943	25,000	Concrete	Aviation Gas	Removed		Tank removed by AP. Removal completed by 12/16/96.			7
UST 214	214	TF 5	2A	1943	25,000	Cylindrical Concrete	Aviation Gas, JP-5	Removed	X	Tank removed by Toxguard Systems, Inc. Removal completed by 6/14/96. Site closed by OCHCA in a letter dated 9/20/96.	No further action required.		2*
UST 215	215	TF 5	2A	1943	50,000	Concrete	Aviation Gas	Removed		Tank removed by AP. Removal completed by 12/16/96.			7

Table 3-7
Underground Storage Tank Inventory
(Sheet 8 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 216	216	TF 4	2A	1943	50,000	Cylindrical Concrete	Diesel	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.		2*
UST 217	217	TF 4	2A	1943	25,000	Cylindrical Concrete	Diesel	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.		2*
UST 218	218	TF 4	2A	1943	25,000	Cylindrical Concrete	Diesel	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.		2*
UST 219	219	TF 3	1B	1943	50,000	Cylindrical Concrete	Unknown	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.		2*
UST 220	220	TF 3	1B	1943	25,000	Cylindrical Concrete	Unknown	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.		2*
UST 221	221	TF 3	1B	1943	25,000	Cylindrical Concrete	Unknown	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.		2*
UST 224	224	224	1D	1943	500	Steel	Fuel Oil	Removed		From 1993 Station UST Inventory: Tank removed. Geofon completed piping removal by 12/31/96.			2*
UST 240A	240A	240	1A	1944	8,000	Steel	Aviation Gas	Removed		From 1993 Station UST Inventory: Tank was removed when tank 797 was installed. Tank removal verified by Station Environmental Office.			2*
UST 240B	240B	240	1A	1982	185	Steel	Waste Oil	Inactive		Received waste oil from OWS 240C (RFA: Jacobs 1993).	Tank scheduled for removal in 1997.	65	2*
UST 241	241	241	1A	1945	850	Steel	Diesel	Removed	X	Tank removed by AP on 5/20/93. Site closed by RWQCB in a letter dated 10/30/96.	No further action required.		2*
UST 243	243	243	1A	1944	1,500	Concrete	Fuel oil	Removed		Tank removed by AP in 1993. Removal completed by 2/28/94.	Tank included in a remediation contract with OHM.		2*
UST 247	247	247	1D	1945	1,400	Concrete	Fuel oil	Inactive		From 1993 Station UST Inventory: Facility demolished and tank filled with sand in 1977.	Tank scheduled for removal in 1997.		2*
UST 248	248	248	1D	1945	1,500	Concrete	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by OCHCA on 12/2/96.	No further action required.		2*
UST 249	249	249	1D	1945	1,500	Concrete	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by OCHCA on 12/2/96.	No further action required.		2
UST 250	250	250	1D	1945	1,500	Concrete	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by OCHCA on 12/2/96.	No further action required.		2*
UST 251	251	251	1D	1944	2,000	Concrete	Fuel oil	Removed		Tank listed as removed in 1987 survey. Tank removal verified by Station Environmental Office.			2*
UST 252	252	252	NL		1,400	Concrete	Diesel	Removed		Tank removed by Geofon. Removal completed by 12/31/96.		281	2*
UST 253	253	253	1D	1945	1,400	Concrete	Fuel oil	Inactive		From 1993 Station UST Inventory: Deactivated in 1948. Tank filled with sand in 1961.	Tank scheduled for removal in 1997.		2*
UST 254	254	254	1D	1958	1,400	Concrete	Fuel oil	Inactive		From 1993 Station UST Inventory: Tank deactivated in 1961 and filled with sand in 1977.	Tank scheduled for removal in 1997.		2*
UST 255	255	255	1D	1945	1,400	Concrete	Fuel oil	Inactive		From 1993 Station UST Inventory: Tank deactivated and filled with sand in 1961.	Tank scheduled for removal in 1997.		2*
UST 256	256	256	1C	1945	2,000	Concrete	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*

Table 3-7
Underground Storage Tank Inventory
(Sheet 9 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 257	257	257	1C	1944	1,400	Concrete	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 258	258	258	1C	1944	1,400	Concrete	Fuel oil	Inactive		From 1993 Station UST Inventory: Facility demolished in 1987; 1987 Survey lists tank as being filled with sand.	Tank scheduled for removal in 1997.		2*
UST 259	259	259	1C	1945	2,600	Concrete	Fuel oil	Inactive		From 1993 Station UST Inventory: Facility demolished and tank filled with sand in 1962.	Tank scheduled for removal in 1997.		7
UST 260	260	260	1C	1945	2,600	Concrete	Fuel oil	Removed		From 1993 Station UST Inventory: Facility demolished and tank filled with sand in 1979. Tank is identified as being removed in a memorandum dated 19 October 1994 from D. Detmers. Tank removal verified by Station Environmental Office.			2*
UST 262A	262A	873 (former B262)	1B	1944	2,600	Concrete	Diesel	Removed		El Toro contract records show tank removed 1990. Bldg. 262 no longer exists. Tank removal verified by Station Environmental Office.			2*
UST 262B	262B	873 (former B262)	1B	1944	2,600	Concrete	Diesel	Removed		El Toro contract records show tank removed 1990. Bldg. 262 no longer exists. Tank removal verified by Station Environmental Office.			2*
UST 263	263	263	1B	1945	3,400	Concrete	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by RWQCB in a letter dated 12/4/96.	No further action required.		2*
UST 264	264	264	1B	1945	3,400	Concrete	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA in a letter dated 12/9/96.	No further action required.		2*
UST 265	265	265	1B	unknown	1,400	Concrete	Diesel	Removed		Tank removed by Geofon. Removal completed by 12/19/96.			2*
UST 266	266	266	1B	1945	1,400	Concrete	Fuel oil	Removed		Tank removed by Geofon. Removal completed by 12/19/96.			2*
UST 267	267	267	1B	1945	1,400	Concrete	Unknown	Removed		Tank removed by Geofon. Removal completed by 12/19/96.			2*
UST 268	268	268	1B	1945	1,400	Concrete	Fuel oil	Inactive		From 1993 Station UST Inventory: Tank filled with sand in 1982.	Tank scheduled for removal in 1997.		2*
UST 269	269	269	1B	1945	1,400	Concrete	Fuel oil	Inactive		From 1993 Station UST Inventory: Tank filled with sand in 1974.	Tank scheduled for removal in 1997.		2*
UST 270	270	270	1B	1945	1,400	Concrete	Fuel oil	Inactive		From 1993 Station UST Inventory: Tank filled with sand in 1974.	Tank scheduled for removal in 1997.		2*
UST 271A	271A	271	1B	1944	1,500	Concrete	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by OCHCA on 12/2/96.	No further action required.		2*
UST 271B	271B	271	1B	1944	1,500	Concrete	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by OCHCA on 12/2/96.	No further action required.		2*
UST 271C	271C	271	1B	1944	650	Concrete	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by OCHCA on 12/2/96.	No further action required.		2*
UST 271D	271D	271	1B	1944	650	Concrete	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by OCHCA on 12/2/96.	No further action required.		2*
UST 272	272	272	1B	1944	1,500	Concrete	Fuel oil	Removed		Tank removed by AP. Removal completed by 2/28/94.			2*
UST 273	273	273	1B	1944	300	Steel	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by RWQCB in a letter dated 10/3/96.	No further action required.		2*

Table 3-7
Underground Storage Tank Inventory
(Sheet 10 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 274	274	274	1B	1945	1,400	Concrete	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 275	275	275	1B	1944	1,500	Concrete	Fuel oil	Inactive		This tank is identified as being removed in a memorandum dated 19 October 1994 from D. Detmers.	Tank included in a remediation contract with OHM. Tank scheduled for removal in 1997.		2*
UST 276	276	276	1B	1945	1,500	Concrete	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by RWQCB in a letter dated 1/22/97.	No further action required.		2*
UST 277	277	277	1B	1945	1,500	Concrete	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by OCHCA on 12/2/96.	No further action required.		2*
UST 278A	278A	278	1B	1945	1,500	Concrete	Fuel oil	Inactive			Tank scheduled for removal in 1997.		7
UST 278B	278B	278	1B	1945	1,400	Concrete	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 279	279	279	1B	1945	1,500	Concrete	Fuel oil	Inactive			Tank scheduled for removal in 1997.		7
UST 280	280	280	1B	1945	2,000	Concrete	Diesel	Removed	X	Tank removal verified by Station Environmental Office. Site closed by RWQCB in a letter dated 10/3/96.	No further action required.		2*
UST 281	281	281	1B	1944	2,000	Concrete	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 282	282	282	1B	1945	1,400	Concrete	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 283	283	283	1B	1945	1,400	Concrete	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 284	284	284	1B	1945	2,000	Concrete	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 285	285	285	1B	1944	2,000	Concrete	Fuel oil	Removed		Tank removed by Geofon. Removal completed by 12/19/96.			2*
UST 288	288	288	5A	1944	1,500	Concrete	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by OCHCA on 12/2/96.	No further action required.		2*
UST 292	292	292	2A	1944	1,400	Concrete	Diesel	Removed		Tank removed by Geofon. Removal completed by 12/19/96.			2*
UST 294	294	294	5A	1944	1,500	Steel	Fuel oil	Removed		Tank removed by Geofon. Removal completed by 12/19/96.			2*
UST 295	295	295	5A	1984	1,000	Fiberglass	Diesel	Removed		From JEG report: UST removed on 10/15/91; Excavation backfilled and resurfaced with concrete. Tank removal verified by Station Environmental Office.			2
UST 296	296	296	5A	1984	6,000	Fiberglass	Diesel	Removed		From JEG report: UST removed on 10/15/91; Excavation was backfilled. Tank removal verified by Station Environmental Office.			2
UST 297A	297A	297	5A	1984	6,000	Fiberglass	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.		2*
UST 297C	297C	297	5A	1982	185	Steel	Waste Oil	Inactive		Received waste oil from OWS 297B (RFA: Jacobs 1993).	Tank scheduled for removal in 1997.	77	2*

Table 3-7
Underground Storage Tank Inventory
(Sheet 11 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 298A	298A	298	4A	1944	3,000	Steel	Unleaded	Active			Tank will be removed following operational closure.		7
UST 298B	298B	298	4A	1944	2,000	Steel	Diesel	Active			Tank will be removed following operational closure.		7
UST 298D	298D	298	4A	1982	185	Steel	Waste Oil	Active		Receives waste oil from OWS 298C (RFA: Jacobs 1993). A new switching valve & box were installed in 2/94 according to El Toro staff.	Tank will be removed following operational closure.	85	2*
UST 304	304	304		1944	1,500	Concrete	Fuel oil	Removed	X	Tank removal verified by Station Environmental Office. Site closed by OCHCA on 12/9/96.	No further action required.		2*
UST 306	306	306	4A	1944	500	Steel	Diesel	Removed	X	Tank removed by JTL Environmental, a subcontractor to PNI. Removal completed by 2/6/92. Site closed by RWQCB in a letter dated 3/12/96.	No further action required.		2*
UST 314A	314A	314	4A	1945	50,000	Concrete	Diesel	Inactive		According to El Toro staff, tank contents removed in January 1994.	Tank scheduled for removal in 1997.	91	2*
UST 314B	314B	314	4A	1945	50,000	Concrete	Diesel	Inactive		According to El Toro staff, tank contents removed in January 1994.	Tank scheduled for removal in 1997.	92	2*
UST 321	321	321	4B	1984	1,000	Fiberglass	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.		2
UST 322B	322B	322	4B	unknown	530	Steel	Diesel	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by RWQCB in a letter dated 12/12/95.	No further action required.	282	2*
UST 324A	324A	324	4A	1945	8,000	Steel	JP-5	Inactive		From 1993 Station UST Inventory: Vent is capped.	Tank scheduled for removal in 1997.		2*
UST 324B	324B	324	4A	1945	8,000	Steel	JP-5	Inactive		From 1993 Station UST Inventory: Vent is capped.	Tank scheduled for removal in 1997.		2*
UST 324C	324C	324	4A	1945	8,000	Steel	JP-5	Inactive		From 1993 Station UST Inventory: Vent is capped.	Tank scheduled for removal in 1997.		2*
UST 324D	324D	324	4A	1945	8,000	Steel	JP-5	Inactive			Tank scheduled for removal in 1997.		2*
UST 324E	324E	324	4A	1984	2,000	Steel	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.		2*
UST 324F	324F	324	4A	unknown	2,000	Steel	Fuel Oil	Inactive			Tank scheduled for removal in 1997.		7
UST 326A	326A	326	4A	1945	1,700	Concrete	JP-5	Inactive		Tank was an OWS.	Tank scheduled for removal in 1997.		2*
UST 326B	326B	326	4A	1945	250	Steel	JP-5	Inactive			Tank scheduled for removal in 1997.	283	2*
UST 327	327	327	1C	1945	2,600	Concrete	Diesel	Removed	X	Tank removal verified by Station Environmental Office. Site closed by RWQCB in a letter dated 10/3/96.	No further action required.		2*
UST 328	328	328	1C	1945	2,600	Concrete	Diesel	Removed		Tank removed 10/2/91. Excavation was lined with plastic sheeting, backfilled with clean soil, and grass was planted. Tank removal verified by Station Environmental Office.	Tank included in a remediation contract with OHM.		2*

Table 3-7
Underground Storage Tank Inventory
(Sheet 12 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 329	329	329	1C	1945	3,100	Concrete	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.		2*
UST 335	335	335	4A	1945	4,000	Steel	Fuel oil	Removed		Tank removal verified by Station Environmental Office.			2*
UST 337A	337A	337	1B	1946	2,600	Concrete	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 337B	337B	337	1B	1946	2,600	Concrete	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 347A	347A	347	1B	1948	5,000	Steel	Gasoline	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/19/96.	No further action required.		2*
UST 347B	347B	347	1B	1948	7,500	Steel	Gasoline	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/19/96.	No further action required.		2
UST 347C	347C	347	1B	1948	10,000	Steel	Gasoline	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/19/96.	No further action required.		2*
UST 347D	347D	347	1B	1948	300	Steel	Waste oil	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/19/96.	No further action required.	284	2*
UST 351	351	351	1D	1944	500	Steel	Fuel oil	Removed		Tank removed by Geofon. Removal completed by 12/19/96.			2*
UST 359A	359A	359	4B	1984	1,000	Fiberglass	Diesel	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by OCHCA on 12/2/96.	No further action required.	303	2
UST 359C	359C	359	4B	1982	500	Fiberglass	Hazardous Waste	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.	102	2*
UST 364A	364A	364	1G	1952	2,000	Steel	Fuel oil	Removed		Tank removed by AP in 1993.			2*
UST 364B	364B	364	1G	1952	5,300	Steel	Fuel oil	Removed		Tank removed by AP in 1993.			2*
UST 365	365	365	1G	1954	2,500	Steel	Diesel	Removed		Tank removal verified by Station Environmental Office.			2*
UST 366	366	366	1G	1954	2,500	Steel	Diesel	Abandoned	X	Tank was abandoned in place by AP. Abandonment completed by 2/28/94. Site closed by RWQCB in a letter dated 3/12/96.	No further action required.		2*
UST 367	367	367	1G	1954	2,500	Steel	Diesel	Abandoned		Tank was abandoned in place by AP. Tank was filled with a sand cement slurry & backfilled with uncontaminated soil. Abandonment completed by 2/28/94.			2*
UST 368	368	368	4A	1984	2,000	Fiberglass	Diesel	Removed	X	Tank removed by AP in 1993 and verified by Station Environmental Office. Site closed by OCHCA on 12/9/96.	No further action required.		2
UST 369	369	369	4A	1984	4,000	Fiberglass	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.		2
UST 372A	372A	372	5A	1954	1,000	Steel	Diesel	Active		From 1993 Station UST Inventory: Field inspection conducted on 7/28/93 discovered the tank was located in a restricted area. This tank was excluded from the AP tank removal contract.	Tank will be removed following operational closure.		2*
UST 372B	372B	372	5A	1954	2,500	Steel	Diesel	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by RWQCB in a letter dated 12/11/95.	No further action required.		2*
UST 374A	374A	374	3A	1954	42,000	Concrete	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.	263	2*

Table 3-7
Underground Storage Tank Inventory
(Sheet 13 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 374B	374B	374	3A	1954	10,000	Steel	Diesel	Removed		Tank removed by AP in 1993.			2*
UST 375	375	375	1D	1954	10,000	Steel	Fuel oil	Removed		From 1993 Station UST Inventory: Supply and return lines have been disconnected in the boiler room. Tank removal verified by Station Environmental Office.			2
UST 380A	380A	380	2A	1954	10,500	Steel	Diesel	Removed		Tank removed by AP in 1993. AP noted that there was only one tank. Site Assessment report for tank 380A has been submitted.			2*
UST 380B	380B	380	2A	1954	600	Steel	Motor Gas	Removed		Tank removed by AP.			2*
UST 386A	386A	386	4A	1984	1,500	Steel	Fuel Oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 386C	386C	386	4A	1982	185	Steel	Waste Oil	Active		Tank receives waste oil from OWS 386B (RFA; Jacobs 1993).	Tank will be removed following operational closure.	113	2*
UST 388A	388A	388	4A	1955	500	Steel	Diesel	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by OCHCA on 12/2/96.	No further action required.		2
UST 388B	388B	388	4A	1955	2,000	Steel	Diesel	Active		Per OCHCA: Suspected that steel tank was removed and replaced with a double-wall fiberglass tank in 1988.	Tank will be removed following operational closure.	117	7
UST 390A	390A	390	3A	1955	550	Steel	Diesel	Removed		Tank removed by AP in 1993.	Tank included in a remediation contract with OHM.		2*
UST 390B	390B	390	3A	1955	2,000	Steel	Diesel	Removed		Tank removed by AP in 1993.	Tank included in a remediation contract with OHM.		2*
UST 392A	392A	392	2A	1955	500 or 550	Steel	Unleaded	Removed	X	Tank removed in 1993. Site was confirmed closed by OCHCA's letter dated 12/9/96.	No further action required.	298	2*
UST 392B	392B	392	2A	1955	2,000	Steel	Gasoline	Removed		Records at the OCHCA indicate that this tank can be closed.			7
UST 392C	392C	392	2A	unknown	unknown	Steel	Diesel	Inactive		A small inactive tank located behind Building 392.	Tank scheduled for removal in 1997 by OHM		2*
UST 392D	392D	392	2A	1955	2,000	Steel	Gasoline	Removed		Records at the OCHCA indicate that this tank can be closed			2*
UST 392E	392E	392	2A	1988	2,000	Fiberglass	Gasoline	Active		This tank was a replacement for UST392B.	Tank will be removed following operational closure.		2*
UST 392F	392F	392	2A	1988	2,000	Fiberglass	Gasoline	Active		This tank was a replacement for UST392D.	Tank will be removed following operational closure.		2*
UST 398	398	397	5A	1956	108,000	Steel	JP-5	Removed		Tank removal verified by Station Environmental Office. UST 398 replaced by USTs 902A, B, & C which were installed in 1993 according to El Toro staff.	Tank included in a remediation contract with OHM.		2*
UST 399	399	399	5A	1955	500	Steel	Diesel	Inactive		Tank currently filled with sand.	Tank scheduled for removal in 1997.	285	2*

Table 3-7
Underground Storage Tank Inventory
(Sheet 14 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 404	404	414	5A	1957	500	Steel	Diesel	Active		Located in a restricted area.	Tank will be removed following operational closure		7
UST 405	405	405	3A	1956	1,200	Steel	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by RWQCB in a letter dated 12/16/96.	No further action required.		2*
UST 406	406	406	3A	1956	1,200	Steel	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by RWQCB in a letter dated 12/16/96.	No further action required.		2*
UST 435	435	435	5A	1959	1,000	Steel	Diesel	Removed		UST removed 10/11/91. Excavation was backfilled and seeded with grass. Tank removal verified by Station Environmental Office.			2*
UST 439A	439A	439	1G	1959	5,000	Steel	Fuel oil	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.		2*
UST 439B	439B	439	1G	1959	5,000	Steel	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by OCHCA on 12/9/96.	No further action required.		2*
UST 442	442	442	3A	1959	110	Steel	Fuel oil	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.		2
UST 443	443	443	1G	1959	1,000	Steel	Diesel	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by RWQCB in a letter dated 12/12/95.	No further action required.		2*
UST 445A	445A	445	4A	1959	10,000	Steel	Unknown	Inactive			Tank scheduled for removal in 1997.		2*
UST 445B	445B	445	4A	1959	10,000	Steel	JP-5	Inactive			Tank scheduled for removal in 1997.		2*
UST 445C	445C	445	4A	1959	100	Concrete	Waste oil	Inactive			Tank scheduled for removal in 1997.	129	2*
UST 447A	447A	447	3A	1959	10,000	Steel	JP-5	Inactive		Tank contained JP-5 according to El Toro personnel.	Tank scheduled for removal in 1997.		7
UST 447B	447B	447	3A	1959	10,000	Steel	JP-5	Inactive		Tank contained JP-5 according to El Toro personnel.	Tank scheduled for removal in 1997.		7
UST 449	449	449	1G	1959	3,000	Steel	Fuel oil	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by RWQCB in a letter dated 12/11/95.	No further action required.		2*
UST 450	450	450	1G	1959	3,000	Steel	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA in a letter dated 12/9/96.	No further action required.		2*
UST 451	451	451	1G	1959	3,000	Steel	Diesel	Removed	X	Tank removed by AP. Removal completed by 2/28/94. Site closed by RWQCB in a letter dated 3/12/96.	No further action required.		2*
UST 452	452	452	1G	1959	3,000	Steel	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA in a letter dated 12/9/96.	No further action required.		2*
UST 453	453	453	3A	1960	1,500	Steel	Diesel	Inactive		From 1993 Station UST Inventory: Supply and return lines have been disconnected outside the building.	Tank scheduled for removal in 1997.		2*
UST 454	454	454	3A	1960	1,500	Steel	Diesel	Inactive		From 1993 Station UST Inventory: Supply and return lines have been disconnected outside the building.	Tank scheduled for removal in 1997.		2*
UST 455	455	455	3A	1960	1,500	Steel	Diesel	Removed		From JEG report: UST removed 10/17/91. Excavation was backfilled and seeded with grass. Tank removal verified by Station Environmental Office.			2

Table 3-7
Underground Storage Tank Inventory
(Sheet 15 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 457	457	457	3A	1960	2,000	Steel	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.		2
UST 461	461	461	5A	1960	550	Fiberglass	Diesel	Removed		Tank removed by AP in 1993.		137	2*
UST 462	462	462	5A	1960	550	Fiberglass	Diesel	Removed		Tank removed by AP in 1993.		139	2*
UST 463	463	463	3A	1960	1,500	Steel	Diesel	Removed	X	Tank received waste oil from OWS 845 (SWMU 248). Tank removed by AP in 1993. Site closed by RWQCB in a letter dated 1/22/97.	No further action required.	249	2*
UST 473A	473A	473	1B	1943	1,500	Steel	Diesel	Inactive		Building demolished. Location of UST unknown.	Tank scheduled for removal in 1997.		7
UST 473B	473B	473	1C	1943	1,500	Steel	Diesel	Inactive		Building demolished. Location of UST unknown.	Tank scheduled for removal in 1997.		7
UST 493	493	493	NL	1944	1,500	Concrete	Diesel	Inactive		Unable to locate tank; building no longer exists.	Tank scheduled for removal in 1997.	143	7
UST 529	529	529	4A	1944	25,000	Concrete	Waste Oil	Inactive			Tank scheduled for removal in 1997.	145	2*
UST 547	547	TF 555	2D	1953	567,000	Cylindrical Concrete	JP-5	Active			Tank will be removed following operational closure.		7
UST 548	548	TF 555	2D	1953	567,000	Cylindrical Concrete	JP-5	Active			Tank will be removed following operational closure.		7
UST 549	549	TF 555	2D	1953	567,000	Cylindrical Concrete	JP-5	Active			Tank will be removed following operational closure.		7
UST 550	550	TF 555	2D	1953	567,000	Cylindrical Concrete	JP-5	Active			Tank will be removed following operational closure.		7
UST 551	551	TF 555	2D	1953	567,000	Cylindrical Concrete	JP-5	Active			Tank will be removed following operational closure.		7
UST 553	553	553	2D	1956	10,000	Steel	Gasoline	Removed		Tank removed by AP in 1993.			2*
UST 554	554	554	2D	1956	10,000	Steel	Kerosene	Removed		Tank removed by AP in 1993.			2*
UST 568	568	568	5C	1956	500	Steel	Diesel	Active			Tank will be removed following operational closure.		7
UST 574	574	574	5A	1955	25,000	Cylindrical Concrete	JP-5	Removed		Tank removal verified by Station Environmental Office. According to El Toro staff, USTs 398, 574 - 577 were replaced by USTs 902A, B, & C.			2*
UST 575	575	575	5A	1955	25,000	Cylindrical Concrete	JP-5	Removed		Tank removal verified by Station Environmental Office. According to El Toro staff, USTs 398, and 574 - 577 were replaced by USTs 902A, B, & C.			2*
UST 576	576	576	5A	1955	25,000	Cylindrical Concrete	JP-5	Removed		Tank removal verified by Station Environmental Office. According to El Toro staff, USTs 398, and 574 - 577 were replaced by USTs 902A, B, & C.			2*

Table 3-7
Underground Storage Tank Inventory
(Sheet 16 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 577	577	577	5A	1955	25,000	Cylindrical Concrete	JP-5	Removed		Tank removal verified by Station Environmental Office. According to El Toro staff, USTs 398, and 574 - 577 were replaced by USTs 902A, B, & C.			2*
UST 579	579	579	3F	1957	320	Steel	Unknown	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.		2
UST 581	581	581	2B	1945	550	Steel	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96. (Tank 5243 was confirmed to be a duplicate of UST 581 and, consequently, has been removed from all current databases.)	No further action required.		2*
UST 605A	605A	605	5A	1965	1,700	Steel	Diesel	Removed		From JEG report: UST removed 10/8/91; excavation backfilled and resurfaced with asphalt. Tank removal verified by Station Environmental Office.			2*
UST 605B	605B	605	5A	1965	500	Steel	Diesel	Inactive		Location verified by OHM	Tank scheduled for removal in 1997.		2*
UST 606A	606A	606	5A	1965	1,700	Steel	Diesel	Removed		From JEG report: UST removed 10/8/91; excavation backfilled and resurfaced with asphalt. Tank removal verified by Station Environmental Office.			2*
UST 606B	606B	606	5A	1965	500	Steel	Diesel	Inactive			Tank scheduled for removal in 1997.		7
UST 610	610	610	2A	1966	300	Steel	Gasoline	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96. Tank number changed from 610A to 610.	No further action required.		2
UST 625	625	625	1B	1967	1,500	Steel	Waste Oil	Removed	X	Tank formerly located within current RI/FS Site 20 boundaries. Tank removed by OHM and site closed by RWQCB in a letter dated 8/13/96.	No further action required.	156	2*
UST 627	627	627	3F	unknown	unknown	Fiberglass	Diesel	Removed		Tank removed by OHM. Removal completed by 12/31/96.			2*
UST 634	634	634	2A	1969	10,000	Steel	Fuel oil	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/2/96.	No further action required.		2*
UST 636	636	636	3A	1969	1,500	Steel	Diesel	Removed		Tank removed by Geofon. Removal completed by 12/19/96.			2*
UST 637-1	637-1	637	2A	1969	12,000	Steel	Unleaded	Active			Tank will be removed following operational closure.		7
UST 637-2	637-2	637	2A	1969	12,000	Steel	Unleaded	Active			Tank will be removed following operational closure.		7
UST 637-3	637-3	637	2A	1969	12,000	Steel	Unleaded	Active			Tank will be removed following operational closure.		7
UST 643A	643A	643	5A	1982	185	CPS	Waste oil	Inactive		Associated with OWS 643B.	Tank scheduled for removal in 1997.	162	2*
UST 651-1	651-1	651	1G	1971	12,000	Steel	Unleaded	Active			Tank will be removed following operational closure.		7

Table 3-7
Underground Storage Tank Inventory
(Sheet 17 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 651-2	651-2	651	1G	1971	12,000	Steel	Unleaded	Active			Tank will be removed following operational closure.		7
UST 651-3	651-3	651	1G	1971	12,000	Steel	Unleaded	Active			Tank will be removed following operational closure.		7
UST 651-4	651-4	651	1G	1971	12,000	Steel	Unleaded	Active			Tank will be removed following operational closure.		7
UST 651-5	651-5	651	1G	1971	500	Steel	Waste Oil	Active			Tank will be removed following operational closure.	166	7
UST 651-6	651-6	651	1G	1971	500	Steel	Motor Oil	Active			Tank will be removed following operational closure.	167	7
UST 651-7	651-7	651	1G	1971	500	Steel	Motor Oil	Active			Tank will be removed following operational closure.	168	7
UST 655	655	655	4A	1984	2,000	Fiberglass	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.	250	2
UST 658A	658A	658	2A	1972	10,000	Steel	JP-5	Active			Tank will be removed following operational closure.		7
UST 658B	658B	658	2A	1972	10,000	Steel	JP-5	Active			Tank will be removed following operational closure.		7
UST 662	662	662	1G	1973	10,000	Steel	Fuel oil	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.		2
UST 672	672	672	4A	1972	500	Steel	Waste JP-5	Inactive			Tank scheduled for removal in 1997.	174	7
UST 672B	672B	672	4A	1972	1,000	Steel	Waste Oil	Inactive			Tank scheduled for removal in 1997.	176	2*
UST 673B	673B	673	3A	1982	300	Steel	Waste Oil	Active		Combined with OWS 673A (SWMU 179).	Tank will be removed following operational closure.	180	2*
UST 674A	674A	674	4B	1982	500	Steel	Waste oil	Inactive		Received waste oil from OWS 674B.	Tank will be removed following operational closure.	187	2*
UST 675A	675A	675	4B	1982	500	Steel	Waste oil	Inactive		Received waste oil from OWS 675B (SWMU 292).	Tank will be removed following operational closure.	188	5*
UST 693A	693A	693	1G	1975	500	Steel	Diesel	Removed	X	Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 11/7/96.	No further action required.		2*

Table 3-7
Underground Storage Tank Inventory
(Sheet 18 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 693B	693B	693	1G	1975	500	Steel	Diesel	Removed	X	Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 11/7/96.	No further action required.		1*
UST 706	706	706	NL	1984	100	Steel	Diesel	Removed		Tank removal verified by Station Environmental Office. Building demolished.		191	2*
UST 716A	716A	716	5A	1976	3,000	Steel	Waste Oil	Active		Tank used to store waste oil from OWS 716B.	Tank will be removed following operational closure.	192	7
UST 718	718	718	1B	1978	4,000	Fiberglass	Fuel oil	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.		2
UST 724A	724A	724	5A	unknown	1,000	Steel	Diesel	Active		Building demolished. Supplies fuel to the emergency generator in B372 (Air Traffic Control equipment).	Tank will be removed following operational closure.		2*
UST 730	730	730	1A	1978	1,000	Fiberglass	Diesel	Active		Field inspection conducted on 7/22/93.	Tank will be removed following operational closure.		7
UST 733A	733A	733	1G	1980	10,000	Fiberglass	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.		2*
UST 733B	733B	733	1G	1980	10,000	Fiberglass	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.	286	2*
UST 733C	733C	733	1G	1980	10,000	Fiberglass	Diesel	Removed	X	Tank removed by AP in 1993. Site closed by OCHCA on 12/9/96.	No further action required.	287	2*
UST 733D	733D	733	1G	1980	10,000	Fiberglass	Diesel	Inactive		Newly identified by Station staff in December 1995.	Tank scheduled for removal in 1997.		2*
UST 758B	758B	758	4A	1982	185	Steel	Waste Oil	Active		Stores waste oil from OWS 758A (SWMU 196).	Tank will be removed following operational closure.	197	2*
UST 759B	759B	759	4A	1982	185	Steel	Waste Oil	Active		Stores waste oil from OWS 759A (SWMU 199).	Tank will be removed following operational closure.	200	2*
UST 760A	760A	760	4A	1982	185	Steel	Waste Oil	Active		Stores waste oil from OWS 760B.	Tank will be removed following operational closure.	202	2*
UST 761B	761B	761	5A	1982	500	Steel	Waste Oil	Active		Receives waste oil from OWS 761A (SWMU 205).	Tank will be removed following operational closure.	206	2*
UST 762B	762B	390	3A	1982	185	Steel	Waste Oil	Inactive		Receives waste oil from OWS 762A (SWMU 208).	Tank scheduled for removal in 1997.	209	2*
UST 763B	763B	763	5A	1982	500	Steel	Waste Oil	Active		Receives waste oil from OWS 763A (SWMU 211).	Tank will be removed following operational closure.	212	2*
UST 764A	764A	764	2A	1982	500	Steel	Waste Oil	Active		Receives waste oil from OWS 764B.	Tank will be removed following operational closure.	214	2*

Table 3-7
Underground Storage Tank Inventory
(Sheet 19 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 765A	765A	765	1A	1982	185	Steel	Waste Oil	Active		Receives waste oil from OWS 765B.	Tank will be removed following operational closure.	217	7
UST 766B	766B	766	1A	1982	500	Steel	Waste Oil	Active		Receives waste oil from OWS 766A (SWMU 220). Tank under repair/construction as of 2/94 according to El Toro staff.	Tank will be removed following operational closure.	221	2*
UST 782	782	782	3A	unknown	1,000	Steel	Gasoline	Inactive		UST found by an OCHCA Inspector; tank is inactive. Per El Toro staff, tank is active and has no monitoring system in place.	Tank scheduled for removal in 1997.		2*
UST 797	797	797	1A	1985	10,000	Fiberglass	Aviation Gas	Active		This UST is a double-walled tank with a liquid probe in place according to El Toro staff.	Tank will be removed following operational closure.		7
UST 800A	800A	800	4B	1984	10,000	Fiberglass	Diesel	Active			Tank will be removed following operational closure.		7
UST 800B	800B	800	4B	1984	10,000	Fiberglass	Kerosene	Active			Tank will be removed following operational closure.		7
UST 800C	800C	800	4B	1984	10,000	Fiberglass	Diesel	Active			Tank will be removed following operational closure.		7
UST 800D	800D	800	4B	1984	1,000	Fiberglass	Waste Oil	Active			Tank will be removed following operational closure.	230	7
UST 800E	800E	800	4B	1984	1,000	Fiberglass	Waste Oil	Active			Tank will be removed following operational closure.	231	2*
UST 850A	850 A	850	5A	1988	5,000	Fiberglass	JP-5	Active		Located within RI/FS Site 16 boundaries.	Tank will be removed following operational closure.	288	7
UST 850B	850 B	850	5A	1988	5,000	Fiberglass	JP-5	Active		Located within RI/FS Site 16 boundaries.	Tank will be removed following operational closure.	289	7
UST 850C	850 C	850	5A	1988	500	Fiberglass	Water	Active		Located within RI/FS Site 16 boundaries. May contain/store oily waste water from burn pit.	Tank will be removed following operational closure.	290	7
UST 891A	891A	414	5A	1990	30,000	Fiberglass coated steel	JP-5	Active			Tank will be removed following operational closure.		7
UST 891B	891B	414	5A	1990	30,000	Fiberglass coated steel	JP-5	Active			Tank will be removed following operational closure.		7

Table 3-7
Underground Storage Tank Inventory
(Sheet 20 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 891C	891C	414	5A	1990	2,500	Fiberglass coated steel	JP-5	Active			Tank will be removed following operational closure.	20	7
UST 902A	902A	902	5A	1993	50,000	Fiberglass Coated Steel	JP-5	Active		Located in a restricted area. Has a "Tank Watch" monitoring system. USTs 902A-C replaced UST 398.	Tank will be removed following operational closure.		7
UST 902B	902B	902	5A	1993	50,000	Fiberglass Coated Steel	JP-5	Active		Located in a restricted area. Has "Tank Watch" monitoring system. USTs 902 A-C replaced UST 398.	Tank will be removed following operational closure.		7
UST 902C	902C	902	5A	1993	2,500	Fiberglass Coated Steel	JP-5	Active		Used fuel separator. Has "Tank Watch " monitoring system. USTs 902 A-C replaced UST 398.	Tank will be removed following operational closure.		7
UST 5101	5101	5101	1D	1943	500	Steel	Diesel	Inactive		Supplied fuel to boilers in Bldgs. 5101 & 5102.	Tank scheduled for removal in 1997.		2*
UST 5102	5102	5102	1D	1943	500	Steel	Fuel oil	Inactive			Tank scheduled for removal in 1997.		2*
UST 5201	5201	5201	2B	1945	300	Steel	Fuel oil	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5202	5202	5202	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5203	5203	5203	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5204	5204	5204	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5205	5205	5205	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5206	5206	5206	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5207	5207	5207	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5208	5208	5208	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5209	5209	5209	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5210	5210	5210	2B	1945	300	Steel	Diesel	Removed	X	Tank removed and closed during the Irvine Relocation project in 1990. Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 2/28/96.	No further action required.		2*
UST 5211	5211	5211	2B	1945	300	Steel	Diesel	Removed	X	Tank removed and closed during the Irvine Relocation project in 1990. Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 2/28/96.	No further action required.		2*

Table 3-7
Underground Storage Tank Inventory
(Sheet 21 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 5212	5212	5212	2C	1945	300	Steel	Diesel	Removed	X	Tank removed and closed during the Irvine Relocation project in 1990. Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 2/28/96.	No further action required.		2
UST 5213	5213	5213	2C	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5214	5214	5214	2C	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5215	5215	5215	2C	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5216	5216	5216	2C	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5217	5217	5217	2C	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5218	5218	5218	2C	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5219	5219	5219	2C	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5220	5220	5220	2C	1945	300	Steel	Diesel	Removed	X	Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 2/23/96.	No further action required.		2*
UST 5221	5221	5221	2C	1945	300	Steel	Diesel	Removed	X	Tank removed and closed during the Irvine Relocation project in 1990. Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 2/28/96.	No further action required.		2*
UST 5222	5222	5222	2B	1945	300	Steel	Diesel	Removed	X	Tank removed and closed during the Irvine Relocation project in 1990. Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 2/28/96.	No further action required.		2*
UST 5223	5223	5223	2B	1945	300	Steel	Diesel	Removed	X	Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 2/23/96.	No further action required.		2*
UST 5224	5224	5224	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2*
UST 5225	5225	5225	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5226	5226	5226	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5227	5227	5227	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5228	5228	5228	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5229	5229	5229	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5230	5230	5230	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2

Table 3-7
Underground Storage Tank Inventory
(Sheet 22 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST 5231	5231	5231	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5232	5232	5232	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5233	5233	5233	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5234	5234	5234	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5235	5235	5235	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5236	5236	5236	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5237	5237	5237	2B	1945	300	Steel	Diesel	Removed	X	Tank removed and closed during the Irvine Relocation project in 1990. Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 2/28/96.	No further action required.		2*
UST 5238	5238	5238	2C	1945	300	Steel	Diesel	Removed	X	Tank removed and closed during the Irvine Relocation project in 1990. Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 2/28/96.	No further action required.		2*
UST 5239	5239	5239	2C	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5240	5240	5240	2C	1945	300	Steel	Diesel	Removed	X	Tank removed and closed during the Irvine Relocation project in 1990. Tank removal verified by Station Environmental Office. Site closed by OCHCA in a letter dated 2/28/96.	No further action required.		2
UST 5241	5241	5241	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST 5242	5242	5242	2B	1945	300	Steel	Diesel	Removed	X	Tank removed by DAS. Removal completed by 9/15/95. Site closed by OCHCA in a letter dated 3/1/96.	No further action required.		2
UST T-1	T-1	TF 555	2D	1988	2,000	Fiberglass Coated Steel	Waste JP-5	Active		From EG&G report: Tank stores spilled fuel from TF-555.	Tank will be removed following operational closure.	23	2*
UST T-2	T-2	TF 4	5A	1988	2,000	Fiberglass Coated Steel	Waste JP-5	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.	18	2*
UST T-3	T-3	TF 4	2A	1988	2,000	Fiberglass Coated Steel	Waste JP-5	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.	19	2*
UST T-4	T-4	TF 3	1A	1988	2,000	Fiberglass Coated Steel	Waste Oil	Removed	X	Tank removed by AP. Site closed by OCHCA in a letter dated 11/13/96.	No further action required.	58	2*
UST T-5	T-5	TF 2	1A	1988	2,000	Fiberglass Coated Steel	Waste JP-5	Removed		Tank removed by Toxguard Systems, Inc. Removal completed by 6/14/96. From EG&G report: Tank stored spilled fuel from TF-2.	Tank included in a remediation contract with OHM.	17	2*
UST T-6	T-6	TF 5	2A	1988	2,000	Fiberglass Coated Steel	Waste JP-5	Removed		Tank removed by AP. Removal completed by 12/16/96.		21	2*

Table 3-7
Underground Storage Tank Inventory
(Sheet 23 of 23)

Database Tracking No.	Tank No.	Nearest Building No.	Parcel	Year Tank Installed	Capacity (gallons)	Tank Material	Substance Stored	Status	Closed	Comments	Future Actions	SWMU No.	ECP Area Type
UST T-7	T-7	TF 6	5A	1988	2,000	Fiberglass Coated Steel	Waste JP-5	Active		From EG&G report: Tank stores spilled fuel from TF-6.	Tank will be removed following operational closure.	24	2*
UST T-8	T-8	TF 5,6	2A	1988	2,000	Fiberglass Coated Steel	Waste JP-5	Active		From EG&G report: Tank stores spilled fuel from TF-5 & 6.	Tank will be removed following operational closure.	22	2*
UST T-9	T-9	779	5A	1988	2,000	Fiberglass Coated Steel	JP-5	Inactive		From EG&G report: Tank is fuel slop tank near Bldg. 779.	Tank scheduled for removal in 1997.	228	2*
UST T-10	T-10	Taxiway	5A	1988	1,000	Fiberglass Coated Steel	JP-5	Inactive		From EG&G report: Tank is fuel slop tank near Bldg. 374.	Tank included in a remediation contract with OHM. Tank scheduled for removal in 1997.	108	2*
UST T-11	T-11	297	5A	1988	1,000	Fiberglass Coated Steel	JP-5	Active		From EG&G report: Tank is slop fuel tank between Bldg. 297 & 388.	Tank will be removed following operational closure.	75	2*

Primary Source: MCAS El Toro electronic database, as supplied by Lt. Hope Katcharian (11/96)

Abbreviations:
AP - American Processing (UST removal contractor)
AOC - Area of Concern
BCT - BRAC Cleanup Team
BNI - Bechtel National, Inc.
CA - California
DAS - Diversified Analytical Services, Inc.
DTSC - Department of Toxic Substances Control
ECP - environmental condition of property
EG&G -
EPA - Environmental Protection Agency
FA - further action
JEG - Jacobs Engineering Group
JTL - JTL Environmental Remediation Group (UST removal contractor)
ND - not detected
NFA - no further action
OCHCA - Orange County Health Care Agency
OHM - OHM Remediation Services Corporation
OWS - oil/water separator
PNI - Phillips National, Inc.
RAC - Remedial Action Contract
RFA - Resource Conservation and Recovery Act (RCRA) Facility Assessment
RWQCB - Regional Water Quality Control Board
SWMU - solid waste management unit
TF - tank farm
UST - underground storage tank

Note: ECP Area Type designations which are followed by an asterisk (*) have changed since the March 1996 BCP.

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Table 3-8
Aboveground Storage Tank Inventory
(Sheet 1 of 1)

Database Tracking	Parcel	Location	Description (Size/Contents/Type)	Status	AST No.	Source[1]	ECP Area Type
AST 126	2A	Building 126	300 gallons/Oil. Not plotted on BCP figures.	Removed	126	A	1*
AST 155	5A	Building 155 (NW side)	200 gallons/ Lube Oil or Diesel Fuel/ HT	Active	155	A, F	2
AST 245	1A	Building 245	1,000 gallons/ propane or air/ HT	Active	245	B, F	2
AST 317	4B	Building 317 (inside)	275 gallons/ Fuel Oil/ HT	Inactive	317	D, E, F	2
AST 318	4B	Building 318 (inside)	275 gallons/ Fuel Oil/ red HT	Inactive	318	D, E, F	2
AST 319	4B	Building 319 (inside bldg., SW corner)	275 gallons/ Fuel Oil/ HT	Inactive	319A	D, E, F	2
AST 390A	3A	Building 390 (N side)	500 gallons/ Unleaded/ VT	Active	390A	A, F	2
AST 390B	3A	Building 390 (N side)	500 gallons/ Diesel/ VT	Active	390B	A, F	2
AST 610	2A	Building 610 (S side)	300 gallons/ Diesel Fuel Oil/ HT (formerly AST "610B")	Active	610	E, F	2
AST 619	3F	Building 619	Diesel	Active	619	D, E, F	2
AST 637	2A	Building 637	500 gallons/Propane	Removed	637	B	1*
AST 651	1G	Building 651 (W side)	1,000 gallons/ Propane/ HT	Active	651	B, F	2
AST 670	1G	Building 670	Liquid Propane Gas	Removed	670	C	1*
AST 717	5A	Building 717 (in shed, SE of bldg.)	500 gallons/ Diesel/ HT	Active	717	A, F	2
AST 753	4A	Building 753 (NW side)	200 gallons/ Pesticides/ yellow HT	Active	753	A, F	7*
AST 797	5A	Building 797	1,000 gallons/ Waste Oil/ HT (labeled Hazardous Waste)	Active	797	A, F	2
AST 862	4B	Building 862 (adjacent to 789 & 496)	30,000 gallons/ JP-5/ HT (per note "C," it is Hazardous Waste)	Active	862	A, C, F	2
AST 883	1B	Building 883 (S side)	1,000 gallons/ empty (formerly waste oil)/ yellow rectangular tank (formerly AST 626)	Inactive	883	F	2

Notes: 1 Letters in this column correspond to the following information sources:

(A) Personal communications, R. Duffin/MCAS El Toro EO, February/March 1993. Contingency Plan, January 1994.

(B) SAIC, Draft Oil and Hazardous Substances Spill Prevention and Countermeasure Plan and Contingency Plan, January 1994.

(C) MCAS El Toro Building Guide (July 8, 1995).

(D) EG&G, MCAS El Toro Underground Storage Tank Survey Report, November 1990. This report identified these tanks as underground storage tanks, however the tanks were later identified as aboveground storage tanks by Station staff (source E).

(E) Personal communications, Lt. H. Katcharian/MCAS El Toro EO, December 1995.

(F) Ongoing field verification inventory study under CLEAN II (CTO-0075).

[2] An asterisk following the area type indicates that the area type designation has changed since the March 1996 BCP.

Abbreviations:

AST - aboveground storage tank
CTO - Contract Task Order
ECP - environmental condition of property
EO - Environmental Office
HT - horizontal tank
VT - vertical tank

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Table 3-9
Less-Than-90-Day Accumulation Areas
(Sheet 1 of 7)

Database Tracking	Building Number	Parcel	Status	Closure Evaluation[1]	SWMU/ AOC No.	RFA Sampling	Comments	ECP Area Type[2]
TAA 2	2	1A	Active	X	-		Identified in 1994 SPCC Plan. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed.	3*
TAA 5A	5	5A	Inactive	X	25		Sampling visit not recommended during PR/VSI. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 5B	5	1A	Active	X	26	X	Initial RFA recommended excavation of shallow stained soil. Site visited for RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed.	6
TAA 7	7	5A	Active	X	-	X	Identified in 1994 SPCC Plan. In final RFA Addendum (BNI, 1996) nine samples collected from three locations; a "release" was not detected. Evaluation of removal and/or decontamination strategy proposed, and possible sampling.	1
TAA 10	10	1A	Active	X	27	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 19	19	1A	Inactive		-		Identified in Station's HW Open Drum Inspection Report.	7
TAA 22	22	1A	Active	X	-		Identified in 1994 SPCC Plan. Site visited for final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed.	3*
TAA 29A	29	1D	Inactive	X	30	X	Area has been cleaned as of 12/94; clean and vacant as of 11/95. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	3
TAA 29B	29	1D	Inactive	X	31		Located within boundaries of IRP Site 15. Area has been cleaned as of 12/94; clean and vacant as of 11/95. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	3
TAA 31A	31	1D	Active	X	272	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
TAA 31B	31	1D	Inactive	X	-		Identified in 1994 SPCC Plan. Site visited for final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed.	3*
TAA 51	51	1D	Inactive	X	33	X	Final RFA Addendum (BNI, 1996): excavation of shallow, stained soil, and evaluation of removal and/or decontamination strategy proposed.	6
TAA 77	77	1B	Inactive		-		Identified in Station's HW Open Drum Inspection Report	7
RFA 35	96	4A[4]	Inactive		35		Source: SPCC map (no date). Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*

Table 3-9
Less-Than-90-Day Accumulation Areas
(Sheet 2 of 7)

Database Tracking	Building Number	Parcel	Status	Closure Evaluation[1]	SWMU/ AOC No.	RFA Sampling	Comments	ECP Area Type[2]
TAA 114	114	5A	Active	X	38		No materials present; no surface defects. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 115	115	5A	Active	X	39	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	3
TAA 130C	130	2A	Inactive	X	42		Sampling visit not recommended during PR/VSI. Surface free of defects. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 130A	130	2A	Inactive	X	294		Sampling visit not recommended during PR/VSI. Site visited for final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed.	1
TAA 130B	130	2A	Inactive	X	295		Sampling visit not recommended during PR/VSI. Site visited for final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed.	1
TAA 155C	155	5A	Inactive	X	45	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
TAA 155A	155	5A	Inactive	X	240		No evidence of release. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 155B	155	5A	Inactive	X	241	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
RFA 47	172	3F[4]	Inactive		47		Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
TAA 240	240	1A	Inactive	X	64		Newly constructed; no release observed. Sampling visit not recommended during PR/VSI. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 242	242	1A	Active	X	67		Located within boundaries of IRP Site 13. Sampling visit not recommended during PR/VSI. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
TAA 289	289	5A	Active	X	70	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
RFA 71	295	5A	Active		71		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 7, but will not be addressed under the IR Program.	6
RFA 72	296	5A	Active		72		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 7, but will not be addressed under the IR Program.	6
TAA 297	297	5A	Active	X	73	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*

Table 3-9
Less-Than-90-Day Accumulation Areas
(Sheet 3 of 7)

Database Tracking	Building Number	Parcel	Status	Closure Evaluation[1]	SWMU/ AOC No.	RFA Sampling	Comments	ECP Area Type[2]
TAA 298	298	4A	Inactive	X	83	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 306	306	4A	Inactive	X	88	X	Final RFA Addendum (BNI, 1996): PCBs detected in shallow soils (0 - 2 feet). Recommended transfer to the RAC for surface soil removal action.	6
TAA 307	307	4A	Active		-		Identified in Station's HW Open Drum Inspection Report	7
TAA 314	314	4A	Inactive	X	269	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
TAA 317	317	4B	Inactive	X	93		Detergent storage only. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
RFA 94	320	4B[4]	Active		94		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 21, but will not be addressed under the IR Program.	6
TAA 357	357	4A	Inactive	X	97		No evidence of release. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 359B	359	4B	Inactive	X	99	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
TAA 359A	359	4B	Inactive	X	254		No evidence of release. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
RFA 104	360	5A[4]	Inactive		104		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 8, but will not be addressed under the IR Program.	6
RFA 105	360	5A[4]	Inactive		105		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 8, but will not be addressed under the IR Program.	6
RFA 106	360	5A[4]	Inactive		106		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 8, but will not be addressed under the IR Program.	6
TAA 370	370	4A	Active	X	-		Identified in 1994 SPCC Plan. Site visited for final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed.	7
TAA 371A	371	5A	Active	X	107	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 371B	371	5A	Inactive	X	242	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
RFA 109	379	4A[4]	Inactive		109		Source: SPCC map (no date). Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*

Table 3-9
Less-Than-90-Day Accumulation Areas
(Sheet 4 of 7)

Database Tracking	Building Number	Parcel	Status	Closure Evaluation[1]	SWMU/ AOC No.	RFA Sampling	Comments	ECP Area Type[2]
TAA 386	386	4A	Active	X	114		Source: 1980 DHS photograph; no evidence of release. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 388A	388	4A	Active	X	116	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
TAA 388B	388	4A	Inactive	X	251		No evidence of release/surface defects. Site visited for final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed.	1
TAA 389A	389	3A	Inactive	X	119		No evidence of release. Site visited for final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed.	1
TAA 389B	389	3A	Inactive	X	259		Drum storage not confirmed. Site visited for final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed.	1
TAA 390A	390	3A	Inactive	X	122		Source: 1980 DHS photograph; no evidence of release. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 390B	390	3A	Inactive	X	261	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
TAA 392A	392	2A	Active	X	124	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
TAA 392B	392	2A	Inactive	X	271	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
TAA 398	398	5A	Inactive	X	252	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
RFA 125	415	2B	Inactive	X	125	X	Site was dismantled and stored waste had been removed since VSI was conducted in 1991. NFA concurrence by DTSC (letter dated 7/23/96).	3
TAA 441	441	3A	Inactive	X	256	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
TAA 442	442	3A	Inactive	X	126		New site; no evidence of release. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 443	443	1G	Active		-		Not plotted on Figure 3-1 or Figure 3-4.	7
TAA 445	445	4A	Inactive	X	127		No evidence of release. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1

Table 3-9
Less-Than-90-Day Accumulation Areas
(Sheet 5 of 7)

Database Tracking	Building Number	Parcel	Status	Closure Evaluation[1]	SWMU/ AOC No.	RFA Sampling	Comments	ECP Area Type[2]
TAA 447	447	3A	Inactive	X	130	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
RFA 133	453	3A[4]	Inactive		133		Source: SPCC map (no date). Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
RFA 134	454	3A[4]	Inactive		134		Source: SPCC map (no date). Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
TAA 456	456	3A	Inactive	X	135		No evidence of release. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 461	461	5A	Active	X	138	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 462	462	5A	Active	X	140		Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 529	529	4A	Inactive	X	144	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 534	534	4B	Inactive	X	146		Stored inside building. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 602	602	2A	Inactive	X	147	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
TAA 605	605	5A	Active	X	149	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
TAA 606	606	5A	Active	X	255	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 626	626	1B	Active		158		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 20, but will not be addressed under the IR Program. Not plotted on Figure 3-1 or Figure 3-4.	6
TAA 634	634	2A	Active	X	-		Identified in 1994 SPCC Plan. Site visited for final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed.	1*
TAA 636	636	3A	Inactive	X	160	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
TAA 651	651	1G	Active	X	165	X	Located on/combined with SWMU/AOC 164 (vehicle wash rack). Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*

Table 3-9
Less-Than-90-Day Accumulation Areas
(Sheet 6 of 7)

Database Tracking	Building Number	Parcel	Status	Closure Evaluation[1]	SWMU/ AOC No.	RFA Sampling	Comments	ECP Area Type[2]
TAA 658	658	2A	Inactive	X	171	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	3
TAA 671	671	4A	Active	X	172	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 672	672	4A	Inactive	X	177		Product storage. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 673	673	3A	Active	X	186	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 693	693	1G	Active		-		Identified in Station's HW Open Drum Inspection Report	7
TAA 698	698	5A	Inactive	X	-		Identified in 1994 SPCC Plan. Site visited for final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed.	1
TAA 744	744	1G	Active	X	-		Identified in 1994 SPCC Plan. Site visited for final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed.	1*
TAA 746	746	2A	Active		-		Identified in Station's HW Open Drum Inspection Report	7
TAA 747	747	2A	Active		-		Identified in Station's HW Open Drum Inspection Report	7
TAA 761	761	3A	Inactive		236		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 20, but will not be addressed under the IR Program.	7
TAA 765	765	3F	Inactive	X	266		Surface free of defects. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 769	769	4A	Inactive	X	222	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 770	770	4A	Inactive	X	223	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 771	771	1D	Inactive	X	224	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 772	772	3F	Inactive	X	225	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 778	778	5A	Inactive	X	226	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1

Table 3-9
Less-Than-90-Day Accumulation Areas
(Sheet 7 of 7)

Database Tracking	Building Number	Parcel	Status	Closure Evaluation[1]	SWMU/ AOC No.	RFA Sampling	Comments	ECP Area Type[2]
TAA 779	779	5A	Inactive	X	227	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
TAA 800	800	4B	Active	X	229	X	Sump is a 2 inch-diameter PVC pipe and cap that appears watertight. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed, and possible sampling. NFA pending Station closure.	1
TAA 831	831	3A	Inactive		-		Identified in Station's HW Open Drum Inspection Report	7
TAA 856	856	3A	Active	X	234	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1*
TAA 900	900	2A	Active		-		Environmental Office accumulation area	7
RFA 237	1700	-	Inactive		237		Source: SPCC map (no date). Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
RFA 238	1727	4A[4]	Inactive		238		Source: SPCC map (no date). Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*

Sources: Bechtel National, Inc. 1996. MCAS El Toro final Addendum to the Final RCRA Facility Assessment.
Jacobs 1993. MCAS El Toro Final RCRA Facility Assessment Report.
MCAS El Toro Hazardous Waste Open Drum Inspection Report Sheet
SAIC 1994. Draft Oil and Hazardous Substances Spill Prevention and Countermeasure Plan and Contingency Plan (SPCC)

Notes:
[1] Accumulation areas are currently being evaluated for removal and/or decontamination strategies.
[2] An asterisk following an area type indicates that the area type designation has changed since the March 1996 BCP.
[3] SWMUs/AOCs that were determined to be located within RI/FS site boundaries were eliminated from RFA sampling visits. However, these SWMUs/AOCs will be investigated in the appropriate Compliance Program, not in the IRP.
[4] These sites were not plotted on the GIS map because they were not evaluated under the PR/VSI. The parcels listed correspond to the nearest building location.

Abbreviations:
BCT - BRAC Cleanup Team
BNI - Bechtel National, Inc.
DHS - Department of Health Services
DTSC - Cal-EPA Department of Toxic Substances Control
EBS - Environmental Baseline Survey
ECP - environmental condition of property
GIS - geographical information system
HW - hazardous waste
IRP - Installation Restoration Program
MCAS - Marine Corps Air Station
NFA - no further action
PCB - polychlorinated biphenyl
PR/VSI - Preliminary Review/Visual Site Inspection performed as part of the RFA
PRGs - US EPA Preliminary Remediation Goals
RAC - Remedial Action Contractor
RFA - Resource Conservation and Recovery Act (RCRA) Facility Assessment
SI - Site Inspection
SPCC - Spill Prevention and Countermeasure Plan and Contingency Plan
SWMU/AOC - Solid Waste Management Unit/Area of Concern
TAA - temporary accumulation area

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Table 3-10
PCB Transformer Inventory
(Sheet 1 of 6)

Database Tracking	Building Number	Original Transformer ID Number	Location[3]	Type	Status	1994 Field Survey Observations/ Other Comments	Parcel	ECP Area Type
PCB T1	6	F503496-65P	W, PD	Pad	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	5A	1
PCB T2	12	5KL505	CS	Pad	Replaced	Transformer replaced; no evidence of release observed.	1A	1
PCB T3	19	1350660	S, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	1A	1
PCB T4	35	NA	NW, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1D	1
PCB T5	58	23971	S, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	1C	1
PCB T6	59	6954405	S, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	1C	1
PCB T7	59	6954539	S, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	1C	1
PCB T8	59	6956179	S, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	1C	1
PCB T9	60	7092522	S, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	1C	1
PCB T10	65	645B17826	N, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1C	1
PCB T11	65	645B17827	N, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1C	1
PCB T12	65	645B17855	N, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1C	1
PCB T13	105	7093890	PL	Pole	Removed	A pad-mounted non-PCB (labeled) transformer (No. 16773-2) is located adjacent to pole, and possibly replaced pole transformer; no evidence of release observed.	2A	1
PCB T14	114	177072	C, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	5A	1
PCB T15	115	177071	C, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	5A	1
PCB T16	118	681549	N, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	2A	1
PCB T17	120	7093966	W, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	2A	1
PCB T18	120	7092506P	W, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	2A	1
PCB T19	120	7093966P	W, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	2A	1
PCB T20	125	53233	N, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	2A	1
PCB T21	125	6160963	N, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	2A	1
PCB T22	129	7092697	NW corner, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	2A	1
PCB T23	129	7092974	NW, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	2A	1
PCB T24	129	7093975	NW, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	2A	1

Table 3-10
PCB Transformer Inventory
(Sheet 2 of 6)

Database Tracking	Building Number	Original Transformer ID Number	Location[3]	Type	Status	1994 Field Survey Observations/ Other Comments	Parcel	ECP Area Type
PCB T25	165	14346-1	N	Pad	Replaced	Transformer replaced; no evidence of release observed.	3A	1
PCB T26	203	5638241	SE, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	2A	1
PCB T27	203	6455115	SE, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	2A	1
PCB T28	248	6887930	NA	NA	Removed	No transformers present at Building 248; no evidence of release observed.	1D	1
PCB T29	248	66F2983	NA	NA	Removed	No transformers present at Building 248; no evidence of release observed.	1D	1
PCB T30	248	66F3028	NA	NA	Removed	No transformers present at Building 248; no evidence of release observed.	1D	1
PCB T31	248	66K117	NA	NA	Removed	No transformers present at Building 248; no evidence of release observed.	1D	1
PCB T32	248	66K154	NA	NA	Removed	No transformers present at Building 248; no evidence of release observed.	1D	1
PCB T33	248	NA	NA	NA	Removed	No transformers present at Building 248; no evidence of release observed. Not plotted on Figure 3-1 or Figure 3-4.	1F	1
PCB T34	264	9750379	N, PD	Pad	Replaced	Transformer ID nos. 9750379 and 9750997 have been replaced with one transformer; no evidence of release observed.	1B	1
PCB T35	264	9750997	N, PD	Pad	Replaced	Transformer ID nos. 9750379 and 9750997 have been replaced with one transformer; no evidence of release observed.	1B	1
PCB T36	272	3700258	S, PD	Pad	Replaced	Transformer has been replaced; new transformer appeared to be in good condition, with no indication of PCBs; no evidence of release observed.	1B	1
PCB T37	272	6962781	S, PD	Pad	Replaced	Transformer has been replaced; new transformer appeared to be in good condition, with no indication of PCBs; no evidence of release observed.	1B	1
PCB T38	272	7093990	S, PD	Pad	Replaced	Transformer has been replaced; new transformer appeared to be in good condition, with no indication of PCBs; no evidence of release observed.	1B	1
PCB T39	281	7093256	N, PD	Pad	Removed	Building has been demolished; no evidence of transformer	1B	1
PCB T40	281	7093261	N, PD	Pad	Removed	Building has been demolished; no evidence of transformer	1B	1
PCB T41	281	7220136	N, PD	Pad	Removed	Building has been demolished; no evidence of transformer	1B	1
PCB T42	285	6224013	S, PD	Pad	Replaced	Transformer has been replaced; new transformer appeared to be in good condition, with no indication of PCBs; no evidence of release observed.	1B	1
PCB T43	285	7093682	S, PD	Pad	Replaced	Transformer has been replaced; new transformer appeared to be in good condition, with no indication of PCBs; no evidence of release observed.	1B	1

Table 3-10
PCB Transformer Inventory
(Sheet 3 of 6)

Database Tracking	Building Number	Original Transformer ID Number	Location[3]	Type	Status	1994 Field Survey Observations/ Other Comments	Parcel	ECP Area Type
PCB T44	285	7220241	S, PD	Pad	Replaced	Transformer has been replaced; new transformer appeared to be in good condition, with no indication of PCBs; no evidence of release observed.	1B	1
PCB T45	311	B58240	E, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	1
PCB T46	328	72535	E, PL	Pole	Removed	Transformer has been removed.	1C	1
PCB T47	328	6587555	E, PL	Pole	Active	Non-PCB transformer; no evidence of release observed.	1C	1
PCB T48	328	65875666	E, PL	Pole	Unknown [2]	No evidence of release observed.	1C	1
PCB T49	335	1888163	S, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	1
PCB T50	359	B335346	W, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	4B	1
PCB T51	360	B335627	S, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	4B	1
PCB T52	365	62194	B	Pad	Removed	Building demolished in 1988 and another building was constructed at the location; therefore, location could not be inspected.	1G	1
PCB T53	368	62220	C, RX	Pad	Removed	Transformer removed; no evidence of release observed.	4A	1
PCB T54	369	62221	N, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	1
PCB T55	370	62222	E, RX	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	1
PCB T56	371	10097-1	S, M	Pad	Replaced	Original transformer replaced with a non-PCB transformer, and pad removed; no evidence of release	5A	7
PCB T57	371	10098-1	S, M	Pad	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	5A	1
PCB T58	372	14538	W, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	5A	1
PCB T59	374	14440	S, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	3A	1
PCB T60	378	06577-1	MH	Pad	Replaced	Transformer replaced; no evidence of release observed.	5A	1
PCB T61	383	B684198	N, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	1
PCB T62	386	4418	E, PD	Pad	Replaced	Transformer replaced (three transformers present); no evidence of release observed.	4A	1
PCB T63	406	9908129	N, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	3A	1
PCB T64	410	NA	N, PL	Pole	Removed	A pad-mounted non-PCB (labeled) transformer (No. 14515) is located adjacent to pole, and possibly replaced pole transformer; no evidence of release observed.	1F	1

Table 3-10
PCB Transformer Inventory
(Sheet 4 of 6)

Database Tracking	Building Number	Original Transformer ID Number	Location[3]	Type	Status	1994 Field Survey Observations/ Other Comments	Parcel	ECP Area Type
PCB T65	410	NA	N, PL	Pole	Removed	A pad-mounted non-PCB (labeled) transformer (No. 14545) is located adjacent to pole, and possibly replaced pole transformer; no evidence of release observed.	1F	1
PCB T66	415	C379541	S, M	Pad	Replaced	Transformer replaced; no evidence of release observed.	2B	1
PCB T67	439	C-861785	NC, B	Pad	Removed	Transformer removed; no evidence of release observed.	1G	1
PCB T68	445	C861997A	NW, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	1
PCB T69	447	C861997B	E, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	3A	1
PCB T70	449	7371282	B	Pad	Removed	Transformer removed; no evidence of release observed.	1G	1
PCB T71	450	7371279	C, B	Pad	Removed	Transformer removed; no evidence of release observed.	1G	1
PCB T72	451	7371281	E, B	Pad	Removed	Transformer removed; no evidence of release observed.	1G	1
PCB T73	452	7371280	E, B	Pad	Removed	Transformer removed; no evidence of release observed.	1G	1
PCB T74	457	C-862139	S, PD	Pad	Replaced	Transformer replaced; location sampled during RFA (SWMU 244); further investigation planned.	3A	7
PCB T75	458	E-687091	SE, PD	Pad	Active	Transformer in operation; scheduled for replacement in 1997. PCBs = 104 ppm	5A	1
PCB T76	460	9845884	E, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	3F	1
PCB T77	460	D317654	E, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	3F	1
PCB T78	464	J929874T71AA	E, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	3F	1
PCB T79	482	151103	S, PD	Pad	Removed	Building demolished; no evidence of transformer location.	5A	1
PCB T80	582	B336887	S, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	2C	1
PCB T81	605	F-694715B	C, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	5A	1
PCB T82	606	E-694715A	C, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	5A	1
PCB T83	630	NA	NE, PL	Pole	Removed	Building demolished; no evidence of release observed.	1C	1
PCB T84	631	10096-1	E, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	1
PCB T85	634	PAV 1646-01	EC, RI	Pad	Removed	Transformer enclosure present, but transformer removed; no evidence of release observed.	2A	1
PCB T86	634	YAP-70141	EC, RI	Pad	Removed	Transformer enclosure present, but transformer removed; no evidence of release observed.	2A	1

Table 3-10
PCB Transformer Inventory
(Sheet 5 of 6)

Database Tracking	Building Number	Original Transformer ID Number	Location[3]	Type	Status	1994 Field Survey Observations/ Other Comments	Parcel	ECP Area Type
PCB T87	636	10832-1	RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	3A	1
PCB T88	655	12945-1	S, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	1
PCB T89	658	C173562	E, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	2A	1
PCB T90	671	II344577P73AA	E, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	1
PCB T91	692	786787895	N, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1D	1
PCB T92	692	786787910	N, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1D	1
PCB T93	692	786787919	N, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1D	1
PCB T94	716	Westinghouse	SE, PD	Pad	Replaced	No evidence of release observed.	5A	1
PCB T95	1765	959077	S	NA	Removed	Unable to identify transformer location. Not plotted on Figure 3-1 or Figure 3-4.	NA	1
PCB T96	5014	5635257	PL	Pole	Removed	No evidence in data base files; no evidence of release observed.	2A	1
PCB T97	5201	6963930P	PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	2B	1
PCB T98	5240	6969510	E, PL	Pole	Removed	Transformer removed; no evidence of release observed.	2C	1
PCB T99	5417	7794141	Backyard, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1D	1
PCB T100	5417	7794142	Backyard, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1D	1
PCB T101	5417	7794143	Backyard, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1D	1
PCB T102	5215/5216	69680882	PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	2C	1
PCB T103	687 [1]	793397	C, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1D	1
PCB T104	687 [1]	794144	C, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1D	1
PCB T105	687 [1]	6900519	C, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1D	1
PCB T106	Gate 9	6833177	E, PL	Pad	Replaced	Transformer replaced; no evidence of release observed.	5A	1
PCB T107	NA	66F2984	NA	NA	Removed	Unable to identify transformer location. Not plotted on Figure 3-1 or Figure 3-4.	NA	1
PCB T108	NA	NA	NE, PL	Pole	Removed	A pad-mounted non-PCB (labeled) transformer (No. 14518) is located adjacent to pole, and possibly replaced pole transformer; no evidence of release observed.	1F	1
PCB T109	Tank Farm #6	NA	W, PL	Pole	Unknown [2]	Building demolished; no evidence of release observed.	2A	1
PCB T110	271-1	70465	NW, PD	Pad	Active	Tested by PWC; PCB conc. < 1 ppm.	1B	1
PCB T111	271-1	70464	NW, PD	Pad	Active	Tested by PWC; PCB conc. < 1 ppm.	1B	1

Table 3-10
PCB Transformer Inventory
(Sheet 6 of 6)

Database Tracking	Building Number	Original Transformer ID Number	Location[3]	Type	Status	1994 Field Survey Observations/ Other Comments	Parcel	ECP Area Type
PCB T112	271-1	70609	NW, PD	Pad	Active	Tested by PWC; PCB conc. < 1 ppm.	1B	1
PCB T113	280-1	8335544	NW, PD	Pad	Active	Tested by PWC; PCB conc. < 1 ppm.	1B	1
PCB T114	280-1	8335541	NW, PD	Pad	Active	Tested by PWC; PCB conc. < 1 ppm.	1B	1
PCB T115	280-1	8335543	NW, PD	Pad	Active	Tested by PWC; PCB conc. < 1 ppm.	1B	1
PCB T116	263	7093988	NA	Pad	Active	Transformer in operation; scheduled for replacement in 1997. PCB conc.: 193 ppm. Not plotted on Figure 3-1 or Figure 3-4.	1B	1*
PCB T117	305	7093571	NA	Pad	Active	Transformer in operation; scheduled for replacement in 1997. PCB conc.: 193 ppm. Not plotted on Figure 3-1 or Figure 3-4.	4B	1*
PCB T118	305	7220244	NA	Pad	Active	Transformer in operation; scheduled for replacement in 1997. PCB conc.: 125 ppm. Not plotted on Figure 3-1 or Figure 3-4.	4B	1*
PCB T119	305	7220246	NA	Pad	Active	Transformer in operation; scheduled for replacement in 1997. PCB conc.: 140 ppm. Not plotted on Figure 3-1 or Figure 3-4.	4B	1*
PCB T120	313	57A8236	NA	Pad	Active	Transformer in operation; scheduled for replacement in 1997. PCB conc.: 81 ppm. Not plotted on Figure 3-1 or Figure 3-4.	4B	1*
PCB T121	382	B684199	NA	Pad	Active	Transformer in operation; scheduled for replacement in 1997. PCB conc.: 494 ppm. Not plotted on Figure 3-1 or Figure 3-4.	1C	1*
PCBT122	555	B33639	NA	Pad	Active	Transformer in operation; scheduled for replacement in 1997. PCB conc.: 310,000 ppm. Not plotted on Figure 3-1 or Figure 3-	2D	1*
PCB T123	711	C647622	NA	Pad	Active	Transformer in operation; scheduled for replacement in 1997. PCB conc.: 3,170 ppm. Not plotted on Figure 3-4 or Figure 3-	-	1*
PCB T124	2600	D477681-60P	NA	Pad	Active	Transformer in operation; scheduled for replacement in 1997. PCB conc.: 58 ppm. Not plotted on Figure 3-1 or Figure 3-4.	-	1*

Notes:
[1] Jacobs report indicates that transformer was located at Buildings 5103-5112 (housing).
[2] Pole-mounted transformers could not be accessed during field survey to verify transformer ID numbers.
[3] Location abbreviations:

N - north side of building
S - south side of building
E - east side of building
W - west side of building
NW - northwest side of building
M - interior mezzanine
C - center of building
PD - outside pad
PL - outside pole-mounted
RI - inside room
RX - exterior room
B - basement

Abbreviations: ECP - environmental condition of property
NA - not available
PCB(s) - polychlorinated biphenyl(s)
ppm - parts per million
PWC - Public Works Center
SWMU - Solid Waste Management Unit
* - area type designation based on visual inspection conducted by PWC

Table 3-11
Non-Transformer PCB Equipment
(Sheet 1 of 1)

Building Number	Description	Concentration of PCBs (mg/L)	Comments	Parcel
56	3 oil-filled cutouts	1.4	Not on list	1C
138	3 oil-filled cutouts	1.0		2A
176	Explosion-proof switch box	< 1.0	Exterior	1A
178	Universal rectifier	3.8		1A
208	Universal rectifier	9.4	Contains 2 types of PCBs	2A
302	3 oil-filled cutouts	< 0.1	Out-of-service air conditioning motor	4A
311	3 oil-filled cutouts	< 0.005	West set of 3	4A
	3 oil-filled cutouts	< 0.005	East set of 3	
360	3 oil-filled cutouts	< 1.0	Area 1 (west)	4B
	3 oil-filled cutouts	< 0.005	Area 1 (east)	
	3 oil-filled cutouts	2.8	Area 2	
	3 oil-filled cutouts	1.0	Area 1 (middle)	
372	3 oil-filled cutouts	1.6	Transformer room	5A
382	Oil-filled switch	< 1.0	Not on list	1C
384	3 oil-filled cutouts	8.2	On transformer	3A
414	3 oil-filled cutouts	< 1.0		5A
435	3 oil-filled cutouts	< 1.0		5A
	3 oil-filled cutouts	15.0		
439	3 oil-filled cutouts	4.2	In basement	1G
	3 oil-filled cutouts	< 1.0	In basement	
547	Motor control center	6.9		2D
599	3 oil-filled cutouts	< 0.005	Sampled drippings	4A
619	3 oil-filled cutouts	< 1.0	Transformer room	3F
643	3 oil-filled cutouts	< 1.0	North set of 3	5A
	3 oil-filled cutouts	5.0	South set of 3	
651	3 oil-filled cutouts	< 1.0	On transformer	1G
664	3 oil-filled cutouts	< 1.0	Exterior	3A
733	3 oil-filled cutouts	< 1.0		1G
892	3 oil-filled cutouts	< 0.005	Leaking	3A

Source: Kennedy/Jenks 1991

Abbreviations: PCB – polychlorinated biphenyl
mg/L – milligrams per liter

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Table 3-12
Buildings with Known Asbestos[1]
(Sheet 1 of 6)

Database Tracking	Building Number	Description	Year Built	Parcel	Asbestos Determination	
					Not Identified	Confirmed Type
BLD 2	2	Hangar bay/ crew/equip	1943	5A	X	
BLD 3	3	Material/IMRL	1943	5A	X	
BLD 4	4	Search & rescue	1943	5A	X	
BLD 6	6	Security Headquarters	1943	5A		NF
BLD 7	7	Storage out of stores	1943	5A	X	
BLD 8	8	Storage out of stores	1943	5A	X	
BLD 9	9	Storage out of stores	1943	5A	X	
BLD 11	11	Squadron headquarters	1943	1A		NF
BLD 12	12	Group headquarters	1943	1A		NF
BLD 15	15	Electrical/communications maintenance shop	1943	1A		NF
BLD 16	16	Storage out of stores	1943	1A	X	
BLD 19	19	Squadron headquarters	1943	1A		NF
BLD 20	20	Maintenance/storage	1943	1A	X	
BLD 21	21	General storage shed	1943	1A	X	
BLD 22	22	Electrical/communications maintenance shop	1943	1A	X	
BLD 23	23	Storage out of stores	1943	1A		NF
BLD 25	25	Construction shop	1943	1D	X	
BLD 26	26	Communication shop	1943	1A	X	
BLD 27	27	Provost Marshall Office storage	1943	1D	X	
BLD 29	29	Navy Investigative Service Field Office	1943	1D		NF
BLD 31	31	Utilities shop/TAFDS	1943	1D	X	
BLD 32	32	Bachelor Officers Quarters	1943	1D		NF
BLD 33	33	Bachelor Officers Quarters	1943	1D		NF
BLD 34	34	Bachelor Officers Quarters	1943	1D		NF
BLD 35	35	Bachelor Officers Quarters	1943	1D		NF
BLD 46	46	Reproduction	1943	1D	X	
BLD 51	51	Auto organizational shop	1943	1D		NF
BLD 52	52	Storage out of stores	1943	1D	X	
BLD 53	53	RASC/IRC classroom	1943	1D	X	
BLD 56	56	Squadron headquarters	1943	1C		NF
BLD 57	57	Bathhouse	1943	1C		F
BLD 58	58	Family Housing Services Office	1943	1C		F
BLD 59	59	Administration Office	1943	1C	X	
BLD 60	60	Reserve support unit	1943	1C		NF
BLD 66	66	Disbursing office	1943	1B		F
BLD 75	75	Administration office/Fire Headquarters/Phone Center	1943	1B		NF
BLD 77	77	Exchange warehouse/maintenance shop	1943	1B		F
BLD 83	83	Chapel administration office	1943	1B		F
BLD 94	94	Gymnasium	1943	1B		F
BLD 96	96	Transportation office	1943	4A	X	
BLD 105	105	Group headquarters	1943	2A	X	
BLD 114	114	Maintenance hangar space	1966	5A		NF
BLD 115	115	Maintenance hangar space	1966	5A		NF
BLD 118	118	Maintenance hangar space	1943	2A	X	
BLD 119	119	Maintenance hangar space	1943	2A	X	
BLD 120	120	Maintenance hangar space	1943	2A	X	
BLD 122	122	Maintenance hangar space	1943	2A	X	
BLD 123	123	Maintenance hangar space	1943	2A	X	

Table 3-12
Buildings with Known Asbestos[1]
(Sheet 2 of 6)

Database Tracking	Building Number	Description	Year Built	Parcel	Asbestos Determination	
					Not Identified	Confirmed Type
BLD 125	125	Maintenance hangar space	1943	2A		NF
BLD 126	126	Maintenance hangar space	1943	2A	X	
BLD 127	127	Tire storage	1943	2A	X	
BLD 132	132	Aviation armament shop	1943	2A	X	
BLD 133	133	Storage	1943	2A		NF
BLD 134	134	MCP Storage/hangar maintenance administration	1943	2A		NF
BLD 135	135	Warehouse 222nd CCSQ.	1943	2A	X	
BLD 136	136	Nuclear/biological/chemical storage	1943	2A	X	
BLD 138	138	Electronics Maintenance Division	1943	2A		F
BLD 139	139	3rd Marine Air Wing Embark	1943	2A	X	
BLD 142	142	Hazardous/flammable storage	1943	2A	X	
BLD 146	146	Standby generator building	1943	1C	X	
BLD 163	163	Magazine Ready Service [2]	1943	3A	X	
BLD 164	164	Small arms storage [2]	1943	3A	X	
BLD 165	165	Hazardous/flammable storage	1943	3A	X	
BLD 166	166	Small arms storage [2]	1943	3F	X	
BLD 167	167	Small arms storage [2]	1943	3F	X	
BLD 169	169	NBC storage	1943	3F	X	
BLD 170	170	Ready service storage magazine [2]	1943	3F	X	
BLD 171	171	Ready service storage magazine [2]	1943	3F	X	
BLD 172	172	Ready service storage magazine [2]	1943	3F	X	
BLD 240	240	Aero Club 4	1944	1A	X	
BLD 241	241	Laundry pick-up point	1945	1A	X	
BLD 242	242	Museum	1944	1A	X	
BLD 243	243	Historical center	1944	1A	X	
BLD 244	244	Historical collection	1944	5A		NF
BLD 249	249	VIP quarters	1945	1D		NF
BLD 250	250	VIP quarters	1945	1D		NF
BLD 251	251	Conference Center/Recreation Pav.	1944	1D	X	
BLD 256	256	Aviation physical training/medical clinic	1945	1C	X	
BLD 257	257	Administration office	1944	1C	X	
BLD 263	263	Education service office	1945	1B		NF
BLD 271	271	Auditorium	1944	1B	X	
BLD 273	273	Post Office	1944	1C	X	
BLD 275	275	Training/Storage WG Band [2]	1944	1B		F
BLD 276	276	Bachelors Enlisted Quarters [2]	1945	1B		F
BLD 277	277	Bachelors Enlisted Quarters [2]	1945	1B		NF
BLD 279	279	Rehabilitation center	1945	1B	X	
BLD 285	285	Club system warehouse	1944	1B		F
BLD 288	288	Maintenance hangar space	1944	5A		F
BLD 289	289	Maintenance hangar space	1944	5A		NF
BLD 290	290	General storage	1944	2A	X	
BLD 291	291	Nuclear/biological/chemical	1944	2A		NF
BLD 295	295	Maintenance hangar space	1944	5A		F
BLD 296	296	Maintenance hangar space	1944	5A		F
BLD 297	297	Maintenance hangar space	1944	5A		F
BLD 299	299	Auto vehicle maintenance shop	1944	4A		NF
BLD 302	302	Public works electronics shop	1945	4A		NF

Table 3-12
Buildings with Known Asbestos[1]
(Sheet 3 of 6)

Database Tracking	Building Number	Description	Year Built	Parcel	Asbestos Determination	
					Not Identified	Confirmed Type
BLD 304	304	Academic instruction/credit union	1945	4A		NF
BLD 305	305	Group headquarters	1944	4B	X	
BLD 306	306	Public works pipe/heat/refrigeration shop	1944	4A		NF
BLD 307	307	EAF storage/station operations maintenance Squadron Recovery Headquarters	1944	4A		NF
BLD 308	308	Ground support equipment storage	1944	2A		NF
BLD 309	309	Group headquarters	1944	4A		NF
BLD 310	310	Hangar [2]	1944	5A	X	
BLD 312	312	Photo lab [2]	1944	4A		F
BLD 313	313	Field maintenance shop	1944	4B		NF
BLD 315	315	A/C ground support equipment shop	1945	5A		NF
BLD 317	317	Commissary warehouse	1945	4B		NF
BLD 318	318	General warehouse Navy	1945	4B		NF
BLD 319	319	General warehouse Navy	1945	4B	X	
BLD 321	321	Administration office/general warehouse Navy	1945	4B		F
BLD 322	322	Mess halls enlisted [2]	1945	4B		F
BLD 324	324	Applied instruction/storage/CO_2 storage	1945	4A		F
BLD 325	325	Hazardous/flammable storehouse	1945	4A		NF
BLD 326	326	Hazardous/flammable storehouse	1945	4A		F
BLD 328	328	Temporary administration spaces	1945	1C		F
BLD 329	329	Defense Commissary Agency Headquarters	1945	1C		F
BLD 333	333	Field maintenance shop	1945	4A	X	
BLD 341	341	Ground support equipment shop	1945	2A	X	
BLD 355	355	Snack Bar #12	1943	4B	X	
BLD 357	357	Hazardous/flammable storehouse	1951	4A	X	
BLD 358	358	Water distribution building	1951	5A	X	
BLD 360	360	General warehouse Navy	1952	4B		F
BLD 363	363	Miscellaneous POL pipeline shelter	1952	2A	X	
BLD 364	364	Mess Hall #2	1952	1G		NF
BLD 366	366	Billeting office	1954	1G		F
BLD 367	367	Bachelor Enlisted Quarters/academic instruction	1954	1G		NF
BLD 368	368	Administration office	1954	4A		NF
BLD 369	369	Servmart	1954	4A		F
BLD 370	370	Public works paint/carpentry/metal trades	1954	4A		F
BLD 371	371	Maintenance hangar space	1954	5A		NF
BLD 372	372	Airfield Operations Bldg.	1954	5A		NF
BLD 374	374	Heating plant bldg./conversion station	1954	3A		NF
BLD 375	375	Bachelor Officers Quarters	1954	1D		F
BLD 376	376	Fire station dispatch/ground safety	1954	1C		NF
BLD 382	382	Electrical Distribution Subs #1	1951	1C		NF
BLD 383	383	Electrical Distribution Subs #2	1954	4A		NF
BLD 384	384	Electrical Distribution Subs #3	1954	3A		NF
BLD 385	385	Electrical Distribution Subs #4	1954	2A	X	
BLD 386	386	Construction equipment shop	1955	4A	X	
BLD 388	388	Field maintenance shop	1955	4A		NF
BLD 392	392	Aircraft ground support equipment shop	1955	2A		F
BLD 394	394	Transmitter	1956	5C		NF
BLD 404	404	Receiver building	1957	5A		NF
BLD 405	405	Applied instruction building	1956	3A		F

Table 3-12
Buildings with Known Asbestos[1]
(Sheet 4 of 6)

Database Tracking	Building Number	Description	Year Built	Parcel	Asbestos Determination	
					Not Identified	Confirmed Type
BLD 406	406	Applied instruction building	1956	3A		F
BLD 407	407	Squadron Headquarters	1956	3A		NF
BLD 415	415	Storage out of stores	1957	2B		NF
BLD 416	416	Storage building	1957	3F		NF
BLD 439	439	Branch medical/dental clinic	1959	1G		NF
BLD 440	440	Missile magazine	1959	3A	X	
BLD 441	441	Aviation armament/Station ordnance	1959	3A		F
BLD 442	442	Aviation armament/Station ordnance	1959	3A		F
BLD 443	443	Academic instruction bldg./LVT center/photo lab	1959	1G		F
BLD 445	445	Hazardous/flammable storehouse	1959	4A		NF
BLD 449	449	Bachelor Enlisted Quarters	1959	1G		F
BLD 450	450	Bachelor Enlisted Quarters	1959	1G		F
BLD 451	451	Bachelor Enlisted Quarters	1959	1G		F
BLD 452	452	Bachelor Enlisted Quarters	1959	1G		F
BLD 453	453	Maintenance hangar space	1960	3A		NF
BLD 454	454	Maintenance hangar space	1960	3A		NF
BLD 456	456	General warehouse/aviation supply	1960	3A		F
BLD 457	457	Group Headquarters/barb shop/dental clinic/mess hall	1960	3A		F
BLD 458	458	Hazardous flammable storehouse	1960	5A	X	
BLD 463	463	Maintenance hangar space/engine maintenance shop	1960	5A		NF
BLD 464	464	Golf course clubhouse	1959	3F		F
BLD 469	469	Equipment storage building	1959	3A	X	
BLD 475	475	Storage building/disbursing	1946	1B	X	
BLD 523	523	Storage	1945	1B	X	
BLD 529	529	Public works expend VIP storage	1944	4A		NF
BLD 543	543	High explosive magazine	1952	2F	X	
BLD 544	544	High explosive magazine	1952	2F	X	
BLD 545	545	High explosive magazine	1952	2F	X	
BLD 546	546	High explosive magazine	1952	2F	X	
BLD 555	555	POL sampling/test building	1955	2D		F
BLD 556	556	Miscellaneous POL pipeline facility	1955	2D		NF
BLD 568	568	Standby generator building	1956	5C	X	
BLD 578	578	Water distribution building	1957	1F		NF
BLD 600	600	Storage out of stores	1961	1A		NF
BLD 605	605	Maintenance hanger space	1965	5A		F
BLD 606	606	Maintenance hanger space	1965	5A		F
BLD 611	611	Missile magazine	1966	3A	X	
BLD 615	615	Handball courts	1966	1F	X	
BLD 616	616	Administration office	1966	4A		NF
BLD 619	619	Standby generator building	1966	3F		F
BLD 624	624	Air terminal/SQ Headquarters	1967	5A		NF
BLD 625	625	Hobby shop/automotive	1967	1B	X	
BLD 626	626	Hobby shop/automotive	1967	1B	X	
BLD 629	629	Academic instruction building	1968	1C		NF
BLD 631	631	Applied instruction building	1968	4A	X	
BLD 634	634	Hangar/gng. maintenance/avionics shop	1969	2A		NF
BLD 636	636	Parach./survey equipment/cryogenics office	1969	3A		F
BLD 639	639	Electric power plant building	1969	5A	X	

Table 3-12
Buildings with Known Asbestos[1]
(Sheet 5 of 6)

Database Tracking	Building Number	Description	Year Built	Parcel	Asbestos Determination	
					Not Identified	Confirmed Type
BLD 640	640	Electric power plant building	1969	5A	X	
BLD 641	641	Electric power plant building	1969	5A	X	
BLD 642	642	Electric power plant building	1969	5A	X	
BLD 649	649	Exchange warehouse/retail/cafeteria	1970	1G		F
BLD 650	650	Exchange retail shop	1970	1G		NF
BLD 651	651	Exchange auto repair/supplemental gas station	1971	1G		NF
BLD 655	655	Field maintenance shop	1970	4A		NF
BLD 658	658	Engine test cell	1972	2A		NF
BLD 660	660	Bachelor Enlisted Quarters	1973	1G		F
BLD 661	661	Transient Enlisted Quarters	1973	1G		F
BLD 664	664	Substation building	1971	3A	X	
BLD 666	666	Bachelor Enlisted Quarters	1973	1G		F
BLD 667	667	Bachelor Enlisted Quarters	1973	1G		F
BLD 668	668	Bachelor Enlisted Quarters	1973	1G		F
BLD 669	669	Bachelor Enlisted Quarters	1973	1G		F
BLD 671	671	Refueler administration	1973	4A		NF
BLD 672	672	Refueling vehicle maintenance shop	1973	4A	X	
BLD 673	673	ACFT/ground support equipment shed	1974	3A		NF
BLD 676	676	Community storage miscellaneous	1973	2C	X	
BLD 677	677	Meteorological building	1958	5A	X	
BLD 678	678	Housing/maintenance storage	1973	2C	X	
BLD 683	683	Cold storage/general warehouse	1974	1A		NF
BLD 684	684	Applied instruction building	1974	1C	X	
BLD 685	685	Electrical distribution building	1974	1A	X	
BLD 688	688	Receiver building	1973	2F		NF
BLD 689	689	Receiver/activity TV antenna	1973	2F	X (previously blank)	
BLD 693	693	Operational flight trainer (KC-130)	1975	1G	X	
BLD 694	694	Commissary	1975	1G		NF
BLD 695	695	Line maintenance shelter	1975	5A		NF
BLD 696	696	Line maintenance shelter	1975	5A		NF
BLD 697	697	Line maintenance shelter	1975	5A		NF
BLD 698	698	Line maintenance shelter	1975	5A		NF
BLD 713	713	Hazardous/flammable storehouse	1977	2B	X	
BLD 714	714	Line maintenance shelter	1977	5A		NF
BLD 715	715	Line maintenance shelter	1977	5A		NF
BLD 716	716	Hush house	1978	5A		NF
BLD 717	717	Crash, fire, rescue storage	1978	5A		NF
BLD 718	718	Modular Club/Lampost Pizza	1978	1B		NF
BLD 722	722	Convenience food store	1979	2C		NF
BLD 726	726	Line maintenance shelter	1981	5A		NF
BLD 727	727	Line maintenance shelter	1981	5A		NF
BLD 728	728	Line maintenance shelter	1983	5A		NF
BLD 730	730	Communications center	1980	1A		NF
BLD 731	731	Enlisted Personnel Quarters	1980	1G		NF
BLD 732	732	BEQ P-054	1980	1G		NF
BLD 733	733	Boiler room P-054	1980	1G		NF
BLD 734	734	Restroom P-313	1980	2A		NF
	735	Generator Bldg 9-313 [3]	1980	NL		NF

Table 3-12
Buildings with Known Asbestos[1]
(Sheet 6 of 6)

Database Tracking	Building Number	Description	Year Built	Parcel	Asbestos Determination	
					Not Identified	Confirmed Type
BLD 740	740	BEQ P-326 "B"	1982	1G		NF
BLD 741	741	BEQ P-326 "C"	1982	1G		NF
BLD 743	743	Financial building	1971	1G		NF
BLD 745	745	Warehouse (Mag-II) P-296	1983	2A		NF
BLD 746	746	Flight simulator P-270	1984	2A		NF
	747	Maintenance	1983	2A	X	
BLD 748	748.	Restroom	1983	2A		F
BLD 749	749	Restroom P-437	1983	2A		NF
	750	Sentry booth	1983	2A	X	
	751	Storage	1983	2A	X	
BLD 752	752	Fuel Farm #5 office	1983	2A		NF
BLD 757	757	Mars	1983	1F		NF
	782	Storage	1983	3F	X	
BLD 783	783	Exchange administration/service outlets	1983	1G		NF
BLD 787	787	NBC Defense Platoon Facility	1984	3A		NF
BLD 1524	1524	General storage shed	1945	1C		NF
BLD 1538	1538	Fuel Farm #4 office	1945	2A	X	
BLD 1580	1580	General warehouse Navy	1945	4B	X	
BLD 1595	1595	Public works maintenance storage	1945	4A		NF
BLD 1601	1601	Public works maintenance storage	1945	4A		NF
BLD 1650	1650	Aviation armament	1947	3A	X	
BLD 1655	1655	Squadron Headquarters	1947	3A	X	
BLD 1656	1656	Administration storage	1947	3A	X	
BLD 1703	1703	Hazardous/flammable storehouse	1952	4B		NF
BLD 1710	1710	Public works maintenance storage	1946	4A	X	
BLD 1719	1719	Applied instruction building	1946	3A	X	
BLD 1720	1720	NBC Headquarters	1946	3A	X	
BLD 1721	1721	Bachelor Enlisted Quarters	1946	3A		NF
BLD 1752	1752	Magazine equipment shed	1956	5C	X	
BLD 1787	1787	Aviation armament	1958	3A	X	
BLD 1791	1791	Aviation armament	1946	3A	X	
BLD 1804	1804	Lunchroom	1966	2A		NF
BLD 1815	1815	Line maintenance shelter	1979	5A	X	

Sources: Ecology and Environment, Inc., 1991. MCAS Camp Pendleton, El Toro and Tustin, Asbestos Survey and Assessment.
Ecology and Environment, Inc., 1991. MCAS Camp Pendleton, El Toro and Tustin, Asbestos Survey and Assessment.
IT Corporation 1989. MCAS El Toro Asbestos Survey and Assessment.

Notes:
[1] This table does not include information from asbestos surveys conducted at residential housing communities. Asbestos surveys were performed for the following residential communities in 1995: Moffett Meadows/Saddleback Terrace (17 units), Namar Housing (216 units), San Joaquin Housing (300 units), Wherry Housing (553 units), and Saddleback Terrace/Vista Terrace (100 units). Results are summarized in Section 3.2.5 of this document.
[2] Scheduled to be demolished per MCAS El Toro Building List dated 20 August 1993.
[3] Location not known.

Abbreviations:
BLD - building
F - friable asbestos
NF - non-friable asbestos
NL - not located on station maps

Table 3-13
Summary of SWMUs/AOCs
(Sheet 1 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
1	RFA 1	3F	NFA	Former scrap metal yard	Near golf course		Source: NEESA photograph. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
2	RFA 2	3F	NFA	Vegetation Piles	Near golf course		Source: NEESA photograph. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
3	IRP 25	1G	NFA	Marshburn Channel	Adjacent to NW boundary	X	Initial RFA recommended NFA. To be addressed in IRP Site 25.	3
4	IRP 25	5A	NFA	Bee Canyon Wash	Traverses Station in a NE-SW direction	X	Initial RFA recommended NFA. To be addressed in IRP Site 25.	3
5	IRP 25	5A	NFA	Borrego Canyon Wash	Adjacent to SE boundary	X	Initial RFA recommended NFA. To be addressed in IRP Site 25.	3
6	RFA 6	5A	NFA	Landfarming site	NW Bee Canyon Wash	X	NFA concurrence (DTSC letter 7/23/96).	3
7	RFA 7	4B	Transfer to RAC	Transformer storage area	East of Bee Canyon Wash	X	Final RFA Addendum (BNI, 1996) recommended transfer to the RAC contractor for limited surface soil cleanup of PCBs. DTSC concurrence (letter dated	6*
8	RFA 8	2F	NFA	Abandoned Well 50-3285	West of Bldg. 809	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
9	RFA 9	5A	NFA	Fuel bladder	East of Agua Chinon Wash	X	20 samples collected; diesel detected above action levels at one (8-12 feet bgs) location. Final RFA Addendum recommended NFA (BNI 1996). DTSC concurrence (letter dated 7/23/96).	2
10	RFA 10	2A [3]	FA in CP	Abandoned Well 24-4274	East of Bldg. 385		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 3, but will not be addressed under the IR Program.	6
11	IRP 25	5A	NFA	Agua Chinon Wash	Traverses Station in a NE-SW direction	X	Initial RFA recommended NFA. To be addressed in IRP Site 25.	3
12	RFA 12	NA	NFA	Active sanitary sewer lines	Stationwide		Sanitary wastes. Not plotted on Figure 3-1 or Figure 3-4. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
13	RFA 13	2A	NFA	Drop tank storage area	SW of Bldgs. 114 & 115	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
14	RFA 14	5A	FA	Drop tank fuel storage area	NW of Bldg. 605	X	RFA recommended repair of cracks in pavement (Jacobs 1993).	6
15	RFA 15	5A	NFA	Wash water runoff site	SW of fueling station 576	X	NFA concurrence by DTSC (letter dated 7/23/96).	3
16	RFA 16	5A	NFA	Wash water runoff site	NW of fueling station 574	X	NFA concurrence by DTSC (letter dated 7/23/96).	3
17	UST T5	1A	NFA	Former UST site	Tank Farm 2		Tank removed.	2
18	UST T2	5A	NFA	Former UST site	Tank Farm 4		Tank removed and site closed by OCHCA in letter dated 11/13/96.	2

Table 3-13
Summary of SWMUs/AOCs
(Sheet 2 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
19	UST T3	2A	NFA	Former UST site	Tank Farm 4		Tank removed and site closed by OCHCA in letter dated 11/13/96.	2
20	UST 891C	5A	NFA	Active UST	Bldg. 414	X	RFA (Jacobs 1993) recommended NFA. Tank will be removed following operational closure.	7
21	UST T6	2A	NFA	Inactive UST	Tank Farm 5		UST scheduled for removal in 1997.	2
22	UST T8	2A	NFA	Active UST	Tank Farm 5, 6		Tank will be removed following operational closure.	2
23	UST T1	2D	NFA	Spill containment UST (active)	Tank Farm 555		Tank will be removed following operational closure.	2
24	UST T7	5A	NFA	Active UST	Tank Farm 6		Tank will be removed following operational closure.	2
25	TAA 5A	5A	NFA	< 90-day accumulation area (inactive)	Bldg. 5 (on tarmac)		Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
26	TAA 5B	1A	FA	< 90-day accumulation area (active)	Bldg. 5	X	Initial RFA recommended excavation of shallow stained soil for SWMU 26. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed, and excavation of shallow, stained soil.	6
27	TAA 10	1A	NFA	< 90-day accumulation area (active)	Bldg. 10	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
28	RFA 28	5A [3]	NFA	Fuel spill site	AERO CLUB 10		Past routine fuel spills; no evidence of release. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	2
30	TAA 29A	1D	NFA	< 90-day accumulation area (inactive)	Bldg. 29	X	Area has been cleaned as of 12/94; clean and vacant as of 11/95. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	3
31	TAA 29B	1D	NFA	< 90-day accumulation area (inactive)	Bldg. 29		Located within boundaries of IRP Site 15. Area has been cleaned as of 12/94; clean and vacant as of 11/95. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	3
32	RFA 32	1D [3]	Not Located During RFA	Drum storage area	Bldg. 36		Source: SPCC map (no date). Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
33	TAA 51	1D	FA	< 90-day accumulation area (inactive)	Bldg. 51	X	Initial RFA recommended excavation of shallow stained soil for SWMU 33. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed, and excavation of shallow, stained soil.	6
35	RFA 35	4A [3]	Not Located During RFA	< 90-day accumulation area	Bldg. 96		Source: SPCC map (no date). Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*

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Table 3-13
Summary of SWMUs/AOCs
(Sheet 3 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
38	TAA 114	5A	NFA	< 90-day accumulation area (active)	Bldg. 114		No materials present; no surface defects. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
39	TAA 115	5A	NFA	< 90-day accumulation area (active)	Bldg. 115	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	3
40	RFA 40	2A [3]	Not Located During RFA	Drum storage area	Bldg. 127		Source: 1989 RWQCB letter. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
41	RFA 41	2A	NFA	Vehicle wash rack	Bldg. 127	X	NFA concurrence by DTSC (letter dated 7/23/96).	3
42	TAA 130C	2A	NFA	< 90-day accumulation area (inactive)	Bldg. 130		Surface free of defects. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
43	RFA 43	2A [3]	Not Located During RFA	Drum storage area	Bldg. 137		Source: 1980 DHS photograph. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
44	RFA 44	2A [3]	Not Located During RFA	Drum storage area	143		Source: 1989 RWQCB letter. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
45	TAA 155C	5A	NFA	< 90-day accumulation area (inactive)	155	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
46	RFA 46	3A	Transfer to RAC	Vehicle Maintenance and Parking / DRMO	163	X	Final RFA Addendum recommended transfer to RAC for limited surface soil clean up of diesel (BNI 1996). The "release" detected by initial RFA activities did not extend into area.	2
47	RFA 47	3F [3]	Not Located During RFA	< 90-day accumulation area	172		Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
48	UST 178	1A	NFA	Former UST site (Tank Farm 2)	178	X	RFA (Jacobs 1993) recommended NFA. Tank removed in 1995.	2
49	UST 179	1A	NFA	Former UST site (Tank Farm 2)	179	X	RFA (Jacobs 1993) recommended NFA. Tank removed in 1995.	2
50	RFA 50	1A [3]	Not Located During RFA	Drum storage area	179		Source: 1980 DHS photograph. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
51	UST 180	1A	NFA	Former UST site (Tank Farm 2)	180		No RFA sampling performed, based on 1990 tank test. RFA (Jacobs 1993) recommended NFA. Tank removed in 1995.	2
52	UST 182	1A	NFA	Former UST site (Tank Farm 2)	182		No RFA sampling performed, based on 1990 tank test. RFA (Jacobs 1993) recommended NFA. Tank removed in 1995.	2

Table 3-13
Summary of SWMUs/AOCs
(Sheet 4 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
55	RFA 55	1D [3]	Not Located During RFA	Drum storage area	186		Source: 1980 DHS photograph. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
56	RFA 56	1D [3]	Not Located During RFA	Drum storage area	187		Source: 1980 DHS photograph. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
57	UST 189	1A	NFA	Former UST site	189 (Tank Farm 3)	X	Tank removed. Site closed by OCHCA in letter dated 11/13/96.	2
58	UST T4	1A	NFA	Former UST site	189 (Tank Farm 3)		Tank removed and site closed by OCHCA in letter dated 11/13/96.	2
59	UST 191	1A	NFA	Former UST site	191 (Tank Farm 3)	X	Tank removed. Site closed by OCHCA in letter dated 11/13/96.	2
60	UST 204	5A	NFA	Active UST	204		No sampling, based on 1990 tank test. Tank will be removed following operational closure.	2
61	UST 205	5A	NFA	Inactive UST	205		No sampling, based on 1990 tank test. Tank scheduled for removal in 1997.	2
62	UST 206	5A	NFA	Active UST	206		No sampling, based on 1990 tank test. Tank will be removed following operational closure.	7
63	UST 207	5A	NFA	Active UST	207		No sampling, based on 1990 tank test. Tank will be removed following operational closure.	7
64	TAA 240	1A	NFA	< 90-day accumulation area (inactive)	240		Newly constructed; no release observed. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
65	UST 240B	1A	NFA	Inactive UST	240	X	RFA (Jacobs 1993) recommended NFA. Associated with OWS 240C. Tank scheduled for removal in 1997.	2*
66	OWS 240C	1A	NFA	Oil/water separator	240	X	Combined with SWMU/AOC 65 (UST 240B). Scheduled for removal in 1997. DTSC concurrence (letter dated 7/23/96).	7
67	TAA 242	1A	NFA	< 90-day accumulation area (inactive)	242		Located within boundaries of IRP Site 13. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
68	OWS 244	5A	Not Located During RFA	Oil/water separator	244		Location not confirmed during RFA activities. Scheduled for removal in 1997.	7
69	RFA 69	1B [3]	Not Located During RFA	Drum storage area	262		Source: 1989 RWQCB letter. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
70	TAA 289	5A	NFA	< 90-day accumulation area (active)	289	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1

Table 3-13
Summary of SWMUs/AOCs
(Sheet 5 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
71	RFA 71	5A	FA in CP	< 90-day accumulation area	295		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 7, but will not be addressed under the IR Program.	6
72	RFA 72	5A	FA in CP	< 90-day accumulation area	296		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 7, but will not be addressed under the IR Program.	6
73	TAA 297	5A	NFA	< 90-day accumulation area (active)	297	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
74	RFA 74	5A	NFA	Aircraft wash area	297		Located on tarmac. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
75	UST T11	4A	NFA	Spill containment UST (active)	297		Tank will be removed following operational closure.	2*
76	OWS 297B	5A	NFA	Oil/water separator	297	X	RFA recommended NFA. (OWS is associated with UST 297C). Scheduled for removal in 1997. DTSC concurrence (letter dated 7/23/96).	7
77	UST 297C	5A	NFA	Inactive UST	297	X	Combined with SWMU/AOC 76 (OWS 297B). Scheduled for removal in 1997.	2*
78	RFA 78	5A [3]	Not Located During RFA	Drum storage area	297		Source: 1980 DHS photograph. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
79	RFA 79	5A [3]	Not Located During RFA	Drum storage area	297		Source: 1980 DHS photograph. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3). NFA through agency acceptance of the EBS (Table 3-3).	1*
80	RFA 80	5A [3]	Not Located During RFA	Drum storage area	297		Source: 1980 DHS photograph. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
81	RFA 81	5A [3]	Not Located During RFA	Drum storage area	297		Source: 1980 DHS photograph. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
82	RFA 82	5A [3]	Not Located During RFA	Drum storage area	297		Source: 1980 DHS photograph. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
83	TAA 298	4A	NFA	< 90-day accumulation area (inactive)	298	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
84	OWS 298C	4A	FA in CP	Oil/water separator	298	X	RFA recommended leak test/inspection of OWS. (Associated with UST 298D). Will be removed following operational closure.	7
85	UST 298D	4A	FA in CP	Active UST	298	X	Combined with SWMU/AOC 84 (OWS 298C). Tank will be removed following operational closure.	2*

Table 3-13
Summary of SWMUs/AOCs
(Sheet 6 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
88	TAA 306	4A	Transfer to RAC	< 90-day accumulation area (inactive)	306	X	Final RFA Addendum (BNI, 1996): PCBs detected in shallow soils (0 - 2 feet). Recommended transfer to the RAC for surface soil removal action.	6
89	RFA 89	4A [3]	Not Located During RFA	Drum storage area	306		Source: 1980 DHS photograph. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
90	IRP 12	4B	FA in IRP	Former sewage treatment plant	307	X	To be addressed in IRP Site 12.	6
91	UST 314A	4A	NFA	Inactive UST	314	X	RFA (Jacobs 1993) recommended NFA. Tank scheduled for removal in 1997.	2*
92	UST 314B	4A	NFA	Inactive UST	314	X	RFA (Jacobs 1993) recommended NFA. Tank scheduled for removal in 1997.	2*
93	TAA 317	4B	NFA	< 90-day accumulation area (inactive)	317		Detergent storage only. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
94	RFA 94	4B [3]	FA in CP	< 90-day accumulation area	320		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 21, but will not be addressed under the IR Program.	6
95	RFA 95	4A	NFA	Engine test cell	324	X	NFA concurrence by DTSC (letter dated 7/23/96).	3
96	RFA 96	5A [3]	Not Located During RFA	Drum storage area	343		Source: RWQCB letter. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
97	TAA 357	4A	NFA	< 90-day accumulation area (inactive)	357		No evidence of release. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
98	RFA 98	4B	NFA	Vehicle wash rack	359	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
99	TAA 359B	4B	NFA	< 90-day accumulation area (inactive)	359	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
100	RFA 100	4B	NFA	TCE degreaser	359	X	NFA concurrence by DTSC (letter dated 7/23/96).	3
101	OWS 359B	4B	NFA	Oil/water separator	359	X	RFA recommended NFA. DTSC concurrence (letter dated 7/23/96).	7
102	UST 359C	4B	NFA	Former UST site	359	X	Tank removed in 1993. Site closed by OCHCA in a letter dated 12/9/96.	2
103	RFA 103	4B [3]	Not Located During RFA	Drum storage area	359		Source: 1980 DHS photograph. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
104	RFA 104	5A [3]	FA in CP	< 90-day accumulation area	360		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 8, but will not be addressed under the IR Program.	6

Table 3-13
Summary of SWMUs/AOCs
(Sheet 7 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
105	RFA 105	5A [3]	FA in CP	< 90-day accumulation area	360		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 8, but will not be addressed under the IR Program.	6
106	RFA 106	5A [3]	FA in CP	< 90-day accumulation area	360		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 8, but will not be addressed under the IR Program.	6
107	TAA 371A	5A	NFA	< 90-day accumulation area (active)	371	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
108	UST T10	5A	NFA	Inactive UST	Taxiway		UST scheduled for removal in 1997.	2*
109	RFA 109	4A [3]	Not Located During RFA	< 90-day accumulation area	379		Source: SPCC map (no date). Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
110	RFA 110	4A	FA	Vehicle wash rack	386	X	RFA recommended repair of cracks in pavement (Jacobs 1993).	6
112	OWS 386B	4A	NFA	Oil/water separator	386	X	RFA recommended NFA. DTSC concurrence (letter dated 7/23/96). Associated with UST 386C.	7
113	UST 386C	4A	NFA	Active UST	386	X	Combined with SWMU/AOC 112 (OWS 386B). Tank will be removed following operational closure.	2*
114	TAA 386	4A	NFA	< 90-day accumulation area (active)	386		Source: 1980 DHS photograph; no evidence of release. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
116	TAA 388A	4A	NFA	< 90-day accumulation area (active)	388	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
117	UST 388B	4A	NFA	Active UST	388		Tank will be removed following operational closure.	7
118	OWS 388C	4A	Not Located During RFA	Oil/water separator	388		Location not confirmed during RFA activities. Associated with UST 388B. NFA through agency acceptance of the EBS (Table 3-3).	2*
119	TAA 389A	3A	NFA	< 90-day accumulation area (inactive)	389		No evidence of release. Site visited for final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed.	1
120	RFA 120	3A	NFA	Vehicle wash rack	390	X	NFA concurrence by DTSC (letter dated 7/23/96).	3
121	RFA 121	3A [3]	Not Located During RFA	Drum storage area	390		Source: 1989 RWQCB letter. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
122	TAA 390A	3A	NFA	< 90-day accumulation area (inactive)	390		Source: 1980 DHS photograph; no evidence of release. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1

Table 3-13
Summary of SWMUs/AOCs
(Sheet 8 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
124	TAA 392A	2A	NFA	< 90-day accumulation area (active)	392	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
125	RFA 125	2B	NFA	< 90-day accumulation area	415	X	Site was dismantled and stored waste had been removed since VSI was conducted in 1991. NFA concurrence by DTSC (letter dated 7/23/96).	3
126	TAA 442	3A	NFA	< 90-day accumulation area (inactive)	442		New site; no evidence of release. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
127	TAA 445	4A	NFA	< 90-day accumulation area (inactive)	445		No evidence of release. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
128	RFA 128	4A	NFA	Storage area	445		Waste stored inside building. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1*
129	UST 445C	4A	NFA	Inactive UST	445	X	RFA (Jacobs 1993) recommended NFA.	2*
130	TAA 447	3A	NFA	< 90-day accumulation area (inactive)	447	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
131	RFA 131	3A	Transfer to RAC	Engine test cell	447	X	Final RFA Addendum recommended transfer to the RAC for limited surface soil cleanup of SVOCs (BNI 1996).	6
132	OWS 447C	3A	NFA	Oil/water separator	447	X	RFA (Jacobs 1993) recommended NFA. DTSC concurrence (letter dated 7/23/96).	7
133	RFA 133	3A [3]	Not Located During RFA	< 90-day accumulation area	453		Source: SPCC map (no date). Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
134	RFA 134	3A [3]	Not Located During RFA	< 90-day accumulation area	454		Source: SPCC map (no date). Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
135	TAA 456	3A	NFA	< 90-day accumulation area (inactive)	456		No evidence of release. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
136	RFA 136	5A	NFA	Aircraft wash area	461 (on tarmac)		NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
137	UST 461	5A	NFA	Former UST site	461	X	RFA (Jacobs 1993) recommended NFA. Tank removed in 1993.	2*
138	TAA 461	5A	NFA	< 90-day accumulation area (active)	461	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
139	UST 462	5A	NFA	Former UST site	462	X	RFA (Jacobs 1993) recommended NFA. Tank removed in 1993.	2*

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Summary of SWMUs/AOCs
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SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
140	TAA 462	5A	NFA	< 90-day accumulation area (active)	462 (on tarmac)		Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
141	RFA 141	5A	NFA	Aircraft wash area	463		Surface free of defects. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
142	RFA 142	5A [3]	Not Located During RFA	Drum storage area	463		Source: 1989 RWQCB letter. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
143	UST 493	NL	Not Located During RFA	Inactive UST	493		Location not confirmed during RFA activities; building no longer exists.	7
144	TAA 529	4A	NFA	< 90-day accumulation area (inactive)	529	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
145	UST 529	4A	FA in CP	Inactive UST	529	X	LUFT levels exceeded; RFA recommended additional borings. Tank scheduled for removal in 1997.	2*
146	TAA 534	4B	NFA	< 90-day accumulation area (inactive)	534		Stored inside building. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
147	TAA 602	2A	NFA	< 90-day accumulation area (inactive)	602	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
148	OWS 602	2A	Not Located During RFA	Oil/water separator	602		Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	2*
149	TAA 605	5A	NFA	< 90-day accumulation area (active)	605	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
150	RFA 150	5A	NFA	Aircraft wash area	605 (on tarmac)		Source: 1989 RWQCB letter. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
151	OWS 605C	5A	FA in CP	Oil/water separator	605	X	RFA (Jacobs 1993) recommended leak test/inspection of OWS.	7
152	RFA 152	5A	NFA	Aircraft wash area	606 (on tarmac)		Source: 1989 RWQCB letter. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
156	UST 625	1B	NFA	Former UST site	625		Closed by RWQCB in letter dated 8/13/96. (Located within boundaries of IRP Site 20).	2*
157	RFA 157	1B [3]	FA in CP	Vehicle wash rack	626		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 20, but will not be addressed under the IR Program.	6
158	TAA 626	1B	FA in CP	< 90-day accumulation area (active)	626		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 20, but will not be addressed under the IR Program.	6

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Summary of SWMUs/AOCs
(Sheet 10 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
159	OWS 626-1	1B	FA in CP	Oil/water separator	626		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 20, but will not be addressed under the IR Program.	7
160	TAA 636	3A	NFA	< 90-day accumulation area (inactive)	636	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
162	UST 643A	5A	NFA	Inactive UST	643	X	Associated with OWS 643B. RFA (Jacobs 1993) recommended NFA. Scheduled for removal in 1997.	2*
163	OWS 643B	5A	NFA	Oil/water separator	643	X	Combined with SWMU/AOC 162 (UST 643A). Scheduled for removal in 1997. NFA concurrence from DTSC (letter dated 7/23/96).	7
164	RFA 164	1G	NFA	Vehicle wash rack	651	X	NFA concurrence by DTSC (letter dated 7/23/96).	3
165	TAA 651	1G	NFA	< 90-day accumulation area (active)	651	X	Located on/combined with SWMU/AOC 164 (vehicle wash rack). Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed, and possible sampling. NFA pending Station closure.	1
166	UST 651-5	1G	NFA	Active UST	651		No sampling, based on 1990 tank test. Tank will be removed following operational closure.	7
167	UST 651-6	1G	NFA	Active UST	651		No sampling, based on 1990 tank test. Tank will be removed following operational closure.	7
168	UST 651-7	1G	NFA	Active UST	651		No sampling, based on 1990 tank test. Tank will be removed following operational closure.	7
169	OWS 651-8	1G	NFA	Oil/water separator	651	X	Combined with SWMU/AOC 164 (vehicle wash rack). NFA concurrence from DTSC (letter dated 7/23/96).	7
170	RFA 170	4A [3]	Not Located During RFA	Drum storage area	655		Source: 1989 RWQCB letter. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
171	TAA 658	2A	NFA	< 90-day accumulation area (inactive)	658	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	3
172	TAA 671	4A	NFA	< 90-day accumulation area (active)	671	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
173	OWS 671	4A	FA in CP	Oil/water separator	671	X	LUFT levels exceeded; RFA recommended additional borings (Jacobs 1993).	6
174	UST 672	4A	Not Located During RFA	Inactive UST	672		Location not confirmed during RFA activities. Scheduled for removal in 1997. NFA through agency acceptance of the EBS (Table 3-3), but pending closure under state UST regulations.	2*
175	OWS 672A	4A	FA in CP	Oil/water separator	672	X	LUFT levels exceeded; RFA recommended additional borings (Jacobs 1993). Associated with UST 672B.	6

Table 3-13
Summary of SWMUs/AOCs
(Sheet 11 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
176	UST 672B	4A	FA in CP	Inactive UST	672	X	LUFT levels exceeded; RFA recommended additional borings. Scheduled for removal in 1997.	2*
177	TAA 672	4A	NFA	< 90-day accumulation area (inactive)	672		Product storage. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
178	RFA 178	3A	NFA	Vehicle wash rack	673		Source: 1989 RWQCB letter. No evidence of release. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
179	OWS 673A	3A	NFA	Oil/water separator	673	X	RFA recommended NFA. DTSC concurrence (letter dated 7/23/96).	7
180	UST 673B	3A	NFA	Active UST	673	X	Combined with SWMU/AOC 179 (OWS 673A). Tank will be removed following operational closure.	2*
181	RFA 181	3B	NFA	Landfarming area	673	X	NFA concurrence by DTSC (letter dated 7/23/96).	3
182	RFA 182	3B [3]	Not Located During RFA	Drum storage area	673		Source: 1980 DHS photograph. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
183	RFA 183	3B [3]	Not Located During RFA	Drum storage area	673		Source: 1980 DHS photograph. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
184	RFA 184	3B [3]	Not Located During RFA	Drum storage area	673		Source: 1980 DHS photograph. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
185	RFA 185	3B [3]	Not Located During RFA	Drum storage area	673		Source: 1980 DHS photograph. Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
186	TAA 673	3A	NFA	< 90-day accumulation area (active)	673	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
187	UST 674A	4B	NFA	Inactive UST	674	X	Combined with SWMU/AOC 189 (OWS 676). RFA (Jacobs 1993) recommended NFA. Tank will be removed following operational closure.	2
188	UST 675A	4B	NFA	Inactive UST	675	X	Combined with SWMU/AOC 292 (OWS 675B). RFA (Jacobs 1993) recommended NFA. Tank will be removed following operational closure.	5*
189	OWS 674B	4B	NFA	Oil/water separator	674	X	Combined with SWMU/AOC 187 (UST 674A). NFA concurrence from DTSC (letter dated 7/23/96).	2
191	UST 706	NL	Not Located During RFA	Former UST site	706		Tank reportedly demolished in 1987. Tank location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3), but pending closure under state UST regulations.	2*

Table 3-13
Summary of SWMUs/AOCs
(Sheet 12 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
192	UST 716A	5A	NFA	Active UST	716		No sampling, based on 1990 tank test. Associated with OWS 761B. Tank will be removed following operational closure.	7
193	OWS 716B	5A	NFA	Oil/water separator	716	X	RFA recommended NFA. DTSC concurrence (letter dated 7/23/96). Associated with UST 716A.	2
194	IRP 3	2A	FA in IRP	Former Incinerator Site	746	X	To be addressed in IRP Site 3	6
195	RFA 195	4A	NFA	Vehicle wash rack	758	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
196	OWS 758A	4A	NFA	Oil/water separator	758	X	RFA recommended NFA. DTSC concurrence (letter dated 7/23/96). Associated with UST 758B.	2
197	UST 758B	4A	NFA	Active UST	758	X	Combined with SWMU/AOC 196 (OWS 758A). Tank will be removed following operational closure.	2
198	RFA 198	4A	FA	Vehicle wash rack	759	X	RFA recommended repair of cracks in pavement (Jacobs 1993).	6
199	OWS 759A	4A	FA in CP	Oil/water separator	759	X	RFA (Jacobs 1993) recommended leak test/inspection of OWS. Associated with UST 759B.	2
200	UST 759B	4A	FA in CP	Active UST	759	X	Combined with SWMU/AOC 199 (OWS 759A). Tank will be removed following operational closure.	2
201	RFA 201	4A	FA	Vehicle wash rack	760	X	RFA recommended repair of cracks in pavement (Jacobs 1993).	6
202	UST 760A	4A	NFA	Active UST	760	X	RFA (Jacobs 1993) recommended NFA. Associated with OWS 760B. Tank will be removed following operational closure.	2
203	OWS 760B	4A	NFA	Oil/water separator	760	X	Combined with SWMU/AOC 202 (UST 760A). NFA concurrence by DTSC (letter dated 7/23/96).	2
204	RFA 204	5A	FA	Vehicle wash rack	761	X	RFA recommended repair of cracks in pavement (Jacobs 1993).	6
205	OWS 761A	5A	NFA	Oil/water separator	761	X	NFA concurrence by DTSC (letter dated 7/23/96). Associated with UST 761B.	2
206	UST 761B	5A	NFA	Active UST	761	X	Combined with SWMU/AOC 205 (OWS 761A). Tank will be removed following operational closure.	2
208	OWS 762A	3A	NFA	Oil/water separator	762	X	NFA concurrence by DTSC (letter dated 7/23/96). Associated with UST 762B. Scheduled for removal in 1997.	2
209	UST 762B	3A	NFA	Inactive UST	762	X	Combined with SWMU/AOC 208 (OWS 762A). Scheduled for removal in 1997.	2
210	RFA 210	5A	NFA	Vehicle wash rack	763		Source: 1989 RWQCB letter. Surface free of defects. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
211	OWS 763A	5A	NFA	Oil/water separator	763	X	NFA concurrence by DTSC (letter dated 7/23/96). Associated with UST 763B.	2

Table 3-13
Summary of SWMUs/AOCs
(Sheet 13 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
212	UST 763B	5A	NFA	Active UST	763	X	Combined with SMWU/AOC 211 (OWS 763A). Tank will be removed following operational closure.	2
213	RFA 213	2A	FA	Vehicle wash rack	764	X	RFA recommended repair of cracks in pavement (Jacobs 1993).	6
214	UST 764A	2A	NFA	Active UST	764	X	RFA (Jacobs 1993) recommended NFA. Associated with OWS 764B. Tank will be removed following operational closure.	2
215	OWS 764B	2A	NFA	Oil/water separator	764	X	Combined with SWMU/AOC 214 (UST 764A). NFA concurrence by DTSC (letter dated 7/23/96).	2
216	RFA 216	1A	NFA	Vehicle wash rack	765		Source: 1989 RWQCB letter. Surface free of defects. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
217	UST 765A	1A	FA in CP	Active UST	765		Further action in the Compliance Program. Located within the boundaries of IRP Site 13, but will not be addressed under the IR Program. Associated with OWS 765B. Tank will be removed following operational closure.	7
218	OWS 765B	1A	FA in CP	Oil/water separator	765		Further action in the Compliance Program. Associated with UST 765A. Located within the boundaries of IRP Site 13, but will not be addressed under the IR Program.	2
219	RFA 219	1A	NFA	Vehicle wash rack	766		Source: 1989 RWQCB letter. Surface free of defects. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
220	OWS 766A	1A	NFA	Oil/water separator	766	X	NFA concurrence by DTSC (letter dated 7/23/96). Associated with UST 766B.	2
221	UST 766B	1A	NFA	Active UST	766	X	Combined with SWMU/AOC 220 (OWS 766A). Tank will be removed following operational closure.	2
222	TAA 769	4A	NFA	< 90-day accumulation area (inactive)	769	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
223	TAA 770	4A	NFA	< 90-day accumulation area (inactive)	770	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
224	TAA 771	1D	NFA	< 90-day accumulation area (inactive)	771	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
225	TAA 772	3F	NFA	< 90-day accumulation area (inactive)	772	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1

Table 3-13
Summary of SWMUs/AOCs
(Sheet 14 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
226	TAA 778	5A	NFA	< 90-day accumulation area (inactive)	778	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
227	TAA 779	5A	NFA	< 90-day accumulation area (inactive)	779	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
228	UST T9	5A	NFA	Inactive UST	779		UST scheduled for removal in 1997.	2
229	TAA 800	4B	NFA	< 90-day accumulation area (active)	800	X	Sump is a 2 inch-diameter PVC pipe and cap that appears watertight. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed, and possible sampling. NFA pending Station	1
230	UST 800D	4B	NFA	Active UST	800		No sampling, based on 1990 tank test. Tank will be removed following operational closure.	7
231	UST 800E	4B	NFA	Active UST	800	X	RFA (Jacobs 1993) recommended NFA. Tank will be removed following operational closure.	2
232	OWS 800F	4B	NFA	Oil/water separator	800	X	NFA concurrence by DTSC (letter dated 7/23/96).	2
233	OWS 817	3F	NFA	Oil/water separator	817	X	NFA concurrence by DTSC (letter dated 7/23/96).	2
234	TAA 856	3A	NFA	< 90-day accumulation area (active)	856	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
236	TAA 761	5A [3]	FA in CP	< 90-day accumulation area (inactive)	1663		To be addressed in the Compliance Program. Site lies within the boundaries of IRP Site 20, but will not be addressed under the IR Program.	7
237	RFA 237	NL	Not Located During RFA	< 90-day accumulation area	1700		Source: SPCC map (no date). Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
238	RFA 238	4A [3]	Not Located During RFA	< 90-day accumulation area	1727		Source: SPCC map (no date). Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
239	RFA 239	2B [3]	Not Located During RFA	Drum storage area	1798		Source: SPCC map (no date). Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
240	TAA 155A	5A	NFA	< 90-day accumulation area (inactive)	155		No evidence of release. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
241	TAA 155B	5A	NFA	< 90-day accumulation area (inactive)	155	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
242	TAA 371B	5A	NFA	< 90-day accumulation area (inactive)	371	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1

Table 3-13
Summary of SWMUs/AOCs
(Sheet 15 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
243	RFA 243	4A	NFA	Wash rack	96	X	NFA concurrence by DTSC (letter dated 7/23/96).	3
244	PCB T74	3A	Transfer to RAC	PCB spill area	457	X	Final RFA Addendum recommended transfer to the RAC contractor for limited surface soil cleanup of PCBs (BNI 1996).	6*
245	RFA 245	3F	NFA	Golf course	464		Treated sanitary wastewater applied. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
246	RFA 246	3F	NFA	Golf course irrigation tank	459		Stored treated sanitary wastewater. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
247	RFA 247	NA	NFA	Irrigation pipeline	SW and SE quadrants		Transferred from former sewage treatment plant to irrigation tank at golf course. Not plotted on Figure 3-1 or Figure 3-4. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
248	OWS 845	3A	NFA	Oil/water separator	463	X	NFA concurrence by DTSC (letter dated 7/23/96).	2
249	UST 463	5A	NFA	Former UST site	463	X	Tank associated with SWMU/AOC 248 (OWS 845). RFA (Jacobs 1993) recommended NFA. UST removed	2
250	UST 655	4A	NFA	Former UST site	655	X	RFA (Jacobs 1993) recommended NFA. Tank removed in 1993. Site closed by OCHCA in letter dated 12/9/96.	2
251	TAA 388B	4A	NFA	< 90-day accumulation area (inactive)	388		No evidence of release/surface defects. Site visited for final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed.	1
252	TAA 398	5A	NFA	< 90-day accumulation area (inactive)	398	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
253	RFA 253	4B	NFA	Wash rack	317	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
254	TAA 359A	4B	NFA	< 90-day accumulation area (inactive)	359		No evidence of release. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
255	TAA 606	5A	NFA	< 90-day accumulation area (active)	606	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
256	TAA 441	3A	NFA	< 90-day accumulation area (inactive)	441	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
257	RFA 257	5A	NFA	Wash water runoff site	575	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
258	RFA 258	5A	NFA	Wash water runoff site	577	X	NFA concurrence by DTSC (letter dated 7/23/96).	1

Table 3-13
Summary of SWMUs/AOCs
(Sheet 16 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
259	TAA 389B	3A	NFA	< 90-day accumulation area (inactive)	389		Drum storage not confirmed. Site visited for final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed.	1
260	RFA 260	3A	NFA	Aboveground storage tank (former)	389	X	Initial RFA recommended repair of cracks in pavement. Based on sampling results, Final RFA Addendum recommended NFA (BNI 1996). DTSC concurrence (letter dated 7/23/96).	3
261	TAA 390B	3A	NFA	< 90-day accumulation area (inactive)	390	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
262	RFA 262	3A	NFA	Fuel storage area	390	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
263	UST 374A	3A	NFA	Former UST site	374	X	Tank removed in 1993. Site closed by OCHCA in a letter dated 12/9/96.	2
264	RFA 264	3B	NFA	DRMO Storage Yard #3	DRMO Lot #3	X	RFA (Jacobs 1993) recommended NFA; DTSC recommended additional sampling. Final RFA Addendum also recommended NFA (BNI 1996). NFA concurrence by DTSC (letter dated 7/23/96).	1
265	IRP 24	NA	NFA	Metal plating sewer lines ?3	SW quadrant of Station	X	RFA recommended NFA. DTSC concurrence (letter dated 7/23/96).	6
266	TAA 765	3F	NFA	< 90-day accumulation area (inactive)	765		Surface free of defects. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
267	RFA 267	5A	NFA	Drop tank fuel storage area	605		RFA (Jacobs 1993) recommended NFA; DTSC recommended additional sampling. Final RFA Addendum also recommended NFA (BNI 1996). NFA concurrence by DTSC (letter dated 7/23/96).	1*
268	RFA 268	1A	NFA	Vehicle wash rack	240		Surface free of defects. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
269	TAA 314	4A	NFA	< 90-day accumulation area (inactive)	314	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
270	RFA 270	3F	NFA	Wash rack	817	X	NFA concurrence by DTSC (letter dated 7/23/96).	2
271	TAA 392B	2A	NFA	< 90-day accumulation area (inactive)	392	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
272	TAA 31A	1D	NFA	< 90-day accumulation area (active)	31	X	Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
273	RFA 273	1D	NFA	Wash rack	31	X	NFA concurrence by DTSC (letter dated 7/23/96).	1

Table 3-13
Summary of SWMUs/AOCs
(Sheet 17 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
274	RFA 274	1D	NFA	Stockpiled soil	31		No evidence of release. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
275	UST 186	1D	NFA	Former UST site	Tank Farm 1	X	Tank removed. Site closed by OCHCA in a letter dated 1/17/97.	2
276	UST 187	1D	NFA	Former UST site	Tank Farm 1	X	Tank removed. Site closed by OCHCA in a letter dated 1/17/97.	2
277	UST 188	1A	NFA	Former UST site	Tank Farm 3	X	Tank removed. Site closed by OCHCA in letter dated 11/13/96.	2
278	UST 190	1A	NFA	Former UST site	Tank Farm 3	X	Tank removed. Site closed by OCHCA in letter dated 11/13/96.	2
279	UST 193	1A	NFA	Former UST site	Tank Farm 3	X	Tank removed. Site closed by OCHCA in letter dated 11/13/96.	2
280	UST 195	1A	NFA	Former UST site	Tank Farm 3	X	Tank removed. Site closed by OCHCA in letter dated 11/13/96.	2
281	UST 252	NL	Not Located During RFA	Inactive UST	252		Tank location not confirmed during RFA activities. Tank scheduled for removal in 1997. NFA through agency acceptance of the EBS (Table 3-3), but pending closure under state UST regulations.	2*
282	UST 322B	4B	NFA	Former UST site	322	X	Closed by RWQCB in letter dated 12 Dec 1995.	2
283	UST 326B	4A	NFA	Inactive UST	326	X	RFA (Jacobs 1993) recommended NFA.	2
284	UST 347D	1B	Not Located During RFA	Former UST site	347		Tank location not confirmed during RFA activities. Tank removed in 1993. Site closed by OCHCA on 12/19/96.	2
285	UST 399	5A	Not Located During RFA	Inactive UST	399		Tank location not confirmed during RFA activities. Tank reportedly filled with sand; scheduled for removal in 1997. NFA through agency acceptance of the EBS (Table 3-3), but pending closure under state UST regulations.	2
286	UST 733B	1G	NFA	Former UST site	733	X	RFA (Jacobs 1993) recommended NFA. Tank removed in 1993. Site closed by OCHCA in letter dated 12/9/96.	2
287	UST 733C	1G	NFA	Former UST site	733	X	RFA (Jacobs 1993) recommended NFA. Tank removed in 1993. Site closed by OCHCA in letter dated 12/9/96.	2*
288	UST 850A	5A	FA in CP	Active UST	850A		Further action in the Compliance Program. Located within the boundaries of IRP Site 16, but will not be addressed under the IR Program. Tank will be removed following operational closure.	7
289	UST 850B	5A	FA in CP	Active UST	850B		Further action in the Compliance Program. Located within the boundaries of IRP Site 16, but will not be addressed under the IR Program. Tank will be removed following operational closure.	7

Table 3-13
Summary of SWMUs/AOCs
(Sheet 18 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
290	UST 850C	5A	FA in CP	Active UST	850C		Further action in the Compliance Program. Located within the boundaries of IRP Site 16, but will not be addressed under the IR Program. Tank will be removed following operational closure.	7
291	RFA 291	4A	NFA	Oil/water separator	96	X	NFA concurrence by DTSC (letter dated 7/23/96).	2
292	OWS 675B	5A	NFA	Oil/water separator	675	X	Combined with SWMU/AOC 188 (UST 675A). NFA concurrence from DTSC (letter dated 7/23/96).	2
293	RFA 293	2A	NFA	Cleaning tank	130		Surface free of defects. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
294	TAA 130A	2A	NFA	< 90-day accumulation area (inactive)	130		Surface free of defects. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
295	TAA 130B	2A	NFA	< 90-day accumulation area (inactive)	130		Surface free of defects. Final RFA Addendum (BNI, 1996): evaluation of removal and/or decontamination strategy proposed. NFA pending Station closure.	1
296	OWS 357	4A	NFA	Oil/water separator	357	X	RFA recommended NFA. DTSC concurrence (letter dated 7/23/96).	2
297	RFA 297	5A	NFA	Former asphalt pavement plant	Northeast of golf course		No remaining evidence of plant. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
298	UST 392A	2A	NFA	Former UST site	392	X	Tank removed in 1993. Site was confirmed closed by OCHCA's letter dated 12/9/96.	2
299	RFA 299	4B	NFA	Wash rack	800		Surface free of defects. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
300	IRP 3	2A	FA in IRP	Spill area east of SWMU/AOC 194	746	X	To be addressed in IRP Site 3	6
301	RFA 301	5A	NFA	Mark arrest system	East side of Runway 34R	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
302	RFA 302	5A	NFA	Mark arrest system	West side of Runway 34R	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
303	UST 359A	4B	NFA	Former UST site	359	X	Tank removed. Site closed by OCHCA in a letter dated 12/9/96.	2
304	RFA 304	4B	NFA	Trenches inside Bldg. 359	359		Inside building; no evidence of release. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
305	RFA 305	1F	NFA	Septic tank	601		Sanitary waste. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1

Table 3-13
Summary of SWMUs/AOCs
(Sheet 19 of 19)

SWMU/ AOC Number [1]	Database Tracking	Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type [2]
306	RFA 306	1F	NFA	Septic tank	687		Sanitary waste. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1
307	RFA 307	5C	NFA	Septic tank	819		Sanitary waste. NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	1

Sources: Jacobs, 1993. MCAS El Toro Final RCRA Facility Assessment Report.
Bechtel National, Inc., 1996. MCAS El Toro Final Addendum to the RCRA Facility Assessment.
SAIC 1994. Draft Oil and Hazardous Substances Spill Prevention and Countermeasure Plan and Contingency Plan (SPCC)

Notes: [1] SWMU/AOCs identified as duplicate locations (29, 36, 37, 86, 87, 111, 115, 123, 153, 154, 155, 161, 190, 207, and 235) and those identified as MCAS Tustin (34, 53,and 54) are not included in this table. Refer to Table 4-1 of the final RFA report dated 16 July 1993 for a complete list of SWMUs/AOCs.

[2] Area Types marked with an asterisk (*) have changed since the March 1996 BCP.

[3] These sites were not plotted on the GIS map because they were not evaluated under the PR/VSI. The parcels listed correspond to the nearest building location.

Abbreviations:

DHS - Department of Health Services
DTSC - State of California Department of Toxic Substances Control
ECP - environmental condition of property
FA - further action
HWSA - hazardous waste storage area
IRP - Installation Restoration Program
LUFT - Leaking Underground Fuel Tank
NA - not applicable. The SWMU/AOC is a large unit that is located in several different parcels.
NEESA - Naval Energy and Environmental Support Activity
NFA - no further action
NW - northwest
OWS - oil/water separator
PCB(s) - polychlorinated biphenyl(s)
PR/VSI - Preliminary Review/Visual Site Inspection
PRG - US EPA Preliminary Remediation Goals
RAC - remedial action contractor
RFA - RCRA Facility Assessment
RWQCB - Regional Water Quality Control Board
SE - southeast
SPCC - Spill Prevention and Counter Measure Plan and Contingency Plan
SW - southwest
SWMU/AOC - Solid Waste Management Unit/Area of Concern
TAA - Temporary Accumulation Area
UST - underground storage tank

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Table 3-14
Oil/Water Separator Inventory
(Sheet 1 of 8)

Database Tracking	OWS Number	Parcel	Location/ Nearest Building Number	Year Installed	Capacity (gal)/ Tank Material	Status	Comments	Further Action	Location Status [1]	Contents	UST Associated with OWS	RFA Sampling (X)	Document Source [2]	ECP Area Type
OWS 240C	240C	1A	240	1982	100/ Steel	Inactive	From RFA: SWMU 66 -(comb w/SWMU 65)-NFA. In the LCR, OWS adjacent to a UST was full of waste oil and did not appear to be used.	No further action recommended in the RFA based on soil sample results. If the wash rack and OWS are to be abandoned, the LCR recommendations were to remove the OWS and its contents, fill the excavation, and pave the area to grade.	LC	Oil/water	Yes (UST 240B)	X	A,B,C,D	2*
OWS 244	244	5A	244	1944	100/ Concrete	Inactive	From RFA: SWMU 68-not sampled; no evidence of a OWS was observed.		LC	Oil/water	Unknown		A,B,D	7
OWS 280A	280A	1B	280	Unknown	200/ Concrete	Active	The OWS appeared structurally sound.	Maintenance and repair work at the OWS was recommended in LCR.	LC		No		C	7
OWS 297B	297B	5A	297	1982	100/ Steel	Inactive	From RFA: SWMU 76-NFA. SWMU 77 (UST 297C) is the tank associated with the OWS.	No further action recommended in the RFA based on soil sample results.	S	Oil/water	Yes (UST 297C)	X	A,B,D	2*
OWS 298C	298C	4A	298	1982	100/ Steel	Active	SWMU 84 - FA. From LCR: OWS appeared sound. ~ 5-20 gpm of waste produced. Electric butterfly valves at OWS which are not fully functional results in flows to storm drain.	Further investigation of the OWS current condition by leak testing and inspection is recommended in the RFA.	S	Oil/water	Yes (UST 298D)	X	A,B,C,D	2*
OWS 314C	314C	4A	314	Unknown	2,200/ Concrete	Inactive	From LCR: OWS not in use; upstream drains cemented. Structural condition was sound.	LCR suggests OWS could be removed and the excavation filled in, compacted and covered with asphalt.	LC	Oil/water	No		C	7
OWS 324-1	324-1	4A	324	Unknown	Unknown/ Steel	Inactive	From LCR: OWS no longer used; internal drains cemented. Structural condition was rusty. Contents from OWS can pumped through a threaded fitting to a port on parking lot. Appears to be no longer maintained.	LCR suggests OWS could be removed and the excavation filled in, compacted and covered with asphalt. OWS slated for removal according to El Toro staff.	LC	Oil/water	No		C	7
OWS 324-2	324-2	4A	324	Unknown	Unknown/ Steel	Inactive	From LCR: OWS no longer used; internal drains cemented. Structural condition was rusty. Contents from OWS can be pumped through a threaded fitting to a port on parking lot. Port appears to be no longer maintained.	LCR suggests OWS could be removed and the excavation filled in, compacted and covered with asphalt. OWS slated for removal according to El Toro staff.	LC	Oil/water	No		C	7
OWS 357	357	4A	357	Unknown	200/ Steel	Active	SWMU 296-NFA. From LCR: OWS condition was rusty, disconnected at head pipes. OWS scheduled for repairs according to El Toro staff.	No further action recommended in the RFA based on soil sample results. The Law/Crandall recommendations were to either repair the OWS inlet lines or abandon the OWS, plug the floor drains with cement, and remove the external water source.	LC	Oil/water	No	X	B,C,D	2*

Table 3-14
Oil/Water Separator Inventory
(Sheet 2 of 8)

Database Tracking	OWS Number	Parcel	Location/ Nearest Building Number	Year Installed	Capacity (gal)/ Tank Material	Status	Comments	Further Action	Location Status [1]	Contents	UST Associated with OWS	RFA Sampling (X)	Document Source [2]	ECP Area Type
OWS 359B	359B	4B	359	1952	100/ Concrete	Inactive	From RFA: SWMU 101-NFA.	No further action recommended in the RFA based on soil sample results.	LC	Oil/water	Unknown	X	A,B,D	2*
OWS 371	371	3A	371	Unknown	2,350/ Steel	Active	From LCR: OWS condition unknown. Waste oil level alarm in place (on during survey). OWS scheduled for maintenance/cleaning according to El Toro staff.	The OWS should be pumped out according to the LCR.	LC	Oil/water	No		C	7
OWS 386B	386B	4A	386	1982	100/ Steel	Active	From RFA: SWMU 112-NFA. From LCR: Vault full of sediment. OWS condition appeared sound. Steel UST adjacent to OWS. Butterfly valves not functioning properly-flows to storm drain. OWS under repair in 2/94 according to El Toro staff.	No further action recommended in the RFA based on soil sample results. The OWS should be cleaned and the electrical valves tested to determine what repairs are needed per the LCR.	LC	Oil/water	Yes (UST 386C)	X	A,B,C,D	2*
OWS 388C	388C	4A	388	1955	100/ Steel	Active	From RFA: SWMU 118-not sampled; OWS not located on NW side of Bldg. 388. From LCR: OWS buried with sediment - unable to access. Non-functioning butterfly valves causing discharge to storm drains. OWS under construction/repair according to El Toro staff.	The OWS should be cleaned and the electrical valves tested to determine what repairs are needed per the LCR.	S	Oil/water	Yes (UST 388B)		A,B,C,D	2*
OWS 392	392		602	Unknown		Active				Oil/Water				7
OWS 445	445	4A	445	Unknown	Unknown/ Precast Concrete	Inactive	From LCR: OWS does not appear to be used; building used for storage. During survey OWS covered by heavy box.	If hazardous materials exist in OWS, the materials should be removed and the OWS closed, per the LCR. OWS slated for removal according to El Toro staff.	LC	Oil/water	No		C,F	7
OWS 447C	447C	5A	447	1959	800/ Precast Concrete	Active	From RFA: SWMU 132-NFA; covers which may belong to an OWS identified. Listed as 100-gal steel OWS in Station database. From LCR: precast concrete, 800-gal; appears sound. Flow modification from OWS to sanitary sewer scheduled according to El Toro staff.	No further action recommended in the RFA based on soil sample results.	S	Oil/water	No	X	A,B,C,D,F	2*
OWS 461A	461A	5A	461	Unknown	50/ Steel	Active	OWS scheduled for maintenance work according to El Toro staff.	The LCR suggests the OWS should be opened and inspected for sediment and sludge buildup.	LC	Oil/water	Unknown		C,F	7
OWS 462	462A	5A	462	Unknown	50/ Steel	Active			LC	Oil/water	Unknown		C	7

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Table 3-14
Oil/Water Separator Inventory
(Sheet 3 of 8)

Database Tracking	OWS Number	Parcel	Location/ Nearest Building Number	Year Installed	Capacity (gal)/ Tank Material	Status	Comments	Further Action	Location Status [1]	Contents	UST Associated with OWS	RFA Sampling (X)	Document Source [2]	ECP Area Type
OWS 602	602	2A	602	1964	Unknown/ CC	Active	From RFA: SWMU 148-not sampled; no OWS observed during visit; could be OWS at Bldg. 764 located 100 ft west of Bldg. 602.	OWS scheduled for removal per 1993 Station UST Inventory.	SB	Oil/water	Unknown		A,B,D,F	2*
OWS 605C	605C	5A	605	1984	300/ Steel	Active	From RFA: SWMU 151-FA; concrete area around OWS appeared darkly stained. From LCR: 300-gal cap.; ~125-gal dry UST adjacent to OWS. OWS scheduled for repairs according to El Toro staff.	Further investigation of the OWS current condition by leak testing and inspection was recommended by the RFA. Sediments should be removed from the OWS, and electrical diversion valves installed. The waste oil pump should be replaced per the LCR.	LC	Oil/water	Unknown	X	A,B,C,D,F	2**
OWS 606C	606C	5A	606	1965	100/ Concrete	Inactive	From RFA: SWMU 154-not sampled; OWS thought to be OWS 643B; drains leading to OWS 643B located 10 ft south of Bldg. 606.		LC	Oil/water	Unknown		A,B,D	2*
OWS 626-1	626-1	1B	625	1967	600/ Concrete	Active	SWMU 159-not sampled; located within RI/FS Site 20 boundaries. FA in compliance program. From LCR: 600-gal cap., precast concrete, fuel odor emitted; top portion of OWS and surrounding slab cracked. OWS scheduled for repairs according to El Toro staff.	Oil staining observed downgradient of catch basin indicating catch basin is releasing oil according to LCR. The LCR suggests increasing the capture efficiency of the catch basin.	LC	Oil/water	No		A,B,C,D,F	2*
OWS 626-2	626-2	1B	625	Unknown	580/ Steel	Active	From LCR: OWS appears sound.		LC	Oil/water	No		C	7
OWS 626-3	626-3	1B	625	Unknown	835/ Concrete	Active	From LCR: heavy oil accumulation; OWS appears sound.		LC	Oil/water	No		C	7
OWS 626-4	626-4	1B	625	Unknown	560/ Concrete	Active	From LCR: OWS appears sound.		LC	Oil/water	No		C	7
OWS 643B	643B	5A	643	1982	100/ Steel	Inactive	From RFA: SWMU 163- sampled. NFA recommendation/concurrence. See comments for OWS 606C; drain to OWS 643B located 10 ft south of Bldg. 606. From LCR: 100-gal, steel OWS; appears sound; adjacent to full UST.	The LCR suggests removing sediments and oils and cleaning OWS. OWS slated for removal according to El Toro staff.	LC	Oil/water	Yes (UST 643A)		A,B,C,D,F	2*

Table 3-14
Oil/Water Separator Inventory
(Sheet 4 of 8)

Database Tracking	OWS Number	Parcel	Location/ Nearest Building Number	Year Installed	Capacity (gal)/ Tank Material	Status	Comments	Further Action	Location Status [1]	Contents	UST Associated with OWS	RFA Sampling (X)	Document Source [2]	ECP Area Type
OWS 651-8	651-8	1G	651	1971	280/ Concrete	Active	SWMU 169-not sampled; antifreeze observed in washrack drain. Listed as a 500-gal concrete OWS in Station database. From LCR: 280-gal precast concrete OWS; appears sound; listed as OWS # 650/651. OWS scheduled for maintenance according to El Toro staff.	The LCR suggests removing oils from OWS and cleaning OWS.	LC	Oil/water	No		A,B,C,D,F	2*
OWS 652	652		651	Unknown		Active				Oil/water				7
OWS 658C	658C	2A	658	1972	400/ Concrete	Active	Listed as a 100-gal OWS in Station database. From LCR: 400-gal OWS in use; OWS appears sound.		LC	Oil/water	No		A,B,C,F	7
OWS 658D	658D	2A	658	1995	1,750/ Concrete	Active	Set up in service with OWS 658C.		LC	Oil/water	No		G	7
OWS 671	671	4A	671	Unknown	Unknown/ Unknown	Active	From RFA: SWMU 173-FA.	RFA recommended additional borings.	LC	Oil/water	Unknown	X	B,D	2*
OWS 672A	672A	4A	672	1982	400/ Steel	Active	SWMU 175-FA; listed as a 1,000-gal steel OWS; eroded asphalt around tank cover. From LCR: 400-gal metal/concrete OWS; appears sound; OWS backs up during heavy washing. El Toro staff list this OWS as under construction/repair.	RFA recommended additional borings. The LCR suggests sediments in OWS be removed, lines be cleaned and frequent inspection and maintenance be implemented.	S	Oil/water	Yes (UST 672B)	X	A,B,C,D,F	2*
OWS 673A	673A	3A	673	1982	895/ Concrete	Active	From RFA: SWMU 179-NFA; stained asphalt noted nearby. Listed as a 100-gal steel OWS in Station database. From LCR; 895 gal concrete OWS; OWS appears sound. Float/alarm installation scheduled for this OWS, according to El Toro staff.	No further action recommended in the RFA based on soil sample results. The LCR recommends the OWS be cleaned.	S	Oil/water	No	X	A,B,C,D,F	2*
OWS 674B	674	4B	674	Unknown	1,400/ Steel	Active	Aboveground OWS. From LCR: OWS appears sound; Adjacent to OWS is a 550-gal #7 gauge steel UST; OWS to Bee Canyon Wash. Bee Canyon Discharge Point #002 from NPDES permit issued by the RWQCB.	Installation of a check dam to capture dry weather flows is recommended in the LCR.	LC	Oil/water	Yes (UST 674A)		A,B,C,D,F	2*
OWS 674C	674	4B	674	1995	52/ Steel	Active	Set up in service with OWS 674.		LC	Oil/water	Yes (UST 674A)		G	7

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Table 3-14
Oil/Water Separator Inventory
(Sheet 5 of 8)

Database Tracking	OWS Number	Parcel	Location/ Nearest Building Number	Year Installed	Capacity (gal)/ Tank Material	Status	Comments	Further Action	Location Status [1]	Contents	UST Associated with OWS	RFA Sampling (X)	Document Source [2]	ECP Area Type
OWS 675B	675B	4B	675	Unknown	1,400/ Steel	Active	From RFA: SWMU 292-comb w/SWMU 188-NFA; aboveground OWS. From LCR: OWS for Agua Chinon Wash; OWS appears sound; Adjacent to OWS is a 550-gal #7 gauge steel UST.	No further action recommended in the RFA based on soil sample results. Installation of a check dam to capture dry weather flows and clearing of the channel is recommended in the LCR.	LC	Oil/water	Yes (UST 675A)	X	A,B,C,D,F	2*
OWS 675C	675C	4B	675	1995	52/ Steel	Active	Set up in service with OWS 675B.		LC	Oil/water	No		G	7
OWS 676	676	2B	676	Unknown	Unknown/ Unknown	Removed	From RFA: SWMU 189.OWS not observed in the area of Bldg. 676. The LCR reported access could not be gained to a fenced-off area adjacent to the building. It is possible that an OWS is hidden under trash cans stored in this area.	NFA recommendation not explicitly stated in RFA (Table 6-15), but concurred with through agency acceptance of the EBS.	SB	Oil/water	No	X	B,C	7
OWS 696	696	5A	696	Unknown	Unknown/ Unknown	Inactive	OWS 643B located between Bldgs. 643 and 696.		LC	Oil/water	Unknown		B,D	2*
OWS 716B	716B	5A	716	1976	100/ Steel	Active	From RFA: SWMU 193-NFA. Concrete OWS listed in 1993 Station UST Inventory. From LCR: Steel OWS (cap. unknown); couldn't be accessed, cover was rusted shut; a 3000-gal fiberglass UST is located 75 feet from Bldg. 716.	No further action recommended in the RFA based on soil sample results. Inspection and maintenance of the OWS is recommended in the LCR.	LC	Oil/water	Yes (716A)	X	A,B,C,D	2*
OWS 744	744	1G	744	Unknown	500/ Concrete	Active	From LCR: OWS appears sound. OWS scheduled for repair & maintenance work according to El Toro staff. Flow from OWS will also be rerouted to the sanitary sewer.		LC	Oil/water	No		C,F	7
OWS 758A	758A	4A	758	1982	100/ Steel	Active	From RFA: SWMU 196-NFA. From LCR: OWS appears sound. OWS under repair/construction as of 2/94 according to El Toro staff.	No further action recommended in the RFA based on soil sample results.	S	Oil/water	Yes (UST 758B)	X	A,B,C,D,F	2*
OWS 759A	759A	4A	759	1982	100/ Steel	Active	From RFA: SWMU 199-FA. From LCR: OWS appears sound; drain line clogged and waste flows from upgradient clean out. OWS under repair/construction as of 2/94 according to El Toro staff.	Further investigation of the OWS current condition by leak testing and inspection is recommended in the RFA report. Cleaning the OWS and drain lines were recommended in the LCR.	S	Oil/water	Yes (UST 759B)	X	A,B,C,D,F	2*
OWS 760B	760B	4A	760	1982	100/ Steel	Active	From RFA: SWMU 203-comb w/SWMU 202-NFA; discharges waste oil to UST 760A. OWS under repair/construction as of 2/94 according to El Toro staff.	No further action recommended in the RFA based on soil sample results.	S	Oil/water	Yes (UST 760A)	X	A,B,D,F	2*

Table 3-14
Oil/Water Separator Inventory
(Sheet 6 of 8)

Database Tracking	OWS Number	Parcel	Location/ Nearest Building Number	Year Installed	Capacity (gal)/ Tank Material	Status	Comments	Further Action	Location Status [1]	Contents	UST Associated with OWS	RFA Sampling (X)	Document Source [2]	ECP Area Type
OWS 761A	761A	5A	761	1982	100/ Steel	Active	SWMU 205-NFA. Listed as active in the Station database. From LCR: OWS status not known, buildings appear abandoned; OWS inundated with water; adjacent UST 1/2 full of water; valve open at storm drain, all discharges to storm drain.	No further action recommended in the RFA based on soil sample results.	S	Oil/water	Yes (UST 761B)	X	A,B,C,D	2*
OWS 762A	762A	3A	390	1982	100/ Steel	Inactive	From RFA: SWMU 208-NFA. From LCR: OWS ID # 390 in LCR; OWS appears sound; adjacent to empty waste oil UST; butterfly valve not functioning-flows to storm drain. OWS under repair/construction as of 2/94 according to El Toro staff.	No further action recommended in the RFA based on soil sample results. The OWS should be cleaned and electrical valves tested to determine what repairs are needed per LCR.	S	Oil/water	Yes (UST 762B)	X	A,B,C,D,F	2*
OWS 763A	763A	5A	763	1982	100/ Steel	Active	From RFA: SWMU 211-NFA. From LCR: OWS east of Bldg. 698; not in use during survey, new valves being installed; OWS appears sound; UST associated with OWS has 3 feet of water. OWS under repair/construction according to El Toro staff.	No further action recommended in the RFA based on soil sample results. Cleaning the OWS was recommended in the LCR.	LC	Oil/water	Yes (UST 763B)	X	A,B,C,D,F	2*
OWS 764B	764B	2A	764	1982	100/ Steel	Active	From RFA: SWMU 215-comb w/SWMU214-NFA. From LCR: OWS ID# 392 in LCR; UST adjacent to OWS; wash rack slab has numerous cracks. OWS under repair /construction as of 2/94 according to El Toro staff.	No further action recommended in the RFA based on soil sample results. The OWS should be cleaned per LCR.	LC	Oil/water	Yes (UST 764B)	X	A,B,C,D,F	2*
OWS 765B	765B	1A	765	1982	100/ Steel	Active	From RFA: SWMU 218-comb w/SWMU 217. From LCR: OWS appears sound but access covers need replacement; 100-gal UST adjacent to OWS.	Cleaning the lines to the OWS recommended in the LCR. FA in compliance program.	LC	Oil/water	Yes (UST 765A)		A,B,C,D	2*
OWS 766A	766A	1A	766	1982	100/ Steel	Active	From RFA: SWMU 220-NFA. From LCR: Due to heavy rainfall vault box was flooded; UST adjacent to OWS full of oil.	No further action recommended in the RFA based on soil sample results. Water in vault needs to be pumped out and the OWS inspected and cleaned per LCR.	LC	Oil/water	Yes (UST 766B)	X	A,B,C,D	2*
OWS 800F	800F	4B	800	1984	1,500/ Concrete	Active	From RFA: SWMU 232-NFA.	No further action recommended in the RFA based on soil sample results.	S	Oil/water	No	X	A,B,D	2*

Table 3-14
Oil/Water Separator Inventory
(Sheet 7 of 8)

Database Tracking	OWS Number	Parcel	Location/ Nearest Building Number	Year Installed	Capacity (gal)/ Tank Material	Status	Comments	Further Action	Location Status [1]	Contents	UST Associated with OWS	RFA Sampling (X)	Document Source [2]	ECP Area Type
OWS 802	802	4B	802	Unknown	1,000/ Concrete	Active	From LCR: OWS appears sound; needs cleaning. This OWS scheduled for maintenance/cleaning as of 2/94 according to El Toro staff.	Cleaning the OWS recommended in the LCR.	LC	Oil/water	No		C,D,F	7
OWS 817	817	3F	817	Unknown	1,500/ Concrete	Active	From RFA: SWMU 233-NFA. From LCR: OWS does not appear to be used; appears sound. OWS scheduled for maintenance/repairs according to El Toro staff.	No further action recommended in RFA based on soil sample results. Cleaning the OWS recommended in the LCR.	S	Oil/water	No	X	B,C,D,F	2*
OWS 845	845	5A	846	Unknown	2,000/ Steel	Active	From RFA: SWMU 248-NFA. From LCR: OWS not in use; bolted ports not accessible, steam cleaner not functional; structural condition unknown. Rain diversion valves & controls scheduled to be installed at this OWS according to El Toro staff.	No further action recommended in RFA based on soil sample results.	LC	Oil/water	No	X	C,F	2*
OWS 850	850	5A	850	Unknown	Unknown/ Unknown	Active	From LCR: OWS located south of burn pits; bolt ports not accessible; UST believed to be associated with and adjacent to OWS. Rain diversion valves & controls scheduled to be installed at this OWS according to El Toro staff.	Additional investigations recommended in the LCR since little information about OWS is available.	LC	Oil/water	Unknown		C,F	7
OWS 851	851		399	Unknown		Active				Oil/Water				7
OWS 892	892	5A	892	Unknown	1,375/ Concrete	Active	From LCR: OWS appears sound; produces approx. 5-20 gpm; in use 4 days/week. Rain diversion valves & controls scheduled to be installed at this OWS according to El Toro staff.		LC	Oil/water	No		C,F	7
OWS 896	896	5A	896	1982	600/ Steel	Active	From LCR: OWS ports bolted; appears sound; may have been built in 1982; 150-gal fiberglass UST located west of OWS, UST and piping double-walled. Rain diversion valves & controls scheduled to be installed at this OWS according to El Toro staff.		LC	Oil/water	Unknown		C,F	7

Table 3-14
Oil/Water Separator Inventory
(Sheet 8 of 8)

Database Tracking	OWS Number	Parcel	Location/ Nearest Building Number	Year Installed	Capacity (gal)/ Tank Material	Status	Comments	Further Action	Location Status [1]	Contents	UST Associated with OWS	RFA Sampling (X)	Document Source [2]	ECP Area Type
OWS 897	897	5A	897	Unknown	Unknown/ Steel	Active	From LCR: Waste oil level alarm light on - facility personnel reported problems with level sensor switch. Rain diversion valves & controls scheduled to be installed at this OWS according to El Toro staff.		LC	Oil/water	No		C,F	7
OWS 1702	1702	1B	1702	Unknown	550/ Steel	Active	From LCR: No access to OWS ports; OWS appears sound; adjacent UST and its piping has secondary containment. OWS scheduled for general maintenance/cleaning according to El Toro staff.		LC	Oil/water	Unknown		C,F	7

Notes: [1] The following codes describe the location of OWSs:

LC - Location confirmed.

S - OWS location identified on historical as-built plan. Location to be confirmed by field survey.

SB - Location of building confirmed. OWS location to be determined by field survey.

[2] The letters in this column correspond to the following sources of information::

A - MCAS El Toro, 1993. Management Overview of Storage Tanks.

B - EG&G Idaho, Inc., 1990. Draft USMC MCAS El Toro Underground Storage Tank Survey Report.

C - Law/Crandall, Inc., 1993. Oil/Water Separator Survey, El Toro Marine Corps Air Station.

CE - Device under Conditional Exemption for Specified Wastestreams per a letter from DTSC dated 1/10/94.

D - Jacobs Engineering Group, 1993. MCAS El Toro Final RCRA Facility Assessment Report.

E - Letter from the Dept. of Toxic Substance Control (DTSC) to MCAS El Toro on Acknowledgment of Units Operating Under Conditional Authorization and/or Conditional Exemption.

F - Personal communications with El Toro Staff in February 1994.

G - Personal communications with El Toro Staff in January 1996.

[3] An asterisk following the area type indicates that the area type designation has changed since the March 1996 BCP.

Abbreviation

DTSC - Cal-EPA Department of Toxic Substances Control
EBS - Environmental Baseline Study
ECP - environmental condition of property
FA - further action
gal - gallon(s)
gpm - gallons per minute
LCR - Law/Crandall Report
MCAS - Marine Corps Air Station
USMC - United States Marine Corps
NFA - no further action
NPDES - National Pollution Discharge Elimination System
OWS - oil/water separator
RFA - RCRA Facility Assessment
RWQCB - Regional Water Quality Control Board
SWMU - Solid Waste Management Unit
UST - underground storage tank

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Table 3-15
Vegetative Cover and Other Features Within Natural Area
(Sheet 1 of 1)

Vegetative Cover Type/Feature	Acres
Venturan-Diegan transitional coastal sage scrub	118.1
California sagebrush-California buckwheat scrub	42.6
Black sage scrub	2.4
Sagebrush scrub	163.5
Sagebrush-black sage scrub	40.0
Bush mallow sage scrub	10.4
Southern cactus scrub	23.2
Sage scrub-grassland ecotone	43.3
Annual grassland	208.3
Southern coastal needlegrass grassland	87.2
Ruderal	37.9
Freshwater swale	1.0
Southern willow scrub	30.6
Mulefat scrub	5.3
Southern sycamore riparian woodland	0.6
Coast live oak woodland	0.9
Mexican elderberry woodland	2.4
Open water	2.2
Ephemeral drainages and washes	0.4
Vineyards and orchards	44.8
Urban	107.4
Nonurban commercial/industrial/institutional	3.3
Parks and ornamental plantings	4.7
Other developed areas	1.8
Cleared or graded	228.9
Total Acreage of Natural Area	**1211.2**

Source: D&M 1994

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Table 3-16
Special-Status Wildlife Species at MCAS El Toro
(Sheet 1 of 1)

Species	Status
Amphibians/Reptiles	
Coastal Western Whiptail	Federal Category 2 Candidate
Orange-Throated Whiptail	Federal Category 2 Candidate California Species of Special Concern
San Diego Coast Horned Lizard	Federal Category 2 Candidate California Species of Special Concern
Western Spadefoot Toad	California Species of Special Concern
Birds	
Bell's Sage Sparrow	Federal Category 2 Candidate California Species of Special Concern
Black-Shouldered Kite	California Fully Protected
California Gnatcatcher	Federal Category 2 Candidate California Species of Special Concern
Cooper's Hawk	California Species of Special Concern
Ferruginous Hawk	Federal Category 2 Candidate California Species of Special Concern
Loggerhead Shrike	Federal Category 2 Candidate California Species of Special Concern
Osprey	California Species of Special Concern
Prairie Falcon	California Species of Special Concern
San Diego Cactus Wren	Federal Category 2 Candidate California Species of Special Concern
Sharp-Shinned Hawk	California Species of Special Concern
Southern California Rufous-Crowned Sparrow	Federal Category 2 Candidate California Species of Special Concern
Mammals	
Northwestern San Diego Pocket Mouse	Federal Category 2 Candidate California Species of Special Concern
San Diego Black-Tailed Jackrabbit	Federal Category 2 Candidate California Species of Special Concern
San Diego Desert Woodrat	Federal Category 2 Candidate California Species of Special Concern
Southern Grasshopper Mouse	Federal Category 2 Candidate California Species of Special Concern

Source: D&M1994

Abbreviations: MCAS - Marine Corps Air Station

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Table 3-17
Summary of Land Area by ECP Area Type
(Sheet 1 of 1)

ECP Area Type	STATION PROPERTY Acreage[1]	STATION PROPERTY Percent[1]	Area Type Definition[2]
1	3,209.2	66.7%	Areas where no release, or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas).
2	126	2.6%	Areas where only release or disposal of petroleum products has occurred.
3	741.9	15.4%	Areas where release of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action.
4	0	0%	Areas where release, disposal of hazardous substances has occurred, and all remedial actions necessary to protect human health and the environment have been taken.
5	98.6	2.1%	Areas where release, disposal of hazardous substances has occurred, and removal or remedial actions are underway, but all required remedial actions have not yet been taken.
6	468.9	9.7%	Areas where release of hazardous substances has occurred, but required actions have not yet been implemented.
7	167	3.5%	Areas that are not evaluated or require additional evaluation.
Totals	**4,811.6** [3]	**100%**	

Notes: [1] Acreage calculated from current CLEAN II base maps using information in the BCP.
[2] Definitions as modified by the August 1996 Addendum to the BRAC Cleanup Plan Guidebook
[3] Total acreage for the Station is 4,811.6 acres, which includes 4,738.2 acres of on-Station property (based on the 1991 El Toro Master Plan), and 73.4 acres of off-Station property from El Toro housing facilities at MCAS Tustin.

Abbreviations: ECP – environmental condition of property

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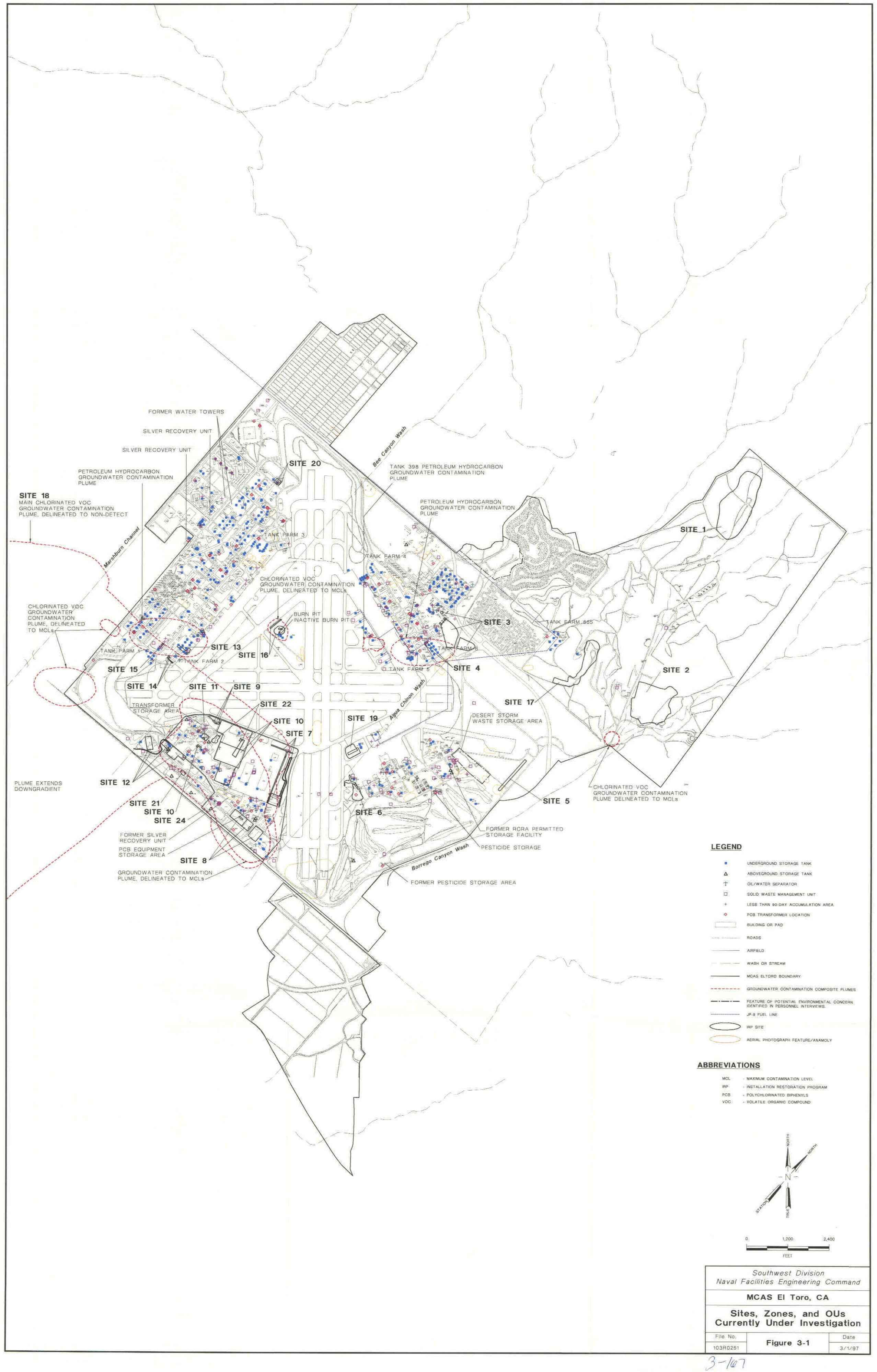

Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

Sites, Zones, and OUs Currently Under Investigation

File No.		Date
103R0251	**Figure 3-1**	3/1/97

3-107

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MCAS EL TORO

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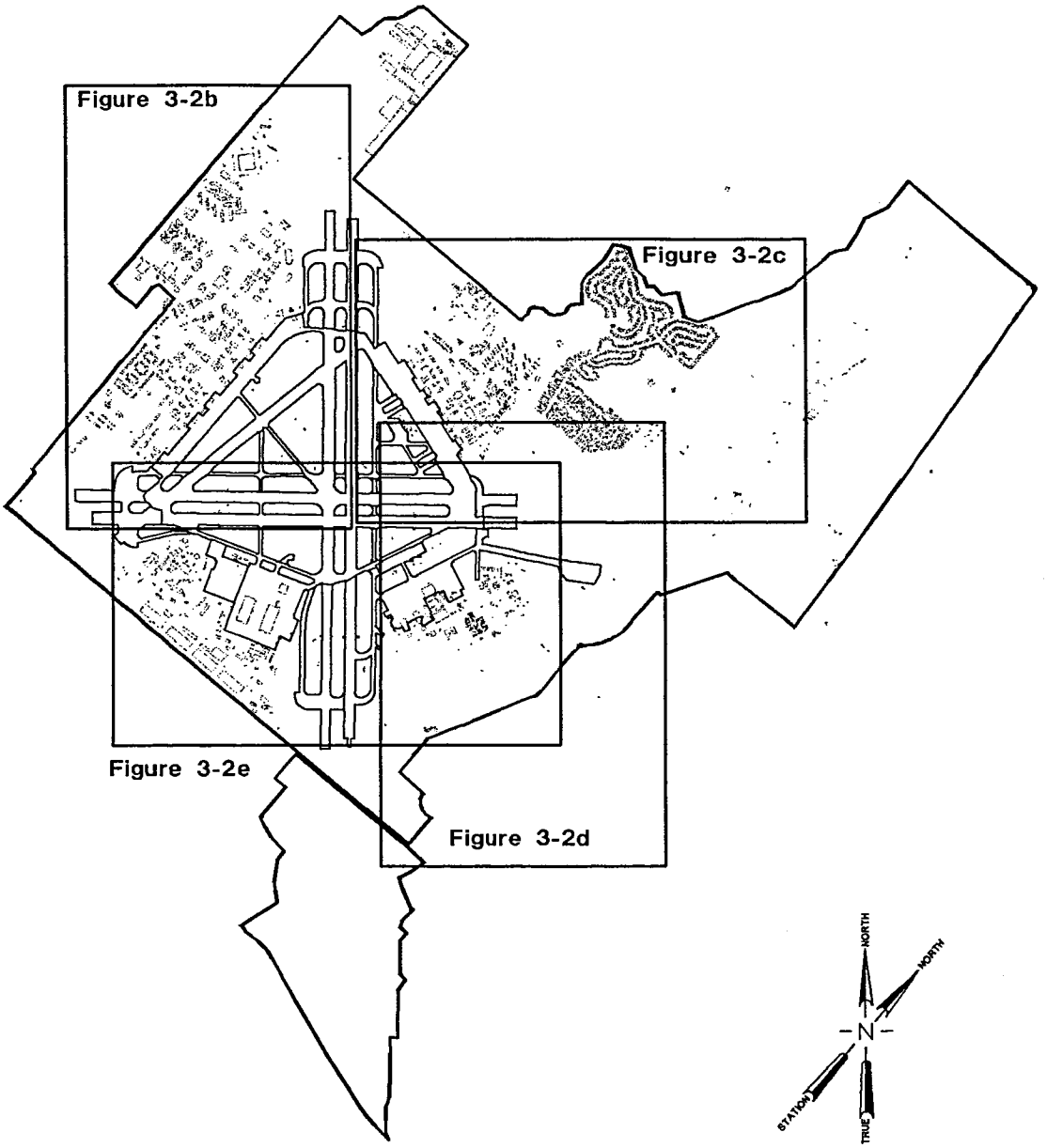

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FEET

LEGEND

MCAS EL TORO BOUNDARY

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Key to UST Location Map		
File No.	**Figure 3-2a**	Date
103K0250		3/1/97

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MCAS EL TORO

SENSITIVE RECORD

PORTIONS OF THIS RECORD ARE CONSIDERED SENSITIVE AND ARE NOT AVAILABLE FOR PUBLIC VIEWING

FIGURES 3-2B THROUGH 3-2E

FOR ADDITIONAL INFORMATION, CONTACT:

DIANE C. SILVA, RECORDS MANAGER
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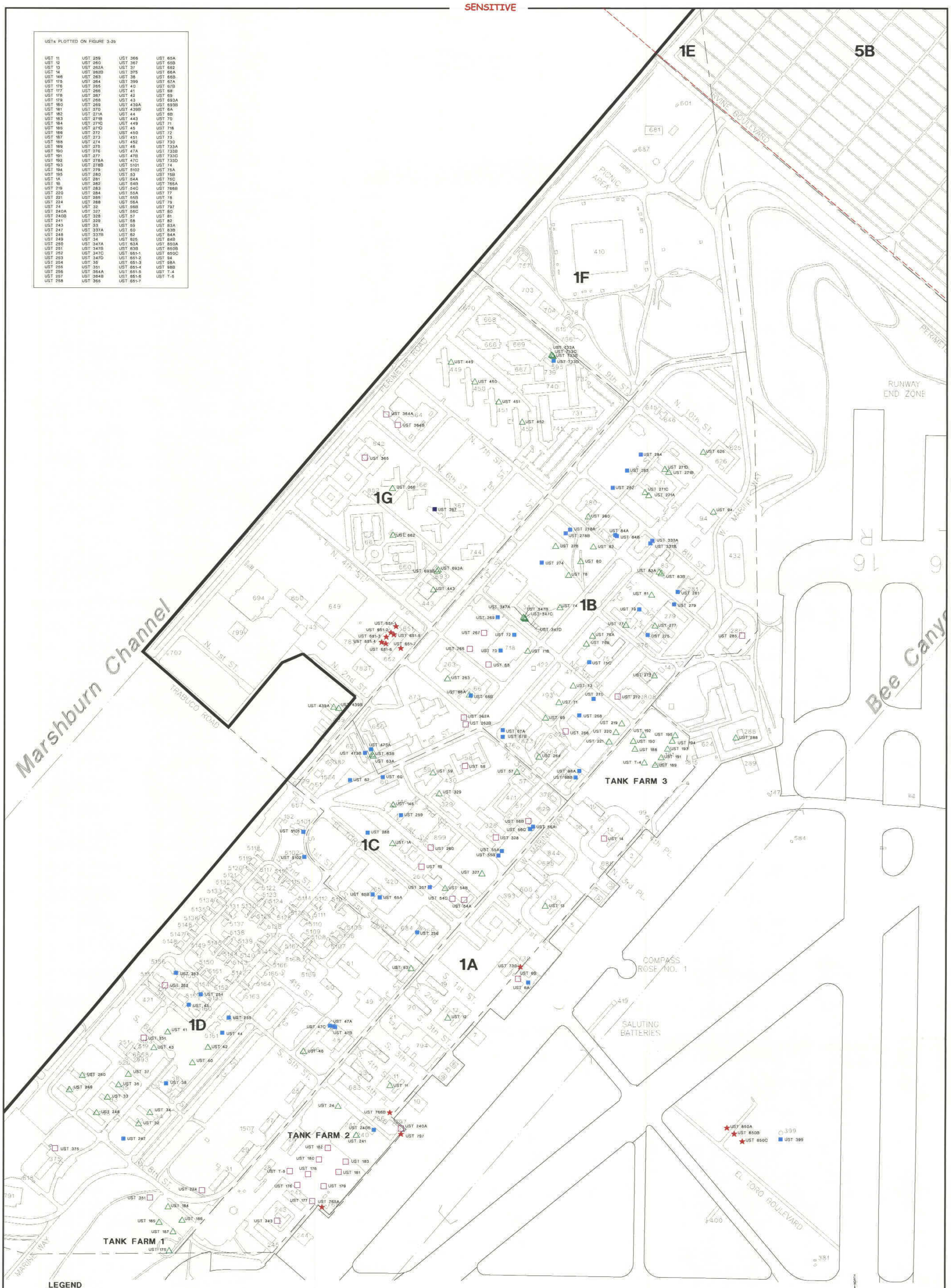
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132

TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil

USTs PLOTTED ON FIGURE 3-2b

UST 11	UST 259	UST 366	UST 65A
UST 12	UST 260	UST 367	UST 65B
UST 13	UST 262A	UST 37	UST 662
UST 14	UST 262B	UST 375	UST 66A
UST 146	UST 263	UST 38	UST 66B
UST 175	UST 264	UST 399	UST 67A
UST 176	UST 265	UST 40	UST 67B
UST 177	UST 266	UST 41	UST 68
UST 178	UST 267	UST 42	UST 69
UST 179	UST 268	UST 43	UST 693A
UST 180	UST 269	UST 439A	UST 693B
UST 181	UST 270	UST 439B	UST 6A
UST 182	UST 271A	UST 44	UST 6B
UST 183	UST 271B	UST 443	UST 70
UST 184	UST 271C	UST 449	UST 71
UST 185	UST 271D	UST 45	UST 718
UST 186	UST 272	UST 450	UST 72
UST 187	UST 273	UST 451	UST 73
UST 188	UST 274	UST 452	UST 730
UST 189	UST 275	UST 46	UST 733A
UST 190	UST 276	UST 47A	UST 733B
UST 191	UST 277	UST 47B	UST 733C
UST 192	UST 278A	UST 47C	UST 733D
UST 193	UST 278B	UST 5101	UST 74
UST 194	UST 279	UST 5102	UST 75A
UST 195	UST 280	UST 53	UST 75B
UST 1A	UST 281	UST 54A	UST 75C
UST 1B	UST 282	UST 54B	UST 765A
UST 219	UST 283	UST 54C	UST 766B
UST 220	UST 284	UST 55A	UST 77
UST 221	UST 285	UST 55B	UST 78
UST 224	UST 288	UST 56A	UST 79
UST 24	UST 32	UST 56B	UST 797
UST 240A	UST 327	UST 56C	UST 80
UST 240B	UST 328	UST 57	UST 81
UST 241	UST 329	UST 58	UST 82
UST 243	UST 33	UST 59	UST 83A
UST 247	UST 337A	UST 60	UST 83B
UST 248	UST 337B	UST 62	UST 84A
UST 249	UST 34	UST 625	UST 84B
UST 250	UST 347A	UST 63A	UST 850A
UST 251	UST 347B	UST 63B	UST 850B
UST 252	UST 347C	UST 651-1	UST 850C
UST 253	UST 347D	UST 651-2	UST 94
UST 254	UST 35	UST 651-3	UST 98A
UST 255	UST 351	UST 651-4	UST 98B
UST 256	UST 364A	UST 651-5	UST T-4
UST 257	UST 364B	UST 651-6	UST T-5
UST 258	UST 365	UST 651-7	



LEGEND

- ACTIVE TANKS
- INACTIVE TANKS
- ABANDONED TANKS
- REMOVED TANKS
- CLOSED TANKS
- BUILDING OR PAD
- IMPROVED / UNIMPROVED ROAD
- AIRFIELD
- WASH OR STREAM
- RAILROAD
- MCAS ELTORO BOUNDARY
- FUEL LINE
- ZONE OR PARCEL BOUNDARY

NOTES: THE NUMBER PORTION OF THE PARCEL INDENTIFIER REPRESENTS THE ZONE NUMBER WITHIN WHICH THE PARCEL IS LOCATED.

Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

UST Locations

File No.		Date
103U0252	Figure 3-2b	3/1/97

PAGE NO. 3-172

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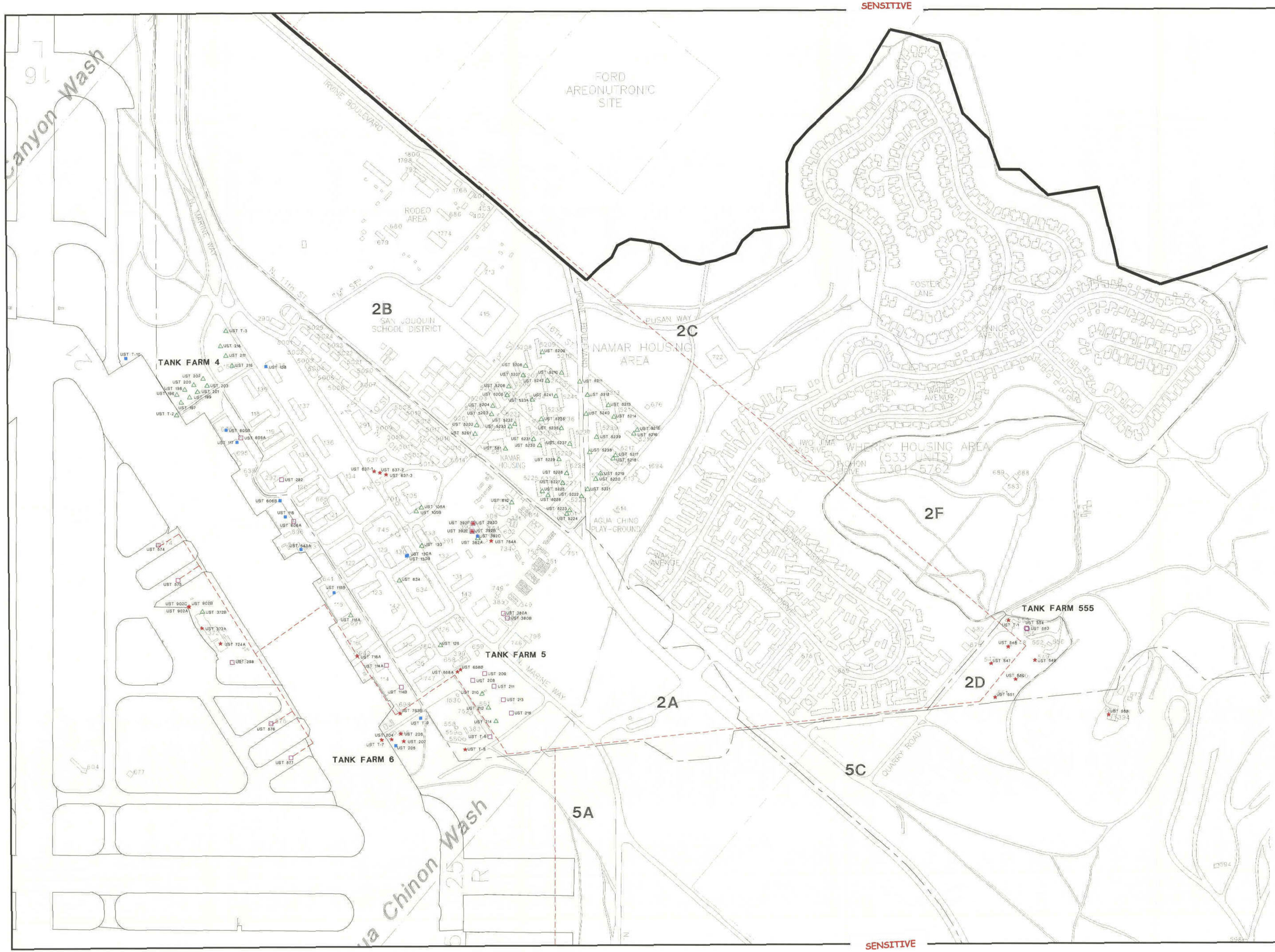

USTs PLOTTED ON FIGURE 3-2c

UST 105A	UST 215	UST 5217	UST 568
UST 105B	UST 216	UST 5218	UST 574
UST 114A	UST 217	UST 5219	UST 575
UST 114B	UST 218	UST 5220	UST 576
UST 115A	UST 292	UST 5221	UST 577
UST 115B	UST 372A	UST 5222	UST 581
UST 116	UST 372B	UST 5223	UST 605A
UST 117	UST 380A	UST 5224	UST 606B
UST 126	UST 380B	UST 5225	UST 606A
UST 130A	UST 392A	UST 5226	UST 608B
UST 130B	UST 392B	UST 5227	UST 610
UST 133	UST 392C	UST 5228	UST 634
UST 138	UST 392D	UST 5229	UST 637-1
UST 195	UST 392E	UST 5230	UST 637-2
UST 197	UST 392F	UST 5231	UST 637-3
UST 198	UST 398	UST 5232	UST 643A
UST 199	UST 5201	UST 5233	UST 658A
UST 200	UST 5202	UST 5234	UST 658B
UST 201	UST 5203	UST 5235	UST 716A
UST 202	UST 5204	UST 5236	UST 724A
UST 203	UST 5205	UST 5237	UST 763B
UST 204	UST 5206	UST 5238	UST 764A
UST 206	UST 5207	UST 5239	UST 902A
UST 208	UST 5208	UST 5240	UST 902B
UST 207	UST 5209	UST 5241	UST 902C
UST 208	UST 5210	UST 5242	UST T-1
UST 209	UST 5211	UST 547	UST T-10
UST 210	UST 5212	UST 548	UST T-2
UST 211	UST 5213	UST 549	UST T-3
UST 212	UST 5214	UST 550	UST T-6
UST 213	UST 5215	UST 551	UST T-7
UST 214	UST 5216	UST 553	UST T-8
		UST 554	UST T-9

LEGEND

- ACTIVE TANKS
- INACTIVE TANKS
- REMOVED TANKS
- CLOSED TANKS
- BUILDING OR PAD
- IMPROVED / UNIMPROVED ROAD
- AIRFIELD
- WASH OR STREAM
- RAILROAD
- MCAS ELTORO BOUNDARY
- FUEL LINE
- ZONE OR PARCEL BOUNDARY

NOTES: THE NUMBER PORTION OF THE PARCEL IDENTIFIER REPRESENTS THE ZONE NUMBER WITHIN WHICH THE PARCEL IS LOCATED

NORTH

0 300 600
FEET

Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

UST Locations

File No.		Date
103U253	Figure 3-2c	3/1/97

PAGE NO. 3-174

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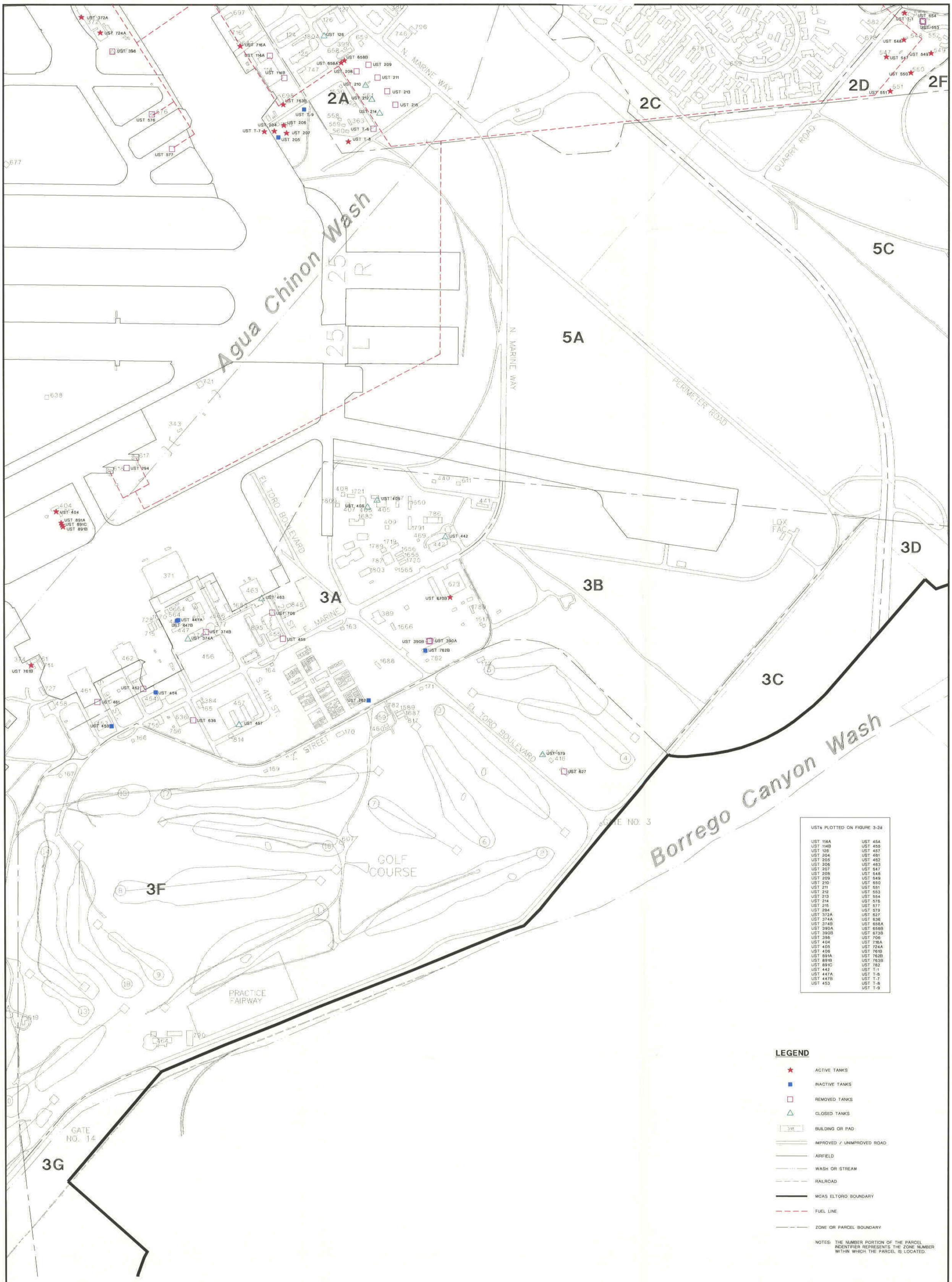

USTs PLOTTED ON FIGURE 3-2d

UST 114A	UST 454
UST 114B	UST 455
UST 126	UST 457
UST 204	UST 461
UST 205	UST 462
UST 206	UST 463
UST 207	UST 547
UST 208	UST 548
UST 209	UST 549
UST 210	UST 550
UST 211	UST 551
UST 212	UST 553
UST 213	UST 554
UST 214	UST 576
UST 215	UST 577
UST 294	UST 579
UST 372A	UST 627
UST 374A	UST 636
UST 374B	UST 658A
UST 390A	UST 658B
UST 390B	UST 673B
UST 396	UST 706
UST 404	UST 716A
UST 405	UST 724A
UST 406	UST 761B
UST 891A	UST 762B
UST 891B	UST 763B
UST 891C	UST 762
UST 442	UST T-1
UST 447A	UST T-6
UST 447B	UST T-7
UST 453	UST T-8
	UST T-9

LEGEND

- ACTIVE TANKS
- INACTIVE TANKS
- REMOVED TANKS
- CLOSED TANKS
- 318 BUILDING OR PAD
- IMPROVED / UNIMPROVED ROAD
- AIRFIELD
- WASH OR STREAM
- RAILROAD
- MCAS ELTORO BOUNDARY
- FUEL LINE
- ZONE OR PARCEL BOUNDARY

NOTES: THE NUMBER PORTION OF THE PARCEL INDENTIFIER REPRESENTS THE ZONE NUMBER WITHIN WHICH THE PARCEL IS LOCATED.

NORTH
-N-
TRUE

0 300 600
FEET

Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

UST Locations

File No.		Date
103U0254	**Figure 3-2d**	3/1/97

M60050_001745
MCAS EL TORO

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USTs PLOTTED ON FIGURE 3-2e

UST 159	UST 326A	UST 454	UST 800C
UST 294	UST 326B	UST 455	UST 800D
UST 295	UST 335	UST 457	UST 800E
UST 296	UST 359A	UST 461	UST 891A
UST 297A	UST 359C	UST 462	UST 891B
UST 297C	UST 368	UST 463	UST 891C
UST 298A	UST 369	UST 493	UST T-11
UST 298B	UST 374A	UST 529	
UST 298D	UST 374B	UST 636	
UST 304	UST 386A	UST 655	
UST 306	UST 386C	UST 672	
UST 314A	UST 388A	UST 672B	
UST 314B	UST 388B	UST 674A	
UST 321	UST 404	UST 675A	
UST 322B	UST 435	UST 706	
UST 324A	UST 445A	UST 758B	
UST 324B	UST 445B	UST 759B	
UST 324C	UST 445C	UST 760A	
UST 324D	UST 447A	UST 761B	
UST 324E	UST 447B	UST 800A	
UST 324F	UST 453	UST 800B	

Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

UST Locations

File No.		Date
103U0255	Figure 3-2e	3/1/97

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SENSITIVE RECORD

PORTIONS OF THIS RECORD ARE CONSIDERED SENSITIVE AND ARE NOT AVAILABLE FOR PUBLIC VIEWING

FIGURE 3-3a AND 3-3b

FOR ADDITIONAL INFORMATION, CONTACT:

DIANE C. SILVA, RECORDS MANAGER
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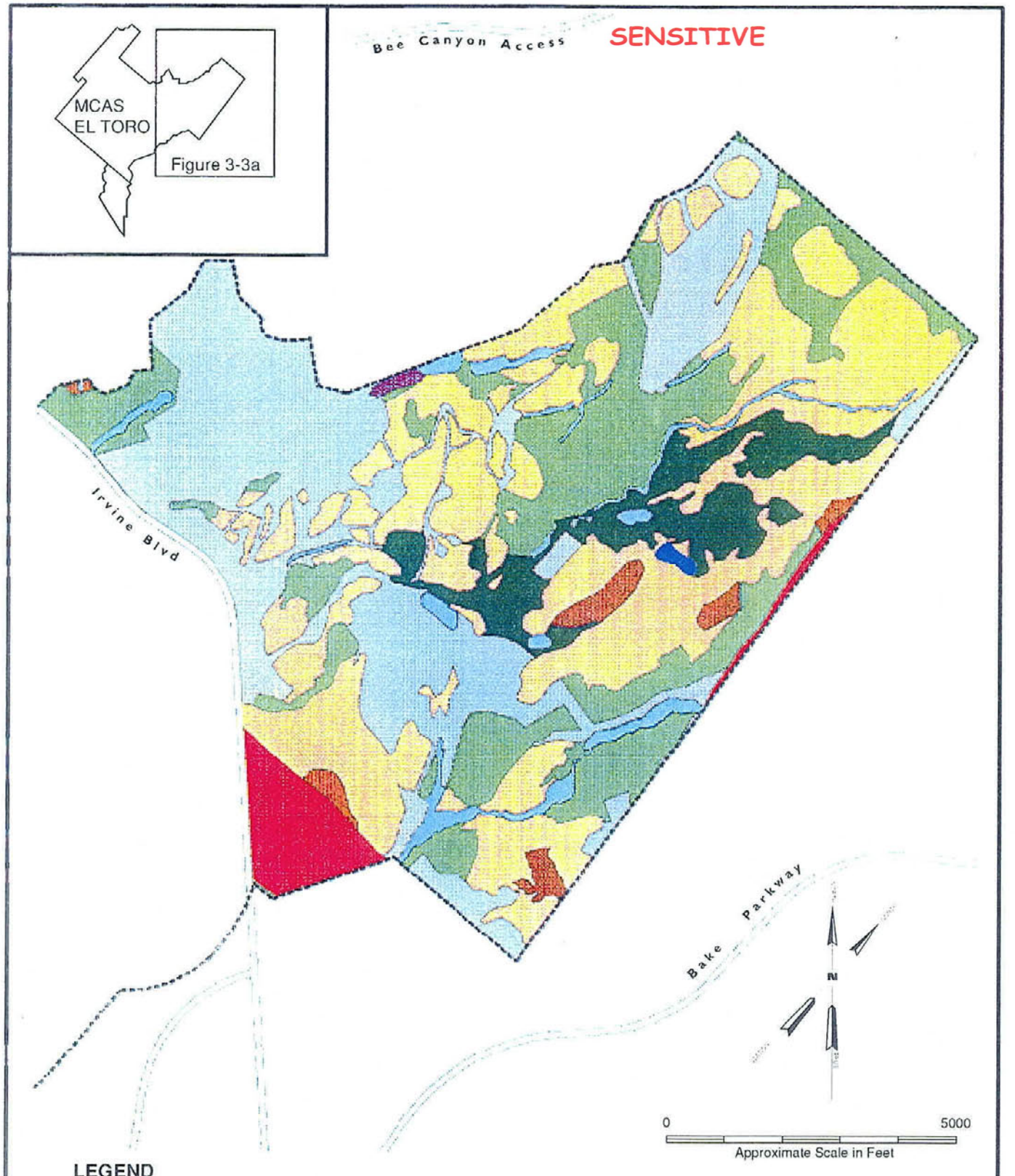

LEGEND

- Coastal Sage Scrub
- Southern Cactus Scrub
- Riparian Scrub
- Annual Grassland
- Native Grassland
- Mexican Elderberry Woodland
- Agriculture/Orchards
- Developed/Disturbed Areas
- Open Water
- Station Boundary

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Vegetation Communities in Natural Area		
File No.	**Figure 3-3a**	Date
veg103.al		3/1/97

Source: Dames and Moore, 1994.

SENSITIVE

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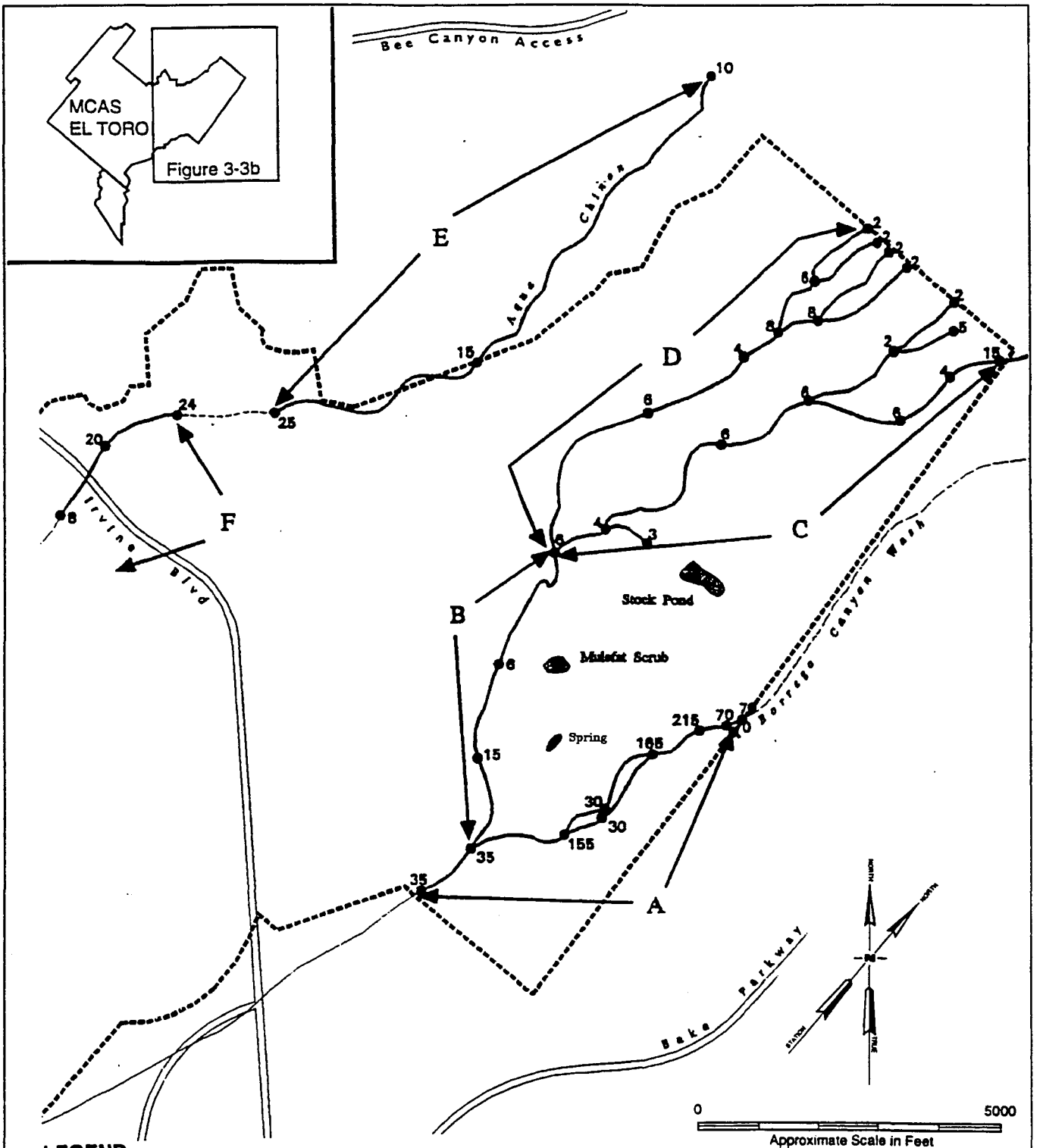

LEGEND

- Underground Channel
- Lined Channel
- Unlined Channel
- Station Boundary
- Wetlands
- Channel Width in Feet
- A - F Reach Designation

Source: Dames & Moore, 1994

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Wetlands and Water in Natural Area		
File No.	**Figure 3-3b**	Date
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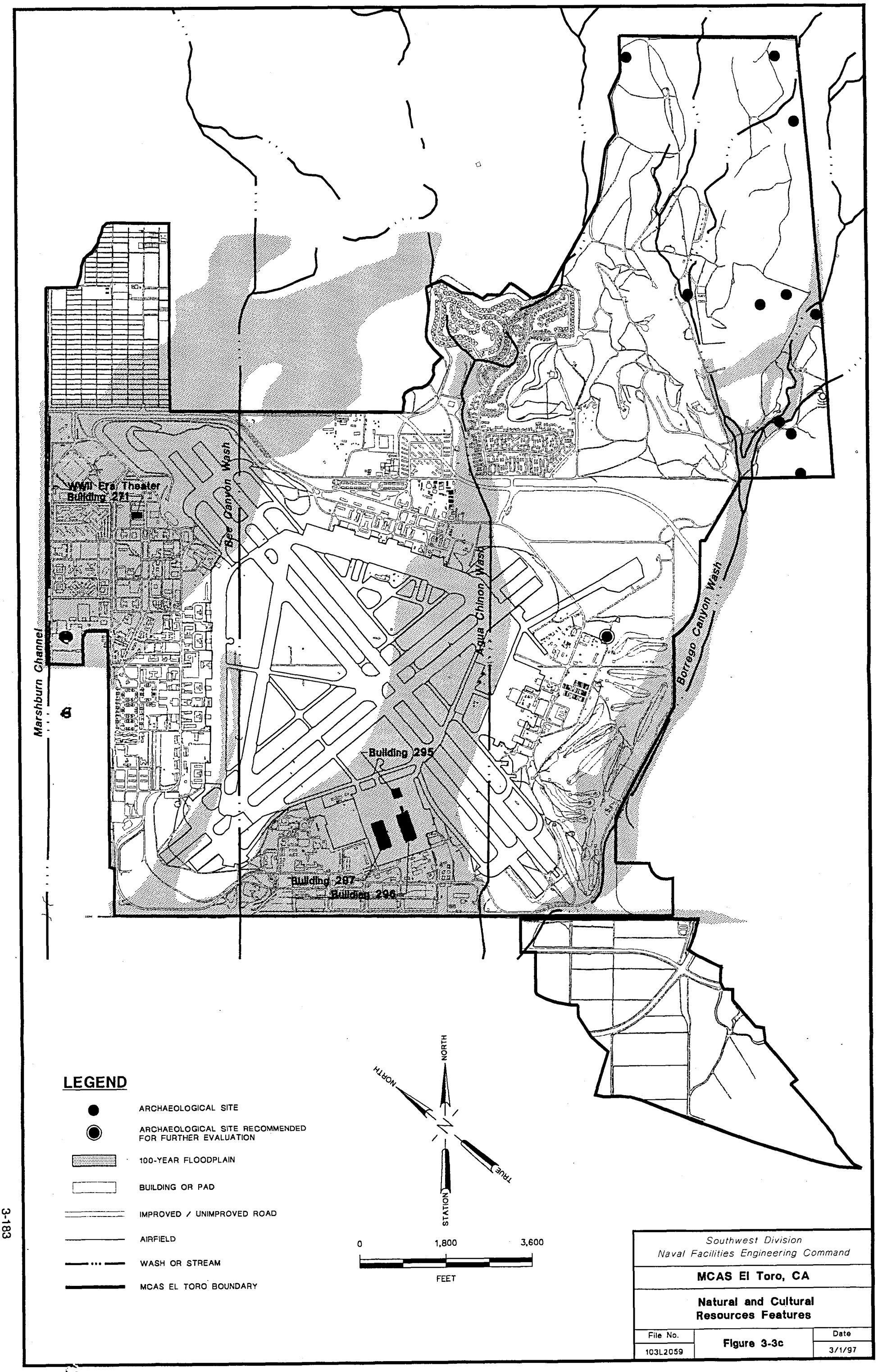
WWII Era Theater
Building 271
Bee Canyon Wash
Marshburn Channel
Aqua Chinon Wash
Borrego Canyon Wash
Building 295
Building 297
Building 296
LEGEND
ARCHAEOLOGICAL SITE
ARCHAEOLOGICAL SITE RECOMMENDED FOR FURTHER EVALUATION
100-YEAR FLOODPLAIN
BUILDING OR PAD
IMPROVED / UNIMPROVED ROAD
AIRFIELD
WASH OR STREAM
MCAS EL TORO BOUNDARY
NORTH
NORTH
TRUE
STATION
0
1,800
3,600
FEET
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Natural and Cultural Resources Features
File No.
103L2059
Figure 3-3c
Date
3/1/97

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MCAS EL TORO

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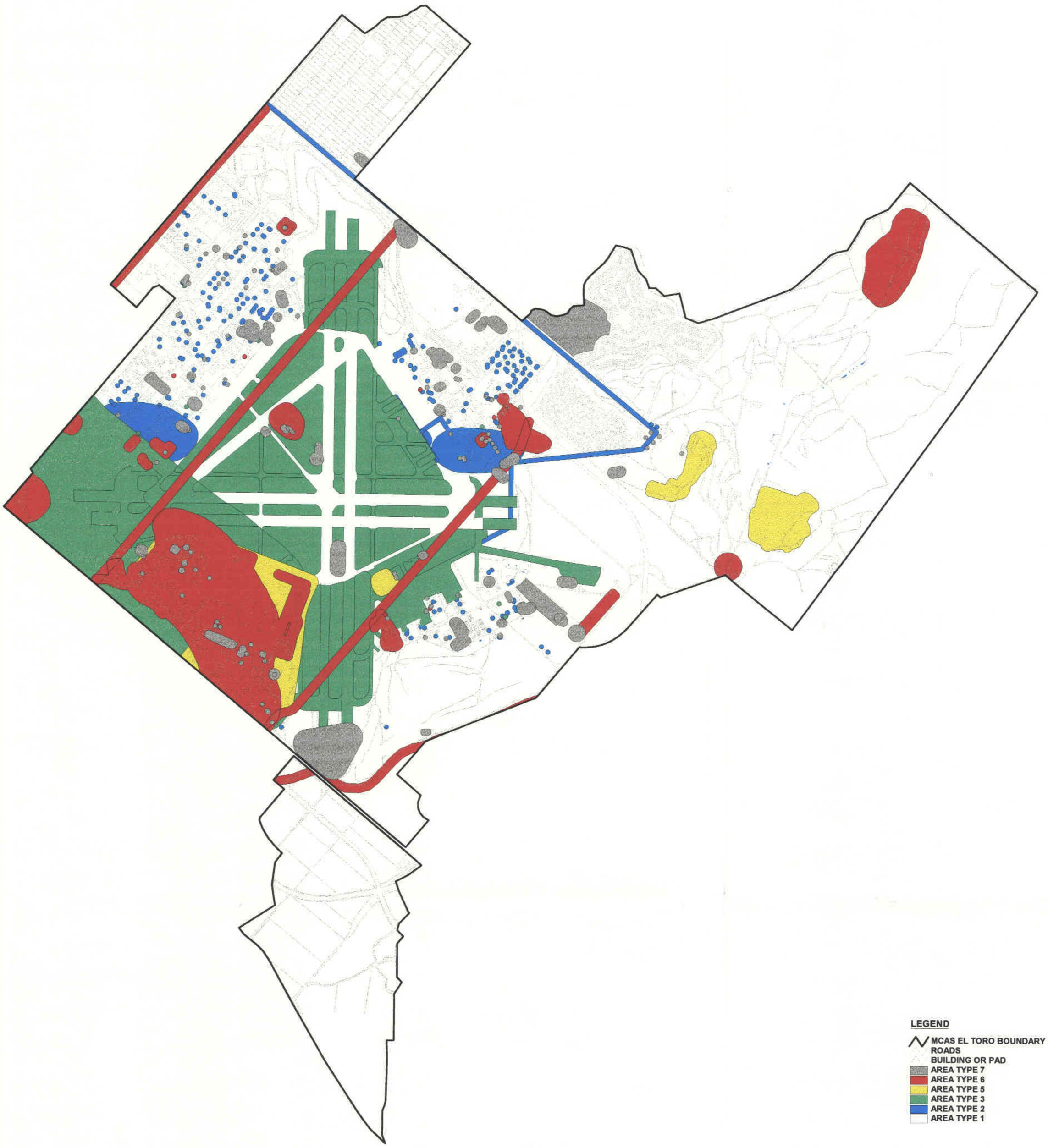

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Environmental Condition of Property		
File No. 103Q0292	Figure 3-4	Date 3/1/97

PAGE NO. 3-186

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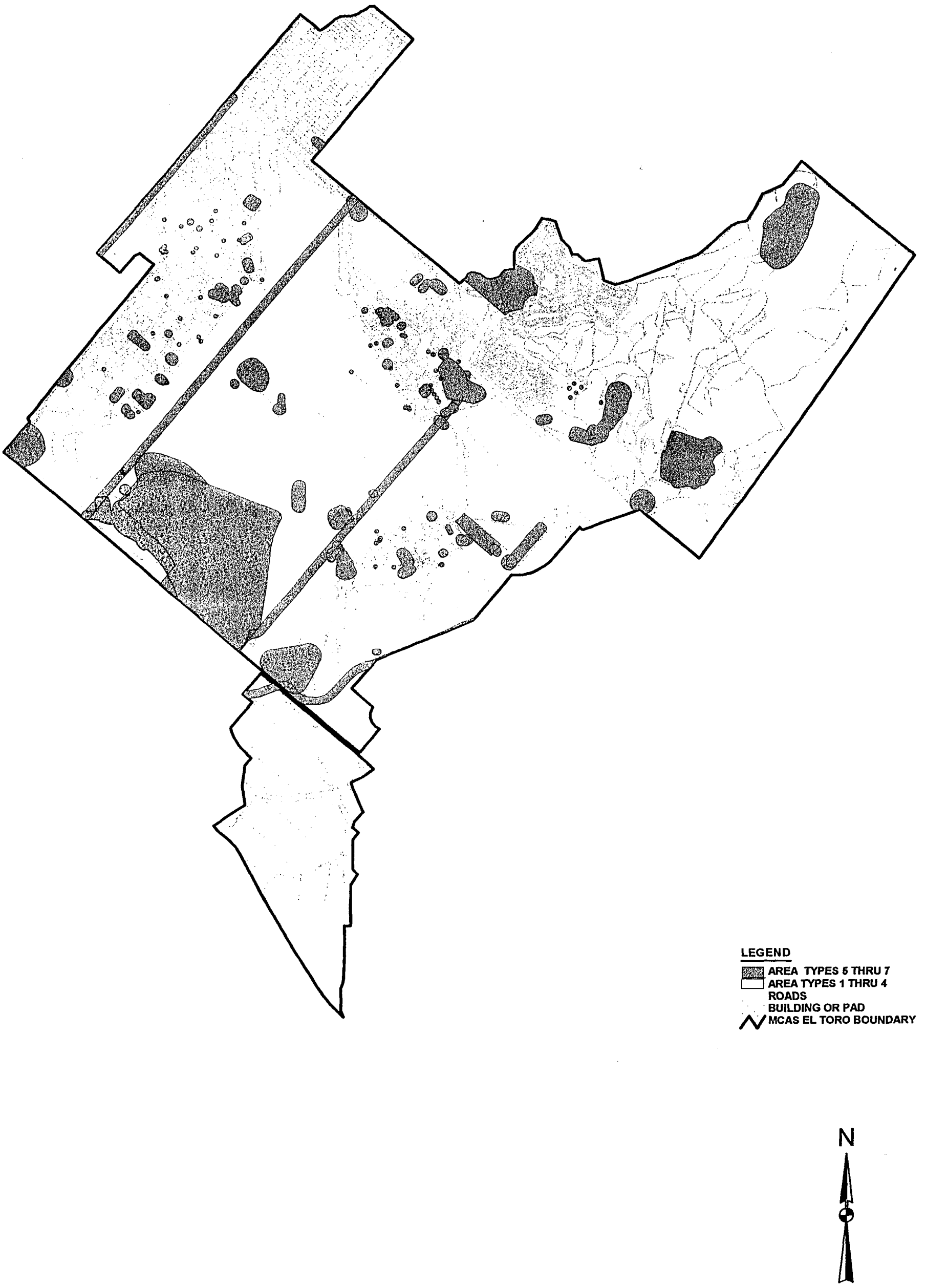

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Suitability of Property for Transfer		
File No. 103R1782	Figure 3-5	Date 3/1/97

Chapter 4

Installationwide Strategy for Environmental Restoration

This chapter summarizes the strategies for environmental restoration and compliance programs, natural and cultural resources, and community involvement at MCAS El Toro based on currently available information. Closure of the Station is scheduled for July 1999 and, therefore, environmental restoration and compliance strategies will shift from supporting an active component mission to preparing for disposal and reuse of MCAS El Toro property.

The Station has been divided into five zones based on geographic considerations, mission activities, and parcel disposal considerations. All LOCs (including IRP sites) are located within zones 1 through 5. Zone designations are used to create geographically contiguous real property areas that provide amenable management of investigative units. The final CRP has changed the zone designations at MCAS EL Toro to be consistent with the recommended future use of the Station. New zone designations will be incorporated into the BCP when the disposal and reuse ROD is completed.

The IRP sites are grouped into three OU categories based on types of contamination and possible RI activities. Therefore, zone designations do not necessarily correlate to OU designations.

The current schedule of activities for OUs is presented in Section 4.1.3.

Early action strategies have been planned for several IRP sites. The early action strategies that have been planned and/or performed to date include removal actions, SVE pilot tests, and withdrawal of sites from the IRP. Once the early actions have been implemented, the BCT anticipates that the sites will be brought to closure under a no further investigation (NFI) decision.

Strategies for compliance programs and natural and cultural resources for MCAS El Toro are also summarized in this chapter. Compliance programs addressed include storage tanks, hazardous materials and waste management, solid-waste management, PCBs, asbestos, radon, RCRA facilities, NPDES permits, OWSs, silver-recovery units, LBP, and air. Natural and cultural resources include archaeological resources, historic structures, threatened and endangered species, surface waters, wetlands, and paleontological resources.

In an effort to carry out strategies for environmental restoration activities while assuring proactive community involvement, the Station has adopted an approach to meet the needs of the public as well as to meet the requirements of NEPA, CERCLA, CERFA, and the *California Health and Safety Code* Section 25356.1. The approach provides for a number of services to inform the community of environmental restoration activities while maintaining a commitment to efficient and cost-effective cleanup at MCAS El Toro. This chapter concludes with a discussion of the strategy for community involvement.

4.1 ZONE/OPERABLE UNIT DESIGNATION AND STRATEGY

The following sections discuss zones identified for the BCP and existing IRP OUs and sites. According to the BCP guidance, zones may be identified to create

geographically contiguous areas that are amenable to management as single investigative units. The zones for MCAS El Toro have been created by the BCT and Project Team based on geographic considerations, mission activities, and parcel disposal considerations. Current IRP OUs have been defined primarily by the type of IRP sites (such as potential source areas for the VOC contamination in groundwater) rather than by geographic locations. The current zone designations, therefore, do not have a significant correlation with the IRP OUs. However, current BCP zones have been defined to reduce or eliminate splitting of individual IRP sites.

4.1.1 Zone Designations

For the purposes of this BCP, MCAS El Toro was divided into five geographically contiguous zones. Each of the five zones was subdivided into parcels with a varying number of parcels per zone. These are based on existing land use as discussed in Section 2.1. Current zone and parcel divisions for the Station are shown in Figure 2-1b. A description of each zone is provided below.

- Zone 1 consists of the northwest quadrant of the Station and contains administrative services, the Station headquarters, family and bachelor housing, and community support services. IRP Sites 13, 14, 15, and 20 are located in Zone 1.
- Zone 2 consists of the northeast quadrant of the Station. Zone 2 houses activities of the Marine Aircraft Group (including training, maintenance, supply and storage, and airfield operations), additional family housing and community services, as well as an open area surrounding and including the EOD range. IRP Sites 1, 3, and 4 are located in Zone 2. This zone also contains approximately 90 percent of the natural habitat remaining at the Station.
- Zone 3 comprises the southeast section of the Station where additional administrative and maintenance services are located. The Station golf course is also located in this zone. IRP Site 5 is located in Zone 3.
- Zone 4 is the southwest area of the Station. This zone primarily houses maintenance, supply, storage services, and small portions of the southern flight corridor. IRP Sites 8, 11, 12, 21, and portions of 24 are located in Zone 4.
- Zone 5 incorporates all areas necessary to maintain airfield operations. This includes active runways and taxiways, the entire aircraft parking apron, and all takeoff and approach flight corridors. IRP Sites 2, 6, 7, 9, 10, 16, 17, 19, 22, and portions of 24 are located within Zone 5.

Parcels within each zone were delineated according to current land use at the Station. Also, the boundaries for each parcel were drawn such that division of IRP sites between parcels was minimized. However, Site 24 encompasses most of the southwest quadrant of the Station and, therefore, was divided between parcels 4A, 4B, and 5A. Site 25 consists of the four drainage channels that traverse or border the Station and, therefore, was divided between numerous parcels. Site 18 (contaminated groundwater on- and off-Station) is also divided between numerous parcels. In

addition, parcel boundaries were established so as to minimize the division of LOC (e.g., IRP sites, USTs, RFA SWMUs/AOCs).

The final CRP redefines parcel boundaries based on recommended future use. Copies of the CRP parcel map appear in Section 2 of this document (Figure 2-1a). The BCP update will incorporate the new parcel boundaries designations after the disposal and reuse ROD is complete.

4.1.2 Operable Unit Designations

The zones and parcels identified in Section 4.1.1 do not correspond to the OUs established for the IRP sites. The relationship between IRP sites, OUs, and parcels is shown in Table 4-1a. The OUs for the station are defined in Chapter 3.

As new data become available, the OU definitions may be reevaluated and refined to better suit restoration strategies that expedite base reuse and disposal. The OU definitions can be modified at any time by agreement among the parties to the FFA.

4.1.3 Sequence of Operable Units

The schedules for OU-1, OU-2A, OU-2B, OU-2C, OU-3A, and OU-3B at MCAS El Toro were revised in November 1996. The current schedules for the OUs are also discussed in Chapters 3 and 5. The current OU sequencing is as follows.

1. OU-1 (Site 18) will be the first OU to come to a ROD. The RI/FS has been completed, and the draft Proposed Plan is currently being reviewed. The draft interim ROD is scheduled to be completed on 23 September 1997. Remediation of the VOC-contaminated groundwater will continue beyond closure of the Station, which is scheduled for July 1999.
2. OU-2A (Sites 24 and 25), OU-2B (Sites 2 and 17), and OU-2C (Sites 3 and 5) were further investigated in a Phase II RI that began in mid-1995. The draft final Phase II RI and draft FS reports for OU-2A were completed on 12 June and 09 November 1996, respectively. Draft final Phase II RI and draft FS reports for OU-2B were both completed on 06 September 1996. Draft final Phase II RI and draft FS reports for OU-2C were both completed on 04 October 1996. Draft RODs for OU-2A, OU-2B, and OU-2C are scheduled to be completed by 3 July, 21 July, and 21 July 1997, respectively.
3. OU-3A addresses all or portions of 14 IRP sites (Sites 4, 6, 8, 9, 10, 11, 12, 13, 15, 16, 19, 20, 21, and 22). The draft RI Report for OU-3A was completed on 20 November 1996, and the draft FS is scheduled for completion on 20 March 1997. OU-3B addresses three IR sites (Sites 1, 7, and 14). The RI Work Plan for OU-3B is scheduled for May 1997, and fieldwork is scheduled to begin in July 1997.

As additional information on OU sequencing becomes available, Table 4-1b (Cleanup Sequence) will be updated.

4.1.4 Early Actions Strategy

A list of planned early actions related to the IRP at MCAS El Toro is presented in Table 4-2 (Environmental Restoration Planned Early Action). The table presents the site database tracking number, a description of the site, the action and objective involved in the early action, and the parcel in which the site is located. The early actions are prioritized from highest (A) to lowest (C), with the action at A priority sites planned for implementation in 1997. The implementation dates for sites with B and C priorities have not yet been determined.

Several new early action strategies for IRP sites have been developed. Early actions are planned to expedite the cleanup process at several IRP sites where the nature and extent of contamination appears to be fairly well characterized by Phase I and II RI data and amenable to a removal action. Early actions are anticipated to bring sites to the NFI stage. Early action strategies currently in use at MCAS El Toro include a non-time-critical action memorandum (Site 19, Unit 2), two time-critical removal actions (TCRAs) (landfill Sites 2 and 17), and SVE pilot testing at two sites (Sites 24 and 16) to evaluate the effectiveness of contaminant removal systems. Furthermore, portions of three sites (Site 15, Unit 1; Site 19, Units 1 and 4; and Site 20, Units 2 and 3) have been withdrawn from the IRP via the CERCLA petroleum exclusion. This withdrawal from the IRP is also considered an early action. Each of the above described actions are listed and summarized in Table 4-2.

4.1.5 Remedy Selection Approach

Remedies will be selected in accordance with statutory and NCP criteria. The MCAS El Toro Project Team will involve all parties who have an impact on the remedies selected at the Station in the remedy-selection process. During the evaluation of alternatives, particular attention will be given to the following issues:

- applicable or relevant and appropriate requirements (ARARs);
- land use/risk assessment;
- basewide treatment facilities;
- applicable remedies;
- petroleum, oils, and lubricants;
- future land use;
- reduction of risk for human and ecological receptors;
- cost-effectiveness; and
- use of presumptive remedies as applicable.

During the remedy selection process, the Project Team will consult the following documents prepared by the California Base Closure Environmental Committee (CBCEC):

- Innovative/Emerging Treatment Technologies (Draft, February 1994) (CBCEC 1994b), and
- Treatment Technologies Applications Matrix for Base Closure Activities (Revision 1, dated November 1994) (CBCEC 1994a).

In addition, the latest information from EPA and other DoD facilities will be reviewed as part of the evaluations performed in selecting remedial technologies.

4.1.6 Installationwide Source Discovery and Assessment Strategy

Additional locations of potential environmental concern at MCAS El Toro have been identified in the final EBS report. These locations include the features identified from aerial photographs, and interviews with current and past Station employees. The locations identified will be further evaluated by the BCT in 1997.

4.2 COMPLIANCE STRATEGY

This section presents a discussion of strategies for compliance programs at the Station. Table 4-3 (Environmental Compliance Planned Early Actions) presents a list of potential early actions related to compliance programs. The LOCs for early action include USTs, OWSs, and some SWMUs/AOCs and TAAs that were recommended for further action in the RFA performed at the Station.

4.2.1 Storage Tanks

4.2.1.1 Underground Storage Tanks

A total of 407 USTs has been identified at the Station. This total includes 61 active tanks, 95 inactive tanks, 249 removed tanks, and 2 abandoned tanks. The UST Tiger Team has continued to meet regularly to assure compliance and removal of nonessential USTs. Prior to December 1995, a total of 190 USTs had been removed. As of December 31, 1996, an additional 59 USTs have been removed. To date, 178 UST sites have been closed; 143 by OCHCA, and 35 by RWQCB. Furthermore, the Tiger Team is developing a scope of work for necessary remedial actions at various former UST sites.

For the purpose of generating conservative cost estimates for base closure, it is assumed that all of the USTs will eventually need to be removed from the Station for the following reasons.

- Some reuse scenarios (with the exception of reuse as an airport) might not require the USTs.
- If USTs are needed in the future under a reuse scenario for the property, new double-walled USTs would eventually need to be installed by the reuse agency.

Prior to base closure and eventual removal of all USTs, various USTs that are essential to Station operations will need to remain active and, therefore, will need to be monitored according to requirements of OCHCA.

Interim Strategy for UST Management

Active USTs. All currently active USTs are assumed to be essential to base operations, and as such, are assumed to remain active until July 1999.

- Prior to 1999, these USTs will need to be properly monitored per the requirements of OCHCA. Nonintrusive testing may also be conducted at active USTs to assess the possibility of a release at these USTs. Testing, such as soil gas surveys and/or tank integrity tests, may be considered for these USTs. The Tiger Team will provide recommendations for compliance monitoring and any nonintrusive testing that may be done at USTs planned for continued use until 1999.
- After 1999, the active USTs will need to be removed.

Inactive USTs. Inactive USTs, with the exception of a small number that are located under other active facilities, will be removed prior to July 1999. The small number of inconveniently located tanks will be removed upon operational closure, where physically possible.

Assumptions on UST Leakage

Until all of the USTs are actually removed, the Station will not know how many USTs have leaked and how many USTs will require remedial action for contamination cleanup.

Actual removal and remediation actions to date support significantly modifying previous assumptions regarding UST leakage. Past BCPs reflected very conservative assumptions based on unknown factors. Currently, information is available from more than 200 tank removals. Since the actual percentage of leaking USTs and the actual extent of contamination will not be known until after the removals have occurred, the following are still assumptions; however, they have been modified to more closely reflect actual conditions at the station.

Percent of USTs With Leakage. It is assumed that 20 percent of the USTs with a volume of 25,000 gallons or greater, and approximately 35 percent of the remaining USTs will have leaked and contaminated the subsurface soil. These USTs will require some form of remedial action.

Percent of USTs With Shallow and Deep Soil Contamination. Of the USTs that have leaked, it is assumed that all USTs with a volume of 25,000 gallons or greater will have deep contamination. Of the remaining tanks assumed to have leaked (e.g., 35 percent of the USTs with a volume less than 25,000 gallons), it is expected that 10 percent will also have deep contamination and that 90 percent will have shallow contamination. UST sites with deep contaminated soils (i.e., greater than 20 feet deep) will require remediation. Shallow contaminated soils (i.e., less than 20 feet deep) may be remediated by excavation and on-Station bioremediation.

Remedial Action Assumed for USTs With Deep Contamination. Of the USTs with deep contamination, it is assumed that SVE and *in situ* bioremediation will be

used to clean up contaminated soil. It is assumed that these USTs (6 percent of the total) will split evenly between SVE and bioremediation.

Percent of USTs With Potential Groundwater Contamination. It is assumed that 1 percent of the USTs have leaked sufficient quantities of hydrocarbons to have impacted groundwater at the Station. For these, a groundwater remediation program is assumed to be required.

Schedule Assumptions

A closure date of July 1999 is targeted for the Station. Because significant remedial actions will be associated with the leaking USTs, the schedule for overall UST work at the Station must include significant time for both the removal of USTs and the remediation effort required for the leaking USTs.

Inactive USTs. There are currently 95 inactive USTs remaining at MCAS El Toro. Of these, 81 are planned for removal during 1997. The remaining 14 may have to be deferred until operational closure because of their location under or very near other active facilities.

Active USTs. There are 61 active USTs at the Station. They are considered essential for base operations through the closure date of July 1999. The Tiger Team will continue monitoring these essential USTs while they are still active up to the closure date. To assess the possibility of a release from these USTs prior to July 1999, some nonintrusive testing (soil gas survey and/or tank integrity testing) may be performed.

Prioritizing/Scheduling of USTs for Early Removal

As in the past, UST removals at the Station will be performed in clusters. To perform the work in the most effective way, USTs will need to be prioritized to assess which ones should be removed early and which can wait until the scheduled closure of the Station. The Tiger Team will provide a plan prioritizing USTs for removal. Some of the factors to be considered in selecting USTs for early removal are listed below.

- USTs with evidence of a release should be given priority for early evaluation in the prioritization of work.
- USTs at the tank farms (i.e., large-capacity, old tanks [up to 50 years old]) were given priority for early evaluation in the sequencing of the work. The remaining tanks at the tank farms are active and are essential for Station operations through closure.
- As a key part of the base closure, sequencing of USTs for removal must also be evaluated with respect to parcels that could potentially be transferred quickly by lease or deed.

4.2.1.2 Aboveground Storage Tanks

An inventory of ASTs at the Station is currently being conducted. To date, 18 ASTs that contain petroleum products or other regulated substances have been verified as existing at the Station. All of the ASTs listed in Chapter 3 are considered LOCs. Compliance issues for ASTs are managed by the MCAS El Toro EO. The RWQCB

Santa Ana Region regulates ASTs storing petroleum products under the state 1990 Aboveground Petroleum Storage Act, amended in 1991. The law requires petroleum AST facilities with a single-tank capacity of greater than 660 gallons or a cumulative capacity of greater than 1,320 gallons to 1) file a storage statement, 2) take action to prevent spills, and 3) monitor groundwater, if necessary. To date, the Station has not filed AST storage statements with the RWQCB Santa Ana Region.

4.2.1.3 Fuel Supply Pipelines

An underground fuel supply pipeline system transfers fuel from large-capacity JP-5 USTs in Tank Farm 555 to various refueling points within the Station. These pipelines are considered essential to Station operations and are not planned for removal until after 1999. These pipelines will be subject to a "Tracer" integrity test in accordance with the 1996 UST regulations.

4.2.2 Hazardous Materials/Waste Management

The Station operated a RCRA-permitted storage facility at Building 673-T3 until August 1994. The Station submitted its Final Closure Certification Report for Building 673-T3 to DTSC on 15 November 1995. The DTSC approved closure on 08 March 1996.

Because the Station RCRA-permitted facility is closed, on-Station storage of hazardous waste is limited to less than 90 days. The paved and bermed accumulation areas will be phased out as the current tenants begin to leave the Station. The EO accumulation area at Building 900, which receives hazardous waste containers from tenant accumulation areas, will remain operational until hazardous waste is no longer generated by the Station. Similarly, storage of waste oil at Building 326 and waste JP-5 at AST 862 will continue until these wastes are no longer generated by the Station.

Because spills may occur at the accumulation areas during day-to-day Station activities, any residual contamination at these accumulation areas will be addressed as part of base closure. On-site visual inspections, by the DTSC and OCHCA, of the active accumulation areas were performed in 1996.

From August to November 1991, various hazardous wastes generated overseas during Desert Storm were stored at an area located east of DRMO Storage Yard No. 3. The containers were stored atop plastic sheeting on unpaved ground. Although no releases at this area were reported, this area will be evaluated by the BCT in 1997.

Pesticides are currently stored at Building 753. In the past, pesticides were stored at Buildings 493 and 687 and, prior to 1959, at the location currently occupied by Building 464. These locations will be evaluated by the BCT in 1997.

4.2.3 Solid Waste Management

Current solid waste management practices (i.e., off-site disposal of Station solid waste) will continue until final base closure. No landfills on the Station are currently active. Some consolidation of waste may occur in the future as part of base closure.

Remedial action for the existing landfills on-Station will be addressed in the IRP. Soil from IRP sites may be used as a landfill cover as part of closure.

4.2.4 Polychlorinated Biphenyls

Overall management of PCBs at the Station will be conducted in accordance with the MCAS El Toro PCB Management Plan (SAIC 1994). A description of specific issues pertaining to the current status of PCBs at the Station is provided in the following subsections.

4.2.4.1 PCB Transformers

According to U.S. EPA, the presence of operating PCB transformers does not necessarily preclude the transfer of Station property, and the presence of such transformers only affects property transfer if a release has occurred. During the past 2 years, a survey was performed on all known transformer sites at the Station. Over 500 transformer locations have been identified. The fieldwork is complete on the investigation of these transformers. A total of 124 transformers are considered LOCs, and the status of these transformer locations are summarized in Chapter 3.

4.2.4.2 PCB Storage Areas

Some PCB storage areas identified at the Station that have been or may need to be evaluated are discussed below.

- SWMU/AOC 7 (Transformer Storage Area) was reevaluated in the final addendum to the RFA and was recommended for transfer to the RAC contractor for limited surface-soil cleanup of PCBs.
- Site 11 is a PCB release site that is currently being evaluated under OU-3A of the IRP. The draft RI was submitted in November 1996, and the draft FS is scheduled for completion on 20 March 1997.
- A storage area adjacent to Tank 175 currently stores non-PCB-containing transformers. One PCB transformer was identified by Station personnel as having been stored in this area. No release of PCBs from this single transformer is believed to have occurred. This location will be evaluated by the BCT in 1997.
- In 1993, a storage area for PCB equipment was identified at Building 324. This area was not inspected or evaluated as part of the RFA. This location will be evaluated by the BCT in 1997

4.2.4.3 Non-Transformer PCB Items

Some buildings located at the Station have light fixtures with ballasts containing PCBs. The type of action recommended for buildings with PCB-containing light fixtures will depend on whether a building is planned for demolition. If a building with PCB fixtures is scheduled for demolition, proper demolition and disposal activities for the PCB-ballasts will need to be conducted. PCBs will be managed in

place for buildings not planned for demolition. During transfer of buildings known to have PCB items, the Navy will disclose available information related to PCB items.

4.2.5 Asbestos

MCAS El Toro will continue to manage ACM according to DoD policy outlined in a letter dated 02 November 1994. Additional basewide asbestos surveys will not be conducted on the Station. Building-specific surveys for ACM may be conducted at buildings/facilities that are scheduled for demolition or other activities that may disturb any ACM. Asbestos abatement will be conducted as needed when encountered.

Property containing ACM may be conveyed, leased, or otherwise disposed unless it is determined that the ACM is not in compliance with applicable laws, regulations, and standards, or if it poses a threat to human health or the environment at the time of transfer. If the ACM is not in compliance with applicable laws and regulations or poses a threat, the ACM will be remediated prior to property disposal. The above-mentioned remediation is not required in the following instances:

- the building is scheduled for demolition by the transferee;
- the transfer document prohibits occupation of the building prior to the demolition; or
- the transferee assumes responsibility for the management of any ACM in accordance with applicable laws.

4.2.6 Radon

A radon survey was conducted for the Station hospital, child-care center, and housing units in 1991. The results of the survey indicated that none of these facilities or housing units exceeded the radon threshold value of 4 pCi/L. Thus, no mitigative action or further testing is recommended for these areas of the Station. In addition, it is anticipated that the radon levels in other buildings at the Station should not be significantly different from those that were surveyed.

When MCAS El Toro property is transferred, it is DoD policy to include in the property transfer documents any available and relevant radon assessment data. Therefore, the results of the radon survey at the Station should be included in future property transfer documents.

Radium paint has been used in the past in Building 296. Waste associated with radium paint use in this building may have been disposed in one of the Station landfills. The radon survey did not include Building 296.

4.2.7 RCRA Facilities (SWMUs)

Further action will be performed for various SWMUs/AOCs investigated in the RFA and the final addendum to the RFA. Of the 289 SWMUs/AOCs identified and investigated in the RFA and Addendum to the RFA, 247 have been recommended for no further action with concurrence of regulatory agencies. Of the 40 SWMUs/AOCs

not found during the RFA, 39 have been located. The one undiscovered SWMU/AOC will be evaluated prior to operational closure. A summary of the remaining 41 SWMUs/AOCs follows.

- One SWMU/AOC (number 90) has been included in IRP Site 12 and will be addressed in the Phase II RI for this site.
- Two SWMUs/AOCs (numbers 194 and 300) have been included in IRP Site 3 and were addressed as part of the Phase II RI.
- Six SWMUs/AOCs (numbers 84, 85, 151, 199, 200, and 298) were recommended for leak test/inspection to assess the possibility of leakage from the tank.
- Four SWMUs/AOCs (numbers 145, 173, 175, and 176) were recommended for additional field sampling, since leaking underground fuel tank levels were exceeded during RFA sampling.
- Two OWS locations (SWMUs/AOCs 159 and 218) will be further evaluated in the OWS compliance program. These OWSs are located within the boundaries of IRP Sites 20 and 13, respectively.
- Four UST locations (SWMUs/AOCs 217, 288, 289, and 290) will be further evaluated in the UST compliance program. These USTs are located within the boundaries of IRP Sites 13 (number 217) and 16 (numbers 288, 289, and 290).
- Eight accumulation areas (SWMUs/AOCs 71, 72, 94, 104, 105, 106, 158, and 236) are also located within the boundaries of an IRP site, but will be addressed under a compliance program.
- One abandoned well (SWMU/AOC 10) is located within the boundaries of IRP Site 3, but will be addressed within a compliance program.
- One vehicle wash rack (SWMU/AOC 157) is located within the boundaries of IRP Site 20, but will be addressed within a compliance program.
- Five vehicle wash racks (SWMUs/AOCs 110, 198, 201, 204, and 213) and one drop tank storage area (SWMU/AOC 14) were recommended for repair or replacement of cracked pavement. This repair effort should be implemented soon, or a decision should be made to close these wash racks early in the base closure process.
- Two accumulation areas (SWMUs/AOCs 26 and 33) were recommended to have stained soil removed. This action, if not yet completed, should be implemented soon.
- Five SWMUs/AOCs (numbers 7, 46, 88, 131, and 244) were recommended for transfer to the RAC contractor for limited removal/clean-up of surface soils.

The 247 SWMUs/AOCs that have been recommended for no further action include 50 TAAs which are recommended for simple decontamination and/or wash-down after material removal (final Addendum to the RFA report, BNI 1996a).

The final Addendum to the RFA was approved by the DTSC in a letter on 23 July 1996.

4.2.8 NPDES Permits

The Station will comply with the conditions established in the NPDES permit while base closure is in progress and Station activities still contribute to the discharge points in the permit. When transfer of Station property is complete, the permit will be transferred or terminated.

4.2.9 Oil/Water Separators

To remain in compliance with the Station NPDES permit, the Station AC/S Installations Department will continue with repair and cleanup activities of existing OWSs. Only one OWS (OWS 802) still requires repair and cleanup activities.

OWSs will be prioritized for removal in a similar manner as USTs (Section 4.2.1). Current plans for OWSs at the Station are detailed below.

- **Active OWSs.** All currently active OWSs are assumed to be essential to base operations and, as such, are assumed to be required until July 1999 for the Station to retain its discharge permit with the RWQCB Santa Ana Region. After 1999, these OWSs may need to be removed.
- **Inactive OWSs.** All inactive OWSs will be removed prior to July 1999.

4.2.10 Silver-Recovery Units

Silver-recovery units are located at the photography laboratory (Building 443) and medical clinic (Building 439). These treatment units are regulated in the same manner as OWSs under PBR regulations. It is planned that these treatment units will be operated until base closure. When the treatment units are removed, they will be closed under CCR Title 22 requirements.

The photography laboratory silver-recovery unit was formerly located in Building 312. This location will be evaluated by the BCT in 1997.

4.2.11 Lead-Based Paint

Management and/or remedial actions for buildings containing LBP will be conducted in accordance with DoD and/or Navy policies described in Subsection 3.2.11. For residential buildings with LBP, actions will depend on the year the housing was constructed and/or whether the housing is planned for reuse or demolition. Actions for nonresidential buildings will depend on the physical condition of the LBP. Abatement of LBP for nonresidential structures is not anticipated.

The results of the LBP survey conducted at family housing and related areas were released in December 1995. Additional basewide LBP surveys are not expected to be conducted at the Station; however, site-specific surveys may be conducted as needed.

4.2.12 Air

The Station will continue to comply with current air quality regulations during base closure activities. In addition, remedial actions taken at the Station will comply with appropriate rules from SCAQMD regarding emissions. ARARs regarding potential air quality impacts during remedial activities will be evaluated on a case-by-case basis during the planning/evaluation phase of remediation projects.

AB 531 was passed by the California Legislature and signed into law on 12 October 1995. Briefly, it states that tactical military equipment will be exempt from local district permitting requirements. Instead, the state will establish a statewide registration program. Furthermore, any registered portable internal combustion engines, including any turbine, used by the DoD or the National Guard exclusively for military tactical support or other federal emergency purposes, will not be subjected to any statewide or district emission control or emission limit. The originally scheduled date for implementation 01 January 1997 has been pushed back by the state approximately 3 months. Since the interim guidance prior to implementation is still in effect, no changes will be made in this BCP. Future revisions of this document will reflect changes that may result from the implementation of the new law.

4.3 NATURAL AND CULTURAL RESOURCES STRATEGIES

Strategies for natural and cultural resources at MCAS El Toro are described in the following subsections.

4.3.1 Archaeological Resources

In 1987, COE identified seven sites as being possibly eligible for listing on the National Register of Historic Places. If reuse planning identifies possible impacts to these sites, the requirements of Section 106 of the National Historic Preservation Act must be met. If the land is transferred to a federal agency, the ultimate land owner must meet the requirements of Section 106. If the land is transferred to a nonfederal agency, USMC is responsible for meeting the requirements of Section 106 prior to transfer of property. A 1996 study (KEA 1996) covered approximately 1,100 acres in, around, and to the south of the natural area. Eight of the ten locations identified in the 1987 report were visited, and one additional location was identified on the central part of the Station near Building 772 and the golf course. Two sites from the 1987 report could not be located. The recent study recommended that no further action be taken at the eight sites that could be located in the natural area because this area will be maintained as a wildlife preserve after the Station closes. The remaining site near the golf course was recommended for further evaluation of its archeological significance.

4.3.2 Historic Structures

A survey of historic structures at MCAS El Toro has been completed by the COE. The only building identified as possibly being eligible for listing on the National Register of Historic Places was the Station theater (Building 271). A 1996 study (JPR

1996) concluded that there is no evidence that a historic district of WW II-era buildings exists; that none of the post-WW II buildings is significant in the context of Cold War military developments; and that the possibility exists that the four large, unmodified buildings from WW II (Buildings 271, 295, 296, and 297) could be significant individually, and should be further evaluated for potential National Register eligibility. The locations of these buildings is shown in Figure 3-3c.

4.3.3 Threatened and Endangered Species

Annual surveys of threatened and endangered species will need to be conducted until base closure in 1999 because the list of threatened and endangered species changes with time, and the species residing within the Station may also change with time. Currently, several threatened and endangered species, including the California gnatcatcher, are known to exist in significant numbers on-Station. A conservation plan for the natural area at the Station was completed in March 1995.

4.3.4 Surface Water and Wetlands

A survey of surface water and wetlands was completed for the natural area at the Station in August 1996 (D&M 1996). Further investigations of the remainder of the Station will be completed as part of the disposal/reuse EIS.

4.3.5 Paleontological Resources

A survey of prehistoric and paleontological resources is not currently required. The area surrounding MCAS El Toro is known for its rich paleontological resources, so it may be likely that reuse construction will be addressed in the disposal/reuse EIS.

4.4 COMMUNITY INVOLVEMENT STRATEGY

The Community Relations Plan was originally issued in 1991 and was most recently updated and finalized in March 1996. This Plan provides a strategy for communication between MCAS El Toro, including the BCT, and the various parties interested in activities relating to the IRP at MCAS El Toro. These interested parties include federal, state, and local agencies and elected officials; special interest and environmental groups; public officials; and members of the general public.

MCAS El Toro has adopted the following approach to assure that a proactive community involvement program is carried out. The approach is based on key community concerns and meets the requirements of NEPA, CERCLA, CERFA, and the *California Health and Safety Code*, Section 25356.1, as given below.

- Implement President Clinton's Five-Point Plan for economic recovery in an expeditious manner.
- Enlist the support and full participation of local officials in coordinating community relations activities.
- Provide a full-time public affairs officer from the BRAC office.
- Provide timely, concise, and easily understood information to the public and media. (The schedule of technical activities, purpose of the activities, and

the results will be readily available to interested members of the public. Inquiries will be handled quickly, courteously, and consistently by the BEC for MCAS El Toro. If information cannot be released to the public for national security reasons, a clear and simple explanation will be provided as to why the information must be withheld.)

- Educate interested officials and members of the general public about the procedures, policies, and requirements of the IRP. (Basic information about the IRP will be made available to help the community better understand the regulatory process.)
- Let the community set the pace of the community relations program. (A successful and effective program is tailored around the special requirements of the community. For MCAS El Toro, the structure, format, and schedule for community relations activities will remain flexible to meet the changing needs of the local community.)

The following activities will be used by the MCAS El Toro BCT to support the approaches to a proactive community relations program. These activities are in accordance with CERCLA and DTSC requirements.

- Maintain and update the project mailing list.
- Maintain the information repository.
- Update the administrative record file quarterly.
- Publish fact sheets to provide timely and clear information on the progress of the IRP.
- Publish public notices, as needed, to disseminate information about upcoming RAB meetings, and the RI/FS, Remedial Action Plan (RAP), and ROD phases of the IRP.
- Hold formal and informal public meetings as required during the IRP.
- Evaluate the effectiveness of this approach and update the Community Relations Plan as necessary to address concerns related to the IRP.

Public review and comment opportunities will be provided for documents related to installation restoration, including the RAP. The Community Relations Plan defines the length of these public comment periods. A responsiveness summary will also be prepared to respond to the comments received on the RAP and other applicable documents.

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Table 4-1a
Relationship Between IRP Sites, OUs, and Parcels
(Sheet 1 of 1)

Operable Unit	Operable Unit Definition	Parcel	IRP Site
OU-1	Groundwater on- and off-Station that is contaminated with constituents that have migrated from sites at MCAS El Toro	Not Applicable[1]	18
OU-2A	Sites that are believed to be contributing to the VOC plume in groundwater emanating from the southwest quadrant of MCAS El Toro.	4A/4B/5A Not Applicable[2]	24 25
OU-2B	Two landfill sites that require full investigation and will likely have a presumptive remedy applied.	5C 5C	2[3] 17[3]
OU-2C	Two landfill sites that will undergo further groundwater monitoring to confirm that groundwater is not being impacted.	2A 3B	3 5
OU-3A	Various sites that are not related to the regional VOC contamination in groundwater.	2A 5A 4B 5A 5A 4A 4B 1A 1D 5A 5A 1B 4B 5A	4 6 8 9 10 11 12 13 15[4] (Unit 2) 16 19[4] (Units 2[3] and 3) 20[4] (Units 1 and 4) 21 22
OU-3B	Various sites that are not related to the regional VOC contamination in groundwater that require further investigation.	2F 5A 1A	1 7 14

Notes:
1 Site 18 is limited to groundwater and, therefore, is not assigned a parcel number
2 Site 25 consists of the Station washes which border or traverse the Station and, therefore, is not assigned a parcel number
3 all or portions of these sites are scheduled for early action
4 units not listed have been removed from the CERCLA process via the petroleum exclusion

Abbreviations:
IRP – Installation Restoration Program
OU – operable unit
MCAS – Marine Corps Air Station
BCP – Base Realignment and Cleanup (BRAC) Plan
VOC – volatile organic compound

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Table 4-1b
Cleanup Sequence
(Sheet 1 of 1)

Parcel	OU	Environmental Risk	Reuse Priority	Cleanup Sequence	Reconcile Comments

To date, only a general OU sequencing strategy has been developed for MCAS El Toro. As additional information on OU sequencing becomes available, this table will be updated. Refer to Section 4.1.3 for additional information on OU sequencing strategy.

Abbreviations: MCAS – Marine Corps Air Station
OU – operable unit

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Table 4-2
Environmental Restoration Planned Early Actions
(Sheet 1 of 2)

Site (Database Tracking[1])	Description	Action	Objective	Time Frame	Priority	Parcel
IRP2	Magazine Road Landfill	Time-Critical Removal Action	• Restrict access to landfill sites. • Abate erosion of landfill materials by surface runoff. • Relocate previously eroded landfill debris to central locations within landfills.	1997 (Exact time TBD)	A[2]	5C
IRP15 (Unit 1)	Suspended Fuel Storage Tanks	Removed from the IR Program via CERCLA petroleum exclusion.	Expedite environmental restoration.	TBD	B	1D
IRP17	Communication Station Landfill	Time-Critical Removal Action	• Restrict access to landfill sites. • Abate erosion of landfill materials by surface runoff. • Relocate previously eroded landfill debris to central locations within landfills.	1997 (Exact time TBD)	A	5C
IRP19 (Units 1 and 4)	Aircraft Expeditionary Refueling Site	Removed from the IR Program via CERCLA petroleum exclusion.	Expedite environmental restoration.	TBD	B	5A
IRP19 (Unit 2)	Aircraft Expeditionary Refueling Site	Non-Time-Critical Removal Action	• Cover the PCB-contaminated soil with a 10 foot thick layer of clean soil. • Comply with US EPA requirements for PCB-contaminated soil.	1997 (Exact time TBD)	A	5A

Table 4-2
Environmental Restoration Planned Early Actions
(Sheet 2 of 2)

Site (Database Tracking[1])	Description	Action	Objective	Time Frame	Priority	Parcel
IRP20 (Units 2 and 3)	Hobby Shop	Removed from the IR Program via CERCLA petroleum exclusion.	Expedite environmental restoration.	TBD	B	1B
IRP24	VOC Source Area	Soil vapor extraction pilot testing at 22 wells	• Remove soil contamination • Test effectiveness of recommended remedial alternatives	1997	A	4A, 4B, 5A

Notes: [1] this column refers to alpha-numeric database designation (refer to Table 3-1a)
[2] prioritization for early action from highest (A) to lowest (C)
[3] the Station washes (IRP Site 25) traverse or border the Station and are included in numerous parcels

Abbreviations: CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
IR – Installation Restoration
TBD – to be determined
VOC - volatile organic compounds

Table 4-3
Environmental Compliance Planned Early Actions
(Sheet 1 of 1)

Site (Database Tracking[1])	UST Number	Description	Action	Objective	Time Frame	Priority	Parcel
UST 398	398	Removed tank	Free-product removal	Remove source of groundwater contamination.	1997	A	5A
UST 529	529	SWMU/AOC 145 (inactive waste oil tank)	Remove tank.	Remove possible sources of groundwater contamination.	1997	A	4C
UST 672B	672B	SWMU/AOC 176 (inactive waste oil tank)	Remove tank/ conduct soil venting treatment pilot project.	Remove possible sources of groundwater contamination.	1997	A	4B
Tank Farm 2	Various	Soil contamination	Soil vapor extraction. 35,000 pounds of product removed to date.	Remove possible source of groundwater contamination.	1997	A	1A
Tank Farm 555	550	Release of petroleum hydrocarbons at one tank indicated by vadose zone monitoring	Stop leak(s)/ investigate and remediate release.	Remove possible sources of groundwater contamination.	1995	A	2D
OWS 671		SWMU/AOC 173	Conduct soil venting treatment pilot project.	Remove possible sources of groundwater contamination.	TBD	C	4B
OWS 672A		SWMU/AOC 175 (inactive OWS)	Remove OWS/ conduct soil venting treatment pilot project.	Remove possible sources of groundwater contamination.	1995/TBD	B	4B

Notes: [1] this column refers to alpha-numeric database designation (refer to Table 3-1a) or, if more than one location of concern is included, a general descriptor is provided (e.g., for Tank Farms)
[2] high priority due to benzene plume in area

Abbreviations:
MCAS – Marine Corps Air Station
BCP – Base Realignment and Closure (BRAC) Cleanup Plan
UST - underground storage tank
SWMU/AOC - solid waste management unit/area of conncern
TBD - to be determined
TF - tank farm
OWS - oil/water separator

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Chapter 5

Environmental Master Schedules

This chapter presents the Master Schedule of anticipated activities for the MCAS El Toro environmental programs and a summary of anticipated BCT and BRAC Project Team meetings. The Master Schedule is summarized in four distinct schedules as follows:

- Environmental Restoration Program,
- Mission/Operational-Related Compliance Programs,
- Closure-Related Compliance Programs, and
- Natural/Cultural Resources Activities.

The Master Schedule is based on a July 1999 closure date for the Station, and includes general activities for each program. Schedule and prioritization parcels for reuse, based on the final Community Reuse Plan (P&D Consultants Team 1996), will be provided by the LRA in 1997, and may affect the IRP schedule. The BCP will be updated as this information becomes available.

Environmental restoration schedules are being effectively reduced through CLEAN/RAC Contractor integration. Examples include the current and planned SVE pilot tests at Site 24 (RAC Contractor execution with CLEAN Contractor technical input), and other planned pilot tests at Site 16.

Appendix A is intended to provide a summary of costs for each of the environmental programs mentioned above on a year-by-year basis through Station closure. The future funding requirements for MCAS El Toro are currently being evaluated by SWDIV. This information will be released under a separate cover as it becomes available.

A property disposal/transfer evaluation model is currently under development for MCAS El Toro to provide the capability for quick, real-time evaluation of base closure and property disposal/transfer strategies. This model will provide MCAS El Toro with the ability to track the various LOCs by geographical location (i.e., by parcel boundaries) and the ability to assign cost and a time frame for the remediation of each parcel based on the various LOCs contained within it.

Schedule and prioritization of parcels for reuse, based on the final CRP (P&D Consultants Team 1996), will be provided by the LRA in 1997, and may affect IRP schedules. The BCP will be updated as this information becomes available.

5.1 ENVIRONMENTAL RESTORATION PROGRAM

MCAS El Toro IRP sites are grouped into three main OUs. These OUs have been subdivided according to characteristics of the various IRP sites, as described in Chapter 3.

The schedules for OU-1, OU-2A, OU-2B, OU-2C, OU-3A, and OU-3B are shown in Figure 5-1 (Master Program Schedule Installation Restoration Program).

IRP activities have been conducted at the Station since 1985. A summary of the historical expenditures for the IRP at MCAS El Toro is provided in Table A-5 (Appendix A). This table represents funds allocated through fiscal year 1996.

5.2 COMPLIANCE PROGRAMS

The Master Schedule for compliance programs being conducted on-Station is summarized in Figure 5-2 (Master Program Schedule Mission-Related Compliance) and Figure 5-3 (Master Program Schedule Closure-Related Compliance).

The schedules for mission/operational-related compliance activities (Figure 5-2) include maintenance and monitoring requirements to maintain all of the current environmental operating permits (e.g., UST, air emissions, and NPDES permits).

The schedules for closure-related compliance activities (Figure 5-3) include removal of nonessential USTs, closure of the inactive RCRA storage facility at Building 673-T3, and follow-up investigations at the nine SWMUs/AOCs identified for further action by DTSC. It is anticipated that as the Station closure date of July 1999 approaches, mission/operational-related compliance activities will transition into closure-related activities.

5.3 NATURAL AND CULTURAL RESOURCES

Natural and cultural resource activities are summarized in Figure 5-4 (Master Program Schedule Natural/Cultured Resources Activity). Three management activities have been identified and are assumed to continue until the Station closes. These include management of threatened and endangered species, biological resources management, and erosion control. Surveys for on-Station wetlands and sensitive habitats, historical structures, and archeological resources were completed in 1996.

5.4 BRAC CLEANUP TEAM/PROJECT MEETING SCHEDULE

A meeting schedule for the BCT is provided in Table 5-1 (BRAC Cleanup Team Meeting Schedule). At a minimum, the BCT will meet monthly to discuss technical issues, scheduling issues, program status, and team building. Additional meetings will be scheduled as required.

Table 5-1
1996 BRAC Cleanup Team Meeting Schedule
(Sheet 1 of 1)

Date	Topic
03 January 1996	BRAC Cleanup Team Meeting
17 January 1996	BRAC Cleanup Team Meeting
24 January 1996	BRAC Cleanup Team Meeting
30 January 1996	BRAC Cleanup Team Meeting
07 February 1996	BRAC Cleanup Team Conference Call
14 February 1996	BRAC Cleanup Team Conference Call
21 February 1996	BRAC Cleanup Team Meeting
28 February 1996	BRAC Cleanup Team Conference Call
06 March 1996	BRAC Cleanup Team Meeting
13 March 1996	BRAC Cleanup Team Conference Call
20 March 1996	BRAC Cleanup Team Conference Call
27 March 1996	BRAC Cleanup Team Meeting
03 April 1996	BRAC Cleanup Team Conference Call
10 April 1996	BRAC Cleanup Team Conference Call
17 April 1996	BRAC Cleanup Team Meeting
24 April 1996	BRAC Cleanup Team Meeting
01 May 1996	BRAC Cleanup Team Meeting
07 May 1996	BRAC Cleanup Team Meeting
15 May 1996	BRAC Cleanup Team Meeting
22 May 1996	BRAC Cleanup Team Meeting
29 May 1996	BRAC Cleanup Team Meeting
05 June 1996	BRAC Cleanup Team Meeting
12 June 1996	BRAC Cleanup Team Meeting
19 June 1996	BRAC Cleanup Team Meeting
03 July 1996	BRAC Cleanup Team Meeting
10 July 1996	BRAC Cleanup Team Meeting
17 July 1996	BRAC Cleanup Team Meeting
24 July 1996	BRAC Cleanup Team Meeting
07 August 1996	BRAC Cleanup Team Meeting
14 August 1996	BRAC Cleanup Team Meeting
21 August 1996	BRAC Cleanup Team Meeting
26 August 1996	BRAC Cleanup Team Meeting
09 September 1996	BRAC Cleanup Team Meeting
17 September 1996	BRAC Cleanup Team Meeting
25 September 1996	BRAC Cleanup Team Meeting
09 October 1996	BRAC Cleanup Team Meeting
20 November 1996	BRAC Cleanup Team Meeting

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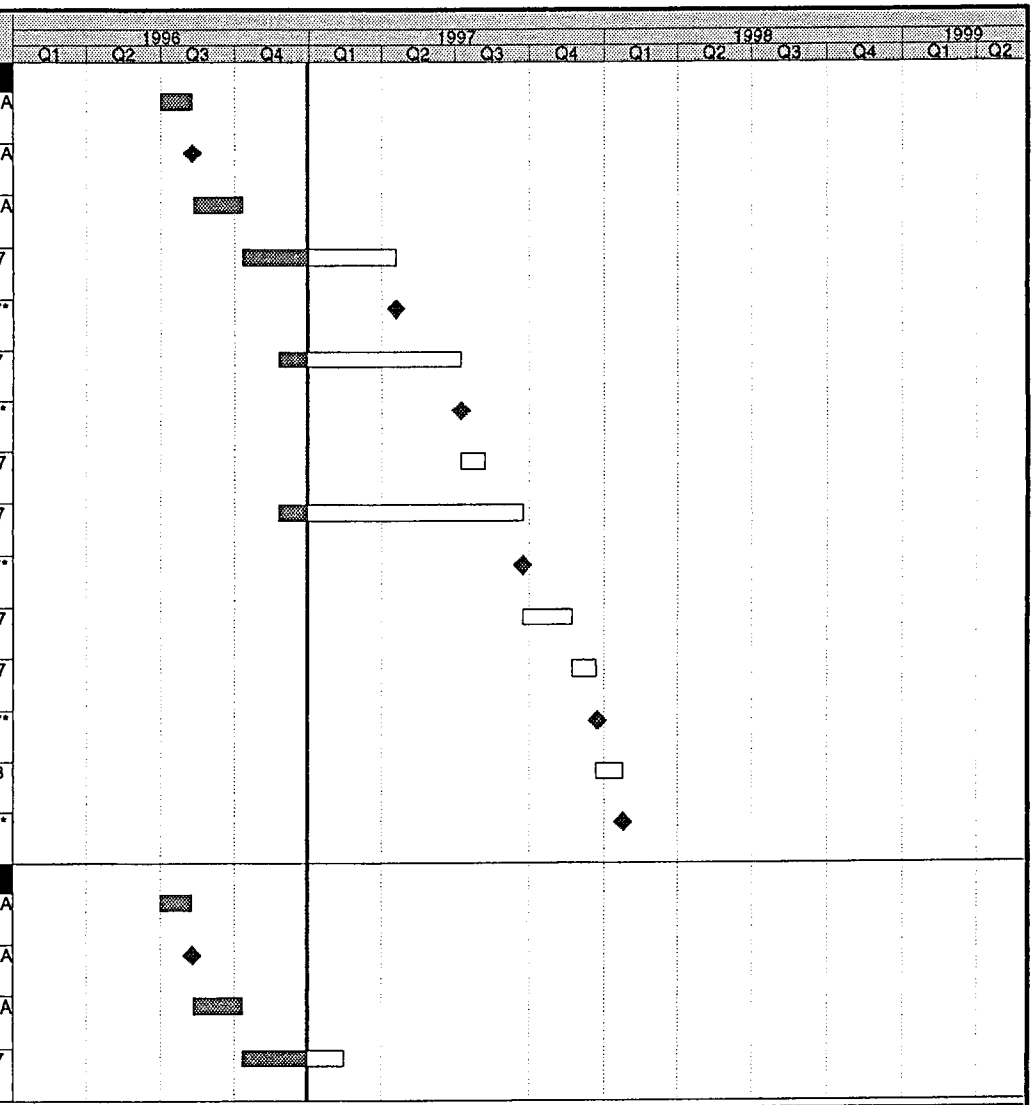
Activity Description	Early Start	Early Finish
OU-1		
FS Preparation (Draft Final)	01JUL96A	09AUG96A
Draft Final FS		09AUG96A
FS (Draft Final) Review	12AUG96A	11OCT96A
PP Preparation (re-Draft)	11OCT96A	18APR97
re-Draft PP		18APR97*
PP Review (Draft Final)	26NOV96A	08JUL97
Draft Final PP		08JUL97*
PP Public Review	08JUL97*	07AUG97
Interim ROD Preparation (Draft)	26NOV96A	23SEP97
Draft Interim ROD		23SEP97*
Interim ROD Review (Draft)	23SEP97*	23NOV97
Interim ROD Preparation (Draft Final)	23NOV97*	22DEC97
Draft Final Interim ROD		23DEC97*
Interim ROD Signature	23DEC97*	23JAN98
Signed ROD		23JAN98*
OU-2A		
FS Preparation (Draft)	01JUL96A	09AUG96A
Draft FS		09AUG96A
FS Review (Draft)	12AUG96A	11OCT96A
FS Preparation (Draft Final)	11OCT96A	13FEB97



Project Start 01JAN96
Project Finish 06MAY99
Data Date 31DEC96
Plot Date 18FEB97

Early Bar
Progress Bar
Critical Activity

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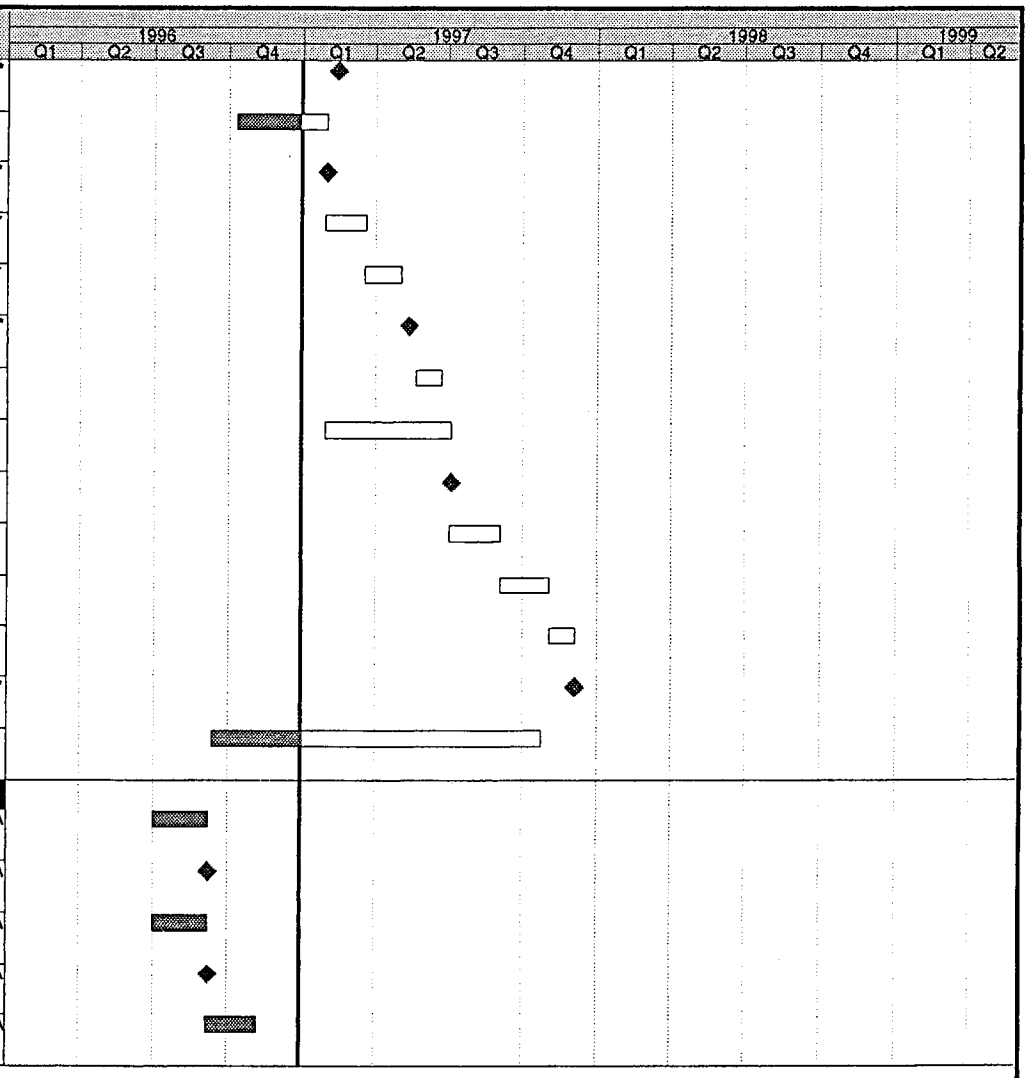
B103:FIG1

Sheet 1 of 7

Figure 5-1
Master Program Schedule MCAS El Toro
Installation Restoration Program

Activity Description	Early Start	Early Finish
Draft Final FS		13FEB97*
PP Preparation (Draft)	11OCT96A	30JAN97
Draft PP		30JAN97*
PP Draft Review	30JAN97*	20MAR97
PP Preparation (Draft Final)	20MAR97*	03MAY97
Draft Final PP		13MAY97*
PP Public Review	23MAY97*	23JUN97
ROD Preparation (Draft)	30JAN97*	03JUL97
Draft ROD		03JUL97*
ROD Review (Draft)	03JUL97*	03SEP97
ROD Preparation (Draft Final)	03SEP97*	03NOV97
ROD Signature	03NOV97*	03DEC97
Signed ROD		03DEC97*
Soil Vapor Extraction Pilot Testing	11SEP96A	23OCT97
OU-2B		
RI Preparation (Draft Final)	01JUL96A	06SEP96A
Draft Final RI		06SEP96A
FS Preparation (Draft)	01JUL96A	06SEP96A
Draft FS		06SEP96A
FS Review (Draft)	06SEP96A	07NOV96A



Project Start	01JAN96	Early Bar
Project Finish	06MAY99	Progress Bar
Data Date	31DEC96	Critical Activity
Plot Date	18FEB97	

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B103.FIG1

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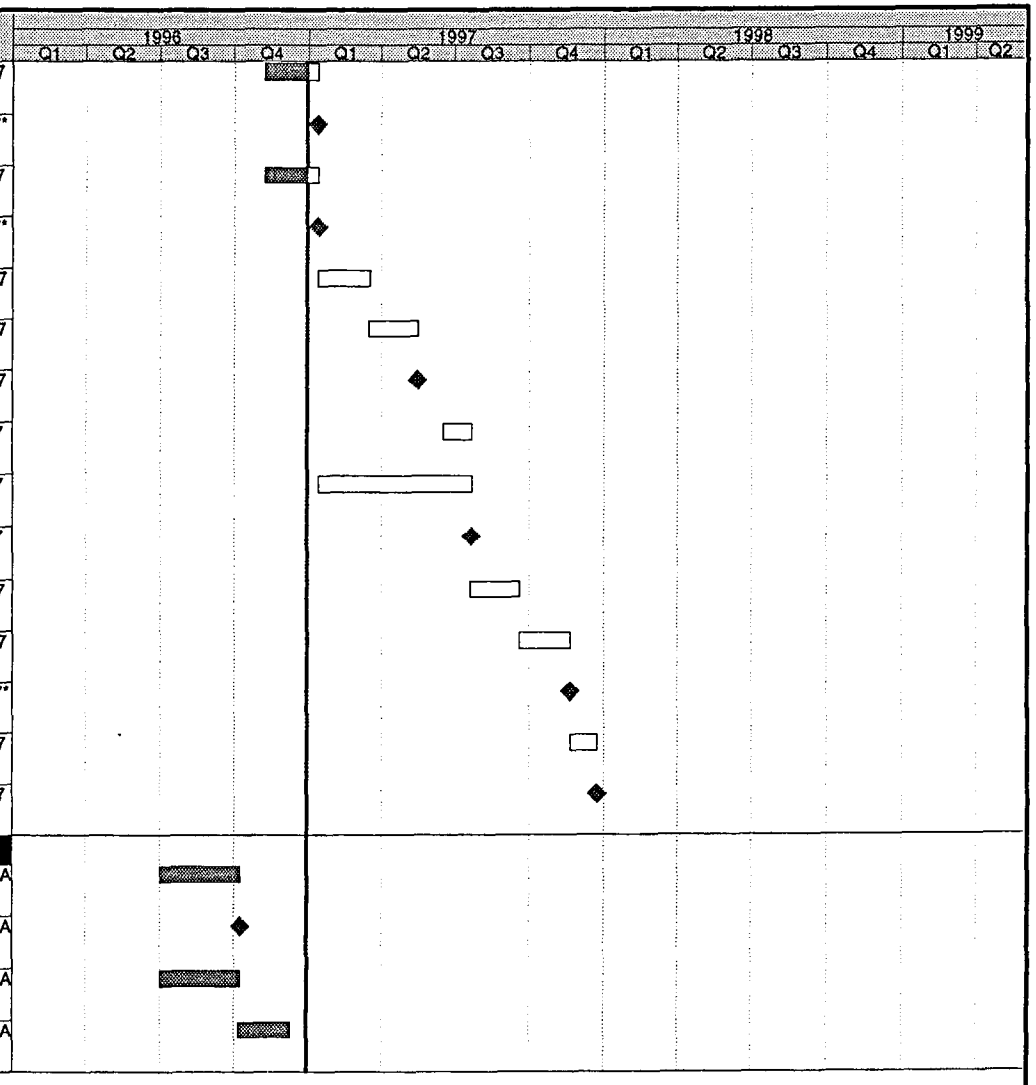
Figure 5-1
Master Program Schedule MCAS El Toro
Installation Restoration Program

Activity Description	Early Start	Early Finish
FS Preparation (Draft Final)	07NOV96A	12JAN97
Draft Final FS		13JAN97*
PP Preparation (Draft)	07NOV96A	13JAN97
Draft PP		13JAN97*
PP Review (Draft)	13JAN97	18MAR97
PP Preparation (Draft Final)	18MAR97	16MAY97
Draft Final PP		16MAY97
PP Public Review	18JUN97*	21JUL97
ROD Preparation (Draft)	13JAN97*	21JUL97
Draft ROD		21JUL97
ROD Review (Draft)	21JUL97	19SEP97
ROD Preparation (Draft Final)	19SEP97	21NOV97
Draft Final ROD		21NOV97*
ROD Signature	21NOV97	23DEC97
Signed ROD		23DEC97
OU-2C		
RI Prepration (Draft Final)	01JUL96A	08OCT96A
Draft Final RI		08OCT96A
FS Preparation (Draft)	01JUL96A	08OCT96A
FS Review (Draft)	08OCT96A	11DEC96A



Project Start	01JAN96
Project Finish	08MAY99
Data Date	31DEC96
Plot Date	18FEB97

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Early Bar
Progress Bar
Critical Activity

B103.FIG1

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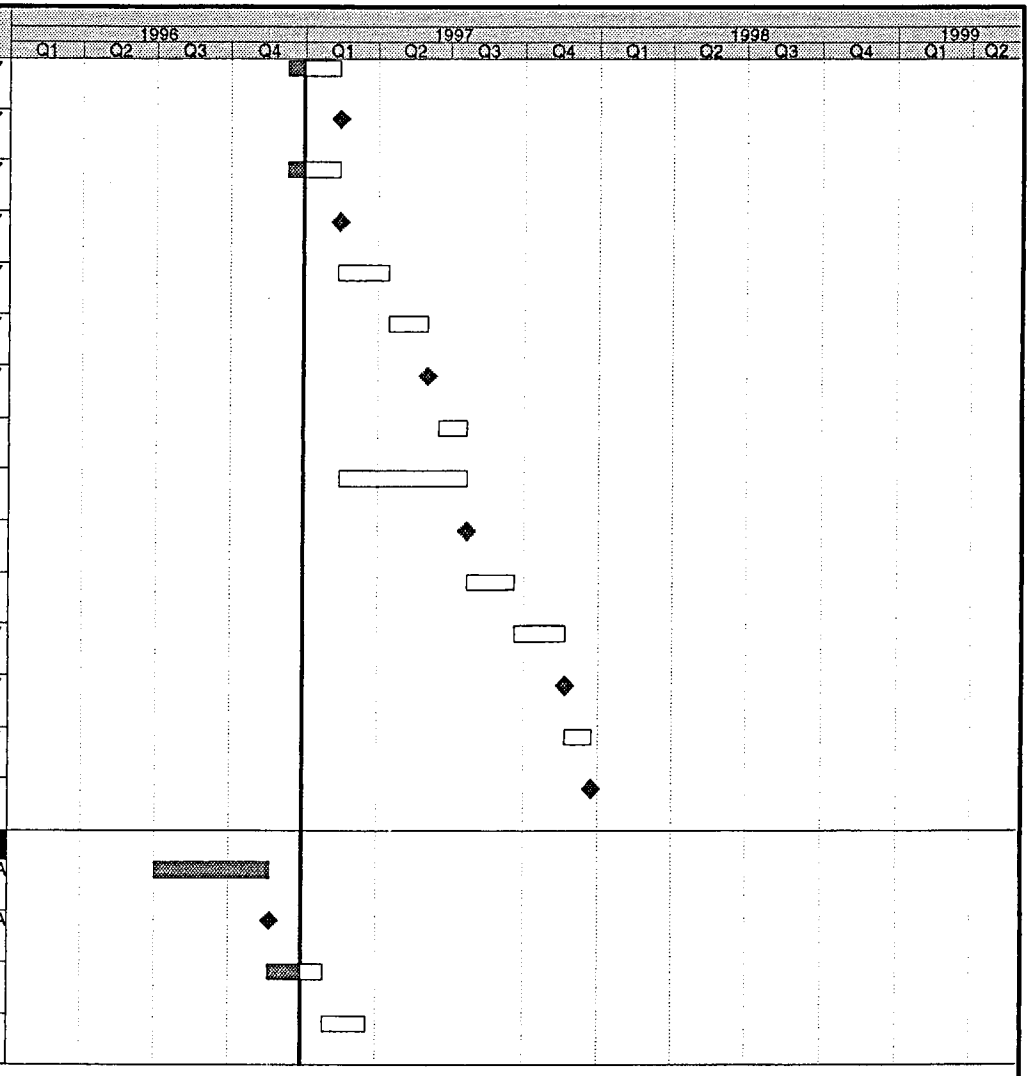
Figure 5-1
Master Program Schedule MCAS El Toro
Installation Restoration Program

Activity Description	Early Start	Early Finish
FS Preparation (Draft Final)	11DEC96A	12FEB97
Draft Final FS		12FEB97
PP Preparation (Draft)	11DEC96A	12FEB97
Draft PP		12FEB97
PP Review (Draft)	12FEB97	15APR97
PP Preparation (Draft Final)	15APR97	02JUN97
Draft Final PP		02JUN97
PP Public Review	18JUN97*	21JUL97
ROD Preparation (Draft)	13FEB97*	21JUL97
Draft ROD		21JUL97
ROD Review (Draft)	22JUL97	19SEP97
ROD Preparation (Draft Final)	19SEP97	21NOV97
Draft Final Rod		21NOV97
ROD Signature	21NOV97	23DEC97
Signed ROD		23DEC97
OU-3A		
RI Preparation (Draft)	01JUL96A	20NOV96A
Draft RI		20NOV96A
RI Review (Draft)	20NOV96A	27JAN97
RI Preparation (Draft Final)	27JAN97	20MAR97



Project Start 01JAN96
Project Finish 06MAY99
Data Date 31DEC96
Plot Date 18FEB97

Early Bar
Progress Bar
Critical Activity

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B103:FIG1

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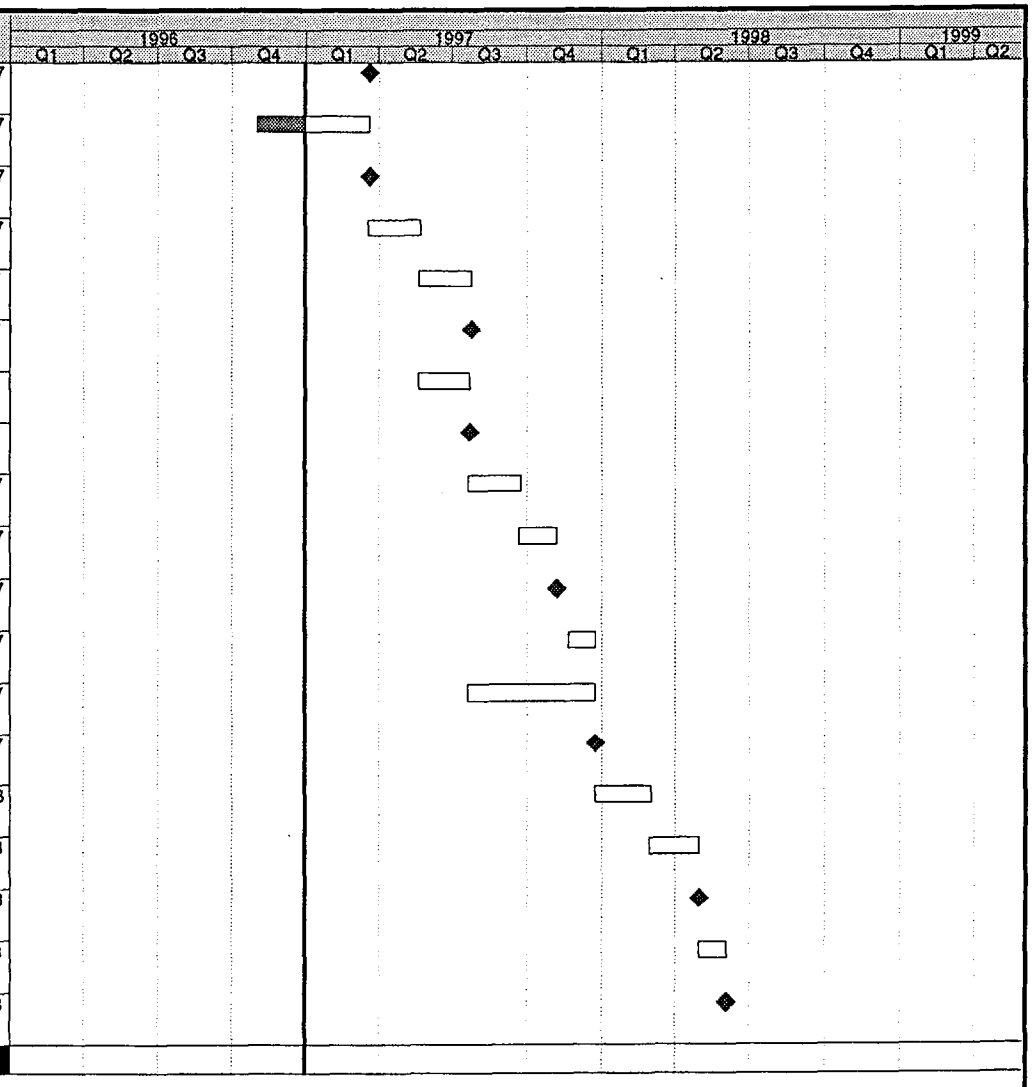
Figure 5-1
Master Program Schedule MCAS El Toro
Installation Restoration Program

Activity Description	Early Start	Early Finish
Draft Final RI		20MAR97
FS Preparation (Draft)	01NOV96A	20MAR97
Draft FS		20MAR97
FS Review (Draft)	20MAR97	21MAY97
FS Preparation (Draft Final)	21MAY97	23JUL97
Draft Final FS		23JUL97
PP Preparation (Draft)	21MAY97	21JUL97
Draft PP		21JUL97
PP Review (Draft)	21JUL97	22SEP97
PP Preparation (Draft Final)	22SEP97	06NOV97
Draft Final PP		06NOV97
PP Public Review	21NOV97*	24DEC97
Rod Preparation (Draft)	21JUL97*	24DEC97
Draft ROD		24DEC97
ROD Review (Draft)	24DEC97	02MAR98
ROD Preparation (Draft Final)	02MAR98	30APR98
Draft Final ROD		30APR98
ROD Signature	30APR98	02JUN98
Signed ROD		02JUN98
OU-3B		



Project Start 01JAN96
Project Finish 06MAY99
Data Date 31DEC96
Plot Date 18FEB97

Early Bar
Progress Bar
Critical Activity

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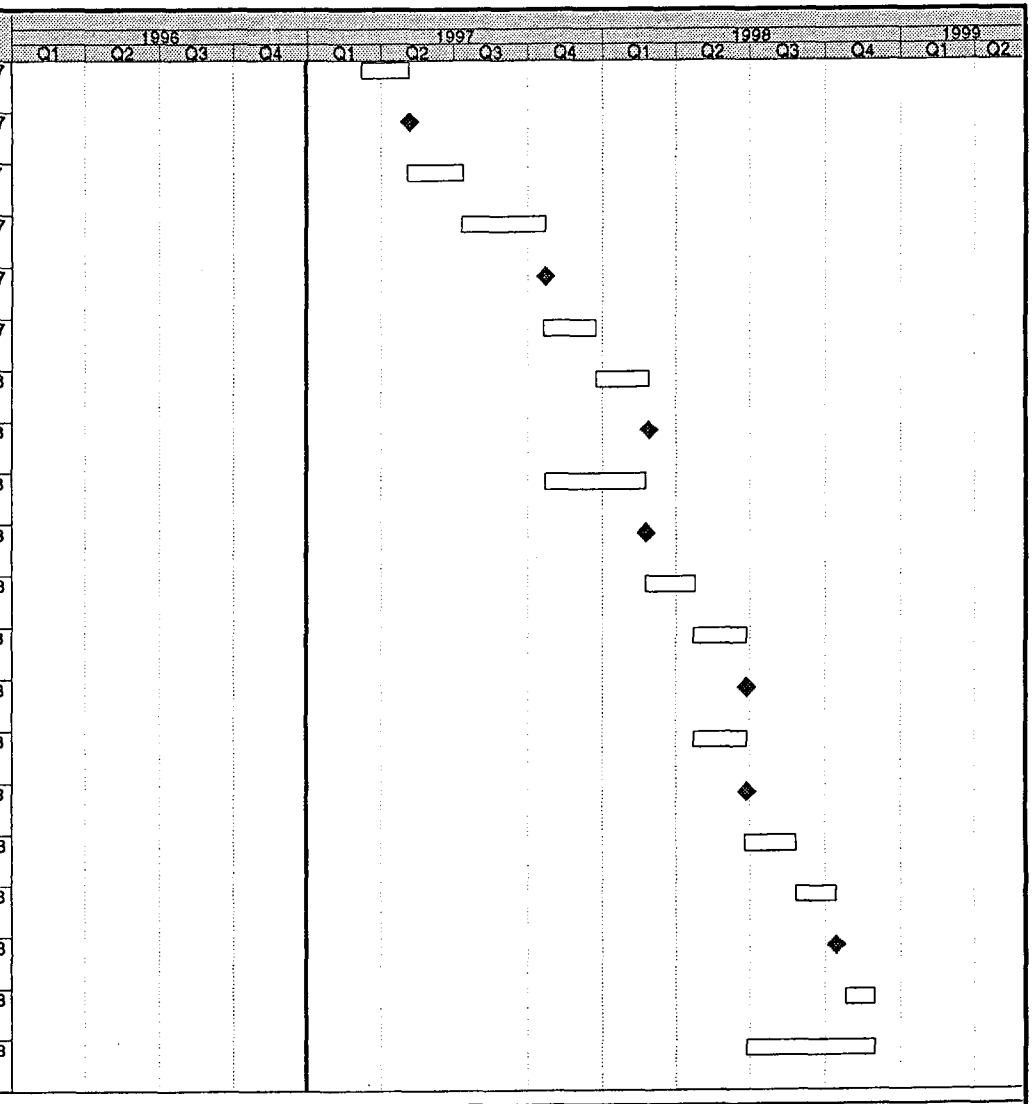
B103:FIG1

Sheet 5 of 7

Figure 5-1
Master Program Schedule MCAS El Toro
Installation Restoration Program

Activity Description	Early Start	Early Finish
RI Workplan Preparation	10MAR97	06MAY97
RI Workplan		06MAY97
RI Fieldwork	06MAY97	11JUL97
RI Preparation (Draft)	11JUL97	21OCT97
Draft RI		21OCT97
RI Review	21OCT97	23DEC97
RI Preparation (Draft Final)	24DEC97	27FEB98
Draft Final RI		27FEB98
FS Preparation (Draft)	22OCT97*	23FEB98
Draft FS		23FEB98
FS Review	24FEB98	24APR98
FS Preparation (Draft Final)	24APR98	25JUN98
Draft Final FS		25JUN98
PP Preparation (Draft)	24APR98	25JUN98
Draft PP		25JUN98
PP Review (Draft)	25JUN98	26AUG98
PP Preparation (Draft Final)	26AUG98	13OCT98
Draft Final PP		13OCT98
PP Public Review	27OCT98*	30NOV98
ROD Preparation (Draft)	26JUN98*	30NOV98



Project Start 01JAN96
Project Finish 06MAY99
Data Date 31DEC96
Plot Date 18FEB97

Early Bar
Progress Bar
Critical Activity

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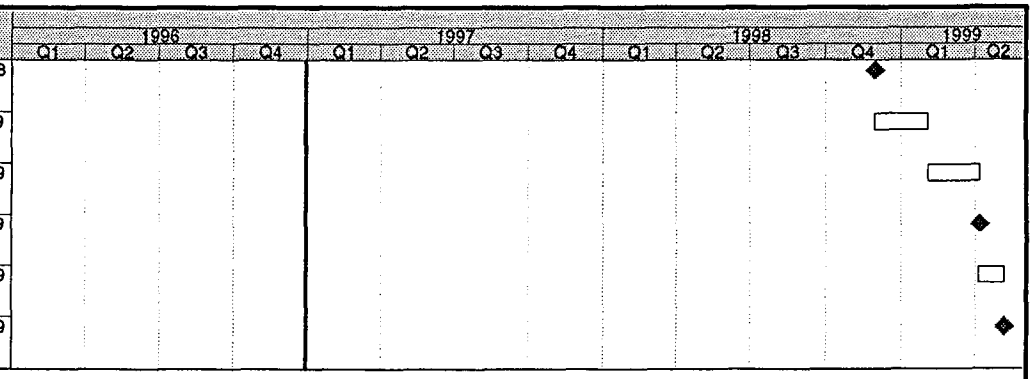
B103:FIG1

Sheet 6 of 7

Figure 5-1
Master Program Schedule MCAS El Toro
Installation Restoration Program

Activity Description	Early Start	Early Finish
Draft ROD		30NOV98
ROD Review (Draft)	30NOV98	03FEB99
ROD Preparation (Draft Final)	03FEB99	06APR99
Draft Final ROD		06APR99
ROD Signature	06APR99	06MAY99
Signed ROD		06MAY99



Project Start	01JAN96	Early Bar
Project Finish	06MAY99	Progress Bar
Data Date	31DEC98	Critical Activity
Plot Date	18FEB97	

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B103:FIG1

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Figure 5-1
Master Program Schedule MCAS El Toro
Installation Restoration Program

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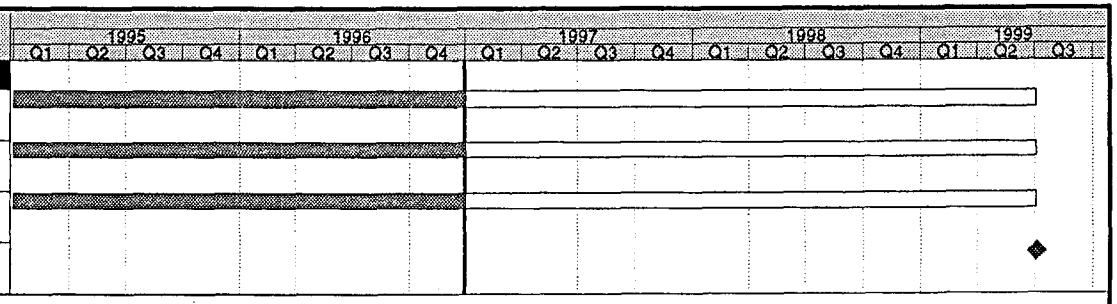
Activity Description	Early Start	Early Finish
Figure 5-2		
Maintenance of Air Permits	01JAN95A	02JUL99
Continued MPDES Monitoring	01JAN95A	02JUL99
UST Management/Monitoring	01JAN95A	02JUL99
Installation Closure Date		02JUL99*



Project Start	26OCT96	Early Bar
Project Finish	15JUL99	Progress Bar
Data Date	31DEC96	Critical Activity
Plot Date	06FEB97	

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B103.FIG2

Sheet 1 of 1

Figure 5-2
Master Program Schedule MCAS El Toro
Mission Related Compliance

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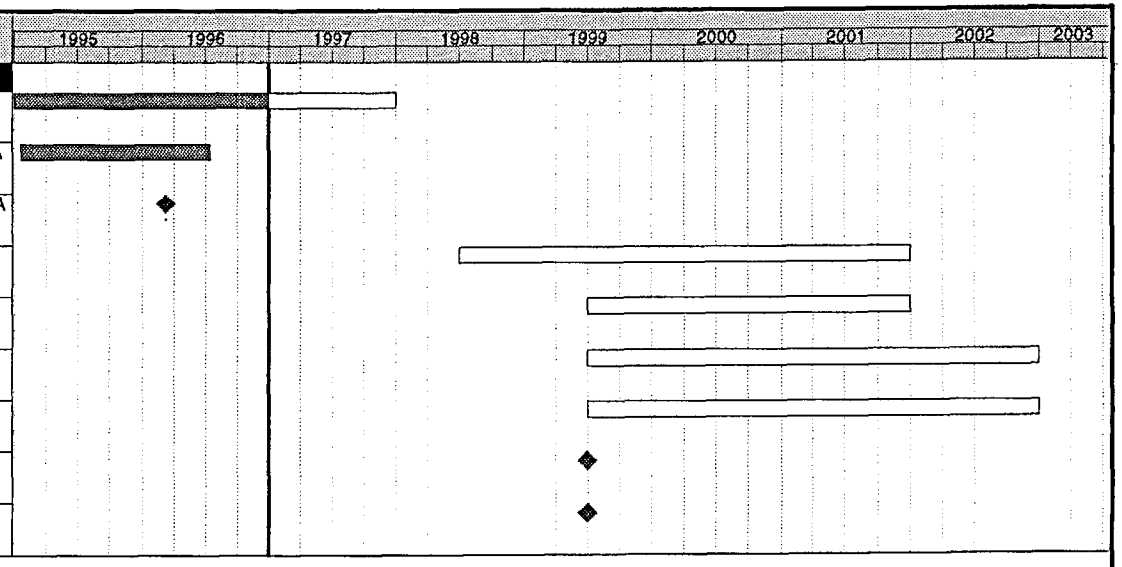
Activity Description	Early Start	Early Finish
Figure 5-3		
Removal of Nonessential USTs	01JAN95A	30DEC97
RFA Follow-up Investigations	16JAN95A	15JUL96A
RCRA Closure of TSD Facility Completed		08MAR96A
Removal of Mission-essential USTs	02JUL98*	01JAN02
Removal of Mission-essential OWSs	02JUL99*	01JAN02
Maintenance of NPDES Permits for Remedial Action	02JUL99*	01JAN03
Maintenance of Air Permits for Remedial Actions	02JUL99*	01JAN03
Installation Closure Date		02JUL99*
Closure of Fuel Pipeline		02JUL99*



Project Start	01JAN95	Early Bar
Project Finish	01JAN03	Progress Bar
Data Date	31DEC96	Critical Activity
Plot Date	06FEB97	

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B103:FIG3

Sheet 1 of 1

Figure 5-3
Master Program Schedule MCAS El Toro
Closure Related Compliance

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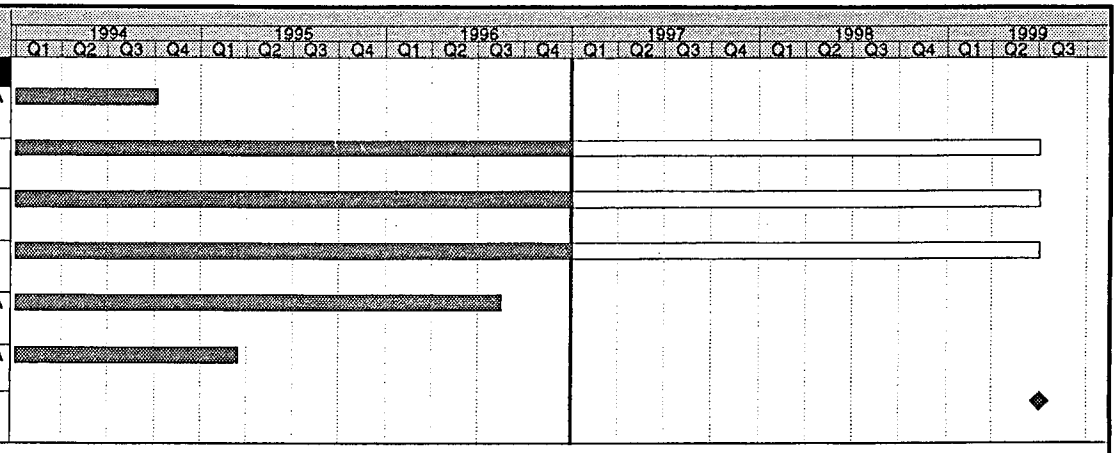
Activity Description	Early Start	Early Finish
Figure 5-4		
Sensitive Habitats Survey	01JAN94A	07OCT94A
Survey/Mgmnt of Threatened & Endangered Species	01JAN94A	02JUL99
Biological Resources Management	01JAN94A	02JUL99
Erosion Control	01JAN94A	02JUL99
Review and Assessment of Archeological Survey	01JAN94A	15AUG96A
Wetland Survey	01JAN94A	15MAR95A
Installation Closure Date		02JUL99*



Project Start	01JAN94	Early Bar	B103:FIG4
Project Finish	02JUL99	Progress Bar	Sheet 1 of 1
Data Date	31DEC96	Critical Activity	
Plot Date	06FEB97		

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Figure 5-4
Master Program Schedule MCAS El Toro
Natural/Cultural Resources Activity

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Chapter 6

Technical and Other Issues To Be Resolved

This chapter summarizes pending technical, administrative, and other issues to be resolved by the BCT and Project Team. Specifically, this chapter addresses data and information management, data gaps, ambient and background levels, risk assessments, basewide remediation strategy, interim monitoring of groundwater and storm water, excavation of contaminated materials, protocols for remedial design reviews, conceptual models, cleanup standards, initiatives for accelerating cleanup, remedial actions, technology review, hot spot removals, identification of clean properties, overlapping phases of the cleanup process, improved contracting procedures, interfacing with the CRP, bias for cleanup instead of studies, expert input on contamination and remedial actions, presumptive remedies, partnering, EBS updates, the policy for on-site decision making, air emission credits, and caretaking responsibilities.

6.1 DATA USABILITY

In order to obtain data of usable quality for decision making, data quality management is necessary. Management steps include defining data quality objectives, setting procedures for quality assurance/quality control practices, and developing data management procedures that provide for accurate and easy information storage, retrieval, and transfer.

To date, major data collection programs for MCAS El Toro include the IRP (RI/FS) and the RFA. An extensive amount of analytical data was collected for both programs under agency-approved quality assurance project plans (QAPPs). Analyses for Phase I work were generally performed at data quality level 4, and analytical data from both programs were checked via data validation efforts. All ongoing analyses for Phase II work will be performed at data quality level 4, and all analytical data will be validated at 100 percent. The validated Phase I data from these programs have been loaded into the International Technology Environmental Management System database. The Phase II data is being loaded into the Bechtel Environmental Integrated Data Management System database as it is generated.

Historical data prior to or outside of these major programs may need to be evaluated on a case-by-case basis for data usability and quality.

6.2 INFORMATION MANAGEMENT

Analytical data from both the RI/FS and the RFA Programs are required to conform to the Navy Environmental Data Transfer Standards (NEDTS), which specify the types and quality of environmental data collected at Navy and Marine Corps Installations. All MCAS El Toro environmental data will eventually be transferred to the Navy in a standard format to create a master database for the station. Data from future investigations should conform to the NEDTS. Currently, data from UST removals performed at the Station are not in the database.

Geographical data for MCAS El Toro have been input into a geographical information system (GIS) database. The GIS base map currently has the location of over 800 LOCs and the zone/parcel boundaries for base closure digitized into the

system. IRP groundwater wells and analytical data are also included in the GIS database.

6.2.1 BRAC Cleanup Team Action Items

The BCT has identified the following information management action items for completion by NAVFAC and SWDIV:

- evaluate historical, geological, and geophysical data used for risk management that do not currently conform to the NEDTS for transfer to the Navy;
- assure that data from future data collection activities conform to NEDTS; and
- assure database integrity (i.e., it is current and correct for all users).

6.2.2 Rationale

Accessibility of data to the BCT will assist in the review and management of data, and expedite the ability of the BCT to make decisions.

6.2.3 Status/Strategy

In order to accomplish its data management goals, the BCT will assure:

- the continuing receipt of data in electronic form from the laboratories involved with work at MCAS El Toro;
- conformance of data from past, present and future contractors to the NEDTS format; and
- update of environmental databases as appropriate.

6.3 DATA GAPS

Phase II of the RI is currently being conducted at the Station. The final Phase II RI/FS Work Plan (BNI 1995) established for this effort was based on filling data gaps that may have existed after completion of Phase I.

Listed below are currently identified data gaps that will need to be addressed by the BCT.

- The UST Tiger Team will continue to identify/verify USTs and associated data (e.g., capacity, material of construction, location) at the Station. This team will also identify strategies for UST management with respect to essential Station operation and base closure activities.
- The Station Engineering Department is currently inventorying all known transformers and, where information is unavailable, collecting samples to fill any existing data gaps.

- An inventory of all on-Station ASTs is currently being performed as part of CLEAN II Activities, under CTO-75. This document will be updated appropriately when information becomes available.

6.4 AMBIENT AND BACKGROUND LEVELS

Background levels for MCAS El Toro were previously addressed as part of the preparation of the draft Phase II RI/FS Work Plan submitted in November 1993. Background and ambient concentrations for MCAS El Toro have been addressed in a series of documents, including the Phase I Technical Memorandum (Jacobs Engineering 1993a), the draft Phase II RI/FS Work Plan (Jacobs Engineering 1993d), the draft Evaluation of Background Concentrations of Organic Constituents in Groundwater (Jacobs Engineering 1994), BCT meetings, the Final Phase II RI/FS Work Plan (BNI 1995), and the final Technical Memorandum for Background and Reference Levels (BNI 1996h).

The following sections present discussions of activities conducted to date that can be used for evaluating ambient and background levels for surface soils, groundwater, surface water, and sediments.

6.4.1 Surface Soils

Background levels for metals and pesticides/herbicides in soils at MCAS El Toro were established as part of the Phase II RI. The detailed procedures and results for the calculation of background concentrations are presented in the final Technical Memorandum, Background and Reference Levels, MCAS El Toro (BNI 1996h). The results of the statistical analysis for the metal parameters and pesticides/herbicides in background soil samples are presented in Tables E-2a and E-2b, respectively (Appendix E).

Three sets of soil sample data were used to calculate background and reference levels for metals and pesticides/herbicides at MCAS El Toro. Two sets were used to calculate metal background concentrations, using the 0.95 quantile and 95 percent upper confidence limit (UCL) procedures. One set of pesticide and herbicide data was used to calculate organic levels using 0.95 quantile and 95 percent UCL procedures.

Anthropogenic reference levels of PAHs were determined during Phase II activities, and the results were presented in the final report (BNI 1996h).

6.4.2 Groundwater

The initial draft Phase II RI/FS Work Plan (Jacobs Engineering 1993d) proposed geochemical analysis of the RI data as part of the OU-1 RI report to evaluate ambient concentrations of inorganic compounds in groundwater.

Prior to Phase II RI activities, groundwater analytical results were compared to federal MCLs, California MCLs, and U.S. EPA Region IX preliminary remediation goals (PRGs) for ingestion of groundwater and inhalation of volatiles from household water use (Jacobs Engineering 1993a).

Groundwater samples are being collected in accordance with the current groundwater sampling plan and remedial investigation work plans (BNI 1995). The BCT will consider establishing regional background concentrations for inorganic compounds in groundwater after the samples are collected and analyzed.

6.4.3 Surface Water

Background levels in surface waters have not been established for MCAS El Toro. Surface water sampling was conducted for the five major drainages at upstream and downstream locations as part of the Phase I and Phase II RIs. Upstream-water-quality 1data and analytical results from both investigations will be considered as background values and will be compared to downstream values to analyze the potential contribution of MCAS El Toro discharges to surface water.

6.4.4 Sediment

For screening purposes for the final Phase II RI/FS Work Plan, sediment data collected during the Phase I RI were compared to the reference background concentrations for inorganic compounds in sediment samples from major drainages.

Sediment background concentrations will be established on a site-specific basis where a site is bisected by a stream or wash. The upstream sample will be compared to the downstream sample and will be analyzed for the same parameters to assess potential contribution of the site to chemicals of potential concern (COPCs) concentrations in surface drainage sediments. Additional sediment sampling conducted as part of the investigation of IRP Site 25 will be evaluated to assess concentrations of organic chemicals, particularly pesticides and herbicides, that may be migrating onto MCAS El Toro through surface drainage.

6.4.5 BRAC Cleanup Team Action Items

The BCT has identified the following action items:

- address agency concerns for background levels for soils; and
- reach consensus on background levels for storm water, sediment, and groundwater after Phase II investigation and additional groundwater sampling events are completed.

6.4.6 Rationale

Background concentrations of elements and compounds in the environment at MCAS El Toro must be determined for use in the Baseline Risk Assessment computations and/or as screening criteria. Media to be addressed include surface soils, groundwater, surface water, and sediments.

6.4.7 Status/Strategy

In order to perform risk assessment computations, media sampled during Phase II RI activities to date had established ambient and background levels. Background concentrations will continue to be determined as RI work continues.

The BCT has agreed on the following strategy for background levels at MCAS El Toro.

- Evaluate groundwater-quality data produced from continuing groundwater monitoring activities to evaluate background levels for groundwater. Additional groundwater sampling was performed in 1996.
- Evaluate data from surface water sampling planned to be performed as part of the Phase II RI (Site 25) to determine background levels in surface waters entering the Station.

6.5 RISK ASSESSMENTS

There are three types of risk assessments that are currently being used at MCAS El Toro:

- baseline human-health risk assessments performed at RI/FS sites (estimate the risks to human health if no response action is undertaken at the site and, thereby, provide decision makers with information useful in identifying the most appropriate remedial action alternatives);
- streamlined human-health risk assessments performed on removal action sites (provide support for EE/CAs for removal actions); and
- ecological risk assessments (aim to assess current and potential risks to the ecological environment posed by chemical contamination).

6.5.1 BRAC Cleanup Team Action Items

No Project Team action items are currently identified for risk assessments.

6.5.2 Rationale

Baseline and streamlined human-health risk assessments must be performed to assist the BCT in identifying the most appropriate remedial action alternatives for IRP and remedial action sites to protect human health. In addition, an ecological risk assessment will be prepared for the Station to protect the environment.

6.5.3 Status/Strategy

The final Phase II RI/FS Work Plan designed sampling strategies that will provide sufficient sample data to conduct a baseline human-health risk assessment and an ecological risk assessment. The baseline human-health risk assessment will be prepared in conjunction with the Phase II RI and will also use data from the Phase I RI. This comprehensive assessment will be used to establish the condition of sites which, in turn, will determine whether response actions should be taken. In general, the human-health standards used during risk assessments for IRP sites to date have been based on the U.S. EPA Risk Assessment Guidance for Superfund (1989 - Part A, and 1991 - Part B). The Phase II FSs will address cleanup standards for those sites where response actions are recommended.

Table 6-1 presents a summary of relevant risk assessment information for each IRP site. Contaminants listed for sites which have completed the Phase II RI represent the

COPCs as determined based on the risk assessment(s) performed for that site. Contaminants listed for IRP sites for which the RI is not yet complete are from the final Phase II RI/FS Work Plan (BNI 1995).

6.6 BASEWIDE REMEDIAL ACTION STRATEGY

The strategy for basewide remedial action contains the following components.

- Removal operations must continue with minimal delays in order to expedite the restoration activities and address environmental issues as developed by the ongoing investigations.
- The BCT will continue to focus on early-action activities already identified and early-action items discovered as investigations continue.
- The BCT has agreed to withdraw portions of three sites (Site 15, Unit 1; Site 19, Units 1 and 4; and Site 20, Units 2 and 3) from the IRP based on the petroleum exclusion in CERCLA.
- The BCT will continue to evaluate the withdrawal of some OU-3 sites from the CERCLA process under the CERCLA petroleum exclusion.
- The transfer of sites from RI/FS process to the EE/CA process will be recommended for timely and cost-effective cleanup. One EE/CA (for Site 19, Unit 2) was completed in October 1995.
- An Action Memorandum was submitted for public review in October 1996 (Site 19, Unit 2) to expedite cost-effective cleanup.
- Two TCRA memoranda were submitted for public review in October 1996 (landfill Sites 2 and 17) for public safety and to abate erosion of landfill materials. These actions were proposed based on the conclusions of the Phase II RI conducted at these two sites.
- To successfully accomplish the early transfer of parcels at MCAS El Toro, there will need to be a geographical component to the evaluation and prioritization of LOCs for remedial action. It will be important to interface with the LRA during LOC prioritization.
- Any LOCs that are not in the mission of command will be referred to the BRAC office for early inclusion in environmental programs, as necessary.
- Numerous USTs have been used at MCAS El Toro. Contrary to previous assumptions, the majority of these tanks have not leaked. This finding is based on removal and remediation actions to date, and will reduce the magnitude of remediation activities significantly. Ambitious efforts have been undertaken to remove as many of the nonoperational tanks as possible. Active tanks will be closed as the operational requirement is relocated to other military installations, and a relatively small number of UST actions will be deferred due to current military operations. The strategy remains to remove USTs and to investigate/remediate previous sites as quickly as possible.
- Anomalies identified in aerial photographs will continue to be considered and/or used as guidance and input during remedial activities.

- The tenant migration schedule and operational constraints should be considered, as parcels are prioritized for remedial actions and transfer.
- Schedule considerations for conducting remedial work simultaneously with other sites or scheduling mobilization for remediation of individual sites should be considered in an effort to minimize costs.

6.7 INTERIM MONITORING OF GROUNDWATER AND STORM WATER

Three interim groundwater sampling events have been completed to date at MCAS El Toro (including two rounds in 1996) in addition to the sampling of other monitoring and irrigation wells in the area that were not included in those sampling events. A groundwater monitoring plan was developed by the Navy, reviewed by the BCT, and finalized on 28 April 1995. This groundwater sampling plan describes the frequency and analytical parameters for the extended sampling program. A QAPP, a health and safety plan, and a sampling and analysis plan were specifically developed for the program. The program was implemented in late 1995. Based on the results of these sampling rounds, the BCT may adjust the groundwater sampling program. Any change in the sampling plan must be agreed upon by the BCT. After this sampling program is completed, a long-term groundwater monitoring plan will be developed and implemented. That plan is scheduled to be submitted in draft form on or before 20 February 1997.

Three rounds of storm-water sampling were conducted as part of the Phase I RI, and one round of storm-water sampling was conducted as part of the Phase II RI. Under an existing NPDES permit, MCAS El Toro periodically samples surface waters that migrate off the station.

Two ponded water sampling events were conducted in mid-1994. Analytical data for these sampling events will also be included in the Phase II RI reports.

6.8 EXCAVATION OF CONTAMINATED MATERIALS

Excavation of contaminated materials will be necessary for some response actions taken at the Station. Such response actions include removal of contaminated soil at former UST locations, removal actions, site characterization activities, and *in situ* remediation.

Prior to initiating excavation activities, the BCT will need to consider the following waste-handling issues:

- sampling and analytical protocols for characterization of wastes and for verification of cleanup [these protocols are contained in site-specific plans such as the investigation-derived waste (IDW) plan];
- site-specific parameters and limits to determine whether the excavated material is hazardous;
- disposal methods and facilities for nonhazardous wastes that may or may not be contaminated with toxic or TSCA materials (e.g., PCBs or asbestos); and
- development of an IDW plan.

Management of contaminated materials will be in accordance with regulations current at the time of the excavation activities.

6.9 PROTOCOLS FOR REMEDIAL DESIGN REVIEWS

Remedial design reviews will be performed in accordance with the QAPP developed for the remedial design effort.

6.10 CONCEPTUAL MODELS

Conceptual site models are used to show relationships among potential sources, exposure pathways, and receptors. Complete exposure pathways include sources, mechanisms of contaminant release, transport media, exposure points, and exposure routes at points of receptor contact.

Conceptual models for each of the MCAS El Toro IRP sites were initially developed as part of the final Phase II RI/FS Work Plan, based on existing data from the Phase I RI. The conceptual models for some of the IRP sites have been refined as a result of the RI findings. The conceptual models are provided in Appendix E of this document. Some of the conceptual models may be revised as additional information on the IRP sites becomes available. As appropriate, the conceptual models in Appendix E will be replaced or supplemented.

No Project Team action items are currently identified for conceptual site models.

6.11 CLEANUP STANDARDS

Cleanup standards for the IRP sites at MCAS El Toro are determined based on ARARs and the risk assessments prepared as part of the Phase II RIs. Cleanup standards selected depend on such factors as exposure scenarios developed during risk assessment and intended future land use. Standards have included federal MCLs, California MCLs, and U.S. EPA Region IX PRGs for ingestion of groundwater and inhalation of volatiles from household water use. Table 6-1 provides IRP site information on current and anticipated land use for each of the IRP sites. As stated in Tables 6-2 and 6-3, the human-health and surface-water standards appropriate for each IRP site are provided in the respective RI Reports. In general, the human-health standards used during risk assessments for IRP sites to date have been based on the U.S. EPA Risk Assessment Guidance for Superfund (1989 - Part A, and 1991 - Part B). Metals concentrations in shallow soils will be compared to background levels for metals (Section 6.4).

6.11.1 BRAC Cleanup Team Action Items

The BCT will establish cleanup standards for each site in site-specific FSs.

6.11.2 Rationale

Cleanup standards will help determine the extent of removal or remediation and the designation of cleanup areas.

6.11.3 Status/Strategy

The BCT will continue to review and evaluate preliminary cleanup standards and evaluate background levels on a site-by-site basis.

6.12 INITIATIVES FOR ACCELERATING CLEANUP

As an ongoing action item, the BCT will identify and evaluate opportunities for accelerating cleanup throughout the base closure process. Some currently identified methods for acceleration include the following.

- Use of the Superfund Accelerated Cleanup Model for timely and efficient cleanup. An EE/CA was completed for Site 19, Unit 2, and a non-time-critical removal action memorandum was issued for BCT and public comments in October 1996. Additionally, two TCRA memoranda have been completed for two landfill sites (Sites 2 and 17). These TCRA memoranda would include erosion abatement measures to prevent further erosion of exposed landfill debris, relocation of previously eroded landfill debris to the center of the landfill, and the construction of fencing to restrict public access. The public review period was 10 October to 10 November 1996.
- Withdrawal of petroleum-contaminated sites from the IRP under the CERCLA petroleum exclusion. Sites approved for withdrawal will be addressed as petroleum sites with regulatory oversight by the RWQCB Santa Ana Region. To date, portions of three sites have been withdrawn.
- Use of presumptive remedies as appropriate for site remedial action. The BCT will continue to consider using innovative technologies that may accelerate the cleanup process.
- Fast-tracking of Navy contracting procedures for cleanup activities.
- Identifying portions of sites that may be appropriate for early remedial action.
- Use of mobile laboratories for in-field decision making.
- Bimonthly field meetings during Phase II fieldwork to expedite decision making.
- Field-screening analytical methods.
- Accelerated analytical turnaround times.
- Concurrent document review among BCT members.
- Staggered schedules and subdivided OUs in an effort to prioritize remediation at IRP sites. This will allow those IR sites suspected of posing greater risk to human health and the environment, to be addressed first.
- Investigation of source areas for potential early remedial actions, including SVE pilot tests at Site 24 and the preparation of an interim ROD for OU-1.
- Reduction in specified document review periods for the regulatory agencies as prescribed in the FFA.

- Use of in-progress report presentations and meetings with the BCT and regulatory agencies to streamline and expedite report production.
- MCAS El Toro has reviewed environmental progress at other DoD installations and is working to apply lessons learned to expedite cleanup.
- Navy participation in a national DoD conference to learn from demonstration/pilot studies on risk-based corrective actions at other installations.

6.13 REMEDIAL ACTIONS

The BCT will maintain a bias toward implementing effective and expedited remedial actions. Implementation of agency-approved presumptive remedies for expediting cleanup will be favored during the course of the base closure effort at MCAS El Toro.

6.14 REVIEW OF SELECTED TECHNOLOGIES FOR APPLICATION OF EXPEDITED SOLUTIONS

Review of technologies for expediting remedies will continue to be conducted during the RI/FS. Presumptive remedies, as appropriate, will continue to be considered for sites. One IRP site (Site 24) has begun the implementation of SVE pilot testing. SVE is the presumptive remedy for VOC-contaminated soil at MCAS El Toro.

In an effort to minimize the expenditure of funds within the DoD, plans are being made for a potential transfer of SVE equipment, currently operating at the Central Base Area Operating Unit at Norton Air Force Base (AFB), located near San Bernardino, California. Norton AFB is located less than 100 miles from MCAS El Toro and has an operating SVE system in the same state jurisdiction. Also, the remedial activity at the Norton site is very similar to Site 24 at MCAS El Toro. The project at Norton AFB is near completion. Therefore, the transfer of DoD-owned equipment within the same regulatory jurisdiction to a similar site (MCAS El Toro Site 24) would result in considerable capital-cost and permitting-cost savings to the DoD.

Publications such as Treatment Technologies Applications Matrix for Base Closure Activities prepared by the California Base Closure Environmental Committee, November 1994 (CBCEC 1994a), will also be reviewed as part of the evaluation performed in selecting technologies.

6.15 HOT SPOT REMOVALS

Areas at the Station referred to as "hot spots" are identified as sites that pose an immediate danger to the environment and/or human health. Suspected hot spot areas such as RFA PCB areas and RCRA UST sites are currently being investigated. In the event that any hot spots are discovered during these investigations, the BCT will give such sites high priority for early action.

Currently, Removal Action Memoranda have been completed for three sites at MCAS El Toro. These are designed to remove the risk to human health and the environment posed by hot spots:

- Two TCRA memoranda have been completed for two landfill sites (Sites 2 and 17). These TCRA memoranda would include erosion abatement measures to prevent further erosion of exposed landfill debris, relocation of previously eroded landfill debris to the center of the landfill, and the construction of fencing to restrict public access.
- A non-time-critical action memorandum was completed for Site 19, Unit 2. This remedial action would backfill an excavation, providing a timely and cost-effective remedy to PCB-contaminated soils 10 feet bgs.

6.16 IDENTIFICATION OF CLEAN PROPERTIES

As described in Section 3.4 (Environmental Condition of Property), property at MCAS El Toro is categorized into one of seven ECP area types. Area types 1 through 4 are deemed suitable for transfer by deed, and types 5 through 7 are considered unsuitable for transfer by deed. Property is considered to be "CERFA-eligible" if it is categorized as area type 1: "areas where no release or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas)." CERFA-eligible property may be considered uncontaminated.

To assign an area type to a piece of land, the Station must have concurrence from the BCT on the ECP. Depending upon the area type, various types of documentation may be necessary. In general, if the basewide EBS identified data gaps, a supplemental EBS (or site-specific EBS) is prepared that includes the information and recommendations for categorizing the property or revising the category types. The revisions can also be documented in this BCP, which is signed by the BCT members. However, properties or areas categorized as area types 3 or 4 should have a decision document (e.g., site certification, health-risk assessment, no further action determination) that supports the category type.

The environmental condition of MCAS El Toro was evaluated in the CERFA report and the basewide EBS reports dated 01 April 1995. The draft EBS originally divided the base into 20 parcels. After discussion with the regulatory agencies, the USMC decided to drop the parcel designation and nominate ECP area type 1 parcels as CERFA eligible. The U.S. EPA reviewed the CERFA and EBS reports and concurred that 3,209 acres of MCAS El Toro can be classified as uncontaminated under CERFA. Cal-EPA agreed with the U.S. EPA decision.

6.16.1 BRAC Cleanup Team Action Items

The BCT will continue to conduct site characterizations and response activities to identify clean property and to remediate areas on the Station. The BCT will provide input to the El Toro LRA concerning response activities during the development of the CRP to facilitate the transfer of property. The BCT will continue to determine ECP area types.

6.16.2 Rationale

MCAS El Toro intends to complete military conversion and transfer of the Station by 1999. Only property which has been designated as ECP area types 1 through 4 is eligible for transfer by deed. The areas of the Station designated as ECP area types 5, 6, and 7 require future investigation and/or remediation before they are eligible for transfer.

6.16.3 Status/Strategy

The goal of MCAS El Toro is to close the base by July 1999 and expedite the reuse and transfer of all available property in a timely manner. The BCT will continue to determine ECP area types. The remediation of the base should be integrated with the intended reuse of the property.

6.17 OVERLAPPING PHASES OF THE CLEANUP PROCESS

As an ongoing effort, the BCT will attempt to identify phases of the cleanup process that can be overlapped to reduce the time and cost required for completion of the cleanup process. As such, areas of overlap include the following:

- the RFA was conducted concurrently with the Phase I RI;
- treatability studies are being conducted concurrently with the early stages of the OU-2 RI;
- Phase II RI/FS activities for the VOC source area, landfills, and OU-3 sites were conducted simultaneously;
- a CLEAN/RAC contractor integration during the pilot testing at Site 24, and planned integration during future pilot tests; and
- cooperative facilities for conducting RCRA, UST, and RI/FS activities are being utilized.

6.18 IMPROVED CONTRACTING PROCEDURES

Environmental restoration at the Station will require the Navy to aggressively issue numerous contracts for investigation and remediation activities. Flexible contracting procedures must be implemented to expedite installation restoration and meet established closure schedules.

In an effort to improve the efficiency of installation restoration activities, the Navy approved an accounting system which gives CLEAN II contractors discretion in awarding subcontractor activities. This accounting system has improved the efficiency of investigation and remediation activities, thereby reducing the cost for environmental restoration activities. The improvements in accounting and contracting procedures are a result of the increasing interaction between the CLEAN II contractors and the RAC contractor. Increased communication between the RAC and CLEAN II teams has produced better and faster cleanup of the Station.

The BCT will continue to get input from the Station contracting officer at SWDIV and other members of the Project Team on new approaches to contracting for fast-track cleanup of the Station.

6.19 INTERFACING WITH THE COMMUNITY REUSE PLAN

On 11 December 1996, the Board of Supervisors adopted the final MCAS El Toro CRP which provides for a more detailed study of a full-service commercial passenger and cargo airport, as well as compatible nonaviation uses. The adopted CRP and HAS were submitted to the ASN and the U.S. Department of HUD on 13 December 1996.

Regular meetings and clear communication between the BCT members and the LRA will be critical to incorporate the adopted CRP into the restoration plans for the Station. As of January 1997, regular meetings with the LRA staff were in progress.

6.20 BIAS FOR CLEANUP INSTEAD OF STUDIES

To date, the BCT has successfully expedited the RI/FS process by a variety of methods. One site (Site 19, Unit 2) was moved into the EE/CA process, which resulted in a decrease in the time and cost for cleanup. A non-time-critical action memorandum was completed in October 1996 for this site. The BCT has approved the withdrawal of portions of three sites (Site 15, Unit 1; Site 19, Units 1 and 4; and Site 20, Units 2 and 3) from the IRP under the CERCLA petroleum exclusion. Two TCRA memoranda were completed for landfill sites 2 and 17, for public safety and to abate further erosion of landfill materials.

BCT members should continue to collaborate with agencies in devising future work plans, identifying cleanup criteria, and selecting remedial actions in an effort to aggressively pursue cleanup instead of studies and data collection.

Sufficient sampling and analysis are required to assess the need for cleanup. Excessive statistical analysis and unrealistic numbers of sampling locations could be avoided by addressing the following issues:

- limited confirmatory laboratory tests are accepted along with field data;
- analysis is limited only to site-specific parameters;
- indicator parameters are accepted for the majority of the routine tests; and
- sample numbers and sample frequencies should not be associated with theoretical and/or statistical calculations without regard to site history, site geotechnological characteristics, and history of past operations.

6.21 EXPERT INPUT ON CONTAMINATION AND POTENTIAL REMEDIAL ACTIONS

The BCT and RI/FS team should continue to consult with experts to provide input on faster investigative techniques and potential remedial actions to meet the aggressive cleanup schedules established for the Station.

6.22 PRESUMPTIVE REMEDIES

Presumptive remedies are remedies that, based on past evaluations of remedial alternatives at similar sites, can be presumed to be an effective, optimal remedy. These remedies were developed by the U.S. EPA based on historical patterns of remedial action selection and on evaluation of performance data during technology implementation. Presumptive remedies can expedite the evaluation process normally involved in selecting a remedial alternative for a site through the FS process. The BCT will continue to assure that presumptive remedies are considered for implementation at appropriate sites at the Station.

The FS report submitted for the VOC source area (Site 24) evaluated soil vapor extraction as a presumptive remedy to the VOC groundwater plume. Presumptive remedies considered for the landfills (Sites 2, 3, 5, and 17) included various types of institutional and engineering controls (deed restrictions, fencing), and containment by various types of capping techniques (native soil, single barrier, composite barrier, etc.).

The upcoming FS reports for the remaining IRP sites will also consider appropriate presumptive remedies during remedial technology selection.

6.23 PARTNERING (USING INNOVATIVE MANAGEMENT, COORDINATION, AND COMMUNICATION TECHNIQUES)

A partnering agreement among the Project Team is essential for efficient management of the base closure process. As a group, the BCT has established a partnering agreement and Team Charter that incorporates the latest and most efficient management techniques to coordinate installation restoration activities.

The following Team Charter agreement was developed for MCAS El Toro during a team building seminar held in October 1994:

> We, the MCAS El Toro partners, commit to effectively working together to maximize restoration and reuse of MCAS El Toro by 1999. We will accomplish this goal through teamwork, dedicated and focused participation, our ethics outlined below, and effective communication between all partners.
>
> We want the project to be enjoyable to work on and will work together with trust and respect, and will ensure that all team members' interests impact decisions. Problems will be resolved quickly or escalated if appropriate, and by team members closest to the issue. As partners, we commit to communicating our mission and partnership goals to new project members and encourage them to embrace this partnership.
>
> Our mutually agreed upon ethical standards are listed below.
>
> **CODE OF ETHICS**
>
> - Integrity
> - Trust
> - Leadership
> - Objectivity
> - Dependability
> - Accountability

- Sincerity
- Empathy
- Responsibility
- Credibility
- Candor
- Honesty

Additionally, we will listen to and value other's opinions, honor diversity, model the behavior we expect from others, and have fun.

Through frequent meetings and conference calls, the BCT has worked together as a team to discuss and resolve issues related to environmental restoration activities at MCAS El Toro with a focus on expediting reuse while protecting human health and the environment. One manifestation of this partnering is involvement of the regulatory agencies during preproposal meetings for new environmental work in order to gain concurrence from the entire BCT at the earliest possible phases of investigation and cleanup.

6.24 UPDATING THE EBS AND NATURAL/CULTURAL RESOURCES DOCUMENTATION

Site-specific FOST/FOSL documents will serve as information sources for the summarization of information acquired since the preparation of the basewide EBS. The DON/BCT will evaluate the requirements for FOST/FOSL documents on a case-by-case basis.

Natural and cultural resources documentation provided in this BCP will be updated as additional information becomes available.

6.25 IMPLEMENTING THE POLICY FOR ON-SITE DECISION MAKING

On-site decision-making authority during future field efforts at MCAS El Toro will be an essential part of expediting the investigation and cleanup effort at sites. While field efforts are in progress, the BCT will periodically check that on-site decision making is occurring.

6.26 AIR EMISSION CREDITS

Air emission credits are considered valuable assets that will require careful consideration for redistribution. To date, the DON has not finalized a strategy for the redistribution of air emission credits. It is expected that air emission credits will become available as the squadrons at the MCAS El Toro migrate and the mission begins to close. These credits may potentially be used at other federal facilities or by the community.

6.27 CARETAKING RESPONSIBILITIES

MCAS El Toro is scheduled to close in July 1999. The caretaker of the installation, during the period from when the Station closes through the final transfer of property, has not been identified. It is expected that the caretaker will be responsible for various duties, including coordination with regulatory agencies, reuse entities, public

groups, and remediation contractors. In addition, the caretaker will be responsible for performing other tasks in support of the mission transfer, such as personnel matters, public relations, and compliance activities.

Headquarters Marine Corps is currently evaluating various alternatives for caretaking responsibilities. Once the caretaking responsibilities have been identified, the BCT will meet with the designated representatives to coordinate closure and transfer activities.

Table 6-1
Future Land Use Risk Assessment for Development of Remedy Selections
(Sheet 1 of 5)

Site ID (and Operable Unit)	Risks	CONTAMINANTS[1]			Current Use	Adjacent Use	Anticipated Use
		Groundwater[2]	Subsurface Soil[3]	Surface/Sediment[4]			
1 (OU-3B)	Refer to Appendix E	VOCs, SVOCs, Explosives, Metals, GCP, Gross alpha/beta.	VOCs, furans/ dioxins, Explosives, Metals, GCP.	VOCs, furans/ dioxins, Explosives, TFH, TRPH, Metals, GCP.	EOD Range	Open space	TBD
2 (OU-2B)	Refer to Appendix E	VOCs, SVOCs, pesticides, Metals, inorganics.	VOCs, SVOCs, Herbicides, Metals, Gross alpha/beta.	VOCs, SVOCs, Pesticides, PCBs, Herbicides.	Inactive landfill	Agricultural, open space	TBD
3 (OU-2C)	Refer to Appendix E	VOCs, SVOCs, Metals, inorganics.	VOCs, SVOCs, Pesticides, Herbicides, dioxins/furans, TFH, TRPH, Metals, Gross alpha/beta.	VOCs, SVOCs, Pesticides, Herbicides, dioxins, TFH, TRPH, Motor Oil, Metals, Gross alpha/beta.	Inactive landfill	Maintenance, supply/storage, housing, fuel storage	TBD
4 (OU-3A)	Refer to Appendix E	VOCs, TFH, Metals, GCP.	VOCs, SVOCs, TFH, TRPH, Metals.	VOCs, SVOCs, Pesticides, PCBs, TFH, Metals.	Open area	Engine test cell	TBD
5 (OU-2C)	Refer to Appendix E	VOCs, Metals, inorganics.	VOCs, SVOCs, Pesticides, Herbicides, furans, TFH, TRPH, Metals, Gross alpha/beta.	VOCs, Pesticides, PCBs, Herbicides.	Inactive landfill, RI-derived waste storage area	Golf course, agriculture, airfield operations	TBD
6 (OU-3A)	Refer to Appendix E	VOCs, SVOCs, Metals.	VOCs, SVOCs, TFH, TRPH, Metals.	VOCs, SVOCs, TFH, TRPH, Metals.	Open space, airfield operations	Airfield operations, agriculture	TBD
7 (OU-3B)	Refer to Appendix E	VOCs, SVOCs, TFH, Metals, Gross alpha/beta.	VOCs, SVOCs, TFH, TRPH, Metals.	VOCs, SVOCs, TFH, TRPH, Pesticides, PCBs, Metals.	Open space, airfield operations	Airfield operations, supply/storage, maintenance	TBD

Table 6-1
Future Land Use Risk Assessment for Development of Remedy Selections
(Sheet 2 of 5)

Site ID	Risks	CONTAMINANTS[1]			Current Use	Adjacent Use	Anticipated Use
		Groundwater	Subsurface Soil	Surface/Sediment[2]			
8 (OU-3A)	Refer to Appendix E	VOCs, Metals.	VOCs, SVOCs, Pesticides, PCBs, TFH, TRPH, Metals.	VOCs, SVOCs, Pesticides, PCBs, TFH, TRPH, Metals.	DRMO Storage Yard	Supply/storage, maintenance	TBD
9 (OU-3A)	Refer to Appendix E	VOCs, TFH, TRPH, Metals, Gross alpha/beta.	VOCs, SVOCs, TFH, TRPH, Metals.	VOCs, SVOCs, TFH, TRPH, Metals.	Open space	Airfield operations, supply storage	TBD
10 (OU-3A)	Refer to Appendix E	VOCs, SVOCs, TFH, TRPH, Metals.	VOCs, SVOCs, TFH, TRPH, Metals.	VOCs, SVOCs, TFH, TRPH, Metals.	Aircraft parking (tarmac)	Airfield operations, supply storage, maintenance	TBD
11 (OU-3A)	Refer to Appendix E	Not investigated	Not investigated	Pesticides, PCBs, TRPH.	Storage area	Supply/storage, maintenance, administrative support	TBD
12 (OU-3A)	Refer to Appendix E	VOCs, Metals.	VOCs, SVOCs, Pesticides, PCBs, herbicides, TFH, TRPH, Metals.	VOCs, SVOCs, Pesticides, PCBs, herbicides, TFH, TRPH, Metals.	Open space, contractor staging area	Airfield operations, supply/storage	TBD
13 (OU-3A)	Refer to Appendix E	VOCs, SVOCs, TFH, Metals, GCP.	VOCs, SVOCs, pesticides, PCBs, TFH, TRPH, Metals.	VOCs, SVOCs, TFH, TRPH, Metals.	Historic aircraft storage	Supply/storage, maintenance, fuel storage	TBD
14 (OU-3B)	Refer to Appendix E	VOCs, Metals, GCP.	VOCs, SVOCs, TRPH, Metals.	VOCs, SVOCs, TFH, TRPH, Metals.	Open area	Supply/storage, maintenance, community support	TBD
15 (OU-3A) Unit 2 only [5]	Refer to Appendix E	VOCs, SVOCs, TFH, Metals.	VOCs, SVOCs, TFH, TRPH, Metals.	VOCs, SVOCs, TFH, TRPH, Metals.	Storage area	Administrative support, supply/storage	TBD

Table 6-1
Future Land Use Risk Assessment for Development of Remedy Selections
(Sheet 3 of 5)

Site ID	Risks	CONTAMINANTS[1]			Current Use	Adjacent Use	Anticipated Use
		Groundwater	Subsurface Soil	Surface/Sediment[2]			
16 (OU-3A)	Refer to Appendix E	TFH, Metals.	VOCs, SVOCs, TFH, TRPH, Metals.	VOCs, SVOCs, TFH, TRPH, Metals.	Open space	Airfield operations, crash crew training	TBD
17 (OU-2B)	Refer to Appendix E	VOCs, SVOCs, Metals, inorganics.	VOCs, SVOCs, Herbicides, furans, TFH, TRPH, Metals, Gross alpha/beta.	VOCs, SVOCs, Pesticides, PCBs, Herbicides, Metals.	Inactive landfill	Agricultural, open space, housing	TBD
18 (OU-1)	Refer to Appendix E	VOCs	---	---	Not applicable	Not applicable	TBD
19 (OU-3A) Unit 3 only [5,6]	Refer to Appendix E	VOCs, Metals.	VOCs, SVOCs, TFH, TRPH, Metals.	VOCs, SVOCs, TFH, TRPH, Metals.	Unused	Airfield operations	TBD
20 (OU-3A) Units 1 and 4 only [5]	Refer to Appendix E	VOCs, SVOCs, Metals.	VOCs, SVOCs, TFH, TRPH, Metals.	VOCs, SVOCs, Pesticides, PCBs, TFH, TRPH, Metals.	Hobby shop	Community support	TBD
21 (OU-3A)	Refer to Appendix E	VOCs, Metals.	VOCs, SVOCs, Pesticides, PCBs, TFH, TRPH, Metals.	VOCs, SVOCs, Pesticides, PCBs, Herbicides, TFH, TRPH, Metals.	Material storage	Supply/storage	TBD
22 (OU-3A)	Refer to Appendix E	VOCs, Metals.	VOCs, Pesticides, TFH, TRPH, Metals.	VOCs, SVOCs, TFH, TRPH, Metals.	Aircraft parking (tarmac/gravel)	Airfield operations, supply/storage, maintenance	TBD

Table 6-1
Future Land Use Risk Assessment for Development of Remedy Selections
(Sheet 4 of 5)

Site ID	Risks	CONTAMINANTS[1]			Current Use	Adjacent Use	Anticipated Use
		Groundwater	Subsurface Soil	Surface/Sediment[2]			
24 (OU-2A)	Refer to Appendix E	VOCs	VOCs	VOCs	Airfield operations, supply/storage, maintenance, administrative support	Airfield operations, supply/storage, maintenance, administrative support	TBD
25 (OU-2A)	Refer to Appendix E	Surface/Storm Water: VOCs, SVOCs, Pesticides, PCBs, TFH, Metals, GCP.	VOCs, SVOCs, Pesticides, PCBs, TFH, TRPH, Metals.	VOCs, SVOCs, Pesticides, PCBs, Herbicides, TFH, TRPH, Metals.	Major surface water drainages	Various	TBD

Sources:
BNI 1995. Final Phase II RI/FS Work Plan.
BNI 1996b. Draft Final Phase II RI Report, OU-2A, Site 24.
BNI 1996c. Draft Final Phase II RI Report, OU-2B, Site 2.
BNI 1996d. Draft Final Phase II RI Report, OU-2B, Site 17.
BNI 1996e. Draft Final Phase II RI Report, OU-2C, Site 3.
BNI 1996f. Draft Final Phase II RI Report, OU-2C, Site 5.

Notes: [1] Contaminants of potential concern (COPCs) for all sites were initially identified in the Final Phase II RI/FS Work Plan. COPCs for OU-1, OU-2A (Site 24), -2B, and -2C sites which are listed in this table are based on the risk assessments from the respective RI reports.
[2] Groundwater COPCs are based on on-site and downgradient groundwater samples.
[3] Subsurface soil COPCs are defined as greater than 10 feet bgs for all sites except OU-2B and -2C (landfill sites 2, 3, 5, and 17). Contaminants listed for these landfill sites represent all detections during the Phase II RI. However, the RI risk assessments performed for OU-2B and -2C sites did not include these detected chemicals in the COPC list, since it was determined that no exposure route is complete for chemicals detected in soils deeper than 2 feet bgs.
[4] Surface/sediment COPCs include shallow soil samples (less than 10 feet bgs for OU-1, OU-2A, OU-3A, and OU-3B; less than 2 feet bgs for OU-2B and OU-2C, as in note 3 above) and sediment samples as defined in the Final Phase II RI/FS Work Plan.
[5] one or more units have been removed from the IR Program via CERCLA petroleum exclusion (Site 15: Unit 1, Site 19: Units 1 and 4, Site 20: Units 2 and 3).
[6] Unit 2 (of Site 19) is being addressed separately under an Action Memorandum, completed October 1996.

Table 6-1
Future Land Use Risk Assessment for Development of Remedy Selections
(Sheet 5 of 5)

Abbreviations:

bgs – below ground surface
COPCs – contaminants of potential concern
DRMO – defense reutilization management office
EOD – explosive ordnance disposal
GCP – general chemistry parameters
OU – operable unit
PCB – polychlorinated biphenyl
RI – Remedial Investigation
SVOC – semivolatile organic compound
TBD – to be determined
TFH – total fuel hydrocarbons
TRPH – total recoverable petroleum hydrocarbons
VOC – volatile organic compound

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Table 6-2
Human Health Standards
(Sheet 1 of 1)

Contaminant	Concentration Level

Human health standards for individual IRP sites will be determined during the Phase II RI, and will be presented in the respective RI reports.

In general, human health standards will be based on the U.S. EPA Risk Assessment Guidance for Superfund (Part A, 1989 and Part B, 1991) and/or U.S. EPA Region IX Preliminary Remediation Goals (PRGs) (1995).

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Table 6-3
Surface Water Standards[1]
(Sheet 1 of 1)

Constituent/Parameter	Concentration Limit (μg/L)/Criteria

Notes: [1]Background levels in surface waters have not been established for MCAS El Toro. Applicable standards for IRP sites will be based on guidance from the following sources and criteria:

United States Environmental Protection Agency. 1992. Quality Criteria for Water.
California State Water Resources Control Board. 1992. Amendments of the Water Quality Control Plan for Inland Surface Waters of California, Functional Equivalent Document. November.

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Chapter 7

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APPENDIX A

FISCAL YEAR FUNDING REQUIREMENTS

Appendix A
Fiscal Year Funding Requirements

Costs associated with implementation of programs for environmental restoration of MCAS El Toro are being developed by SWDIV. Tables (A-1 through A-4) summarizing these costs will be inserted to this appendix when available. Table A-5 summarizes historical expenditures by site and operable unit funds. Cost data will be provided for the Installation Restoration Program, compliance program, and natural/cultural resources activities. In addition, a tabulation of total costs associated with these programs will be provided.

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Table A-5
Historical Expenditures by Site by Operable Unit Funds
(Sheet 1 of 4)

OU	Site	IRP Phases	FY 1985 ($000)	FY 1986 ($000)	FY 1987 ($000)	FY 1988 ($000)	FY 1989 ($000)	FY 1990 ($000)	FY 1991 ($000)	FY 1992 ($000)	FY 1993 ($000)	FY 1994 ($000)	FY 1995 ($000)	FY 1996 ($000)	Total ($000)
OU-1	18	PA	3.7			1.4									5.1
		SI			846.1	465.0	400.1								1711.2
		RI/FS					1.1	102.4	43.0	976.0	2000.0	922.4	792.2	1341.5	6178.7
		RD									797.0	591.4			1388.4
		RA											1461.9	1811.3	3273.2
OU-2A	24	PA													
		SI													
		RI/FS										3201.8	376.6	700.6	4279.0
	25	PA													
		SI													
		RI/FS										3201.8		93.8	3295.6
OU-2B	2	PA	3.7			2.3									6.0
		SI				7.4	38.6								46.0
		RI/FS					1.1	12.3	27.0	857.0	98.2	1686.6	1420.7	35.2	4138.1
		IRA												8.9	8.9
	17	PA	3.7			1.4									5.1
		SI				7.4	38.6								46.0
		RI/FS					1.1	12.3	27.0	857.0	98.2	1686.6	17.0	59.7	2758.9

Table A-5
Historical Expenditures by Site by Operable Unit Funds
(Sheet 2 of 4)

OU	Site	IRP Phases	FY 1985 ($000)	FY 1986 ($000)	FY 1987 ($000)	FY 1988 ($000)	FY 1989 ($000)	FY 1990 ($000)	FY 1991 ($000)	FY 1992 ($000)	FY 1993 ($000)	FY 1994 ($000)	FY 1995 ($000)	FY 1996 ($000)	Total ($000)
OU-2C	3	PA	3.7			1.4									5.1
		SI				7.4	38.6								46.0
		RI/FS					1.1	12.3	27.0	857.0	98.2	1686.6	17.0	35.2	2734.4
	5	PA	3.7			1.4									5.1
		SI				7.4	38.6								46.0
		RI/FS					1.1	12.3	27.0	857.0	98.2	1686.6	17.0	35.2	2734.4
OU-3A	4	PA				1.4									1.4
		SI				6.3									6.3
		RI/FS					1.1	12.2	27.0	857.0	98.2	76.6	376.6	35.2	1483.9
		RA											126.6		126.6
	6	PA	3.4			1.4									4.8
		RI/FS					1.1	12.2	27.0	857.0	98.2	76.6	376.6	35.2	1483.9
	8	PA				1.4									1.4
		RI/FS					1.1	12.2	27.0	857.0	98.2	88.1	376.6	35.2	1460.2
	9	PA	3.7			1.4									5.1
		RI/FS					1.1	12.2	27.0	857.0	98.2	88.1	376.6	35.2	1483.9
	10	PA	3.4			1.4									4.8
		SI													
		RI/FS					1.1	12.3	27.0	857.0	98.2	76.6	376.6	35.2	1483.9

Table A-5
Historical Expenditures by Site by Operable Unit Funds
(Sheet 3 of 4)

OU	Site	IRP Phases	FY 1985 ($000)	FY 1986 ($000)	FY 1987 ($000)	FY 1988 ($000)	FY 1989 ($000)	FY 1990 ($000)	FY 1991 ($000)	FY 1992 ($000)	FY 1993 ($000)	FY 1994 ($000)	FY 1995 ($000)	FY 1996 ($000)	Total ($000)
OU-3A (cont.)	11	PA	3.7			1.4									5.1
		RI/FS					1.1	12.2	27.0	857.0	98.2	76.6	376.6	35.2	1483.9
		RA											126.6		126.6
	12	PA				1.4									1.4
		RI/FS					1.1	12.2	27.0	857.0	98.2	76.6	376.6	35.2	1483.9
	14	PA	3.7			1.4									5.1
		RI/FS					1.1	12.2	27.0	857.0	98.2	76.6	376.7	35.2	1483.9
		RA											126.6		126.6
	15	PA	3.7			1.4									5.1
		RI/FS					1.1	12.2	27.0	857.0	98.2	76.6	376.6	35.2	1483.9
	16	PA				1.4									1.4
		RI/FS					1.1	12.2	27.0	857.0	98.2	76.6	376.6	35.2	1483.9
	19	PA				1.4									1.4
		SI				16.4									16.4
		RI/FS					1.1	13.0	27.0	857.0	98.2	76.6	376.6		1449.5
		IRA												290.9	290.9
		RA											126.6		126.6

Table A-5
Historical Expenditures by Site by Operable Unit Funds
(Sheet 4 of 4)

OU	Site	IRP Phases	FY 1985 ($000)	FY 1986 ($000)	FY 1987 ($000)	FY 1988 ($000)	FY 1989 ($000)	FY 1990 ($000)	FY 1991 ($000)	FY 1992 ($000)	FY 1993 ($000)	FY 1994 ($000)	FY 1995 ($000)	FY 1996 ($000)	Total ($000)
OU-3A (cont.)	20	RI/FS						13.0	27.0	857.0	98.2	76.6	376.6	35.2	1483.9
		RA											126.6		126.6
	21	RI/FS						13.0	27.0	857.0	98.2	76.6	376.6	35.2	1483.9
	22	RI/FS						13.0	27.0	857.0	98.2	76.6	376.6	35.2	1483.9
	23	SI							1.2	32.0	20.0				53.2
OU-3B	1	PA	3.7			1.4									5.1
		RI/FS					1.1	12.2	27.0	857.0	98.2	76.6	376.6	35.2	
	7	PA	3.4			1.4									4.8
		RI/FS					1.1	12.2	27.0	857.0	98.2	76.6	376.6	35.2	1483.9
		RA											126.6		
	13	PA	3.4			1.4									4.8
		RI/FS					1.1	12.2	27.0	857.0	98.2	76.6	376.7	35.2	1483.9
		RA											126.6		126.6

Abbreviations:

IRP – Installation Restoration Program
OU – operable unit
PA – Preliminary Assessment
RA - Remedial Action
RD – Remedial Design
RI/FS – Remedial Investigation/Feasibility Study
SI – Site Investigation
IRA - Interim Remedial Action

OU	Site	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
OU-1		PA		SI	HRS SI	SI RI	RI	RI	RI	RI FS	RI FS	RI FS	FS
	18												
OU-2A											RI	RI	RI FS
	24												
											RI	RI	RI FS
	25												
OU-2B		PA			HRS SI	SI RI	RI	RI	RI	RI	RI	RI	RI FS
	2												
		PA			HRS SI	SI RI	RI	RI	RI	RI	RI	RI	RI FS
	17												
		PA			HRS SI	SI RI	RI	RI	RI	RI	RI	RI	RI FS
	3												
		PA			HRS SI	RI	RI	RI	RI	RI	RI	RI	RI FS
	5												
OU-3A					HRS SI	RI	RI	RI	RI	RI	RI	RI	RI
	4												
		PA			HRS	RI	RI	RI	RI	RI	RI	RI	RI
	6												
					HRS	RI	RI	RI	RI	RI	RI	RI	RI
	8												
		PA			HRS	RI	RI	RI	RI	RI	RI	RI	RI
	9												
		PA			HRS	RI	RI	RI	RI	RI	RI	RI	RI
	10												

(figure continues)

LEGEND:

PA	Preliminary Assessment
SI	Site Inspection
RI	Remedial Investigation
FS	Feasibility Study
RA	Remedial Action
HRS	Hazard Ranking System Scoring

Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

Past Restoration Schedule

File No.		Date
103figa1.ppt	**Figure A-1**	3/1/97

OU	Sites	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
OU-3A (cont'd)	11	PA			HRS	RI	RI	RI	RI	RI	RI	RI	RI
	12				HRS	RI	RI	RI	RI	RI	RI	RI	RI
	13	PA			HRS	RI	RI	RI	RI	RI	RI	RI	RI
	15	PA			HRS	RI	RI	RI	RI	RI	RI	RI	RI
	16				HRS	RI	RI	RI	RI	RI	RI	RI	RI
	19				HRS SI	RI	RI	RI	RI	RI	RI	RI	RI
	20						RI	RI	RI	RI	RI	RI	RI
	21						RI	RI	RI	RI	RI	RI	RI
	22						RI	RI	RI	RI	RI	RI	RI
OU-3B	1	PA			HRS	RI	RI	RI	RI	RI	RI	RI	RI
	7	PA			HRS	RI	RI	RI	RI	RI	RI	RI	RI
	14	PA			HRS	RI	RI	RI	RI	RI	RI	RI	RI

LEGEND:

PA	Preliminary Assessment
SI	Site Inspection
RI	Remedial Investigation
FS	Feasibility Study
RA	Remedial Action
HRS	Hazard Ranking System Scoring

Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

Past Restoration Schedule

File No.		Date
103figa1.ppt	**Figure A-1 (continued)**	3/1/97

APPENDIX B

INSTALLATION ENVIRONMENTAL RESTORATION DOCUMENTS SUMMARY TABLES

Appendix B

Installation Environmental Restoration Documents Summary Tables

This appendix provides listings of previous environmental restoration program deliverables by program and by site. Table B-1 presents project deliverables and Table B-2 presents site deliverables. Table B-3 summarizes the status of technical documents and data loading. There is currently no information available for Table B-3.

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Table B-1
Project Deliverables
(Sheet 1 of 8)

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
1986	PA	Initial Assessment Study for MCAS El Toro, CA	1	1 through 17	May 1986 - Brown and Caldwell Engineers
1988	SI	Site Inspection Plan of Action, Installation Restoration Program, MCAS Tustin and El Toro, CA	2	1 through 19	August 1988 - James M. Montgomery Engineers
1989	SI	Perimeter Investigation Interim Report, MCAS El Toro, Installation Restoration Program	3	18	April 1989 - James M. Montgomery Engineers
1990	SI	Solid Waste Air Quality Assessment Test Report, MCAS El Toro, CA, Communications Station Landfill Inactive Disposal Site	4	17	October 1990a - James M. Montgomery Engineers
1990	SI	Solid Waste Air Quality Assessment Test Report, MCAS El Toro, CA, Perimeter Road Landfill Inactive Disposal Site	5	5	October 1990b - James M. Montgomery Engineers
1990	SI	Solid Waste Air Quality Assessment Test Report, MCAS El Toro, CA, Magazine Road Landfill Inactive Disposal Site	6	2	October 1990c - James M. Montgomery Engineers
1990	SI	Solid Waste Air Quality Assessment Test Report, MCAS El Toro, CA, Original Landfill Inactive Disposal Site	7	3	October 1990d - James M. Montgomery Engineers
1991	FS	Groundwater Model Simulations to Investigate Well Field Scenarios for the Irvine Desalter Project	8	18	April 1991 - Orange County Water District
1993	PA/SI	Final RCRA Facility Assessment Report, MCAS El Toro, CA	9	3, 12[1]	July 1993 - Jacobs Engineering Group Inc. (CLEAN I)

Table B-1
Project Deliverables
(Sheet 2 of 8)

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
1993	RI	MCAS El Toro Phase I RI Technical Memorandum	10	1 through 17, 19 through 22	May 1993 - Jacobs Engineering Group Inc. (CLEAN I)
1994	RI	MCAS El Toro Soil Gas Survey Technical Memorandum Sites 24 and 25	11	24, 25	October 1994 - Jacobs Engineering Group Inc. (CLEAN I)
1995	RI	Submittal of Final Health and Safety Plan Supplement Phase II RI/FS and Final Health and Safety Plan Comments for MCAS El Toro, CA	12	1 through 17, 19 through 22, 24, 25	March 1995 - BNI (CLEAN II)
1995	RI	Remedial Investigation Work Plan	13		June 1995 - BNI (CLEAN II)
1995	RI	Final Data Management Plan for MCAS El Toro, CA	14	1 through 17, 19 through 22, 24, 25	April 1995 - BNI (CLEAN II)
1995	RI	Final Site Assessment Report, Former Underground Storage Tank, Site 66A, MCAS El Toro, CA	15	various	July 1995 - BNI (CLEAN II)
1995	RI	Final Investigation-Derived Waste Management Plan, MCAS El Toro, CA	16	1 through 17, 19 through 22, 24, 25	July 1995 - BNI (CLEAN II)
1995	RI	Final Quality Assurance Project, Phase II Remediation Investigation/Feasibility Study, MCAS El Toro, CA	17	1 through 17, 19 through 22, 24, 25	July 1995 - BNI (CLEAN II)
1995	RI	Final Work Plan, Phase II RI/FS, MCAS El Toro, CA	18	1 through 17, 19 through 22, 24, 25	August 1995 - BNI (CLEAN II)

Table B-1
Project Deliverables
(Sheet 3 of 8)

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
1995	RI	Final Field Sampling Plan, Phase II RI/FS, MCAS El Toro, CA	19	1 through 17, 19 through 22, 24, 25	August 1995 - BNI (CLEAN II)
1995	RI	Final Work Plan/Field Sampling Plan Underground Storage Tank Site Assessment	20	various	May 1995 - BNI (CLEAN II)
1995	RI	Final Addendum to RCRA Facility Assessment (RFA) Work Plan, MCAS El Toro, CA.	21	various	May 1995 - BNI (CLEAN II)
1995	RI	Final Site Assessment Report, Former Underground Storage Tank, Site 66A, MCAS El Toro, CA	22	various	July 1995 - BNI (CLEAN II)
1995	RI	Final Risk Assessment Work Plan for CTO-0059	23	1 through 17, 19 through 22, 24, 25	September 1995 - BNI (CLEAN II)
1995	RI	Draft Final EE/CA[2] for Site 4 - Ferrocene Spill Area, MCAS El Toro	24	4	September 1995 - BNI (CLEAN II)
1995	RI	Draft Final EE/CA for Site 11 - Former Transformer Storage Area, MCAS El Toro	25	11	September 1995 - BNI (CLEAN II)
1995	RI	Draft Final EE/CA for Site 13 - Former Oil Change Area, MCAS El Toro	26	13	September 1995 - BNI (CLEAN II)
1995	RI	Draft Final EE/CA for Site 14 - Battery Acid Disposal Area, MCAS El Toro	27	14	September 1995 - BNI (CLEAN II)

Table B-1
Project Deliverables
(Sheet 4 of 8)

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
1995	RI	Draft Final EE/CA for Unit 2 of Site 19 - Aircraft Expeditionary Refueling Site, MCAS El Toro	28	19	September 1995 - BNI (CLEAN II)
1995	RI	Draft Final EE/CA for Site 20 - Hobby Shop, MCAS El Toro	29	20	September 1995 - BNI (CLEAN II)
1995	RI	Draft[3] Site Assessment Report, Former Underground Storage Tank, Site 66A, MCAS El Toro, CA	30	various	September 1995 - BNI (CLEAN II) BNI (CLEAN II)
1995	RI	Draft Site Assessment Report, Former Underground Storage Tank, Site 94, MCAS El Toro, CA	31	various	September 1995 - BNI (CLEAN II)
1995	RI	Draftk Site Assessment Report, Former Underground Storage Tank, Site 372B, MCAS El Toro, CA	32	various	September 1995 - BNI (CLEAN II)
1995	RI	Draft Site Assessment Report, Former Underground Storage Tank, Site 443, MCAS El Toro, CA	33	various	September 1995 - BNI (CLEAN II)
1995	RI	Draft Site Assessment Report, Former Underground Storage Tank, Site 126, MCAS El Toro, CA	34	various	November 1995 - BNI (CLEAN II)
1995	RI	Draft Site Assessment Report, Former Underground Storage Tank, Site 364A, MCAS El Toro, CA	35	various	November 1995 - BNI (CLEAN II)
1995	RI	Draft Site Assessment Report, Former Underground Storage Tank, Site 366, MCAS El Toro, CA	36	various	November 1995 - BNI (CLEAN II)'

Table B-1
Project Deliverables
(Sheet 5 of 8)

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
	RI	Draft Site Assessment Report, Former UST, Site 367, MCAS El Toro, CA	37	various	November 1995 - BNI (CLEAN II)
1995	RI	Final Work Plan, Anthropogenic PAH Reference level Study, MCAS El Toro, CA.	38		November 1995 - BNI (CLEAN II)
1995	RI	Draft Site Assessment Report, Former Underground Storage Tank, Site 451, MCAS El Toro, CA	39	various	November 1995 - BNI (CLEAN II)
1995	RI	Draft Site Assessment Report, Former Underground Storage Tank, Site 75B, MCAS El Toro, CA	40	various	December 1995 - BNI (CLEAN II)
1995	RI	Draft Site Assessment Report, Former Underground Storage Tank, Sites 553 and 554, MCAS El Toro, CA	41	various	December 1995 - BNI (CLEAN II)
1995	RI	Draft Final Updated Community Relations Plan	42	All	December 1995 - BNI (CLEAN II)
1995	RI	Final Addendum to the RCRA Facility Assessment, MCAS El Toro, CA	43	various	November 1995 - BNI (CLEAN II)
1995	RI	Final Work Plan Anthropogenic PAH Reference Level Study, MCAS El Toro, CA	44	various	November 1995 - BNI (CLEAN II)
1996	RI	Draft Phase II Remedial Investigation Report, Operable Unit 2A, Site 24, MCAS El Toro, CA.	45	24	February 1996 - BNI (CLEAN II)

Table B-1
Project Deliverables
(Sheet 6 of 8)

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
1996	RI	Groundwater Extraction and Injection Well Aquifer Pump Tests for Final RI/FS Work Plan, MCAS El Toro, CA.	46	24	February 1996 - BNI (CLEAN II)
1996		Base Realignment and Closure (BRAC) Clean Up Plan, MCAS El Toro, CA.	47	all	March 1996 - BNI (CLEAN II)
1996	RI	Draft Final Work Plan for Air Sparging Pilot Test, MCAS El Toro, CA.	48	24	March 1996 - BNI (CLEAN II)
1996	FS	Draft Vacuum Assisted and Conventional Groundwater Extraction Pilot Study, Site 2, Magazine Road landfill, MCAS El Toro, CA.	49	2	April 1996 - BNI (CLEAN II)
1996	RI	Final Addendum to the RCRA Facility Assessment (RFA), MCAS El Toro, CA.	50	various	May 1996 - BNI (CLEAN II)
1996	RI	Draft Final Phase II Remedial Investigation Report, Operable Unit 2B, Site 17, MCAS El Toro, CA.	51	17	June 1996 - BNI (CLEAN II)
1996	RI	Final Anthropogenic PAH Reference Study, MCAS El Toro, CA.	52	various	July 1996 - BNI (CLEAN II)
1996	FS	Draft Phase II Feasibility Study Report, Operable Unit 2A, Site 24, MCAS El Toro, CA.	53	24	July 1996 - BNI (CLEAN II)
1996	RI	Draft Final Phase II Remedial Investigation Report, Operable Unit 2C, Site 3, MCAS El Toro, CA.	54	3	August 1996 - BNI (CLEAN II)

Table B-1
Project Deliverables
(Sheet 7 of 8)

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
1996	RI	Draft Final Phase II Remedial Investigation Report, Operable Unit 2C, Site 5, MCAS El Toro, CA.	55	5	August 1996 - BNI (CLEAN II)
1996	RI	Draft Final Phase II Remedial Investigation Report, Operable Unit 2B, Site 2, MCAS El Toro, CA.	56	2	August 1996 - BNI (CLEAN II)
1996	FS	Draft Phase II Feasibility Study Report, Site 2, MCAS El Toro, CA.	57	2	August 1996 - BNI (CLEAN II)
1996	FS	Draft Phase II Feasibility Study Report, Site 2, MCAS El Toro, CA.	58	5	September 1996 - BNI (CLEAN II)
1996	FS	Draft Phase II Feasibility Study Report, Site 2, MCAS El Toro, CA.	59	3	September 1996 - BNI (CLEAN II)
1996	IRP	Final Action Memorandum, Time-Critical Removal Actions at the MCAS El Toro, CA. IRP Sites 2 and 17	60	2 and 17	October 1996 - SWDIV
1996	RI\FS	Technical Memorandum, Continuation of CLEAN II Site 24 Soil Vapor Extraction Pilot Test, MCAS El Toro, CA.	61	24	October 1996 - OHM (RAC)
1996	FS	Air Sparging Pilot Test report, Site 24, MCAS El Toro, CA.	62	24	November 1996 - BNI (CLEAN II)
1996	RI	Draft Construction Work Plan, Non-Time Critical Removal Action for Unit 2 of Site 19, Aircraft Expeditionary Refueling Site, MCAS El Toro, CA.	63	19	November 1996 - OHM (RAC)

Table B-1
Project Deliverables
(Sheet 8 of 8)

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
1997	FS	Draft Final Phase II Feasibility Study Report, Site 17, MCAS El Toro, CA.	64	17	January 1997 - BNI (CLEAN II)
1997	FS	Draft Final Phase II Feasibility Study Report, Site 2, MCAS El Toro, CA.	65	2	January 1997 - BNI (CLEAN II)
1997	RI	Draft Phase II Remedial Investigation Report, Site 25, MCAS El Toro, CA.	66	25	January 1997 - BNI (CLEAN II)

Notes:
[1] three solid waste management units/areas of concern (SWMUs/AOCs) were added to the Installation Restoration Program based on the RCRA Facility Assessment sampling results: SWMUs/AOCs 194 (Former Incinerator) and 300 (Solvent Spill Area) were included in Site 3; SWMU/AOC 90 (Former Sewage Treatment Plant) was included in Site 12 (refer to Draft Phase II RI Work Plan) (Jacobs Engineering 1993b)
[2] draft final EE/CAs may be accepted as final documents pending approval from the Department of the Navy (DON) and agencies
[3] draft Site Assessment Reports for former underground storage tanks have been accepted as final documents from the DON and agencies

Abbreviations:
CLEAN – Comprehensive Long-Term Environmental Action Navy
FS – Feasibility Study
IRP - Installation Restoration Program
PA – Preliminary Assessment
RAC - Remedial Action Contract
RCRA – Resource Conservation and Recovery Act
RI – Remedial Investigation
SI – Site Investigation

Table B-2
Site Deliverables[1]
(Sheet 1 of 1)

Site No.	PA/SI	RI/FS	Close Out	IRA	LTM	NFRAP
1	1, 2	10, 12, 13, 15, 16, 17, 18, 21, 39, 47				
2	1, 2, 6	10, 12, 13, 15, 16, 17, 18, 21, 39, 47, 49, 56, 57, 60, 65				
3	1, 2, 7, 9	10, 12, 13, 15, 16, 17, 18, 21, 39, 47, 54, 59				
4	1, 2	10, 12, 13, 15, 16, 17, 18, 21, 22, 39, 47,				
5	1, 2, 5	10, 12, 13, 15, 16, 17, 18, 21, 39, 47, 55, 58				
6	1, 2	10, 12, 13, 15, 16, 17, 18, 21, 39, 47				
7	1, 2	10, 12, 13, 15, 16, 17, 18, 21, 39, 47				
8	1, 2	10, 12, 13, 15, 16, 17, 18, 21, 39, 47				
9	1, 2	10, 12, 13, 15, 16, 17, 18, 21, 39, 47				
10	1, 2	10, 12, 13, 15, 16, 17, 18, 21, 39, 47				
11	1, 2	10, 12, 13, 15, 16, 17, 18, 21, 23, 39, 47				
12	1, 2, 9	10, 12, 13, 15, 16, 17, 18, 21, 39, 47				
13	1, 2	10, 12, 13, 15, 16, 17, 18, 21, 24, 39, 47				
14	1, 2	10, 12, 13, 15, 16, 17, 18, 21, 25, 39, 47				
15	1, 2	10, 12, 13, 15, 16, 17, 18, 21, 39, 47				
16	1, 2	10, 12, 13, 15, 16, 17, 18, 21, 39, 47				
17	1, 2, 4	10, 12, 13, 15, 16, 17, 18, 21, 39, 51, 60, 64				
18	2, 3	8, 47				
19	2	10, 12, 13, 15, 16, 17, 18, 21, 26, 39, 47, 63				
20	-[2]	10, 12, 13, 15, 16, 17, 18, 21, 27, 39, 47				
21	-[2]	10, 12, 13, 15, 16, 17, 18, 21, 39, 47				
22	-[2]	10, 12, 13, 15, 16, 17, 18, 21, 39, 47				
23	9					
24	-[2]	11, 12, 13, 15, 16, 17, 18, 21, 39, 45, 46, 47, 48, 53, 61, 62				
25	-[2]	10[3], 11, 12, 13, 15, 16, 17, 18, 21, 39, 47, 66				

Notes: [1] The deliverable numbers in this table correspond to the report numbers in Table B-1
[2] PA/SI was not performed for Sites 20, 21, 22, 24, and 25
[3] Site 25 (Station Washes) was evaluated as part of Site 18 (Regional Groundwater) Investigation in the Phase I RI (Jacobs 1993a)

Abbreviations: IRA – Interim Remedial Action
LTM – Long-term Monitoring
NFRAP – No Further Response Action Planned
PA/SI – Preliminary Assessment/Site Investigation
RI/FS – Remedial Investigation/Feasibility Study

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Table B-3
Technical Documents/Data Loading Status Summary
(Sheet 1 of 1)

Date	IRP Title	Site/ Operable Unit	Contractor	Service Center	Database Status[1]

Information will be input to Table B-3 when a master database for MCAS El Toro IRP information is established. This table will be regularly updated based on current data loading activities and status.

Notes: [1] At this time, the software to be used for the master database for MCAS El Toro is not known.

Abbreviations:
IRP – Installation Restoration Program

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APPENDIX C

DECISION DOCUMENT/RECORD OF DECISION SUMMARIES

Appendix C
Decision Document/Record of Decision Summaries

The purpose of Appendix C is to provide documentation of records of decision (RODs) for the Installation Restoration Program (IRP) sites at Marine Corps Air Station (MCAS) El Toro. As of 31 December 1996, no RODs have been prepared for the IRP sites at MCAS El Toro. As RODs are prepared for sites at the Station, documentation will be included in this appendix.

Chapter 5 presents the schedules for RODs for each of the IRP sites.

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APPENDIX D

NO FURTHER RESPONSE ACTION SUMMARIES

Appendix D

No Further Response Action Summaries

The purpose of Appendix D is to provide documentation of no further response action decisions for the Installation Restoration Program (IRP) sites at Marine Corps Air Station El Toro. As of 31 December 1996, one no further investigation determination was made for IRP Site 4 (Unit 1). As additional determinations are made for sites at the Station, documentation will be included in this appendix.

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APPENDIX E

CONCEPTUAL SITE MODELS

Appendix E
Conceptual Site Models

This appendix presents background values for soil at Marine Corps Air Station (MCAS) El Toro (Tables E-1, E-2a and E-2b), and current conceptual site models (Figures E-1a through E-23c) developed for the Installation Restoration Program (IRP) sites. Table E-1, which will present a summary of conceptual site model data, will be included as information becomes available. Tables E-2a and E-2b present results of background statistical analyses for metals and organics (pesticides), respectively, in soil at MCAS El Toro.

For each IRP site in this appendix, there are three figures which show the site plan, the conceptual site model, and exposure routes and receptors. Conceptual site models show relationships between potential sources, exposure pathways, and receptors. This appendix presents the conceptual site models for IRP sites 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 24 and 25. The conceptual site models for Sites 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 17, 19, 20, 21, 22, 24, and 25 represent the most recent and updated information as presented in the respective Phase II RI reports for each of these sites (OU-2 and OU-3 RI reports). The conceptual site models for Sites 1, 7, and 14 were developed for the Phase II RI/FS Work Plan for MCAS El Toro. As new information on these sites becomes available, these models may be replaced or supplemented.

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Table E-2a
Results of Background Statistical Analysis – Metals
(Sheet 1 of 1)

Parameter	Number of Stations	Mean [mg/kg]	95th Quantile [mg/kg]	95% Confidence Limit [mg/kg]
Aluminum	43	7437	14,800*	8610*
Antimony	36	1.43	3.06	1.3
Arsenic	43	1.92	6.86	1.94
Barium	43	82.51	173*	97.3*
Beryllium	43	0.29	0.669*	0.352*
Cadmium	43	2.6	2.35	0.879
Calcium	43	6700	46000	4600
Chromium	43	9.63	26.9*	12.7*
Cobalt	43	3.49	6.98*	4.04*
Copper	43	5.63	10.5*	6.41*
Iron	43	9246	18400	11100
Lead	43	5.22	15.1*	6.99*
Magnesium	43	3646	8370*	4430*
Manganese	43	179.1	291	207
Mercury	39	0.044	0.22	0.02
Nickel	43	5.56	15.3*	7.53*
Potassium	43	2514	4890*	2890*
Selenium	41	0.11	0.32	0.0827
Silver	42	0.25	0.539	0.225
Sodium	43	231.4	405*	258*
Thallium	43	0.17	0.42	0.192
Vanadium	43	27.77	71.8*	35.1*
Zinc	43	33.4	77.9*	41.2*

Abbreviations: mg/kg – milligrams per kilograms
* - Parametric values, all other values in this columb are Non-Parametric

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Table E-2b
Results of Background Statistical Analysis – Pesticides
(Sheet 1 of 1)

Parameter	Number of Stations	Mean (µg/kg)	95th ConfidenceLimit on 50% Quantile (µg/kg)	Background Level 95th Quantile (µg/kg)*
Pesticides				
Alpha-Chlordane	47	1.39	1.00	2.24
Gamma-Chlordane	47	1.43	1.01	2.7
4,4'-DDD	47	5.1	1.99	36.1
4,4'-DDE	47	16.5	1.99	145.0
4,4-DDT	47	22.27	1.99	236.0
Dieldrin	47	60.18	58.8	67.2
Endrin Aldehyde	47	5.17	1.96	19.9
Endrin Ketone	47	2.3	1.95	2.22
Endrin	47	2.79	1.95	2.22
Endosulfane Sulfate	47	2.01	1.94	3.1
Endosulfane I	47	---	---	0.179
Endosulfane II	47	2.12	1.95	2.22

Abbreviations:
µg/kg – micrograms per kilograms
* – All values in this column are Non-Parametric

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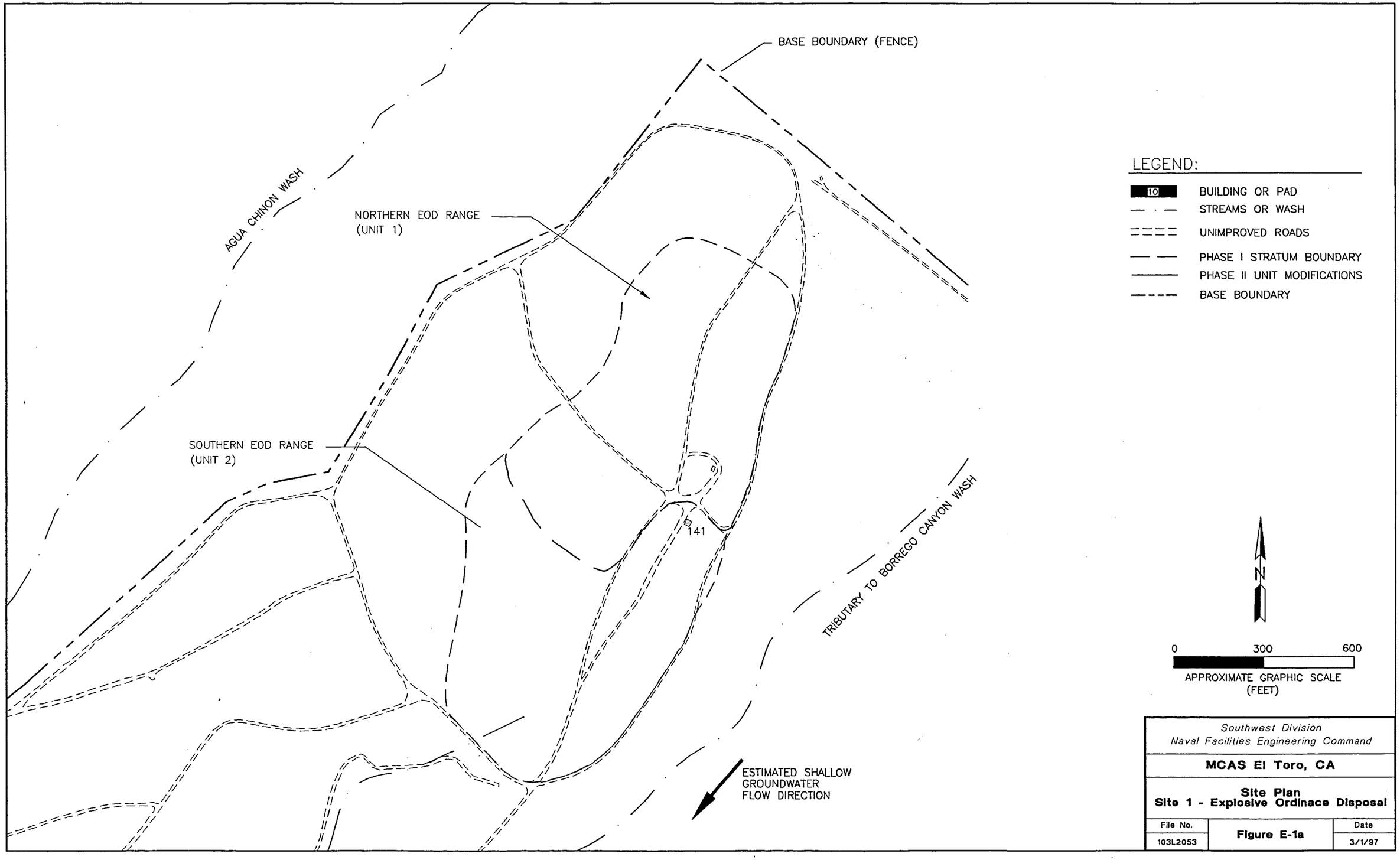

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Site Plan **Site 1 - Explosive Ordinace Disposal**		
File No. 103L2053	**Figure E-1a**	Date 3/1/97

PAGE NO. E-8

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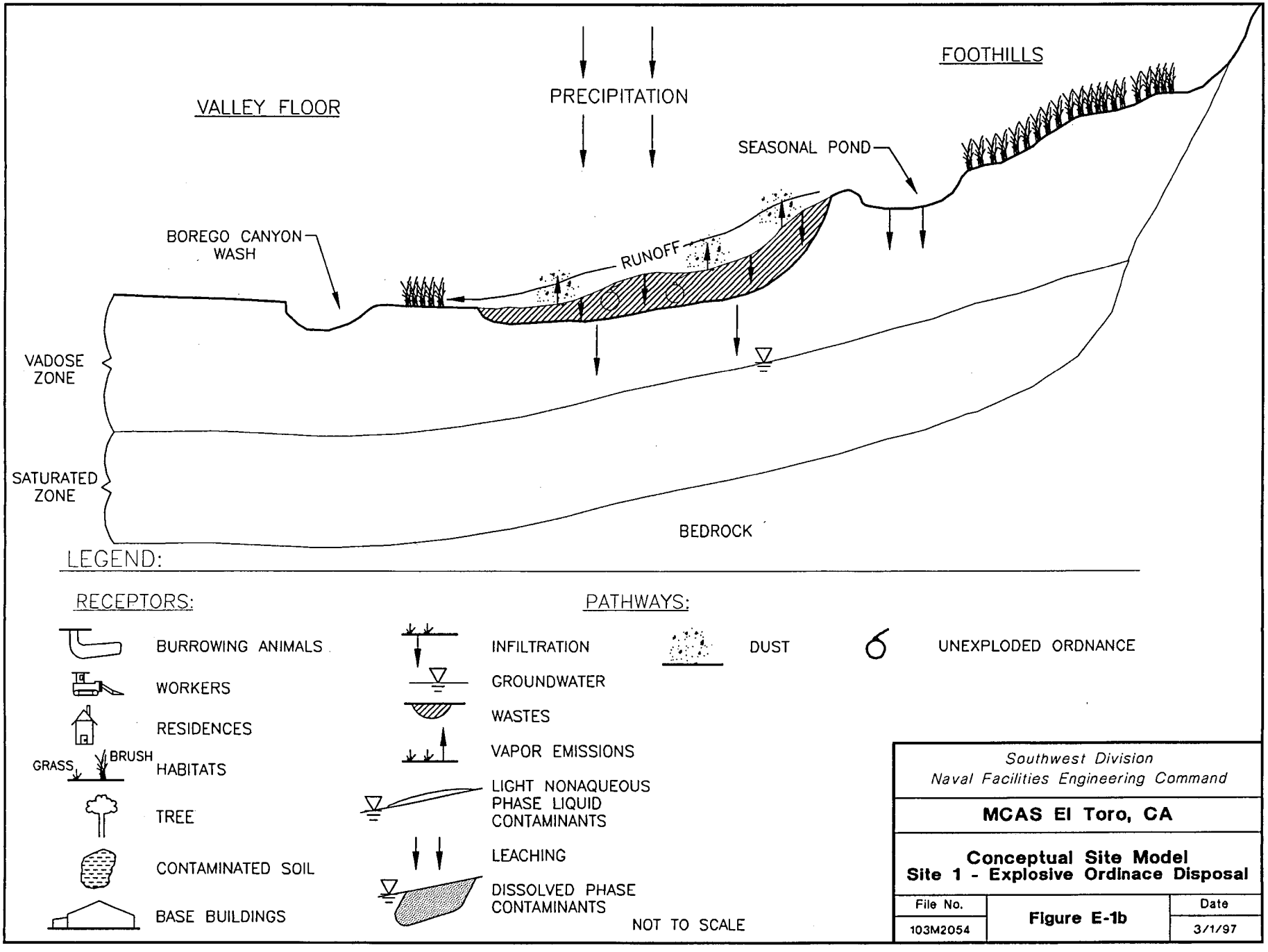

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Conceptual Site Model Site 1 - Explosive Ordinace Disposal		
File No.	**Figure E-1b**	Date
103M2054		3/1/97

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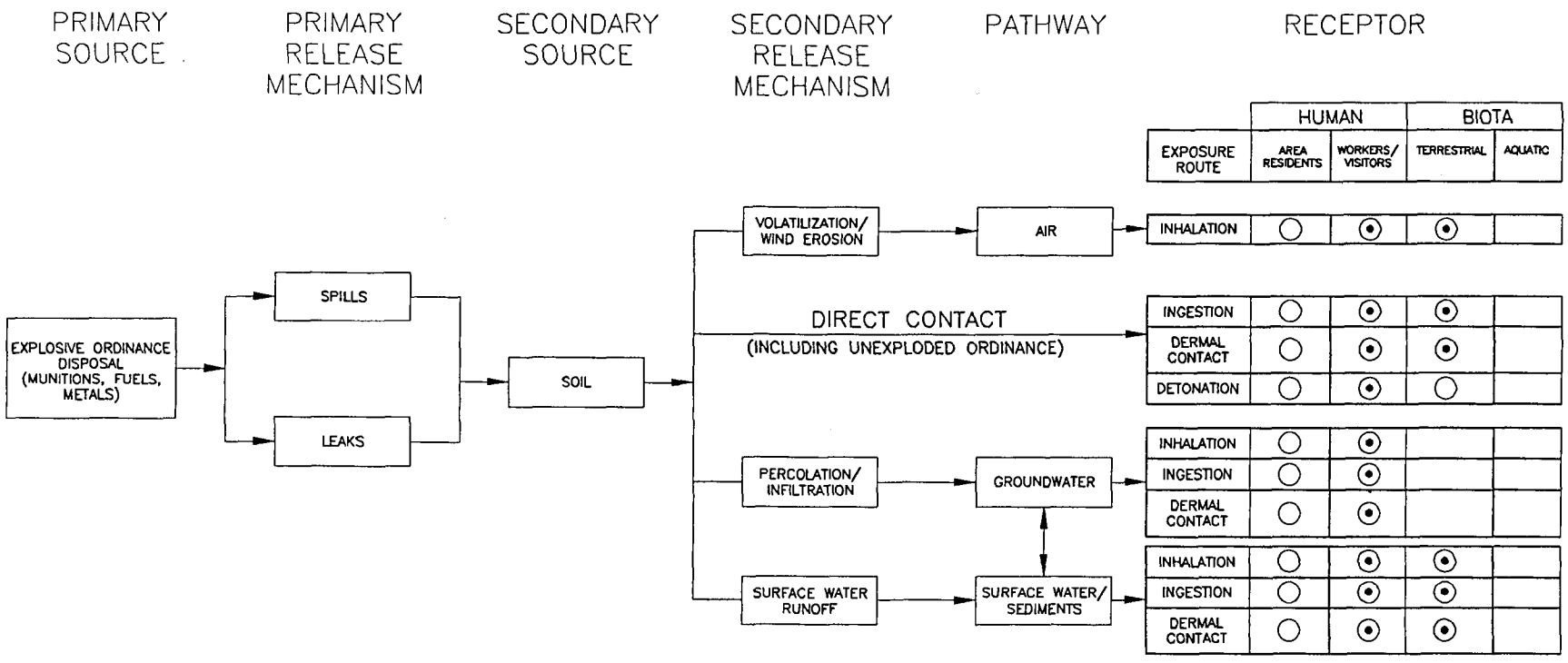

LEGEND:

● CURRENT POTENTIAL RECEPTOR

○ FUTURE POTENTIAL RECEPTOR

Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

Exposure Routes and Receptors
Site 1 - Explosive Ordinace Disposal

File No.		Date
103C2055	**Figure E-1c**	3/1/97

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MCAS EL TORO

SENSITIVE RECORD

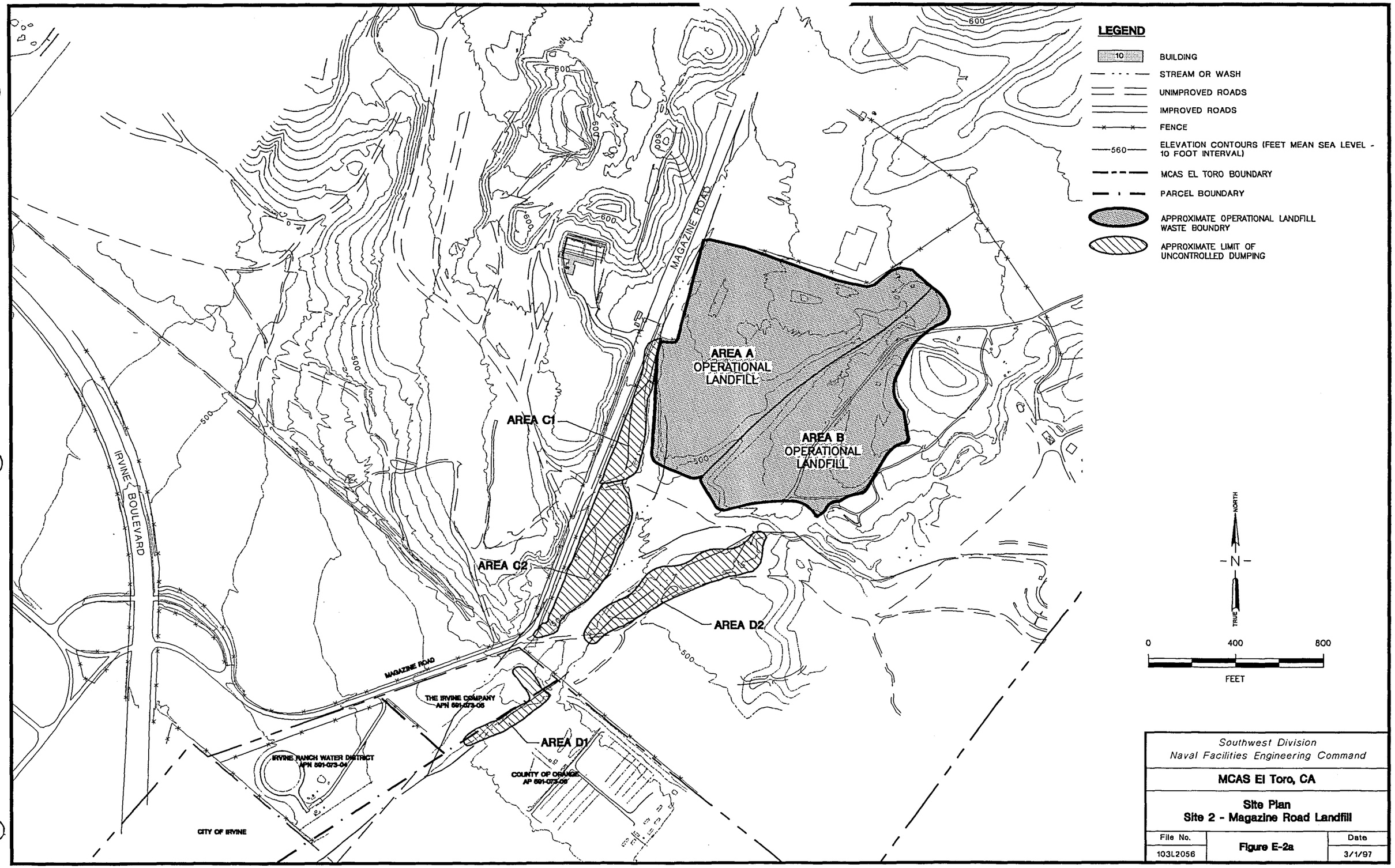
PORTIONS OF THIS RECORD ARE CONSIDERED SENSITIVE AND ARE NOT AVAILABLE FOR PUBLIC VIEWING

FIGURE E-2A – SITE PLAN
SITE 2 - MAGAZINE ROAD LANDFILL

FOR ADDITIONAL INFORMATION, CONTACT:

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

TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil


LEGEND
BUILDING
STREAM OR WASH
UNIMPROVED ROADS
IMPROVED ROADS
FENCE
ELEVATION CONTOURS (FEET MEAN SEA LEVEL - 10 FOOT INTERVAL)
MCAS EL TORO BOUNDARY
PARCEL BOUNDARY
APPROXIMATE OPERATIONAL LANDFILL WASTE BOUNDRY
APPROXIMATE LIMIT OF UNCONTROLLED DUMPING
AREA A OPERATIONAL LANDFILL
AREA B OPERATIONAL LANDFILL
AREA C1
AREA C2
AREA D1
AREA D2
MAGAZINE ROAD
IRVINE BOULEVARD
THE IRVINE COMPANY APN 591-073-05
IRVINE RANCH WATER DISTRICT APN 591-073-04
COUNTY OF ORANGE AP 591-073-03
CITY OF IRVINE
600
500
NORTH
TRUE
N
0
400
800
FEET
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Site Plan
Site 2 - Magazine Road Landfill
File No.
103L2056
Figure E-2a
Date
3/1/97

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MCAS EL TORO

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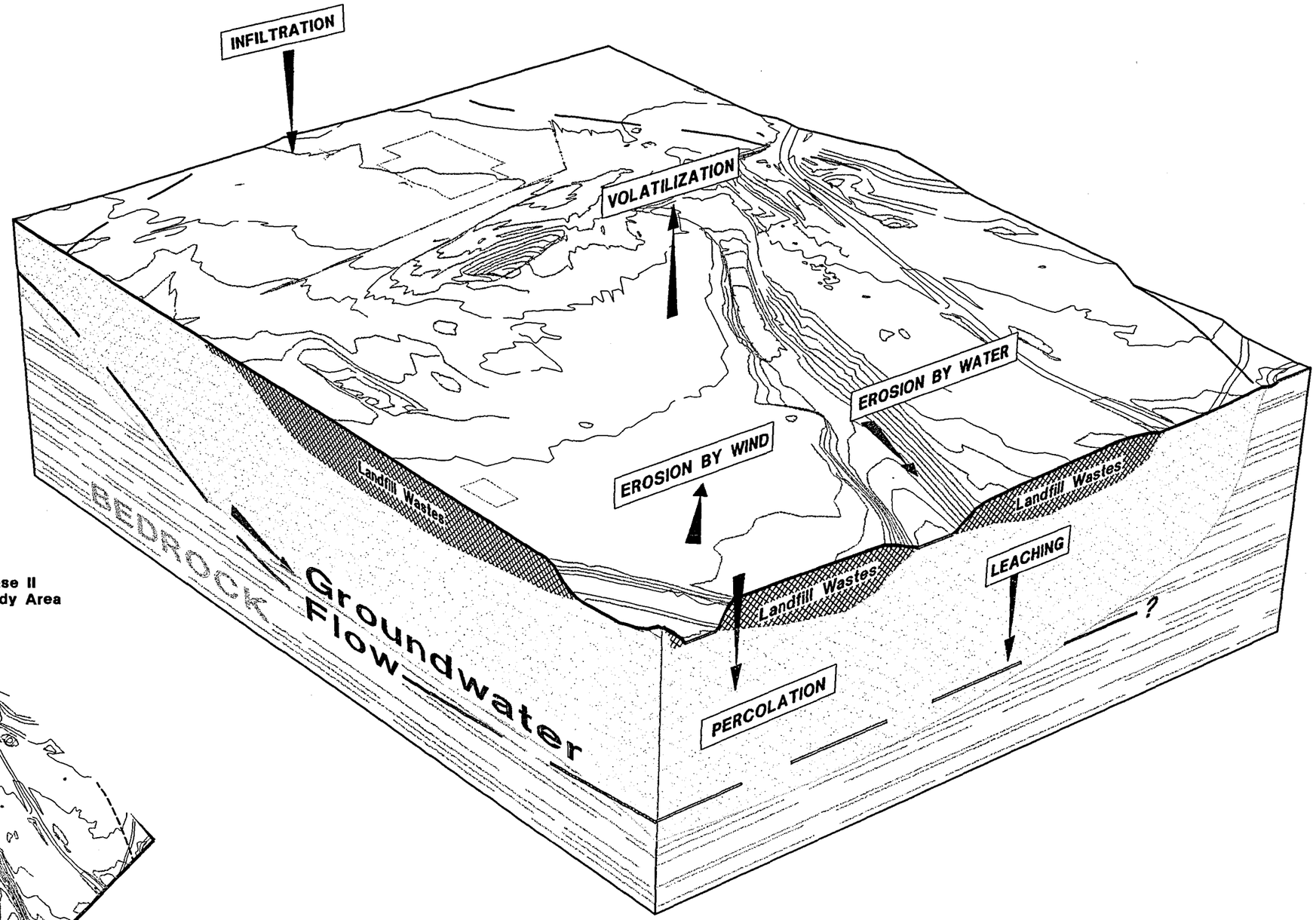

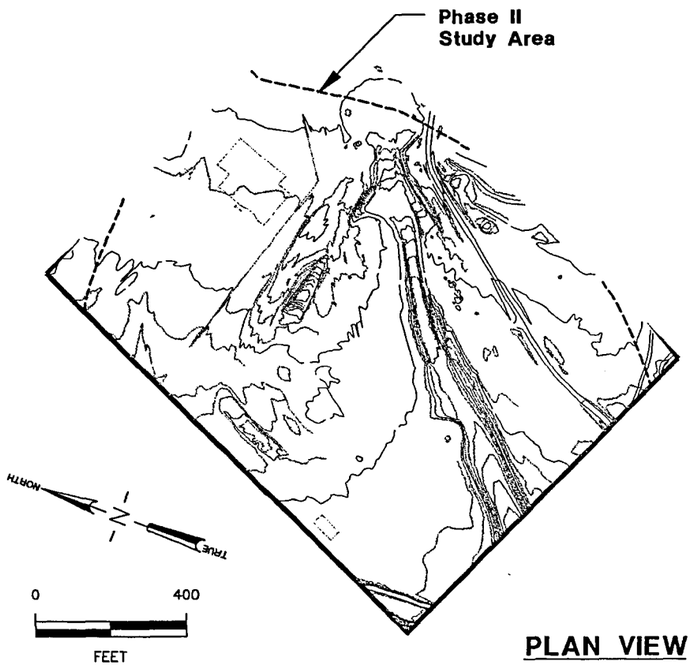

PLAN VIEW

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 2 - Magazine Road Landfill**		
File No.	**Figure E-2b**	Date
103M2057		3/1/97

PAGE NO. E-16

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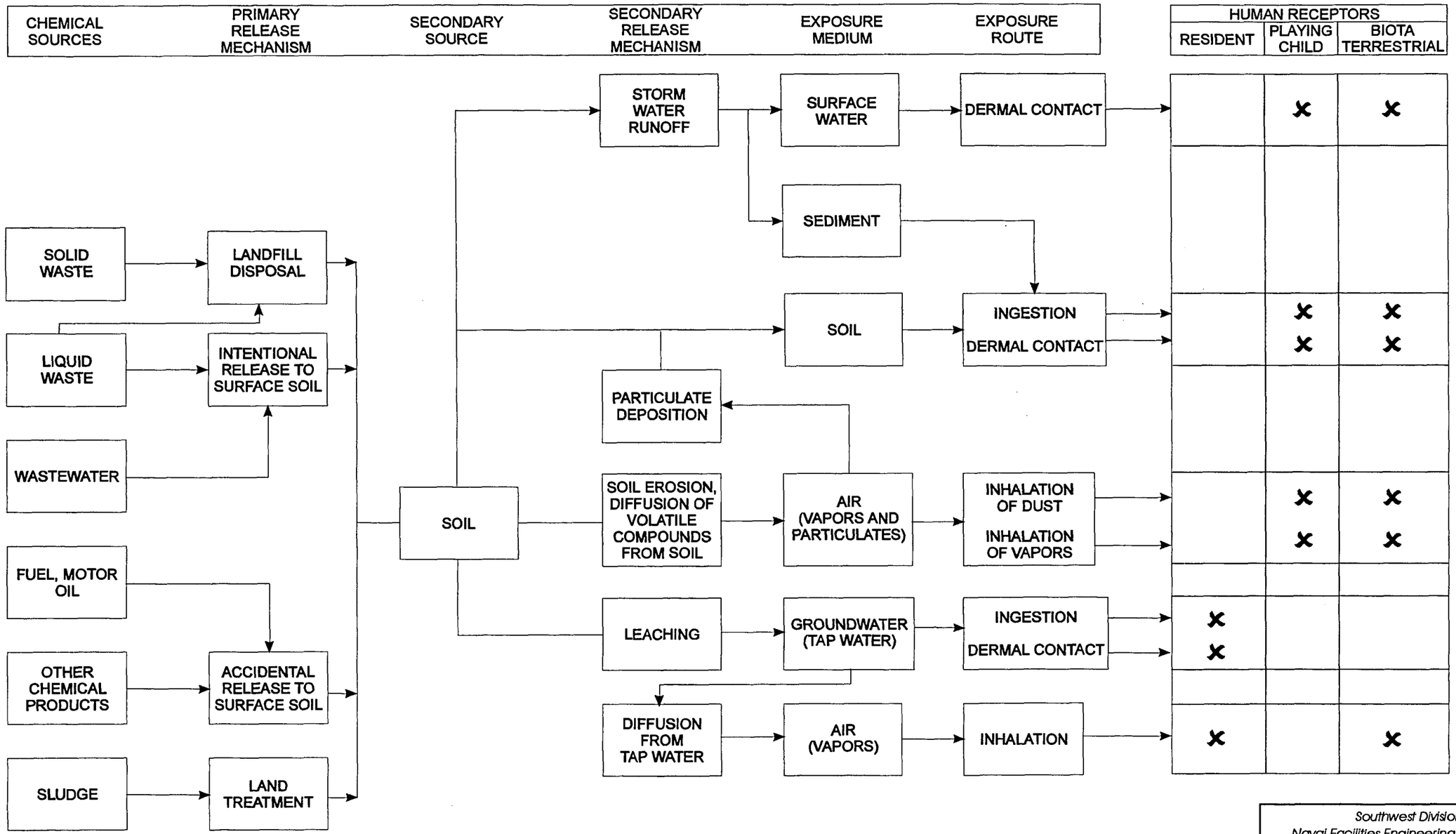

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Exposure Routes and Receptors **Site 2 - Magazine Road Landfill**		
File No. 103C2118	**Figure E-2c**	Date 3/1/97

PAGE NO. E-18

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FIGURE E-3a – SITE PLAN
SITE 3 - ORIGINAL LANDFILL

FOR ADDITIONAL INFORMATION, CONTACT:

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1220 PACIFIC HIGHWAY
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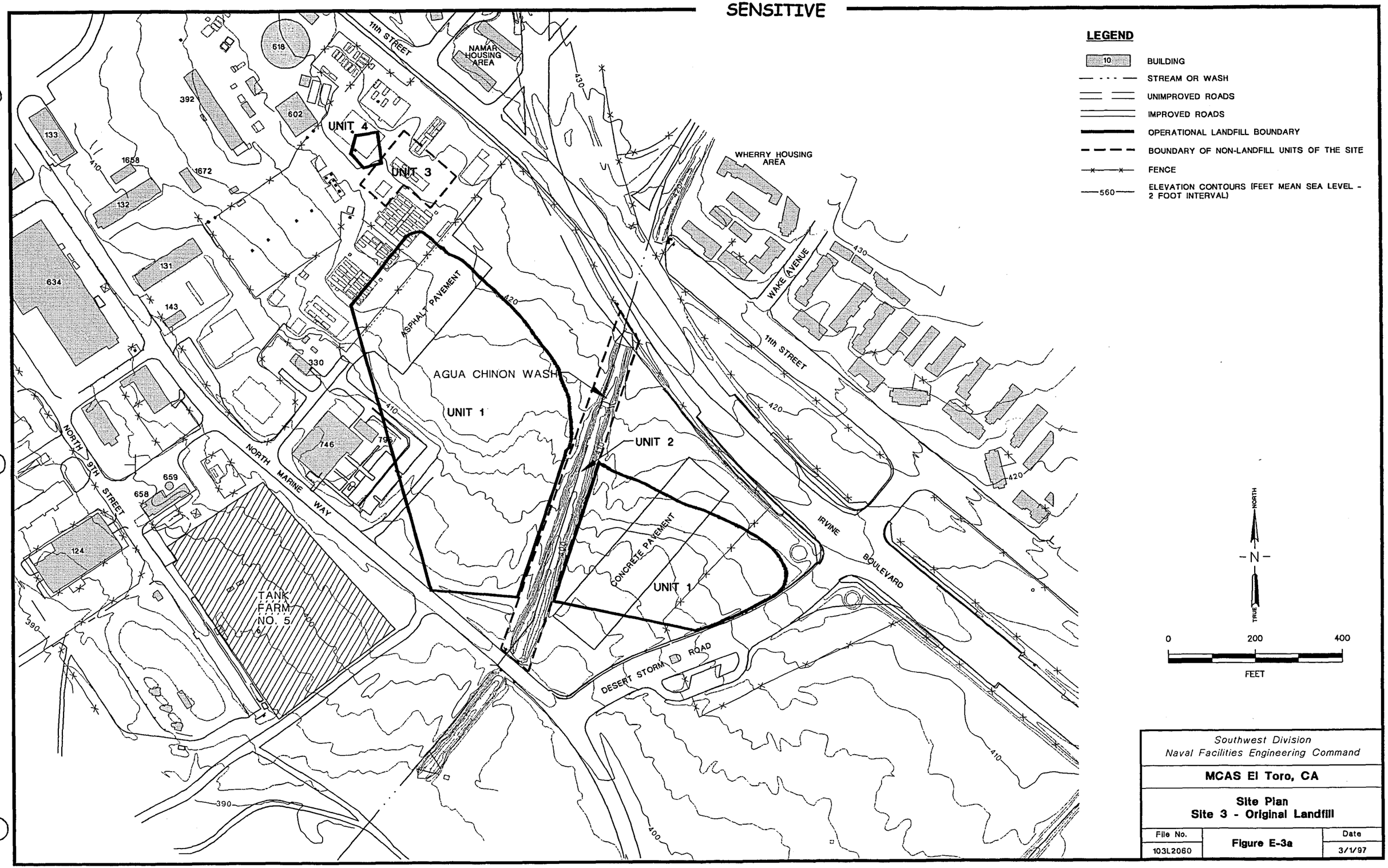

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Site Plan Site 3 - Original Landfill		
File No. 103L2060	Figure E-3a	Date 3/1/97

PAGE NO. E-20

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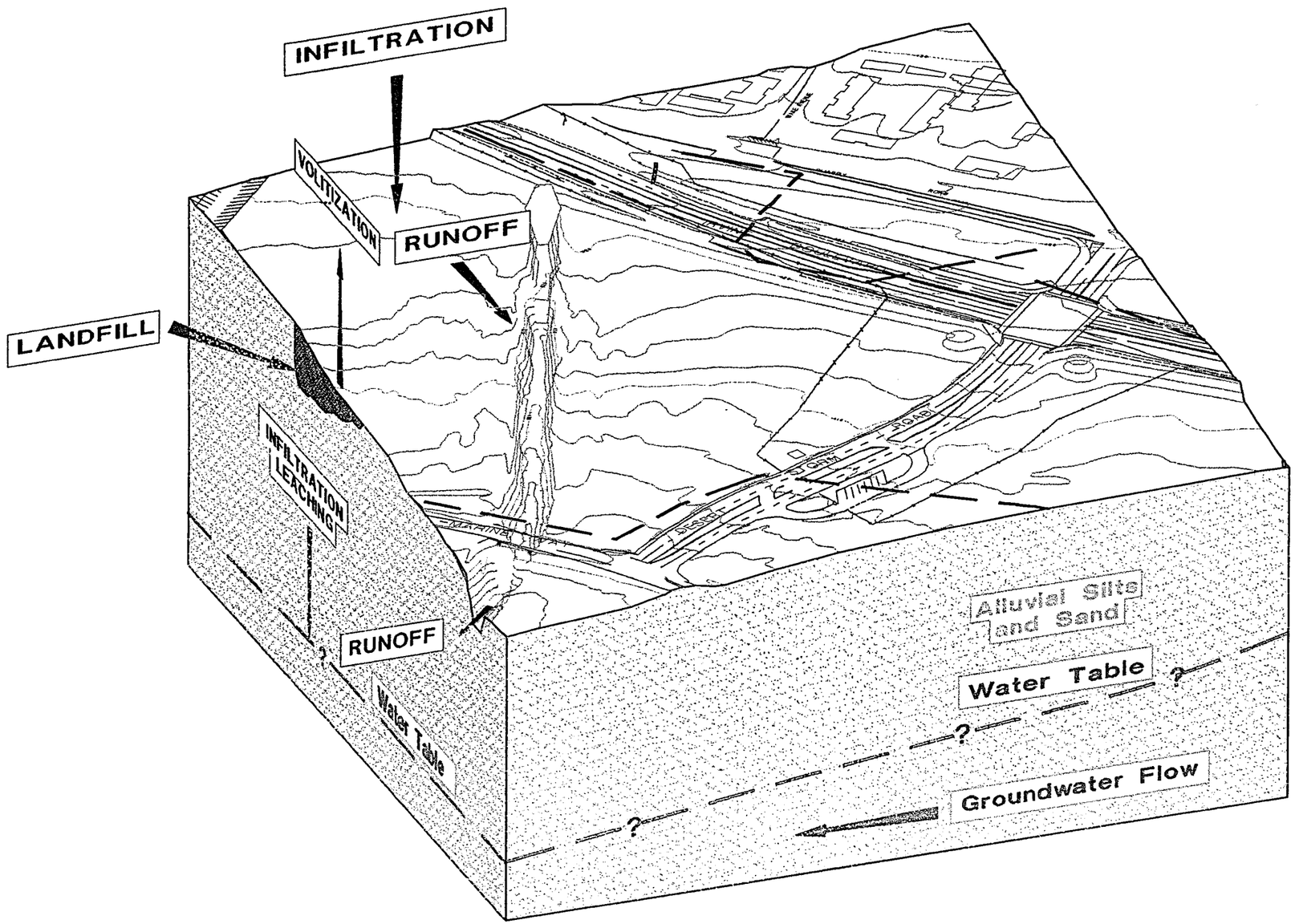

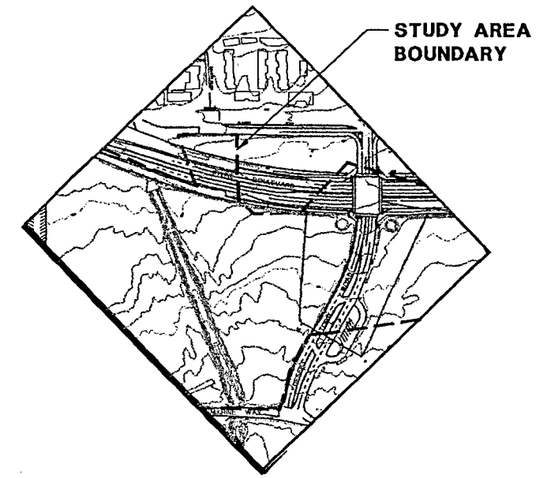

STUDY AREA BOUNDARY

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 3 - Original Landfill**		
File No. -	**Figure E-3b**	Date 3/1/97

PAGE NO. E-22

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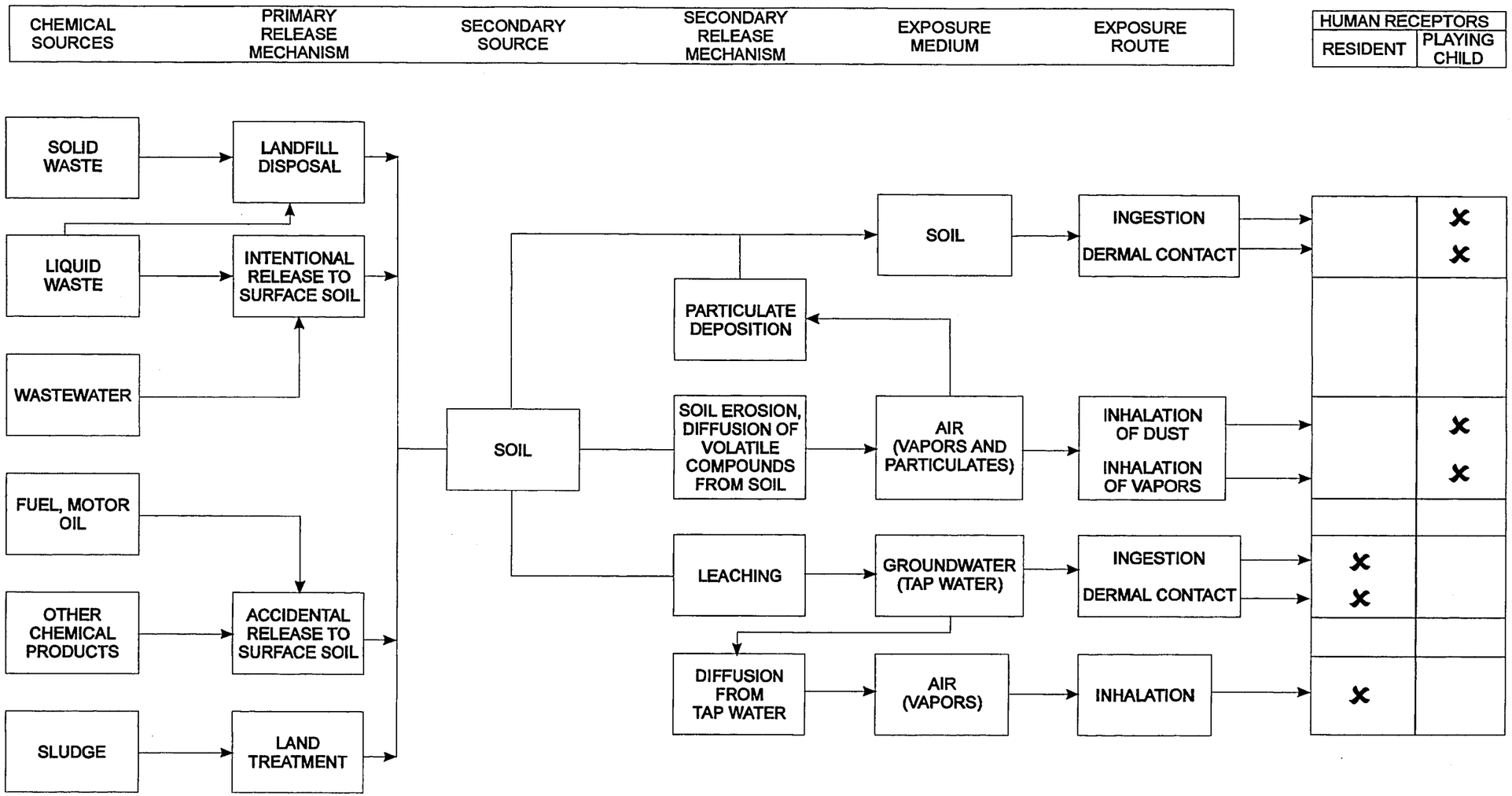

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Exposure Routes and Receptors **Site 3 - Original Landfill**		
File No.	**Figure E-3c**	Date
103C2119		3/1/97

PAGE NO. E-24

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FIGURE E-4A – SITE PLAN
SITE 4 - FERROCENE SPILL AREA

FOR ADDITIONAL INFORMATION, CONTACT:

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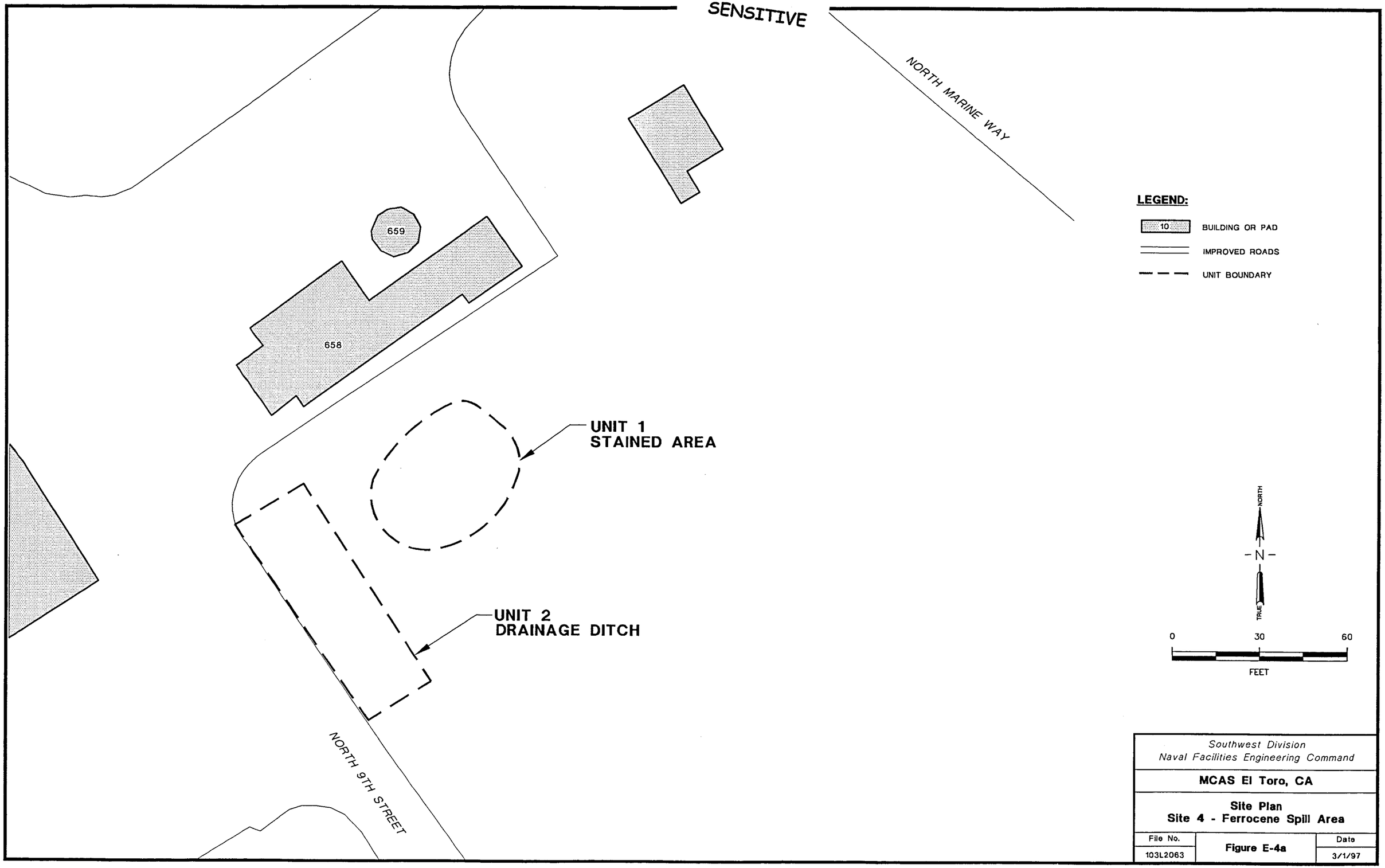
TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil



Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Site Plan Site 4 - Ferrocene Spill Area		
File No. 103L2063	Figure E-4a	Date 3/1/97

PAGE NO. E-26

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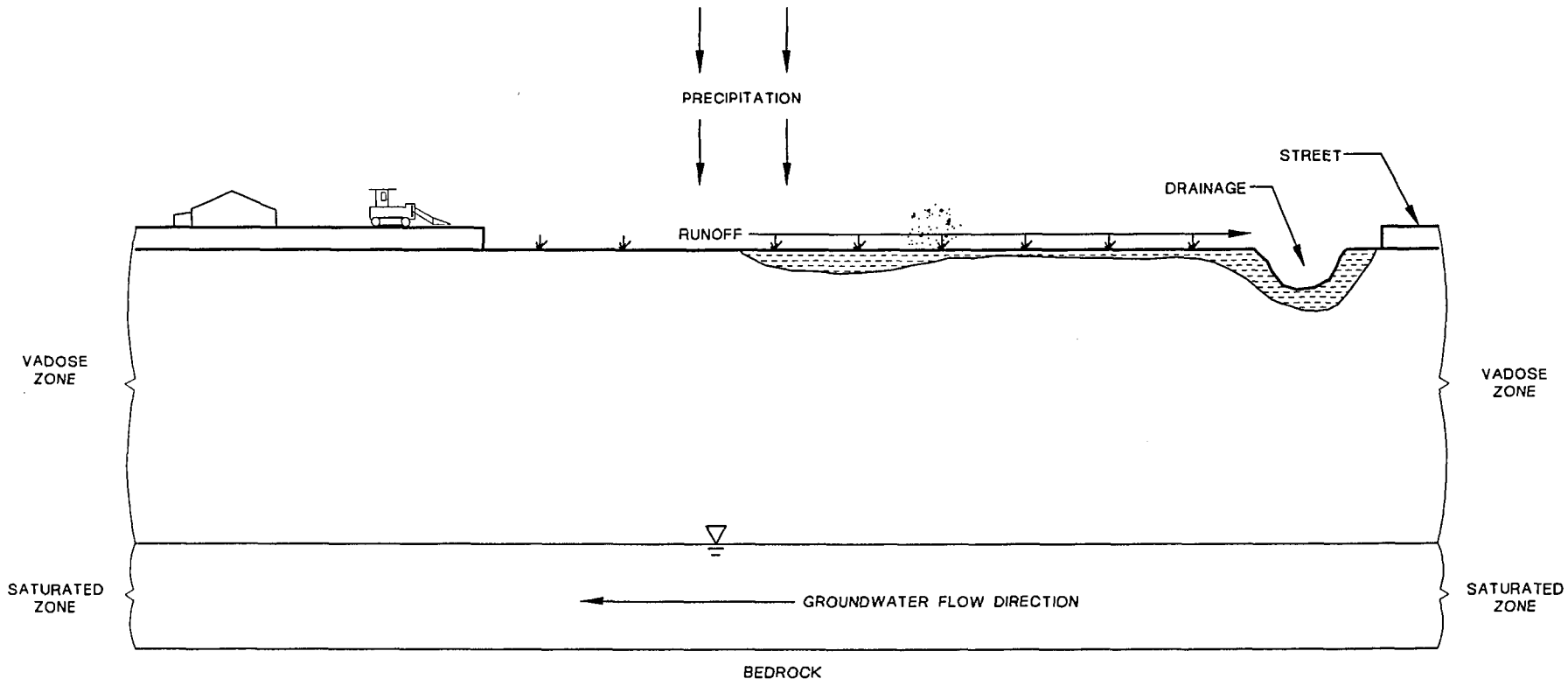

LEGEND:

RECEPTORS:

- WORKERS
- CONTAMINATED SOIL
- BASE BUILDINGS

PATHWAYS:

- GROUNDWATER
- DUST

NOT TO SCALE

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 4 - Ferrocene Spill Area**		
File No.	**Figure E-4b**	Date
103M2064		3/1/97

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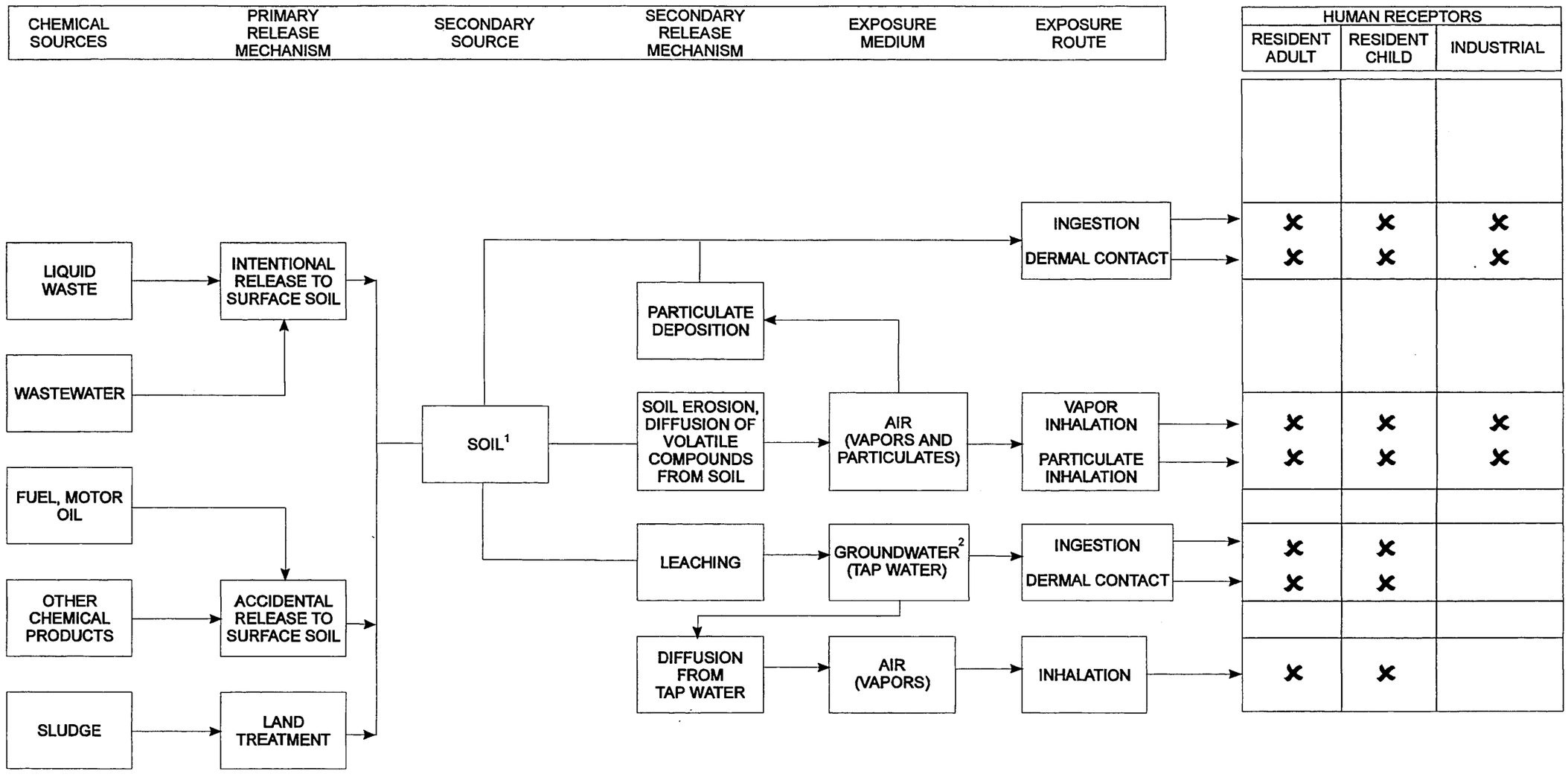

LEGEND

1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)

2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Exposure Routes and Receptors **Site 4 - Ferrocene Spill Area**		
File No.	**Figure E-4c**	Date
103C2065		3/1/97

PAGE NO. E-30

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FIGURE E-5A – SITE PLAN
SITE 5 - PERIMETER ROAD LANDFILL

FOR ADDITIONAL INFORMATION, CONTACT:

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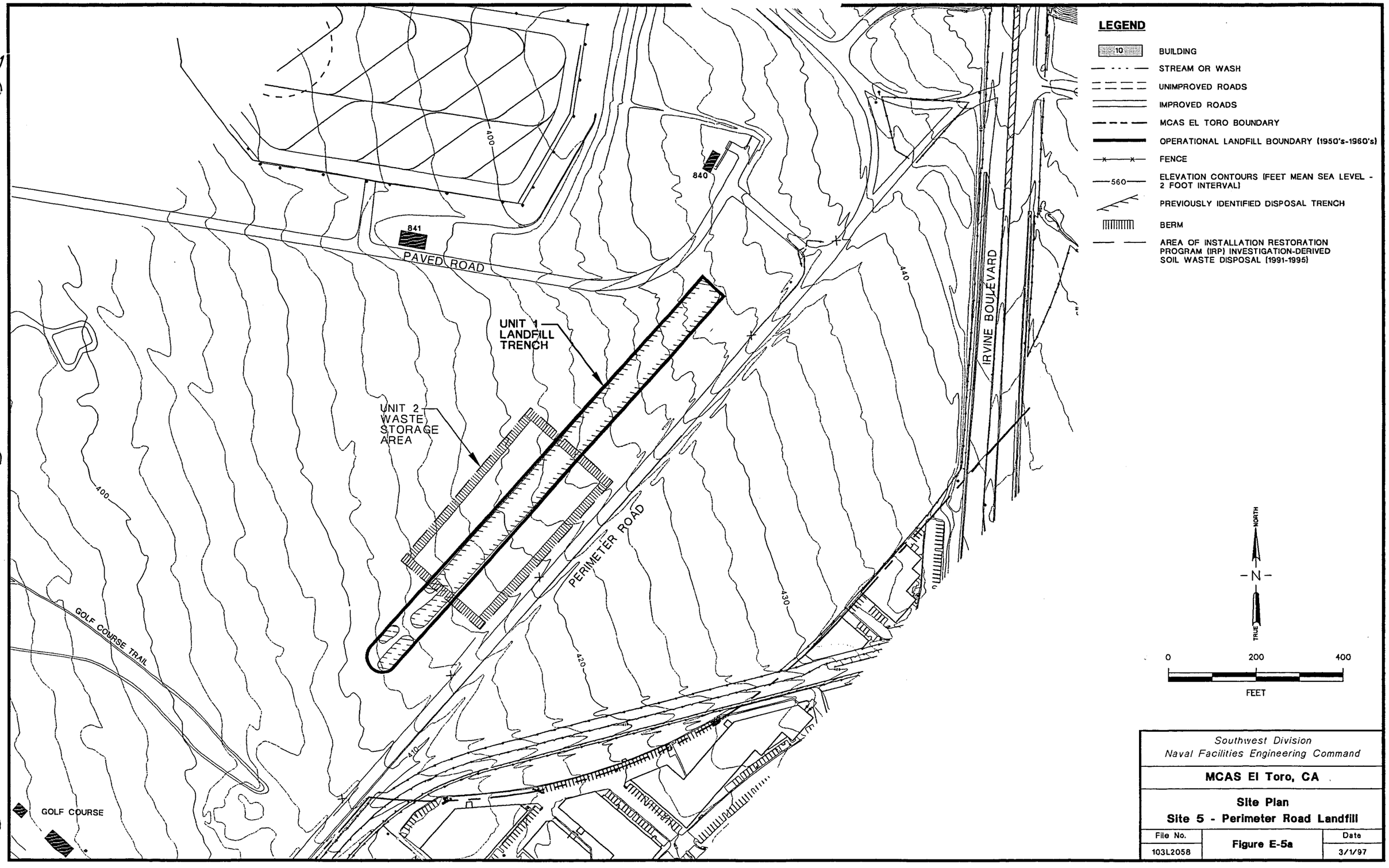
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132

TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil



Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Site Plan **Site 5 - Perimeter Road Landfill**		
File No. 103L2058	**Figure E-5a**	Date 3/1/97

PAGE NO. E-32

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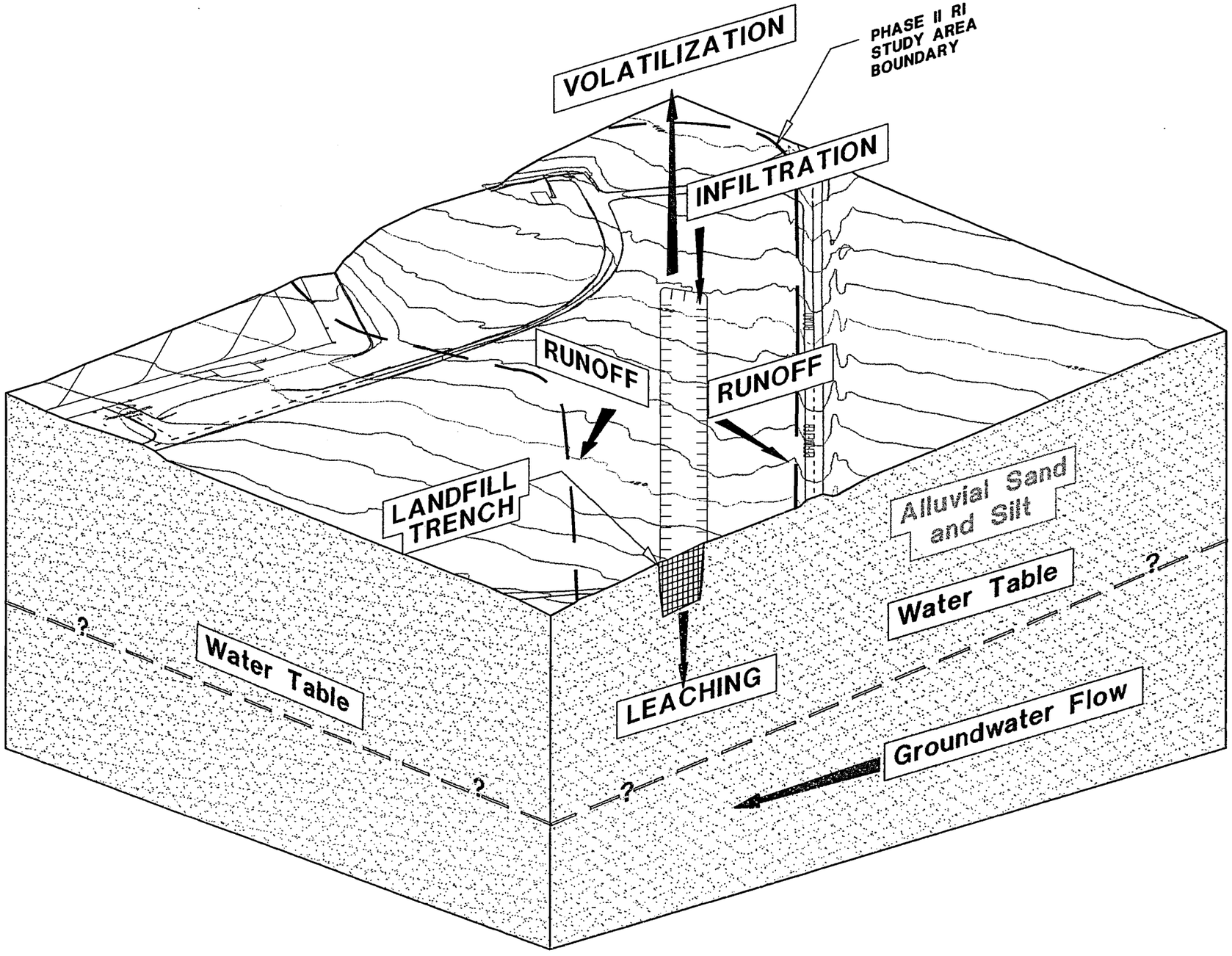

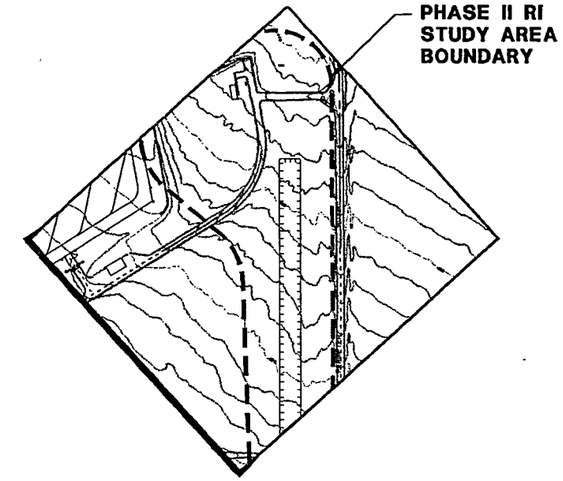

LEGEND:

STUDY AREA BOUNDARY

440 — ELEVATION CONTOURS (FEET MSL - 2 FOOT INTERVAL)

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 5 - Perimeter Road Landfill**		
File No.	**Figure E-5b**	Date
103M2062		3/1/97

M60050_001745
MCAS EL TORO

PAGE NO. E-34

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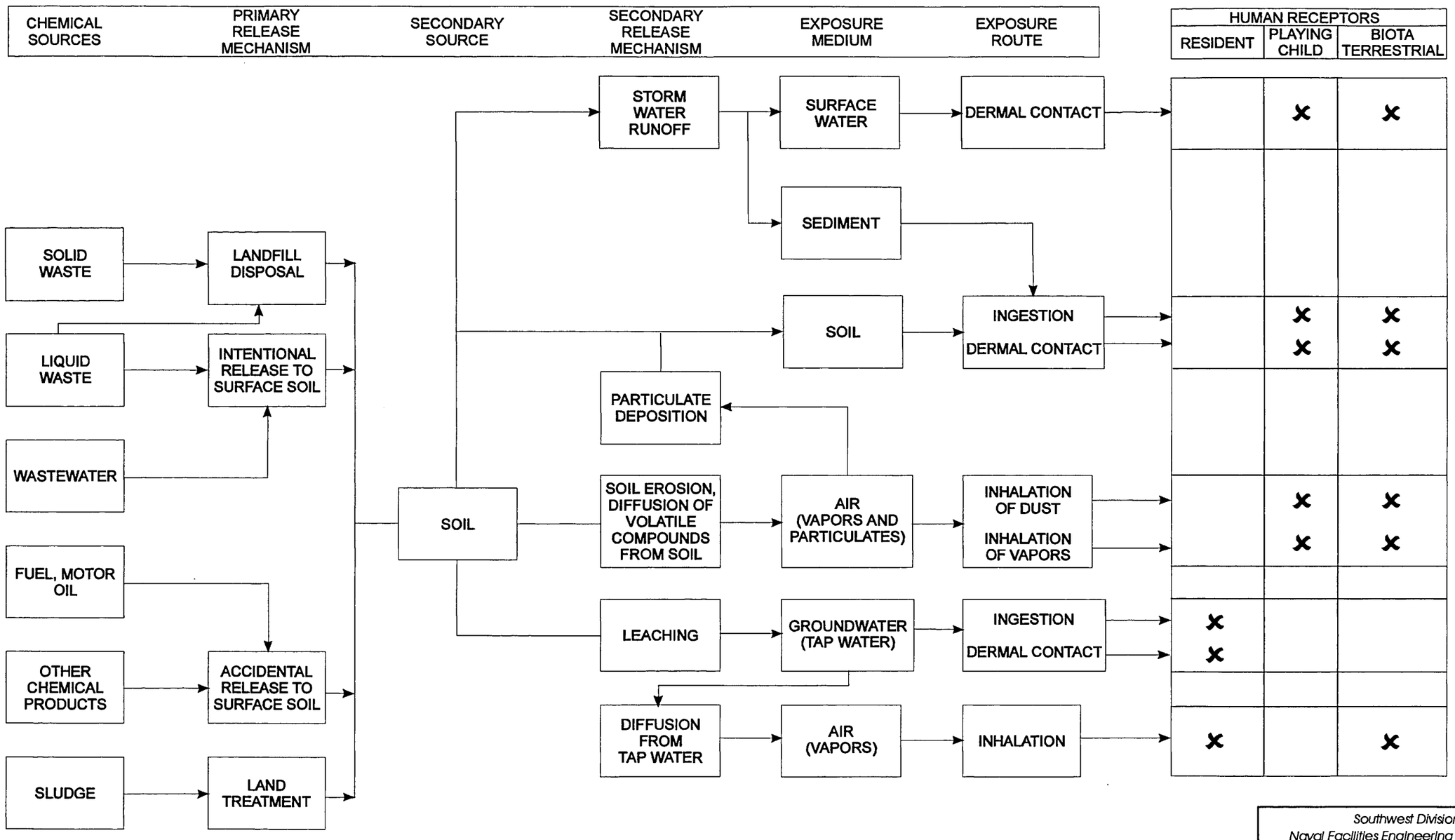

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Exposure Routes and Receptors **Site 5 - Perimeter Road Landfill**		
File No. 103C2120	**Figure E-5c**	Date 3/1/97

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MCAS EL TORO

PAGE NO. E-36

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MCAS EL TORO

SENSITIVE RECORD

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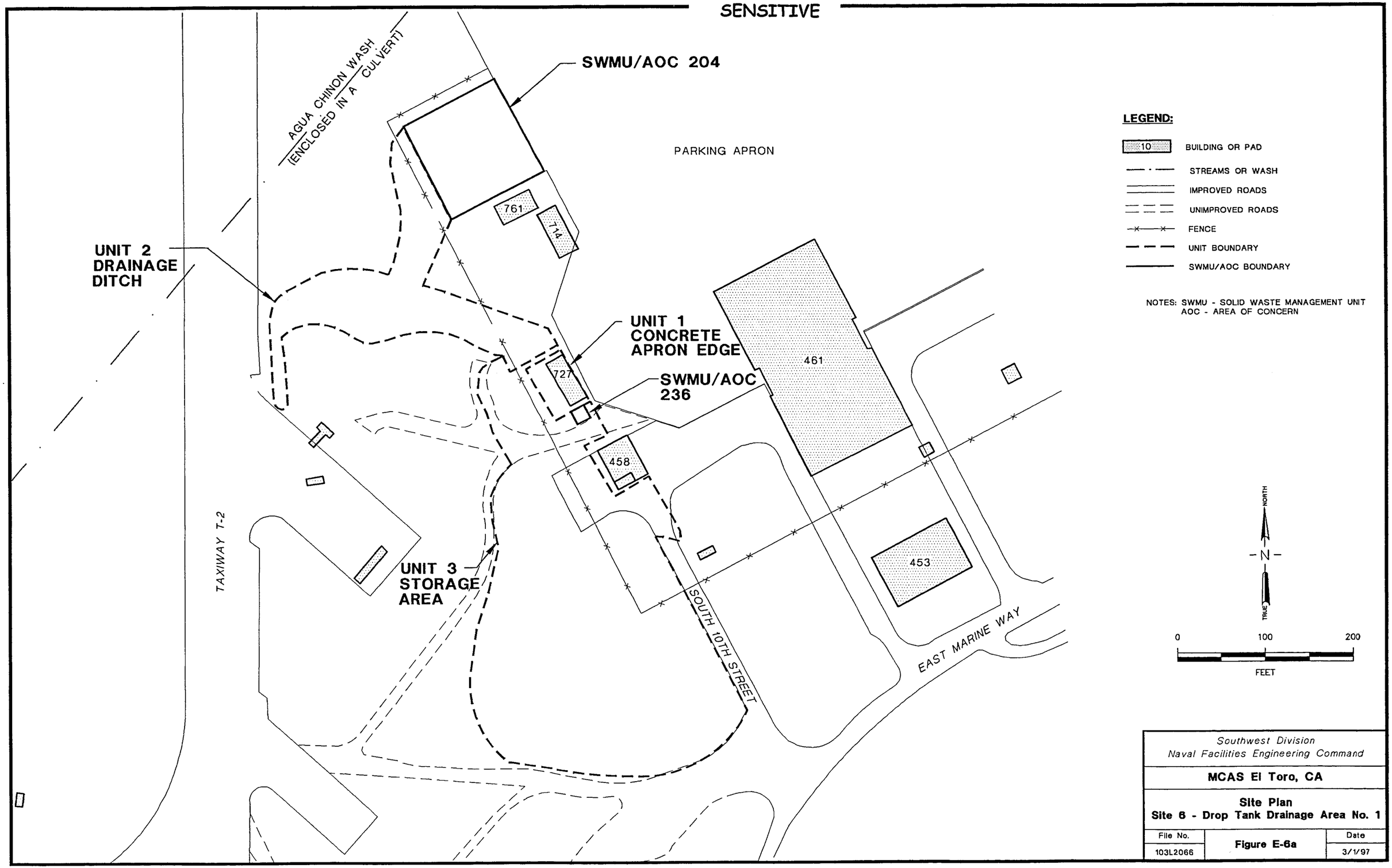
FIGURE E-6A – SITE PLAN
SITE 6 - DROP TANK DRAINAGE AREA NO. 1

FOR ADDITIONAL INFORMATION, CONTACT:

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

TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil


SWMU/AOC 204
AGUA CHINON WASH (ENCLOSED IN A CULVERT)
PARKING APRON
761
714
UNIT 2 DRAINAGE DITCH
UNIT 1 CONCRETE APRON EDGE
727
SWMU/AOC 236
461
458
453
UNIT 3 STORAGE AREA
TAXIWAY T-2
SOUTH 10TH STREET
EAST MARINE WAY
LEGEND:
10 BUILDING OR PAD
STREAMS OR WASH
IMPROVED ROADS
UNIMPROVED ROADS
FENCE
UNIT BOUNDARY
SWMU/AOC BOUNDARY
NOTES: SWMU - SOLID WASTE MANAGEMENT UNIT
AOC - AREA OF CONCERN
NORTH
N
TRUE
0
100
200
FEET
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Site Plan
Site 6 - Drop Tank Drainage Area No. 1
File No.
103L2066
Figure E-6a
Date
3/1/97

PAGE NO. E-38

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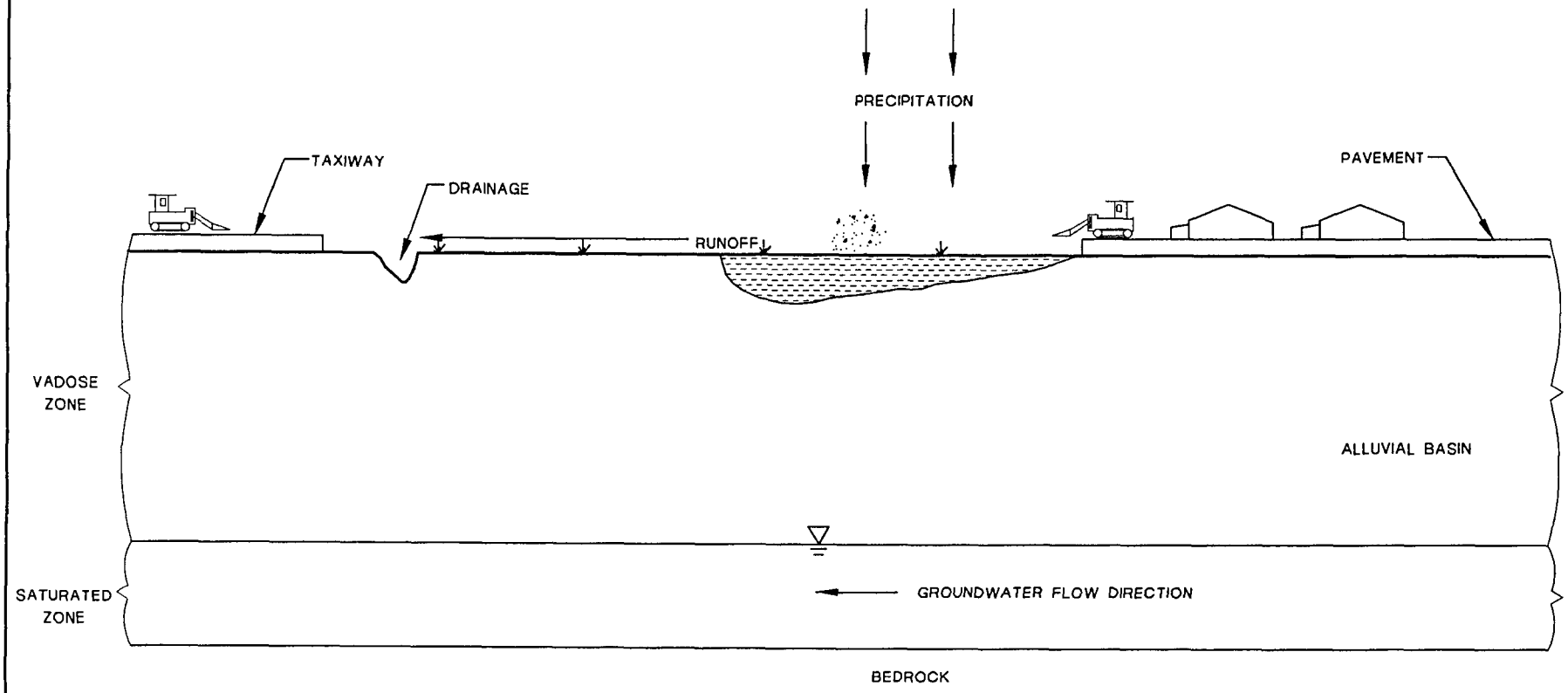

LEGEND:

RECEPTORS:

- WORKERS
- CONTAMINATED SOIL
- BASE BUILDINGS

PATHWAYS:

- GROUNDWATER
- DUST

NOT TO SCALE

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 6 - Drop Tank Drainage Area No. 1**		
File No.	**Figure E-6b**	Date
103L2067		3/1/97

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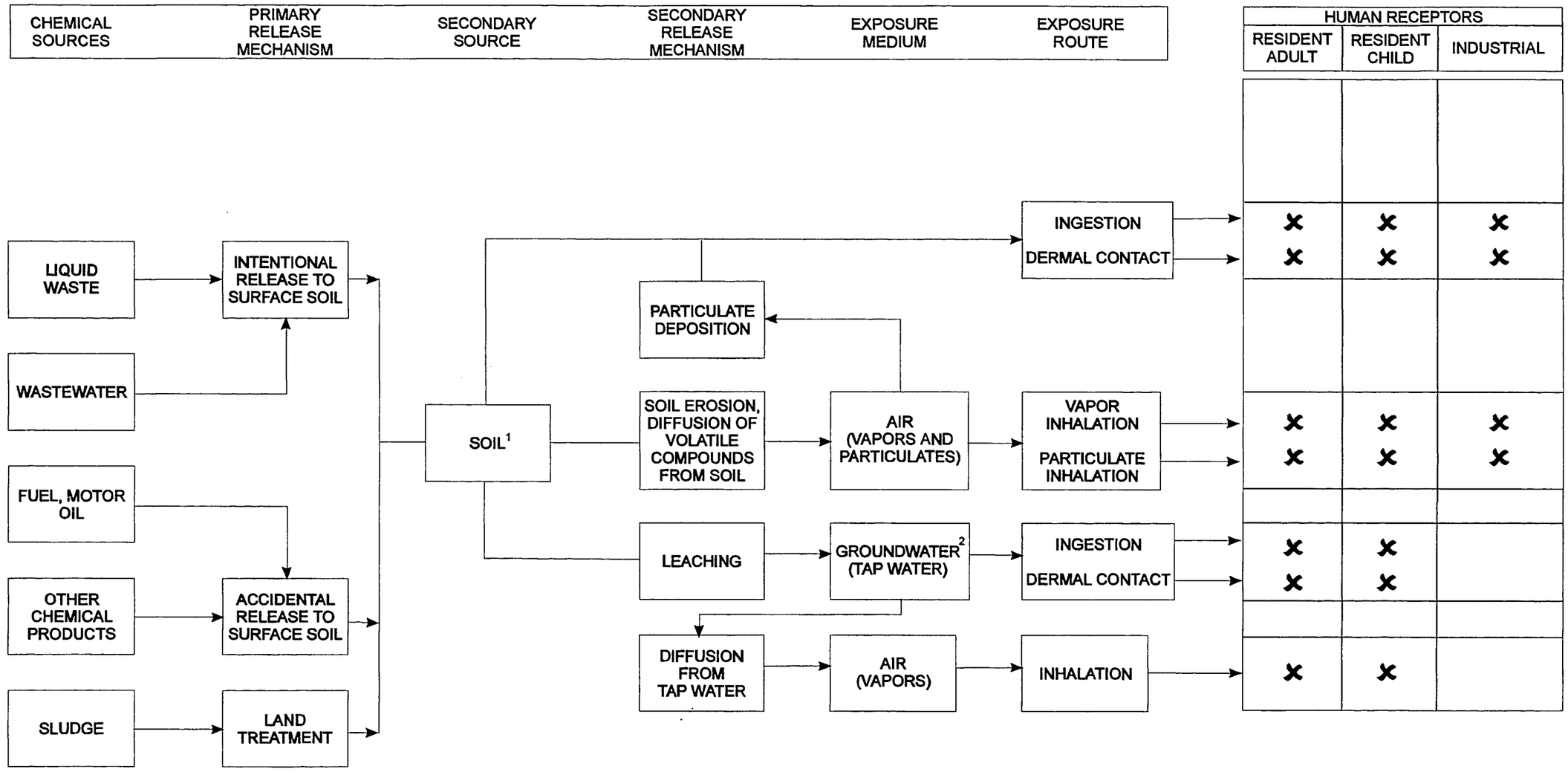

LEGEND

1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)

2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Exposure Routes and Receptors **Site 6 - Drop Tank Drainage Area No. 1**		
File No. 103C2068	**Figure E-6c**	Date 3/1/97

PAGE NO. E-42

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M60050_001745
MCAS EL TORO

SENSITIVE RECORD

PORTIONS OF THIS RECORD ARE CONSIDERED SENSITIVE AND ARE NOT AVAILABLE FOR PUBLIC VIEWING

FIGURE E-7A – SITE PLAN
SITE 7 - DROP TANK DRAINAGE AREA NO. 2

FOR ADDITIONAL INFORMATION, CONTACT:

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NAVAL FACILITIES ENGINEERING COMMAND, SOUTHWEST
1220 PACIFIC HIGHWAY
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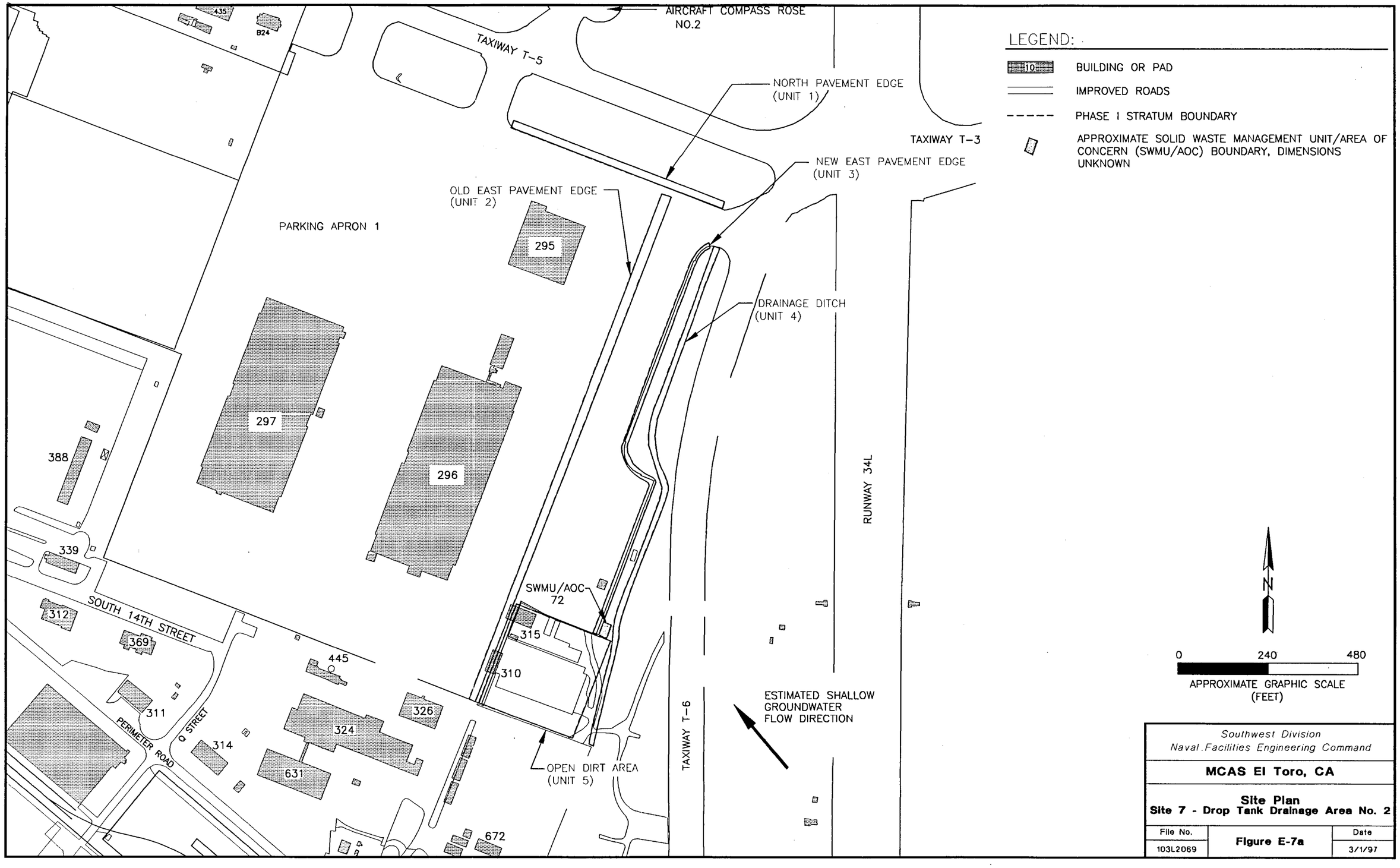
AIRCRAFT COMPASS ROSE NO.2
TAXIWAY T-5
NORTH PAVEMENT EDGE (UNIT 1)
TAXIWAY T-3
NEW EAST PAVEMENT EDGE (UNIT 3)
OLD EAST PAVEMENT EDGE (UNIT 2)
PARKING APRON 1
295
DRAINAGE DITCH (UNIT 4)
297
296
388
339
312
369
SOUTH 14TH STREET
445
311
PERIMETER ROAD
Q STREET
314
324
326
631
SWMU/AOC 72
315
310
OPEN DIRT AREA (UNIT 5)
672
TAXIWAY T-6
RUNWAY 34L
ESTIMATED SHALLOW GROUNDWATER FLOW DIRECTION
LEGEND:
BUILDING OR PAD
IMPROVED ROADS
PHASE I STRATUM BOUNDARY
APPROXIMATE SOLID WASTE MANAGEMENT UNIT/AREA OF CONCERN (SWMU/AOC) BOUNDARY, DIMENSIONS UNKNOWN
N
0 240 480
APPROXIMATE GRAPHIC SCALE (FEET)
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Site Plan
Site 7 - Drop Tank Drainage Area No. 2
File No. 103L2069
Figure E-7a
Date 3/1/97

PAGE NO. E-44

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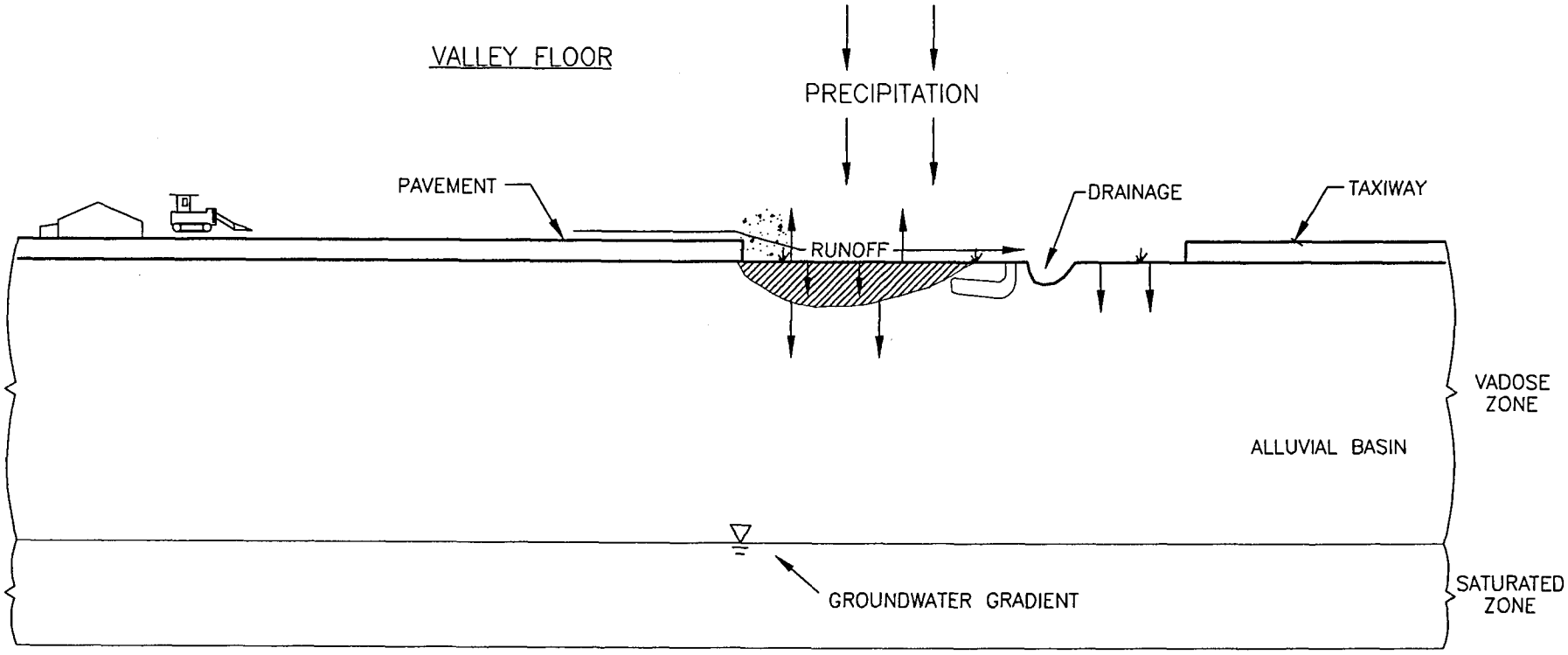

LEGEND:

RECEPTORS:

- BURROWING ANIMALS
- WORKERS
- RESIDENCES
- GRASS, BRUSH — HABITATS
- TREE
- CONTAMINATED SOIL
- BASE BUILDINGS

PATHWAYS:

- INFILTRATION
- GROUNDWATER
- WASTES
- VAPOR EMISSIONS
- LIGHT NONAQUEOUS PHASE LIQUID CONTAMINANTS
- LEACHING
- DISSOLVED PHASE CONTAMINANTS
- DUST
- UNEXPLODED ORDNANCE

NOT TO SCALE

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Conceptual Site Model Site 7 - Drop Tank Drainage Area No. 2		
File No. 103M2070	**Figure E-7b**	Date 3/1/97

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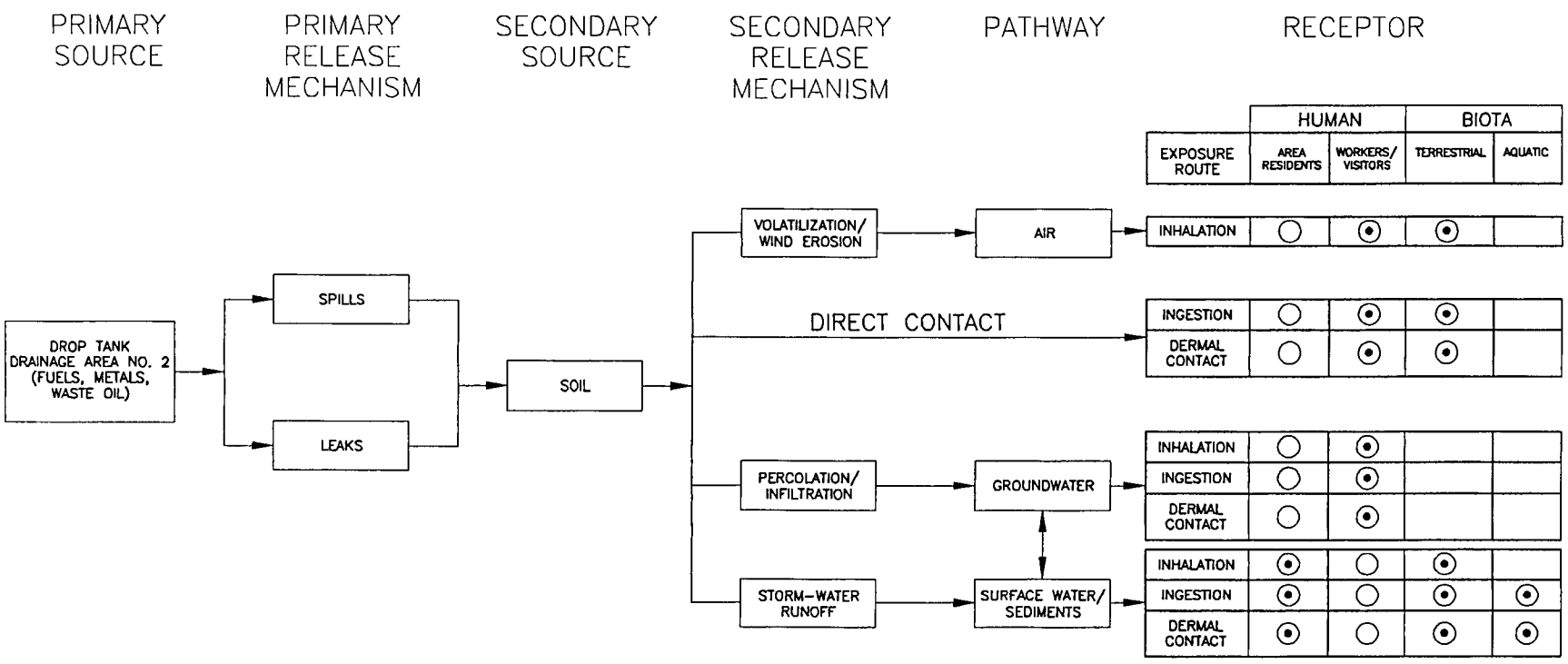

LEGEND:

● CURRENT POTENTIAL RECEPTOR

○ FUTURE POTENTIAL RECEPTOR

Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

Exposure Routes and Receptors
Site 7 - Drop Tank Drainage Area No. 2

File No.		Date
103C2071	**Figure E-7c**	3/1/97

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M60050_001745
MCAS EL TORO

SENSITIVE RECORD

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FIGURE E-8A – SITE PLAN
SITE 8 - DRMO STORAGE AREA

FOR ADDITIONAL INFORMATION, CONTACT:

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NAVAL FACILITIES ENGINEERING COMMAND, SOUTHWEST
1220 PACIFIC HIGHWAY
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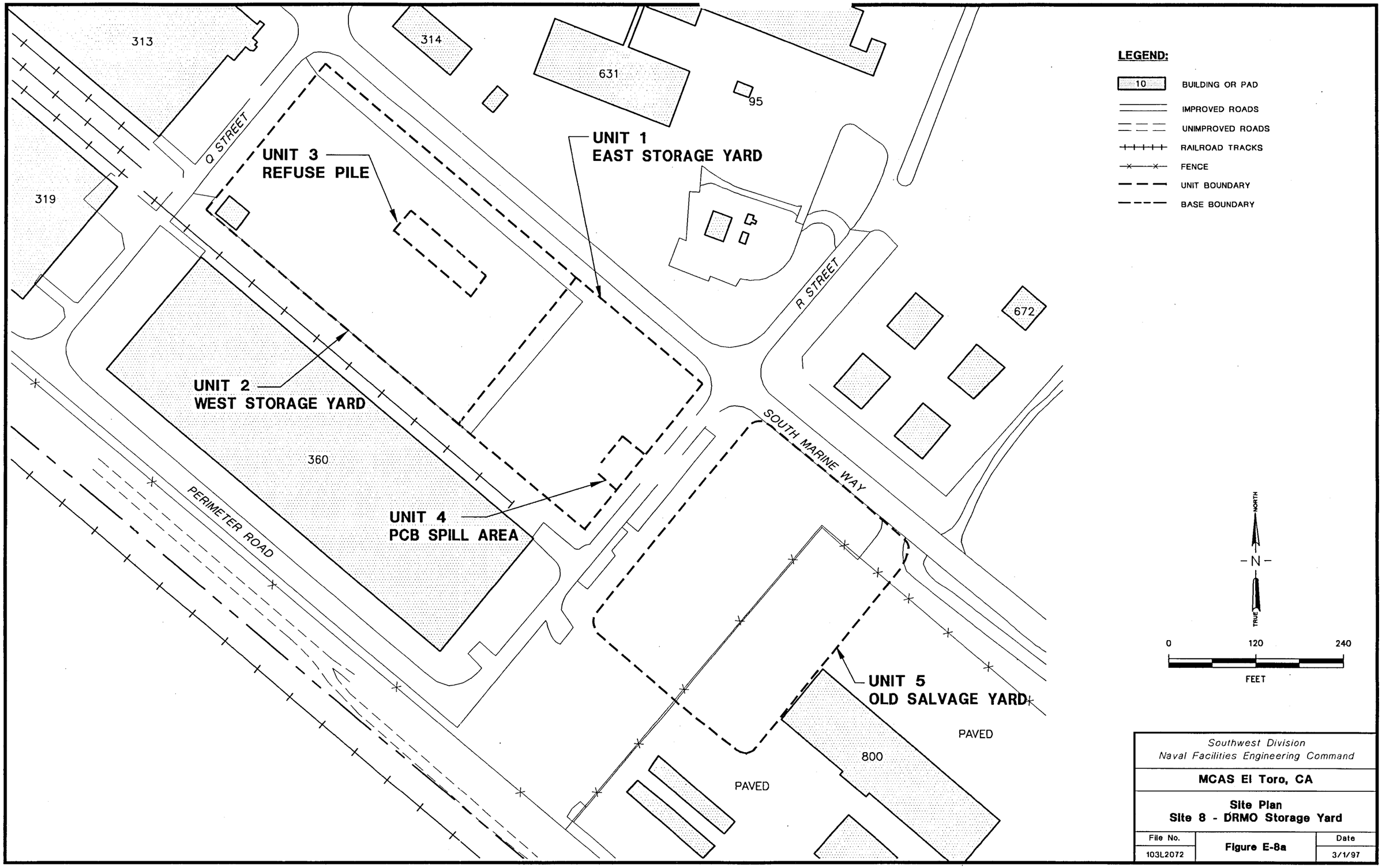
TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil


313
314
631
95
319
Q STREET
UNIT 3
REFUSE PILE
UNIT 1
EAST STORAGE YARD
R STREET
672
UNIT 2
WEST STORAGE YARD
360
SOUTH MARINE WAY
PERIMETER ROAD
UNIT 4
PCB SPILL AREA
UNIT 5
OLD SALVAGE YARD
PAVED
800
PAVED
LEGEND:
10 BUILDING OR PAD
IMPROVED ROADS
UNIMPROVED ROADS
RAILROAD TRACKS
FENCE
UNIT BOUNDARY
BASE BOUNDARY
NORTH
N
TRUE
0
120
240
FEET
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Site Plan
Site 8 - DRMO Storage Yard
File No.
103L2072
Figure E-8a
Date
3/1/97

PAGE NO. E-50

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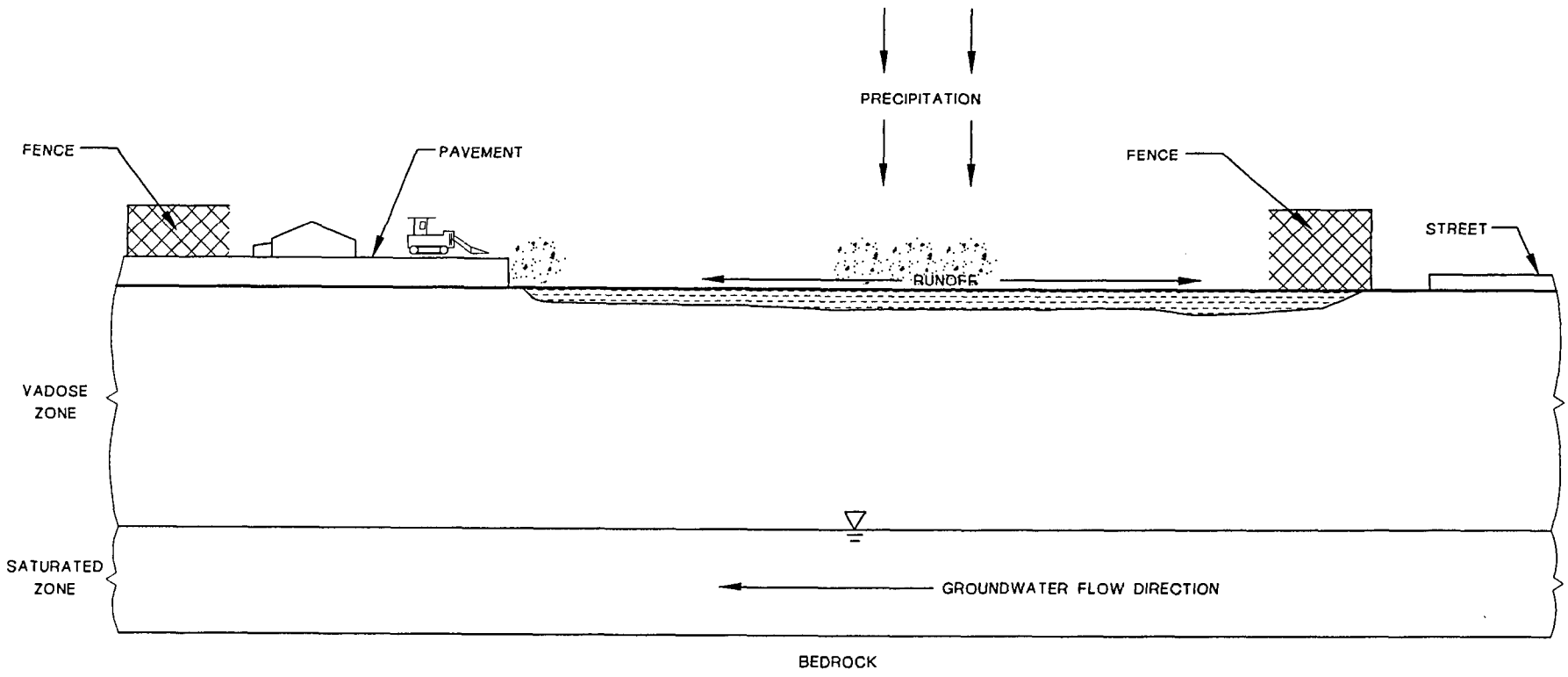

LEGEND:

RECEPTORS:

- WORKERS
- CONTAMINATED SOIL
- BASE BUILDINGS

PATHWAYS:

- GROUNDWATER
- DUST

NOT TO SCALE

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 8 - DRMO Storage Yard**		
File No.	**Figure E-8b**	Date
103M2073		3/1/97

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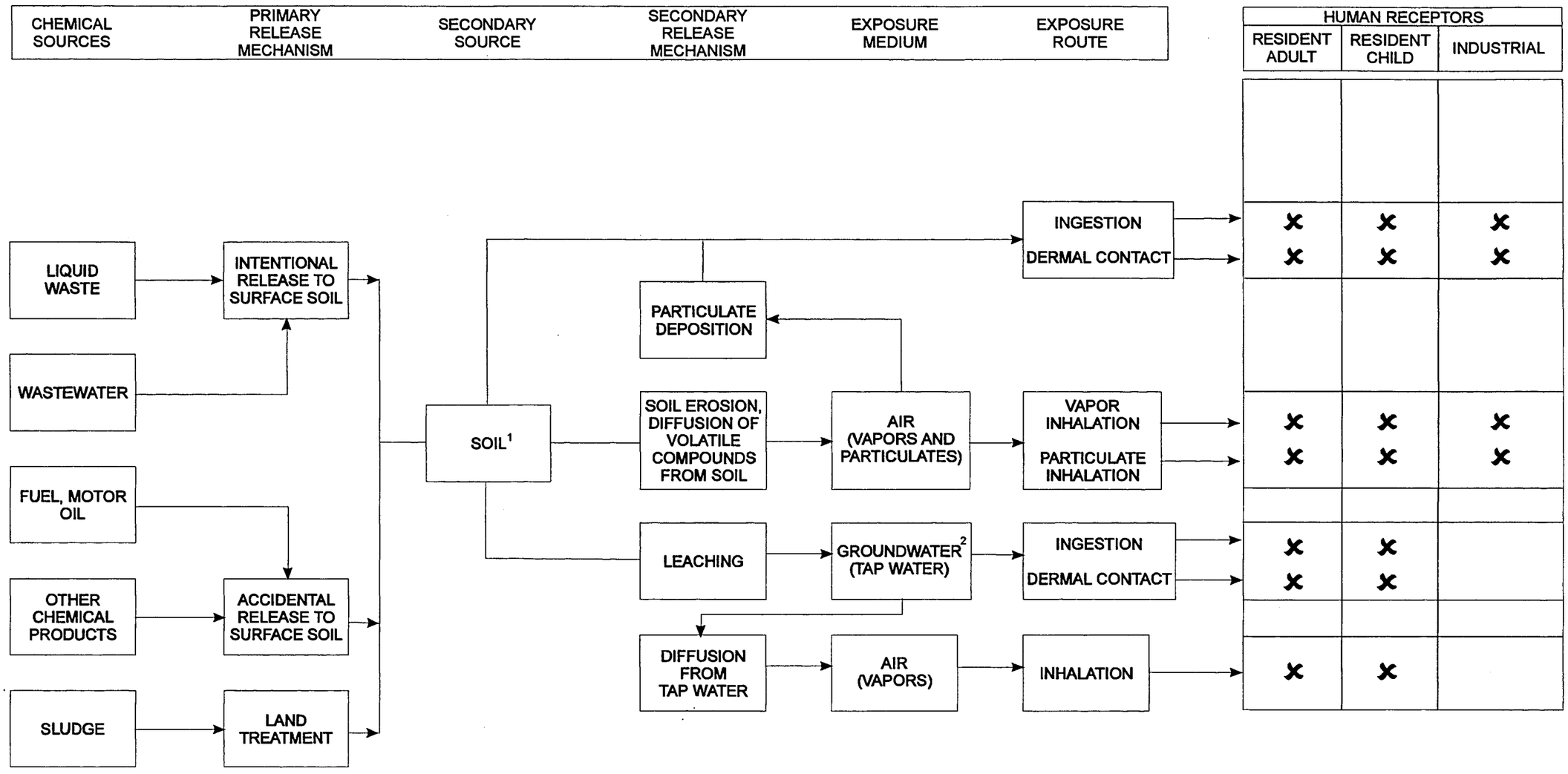

LEGEND

1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)

2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Exposure Routes and Receptors **Site 8 - DRMO Storage Yard**		
File No. 103C2074	**Figure E-8c**	Date 3/1/97

PAGE NO. E-54

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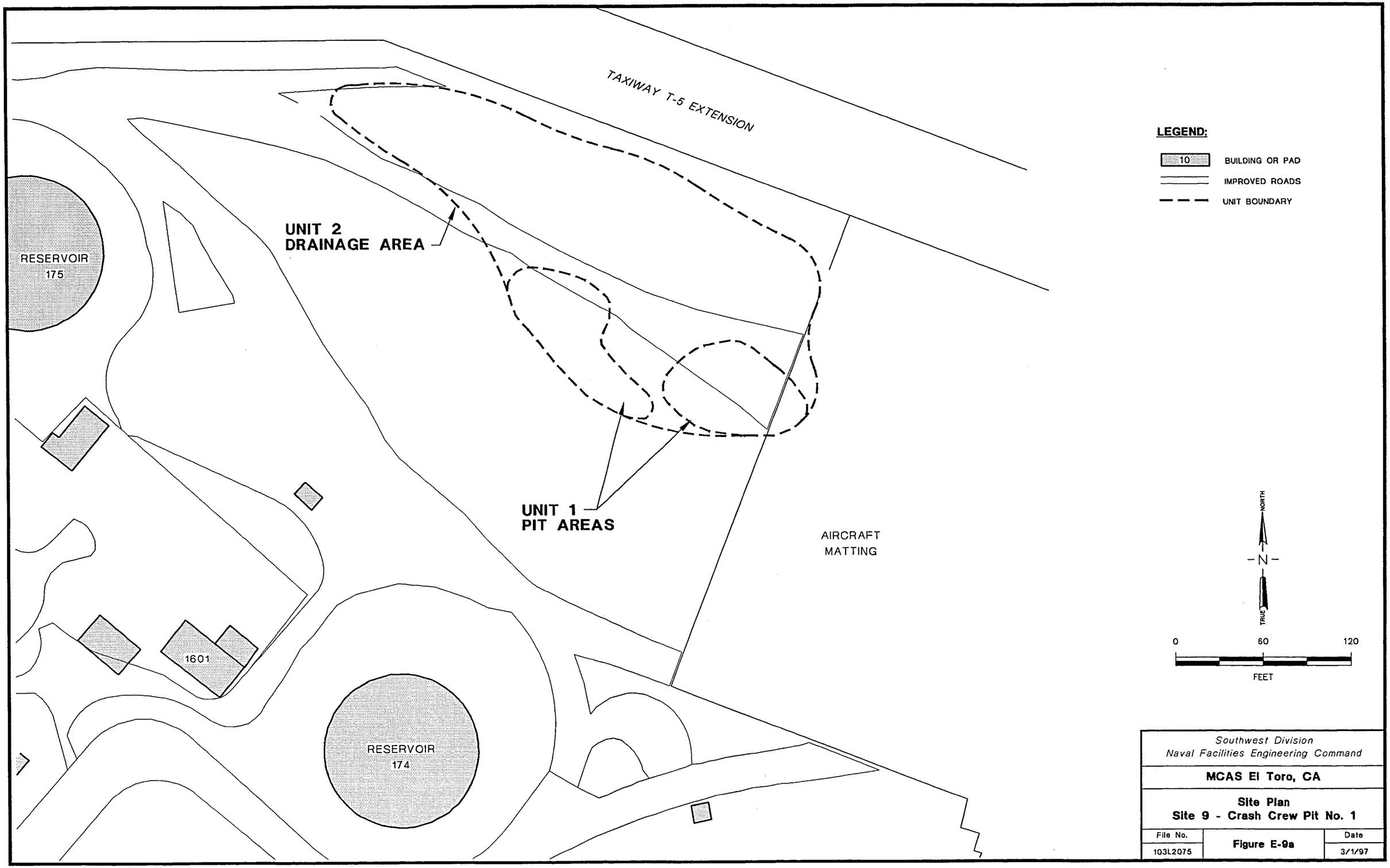
TAXIWAY T-5 EXTENSION
LEGEND:
10
BUILDING OR PAD
IMPROVED ROADS
UNIT BOUNDARY
UNIT 2
DRAINAGE AREA
RESERVOIR
175
UNIT 1
PIT AREAS
AIRCRAFT
MATTING
1601
RESERVOIR
174
NORTH
N
TRUE
0
60
120
FEET
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Site Plan
Site 9 - Crash Crew Pit No. 1
File No.
103L2075
Figure E-9a
Date
3/1/97

PAGE NO. E-56

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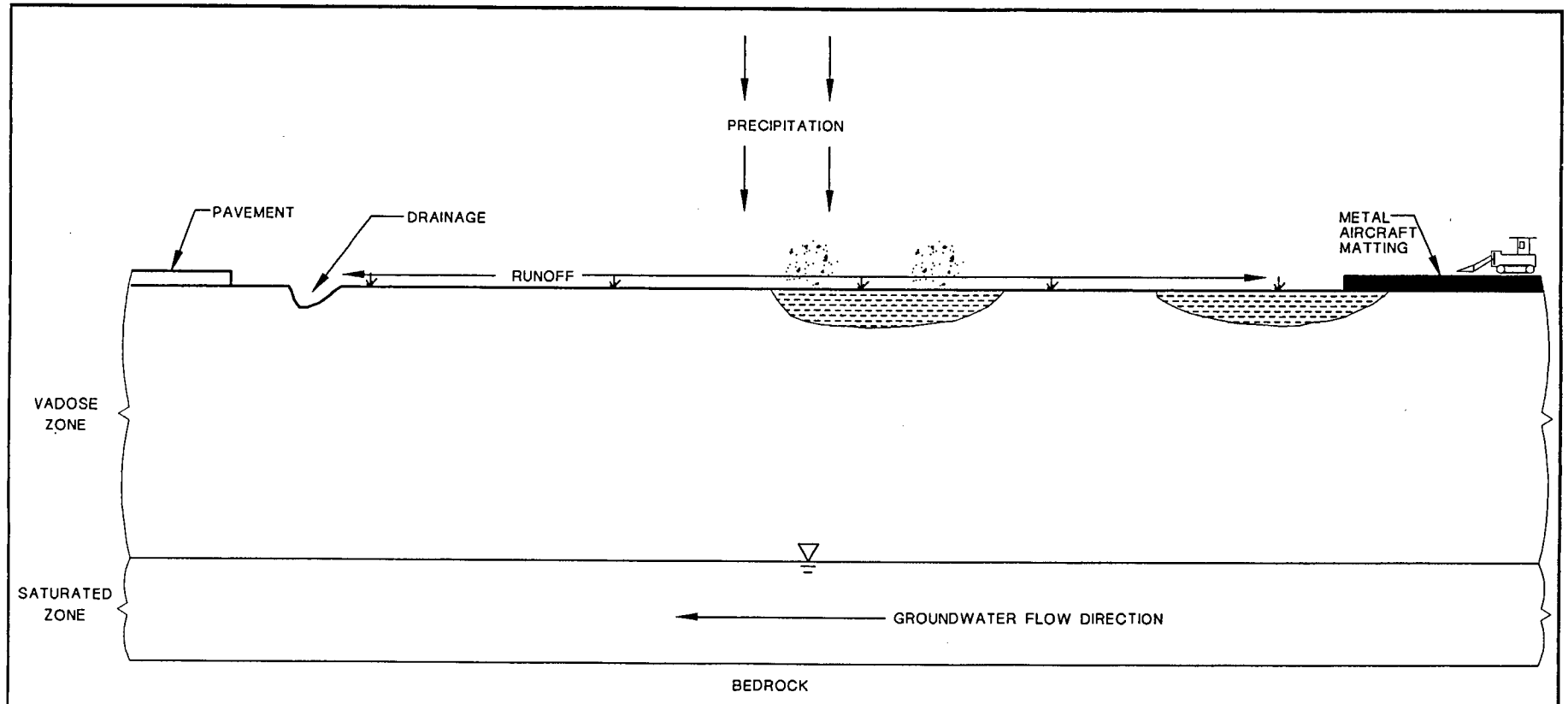

LEGEND:

RECEPTORS:

WORKERS

CONTAMINATED SOIL

PATHWAYS:

GROUNDWATER

DUST

NOT TO SCALE

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 9 - Crash Crew Pit No. 1**		
File No.	**Figure E-9b**	Date
103M2076		3/1/97

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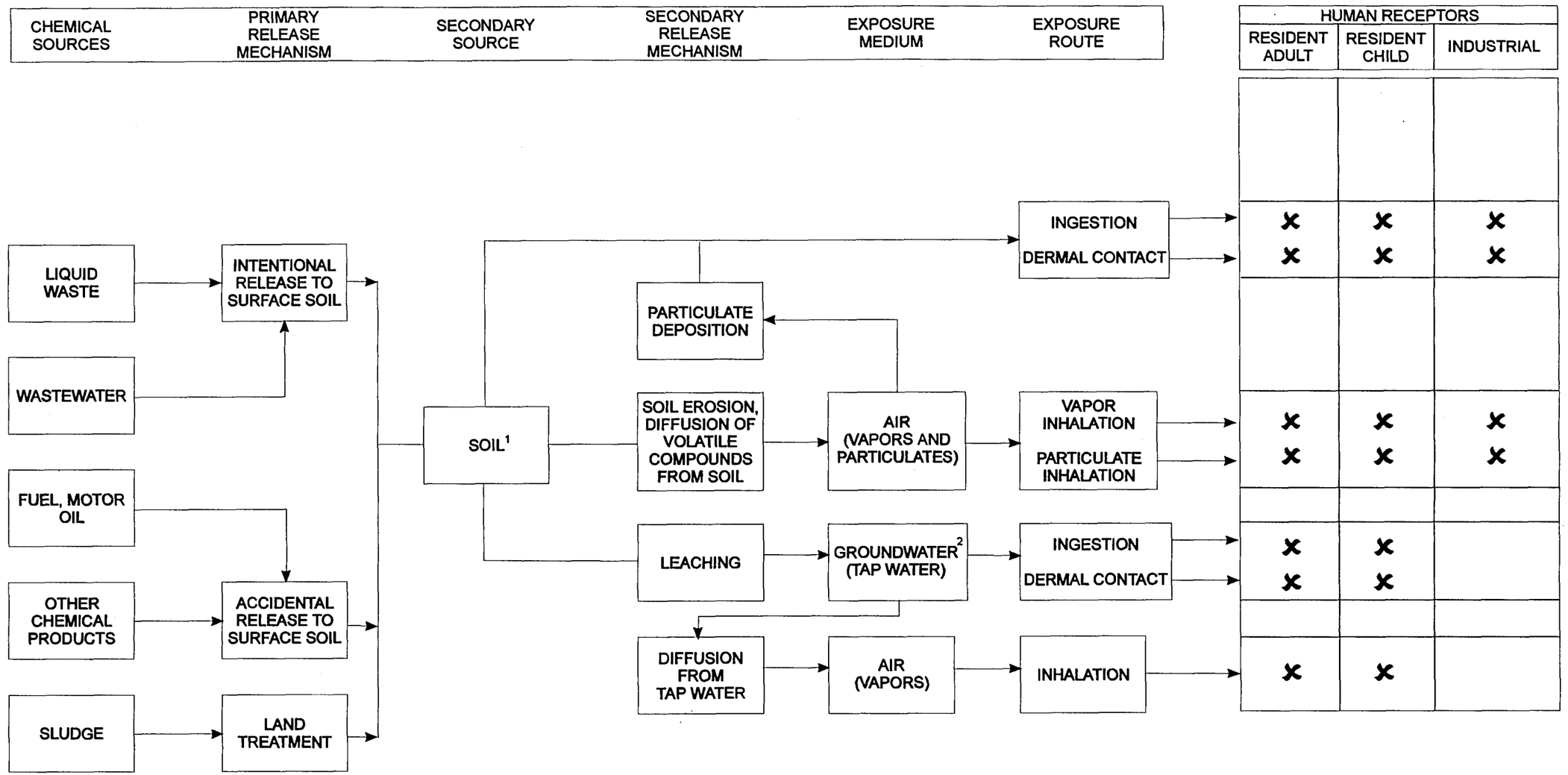

LEGEND

1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)

2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Exposure Routes and Receptors **Site 9 - Crash Crew Pit No. 1**		
File No. 103C2077	**Figure E-9c**	Date 3/1/97

PAGE NO. E-60

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MCAS EL TORO

SENSITIVE RECORD

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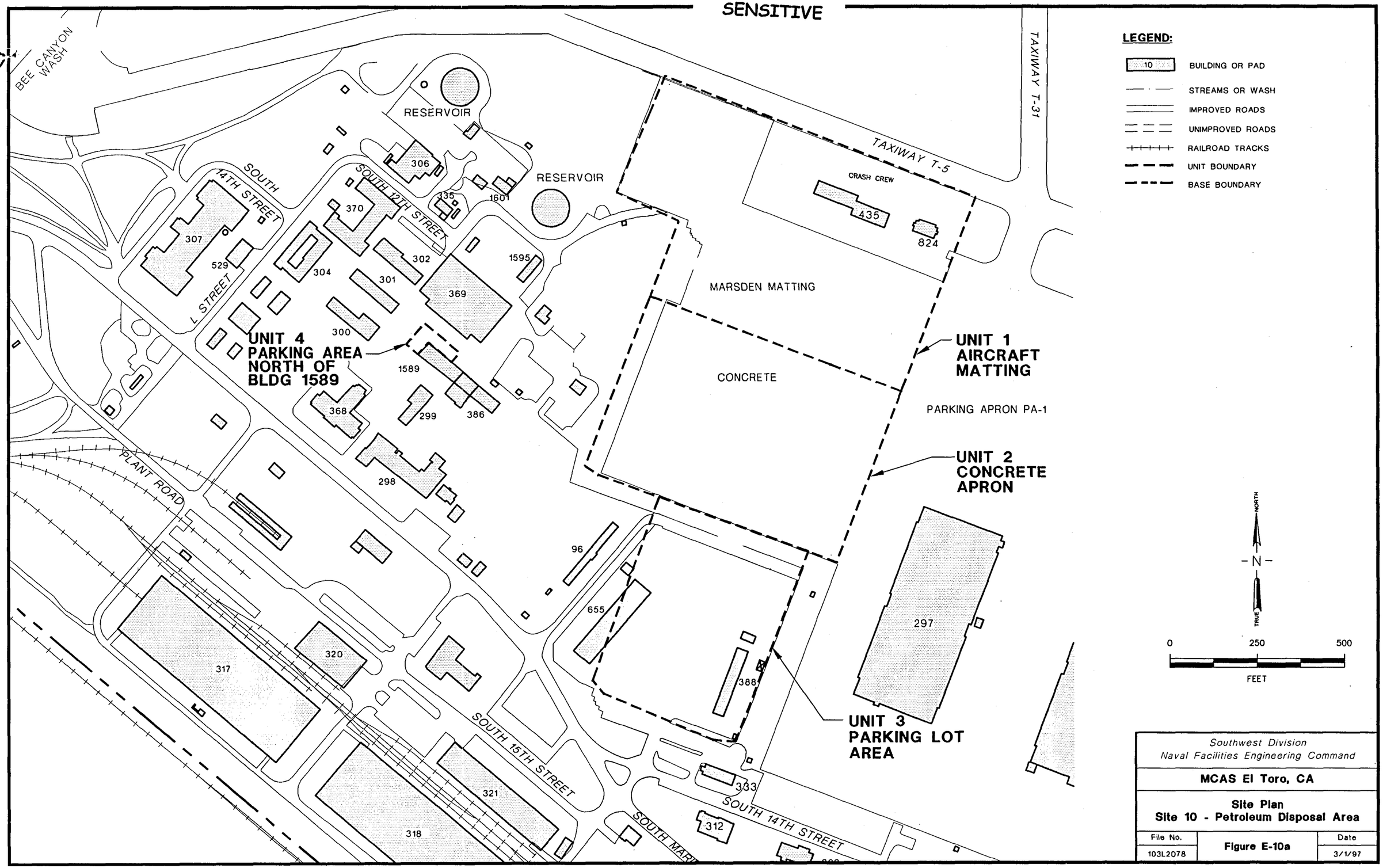
FIGURE E-10A – SITE PLAN
SITE 10 - PETROLEUM DISPOSAL AREA

FOR ADDITIONAL INFORMATION, CONTACT:

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

TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil


LEGEND:
10 BUILDING OR PAD
STREAMS OR WASH
IMPROVED ROADS
UNIMPROVED ROADS
RAILROAD TRACKS
UNIT BOUNDARY
BASE BOUNDARY
BEE CANYON WASH
RESERVOIR
RESERVOIR
SOUTH 14TH STREET
SOUTH 12TH STREET
L STREET
PLANT ROAD
SOUTH 15TH STREET
SOUTH 14TH STREET
TAXIWAY T-5
TAXIWAY T-31
CRASH CREW
MARSDEN MATTING
CONCRETE
PARKING APRON PA-1
UNIT 1 AIRCRAFT MATTING
UNIT 2 CONCRETE APRON
UNIT 3 PARKING LOT AREA
UNIT 4 PARKING AREA NORTH OF BLDG 1589
306
335
1601
370
307
529
304
302
301
369
1595
300
1589
368
299
386
298
96
655
388
297
435
824
317
320
321
318
333
312
NORTH
N
TRUE
0
250
500
FEET
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Site Plan
Site 10 - Petroleum Disposal Area
File No.
103L2078
Figure E-10a
Date
3/1/97

PAGE NO. E-62

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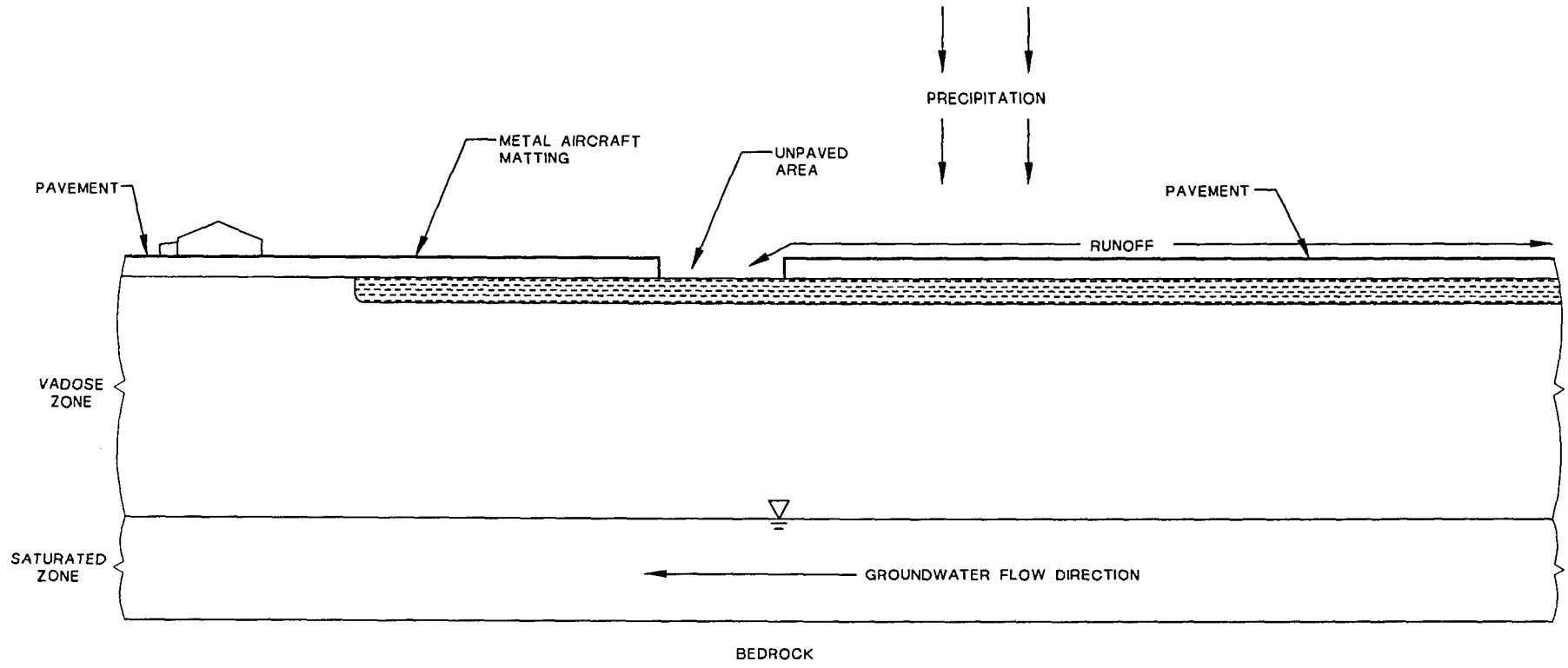

LEGEND:

RECEPTORS:

CONTAMINATED SOIL

BASE BUILDINGS

NOT TO SCALE

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 10 - Petroleum Disposal Area**		
File No.	**Figure E-10b**	Date
103M2079		3/1/97

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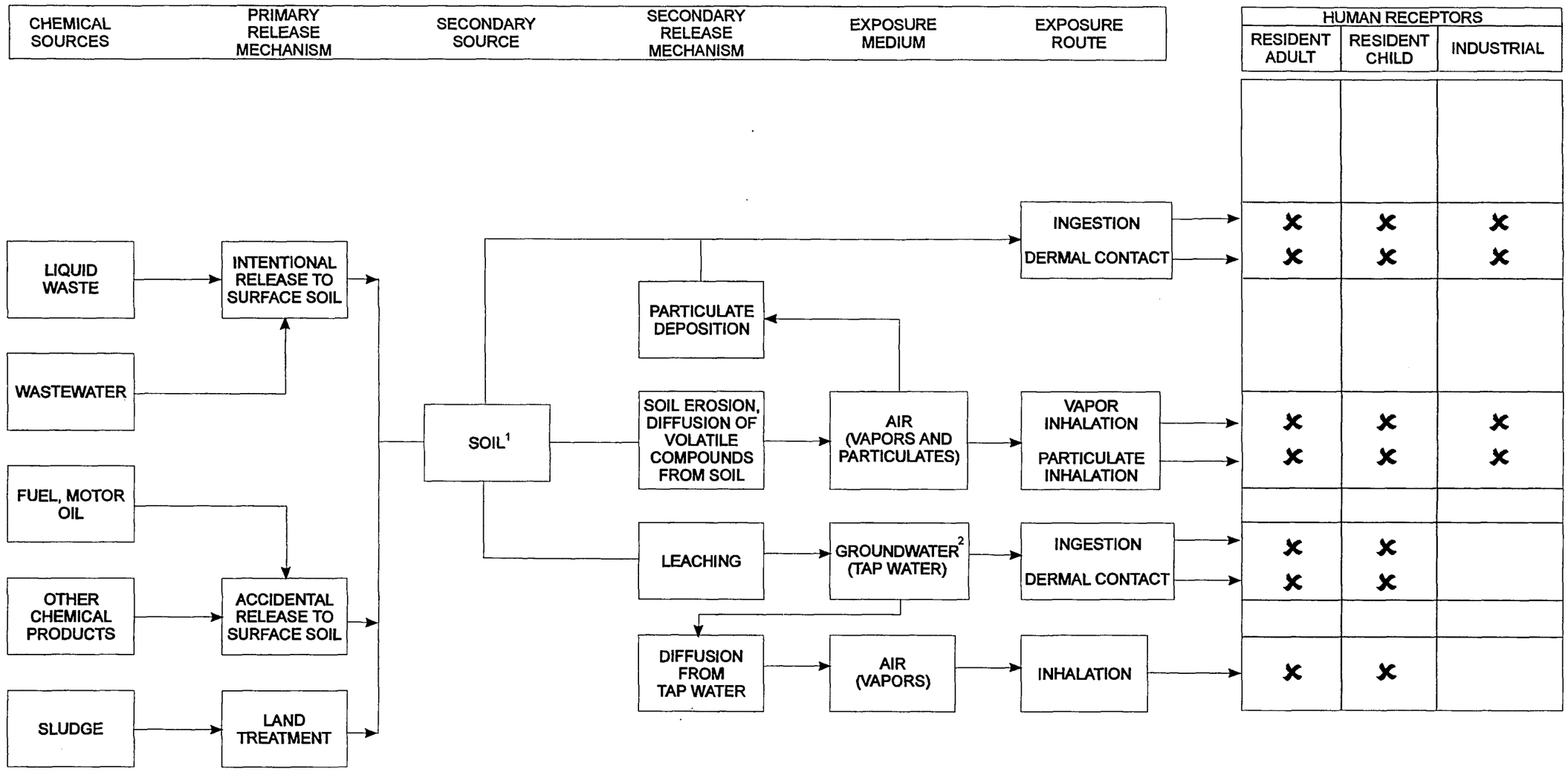

LEGEND

1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)

2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Exposure Routes and Receptors **Site 10 - Petroleum Disposal Area**		
File No.	**Figure E-10c**	Date
103C2080		3/1/97

PAGE NO. E-66

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M60050_001745
MCAS EL TORO

SENSITIVE RECORD

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FIGURE E-11A – SITE PLAN
SITE 11 - TRANSFORMER STORAGE AREA

FOR ADDITIONAL INFORMATION, CONTACT:

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1220 PACIFIC HIGHWAY
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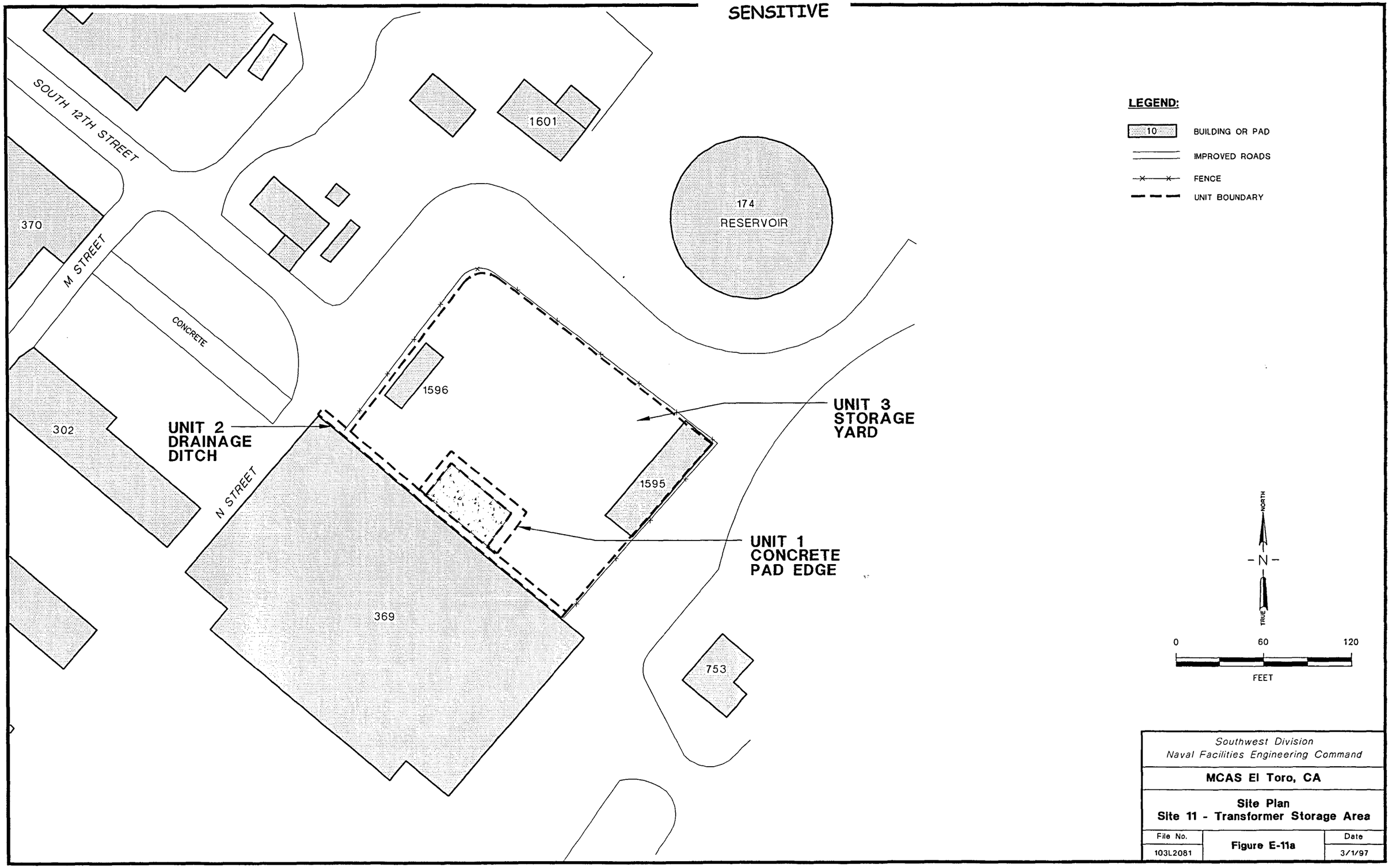
TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil


SOUTH 12TH STREET
M STREET
N STREET
CONCRETE
370
302
369
1601
1596
1595
753
174
RESERVOIR
UNIT 2
DRAINAGE
DITCH
UNIT 3
STORAGE
YARD
UNIT 1
CONCRETE
PAD EDGE
LEGEND:
10
BUILDING OR PAD
IMPROVED ROADS
FENCE
UNIT BOUNDARY
NORTH
N
TRUE
0
60
120
FEET
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Site Plan
Site 11 - Transformer Storage Area
File No.
103L2081
Figure E-11a
Date
3/1/97

PAGE NO. E-68

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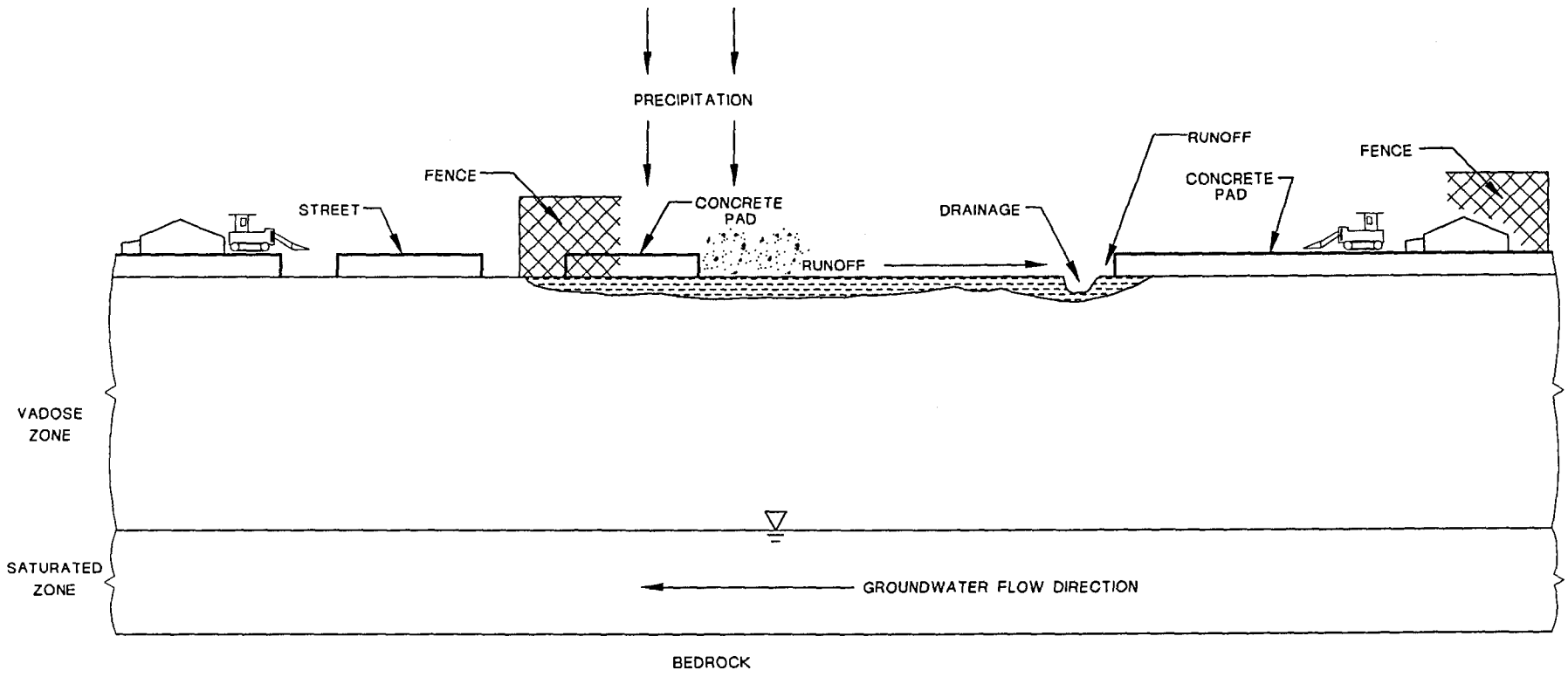

LEGEND:

RECEPTORS:

- WORKERS
- CONTAMINATED SOIL
- BASE BUILDINGS

PATHWAYS:

- GROUNDWATER
- DUST

NOT TO SCALE

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 11 - Transformer Storage Area**		
File No.	**Figure E-11b**	Date
103M2082		3/1/97

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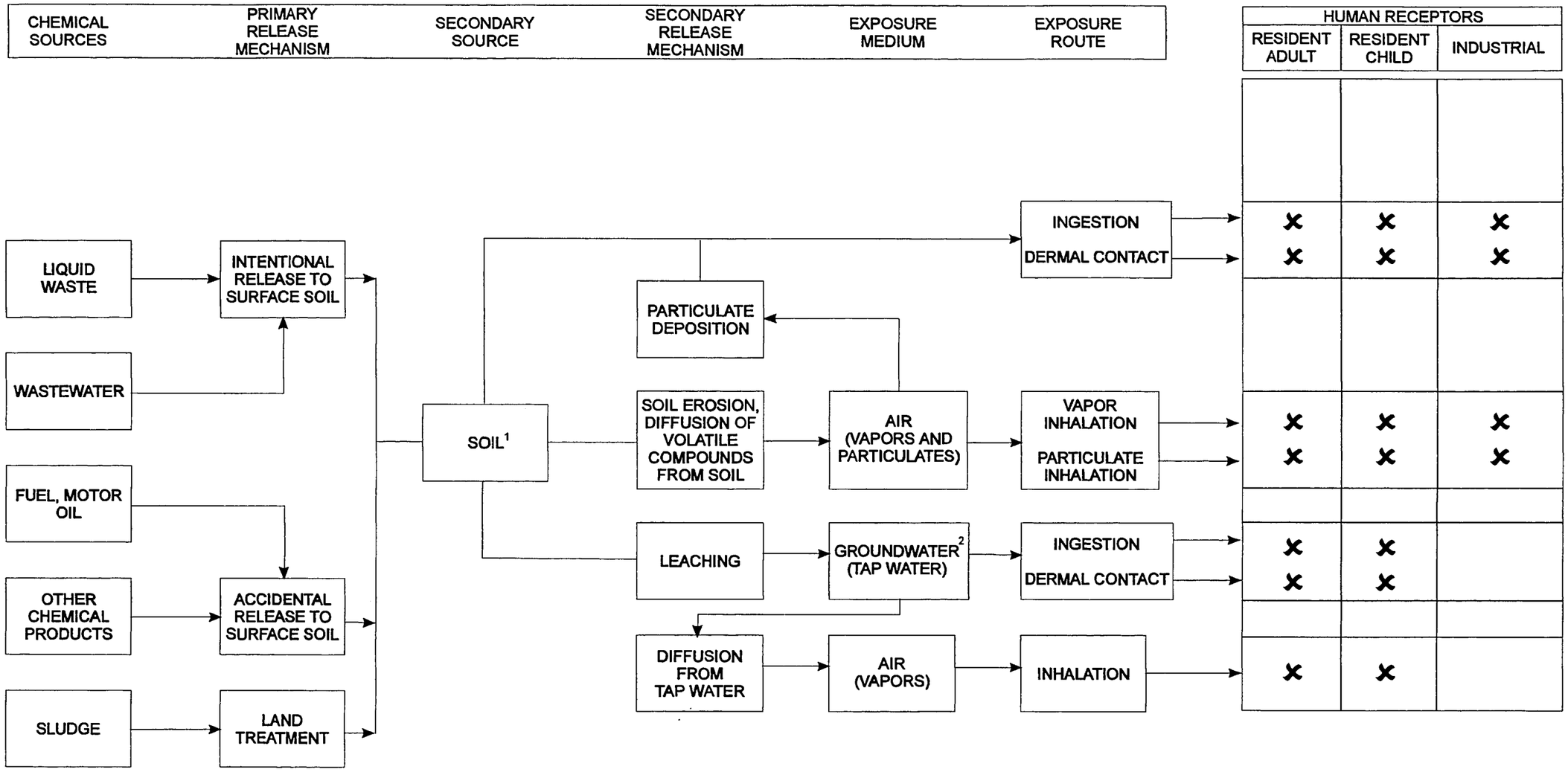

LEGEND

1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)

2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Exposure Routes and Receptors **Site 11 - Transformer Storage Area**		
File No.	**Figure E-11c**	Date
103C2083		3/1/97

PAGE NO. E-72

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M60050_001745
MCAS EL TORO

SENSITIVE RECORD

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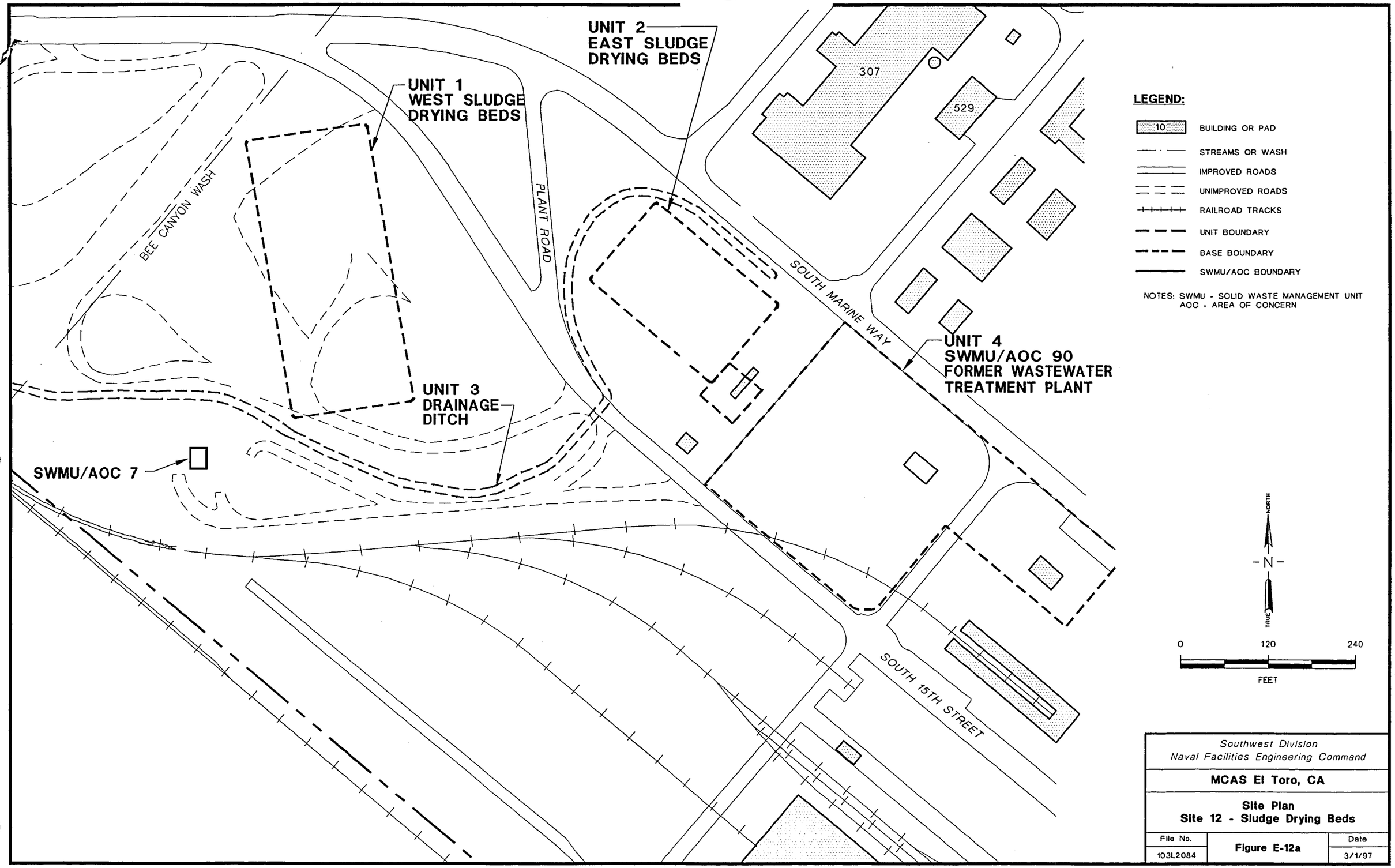
FIGURE E-12A – SITE PLAN
SITE 12 - SLUDGE DRYING BEDS

FOR ADDITIONAL INFORMATION, CONTACT:

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

TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil


UNIT 2
EAST SLUDGE
DRYING BEDS
UNIT 1
WEST SLUDGE
DRYING BEDS
BEE CANYON WASH
PLANT ROAD
307
529
SOUTH MARINE WAY
UNIT 4
SWMU/AOC 90
FORMER WASTEWATER
TREATMENT PLANT
UNIT 3
DRAINAGE
DITCH
SWMU/AOC 7
SOUTH 15TH STREET
LEGEND:
10
BUILDING OR PAD
STREAMS OR WASH
IMPROVED ROADS
UNIMPROVED ROADS
RAILROAD TRACKS
UNIT BOUNDARY
BASE BOUNDARY
SWMU/AOC BOUNDARY
NOTES: SWMU - SOLID WASTE MANAGEMENT UNIT
AOC - AREA OF CONCERN
NORTH
N
TRUE
0
120
240
FEET
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Site Plan
Site 12 - Sludge Drying Beds
File No.
103L2084
Figure E-12a
Date
3/1/97

PAGE NO. E-74

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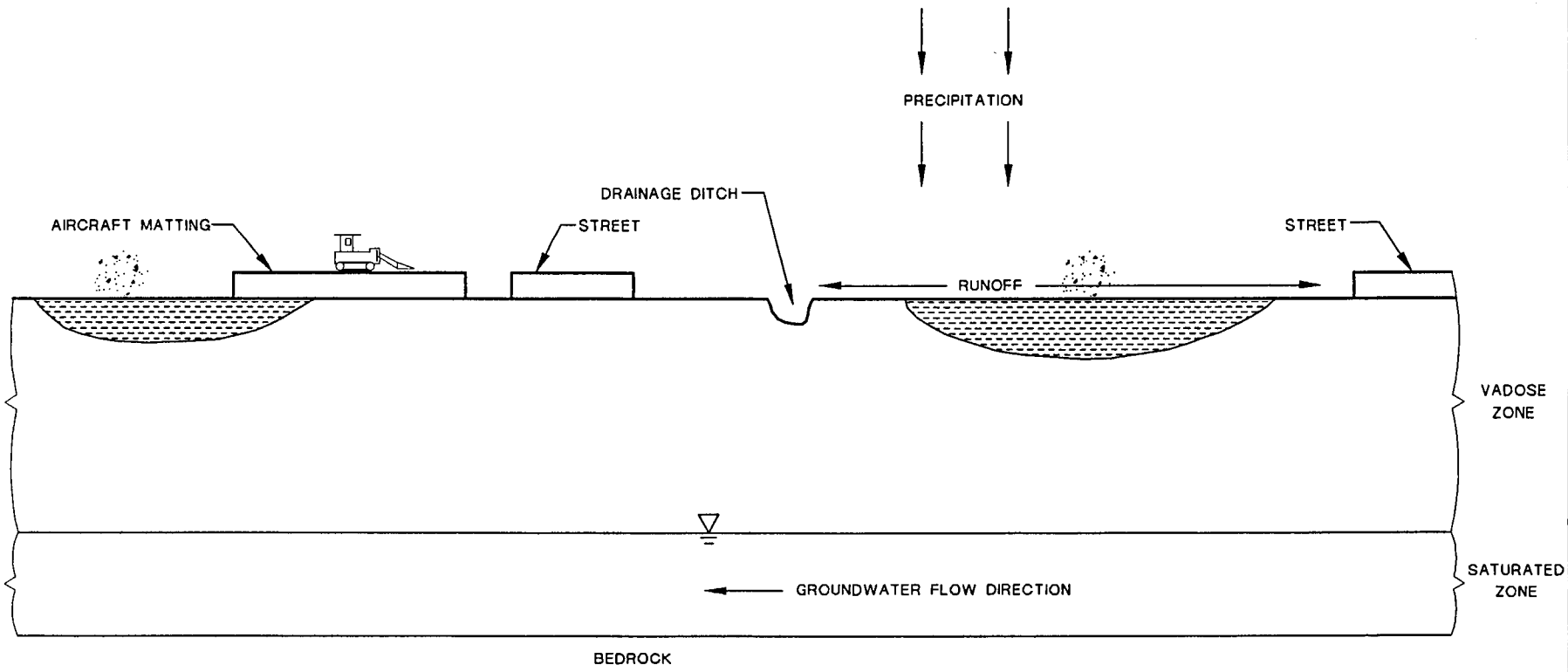

LEGEND:

RECEPTORS:

WORKERS

CONTAMINATED SOIL

PATHWAYS:

GROUNDWATER

DUST

NOT TO SCALE

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 12 - Sludge Drying Beds**		
File No.	**Figure E-12b**	Date
103M2085		3/1/97

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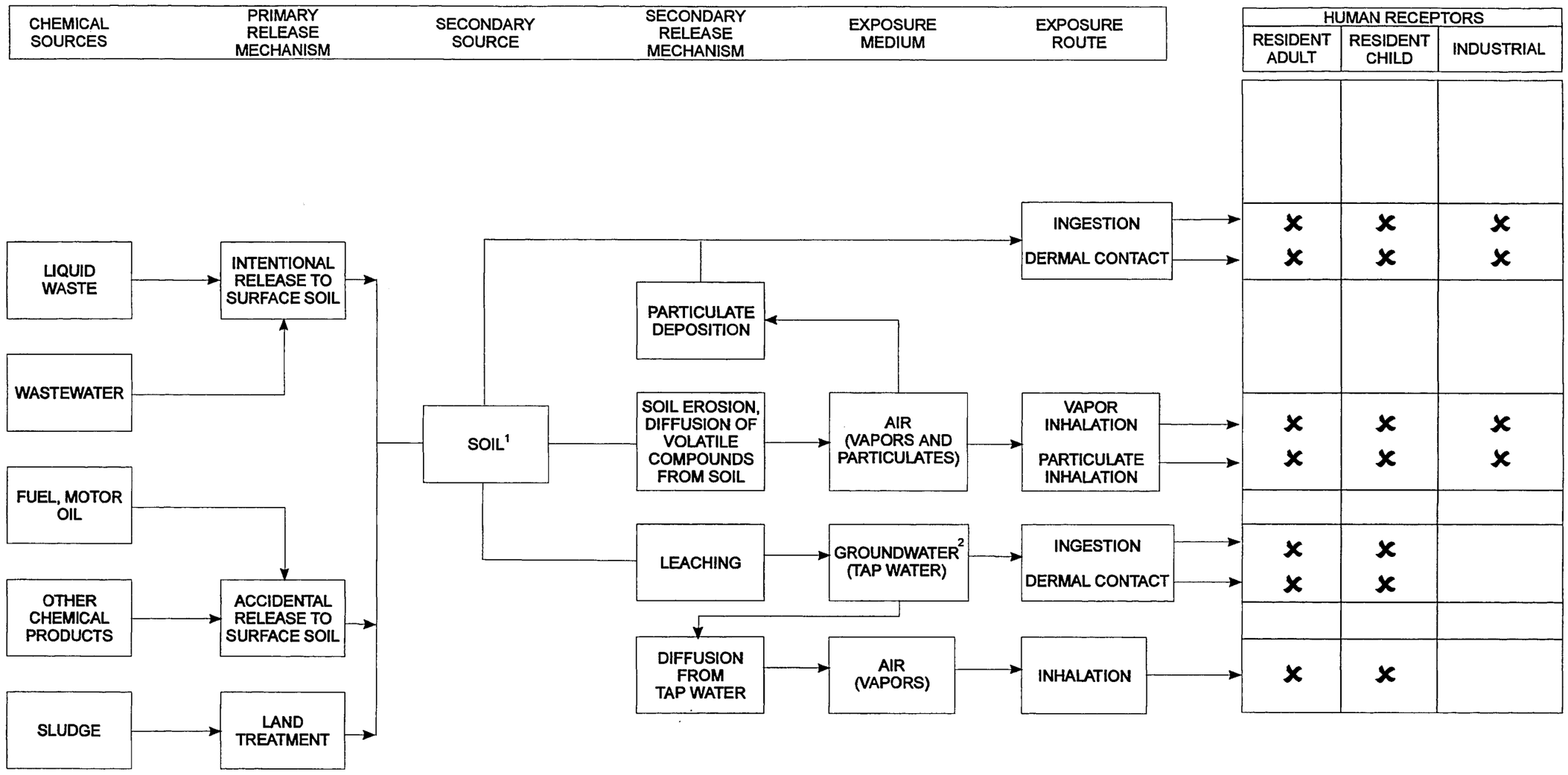

LEGEND

1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)

2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Exposure Routes and Receptors Site 12 - Sludge Drying Beds		
File No. 103C2086	**Figure E-12c**	Date 3/1/97

PAGE NO. E-78

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MCAS EL TORO

SENSITIVE RECORD

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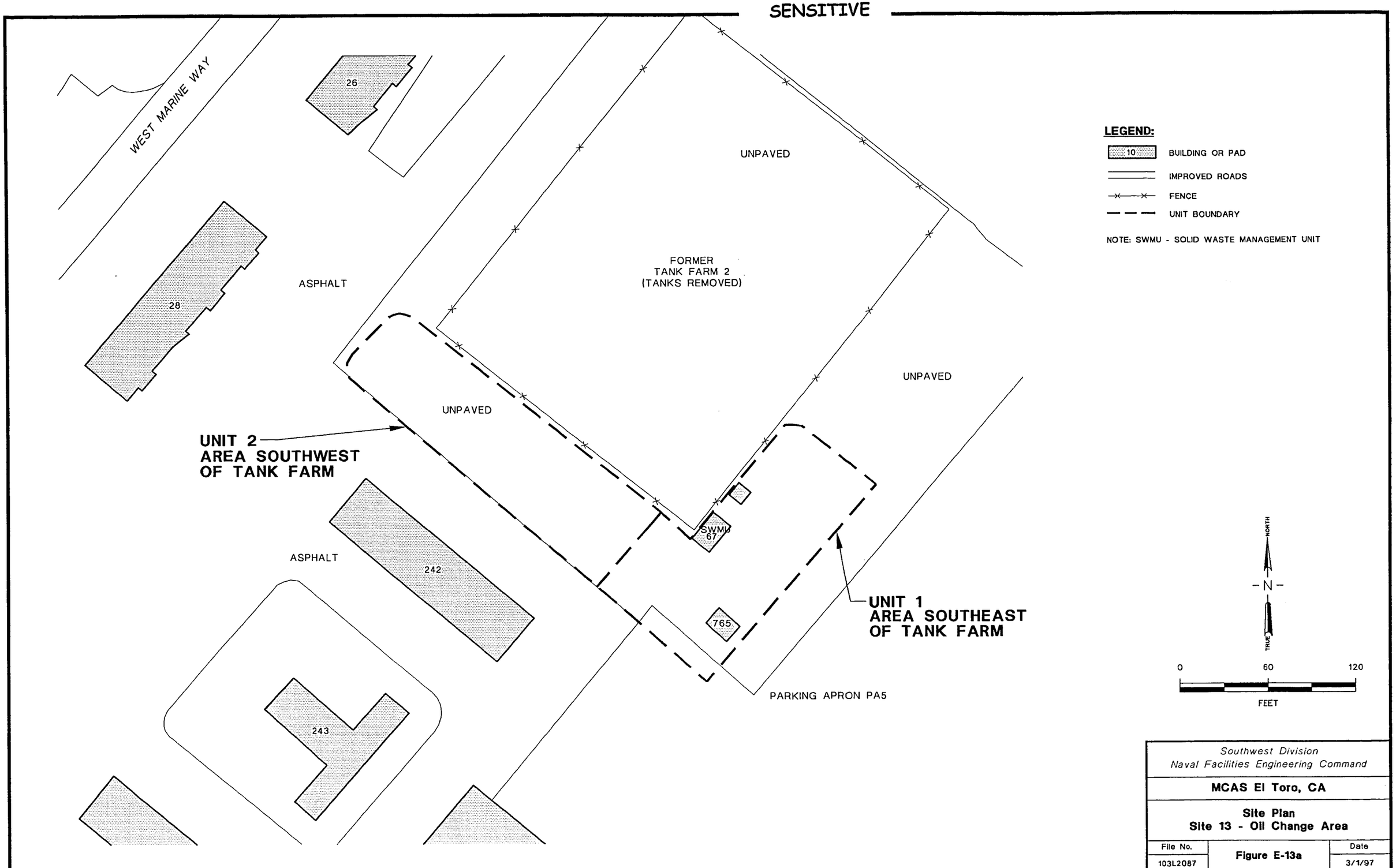
FIGURE E-13A – SITE PLAN
SITE 13 - OIL CHANGE AREA

FOR ADDITIONAL INFORMATION, CONTACT:

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

TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil


WEST MARINE WAY
26
28
ASPHALT
UNPAVED
FORMER
TANK FARM 2
(TANKS REMOVED)
UNPAVED
UNPAVED
UNIT 2
AREA SOUTHWEST
OF TANK FARM
SWMU
67
ASPHALT
242
765
UNIT 1
AREA SOUTHEAST
OF TANK FARM
PARKING APRON PA5
243
LEGEND:
10
BUILDING OR PAD
IMPROVED ROADS
FENCE
UNIT BOUNDARY
NOTE: SWMU - SOLID WASTE MANAGEMENT UNIT
NORTH
N
TRUE
0
60
120
FEET
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Site Plan
Site 13 - Oil Change Area
File No.
103L2087
Figure E-13a
Date
3/1/97

PAGE NO. E-80

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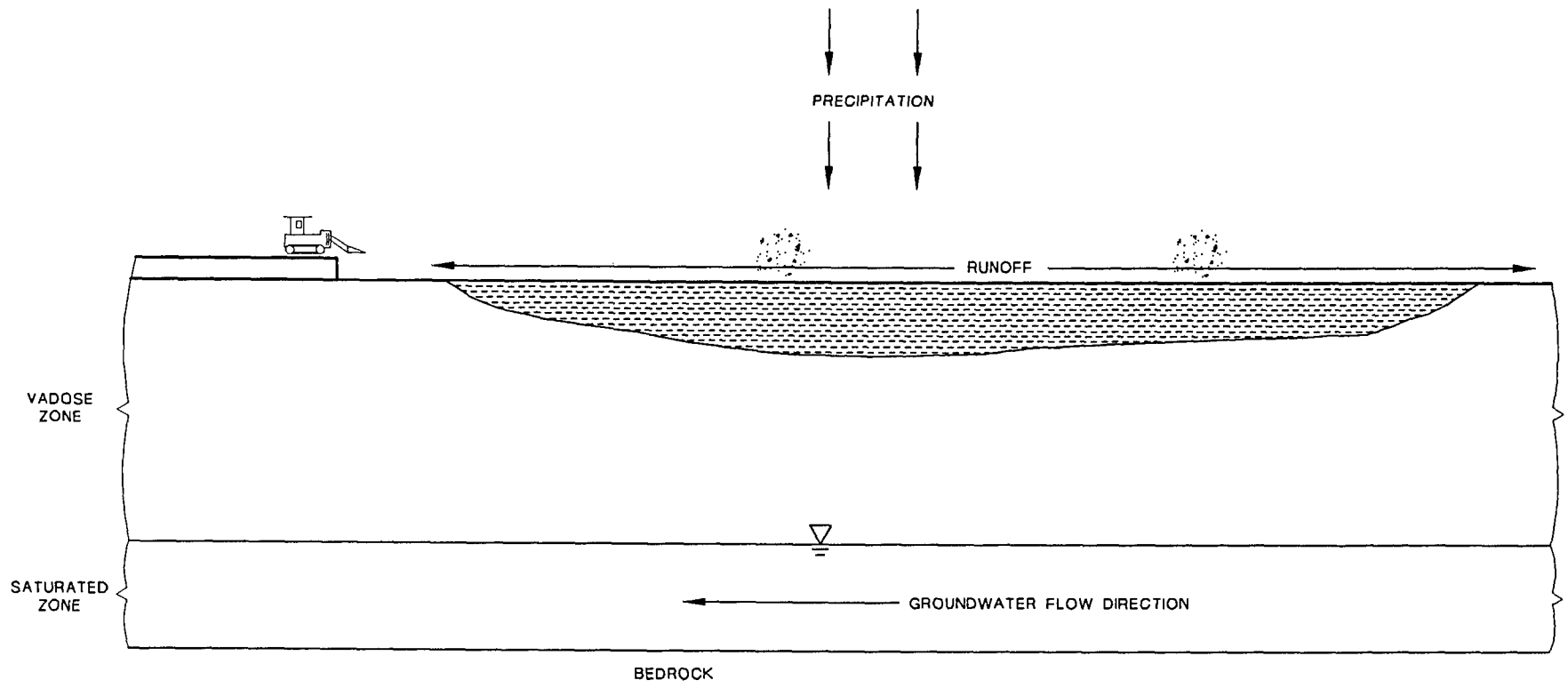

LEGEND:

RECEPTORS:

- WORKERS
- CONTAMINATED SOIL

PATHWAYS:

- GROUNDWATER
- DUST

NOT TO SCALE

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model Site 13 - Oil Change Area		
File No.	**Figure E-13b**	Date
103M2088		3/1/97

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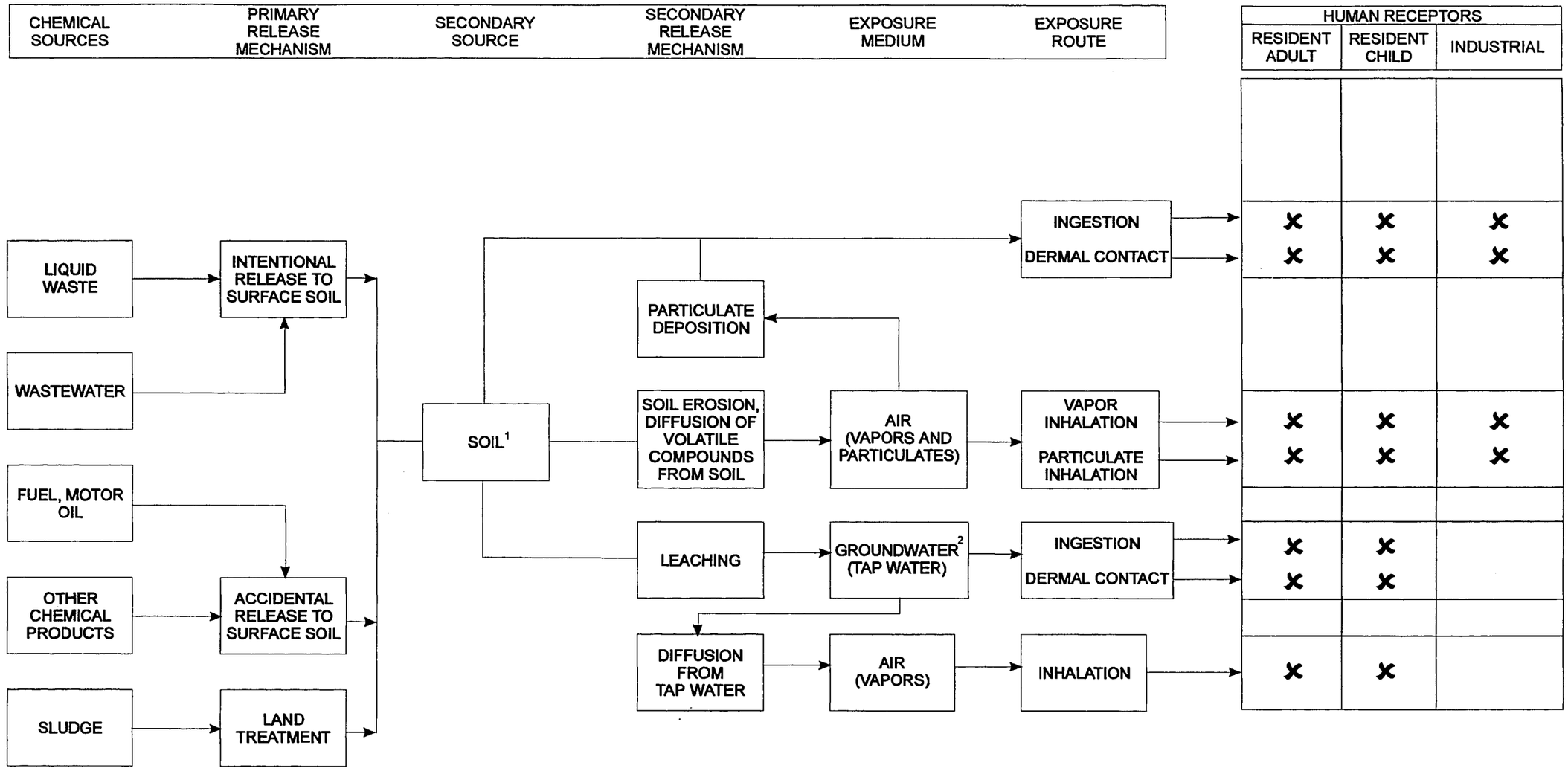

LEGEND

1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)

2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Exposure Routes and Receptors **Site 13 - Oil Change Area**		
File No. 103C2089	**Figure E-13c**	Date 3/1/97

M60050_001745
MCAS EL TORO

PAGE NO. E-84

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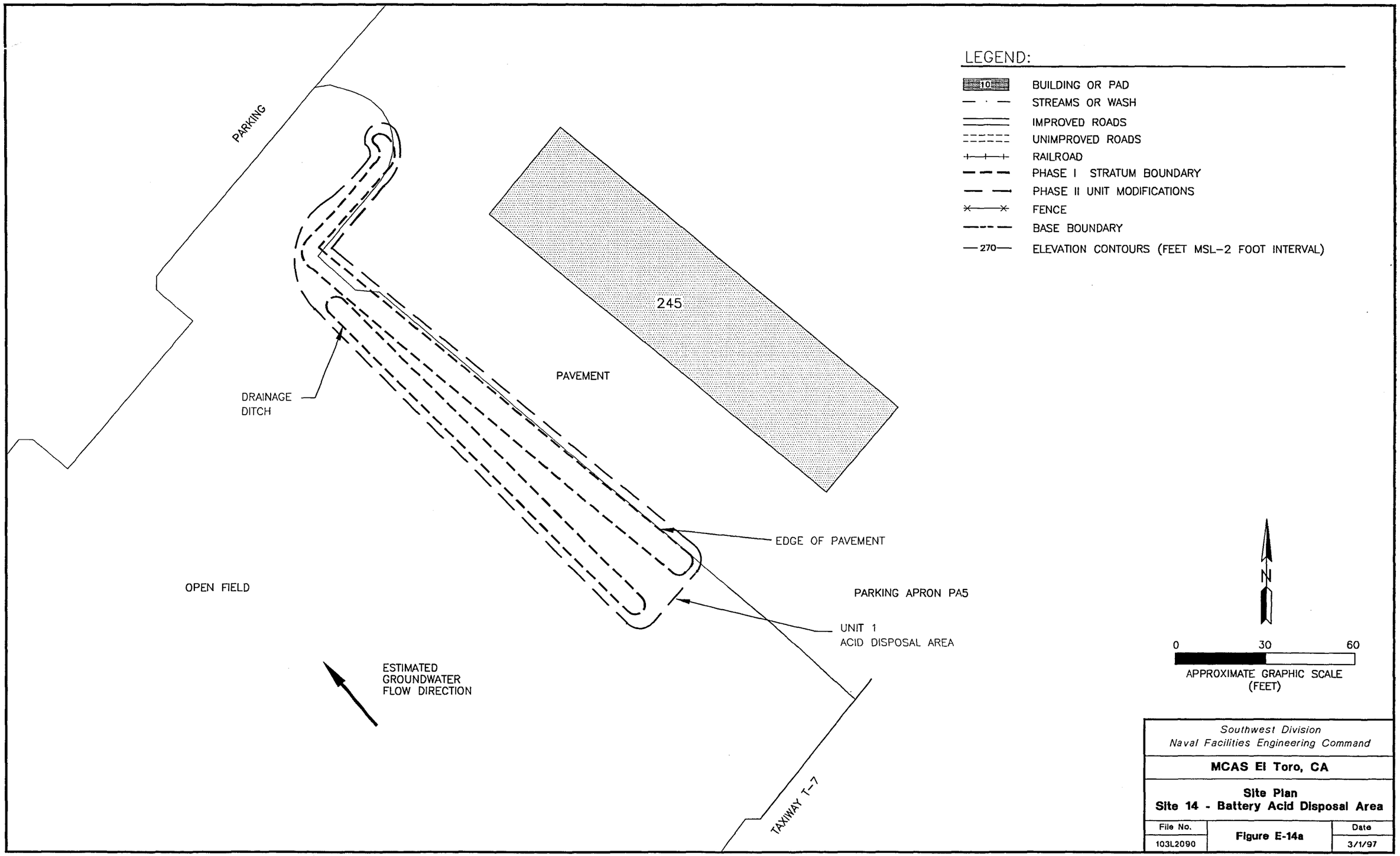

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Site Plan Site 14 - Battery Acid Disposal Area		
File No.	**Figure E-14a**	Date
103L2090		3/1/97

PAGE NO. E-86

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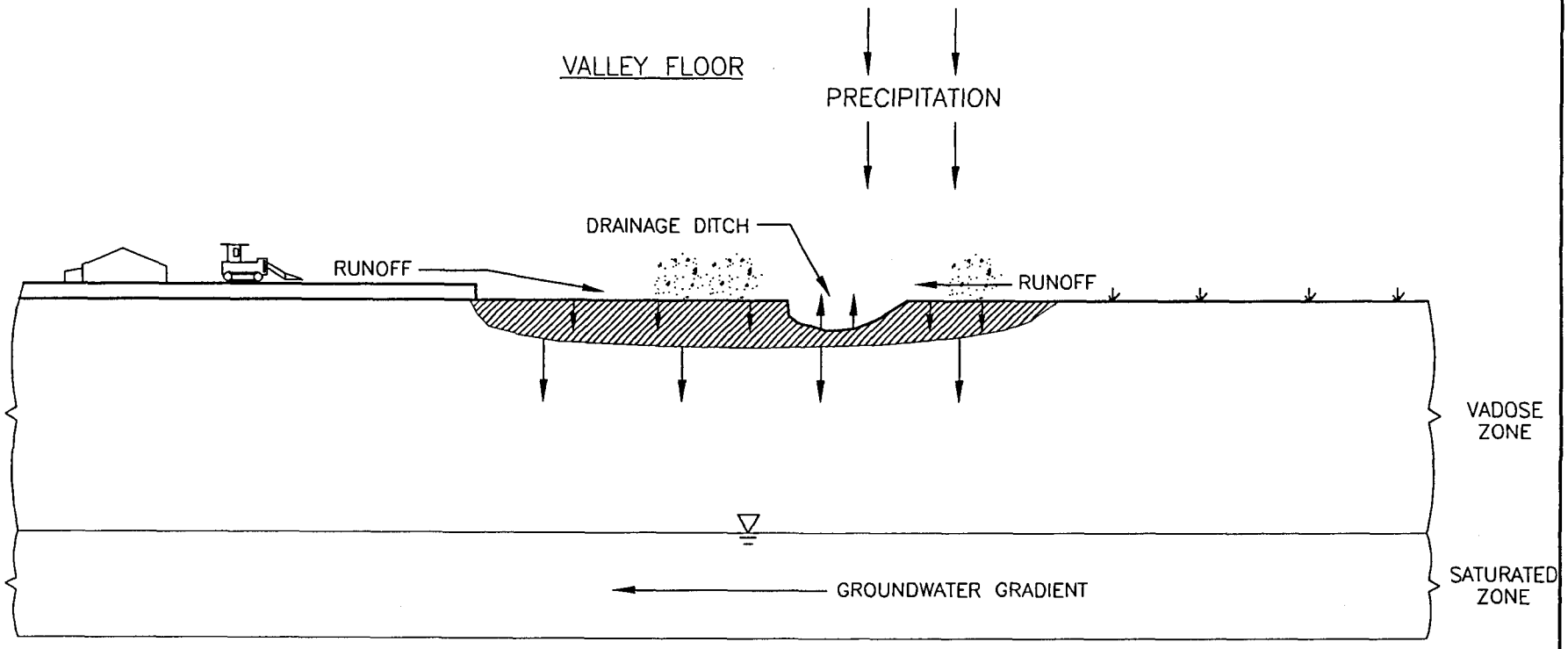

LEGEND:

RECEPTORS:

- BURROWING ANIMALS
- WORKERS
- RESIDENCES
- GRASS, BRUSH — HABITATS
- TREE
- CONTAMINATED SOIL
- BASE BUILDINGS

PATHWAYS:

- INFILTRATION
- GROUNDWATER
- WASTES
- VAPOR EMISSIONS
- LIGHT NONAQUEOUS PHASE LIQUID CONTAMINANTS
- LEACHING
- DISSOLVED PHASE CONTAMINANTS
- DUST
- UNEXPLODED ORDNANCE

NOT TO SCALE

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 14 - Battery Acid Disposal Area**		
File No.	**Figure E-14b**	Date
103M2091		3/1/97

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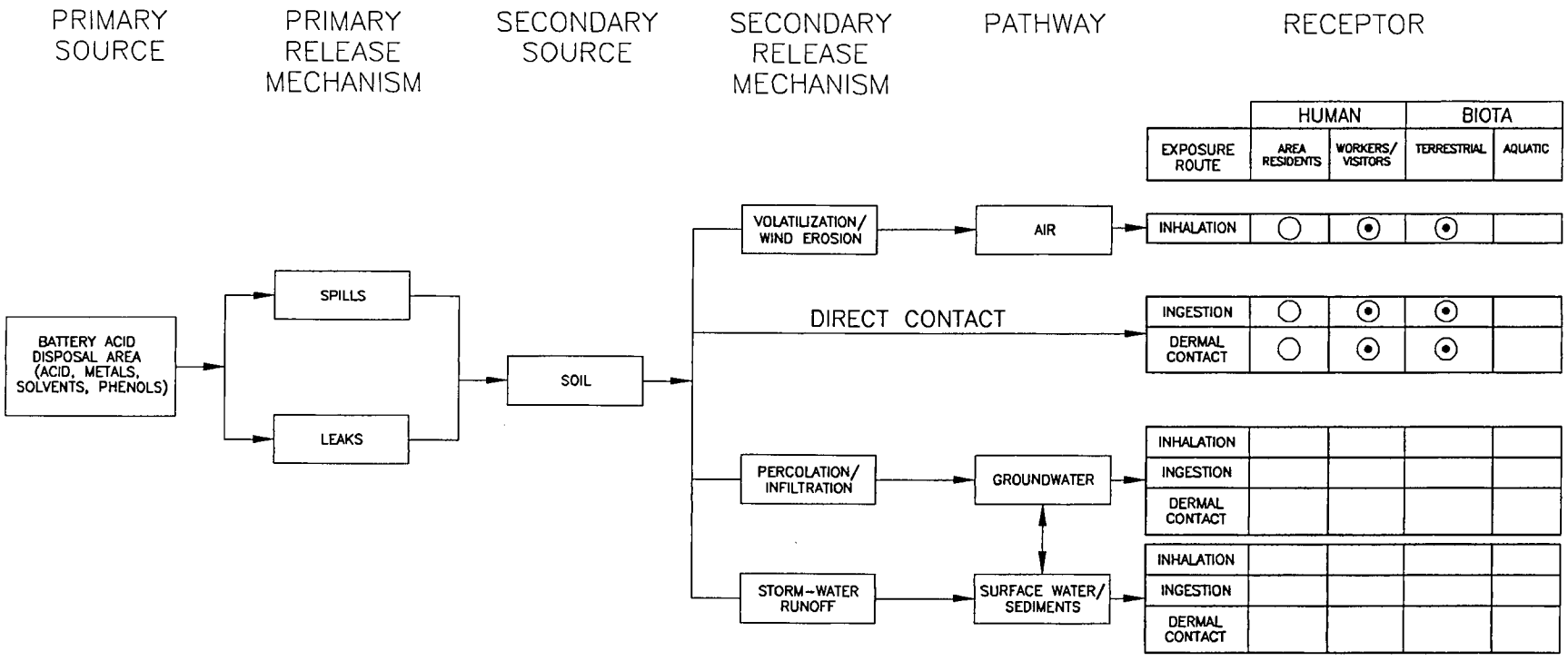

LEGEND:

● CURRENT POTENTIAL RECEPTOR

○ FUTURE POTENTIAL RECEPTOR

Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

Exposure Routes and Receptors
Site 14 - Battery Acid Disposal Area

File No.		Date
103C2092	**Figure E-14c**	3/1/97

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M60050_001745
MCAS EL TORO

SENSITIVE RECORD

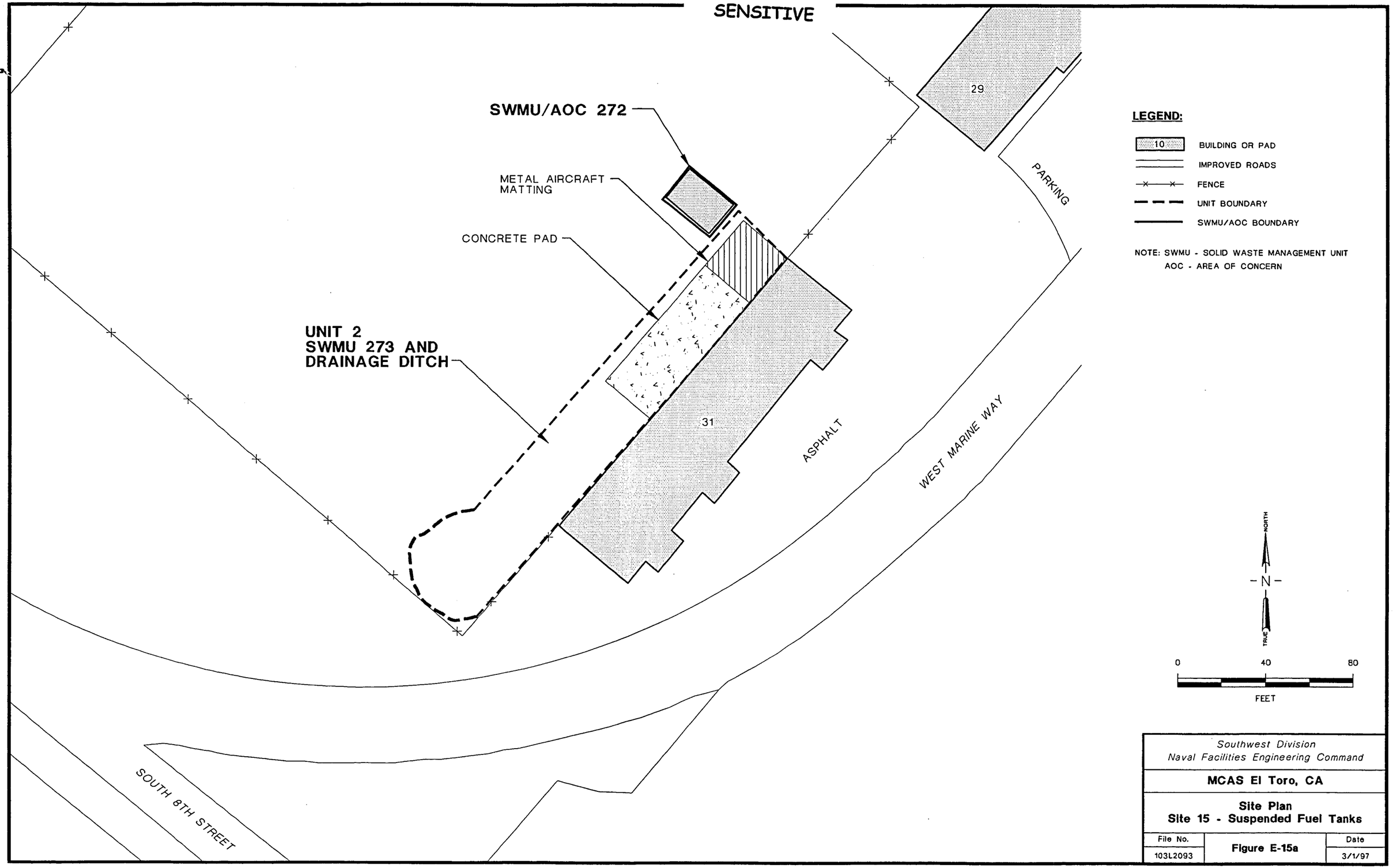
PORTIONS OF THIS RECORD ARE CONSIDERED SENSITIVE AND ARE NOT AVAILABLE FOR PUBLIC VIEWING

FIGURE E-15A – SITE PLAN
SITE 15 - SUSPENDED FUEL TANKS

FOR ADDITIONAL INFORMATION, CONTACT:

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

TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil


SWMU/AOC 272
METAL AIRCRAFT MATTING
CONCRETE PAD
UNIT 2
SWMU 273 AND
DRAINAGE DITCH
29
31
ASPHALT
PARKING
WEST MARINE WAY
SOUTH 8TH STREET
LEGEND:
10 BUILDING OR PAD
IMPROVED ROADS
FENCE
UNIT BOUNDARY
SWMU/AOC BOUNDARY
NOTE: SWMU - SOLID WASTE MANAGEMENT UNIT
AOC - AREA OF CONCERN
NORTH
N
TRUE
0
40
80
FEET
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Site Plan
Site 15 - Suspended Fuel Tanks
File No.
103L2093
Figure E-15a
Date
3/1/97

PAGE NO. E-92

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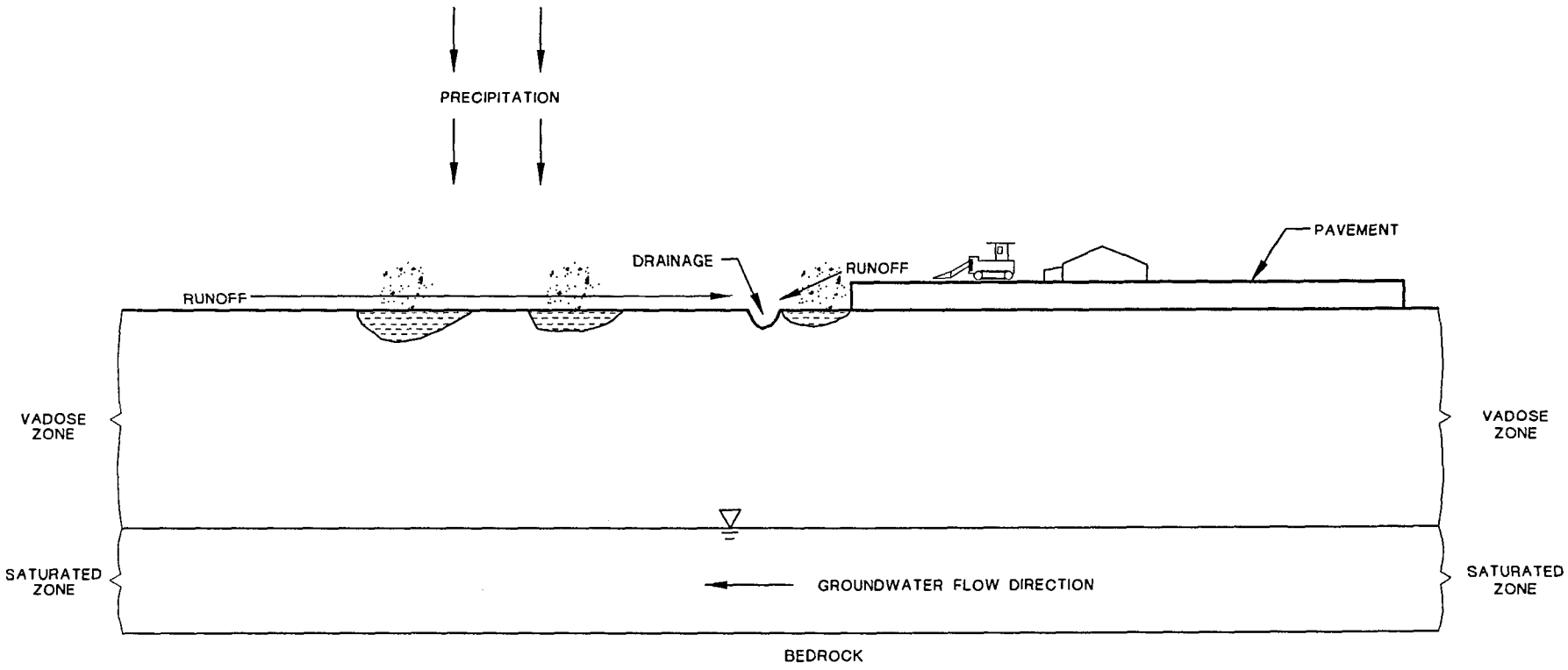

LEGEND:

RECEPTORS:

- WORKERS
- CONTAMINATED SOIL
- BASE BUILDINGS

PATHWAYS:

- GROUNDWATER
- DUST

NOT TO SCALE

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 15 - Suspended Fuel Tanks**		
File No.	**Figure E-15b**	Date
103M2061		3/1/97

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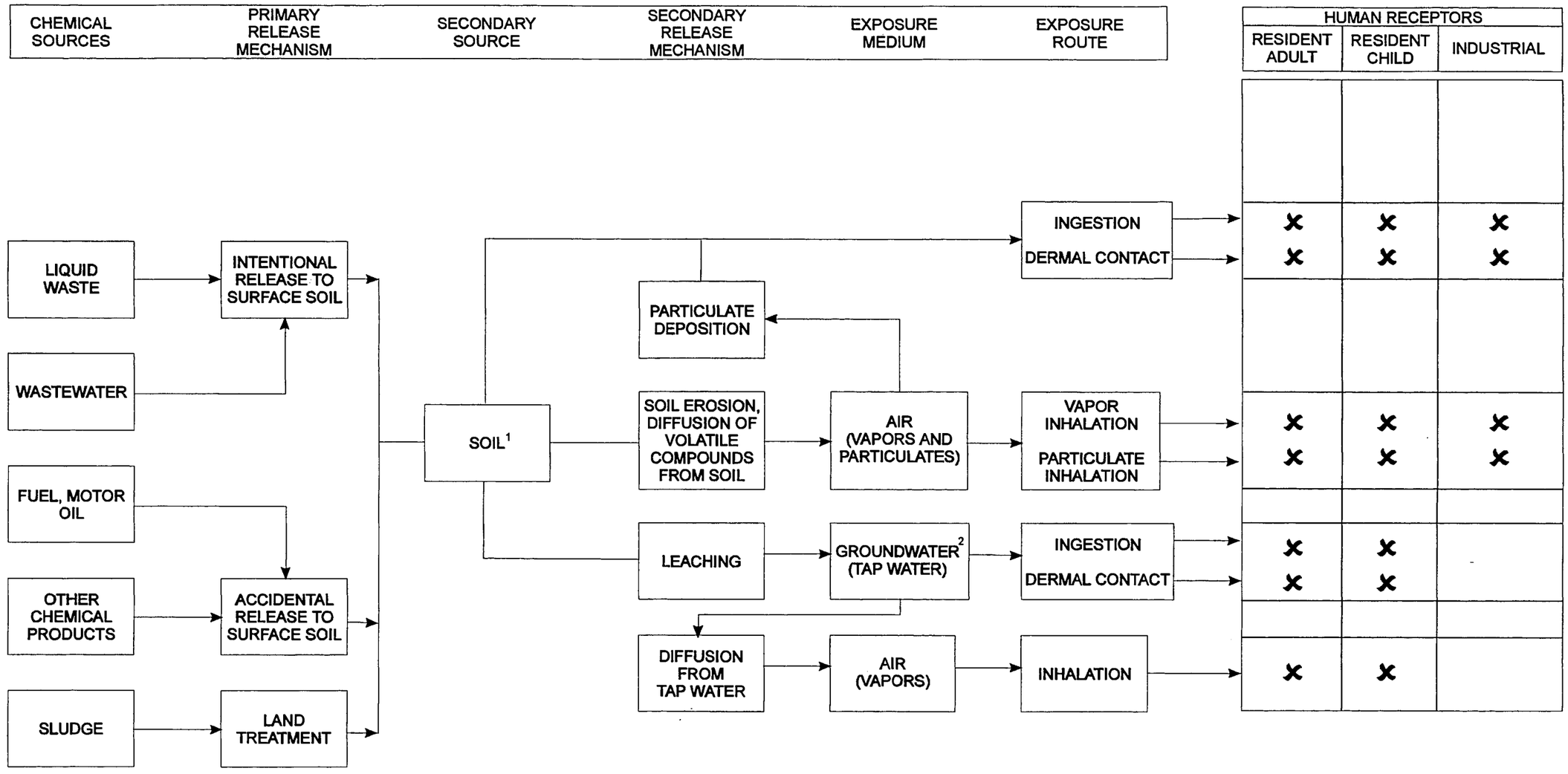

LEGEND

1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)

2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Exposure Routes and Receptors **Site 15 - Suspended Fuel Tanks**		
File No. 103C2094	**Figure E-15c**	Date 3/1/97

PAGE NO. E-96

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M60050_001745
MCAS EL TORO

SENSITIVE RECORD

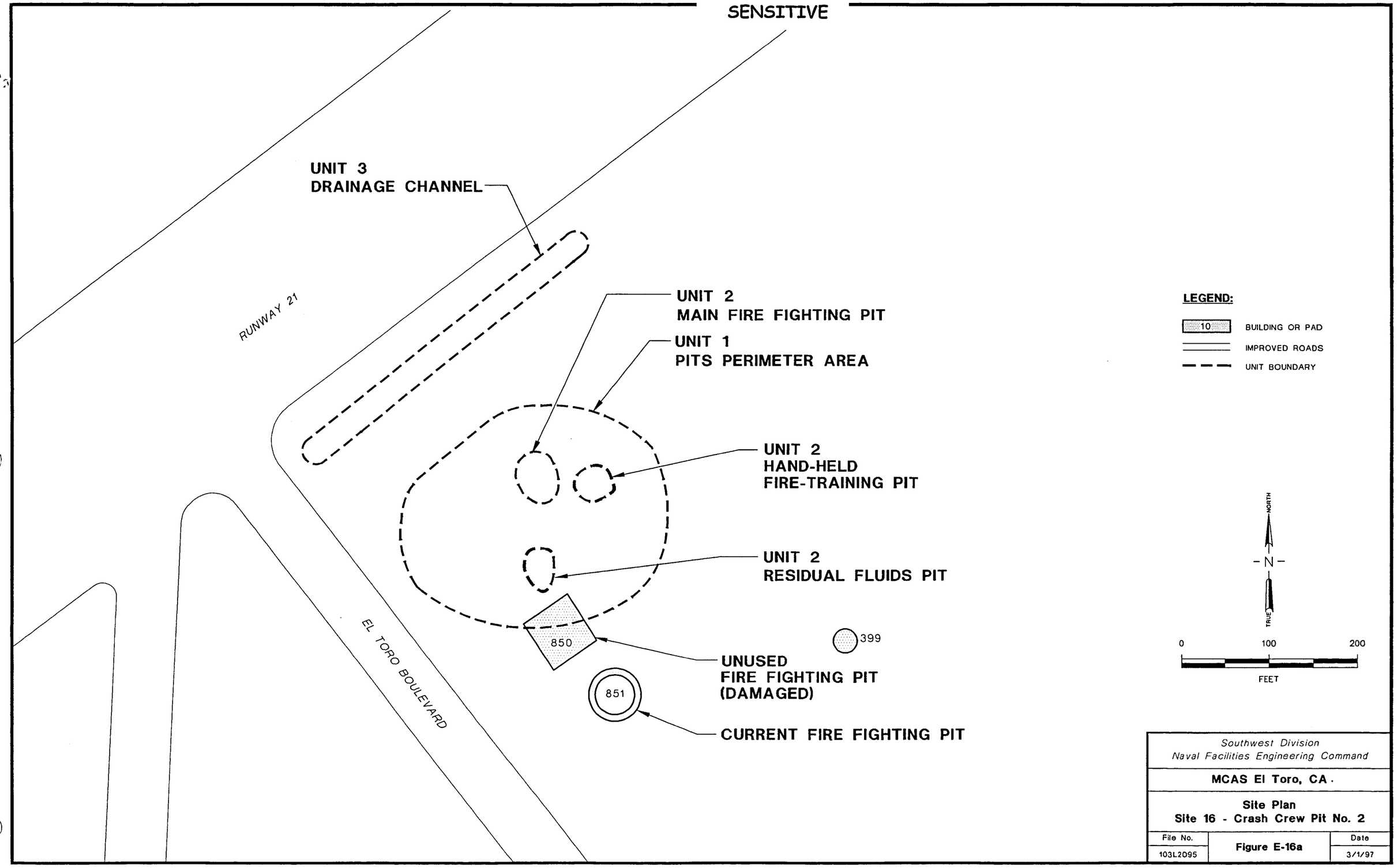
PORTIONS OF THIS RECORD ARE CONSIDERED SENSITIVE AND ARE NOT AVAILABLE FOR PUBLIC VIEWING

FIGURE E-16A – SITE PLAN
SITE 16 - CRASH CREW PIT NO. 2

FOR ADDITIONAL INFORMATION, CONTACT:

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

TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil


UNIT 3
DRAINAGE CHANNEL
RUNWAY 21
UNIT 2
MAIN FIRE FIGHTING PIT
UNIT 1
PITS PERIMETER AREA
UNIT 2
HAND-HELD
FIRE-TRAINING PIT
UNIT 2
RESIDUAL FLUIDS PIT
850
399
UNUSED
FIRE FIGHTING PIT
(DAMAGED)
851
CURRENT FIRE FIGHTING PIT
EL TORO BOULEVARD
LEGEND:
10
BUILDING OR PAD
IMPROVED ROADS
UNIT BOUNDARY
NORTH
N
TRUE
0
100
200
FEET
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Site Plan
Site 16 - Crash Crew Pit No. 2
File No.
103L2095
Figure E-16a
Date
3/1/97

M60050_001745
MCAS EL TORO

PAGE NO. E-98

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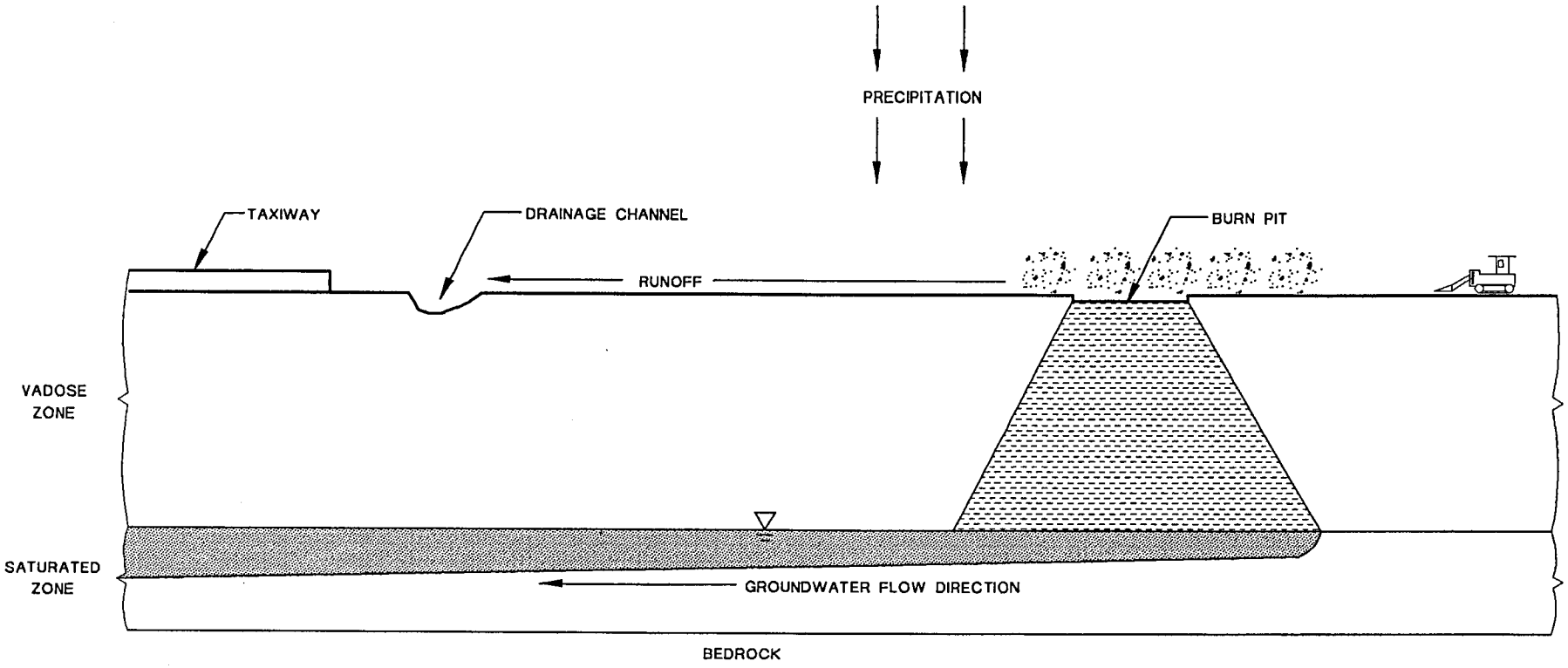

LEGEND:

RECEPTORS:

WORKERS

CONTAMINATED SOIL

PATHWAYS:

GROUNDWATER

DUST

DISSOLVED PHASE CONTAMINANTS

NOT TO SCALE

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Conceptual Site Model Site 16 - Crash Crew Pit No. 2		
File No.	**Figure E-16b**	Date
103M2096		3/1/97

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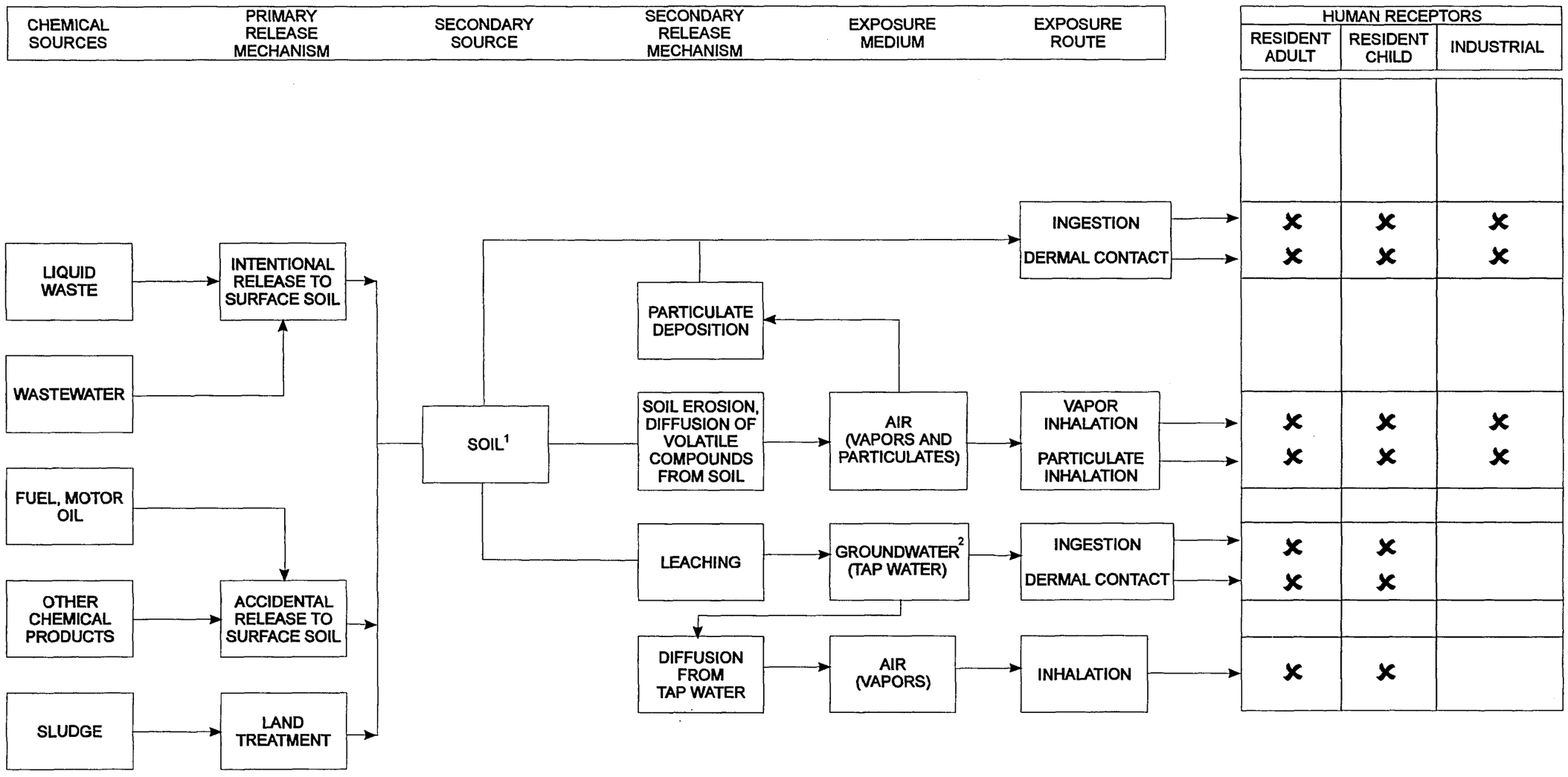

LEGEND

1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)

2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Exposure Routes and Receptors **Site 16 - Crash Crew Pit No. 2**		
File No. 103C2097	**Figure E-16c**	Date 3/1/97

M60050_001745
MCAS EL TORO

PAGE NO. E-102

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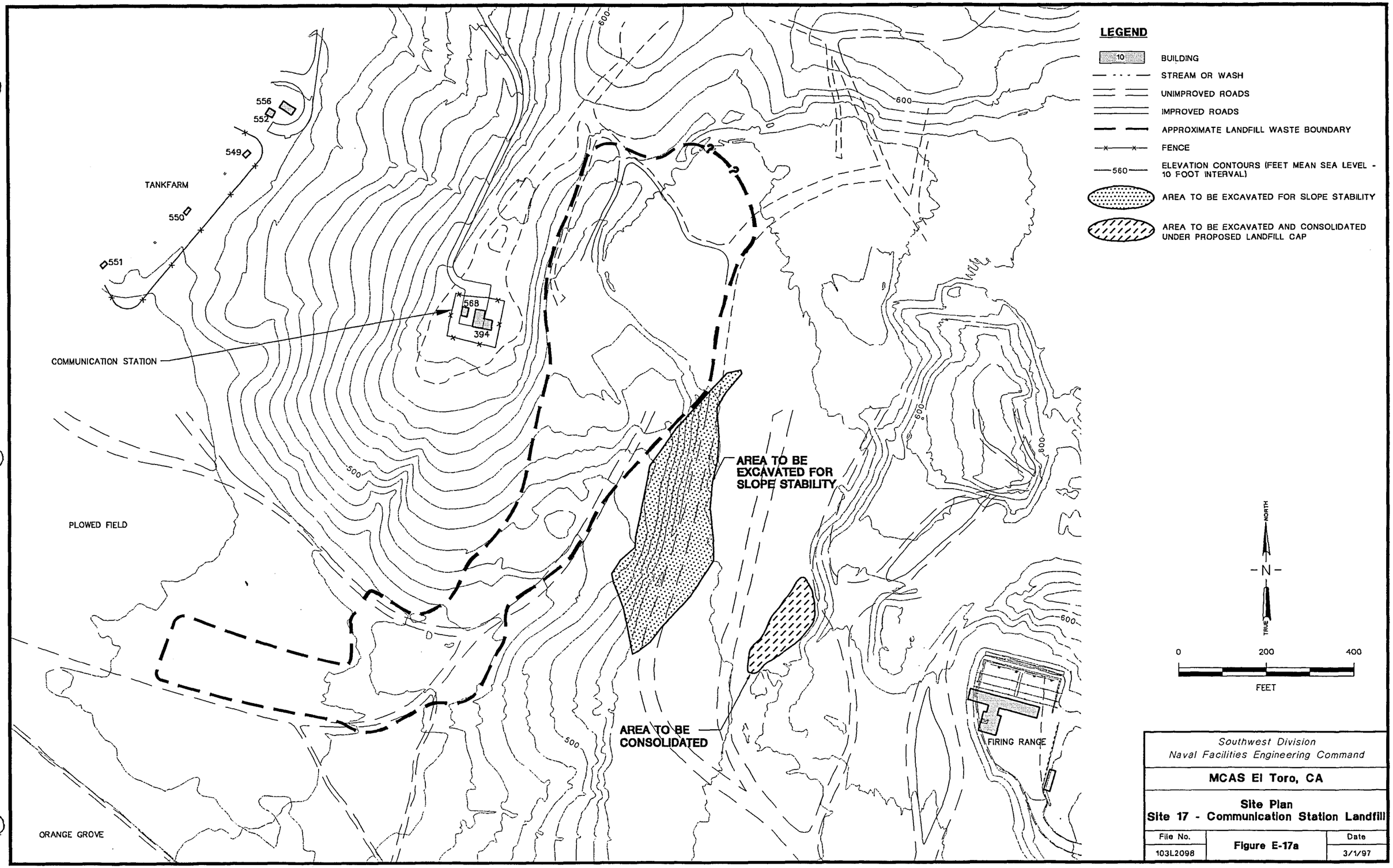

Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

Site Plan
Site 17 - Communication Station Landfill

File No.		Date
103L2098	**Figure E-17a**	3/1/97

M60050_001745
MCAS EL TORO

PAGE NO. E-104

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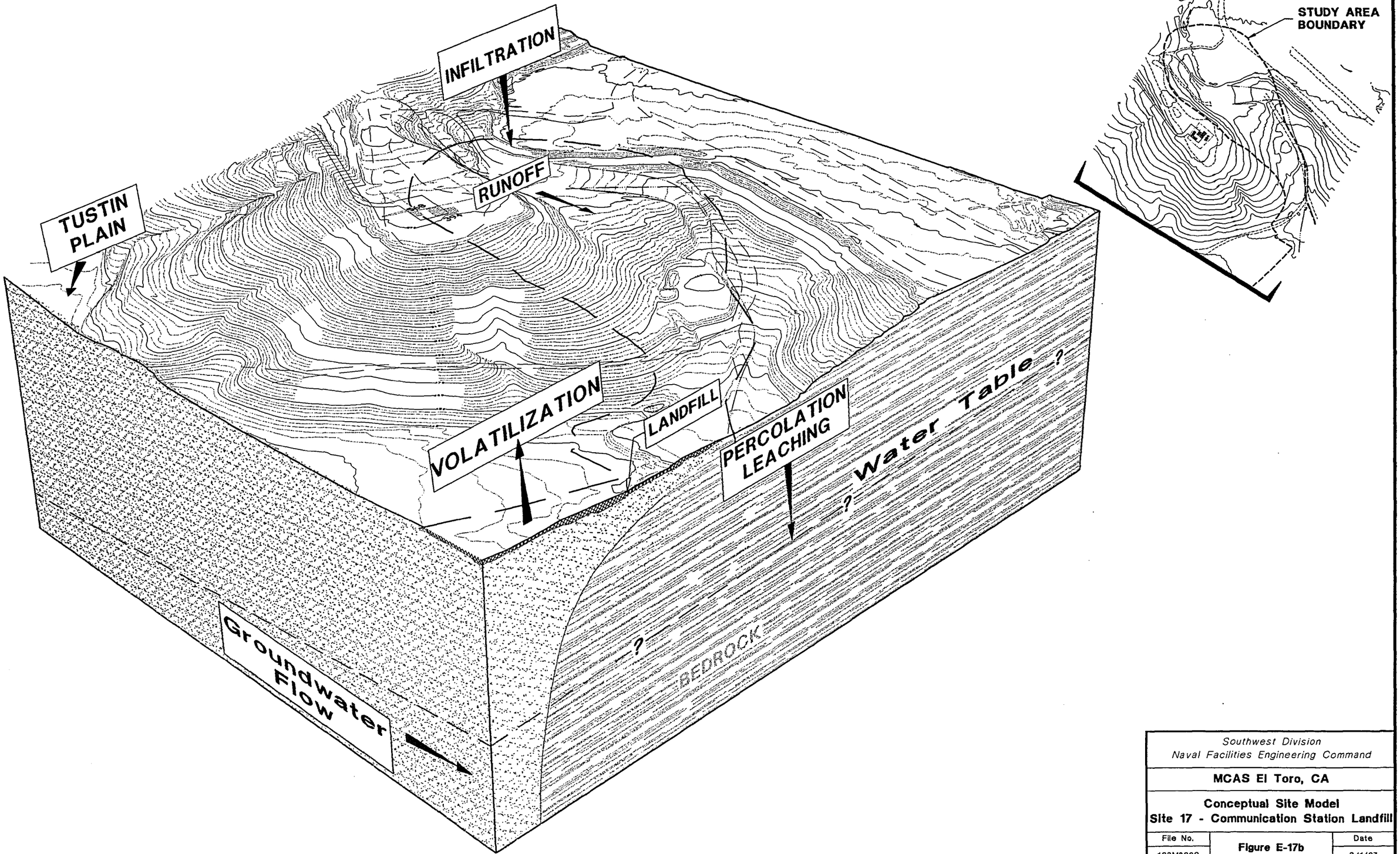

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 17 - Communication Station Landfill**		
File No.	**Figure E-17b**	Date
103M2099		3/1/97

PAGE NO. E-106

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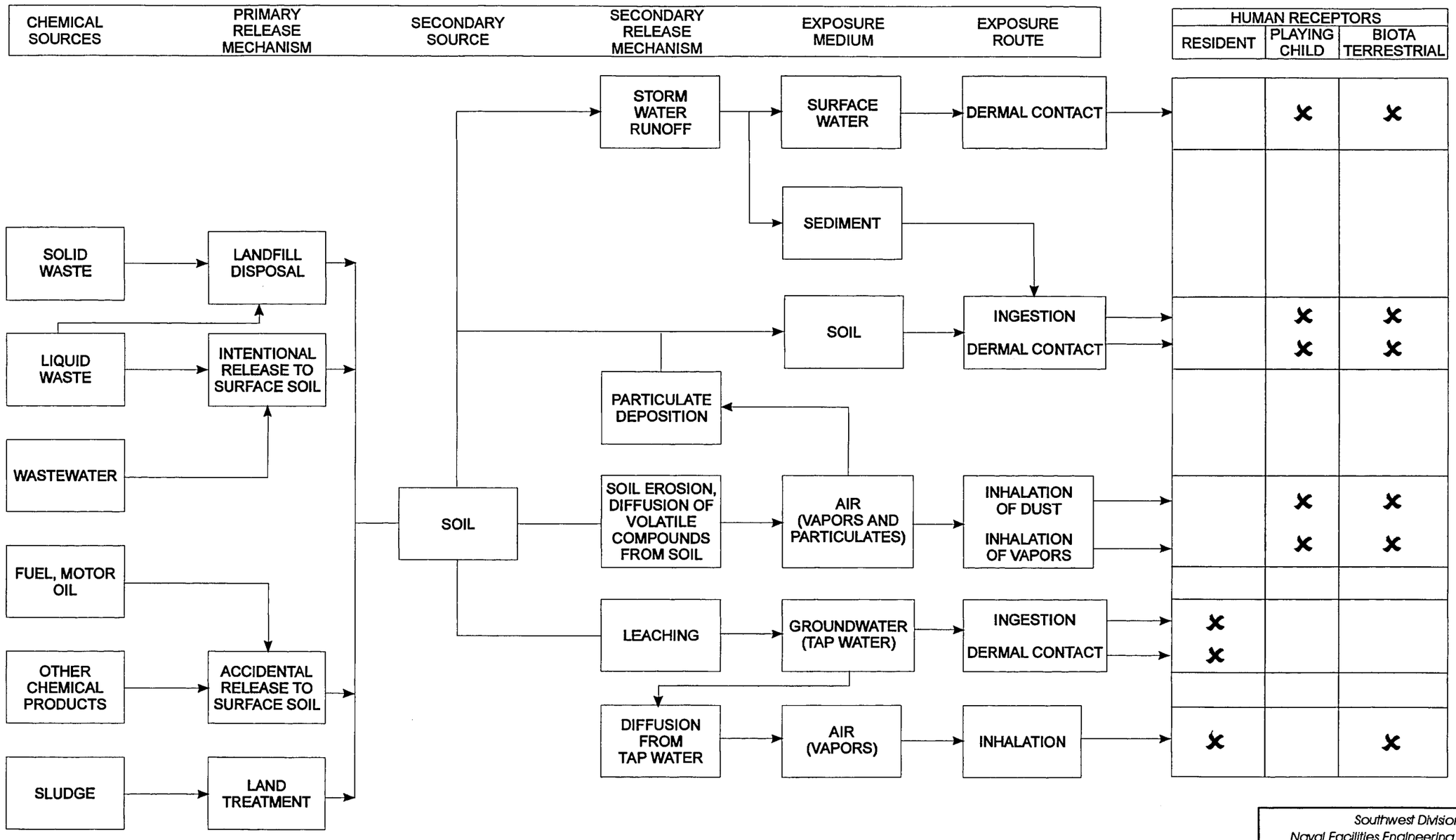

Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

Exposure Routes and Receptors
Site 17 - Communication Station Landfill

File No.		Date
103C2121	**Figure E-17c**	3/1/97

PAGE NO. E-108

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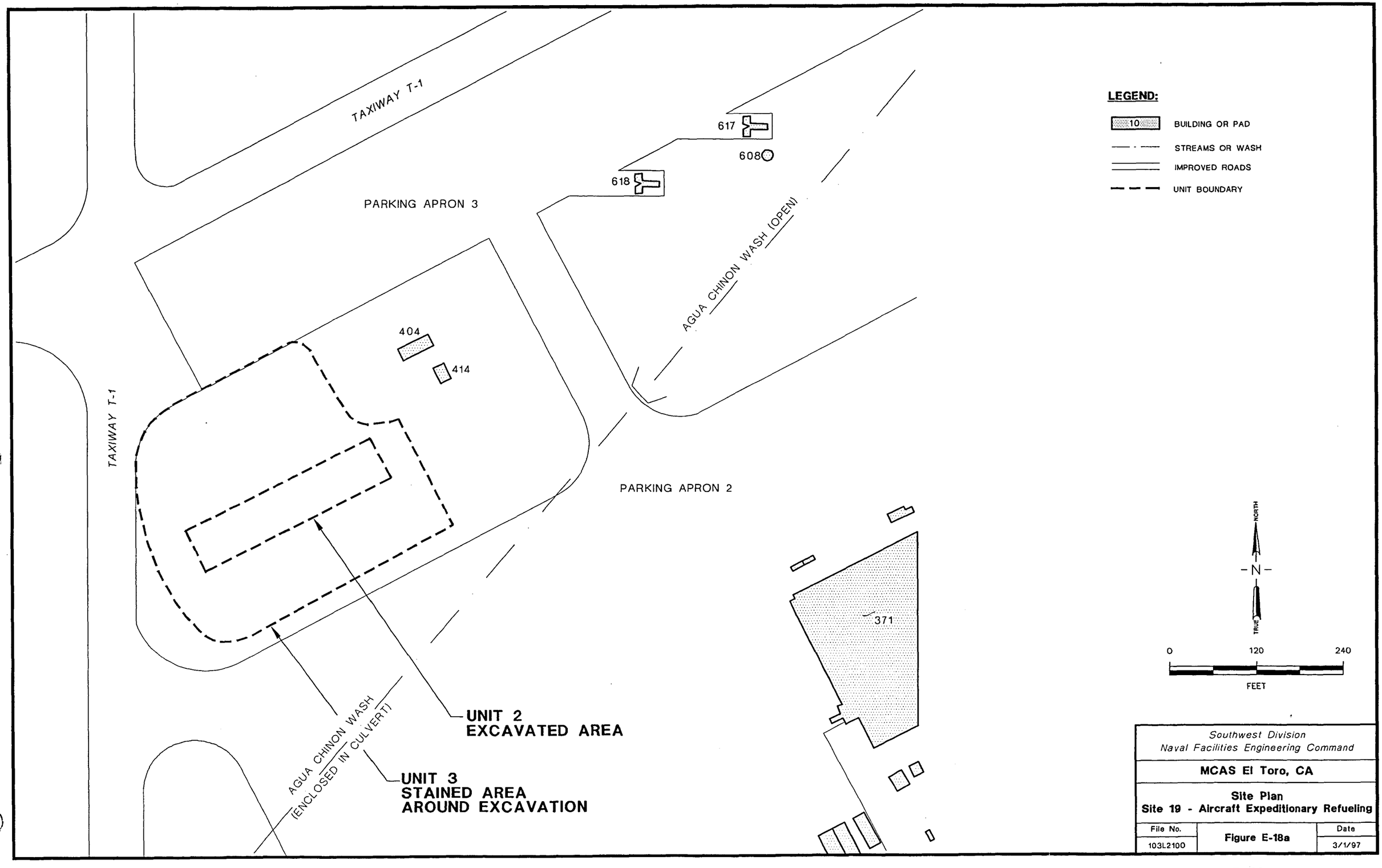
TAXIWAY T-1
PARKING APRON 3
617
608
618
AGUA CHINON WASH (OPEN)
404
414
TAXIWAY T-1
PARKING APRON 2
371
UNIT 2
EXCAVATED AREA
AGUA CHINON WASH
(ENCLOSED IN CULVERT)
UNIT 3
STAINED AREA
AROUND EXCAVATION
LEGEND:
10
BUILDING OR PAD
STREAMS OR WASH
IMPROVED ROADS
UNIT BOUNDARY
NORTH
N
TRUE
0
120
240
FEET
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Site Plan
Site 19 - Aircraft Expeditionary Refueling
File No.
103L2100
Figure E-18a
Date
3/1/97

PAGE NO. E-110

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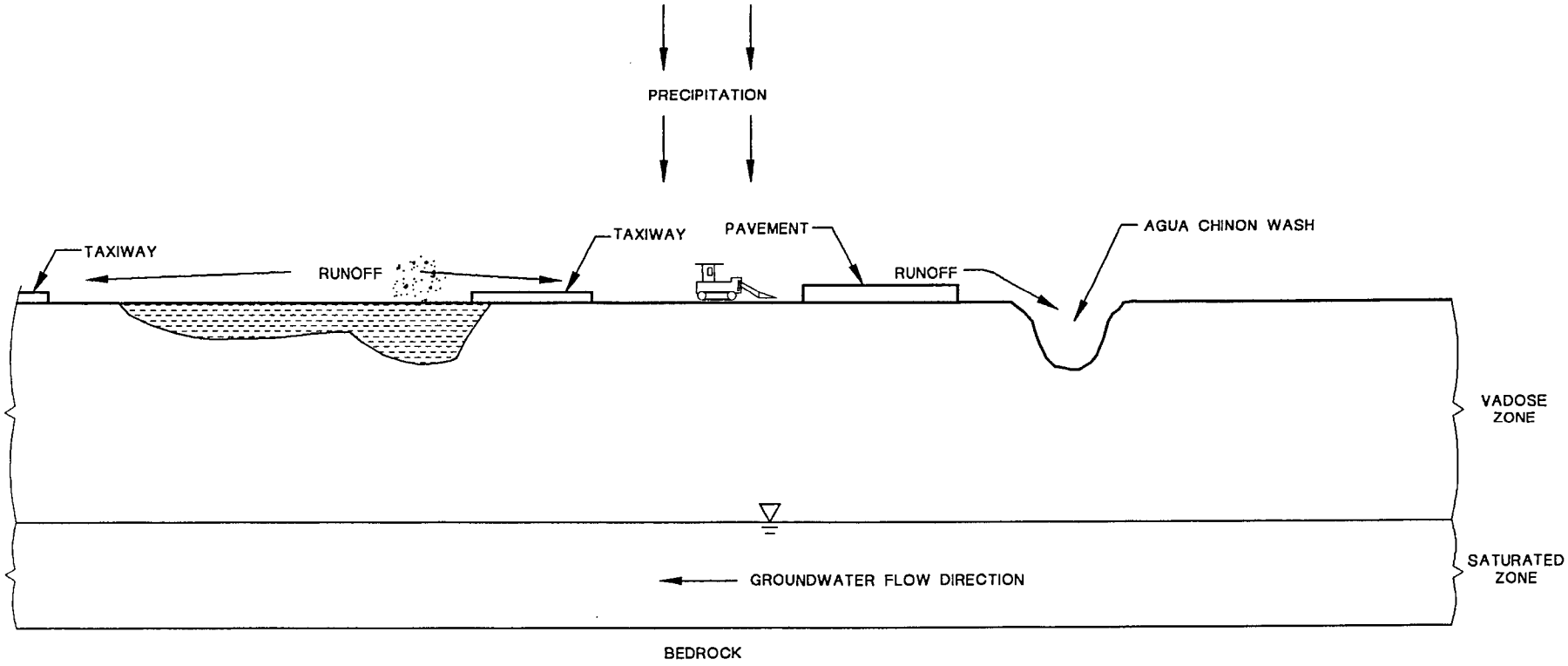

LEGEND:

RECEPTORS:

WORKERS

CONTAMINATED SOIL

PATHWAYS:

GROUNDWATER

DUST

NOT TO SCALE

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 19 - Aircraft Expeditionary Refueling Site**		
File No.	**Figure E-18b**	Date
103M2101		3/1/97

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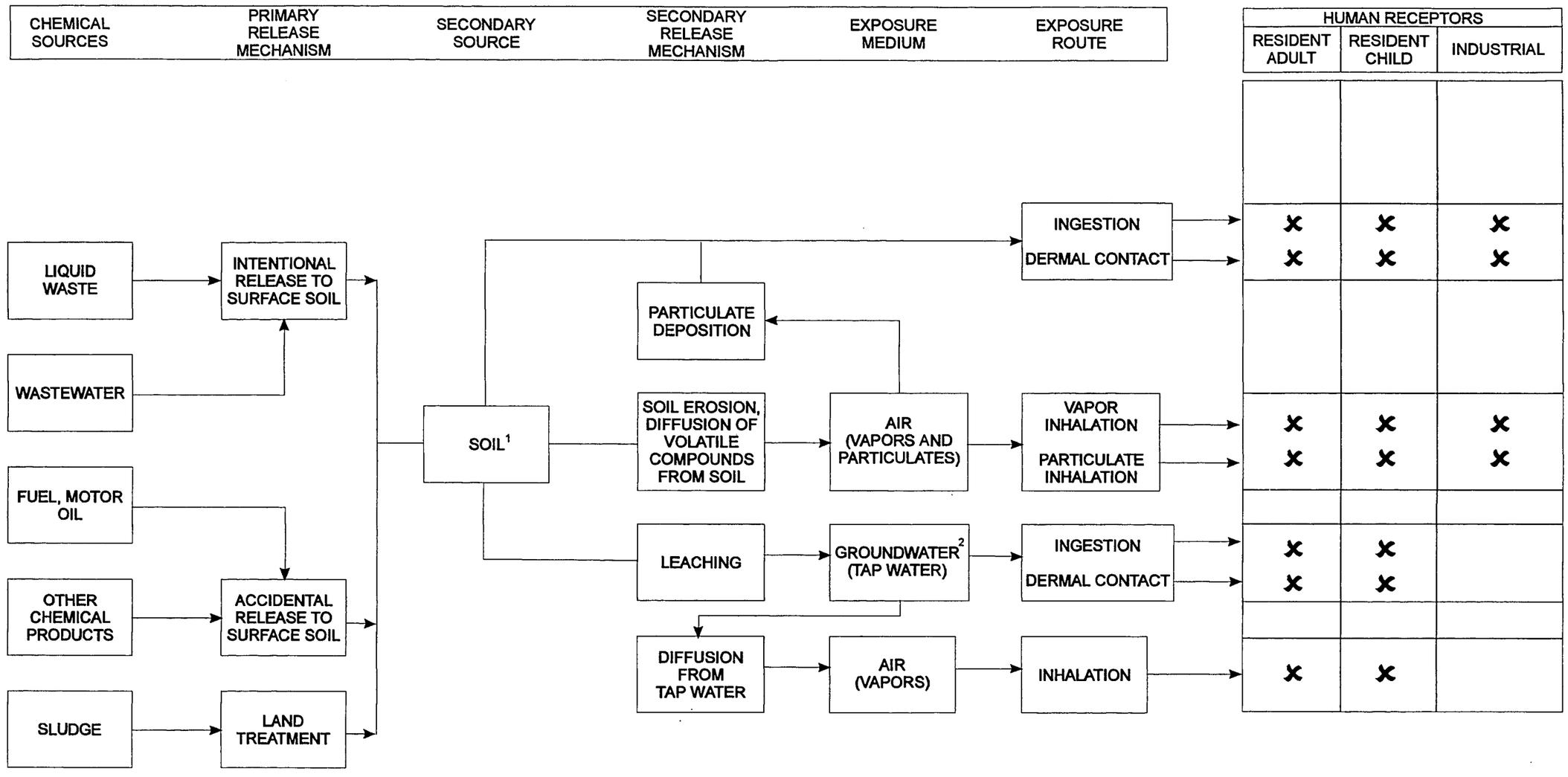

LEGEND

1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)

2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Exposure Routes and Receptors **Site 19 - Aircraft Expeditionary Refueling**		
File No. 103C2102	**Figure E-18c**	Date 3/1/97

PAGE NO. E-114

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M60050_001745
MCAS EL TORO

SENSITIVE RECORD

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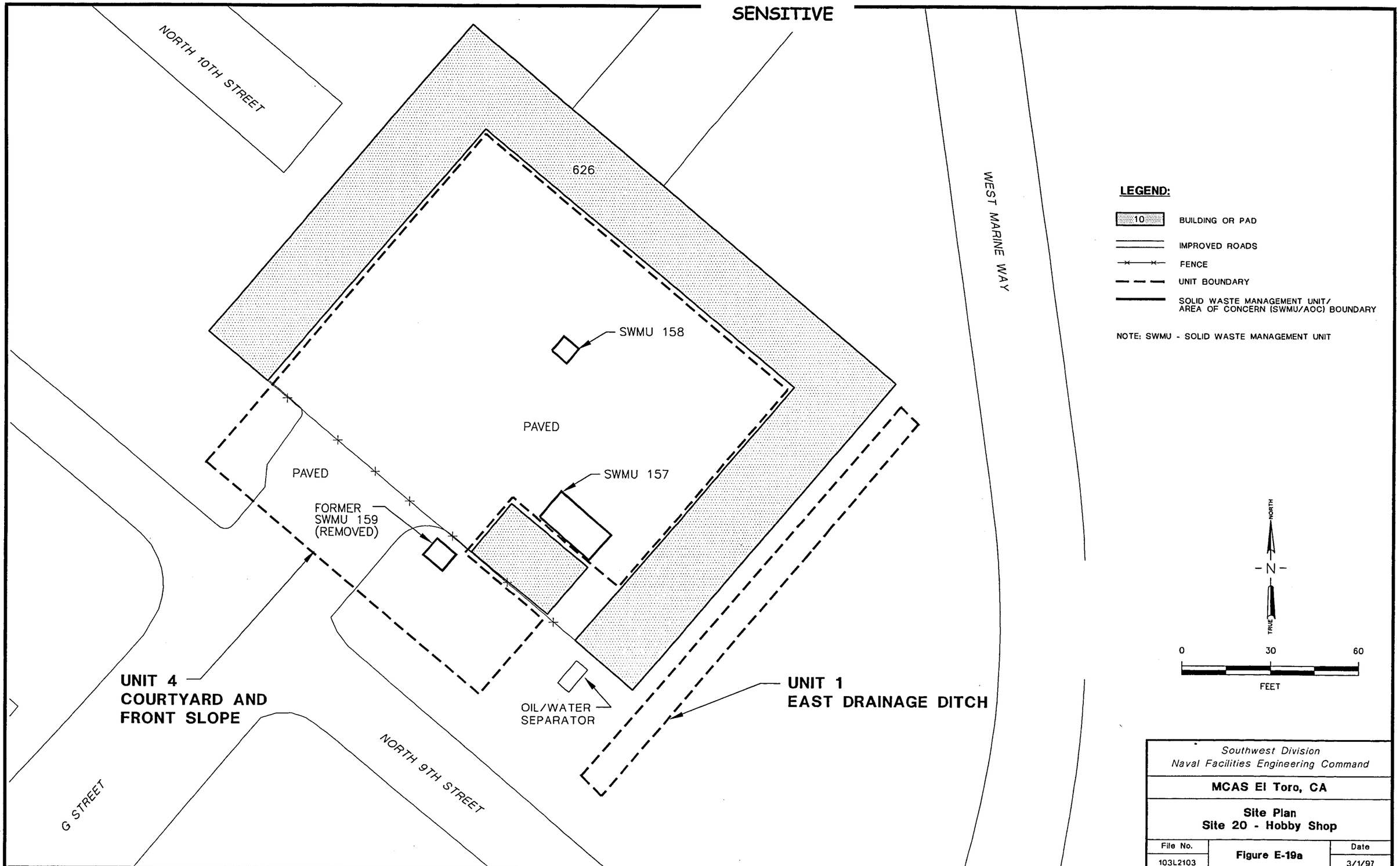
FIGURE E-19A – SITE PLAN
SITE 20 - HOBBY SHOP

FOR ADDITIONAL INFORMATION, CONTACT:

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

TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil


NORTH 10TH STREET
626
WEST MARINE WAY
SWMU 158
PAVED
PAVED
SWMU 157
FORMER
SWMU 159
(REMOVED)
UNIT 4
COURTYARD AND
FRONT SLOPE
OIL/WATER
SEPARATOR
UNIT 1
EAST DRAINAGE DITCH
NORTH 9TH STREET
G STREET
LEGEND:
10
BUILDING OR PAD
IMPROVED ROADS
FENCE
UNIT BOUNDARY
SOLID WASTE MANAGEMENT UNIT/
AREA OF CONCERN (SWMU/AOC) BOUNDARY
NOTE: SWMU - SOLID WASTE MANAGEMENT UNIT
NORTH
N
TRUE
0
30
60
FEET
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Site Plan
Site 20 - Hobby Shop
File No.
103L2103
Figure E-19a
Date
3/1/97

M60050_001745
MCAS EL TORO

PAGE NO. E-116

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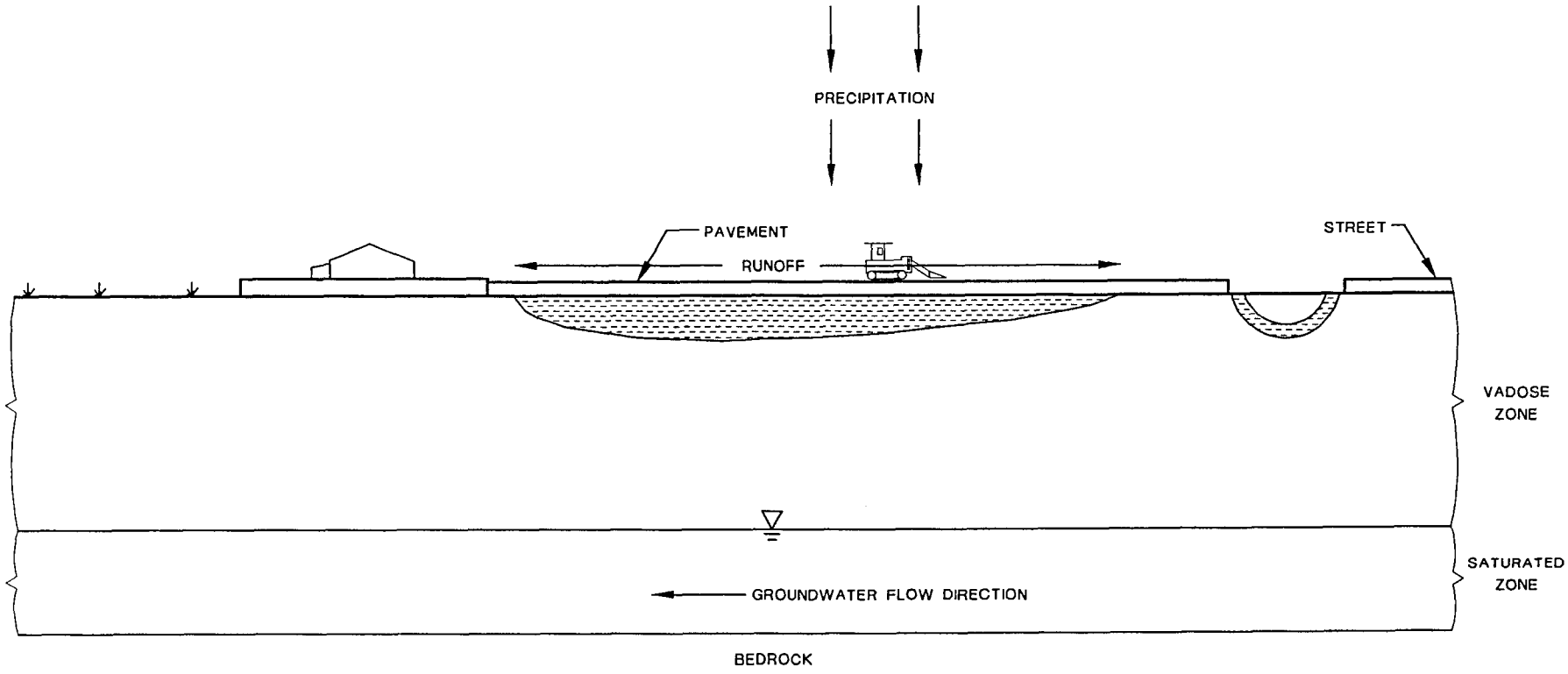

LEGEND:

RECEPTORS:

WORKERS

CONTAMINATED SOIL

BASE BUILDINGS

PATHWAYS:

GROUNDWATER

NOT TO SCALE

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 20 - Hobby Shop**		
File No.	**Figure E-19b**	Date
103M2104		3/1/97

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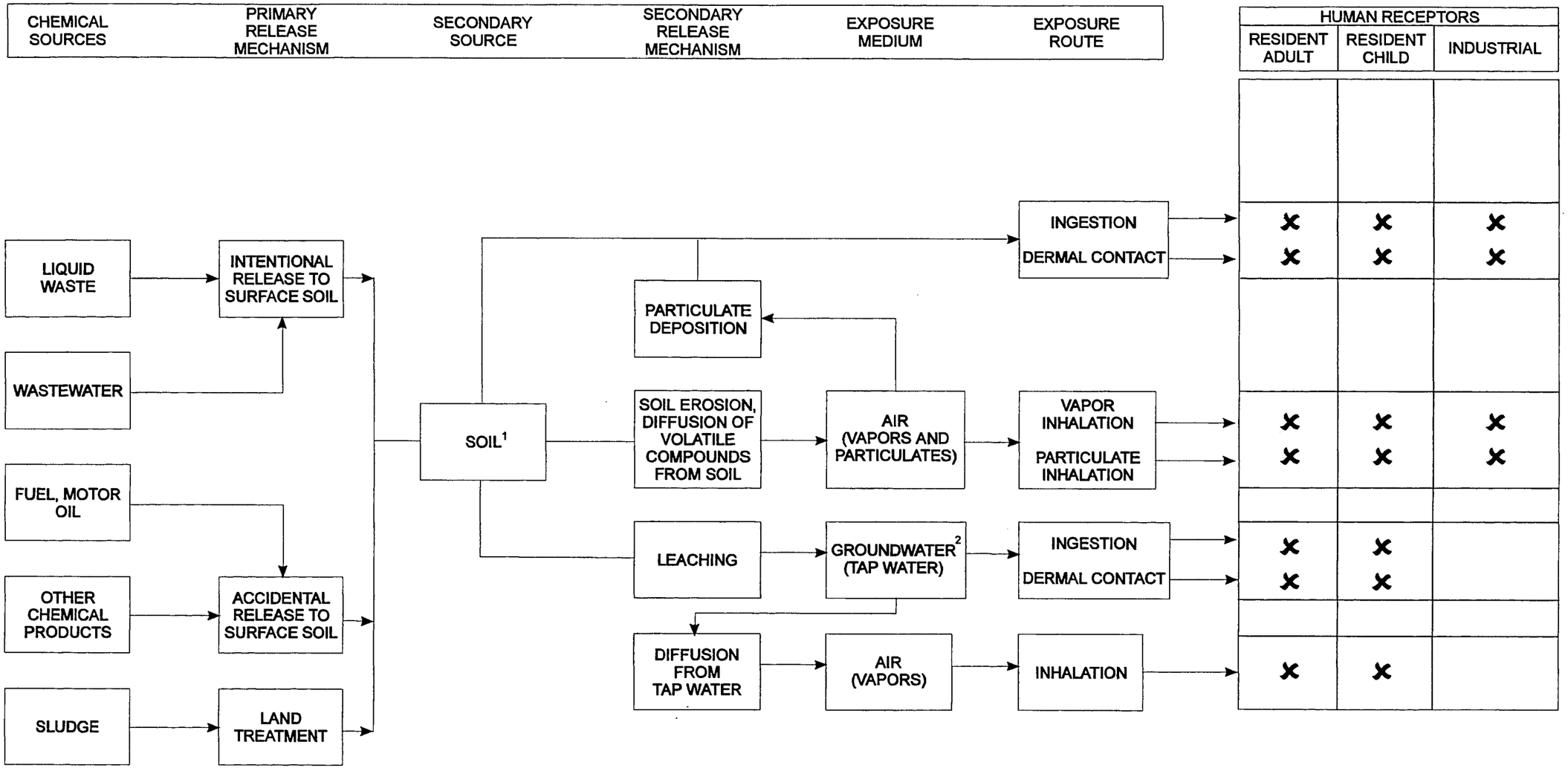

LEGEND

1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)

2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Exposure Routes and Receptors **Site 20 - Hobby Shop**		
File No. 103C2105	**Figure E-19c**	Date 3/1/97

PAGE NO. E-120

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M60050_001745
MCAS EL TORO

SENSITIVE RECORD

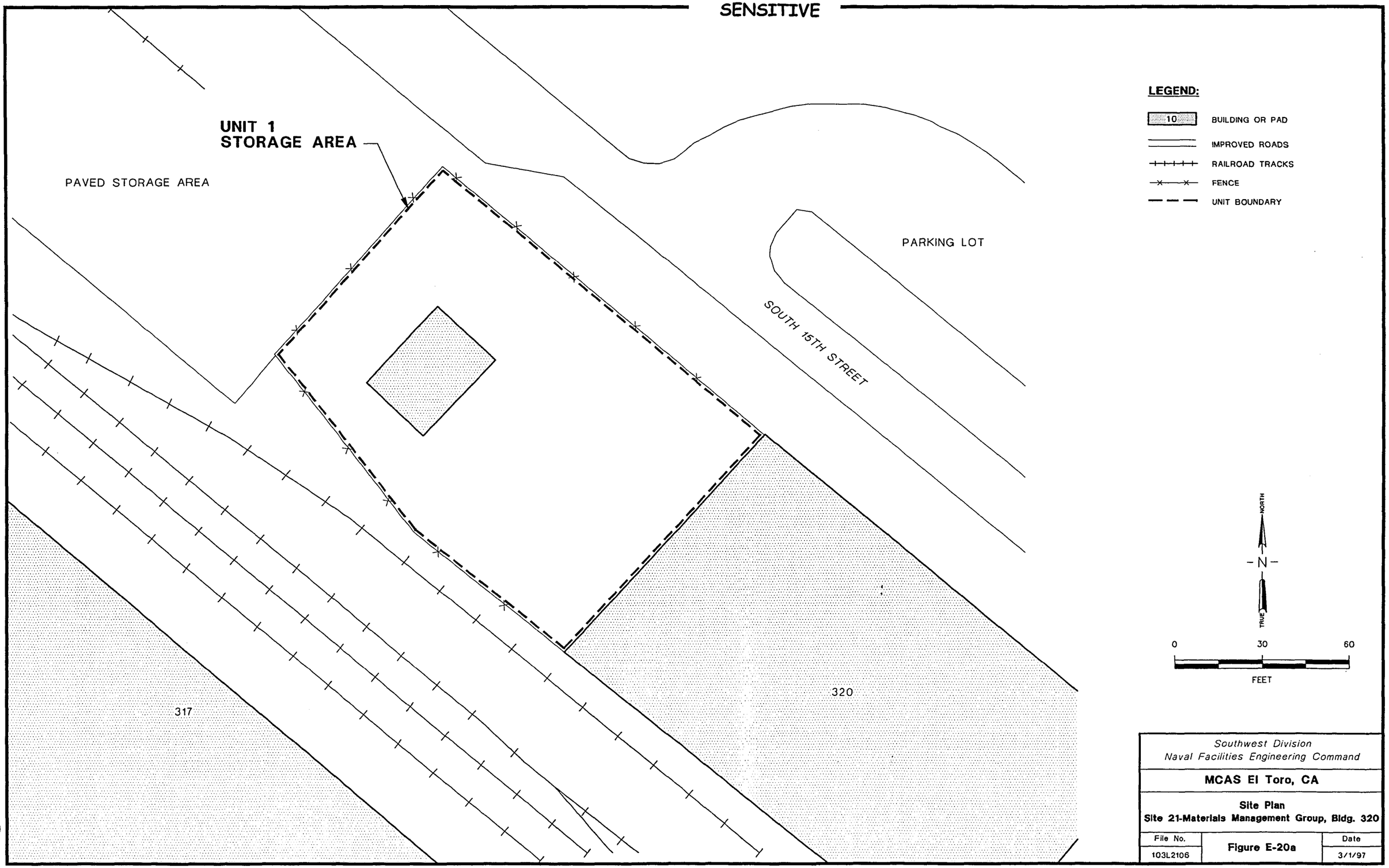
PORTIONS OF THIS RECORD ARE CONSIDERED SENSITIVE AND ARE NOT AVAILABLE FOR PUBLIC VIEWING

FIGURE E-20A – SITE PLAN
SITE 21 - MATERIALS MANAGEMENT GROUP, BLDG. 320

FOR ADDITIONAL INFORMATION, CONTACT:

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

TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil



Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Site Plan Site 21-Materials Management Group, Bldg. 320		
File No.	**Figure E-20a**	Date
103L2106		3/1/97

PAGE NO. E-122

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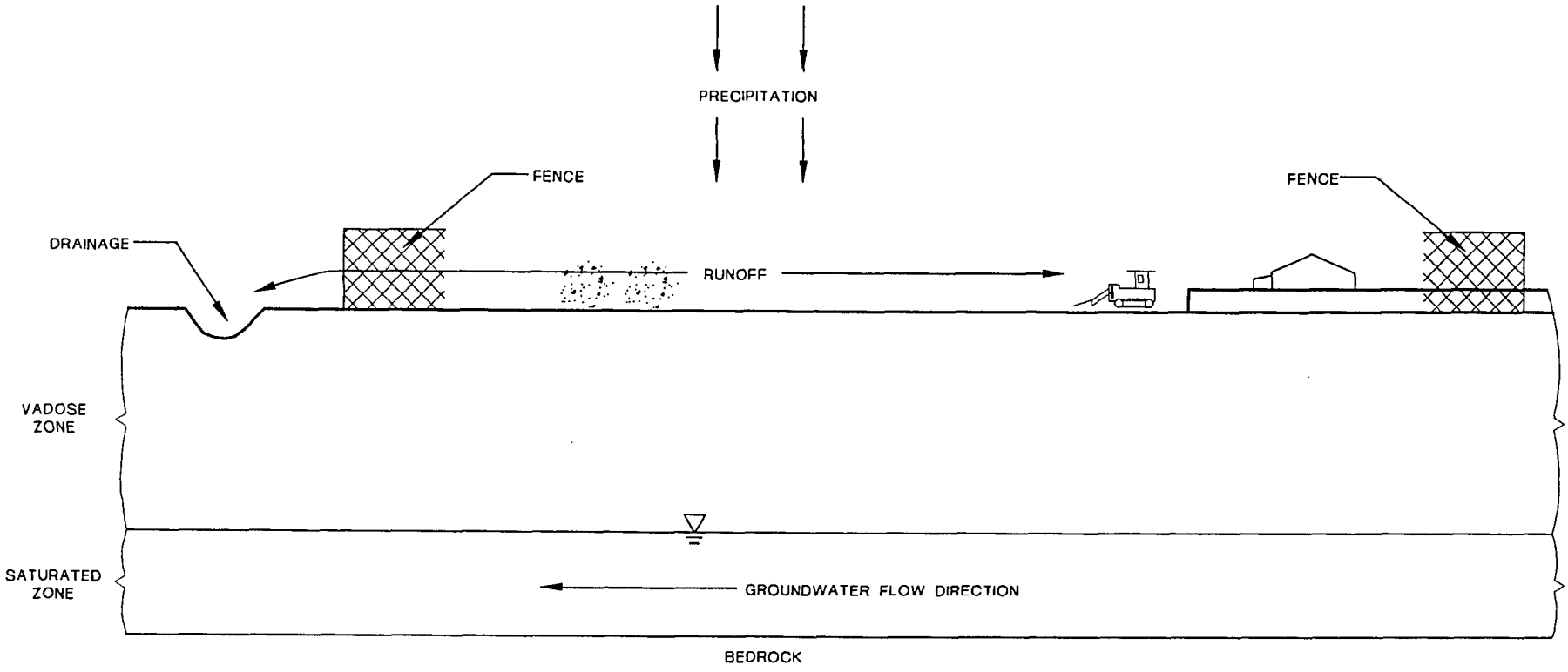

LEGEND:

RECEPTORS:

WORKERS

BASE BUILDINGS

PATHWAYS:

GROUNDWATER

DUST

NOT TO SCALE

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 21-Materials Management Group, Bldg. 320**		
File No.	**Figure E-20b**	Date
103M2107		3/1/97

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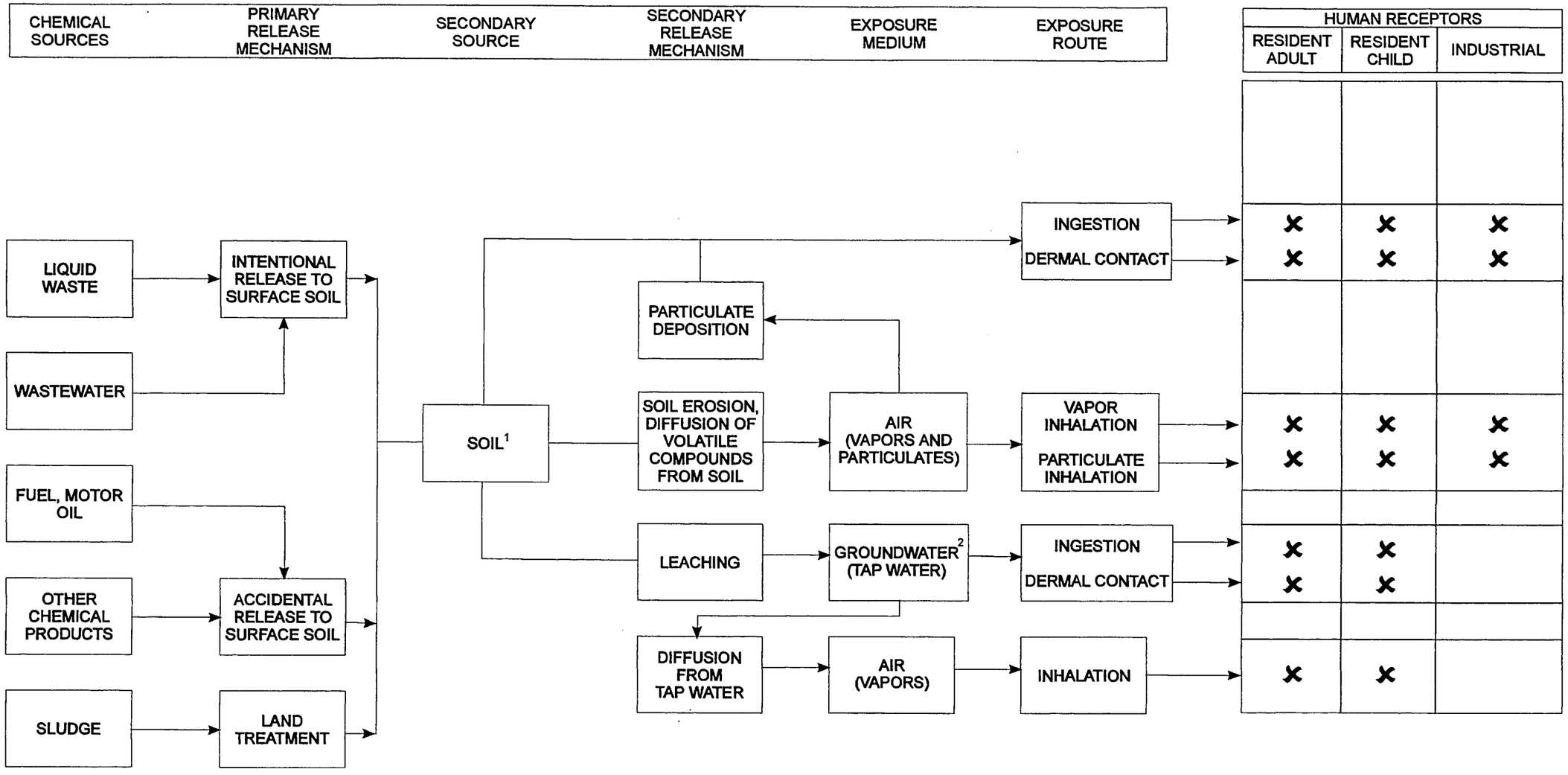

LEGEND

1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)

2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Exposure Routes and Receptors **Site 21 - Materials Management Group-Bldg 20**		
File No.	**Figure E-20c**	Date
103C2108		3/1/97

PAGE NO. E-126

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M60050_001745
MCAS EL TORO

SENSITIVE RECORD

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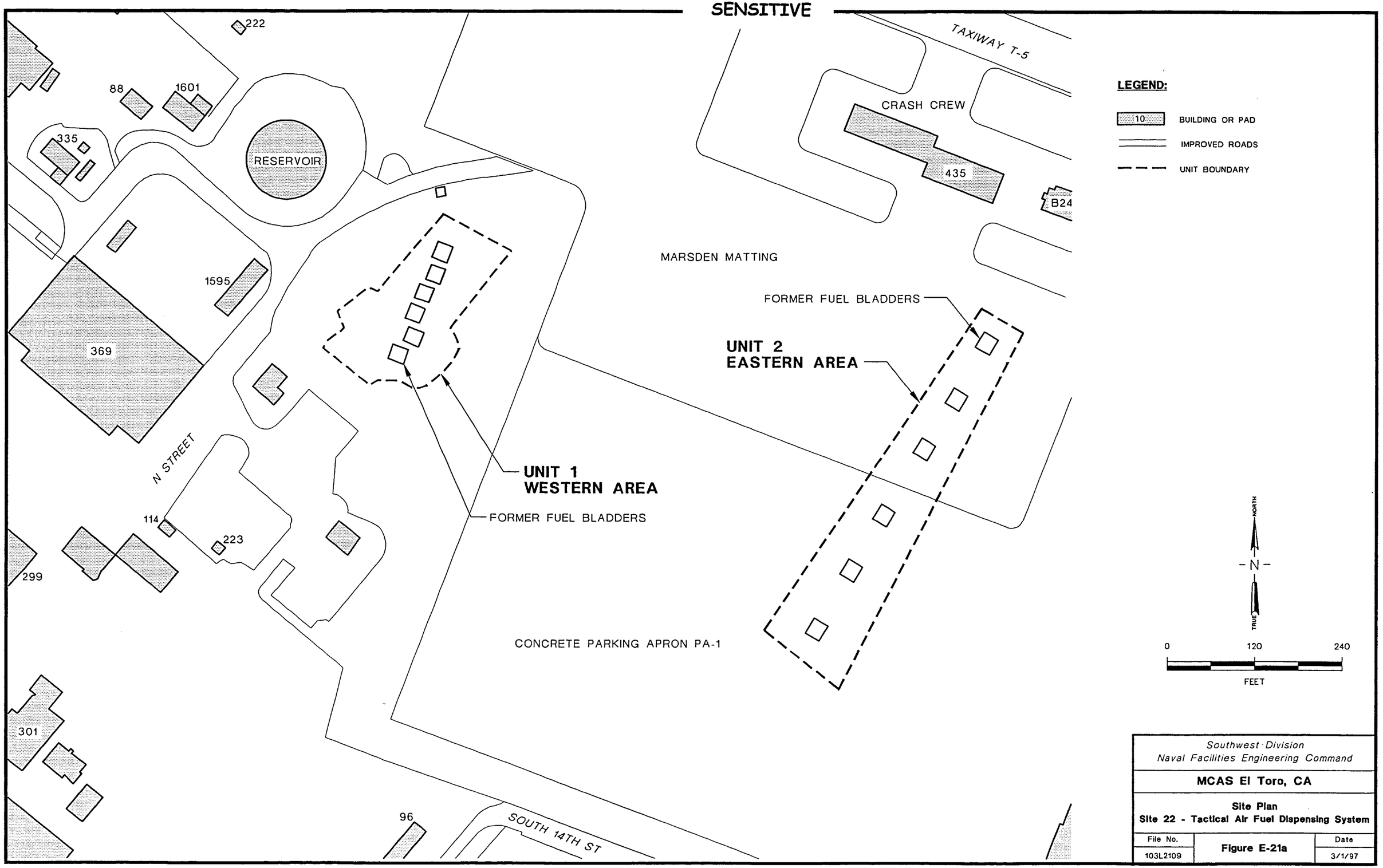
FIGURE E-21A – SITE PLAN
SITE 22 - TACTICAL AIR FUEL DISPENSING SYSTEM

FOR ADDITIONAL INFORMATION, CONTACT:

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

TELEPHONE: (619) 556-1280
E-MAIL: diane.silva@navy.mil


222
88
1601
335
RESERVOIR
1595
369
N STREET
114
223
299
301
96
SOUTH 14TH ST
TAXIWAY T-5
CRASH CREW
435
B24
MARSDEN MATTING
FORMER FUEL BLADDERS
UNIT 2
EASTERN AREA
UNIT 1
WESTERN AREA
FORMER FUEL BLADDERS
CONCRETE PARKING APRON PA-1
LEGEND:
10
BUILDING OR PAD
IMPROVED ROADS
UNIT BOUNDARY
NORTH
- N -
TRUE
0
120
240
FEET
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Site Plan
Site 22 - Tactical Air Fuel Dispensing System
File No.
103L2109
Figure E-21a
Date
3/1/97

PAGE NO. E-128

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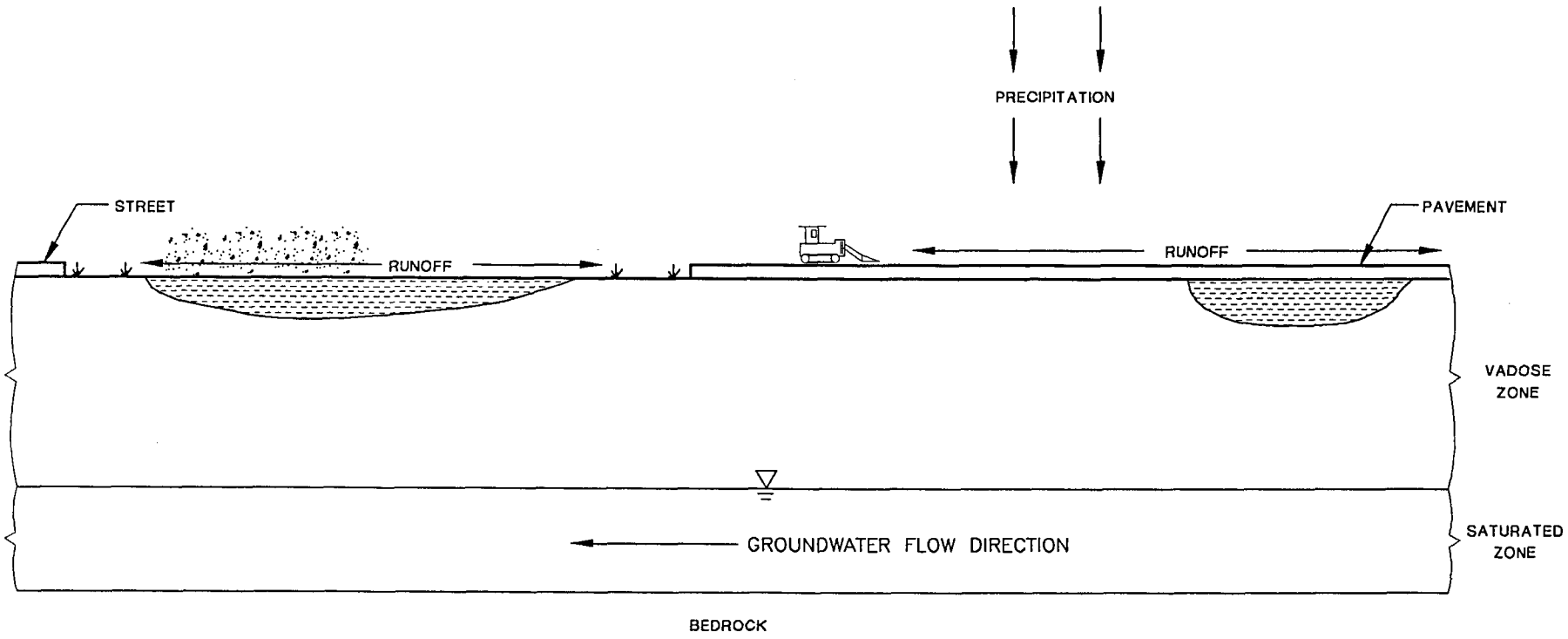

LEGEND:

RECEPTORS:

- WORKERS
- CONTAMINATED SOIL
- BASE BUILDINGS

PATHWAYS:

- GROUNDWATER
- DUST

NOT TO SCALE

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 22 - Tactical Air Fuel Dispensing System**		
File No.	**Figure E-21b**	Date
103M2110		3/1/97

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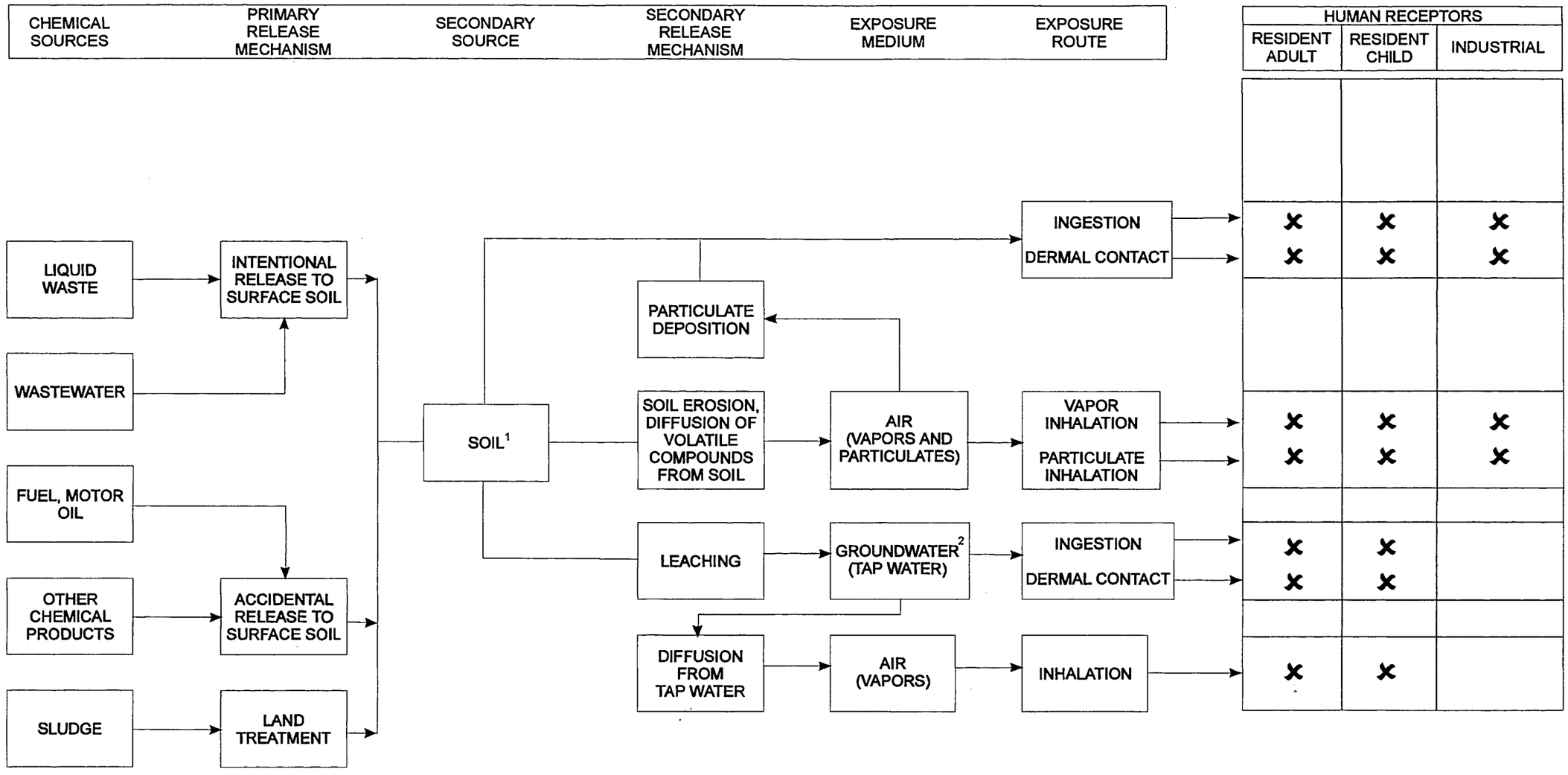

LEGEND

1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)

2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Exposure Routes and Receptors **Site 22 - Tactical Air Fuel Dispensing System**		
File No. 103C2111	**Figure E-21c**	Date 3/1/97

PAGE NO. E-132

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M60050_001745
MCAS EL TORO

SENSITIVE RECORD

PORTIONS OF THIS RECORD ARE CONSIDERED SENSITIVE AND ARE NOT AVAILABLE FOR PUBLIC VIEWING

FIGURE E-22A – SITE PLAN
SITE 24 - VOC SOURCE AREA

FOR ADDITIONAL INFORMATION, CONTACT:

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

TELEPHONE: (619) 556-1280
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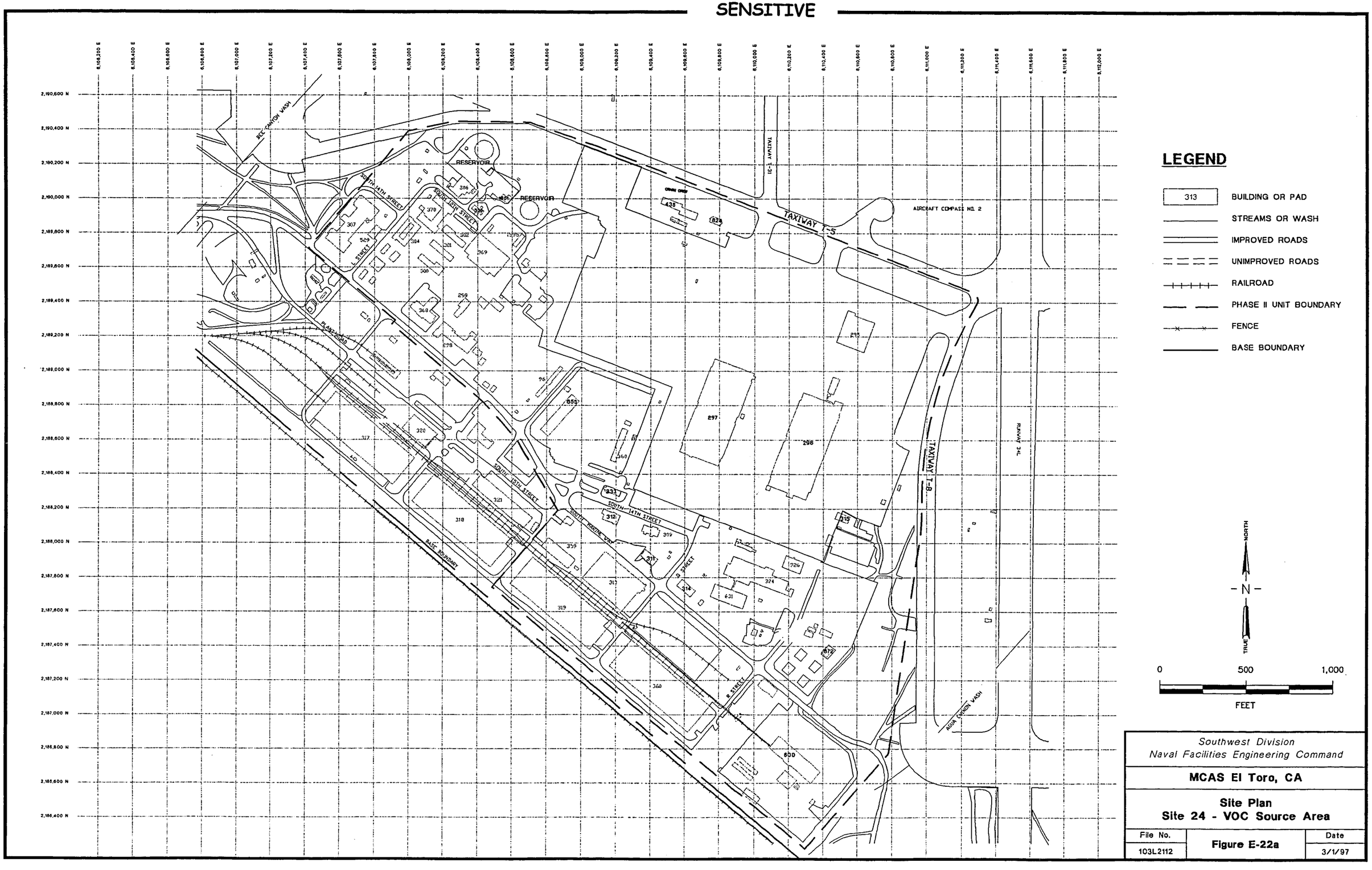

Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

Site Plan
Site 24 - VOC Source Area

File No.		Date
103L2112	**Figure E-22a**	3/1/97

PAGE NO. E-134

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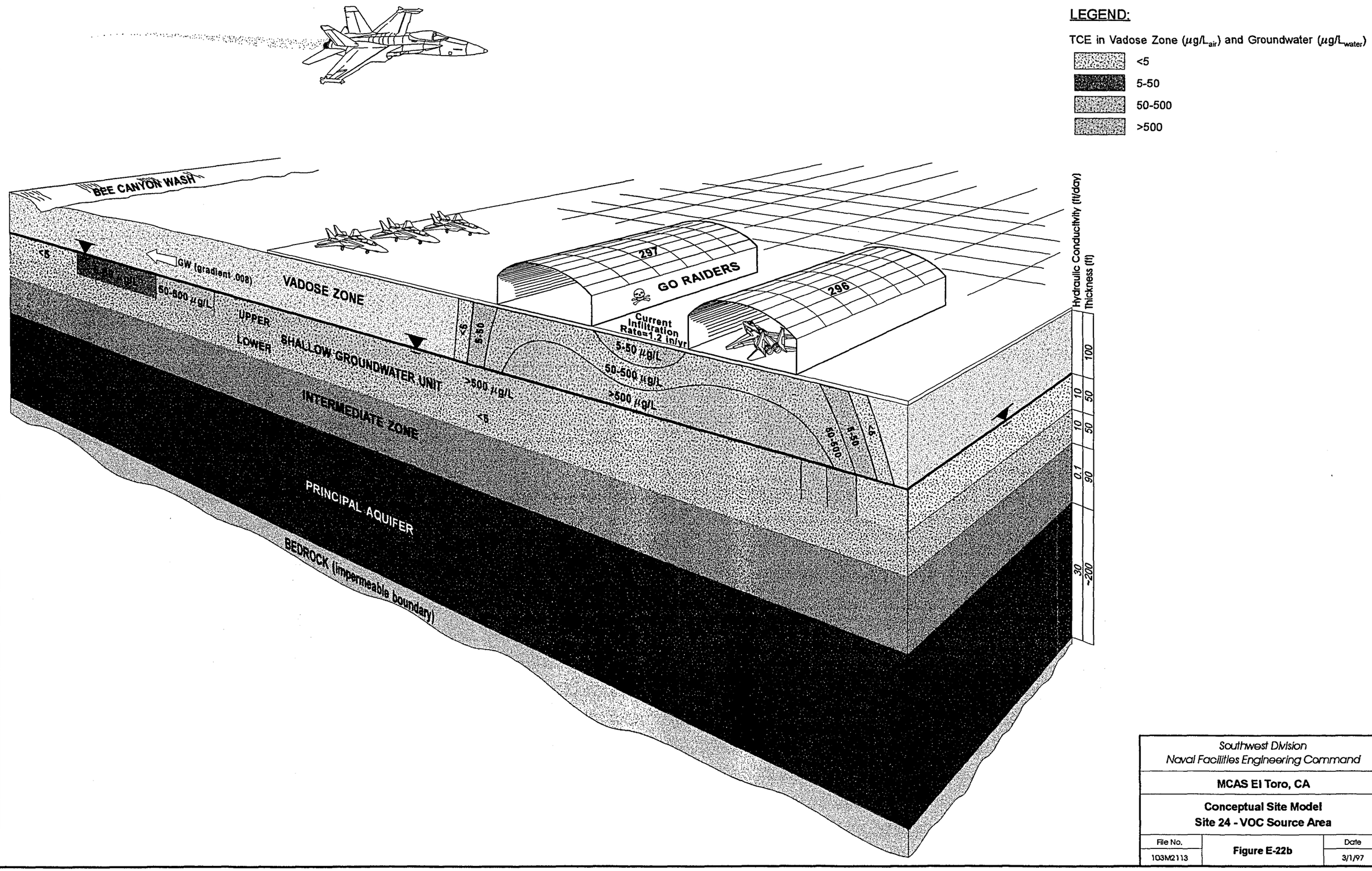

Southwest Division *Naval Facilities Engineering Command*		
MCAS El Toro, CA		
Conceptual Site Model **Site 24 - VOC Source Area**		
File No.	**Figure E-22b**	Date
103M2113		3/1/97

PAGE NO. E-136

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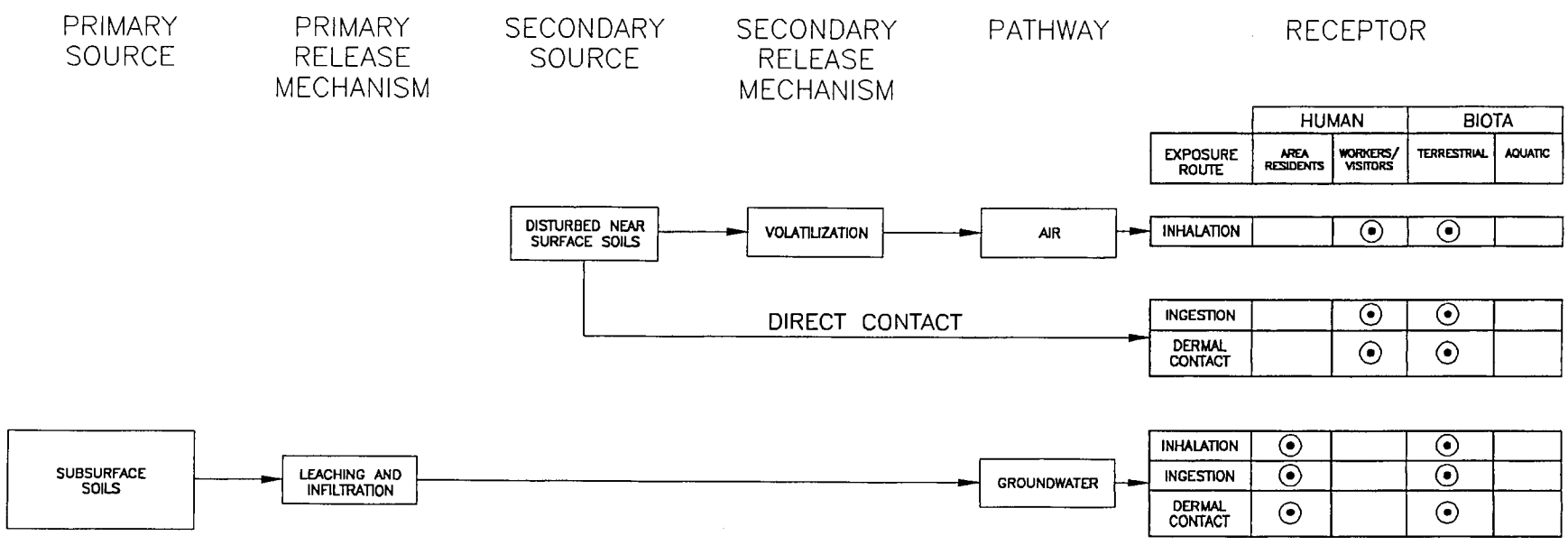

LEGEND:

● CURRENT POTENTIAL RECEPTOR

○ FUTURE POTENTIAL RECEPTOR

Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

Exposure Routes and Receptors
Site 24 - VOC Source Area

File No.		Date
103C2114	**Figure E-22c**	3/1/97

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MCAS EL TORO

SENSITIVE RECORD

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FIGURE E-23A – SITE PLAN
SITE 25 - MAJOR DRAINAGES

FOR ADDITIONAL INFORMATION, CONTACT:

DIANE C. SILVA, RECORDS MANAGER
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1220 PACIFIC HIGHWAY
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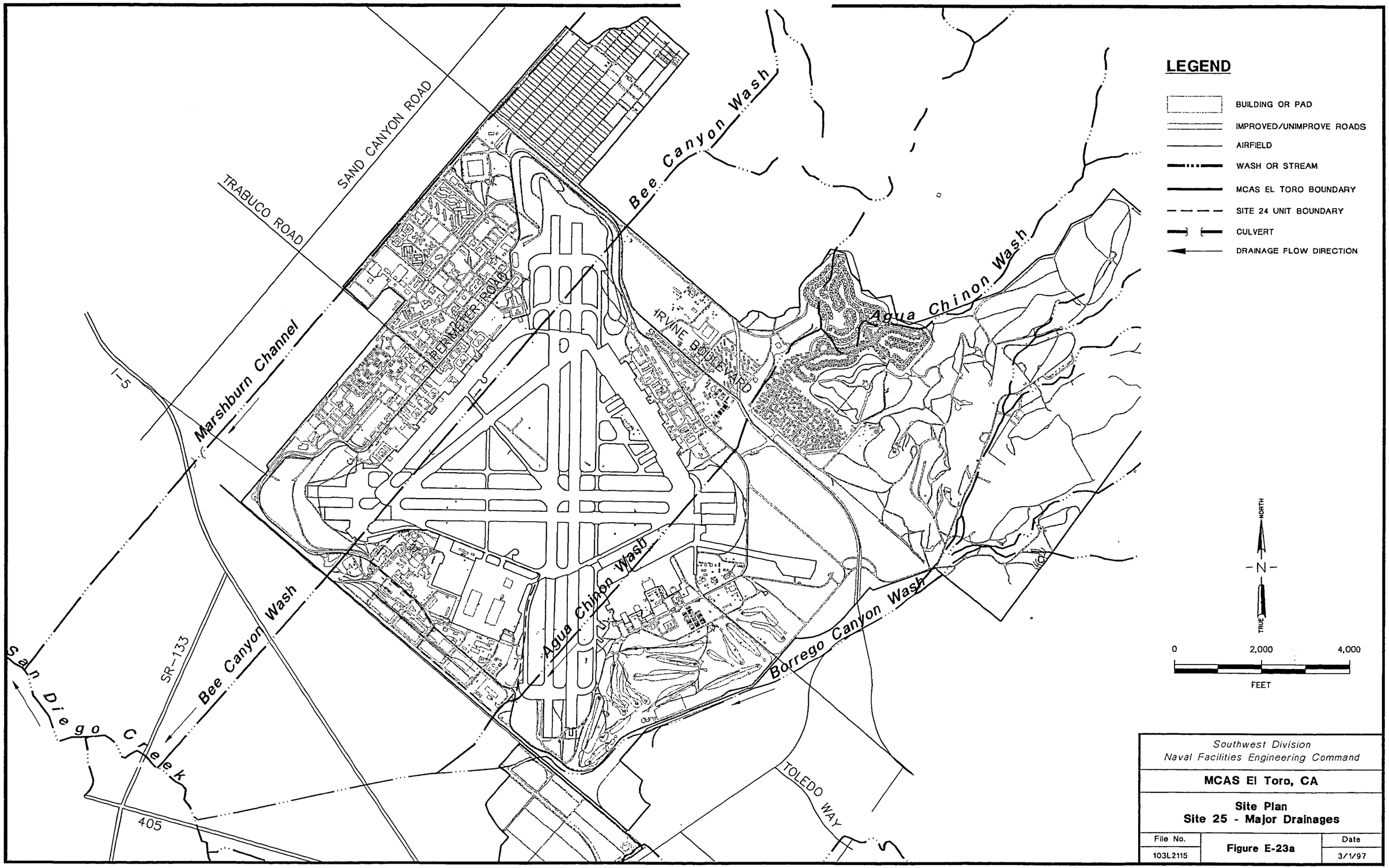
E-MAIL: diane.silva@navy.mil


LEGEND
BUILDING OR PAD
IMPROVED/UNIMPROVE ROADS
AIRFIELD
WASH OR STREAM
MCAS EL TORO BOUNDARY
SITE 24 UNIT BOUNDARY
CULVERT
DRAINAGE FLOW DIRECTION
NORTH
TRUE
N
0
2,000
4,000
FEET
SAND CANYON ROAD
TRABUCO ROAD
Bee Canyon Wash
Agua Chinon Wash
Marshburn Channel
I-5
PERIMETER ROAD
IRVINE BOULEVARD
Agua Chinon Wash
Borrego Canyon Wash
Bee Canyon Wash
SR-133
San Diego Creek
405
TOLEDO WAY
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Site Plan
Site 25 - Major Drainages
File No.
103L2115
Figure E-23a
Date
3/1/97

PAGE NO. E-140

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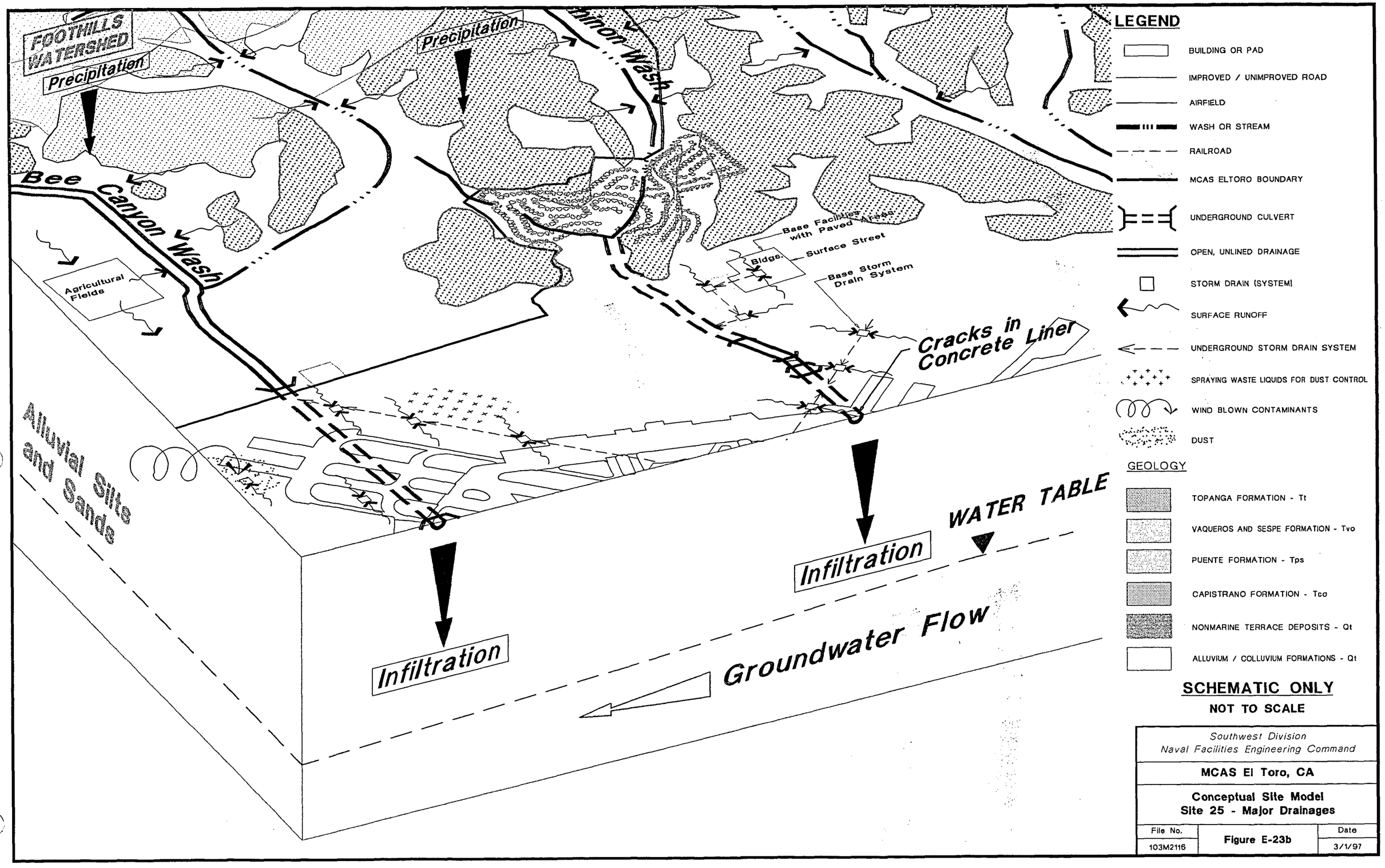
FOOTHILLS WATERSHED
Precipitation
Precipitation
Bee Canyon Wash
Agricultural Fields
Base Facilities with Paved Areas
Bldgs.
Surface Street
Base Storm Drain System
Cracks in Concrete Liner
Alluvial Silts and Sands
WATER TABLE
Infiltration
Infiltration
Groundwater Flow
LEGEND
BUILDING OR PAD
IMPROVED / UNIMPROVED ROAD
AIRFIELD
WASH OR STREAM
RAILROAD
MCAS ELTORO BOUNDARY
UNDERGROUND CULVERT
OPEN, UNLINED DRAINAGE
STORM DRAIN (SYSTEM)
SURFACE RUNOFF
UNDERGROUND STORM DRAIN SYSTEM
SPRAYING WASTE LIQUIDS FOR DUST CONTROL
WIND BLOWN CONTAMINANTS
DUST
GEOLOGY
TOPANGA FORMATION - Tt
VAQUEROS AND SESPE FORMATION - Tvo
PUENTE FORMATION - Tps
CAPISTRANO FORMATION - Tco
NONMARINE TERRACE DEPOSITS - Qt
ALLUVIUM / COLLUVIUM FORMATIONS - Qt
SCHEMATIC ONLY
NOT TO SCALE
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Conceptual Site Model
Site 25 - Major Drainages
File No.
103M2116
Figure E-23b
Date
3/1/97

PAGE NO. E-142

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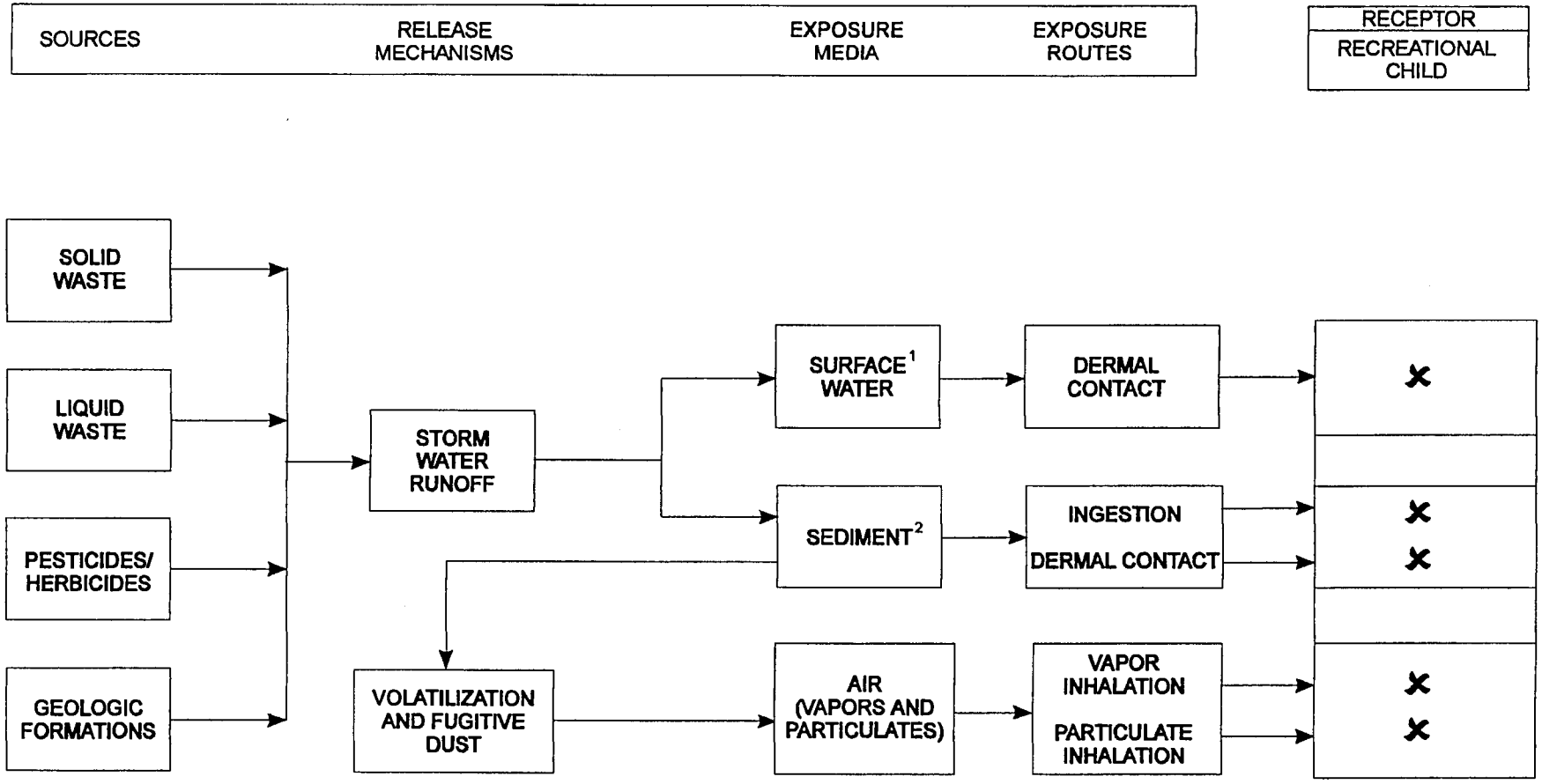

LEGEND

1 FOR SAN DIEGO CREEK ONLY

2 EVALUATED AS DRY SEDIMENTS

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Exposure Routes and Receptors Site 25 - Major Drainages		
File No. 103C2117	**Figure E-23c**	Date 3/1/97

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