

Table 3-9
Less-Than-90-Day Accumulation Areas
 (Sheet 2 of 5)

Database Tracking	Building Number	Previous Parcel	New Parcel	Status	Closure Evaluation ¹	SWMU/AOC No.	RFA Sampling	Comments	ECP Area Type ²
TAA 155A	155	5A	K	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	K	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	J2	Inactive		47		Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
TAA 240	240	1A	H1	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	H1	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	H1	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	A1	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	A1	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*
TAA 298	298	4A	A2	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	A2	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	A2	Active		-		Identified in Station's HW Open Drum Inspection Report	7
TAA 314	314	4A	A1	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	A4	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	A4	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	A1	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	A4a	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	A4a	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	A4b	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	A4b	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	A4b	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

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

Database Tracking	Building Number	Previous Parcel	New Parcel	Status	Closure Evaluation ¹	SWMU/ AOC No.	RFA Sampling	Comments	ECP Area Type ²
TAA 370	370	4A	A2	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	B1	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	B1	Active	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	A1	Inactive		109		Source: SPCC map (no date). Location not confirmed during RFA activities. NFA through agency acceptance of the EBS (Table 3-3).	1*
TAA 386	386	4A	A2	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	A1	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	A1	Active	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	J4	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	J4	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	J4	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	J4	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	R	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	R	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	K	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	I2	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	B1	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	B1	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	C2	Active		-		Not plotted on Figure 3-1 or Figure 3-4.	7
TAA 445	445	4A	A1	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
TAA 447	447	3A	B1	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	B1	Inactive		133		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 5)

Database Tracking	Building Number	Previous Parcel	New Parcel	Status	Closure Evaluation ¹	SWMU/AOC No.	RFA Sampling	Comments	ECP Area Type ²
RFA 134	454	3A ⁴	B1	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	B1	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	B1	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	B1	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	A2	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	A3	Active	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	R	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	I1	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	I1	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	H2	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	R	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	B1	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	C2	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*
TAA 658	658	2A	I1	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	A1	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	A1	Active	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	J4	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	C2	Inactive		-		Identified in Station's HW Open Drum Inspection Report	7
TAA 698	698	5A	I1	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	C2	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	I1	Active		-		Identified in Station's HW Open Drum Inspection Report	7
TAA 747	747	2A	I1	Active		-		Identified in Station's HW Open Drum Inspection Report	7
TAA 761	761	3A	B1	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

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

Database Tracking	Building Number	Previous Parcel	New Parcel	Status	Closure Evaluation ¹	SWMU/AOC No.	RFA Sampling	Comments	ECP Area Type ²
TAA 765	765	3F	J2	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	A2	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	A2	Active	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	H2	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	J2	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
TAA 779	779	5A	H1	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	A4b	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	B1	Inactive		-		Identified in Station's HW Open Drum Inspection Report	7
TAA 856	856	3A	B1	Inactive	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	A2	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 10)

Database Tracking	Building Number	Original Transformer ID Number	Location	Type	Status	1994 Field Survey Observations/ Other Comments	Previous Parcel	New 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	H1	1
PCB T2	12	5KL505	CS	Pad	Replaced	Transformer replaced; no evidence of release observed.	1A	H1	1
PCB T3	19	1350660	S, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release.	1A	H1	1
PCB T4	35	NA	NW, PL	Pole	Replaced	Transformer removed; no evidence of release observed.	1D	H2	1
PCB T5	58	23971	S, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	1C	H2	1
PCB T6	59	6954405	S, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	1C	H2	1
PCB T7	59	6954539	S, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	1C	H2	1
PCB T8	59	6956179	S, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	1C	H2	1
PCB T9	60	7092522	S, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release.	1C	H2	1
PCB T10	65	645B17826	N, PL	Pole	Replaced	Transformer removed; no evidence of release observed.	1C	H2	1
PCB T11	65	645B17827	N, PL	Pole	Replaced	Transformer removed; no evidence of release observed.	1C	H2	1
PCB T12	65	645B17855	N, PL	Pole	Replaced	Transformer removed; no evidence of release observed.	1C	H2	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	R	1
PCB T14	114	177072	C, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	5A	II	1
PCB T15	115	177071	C, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	5A	II	1

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

Database Tracking	Building Number	Original Transformer ID Number	Location	Type	Status	1994 Field Survey Observations/ Other Comments	Previous Parcel	New Parcel	ECP Area Type
PCB T16	118	681549	N, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release.	2A	I1	1
PCB T17	120	7093966	W, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release.	2A	R	1
PCB T18	120	7092506P	W, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release.	2A	R	1
PCB T19	120	7093966P	W, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release.	2A	R	1
PCB T20	125	53233	N, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	2A	I1	1
PCB T21	125	6160963	N, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	2A	I1	1
PCB T22	129	7092697	NW corner, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release.	2A	R	1
PCB T23	129	7092974	NW, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release.	2A	R	1
PCB T24	129	7093975	NW, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release.	2A	R	1
PCB T25	165	14346-1	N	Pad	Replaced	Transformer replaced; no evidence of release observed.	3A	B1	1
PCB T26	203	5638241	SE, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release.	2A	Q	1
PCB T27	203	6455115	SE, PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release.	2A	Q	1
PCB T28	248	6887930	NA	NA	Removed	No transformers present at Building 248; no evidence of release observed.	1D	H2	1
PCB T29	248	66F2983	NA	NA	Removed	No transformers present at Building 248; no evidence of release observed.	1D	H2	1

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

Database Tracking	Building Number	Original Transformer ID Number	Location	Type	Status	1994 Field Survey Observations/ Other Comments	Previous Parcel	New Parcel	ECP Area Type
PCB T30	248	66F3028	NA	NA	Removed	No transformers present at Building 248; no evidence of release observed.	1D	H2	1
PCB T31	248	66K117	NA	NA	Removed	No transformers present at Building 248; no evidence of release observed.	1D	H2	1
PCB T32	248	66K154	NA	NA	Removed	No transformers present at Building 248; no evidence of release observed.	1D	H2	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	C1	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	H2	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	H2	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	H2	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	H2	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	H2	1
PCB T39	281	7093256	N, PD	Pad	Removed	Building has been demolished; no evidence of transformer.	1B	H2	1

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

Database Tracking	Building Number	Original Transformer ID Number	Location	Type	Status	1994 Field Survey Observations/ Other Comments	Previous Parcel	New Parcel	ECP Area Type
PCB T40	281	7093261	N, PD	Pad	Removed	Building has been demolished; no evidence of transformer.	1B	H2	1
PCB T41	281	7220136	N, PD	Pad	Removed	Building has been demolished; no evidence of transformer.	1B	H2	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	H2	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	H2	1
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	H2	1
PCB T45	311	B58240	E, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	A1	1
PCB T46	328	72535	E, PL	Pole	Removed	Transformer has been removed.	1C	H2	1
PCB T47	328	6587555	E, PL	Pole	Active	Non-PCB transformer; no evidence of release observed.	1C	H2	1
PCB T48	328	65875666	E, PL	Pole	Unknown ²	No evidence of release observed. Transformer replaced.	1C	H2	1
PCB T49	335	1888163	S, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	A2	1
PCB T50	359	B335346	W, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	4B	A4a	1
PCB T51	360	B335627	S, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	4B	A4a	1

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

Database Tracking	Building Number	Original Transformer ID Number	Location	Type	Status	1994 Field Survey Observations/ Other Comments	Previous Parcel	New Parcel	ECP Area Type
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	C2	1
PCB T53	368	62220	C, RX	Pad	Replaced	Transformer removed; no evidence of release observed.	4A	A2	1
PCB T54	369	62221	N, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	A2	1
PCB T55	370	62222	E, RX	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	A2	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	B1	7
PCB T57	371	10098-1	S, M	Pad	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	5A	B1	1
PCB T58	372	14538	W, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	5A	K	1
PCB T59	374	14440	S, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	3A	B1	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	A1	1
PCB T62	386	4418	E, PD	Pad	Replaced	Transformer replaced (three transformers present); no evidence of release observed.	4A	A2	1
PCB T63	406	9908129	N, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	3A	B1	1

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

Database Tracking	Building Number	Original Transformer ID Number	Location	Type	Status	1994 Field Survey Observations/ Other Comments	Previous Parcel	New Parcel	ECP Area Type
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	C1	1
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	C1	1
PCB T66	415	C379541	S, M	Pad	Replaced	Transformer replaced; no evidence of release observed.	2B	I2	1
PCB T67	439	C-861785	NC, B	Pad	Removed	Transformer removed; no evidence of release observed.	1G	C2	1
PCB T68	445	C861997A	NW, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	A1	1
PCB T69	447	C861997B	E, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	3A	B1	1
PCB T70	449	7371282	B	Pad	Removed	Transformer removed; no evidence of release observed.	1G	C1	1
PCB T71	450	7371279	C, B	Pad	Removed	Transformer removed; no evidence of release observed.	1G	C1	1
PCB T72	451	7371281	E, B	Pad	Removed	Transformer removed; no evidence of release observed.	1G	C1	1
PCB T73	452	7371280	E, B	Pad	Removed	Transformer removed; no evidence of release observed.	1G	C1	1
PCB T74	457	C-862139	S, PD	Pad	Replaced	Transformer replaced; location sampled during RFA (SWMU 244); further investigation planned.	3A	B1	7
PCB T75	458	E-687091	SE, PD	Pad	Active	Transformer in operation; scheduled for replacement in 1997. PCBs = 104 ppm	5A	B1	1
PCB T76	460	9845884	E, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	3F	J2	1
PCB T77	460	D317654	E, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	3F	J2	1

Table 3-10
PCB Transformer Inventory
(Sheet 7 of 10)

Database Tracking	Building Number	Original Transformer ID Number	Location	Type	Status	1994 Field Survey Observations/ Other Comments	Previous Parcel	New Parcel	ECP Area Type
PCB T78	464	929874T71A	E, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	3F	J2	1
PCB T79	482	151103	S, PD	Pad	Removed	Building demolished; no evidence of transformer location.	5A	A1	1
PCB T80	582	B336887	S, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	2C	D2	1
PCB T81	605	F-694715B	C, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	5A	I1	1
PCB T82	606	E-694715A	C, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	5A	I1	1
PCB T83	630	NA	NE, PL	Pole	Removed	Building demolished; no evidence of release observed.	1C	H2	1
PCB T84	631	10096-1	E, RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	A1	1
PCB T85	634	PAV 1646-01	EC, RI	Pad	Removed	Transformer enclosure present, but transformer removed; no evidence of release observed.	2A	R	1
PCB T86	634	YAP-70141	EC, RI	Pad	Removed	Transformer enclosure present, but transformer removed; no evidence of release observed.	2A	R	1
PCB T87	636	10832-1	RI	Pad	Replaced	Transformer replaced; no evidence of release observed.	3A	B1	1
PCB T88	655	12945-1	S, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	A1	1
PCB T89	658	C173562	E, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	2A	I1	1
PCB T90	671	I344577P73A	E, PD	Pad	Replaced	Transformer replaced; no evidence of release observed.	4A	A1	1
PCB T91	692	786787895	N, PL	Pole	Replaced	Transformer removed; no evidence of release observed.	1D	H2	1
PCB T92	692	786787910	N, PL	Pole	Replaced	Transformer removed; no evidence of release observed.	1D	H2	1

Table 3-10
PCB Transformer Inventory
(Sheet 8 of 10)

Database Tracking	Building Number	Original Transformer ID Number	Location	Type	Status	1994 Field Survey Observations/ Other Comments	Previous Parcel	New Parcel	ECP Area Type
PCB T93	692	786787919	N, PL	Pole	Replaced	Transformer removed; no evidence of release observed.	1D	H2	1
PCB T94	716	Westinghouse	SE, PD	Pad	Replaced	No evidence of release observed.	5A	Q	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	Replaced	No evidence in data base files; no evidence of release observed.	2A	R	1
PCB T97	5201	6963930P	PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release.	2B	I2	1
PCB T98	5240	6969510	E, PL	Pole	Removed	Transformer removed; no evidence of release observed.	2C	D1b	1
PCB T99	5417	7794141	Backyard, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1D	H2	1
PCB T100	5417	7794142	Backyard, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1D	H2	1
PCB T101	5417	7794143	Backyard, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1D	H2	1
PCB T102	215/521	69680882	PL	Pole	Replaced	Original transformer replaced with a non-PCB transformer; no evidence of release	2C	D1b	1
PCB T103	687 ¹	793397	C, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1D	H2	1
PCB T104	687 ¹	794144	C, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1D	H2	1
PCB T105	687 ¹	6900519	C, PL	Pole	Removed	Transformer removed; no evidence of release observed.	1D	H2	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	C1	1

Table 3-10
PCB Transformer Inventory
(Sheet 9 of 10)

Database Tracking	Building Number	Original Transformer ID Number	Location	Type	Status	1994 Field Survey Observations/ Other Comments	Previous Parcel	New Parcel	ECP Area Type
PCB T109	Tank Farm #6	NA	W, PL	Pole	Unknown ²	Building demolished; no evidence of release observed.	2A	Q	1
PCB T110	271-1	70465	NW, PD	Pad	Active	Tested by PWC; PCB conc. < 1 ppm.	1B	H2	1
PCB T111	271-1	70464	NW, PD	Pad	Active	Tested by PWC; PCB conc. < 1 ppm.	1B	H2	1
PCB T112	271-1	70609	NW, PD	Pad	Active	Tested by PWC; PCB conc. < 1 ppm.	1B	H2	1
PCB T113	280-1	8335544	NW, PD	Pad	Active	Tested by PWC; PCB conc. < 1 ppm.	1B	H2	1
PCB T114	280-1	8335541	NW, PD	Pad	Active	Tested by PWC; PCB conc. < 1 ppm.	1B	H2	1
PCB T115	280-1	8335543	NW, PD	Pad	Active	Tested by PWC; PCB conc. < 1 ppm.	1B	H2	1
PCB T116	263	7093988	NA	Pad	Active	Transformer in operation; scheduled for replacement in 1997. PCB conc.: 71 ppm. Not plotted on Figure 3-1.	1B	H2	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.	4B	A4	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.	4B	A4	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.	4B	A4	1*
PCB T120	313	57A8236	NA	Pad	Active	Transformer in operation; scheduled for replacement in 1997. PCB conc.: 83 ppm. Not plotted on Figure 3-1.	4B	A4a	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.	1C	H2	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.	2D	E1	1*

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

Database Tracking	Building Number	Original Transformer ID Number	Location	Type	Status	1994 Field Survey Observations/ Other Comments	Previous Parcel	New Parcel	ECP Area Type
PCB T123	711	C647622	NA	Pad	Active	Transformer in operation; scheduled for replacement in 1997. PCB conc.: 3,170 ppm. Not plotted on Figure 3-1.	-		1*
PCB T124	2602	D477681-60P	NA	Pad	Active	Transformer in operation; scheduled for replacement in 1997. PCB conc.: 58 ppm. Not plotted on Figure 3-1.	-		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	Previous Parcel	New Parcel
56	3 oil-filled cutouts	1.4	Not on list	1C	H2
138	3 oil-filled cutouts	1.0		2A	I1
176	Explosion-proof switch box	< 1.0	Exterior	1A	H1
178	Universal rectifier	3.8		1A	H1
208	Universal rectifier	9.4	Contains 2 types of PCBs	2A	I1
302	3 oil-filled cutouts	< 0.1	Out-of-service air conditioning motor	4A	A2
311	3 oil-filled cutouts	< 0.005	West set of 3	4A	A1
	3 oil-filled cutouts	< 0.005	East set of 3		
360	3 oil-filled cutouts	< 1.0	Area 1 (west)	4B	A4b
	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	I1
382	Oil-filled switch	< 1.0	Not on list	1C	H2
384	3 oil-filled cutouts	8.2	On transformer	3A	J1
414	3 oil-filled cutouts	< 1.0		5A	
435	3 oil-filled cutouts	< 1.0		5A	A1
	3 oil-filled cutouts	15.0			
439	3 oil-filled cutouts	4.2	In basement	1G	C2
	3 oil-filled cutouts	< 1.0	In basement		
547	Motor control center	6.9		2D	E1
599	3 oil-filled cutouts	< 0.005	Sampled drippings	4A	A1
619	3 oil-filled cutouts	< 1.0	Transformer room	3F	J2
643	3 oil-filled cutouts	< 1.0	North set of 3	5A	I1
	3 oil-filled cutouts	5.0	South set of 3		
651	3 oil-filled cutouts	< 1.0	On transformer	1G	C2
664	3 oil-filled cutouts	< 1.0	Exterior	3A	B1
733	3 oil-filled cutouts	< 1.0		1G	C1
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 Asbestos¹
 (Sheet 1 of 6)

Database Tracking	Building Number	Description	Year Built	Previous Parcel	New Parcel	Asbestos Determination	
						Not Identified	Confirmed Type
BLD 2	2	Hangar bay/ crew/equip	1943	5A	H1	X	
BLD 3	3	Material/IMRL	1943	5A	H1	X	
BLD 4	4	Search & rescue	1943	5A	H1	X	
BLD 6	6	Security Headquarters	1943	5A	H1		NF
BLD 7	7	Storage out of stores	1943	5A	H1	X	
BLD 8	8	Storage out of stores	1943	5A	H1	X	
BLD 9	9	Storage out of stores	1943	5A	H1	X	
BLD 11	11	Squadron headquarters	1943	1A	H1		NF
BLD 12	12	Group headquarters	1943	1A	H1		NF
BLD 15	15	Electrical/communications maintenance shop	1943	1A	H1		NF
BLD 16	16	Storage out of stores	1943	1A	H1	X	
BLD 19	19	Squadron headquarters	1943	1A	H1		NF
BLD 20	20	Maintenance/storage	1943	1A	H1	X	
BLD 21	21	General storage shed	1943	1A	H1	X	
BLD 22	22	Electrical/communications maintenance shop	1943	1A	H1	X	
BLD 23	23	Storage out of stores	1943	1A	H1		NF
BLD 25	25	Construction shop	1943	1D	H1	X	
BLD 26	26	Communication shop	1943	1A	H1	X	
BLD 27	27	Provost Marshall Office storage	1943	1D	H1	X	
BLD 29	29	Navy Investigative Service Field Office	1943	1D	H1		NF
BLD 31	31	Utilities shop/TAFDS	1943	1D	H1	X	
BLD 32	32	Bachelor Officers Quarters	1943	1D	H2		NF
BLD 33	33	Bachelor Officers Quarters	1943	1D	H2		NF
BLD 34	34	Bachelor Officers Quarters	1943	1D	H2		NF
BLD 35	35	Bachelor Officers Quarters	1943	1D	H2		NF
BLD 46	46	Reproduction	1943	1D	H1	X	
BLD 51	51	Auto organizational shop	1943	1D	H2		NF
BLD 52	52	Storage out of stores	1943	1D	H1	X	
BLD 53	53	RASC/IRC classroom	1943	1D	H1	X	
BLD 56	56	Squadron headquarters	1943	1C	H1		NF
BLD 57	57	Bathroom	1943	1C	H2		F
BLD 58	58	Family Housing Services Office	1943	1C	H2		F
BLD 59	59	Administration Office	1943	1C	H2	X	
BLD 60	60	Reserve support unit	1943	1C	H2		NF
BLD 66	66	Disbursing office	1943	1B	H2		F
BLD 75	75	Administration office/Fire Headquarters/Phone Center	1943	1B	H2		NF
BLD 77	77	Exchange warehouse/maintenance shop	1943	1B	H2		F
BLD 83	83	Chapel administration office	1943	1B	H1		F
BLD 94	94	Gymnasium	1943	1B	H1		F
BLD 96	96	Transportation office	1943	4A	A1	X	
BLD 105	105	Group headquarters	1943	2A	I2	X	
BLD 114	114	Maintenance hangar space	1966	5A	I1		NF
BLD 115	115	Maintenance hangar space	1966	5A	I1		NF
BLD 118	118	Maintenance hangar space	1943	2A	I1	X	
BLD 119	119	Maintenance hangar space	1943	2A	I1	X	
BLD 120	120	Maintenance hangar space	1943	2A	R	X	
BLD 122	122	Maintenance hangar space	1943	2A	R	X	
BLD 123	123	Maintenance hangar space	1943	2A	R	X	
BLD 125	125	Maintenance hangar space	1943	2A	I1		NF
BLD 126	126	Maintenance hangar space	1943	2A	R	X	

Table 3-12
Buildings with Known Asbestos¹
(Sheet 2 of 6)

Database Tracking	Building Number	Description	Year Built	Previous Parcel	New Parcel	Asbestos Determination	
						Not Identified	Confirmed Type
BLD 127	127	Tire storage	1943	2A	R	X	
BLD 132	132	Aviation armament shop	1943	2A	I2	X	
BLD 133	133	Storage	1943	2A	I2		NF
BLD 134	134	MCP Storage/hangar maintenance administration	1943	2A	R		NF
BLD 135	135	Warehouse 222nd CCSQ	1943	2A	R	X	
BLD 136	136	Nuclear/biological/chemical storage	1943	2A	R	X	
BLD 138	138	Electronics Maintenance Division	1943	2A	I1		F
BLD 139	139	3rd Marine Air Wing Embark	1943	2A	I1	X	
BLD 142	142	Hazardous/flammable storage	1943	2A	R	X	
BLD 146	146	Standby generator building	1943	1C	H2	X	
BLD 163	163	Magazine Ready Service ²	1943	3A	J1	X	
BLD 164	164	Small arms storage ²	1943	3A	J1	X	
BLD 165	165	Hazardous/flammable storage	1943	3A	J1	X	
BLD 166	166	Small arms storage ²	1943	3F	J2	X	
BLD 167	167	Small arms storage ²	1943	3F	B1	X	
BLD 169	169	NBC storage	1943	3F	J1a	X	
BLD 170	170	Ready service storage magazine ²	1943	3F	J1a	X	
BLD 171	171	Ready service storage magazine ²	1943	3F	J2	X	
BLD 172	172	Ready service storage magazine ²	1943	3F	J2	X	
BLD 240	240	Aero Club 4	1944	1A	H1	X	
BLD 241	241	Laundry pick-up point	1945	1A	H1	X	
BLD 242	242	Museum	1944	1A	H1	X	
BLD 243	243	Historical center	1944	1A	H1	X	
BLD 244	244	Historical collection	1944	5A	H1		NF
BLD 249	249	VIP quarters	1945	1D	H2		NF
BLD 250	250	VIP quarters	1945	1D	H2		NF
BLD 251	251	Conference Center/Recreation Pav.	1944	1D	H2	X	
BLD 256	256	Aviation physical training/medical clinic	1945	1C	H1	X	
BLD 257	257	Administration office	1944	1C	H2	X	
BLD 263	263	Education service office	1945	1B	H2		NF
BLD 271	271	Auditorium	1944	1B	H1	X	
BLD 273	273	Post Office	1944	1B	H1	X	
BLD 275	275	Training/Storage WG Band ²	1944	1B	H1		F
BLD 276	276	Bachelors Enlisted Quarters ²	1945	1B	H2		F
BLD 277	277	Bachelors Enlisted Quarters ²	1945	1B	H1		NF
BLD 279	279	Rehabilitation center	1945	1B	H1	X	
BLD 285	285	Club system warehouse	1944	1B	H1		F
BLD 288	288	Maintenance hangar space	1944	5A	H1		F
BLD 289	289	Maintenance hangar space	1944	5A	K		NF
BLD 290	290	General storage	1944	2A	I1	X	
BLD 291	291	Nuclear/biological/chemical	1944	2A	I2		NF
BLD 295	295	Maintenance hangar space	1944	5A	A1		F
BLD 296	296	Maintenance hangar space	1944	5A	A1		F
BLD 297	297	Maintenance hangar space	1944	5A	A1		F
BLD 299	299	Auto vehicle maintenance shop	1944	4A	A2		NF
BLD 302	302	Public works electronics shop	1945	4A	A2		NF
BLD 304	304	Academic instruction/credit union	1945	4A	A2		NF
BLD 305	305	Group headquarters	1944	4B	A3	X	
BLD 306	306	Public works pipe/heat/refrigeration shop	1944	4A	A2		NF

Table 3-12
Buildings with Known Asbestos¹
(Sheet 3 of 6)

Database Tracking	Building Number	Description	Year Built	Previous Parcel	New Parcel	Asbestos Determination	
						Not Identified	Confirmed Type
BLD 307	307	EAF storage/station operations maintenance Squadron Recovery Headquarters	1944	4A	A2		NF
BLD 308	308	Ground support equipment storage	1944	2A	I2		NF
BLD 309	309	Group headquarters	1944	4A	A1		NF
BLD 310	310	Hangar ²	1944	5A	A1	X	
BLD 312	312	Photo lab ²	1944	4A	A1		F
BLD 313	313	Field maintenance shop	1944	4B	A4		NF
BLD 315	315	A/C ground support equipment shop	1945	5A	A1		NF
BLD 317	317	Commissary warehouse	1945	4B	A4		NF
BLD 318	318	General warehouse Navy	1945	4B	A4		NF
BLD 319	319	General warehouse Navy	1945	4B	A4a	X	
BLD 321	321	Administration office/general warehouse Navy	1945	4B	A4		F
BLD 322	322	Mess halls enlisted ²	1945	4B	A3		F
BLD 324	324	Applied instruction/storage/CO ₂ storage	1945	4A	A1		F
BLD 325	325	Hazardous/flammable storehouse	1945	4A	A1		NF
BLD 326	326	Hazardous/flammable storehouse	1945	4A	A1		F
BLD 328	328	Temporary administration spaces	1945	1C	H2		F
BLD 329	329	Defense Commissary Agency Headquarters	1945	1C	H2		F
BLD 333	333	Field maintenance shop	1945	4A	A1	X	
BLD 341	341	Ground support equipment shop	1945	2A	I2	X	
BLD 355	355	Snack Bar #12	1943	4B	A4	X	
BLD 357	357	Hazardous/flammable storehouse	1951	4A	A1	X	
BLD 358	358	Water distribution building	1951	5A		X	
BLD 360	360	General warehouse Navy	1952	4B	A4b		F
BLD 363	363	Miscellaneous POL pipeline shelter	1952	2A	I1	X	
BLD 364	364	Mess Hall #2	1952	1G	C2		NF
BLD 366	366	Billeting office	1954	1G	C2		F
BLD 367	367	Bachelor Enlisted Quarters/academic instruction	1954	1G	C2		NF
BLD 368	368	Administration office	1954	4A	A2		NF
BLD 369	369	Servmart	1954	4A	A2		F
BLD 370	370	Public works paint/carpentry/metal trades	1954	4A	A2		F
BLD 371	371	Maintenance hangar space	1954	5A	B1		NF
BLD 372	372	Airfield Operations Bldg.	1954	5A	Q		NF
BLD 374	374	Heating plant bldg./conversion station	1954	3A	B1		NF
BLD 375	375	Bachelor Officers Quarters	1954	1D	H3		F
BLD 376	376	Fire station dispatch/ground safety	1954	1C	H1		NF
BLD 382	382	Electrical Distribution Subs #1	1951	1C	H2		NF
BLD 383	383	Electrical Distribution Subs #2	1954	4A	A1		NF
BLD 384	384	Electrical Distribution Subs #3	1954	3A	J1		NF
BLD 385	385	Electrical Distribution Subs #4	1954	2A	I2	X	
BLD 386	386	Construction equipment shop	1955	4A	A2	X	
BLD 388	388	Field maintenance shop	1955	4A	A1		NF
BLD 392	392	Aircraft ground support equipment shop	1955	2A	I2		F
BLD 394	394	Transmitter	1956	5C	D2a		NF
BLD 404	404	Receiver building	1957	5A	B1		NF
BLD 405	405	Applied instruction building	1956	3A	B1		F
BLD 406	406	Applied instruction building	1956	3A	B1		F
BLD 407	407	Squadron Headquarters	1956	3A	B1		NF
BLD 415	415	Storage out of stores	1957	2B	I2		NF
BLD 416	416	Storage building	1957	3F	J2		NF

Table 3-12
Buildings with Known Asbestos¹
 (Sheet 4 of 6)

Database Tracking	Building Number	Description	Year Built	Previous Parcel	New Parcel	Asbestos Determination	
						Not Identified	Confirmed Type
BLD 439	439	Branch medical/dental clinic	1959	1G	C2		NF
BLD 440	440	Missile magazine	1959	3A	B1	X	
BLD 441	441	Aviation armament/Station ordnance	1959	3A	B1		F
BLD 442	442	Aviation armament/Station ordnance	1959	3A	B1		F
BLD 443	443	Academic instruction bldg./LVT center/photo lab	1959	1G	C2		F
BLD 445	445	Hazardous/flammable storehouse	1959	4A	A1		NF
BLD 449	449	Bachelor Enlisted Quarters	1959	1G	C1		F
BLD 450	450	Bachelor Enlisted Quarters	1959	1G	C1		F
BLD 451	451	Bachelor Enlisted Quarters	1959	1G	C1		F
BLD 452	452	Bachelor Enlisted Quarters	1959	1G	C1		F
BLD 453	453	Maintenance hangar space	1960	3A	B1		NF
BLD 454	454	Maintenance hangar space	1960	3A	B1		NF
BLD 456	456	General warehouse/aviation supply	1960	3A	B1		F
BLD 457	457	Group Headquarters/barb shop/dental clinic/mess hall	1960	3A	J1		F
BLD 458	458	Hazardous flammable storehouse	1960	5A	B1	X	
BLD 463	463	Maintenance hangar space/engine maintenance shop	1960	5A	B1		NF
BLD 464	464	Golf course clubhouse	1959	3F	J2		F
BLD 469	469	Equipment storage building	1959	3A	B1	X	
BLD 475	475	Storage building/disbursing	1946	1B	H2	X	
BLD 523	523	Storage	1945	1B	H2	X	
BLD 529	529	Public works expend VIP storage	1944	4A	A2		NF
BLD 543	543	High explosive magazine	1952	2F	E1	X	
BLD 544	544	High explosive magazine	1952	2F	E1	X	
BLD 545	545	High explosive magazine	1952	2F	E1	X	
BLD 546	546	High explosive magazine	1952	2F	E1	X	
BLD 555	555	POL sampling/test building	1955	2D	E1		F
BLD 556	556	Miscellaneous POL pipeline facility	1955	2D	E1		NF
BLD 568	568	Standby generator building	1956	5C	D2a	X	
BLD 578	578	Water distribution building	1957	1F	C1		NF
BLD 600	600	Storage out of stores	1961	1A	H1		NF
BLD 605	605	Maintenance hanger space	1965	5A	I1		F
BLD 606	606	Maintenance hanger space	1965	5A	I1		F
BLD 611	611	Missile magazine	1966	3A	B1	X	
BLD 615	615	Handball courts	1966	1F	C1	X	
BLD 616	616	Administration office	1966	4A	A2		NF
BLD 619	619	Standby generator building	1966	3F	J2		F
BLD 624	624	Air terminal/SQ Headquarters	1967	5A	H1		NF
BLD 625	625	Hobby shop/automotive	1967	1B	H1	X	
BLD 626	626	Hobby shop/automotive	1967	1B	H1	X	
BLD 629	629	Academic instruction building	1968	1C	H1		NF
BLD 631	631	Applied instruction building	1968	4A	A1	X	
BLD 634	634	Hangar/gng. maintenance/avionics shop	1969	2A	R		NF
BLD 636	636	Parach./survey equipment/cryogenics office	1969	3A	J1		F
BLD 639	639	Electric power plant building	1969	5A	I1	X	
BLD 640	640	Electric power plant building	1969	5A	I1	X	
BLD 641	641	Electric power plant building	1969	5A	I1	X	
BLD 642	642	Electric power plant building	1969	5A	I1	X	
BLD 649	649	Exchange warehouse/retail/cafe/teria	1970	1G	C2		F
BLD 650	650	Exchange retail shop	1970	1G	C2		NF
BLD 651	651	Exchange auto repair/supplemental gas station	1971	1G	C2		NF

Table 3-12
Buildings with Known Asbestos¹
 (Sheet 5 of 6)

Database Tracking	Building Number	Description	Year Built	Previous Parcel	New Parcel	Asbestos Determination	
						Not Identified	Confirmed Type
BLD 655	655	Field maintenance shop	1970	4A	A1		NF
BLD 658	658	Engine test cell	1972	2A	I1		NF
BLD 660	660	Bachelor Enlisted Quarters	1973	1G	C2		F
BLD 661	661	Transient Enlisted Quarters	1973	1G	C2		F
BLD 664	664	Substation building	1971	3A	B1	X	
BLD 666	666	Bachelor Enlisted Quarters	1973	1G	C1		F
BLD 667	667	Bachelor Enlisted Quarters	1973	1G	C1		F
BLD 668	668	Bachelor Enlisted Quarters	1973	1G	C1		F
BLD 669	669	Bachelor Enlisted Quarters	1973	1G	C1		F
BLD 671	671	Refueler administration	1973	4A	A1		NF
BLD 672	672	Refueling vehicle maintenance shop	1973	4A	A1	X	
BLD 673	673	ACFT/ground support equipment shed	1974	3A	J4		NF
BLD 676	676	Community storage miscellaneous	1973	2C	D1b	X	
BLD 677	677	Meteorological building	1958	5A	K	X	
BLD 678	678	Housing/maintenance storage	1973	2C	D2	X	
BLD 683	683	Cold storage/general warehouse	1974	1A	H1		NF
BLD 684	684	Applied instruction building	1974	1C	H2	X	
BLD 685	685	Electrical distribution building	1974	1A	H1	X	
BLD 688	688	Receiver building	1973	2F	E1		NF
BLD 689	689	Receiver/activity TV antenna	1973	2F	E1	X (previously blank)	
BLD 693	693	Operational flight trainer (KC-130)	1975	1G	C2	X	
BLD 694	694	Commissary	1975	1G	C2		NF
BLD 695	695	Line maintenance shelter	1975	5A	I1		NF
BLD 696	696	Line maintenance shelter	1975	5A	I1		NF
BLD 697	697	Line maintenance shelter	1975	5A	I1		NF
BLD 698	698	Line maintenance shelter	1975	5A	Q		NF
BLD 713	713	Hazardous/flammable storehouse	1977	2B	I2	X	
BLD 714	714	Line maintenance shelter	1977	5A	B1		NF
BLD 715	715	Line maintenance shelter	1977	5A	B1		NF
BLD 716	716	Hush house	1978	5A	I1		NF
BLD 717	717	Crash, fire, rescue storage	1978	5A	A1		NF
BLD 718	718	Modular Club/Lampost Pizza	1978	1B	H2		NF
BLD 722	722	Convenience food store	1979	2C	D1a		NF
BLD 726	726	Line maintenance shelter	1981	5A			NF
BLD 727	727	Line maintenance shelter	1981	5A	B1		NF
BLD 728	728	Line maintenance shelter	1983	5A	B1		NF
BLD 730	730	Communications center	1980	1A	H1		NF
BLD 731	731	Enlisted Personnel Quarters	1980	1G	C1		NF
BLD 732	732	BEQ P-054	1980	1G	C1		NF
BLD 733	733	Boiler room P-054	1980	1G	C1		NF
BLD 734	734	Restroom P-313	1980	2A	I2		NF
	735	Generator Bldg 9-313 ¹	1980	NL			NF
BLD 740	740	BEQ P-326 "B"	1982	1G	C1		NF
BLD 741	741	BEQ P-326 "C"	1982	1G	C1		NF
BLD 743	743	Financial building	1971	1G	C2		NF
BLD 745	745	Warehouse (Mag-II) P-296	1983	2A	R		NF
BLD 746	746	Flight simulator P-270	1984	2A	I2		NF
	747	Maintenance	1983	2A	I1	X	
BLD 748	748	Restroom	1983	2A	I1		F

Table 3-12
Buildings with Known Asbestos¹
(Sheet 6 of 6)

Database Tracking	Building Number	Description	Year Built	Previous Parcel	New Parcel	Asbestos Determination	
						Not Identified	Confirmed Type
BLD 749	749	Restroom P-437	1983	2A	I2		NF
	750	Sentry booth	1983	2A	I2	X	
	751	Storage	1983	2A	I2	X	
BLD 752	752	Fuel Farm #5 office	1983	2A	I1		NF
BLD 757	757	Mars	1983	1F	C1		NF
	782	Storage	1983	3F	J2	X	
BLD 783	783	Exchange administration/service outlets	1983	1G	C2		NF
BLD 787	787	NBC Defense Platoon Facility	1984	3A	B1		NF
BLD 1524	1524	General storage shed	1945	1C	H2		NF
BLD 1538	1538	Fuel Farm #4 office	1945	2A	Q	X	
BLD 1580	1580	General warehouse Navy	1945	4B	A4	X	
BLD 1595	1595	Public works maintenance storage	1945	4A	A2		NF
BLD 1601	1601	Public works maintenance storage	1945	4A	A2		NF
BLD 1650	1650	Aviation armament	1947	3A	B1	X	
BLD 1655	1655	Squadron Headquarters	1947	3A	B1	X	
BLD 1656	1656	Administration storage	1947	3A	B1	X	
BLD 1703	1703	Hazardous/flammable storehouse	1952	4B	A4		NF
BLD 1710	1710	Public works maintenance storage	1946	4A	A2	X	
BLD 1719	1719	Applied instruction building	1946	3A	B1	X	
BLD 1720	1720	NBC Headquarters	1946	3A	B1	X	
BLD 1721	1721	Bachelor Enlisted Quarters	1946	3A	B1		NF
BLD 1752	1752	Magazine equipment shed	1956	5C	D2a or E1	X	
BLD 1787	1787	Aviation armament	1958	3A	B1	X	
BLD 1791	1791	Aviation armament	1946	3A	B1	X	
BLD 1804	1804	Lunchroom	1966	2A	I1		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 20)**

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
1	RFA 1	3F	J2	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	J2	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	NA	NFA	Marshburn Channel	Adjacent to NW boundary	X	Initial RFA recommended NFA. To be addressed in IRP Site 25.	3
4	IRP 25	5A	NA	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	NA	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 7/23/96). Near-surface soils were removed in 1997.	6*
8	RFA 8	2F	E1	NFA	Abandoned Well 50-3285	West of Bldg. 809	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
9	RFA 9	5A	K	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	R	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	NA	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	I1	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	Q	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	I1	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	I1	NFA	Wash water runoff site	NW of fueling station 574	X	NFA concurrence by DTSC (letter dated 7/23/96).	3

Table 3-13
Summary of SWMUs/AOCs
(Sheet 2 of 20)

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
17	UST T5	1A	H1	NFA	Former UST site	Tank Farm 2		Tank removed. Former UST Site T5 was closed by the RWQCB in November 1997.	2
18	UST T2	5A	Q	NFA	Former UST site	Tank Farm 4		Tank removed and site closed by OCHCA in letter dated 11/13/96.	2
19	UST T3	2A	I1	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	B1	NFA	Active UST	Bldg. 414	X	RFA (Jacobs 1993) recommended NFA. Tank will be removed following operational closure.	7
21	UST T6	2A	I1	NFA	Inactive UST	Tank Farm 5		UST scheduled for removal in 1997. Site closed by OCHC+J11A in a letter dated 3/27/97.	2
22	UST T8	2A	I1	NFA	Active UST	Tank Farm 5, 6		Tank will be removed following operational closure.	2
23	UST T1	2D	E1	NFA	Spill containment UST (active)	Tank Farm 555		Tank will be removed following operational closure.	2
24	UST T7	5A	Q	NFA	Active UST	Tank Farm 6		Tank will be removed following operational closure.	2
25	TAA 5A	5A	H1	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	H1	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	H1	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	H2	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	H2	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	H2	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*

**Table 3-13
Summary of SWMUs/AOCs
(Sheet 3 of 20)**

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
33	TAA 51	1D	H2	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	A1	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*
38	TAA 114	5A	I1	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	I1	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	R	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	R	NFA	Vehicle wash rack	Bldg. 127	X	NFA concurrence by DTSC (letter dated 7/23/96).	3
42	TAA 130C	2A	R	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	R	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	R	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	K	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	B1	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	J2	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	H1	NFA	Former UST site (Tank Farm 2)	178	X	RFA (Jacobs 1993) recommended NFA. Tank removed in 1995.	2
49	UST 179	1A	H1	NFA	Former UST site (Tank Farm 2)	179	X	RFA (Jacobs 1993) recommended NFA. Tank removed in 1995.	2

**Table 3-13
Summary of SWMUs/AOCs
(Sheet 4 of 20)**

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
50	RFA 50	1A ³	H1	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	H1	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	H1	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
55	RFA 55	1D ³	H2	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	H2	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	H1	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	H1	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	H1	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	Q	NFA	Active UST	204		No sampling, based on 1990 tank test. Tank will be removed following operational closure.	2
61	UST 205	5A	Q	NFA	Inactive UST	205		No sampling, based on 1990 tank test. Tank scheduled for removal in 1998.	2
62	UST 206	5A	Q	NFA	Active UST	206		No sampling, based on 1990 tank test. Tank will be removed following operational closure.	7
63	UST 207	5A	Q	NFA	Inactive UST	207		No sampling, based on 1990 tank test. Tank will be removed following operational closure.	7
64	TAA 240	1A	H1	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	H1	NFA	Inactive UST	240	X	RFA (Jacobs 1993) recommended NFA. Associated with OWS 240C. The tank was removed during 1997.	2*
66	OWS 240C	1A	H1	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). The tank was removed during 1997.	7
67	TAA 242	1A	H1	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	H1	Not Located During RFA	Oil/water separator	244		Location not confirmed during RFA activities. Scheduled for removal in 1998.	7

Table 3-13
Summary of SWMUs/AOCs
(Sheet 5 of 20)

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
69	RFA 69	1B ³	H2	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	H1	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
71	RFA 71	5A	A1	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	A1	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	A1	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	A1	NFA	Spill containment UST (active)	297		Tank will be removed following operational closure.	2*
76	OWS 297B	5A	A1	NFA	Oil/water separator	297	X	RFA recommended NFA. (OWS is associated with UST 297C). DTSC concurrence (letter dated 7/23/96). The tank was removed during 1997 and regulatory closure by OCHCA was achieved on 7/11/97	7
77	UST 297C	5A	A1	NFA	Inactive UST	297	X	Combined with SWMU/AOC 76 (OWS 297B). The tank was removed during 1997 and regulatory closure by OCHCA was achieved on 7/11/97	2*
78	RFA 78	5A ³	A1	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	A1	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	A1	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	A1	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*

**Table 3-13
Summary of SWMUs/AOCs
(Sheet 6 of 20)**

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
82	RFA 82	5A ³	A1	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	A2	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	A2	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	A2	FA in CP	Active UST	298	X	Combined with SWMU/AOC 84 (OWS 298C). Tank will be removed following operational closure.	2*
88	TAA 306	4A	A2	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	A2	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	A3	FA in IRP	Former sewage treatment plant	307	X	To be addressed in IRP Site 12.	6
91	UST 314A	4A	A1	NFA	Inactive UST	314	X	RFA (Jacobs 1993) recommended NFA. Tank scheduled for removal in 1998.	2*
92	UST 314B	4A	A1	NFA	Inactive UST	314	X	RFA (Jacobs 1993) recommended NFA. Tank scheduled for removal in 1998.	2*
93	TAA 317	4B	A4	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	A4	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	A1	NFA	Engine test cell	324	X	NFA concurrence by DTSC (letter dated 7/23/96).	3
96	RFA 96	5A ³	B1	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	A1	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	A4a	NFA	Vehicle wash rack	359	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
99	TAA 359B	4B	A4a	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

Table 3-13
Summary of SWMUs/AOCs
(Sheet 7 of 20)

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
100	RFA 100	4B	A4a	NFA	TCE degreaser	359	X	NFA concurrence by DTSC (letter dated 7/23/96).	3
101	OWS 359B	4B	A4a	NFA	Oil/water separator	359	X	RFA recommended NFA. DTSC concurrence (letter dated 7/23/96).	7
102	UST 359C	4B	A4	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	A4a	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	A4b	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
105	RFA 105	5A ³	A4b	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	A4b	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	B1	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	Q	NFA	Inactive UST	Taxiway		UST scheduled for removal in 1998.	2*
109	RFA 109	4A ³	A1	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	A1	FA	Vehicle wash rack	386	X	RFA recommended repair of cracks in pavement (Jacobs 1993).	6
112	OWS 386B	4A	A1	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	A2	NFA	Active UST	386	X	Combined with SWMU/AOC 112 (OWS 386B). Tank will be removed following operational closure.	2*
114	TAA 386	4A	A2	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	A1	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	A1	NFA	Active UST	388		Tank will be removed following operational closure.	7
118	OWS 388C	4A	A1	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*

**Table 3-13
Summary of SWMUs/AOCs
(Sheet 8 of 20)**

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
119	TAA 389A	3A	J4	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	J4	NFA	Vehicle wash rack	390	X	NFA concurrence by DTSC (letter dated 7/23/96).	3
121	RFA 121	3A ³	J4	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	J4	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
124	TAA 392A	2A	R	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	I2	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	B1	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	A1	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	A1	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*
130	TAA 447	3A	B1	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	B1	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). Near-surface soils were removed in 1997.	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	B1	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	B1	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*

**Table 3-13
Summary of SWMUs/AOCs
(Sheet 9 of 20)**

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
135	TAA 456	3A	B1	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	B1	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	B1	NFA	Former UST site	461	X	RFA (Jacobs 1993) recommended NFA. Tank removed in 1993.	2*
138	TAA 461	5A	B1	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	B1	NFA	Former UST site	462	X	RFA (Jacobs 1993) recommended NFA. Tank removed in 1993.	2*
140	TAA 462	5A	B1	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	B1	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	B1	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	A3	Not Located During RFA	Inactive UST	493		Location not confirmed during RFA activities; building no longer exists. Tank 493, formerly believed to have been removed, was discovered on 1/19/98. The tank is inactive and is in the process of being closed in place.	7
144	TAA 529	4A	A2	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	A2	FA in CP	Removed UST	529	X	LUFT levels exceeded; RFA recommended additional borings. Tank was removed in 1997 and the tank site is under remediation.	2*
146	TAA 534	4B	A3	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	R	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	R	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*

**Table 3-13
Summary of SWMUs/AOCs
(Sheet 10 of 20)**

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
149	TAA 605	5A	I1	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	I1	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	I1	FA in CP	Oil/water separator	605	X	RFA (Jacobs 1993) recommended leak test/inspection of OWS.	7
152	RFA 152	5A	I1	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	H2	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	H2	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	H2	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
159	OWS 626-1	1B	H2	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	B1	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	I1	NFA	Inactive UST	643	X	Associated with OWS 643B. RFA (Jacobs 1993) recommended NFA. The tank was removed during 1997 and regulatory closure by OCHCA was achieved on 7/11/97.	2*
163	OWS 643B	5A	I1	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). The tank was removed during 1997 and regulatory closure by OCHCA was achieved on 7/11/97.	7
164	RFA 164	1G	C2	NFA	Vehicle wash rack	651	X	NFA concurrence by DTSC (letter dated 7/23/96).	3
165	TAA 651	1G	C2	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	C2	NFA	Active UST	651		No sampling, based on 1990 tank test. Tank was removed during 1997 and regulatory closure by OCHCA was achieved on 7/11/97	7

**Table 3-13
Summary of SWMUs/AOCs
(Sheet 11 of 20)**

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
167	UST 651-6	1G	C2	NFA	Active UST	651		No sampling, based on 1990 tank test. Tank was removed during 1997 and regulatory closure by OCHCA was achieved on 7/11/97.	7
168	UST 651-7	1G	C2	NFA	Active UST	651		No sampling, based on 1990 tank test. Tank was removed during 1997 and regulatory closure by OCHCA was achieved on 7/11/97.	7
169	OWS 651-8	1G	C2	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	A1	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	I1	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	A1	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	A1	FA in CP	Oil/water separator	671	X	LUFT levels exceeded; RFA recommended additional borings (Jacobs 1993).	6
174	UST 672	4A	A1	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. Tank was removed during 1997.	2*
175	OWS 672A	4A	A1	FA in CP	Oil/water separator	672	X	LUFT levels exceeded; RFA recommended additional borings (Jacobs 1993). Associated with UST 672B.	6
176	UST 672B	4A	A1	FA in CP	Inactive UST	672	X	LUFT levels exceeded; RFA recommended additional borings. Tank was removed during 1997.	2*
177	TAA 672	4A	A1	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	J4	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	J4	NFA	Oil/water separator	673	X	RFA recommended NFA. DTSC concurrence (letter dated 7/23/96).	7
180	UST 673B	3A	J4	NFA	Active UST	673	X	Combined with SWMU/AOC 179 (OWS 673A). Tank will be removed following operational closure.	2*
181	RFA 181	3B	J4	NFA	Landfarming area	673	X	NFA concurrence by DTSC (letter dated 7/23/96).	3

**Table 3-13
Summary of SWMUs/AOCs
(Sheet 12 of 20)**

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
182	RFA 182	3B ³	J4	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	J4	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	J4	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	J4	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	J4	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	A3	NFA	Abandoned UST	674	X	Combined with SWMU/AOC 189 (OWS 676). RFA (Jacobs 1993) recommended NFA. Tank will be removed following operational closure. Tank filled with concrete slurry by OHM on 4 December 1997. The field activities associated with the closure of the tank in place were completed during 1997.	2
188	UST 675A	4B	M	NFA	Abandoned UST	675	X	Combined with SWMU/AOC 292 (OWS 675B). RFA (Jacobs 1993) recommended NFA. Tank will be removed following operational closure. Tank filled with concrete slurry by OHM on 4 December 1997. The field activities associated with the closure of the tank in place were completed during 1997.	5*
189	OWS 674B	4B	A3	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	B1	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*
192	UST 716A	5A	I1	NFA	Inactive 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	Q	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	I2	FA in IRP	Former Incinerator Site	746	X	To be addressed in IRP Site 3.	6
195	RFA 195	4A	A2	NFA	Vehicle wash rack	758	X	NFA concurrence by DTSC (letter dated 7/23/96).	1

**Table 3-13
Summary of SWMUs/AOCs
(Sheet 13 of 20)**

SWMU/ AOC Number	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
196	OWS 758A	4A	A2	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	A2	NFA	Active UST	758	X	Combined with SWMU/AOC 196 (OWS 758A). Tank will be removed following operational closure.	2
198	RFA 198	4A	A1	FA	Vehicle wash rack	759	X	RFA recommended repair of cracks in pavement (Jacobs 1993).	6
199	OWS 759A	4A	A1	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	A1	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	A1	FA	Vehicle wash rack	760	X	RFA recommended repair of cracks in pavement (Jacobs 1993).	6
202	UST 760A	4A	A1	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	A1	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	B1	FA	Vehicle wash rack	761	X	RFA recommended repair of cracks in pavement (Jacobs 1993).	6
205	OWS 761A	5A	B1	NFA	Oil/water separator	761	X	NFA concurrence by DTSC (letter dated 7/23/96). Associated with UST 761B.	2
206	UST 761B	5A	B1	NFA	Active UST	761	X	Combined with SWMU/AOC 205 (OWS 761A). Tank will be removed following operational closure.	2
208	OWS 762A	3A	J4	NFA	Oil/water separator	762	X	NFA concurrence by DTSC (letter dated 7/23/96). Associated with UST 762B. The tank was removed during 1997 and regulatory closure by OCHCA was achieved on 7/2/97.	2
209	UST 762B	3A	J4	NFA	Inactive UST	762	X	Combined with SWMU/AOC 208 (OWS 762A). The tank was removed during 1997 and regulatory closure by OCHCA was achieved on 7/2/97.	2
210	RFA 210	5A	Q	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	Q	NFA	Oil/water separator	763	X	NFA concurrence by DTSC (letter dated 7/23/96). Associated with UST 763B.	2
212	UST 763B	5A	I1	NFA	Active UST	763	X	Combined with SMWU/AOC 211 (OWS 763A). Tank will be removed following operational closure.	2
213	RFA 213	2A	R	FA	Vehicle wash rack	764	X	RFA recommended repair of cracks in pavement (Jacobs 1993).	6
214	UST 764A	2A	R	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	I1	NFA	Oil/water separator	764	X	Combined with SWMU/AOC 214 (UST 764A). NFA concurrence by DTSC (letter dated 7/23/96).	2

**Table 3-13
Summary of SWMUs/AOCs
(Sheet 14 of 20)**

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
216	RFA 216	1A	H1	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	H1	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	H1	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	H1	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	H1	NFA	Oil/water separator	766	X	NFA concurrence by DTSC (letter dated 7/23/96). Associated with UST 766B.	2
221	UST 766B	1A	H1	NFA	Active UST	766	X	Combined with SWMU/AOC 220 (OWS 766A). Tank will be removed following operational closure.	2
222	TAA 769	4A	A2	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	A2	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	H2	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	J2	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
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	H1	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	Q	NFA	Inactive UST	779		The tank was removed during 1997 and regulatory closure by OCHCA was achieved on 7/11/97.	2

Table 3-13
Summary of SWMUs/AOCs
(Sheet 15 of 20)

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
229	TAA 800	4B	A4b	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 closure.	1
230	UST 800D	4B	M	NFA	Active UST	800		No sampling, based on 1990 tank test. Tank will be removed following operational closure.	7
231	UST 800E	4B	M	NFA	Active UST	800	X	RFA (Jacobs 1993) recommended NFA. Tank will be removed following operational closure.	2
232	OWS 800F	4B	M	NFA	Oil/water separator	800	X	NFA concurrence by DTSC (letter dated 7/23/96).	2
233	OWS 817	3F	J2	NFA	Oil/water separator	817	X	NFA concurrence by DTSC (letter dated 7/23/96).	2
234	TAA 856	3A	B1	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	B1	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	A2	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	I2	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	K	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	K	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	B1	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
243	RFA 243	4A	A1	NFA	Wash rack	96	X	NFA concurrence by DTSC (letter dated 7/23/96).	3
244	RFA 244			NFA	Spill area	457		Source SWDIV (1/25/98). The site has been transferred to the Remedial Action Contractor for removal of impacted surface soils. The removal of impacted surface soils was completed in 1997.	

**Table 3-13
Summary of SWMUs/AOCs
(Sheet 16 of 20)**

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
245	RFA 245	3F	J2	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	J2	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	B1	NFA	Oil/water separator	463	X	NFA concurrence by DTSC (letter dated 7/23/96).	2
249	UST 463	5A	B1	NFA	Former UST site	463	X	Tank associated with SWMU/AOC 248 (OWS 845). RFA (Jacobs 1993) recommended NFA. UST removed in 1993.	2
250	UST 655	4A	A1	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	A1	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	A1	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	A4	NFA	Wash rack	317	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
254	TAA 359A	4B	A4a	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	I1	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	B1	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	Q	NFA	Wash water runoff site	575	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
258	RFA 258	5A	Q	NFA	Wash water runoff site	577	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
259	TAA 389B	3A	J4	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

**Table 3-13
Summary of SWMUs/AOCs
(Sheet 17 of 20)**

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
260	RFA 260	3A	J4	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	J4	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	J4	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	J2	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	4A, 4B, 5A	A1, A2, A4, A4a, A4b, M	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	J2	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	I1	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	H1	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	A1	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	J2	NFA	Wash rack	817	X	NFA concurrence by DTSC (letter dated 7/23/96).	2
271	TAA 392B	2A	R	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	H2	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	H2	NFA	Wash rack	31	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
274	RFA 274	1D	H2	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

Table 3-13
Summary of SWMUs/AOCs
(Sheet 18 of 20)

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
275	UST 186	1D	H2	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	H2	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	H1	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	H1	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	H1	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	H1	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	H2	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	A4	NFA	Former UST site	322	X	Closed by RWQCB in letter dated 12/12/95.	2
283	UST 326B	4A	A1	NFA	Inactive UST	326	X	RFA (Jacobs 1993) recommended NFA. The field activities associated with the closure of the tank in place were completed during 1997.	2
284	UST 347D	1B	H2	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	K	Not Located During RFA	Former UST site	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. Site closed by OCHCA on 9/5/97.	2
286	UST 733B	1G	C1	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	C1	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	K	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	K	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
290	PCB T74	3A	B1	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). Near-surface soils were removed in 1997.	6*
291	RFA 291	4A	A1	NFA	Oil/water separator	96	X	NFA concurrence by DTSC (letter dated 7/23/96).	2
292	OWS 675B	5A	M	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	R	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

**Table 3-13
Summary of SWMUs/AOCs
(Sheet 19 of 20)**

SWMU/ AOC Number ¹	Database Tracking	Previous Parcel	New Parcel	RFA Recommendation	Type/Description	Location, Building, or Number	Sampling Visit	Comments	ECP Area Type ²
294	TAA 130A	2A	R	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	R	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	A1	NFA	Oil/water separator	357	X	RFA recommended NFA. DTSC concurrence (letter dated 7/23/96). The tank was removed during 1997 and regulatory closure by the RWQCB was achieved in November 1997.	2
297	RFA 297	5A	I3	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	R	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	A4b	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	I2	FA in IRP	Spill area east of SWMU/AOC 194	746	X	To be addressed in IRP Site 3	6
301	RFA 301	5A	K	NFA	Mark arrest system	East side of Runway 34R	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
302	RFA 302	5A	K	NFA	Mark arrest system	West side of Runway 34R	X	NFA concurrence by DTSC (letter dated 7/23/96).	1
303	UST 359A	4B	A4	NFA	Former UST site	359	X	Tank removed. Site closed by OCHCA in a letter dated 12/9/96.	2
304	RFA 304	4B	A4a	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	C1	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
306	RFA 306	1F	C1	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	E1	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

Table 3-13
Summary of SWMUs/AOCs
(Sheet 20 of 20)

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 SWMUs/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

**Table 3-14
Oil/Water Separator Inventory
(Sheet 1 of 6)**

Database Tracking	OWS Number	Previous Parcel	New Parcel	Location/ Nearest Building Number	Year Installed	Capacity (gal)/ Tank Material	Status	Closed	Comments	Further Action	Location Status ¹	Contents	UST Associated with OWS	RFA Sampling (X)	Document Source ²	ECP Area Type
OWS 240C	240C	1A	H1	240	1982	100/ Steel	Removed		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. OWS was removed on 2/13/97.	No further action recommended in the RFA based on soil sample results.	LC	Oil/water	Yes (UST 240B)	X	A,B,C,D	2*
OWS 244	244	5A	H1	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	H2	280	Unknown	200/ Concrete	Removed	X	Closed by OCHCA in a letter dated 7/11/97. Removed in 1997.	No further action required.	LC		No		C	7
OWS 297B	297B	5A	A1	297	1982	100/ Steel	Removed	X	From RFA: SWMU 76-NFA. SWMU 77 (UST 297C) is the tank associated with the OWS. OWS was removed on 4/2/97. Closed by OCHCA in a letter dated 7/11/97.	No further action required.	S	Oil/water	Yes (UST 297C)	X	A,B,D	2*
OWS 298C	298C	4A	A2	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	A1	314	Unknown	2,200/ Concrete	Removed	X	From LCR: OWS not in use; upstream drains cemented. Structural condition was sound. OWS removed 5/9/97. Closed by OCHCA in a letter dated 10/31/97.	No further action required.	LC	Oil/water	No		C	7
OWS 324-1	324-1	4A	A1	324	Unknown	Unknown/ Steel	Removed		From LCR: OWS no longer used; internal drains cemented. Structural condition was rusty. OWS was removed on 9/24/97.	No further action required.	LC	Oil/water	No		C	7
OWS 324-2	324-2	4A	A1	324	Unknown	Unknown/ Steel	Removed		From LCR: OWS no longer used; internal drains cemented. Structural condition was rusty. OWS was removed on 9/24/97.		LC	Oil/water	No		C	7
OWS 357	357	4A	A1	357	Unknown	200/ Steel	Removed	X	SWMU 296-NFA. From LCR: OWS condition was rusty, disconnected at head pipes. OWS was removed on 5/1/97. Site closed by RWQCB in a letter dated 11/21/97.	No further action recommended in the RFA based on soil sample results.	LC	Oil/water	No	X	B,C,D	2*
OWS 359B	359B	4B	A4a	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	B1	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

**Table 3-14
Oil/Water Separator Inventory
(Sheet 2 of 6)**

Database Tracking	OWS Number	Previous Parcel	New Parcel	Location/ Nearest Building Number	Year Installed	Capacity (gal)/ Tank Material	Status	Closed	Comments	Further Action	Location Status ¹	Contents	UST Associated with OWS	RFA Sampling (X)	Document Source ²	ECP Area Type
OWS 386B	386B	4A	A1	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.	No further action recommended in the RFA based on soil sample results.	LC	Oil/water	Yes (UST 386C)	X	A,B,C,D	2*
OWS 388C	388C	4A	A1	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.	The OWS should be cleaned and the electrical valves tested to determine what repairs are needed per the LCR.	S	Oil/water	No		A,B,C,D	2*
OWS 392	392		R	602	Unknown		Active					Oil/Water				7
OWS 445	445	4A	A1	445	Unknown	Unknown/ Precast Concrete	Removed	X	From LCR: OWS does not appear to be used; building used for storage. During survey OWS covered by heavy box. OWS removed 5/8/97. Closed by OCHCA in a letter dated 10/24/97.	No further action required.	LC	Oil/water	No		C,F	7
OWS 447C	447C	5A		447	1959	800/ Precast Concrete	Removed		From RFA: SWMU 132-NFA; covers which may belong to an OWS identified. OWS was removed on 2/10/97.	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	B1	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	B1	462	Unknown	50/ Steel	Active				LC	Oil/water	Unknown		C	7
OWS 602	602	2A	R	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	I1	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.	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	Yes (UST 605B)	X	A,B,C,D,F	2**
OWS 606C	606C	5A	I1	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	H2	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.	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*

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

Database Tracking	OWS Number	Previous Parcel	New Parcel	Location/ Nearest Building Number	Year Installed	Capacity (gal)/ Tank Material	Status	Closed	Comments	Further Action	Location Status ¹	Contents	UST Associated with OWS	RFA Sampling (X)	Document Source ²	ECP Area Type
OWS 626-2	626-2	1B	H2	625	Unknown	580/ Steel	Active		From LCR: OWS appears sound.		LC	Oil/water	No		C	7
OWS 626-3	626-3	1B	H2	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	H2	625	Unknown	560/ Concrete	Active		From LCR: OWS appears sound.		LC	Oil/water	No		C	7
OWS 643B	643B	5A	I1	643	1982	100/ Steel	Removed	X	From RFA: SWMU 163- sampled. See comments for OWS 606C; drain to OWS 643B located 10 ft south of Bldg. 606. OWS was removed on 5/6/97. Closed by OCHCA in a letter dated 7/11/97.	No further action required.	LC	Oil/water	Yes (UST 643A)		A,B,C,D,F	2*
OWS 651-8	651-8	1G	C2	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		C2	651	Unknown		Active					Oil/water				7
OWS 658C	658C	2A	I1	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	I1	658	1995	1,750/ Concrete	Active		Set up in service with OWS 658C.		LC	Oil/water	No		G	7
OWS 671	671	4A	A1	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	A1	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.	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	No	X	A,B,C,D,F	2*
OWS 673A	673A	3A	J4	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.	No further action recommended in the RFA based on soil sample results. The LCR recommends the OWS be cleaned.	S	Oil/water	Yes (UST 673B)	X	A,B,C,D,F	2*
OWS 674B	674	4B	A3	674	Unknown	1,400/ Steel	Active		Aboveground OWS. From LCR: OWS appears sound. OWS for Bee Canyon Wash.		LC	Oil/water	No		A,B,C,D,F	2*
OWS 674C	674	4B	A3	674	1995	52/ Steel	Active		Set up in service with OWS 674B.		LC	Oil/water	No		G	7

**Table 3-14
Oil/Water Separator Inventory
(Sheet 4 of 6)**

Database Tracking	OWS Number	Previous Parcel	New Parcel	Location/ Nearest Building Number	Year Installed	Capacity (gal)/ Tank Material	Status	Closed	Comments	Further Action	Location Status ¹	Contents	UST Associated with OWS	RFA Sampling (X)	Document Source ²	ECP Area Type
OWS 675B	675B	4B	M	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.	No further action recommended in the RFA based on soil sample results	LC	Oil/water	No	X	A,B,C,D,F	2*
OWS 675C	675C	4B	M	675	1995	52/ Steel	Active		Set up in service with OWS 675B.		LC	Oil/water	No		G	7
OWS 676	676	2B	I2	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 716B	716B	5A	Q	716	1976	100/ Steel	Inactive		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. This OWS will be scheduled for removal with UST 716A.	LC	Oil/water	Yes (716A)	X	A,B,C,D	2*
OWS 744	744	1G	C2	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	A2	758	1982	100/ Steel	Active		From RFA: SWMU 196-NFA. From LCR: OWS appears sound.	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	A1	759	1982	100/ Steel	Active		From RFA: SWMU 199-FA. From LCR: OWS appears sound.	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	A1	760	1982	100/ Steel	Active		From RFA: SWMU 203-comb w/SWMU 202-NFA; discharges waste oil to UST 760A.	No further action recommended in the RFA based on soil sample results.	S	Oil/water	Yes (UST 760A)	X	A,B,D,F	2*
OWS 761A	761A	5A	B1	761	1982	100/ Steel	Active		SWMU 205-NFA. Listed as active in the Station database. From LCR: OWS status not known, buildings appear abandoned.	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	J4	390	1982	100/ Steel	Removed	X	From RFA: SWMU 208-NFA. From LCR: OWS 392 in LCR. OWS removed 1/22/97. Closed by OCHCA in a letter dated 7/2/97.	No further action required.	S	Oil/water	Yes (UST 762B)	X	A,B,C,D,F	2*

**Table 3-14
Oil/Water Separator Inventory
(Sheet 5 of 6)**

Database Tracking	OWS Number	Previous Parcel	New Parcel	Location/ Nearest Building Number	Year Installed	Capacity (gal)/ Tank Material	Status	Closed	Comments	Further Action	Location Status ¹	Contents	UST Associated with OWS	RFA Sampling (X)	Document Source ²	ECP Area Type
OWS 763A	763A	5A	Q	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.	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	II	764	1982	100/ Steel	Active		From RFA: SWMU 215-comb w/SWMU214-NFA. From LCR: OWS 392 in LCR; UST adjacent to OWS; wash rack slab has numerous cracks.	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	III	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	III	766	1982	100/ Steel	Active		From RFA: SWMU 220-NFA.	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	M	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*
OWS 802	802	4B	M	802	Unknown	1,000/ Concrete	Active		From LCR: OWS appears sound; needs cleaning.	Cleaning the OWS recommended in the LCR.	LC	Oil/water	No		C,D,F	7
OWS 817	817	3F	J2	817	Unknown	1,500/ Concrete	Active		From RFA: SWMU 233-NFA. From LCR: OWS does not appear to be used; appears sound.	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	B1	846	Unknown	2,000/ Steel	Active		From RFA: SWMU 248-NFA.	No further action recommended in RFA based on soil sample results.	LC	Oil/water	No	X	C,F	2*
OWS 850	850	5A	K	850	Unknown	Unknown/ Unknown	Active		From LCR: OWS located south of burn pits; bolt ports not accessible. This OWS recycles unburned fuel from the burn pit.	Additional investigations recommended in the LCR since little information about OWS is available.	LC	Oil/water	Yes (UST 850A and UST 850B)		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.		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.		LC	Oil/water	Unknown		C,F	7
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.		LC	Oil/water	No		C,F	7

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

Database Tracking	OWS Number	Previous Parcel	New Parcel	Location/ Nearest Building Number	Year Installed	Capacity (gal)/ Tank Material	Status	Closed	Comments	Further Action	Location Status ¹	Contents	UST Associated with OWS	RFA Sampling (X)	Document Source ²	ECP Area Type
OWS 1702	1702	1B	H2	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.
- CI - 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.

Abbreviations:

- 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

Table 3-15
Vegetation Cover and Other Features Within Habitat Conservation Area
(Sheet 1 of 1)

Vegetation 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
Croplands	587.8
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 Habitat Conservation Area	1754.2

Source: Dames and Moore 1996

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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		Area Type Definition ²
	Acreage ¹	Percent ¹	
1	3,135.8	66.2%	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	2.7%	Areas where only release or disposal of petroleum products has occurred.
3	741.9	15.7%	Areas where release of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action.
4	4.0	0.08%	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	94.6	1.92%	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	9.9%	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	4,738.2³	100%	

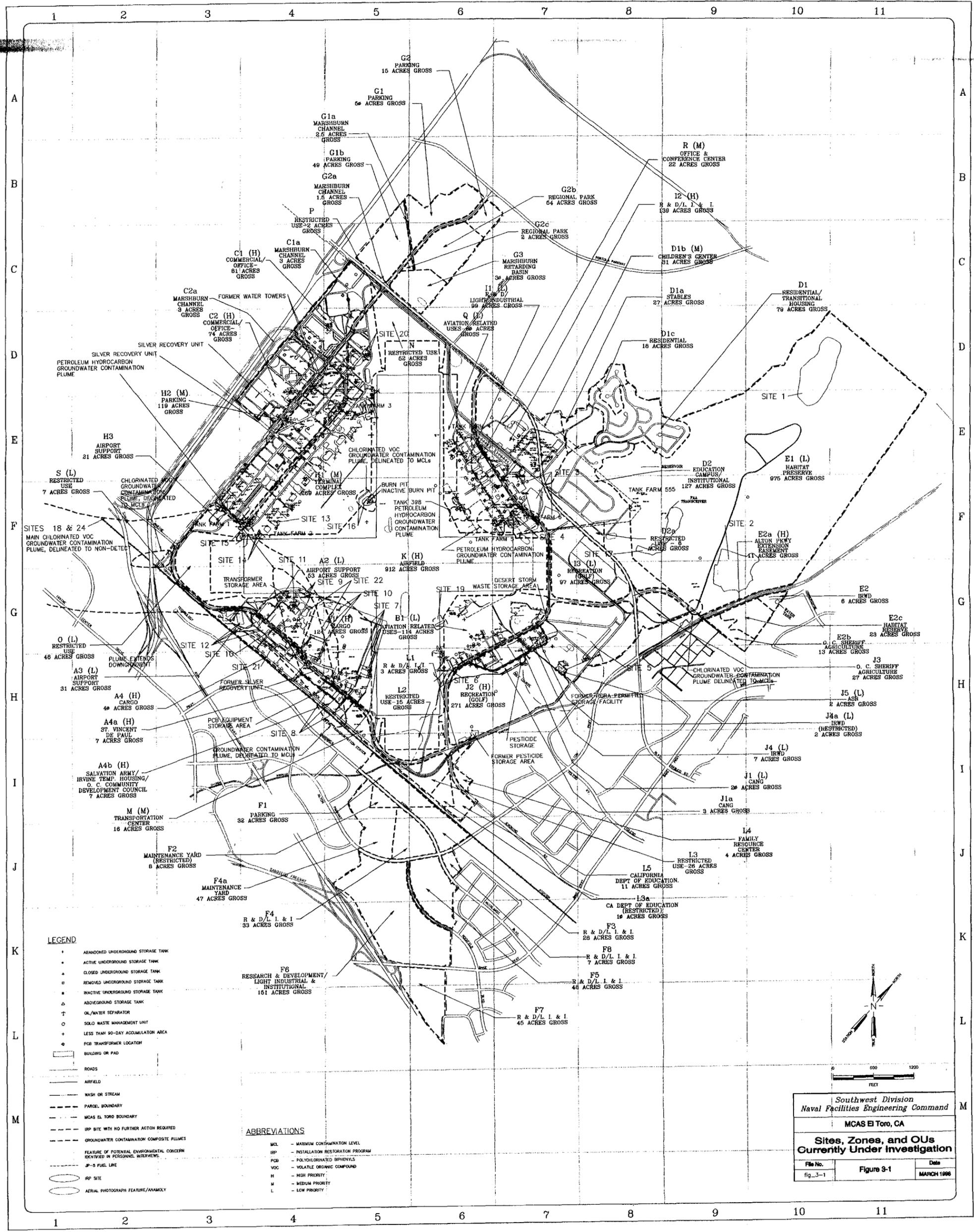
Notes: ¹ Acreage calculated from current CLEAN II base maps using information in the BCP.

² Definitions as modified by the August 1996 Addendum to the BRAC Cleanup Plan Guidebook

³ Total acreage for the Station is 4,738.2 acres of on-Station property (based on the 1991 El Toro Master Plan). 73.4 acres of off-Station property from El Toro housing facilities at MCAF Tustin addressed in El Toro 1997 BCP is now incorporated into the MCAF Tustin BRAC Program.

Abbreviations: ECP – environmental condition of property

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LEGEND

- ABANDONED UNDERGROUND STORAGE TANK
- ACTIVE UNDERGROUND STORAGE TANK
- CLOSED UNDERGROUND STORAGE TANK
- REMOVED UNDERGROUND STORAGE TANK
- INACTIVE UNDERGROUND STORAGE TANK
- △ ABOVEGROUND STORAGE TANK
- ⊥ OIL/WATER SEPARATOR
- SOLID WASTE MANAGEMENT UNIT
- ⊕ LESS THAN 90-DAY ACCUMULATION AREA
- PCB TRANSFORMER LOCATION
- ▭ BUILDING OR PAD
- ROADS
- AIRFIELD
- WASH OR STREAM
- PARCEL BOUNDARY
- MCAS EL TORO BOUNDARY
- IRP SITE WITH NO FURTHER ACTION REQUIRED
- IRP SITE WITH FURTHER ACTION REQUIRED
- GROUNDWATER CONTAMINATION COMPOSITE PLUMES
- FEATURE OF POTENTIAL ENVIRONMENTAL CONCERN IDENTIFIED IN PERSONNEL INTERVIEWS
- JP-8 FUEL LINE
- IRP SITE
- AERIAL PHOTOGRAPH FEATURE/ANOMALY

ABBREVIATIONS

- MCL - MAXIMUM CONTAMINATION LEVEL
- IRP - INSTALLATION RESTORATION PROGRAM
- PCB - POLYCHLORINATED BIPHENYLS
- VOC - VOLATILE ORGANIC COMPOUND
- H - HIGH PRIORITY
- M - MEDIUM PRIORITY
- L - LOW PRIORITY

Southwest Division
 Naval Facilities Engineering Command
 MCAS El Toro, CA

**Sites, Zones, and OUs
 Currently Under Investigation**

File No. fig_3-1	Figure 3-1	Date MARCH 1996
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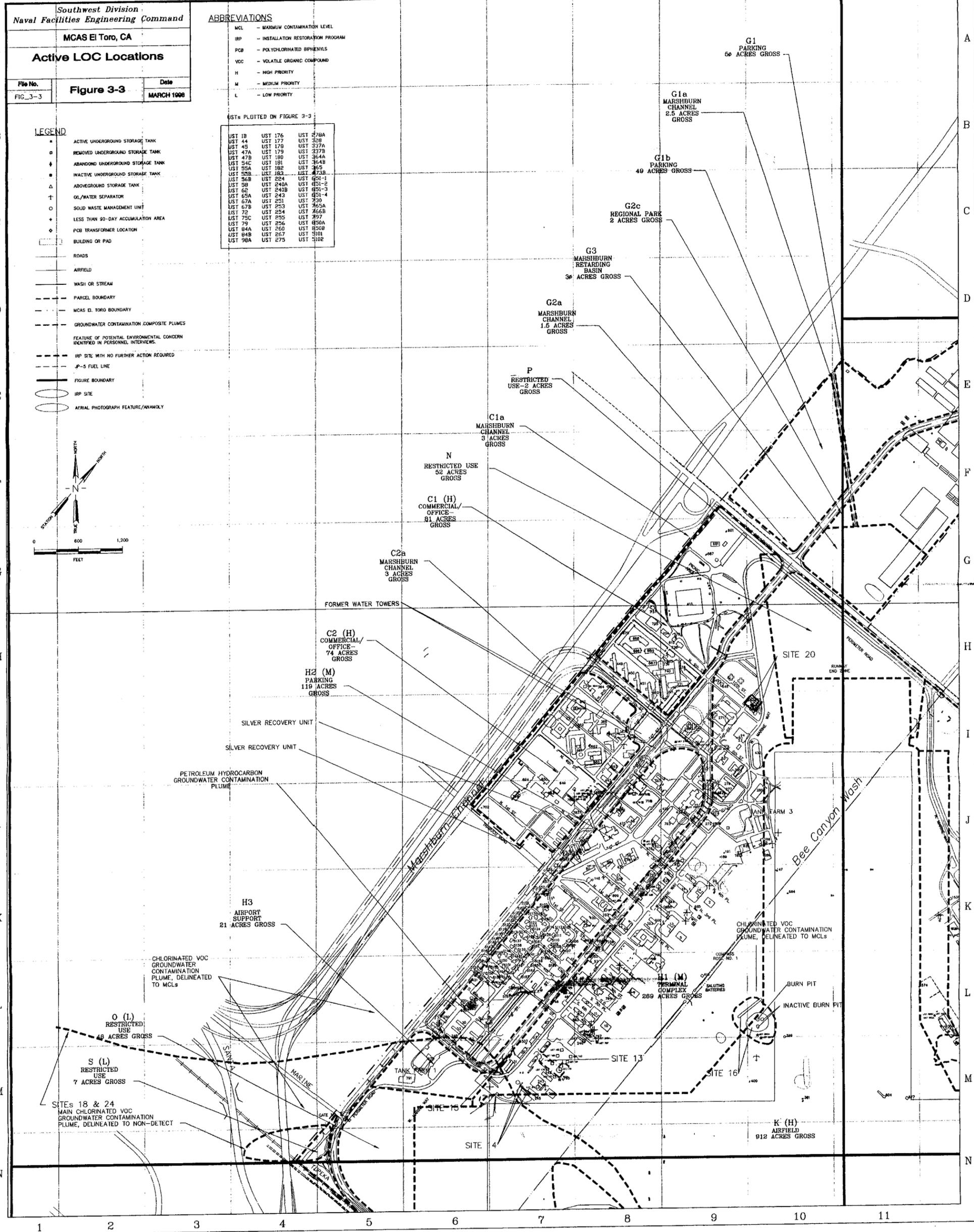
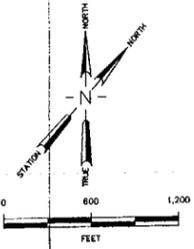
ABBREVIATIONS

MCL	- MAXIMUM CONTAMINATION LEVEL
IRP	- INSTALLATION RESTORATION PROGRAM
PCB	- POLYCHLORINATED BI-PHENYLS
VOC	- VOLATILE ORGANIC COMPOUND
H	- HIGH PRIORITY
M	- MEDIUM PRIORITY
L	- LOW PRIORITY

USTs PLOTTED ON FIGURE 3-3

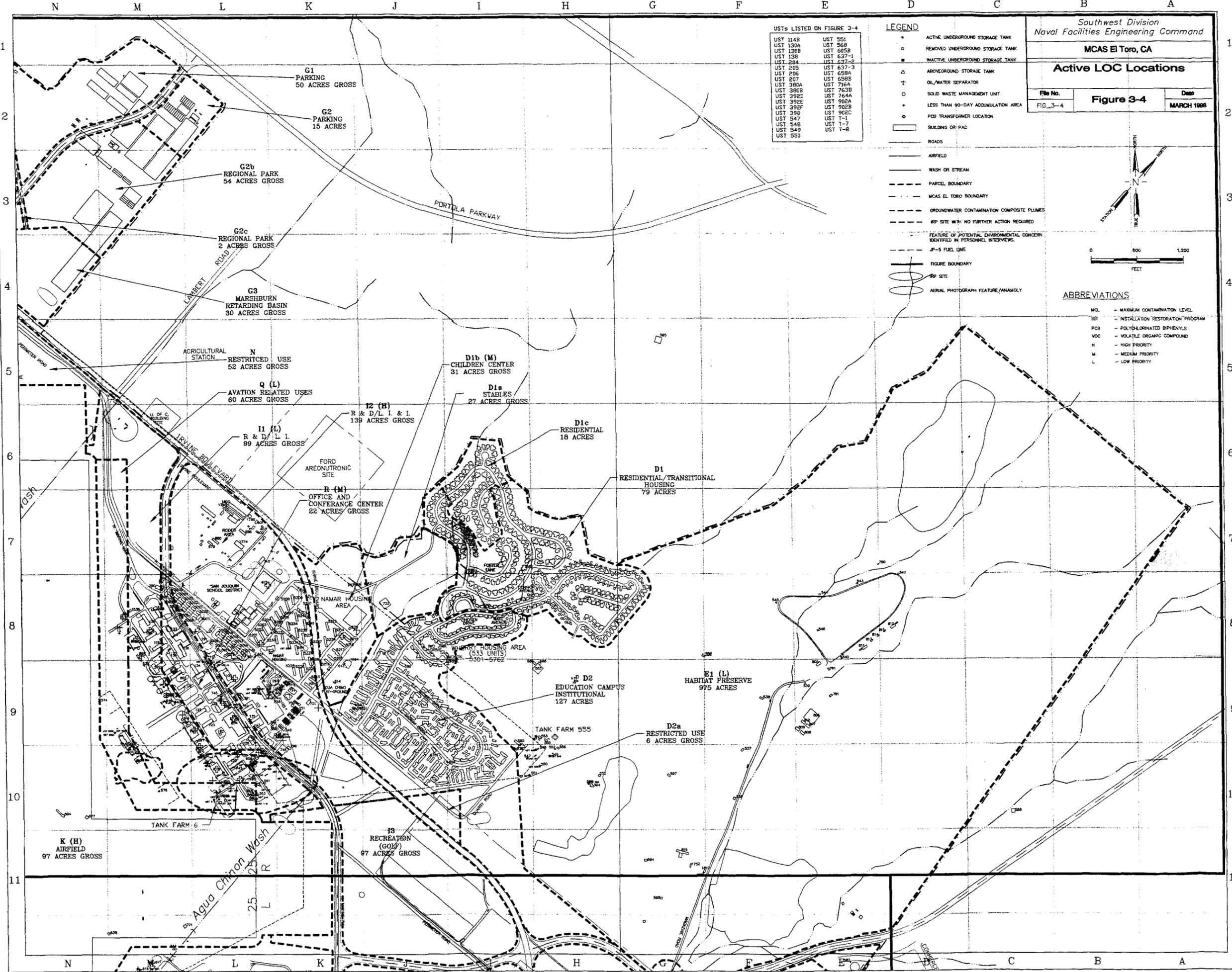
UST 1B	UST 176	UST 478A
UST 44	UST 177	UST 328
UST 45	UST 178	UST 337A
UST 47A	UST 179	UST 337B
UST 47B	UST 180	UST 364A
UST 54C	UST 181	UST 364B
UST 55A	UST 182	UST 365
UST 55B	UST 183	UST 478B
UST 56B	UST 224	UST 601-1
UST 58	UST 240A	UST 601-2
UST 62	UST 240B	UST 601-3
UST 65A	UST 243	UST 601-4
UST 67A	UST 251	UST 730
UST 67B	UST 253	UST 765A
UST 72	UST 254	UST 766B
UST 75C	UST 255	UST 797
UST 79	UST 256	UST 850A
UST 84A	UST 260	UST 850B
UST 84B	UST 267	UST 5101
UST 98A	UST 273	UST 5102

- LEGEND**
- ACTIVE UNDERGROUND STORAGE TANK
 - REMOVED UNDERGROUND STORAGE TANK
 - ABANDONED UNDERGROUND STORAGE TANK
 - INACTIVE UNDERGROUND STORAGE TANK
 - ABOVEGROUND STORAGE TANK
 - OIL/WATER SEPARATOR
 - SOLID WASTE MANAGEMENT UNIT
 - LESS THAN 90-DAY ACCUMULATION AREA
 - PCB TRANSFORMER LOCATION
 - BUILDING OR PAD
 - ROADS
 - AIRFIELD
 - WASH OR STREAM
 - PARCEL BOUNDARY
 - MCAS EL TORO BOUNDARY
 - GROUNDWATER CONTAMINATION COMPOSITE PLUMES
 - FEATURE OF POTENTIAL ENVIRONMENTAL CONCERN IDENTIFIED IN PERSONNEL INTERVIEWS
 - IRP SITE WITH NO FURTHER ACTION REQUIRED
 - JP-5 FUEL LINE
 - FIGURE BOUNDARY
 - IRP SITE
 - AERIAL PHOTOGRAPH FEATURE/ANOMALY



PAGE NO. 2-320

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USTs LISTED ON FIGURE 3-4

UST 114B	UST 551
UST 130A	UST 56B
UST 130B	UST 605B
UST 138	UST 637-1
UST 204	UST 637-2
UST 205	UST 637-3
UST 206	UST 658A
UST 207	UST 658B
UST 300A	UST 716A
UST 300B	UST 763B
UST 392D	UST 764A
UST 392E	UST 902A
UST 392F	UST 902B
UST 398	UST 902C
UST 547	UST T-1
UST 548	UST T-7
UST 549	UST T-8
UST 550	

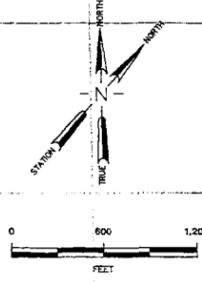
- LEGEND**
- ACTIVE UNDERGROUND STORAGE TANK
 - ◻ REMOVED UNDERGROUND STORAGE TANK
 - ◼ INACTIVE UNDERGROUND STORAGE TANK
 - △ ABOVEGROUND STORAGE TANK
 - ⊕ OIL/WATER SEPARATOR
 - SOLID WASTE MANAGEMENT UNIT
 - + LESS THAN 90-DAY ACCUMULATION AREA
 - PCB TRANSFORMER LOCATION
 - ▭ BUILDING OR PAD
 - ROADS
 - AIRFIELD
 - WASH OR STREAM
 - - - PARCEL BOUNDARY
 - - - MCAS EL TORO BOUNDARY
 - - - GROUNDWATER CONTAMINATION COMPOSITE PLUMES
 - - - RFP SITE WITH NO FURTHER ACTION REQUIRED
 - - - FEATURE OF POTENTIAL ENVIRONMENTAL CONCERN IDENTIFIED IN PERSONNEL INTERVIEWS
 - - - JP-5 FUEL LINE
 - FIGURE BOUNDARY
 - RFP SITE
 - AERIAL PHOTOGRAPH FEATURE/ANOMALY

Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

Active LOC Locations

File No.	Figure 3-4	Date
FIG_3-4		MARCH 1998

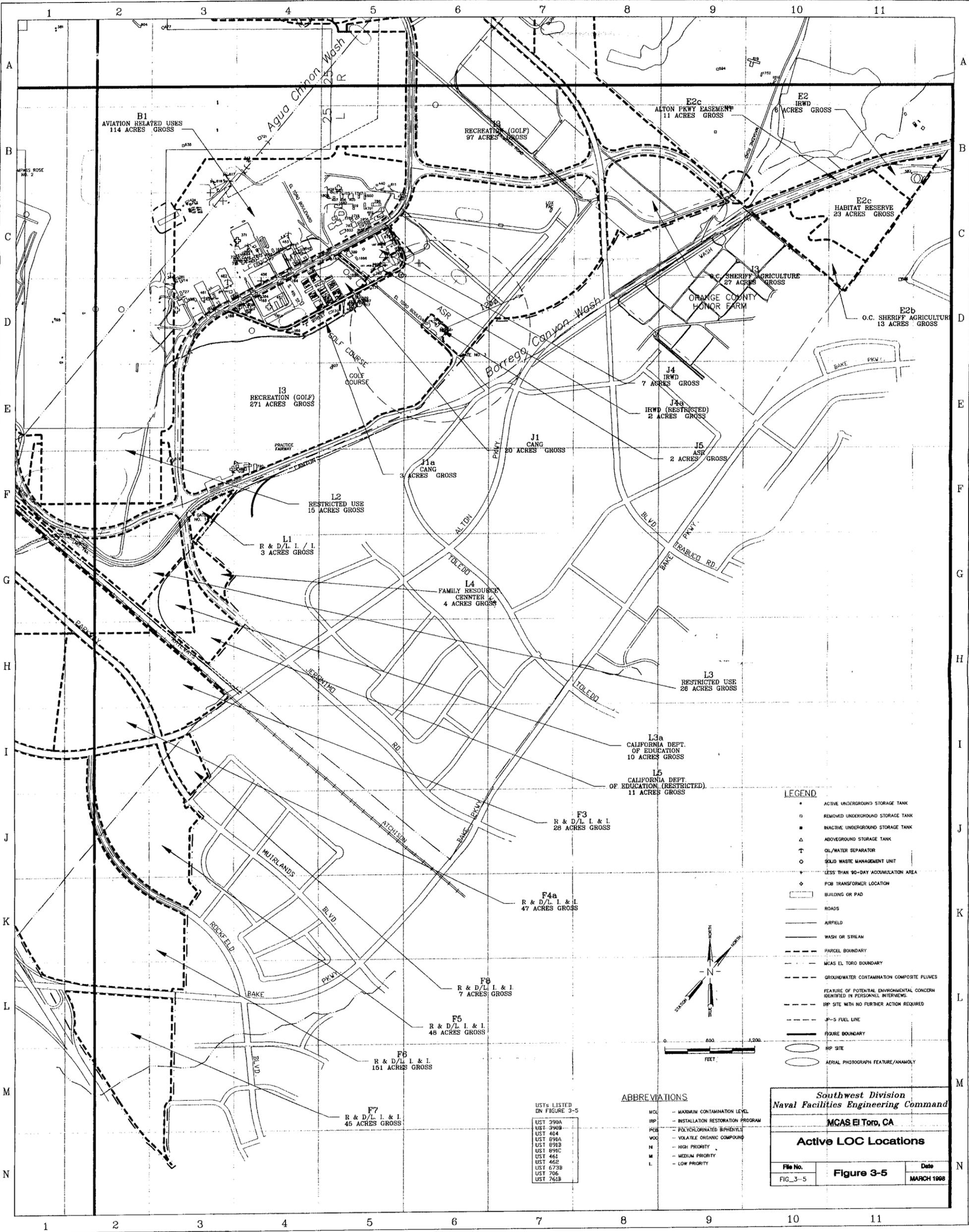


ABBREVIATIONS

MCL	- MAXIMUM CONTAMINATION LEVEL
IRP	- INSTALLATION RESTORATION PROGRAM
PCB	- POLYCHLORINATED BIPHENYLS
VOC	- VOLATILE ORGANIC COMPOUND
H	- HIGH PRIORITY
M	- MEDIUM PRIORITY
L	- LOW PRIORITY

PAGE NO. 3-222

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B1
AVIATION RELATED USES
114 ACRES GROSS

RECREATION (GOLF)
97 ACRES GROSS

E2c
ALTON PKWY EASEMENT
11 ACRES GROSS

E2
IRWD
6 ACRES GROSS

E2c
HABITAT RESERVE
23 ACRES GROSS

O.C. SHERIFF AGRICULTURE
27 ACRES GROSS

E2b
O.C. SHERIFF AGRICULTURE
13 ACRES GROSS

I3
RECREATION (GOLF)
271 ACRES GROSS

J4
IRWD
7 ACRES GROSS

J4a
IRWD (RESTRICTED)
2 ACRES GROSS

J1
CANG
20 ACRES GROSS

J5
ASR
2 ACRES GROSS

J1a
CANG
3 ACRES GROSS

L2
RESTRICTED USE
15 ACRES GROSS

L1
R & D/L I. & I.
3 ACRES GROSS

L4
FAMILY RESOURCE
CENTER
4 ACRES GROSS

L3
RESTRICTED USE
26 ACRES GROSS

L3a
CALIFORNIA DEPT.
OF EDUCATION
10 ACRES GROSS

L5
CALIFORNIA DEPT.
OF EDUCATION (RESTRICTED)
11 ACRES GROSS

F3
R & D/L I. & I.
28 ACRES GROSS

F4a
R & D/L I. & I.
47 ACRES GROSS

F8
R & D/L I. & I.
7 ACRES GROSS

F5
R & D/L I. & I.
48 ACRES GROSS

F6
R & D/L I. & I.
161 ACRES GROSS

F7
R & D/L I. & I.
45 ACRES GROSS

USTs LISTED
ON FIGURE 3-5

UST 390A
UST 390B
UST 404
UST 691A
UST 891B
UST 891C
UST 461
UST 462
UST 673B
UST 706
UST 761B

ABBREVIATIONS

MCL	- MAXIMUM CONTAMINATION LEVEL
IRP	- INSTALLATION RESTORATION PROGRAM
PCB	- POLYCHLORINATED BIPHENYLS
VOC	- VOLATILE ORGANIC COMPOUND
H	- HIGH PRIORITY
M	- MEDIUM PRIORITY
L	- LOW PRIORITY

LEGEND

- ACTIVE UNDERGROUND STORAGE TANK
- REMOVED UNDERGROUND STORAGE TANK
- INACTIVE UNDERGROUND STORAGE TANK
- △ ABOVEGROUND STORAGE TANK
- ⊕ OIL/WATER SEPARATOR
- SOLID WASTE MANAGEMENT UNIT
- LESS THAN 90-DAY ACCUMULATION AREA
- ◆ PCB TRANSFORMER LOCATION
- ▭ BUILDING OR PAD
- ROADS
- AIRFIELD
- WASH OR STREAM
- - - PARCEL BOUNDARY
- - - MCAS EL TORO BOUNDARY
- - - GROUNDWATER CONTAMINATION COMPOSITE PLUMES
- - - FEATURE OF POTENTIAL ENVIRONMENTAL CONCERN IDENTIFIED IN PERSONNEL INTERVIEWS
- - - IRP SITE WITH NO FURTHER ACTION REQUIRED
- - - P-5 FUEL LINE
- - - FIGURE BOUNDARY
- IRP SITE
- AERIAL PHOTOGRAPH FEATURE/ANOMALY

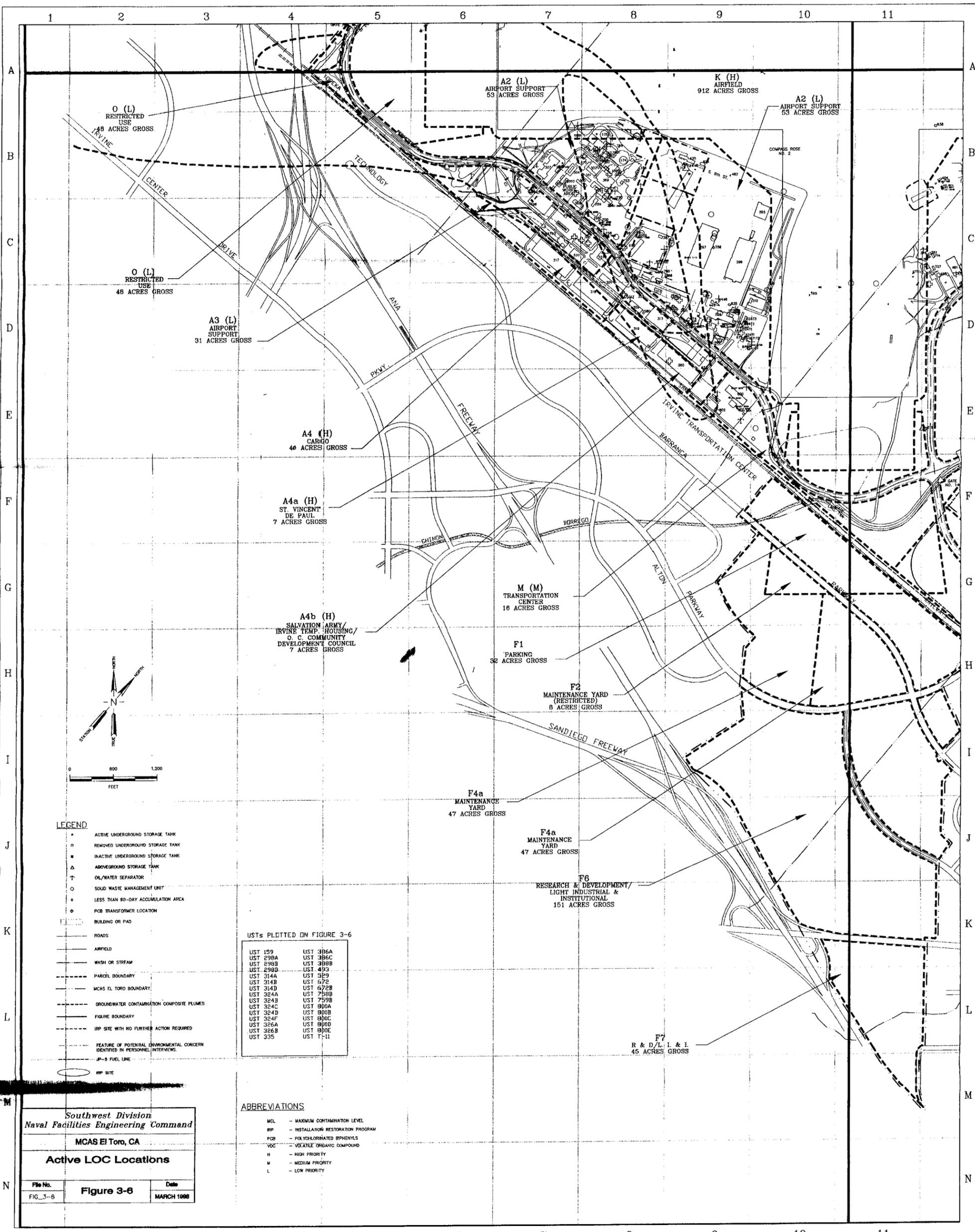
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA

Active LOC Locations

File No.	Figure 3-5	Date
FIG_3-5		MARCH 1998

PAGE NO. 3-224

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O (L)
RESTRICTED
USE
48 ACRES GROSS

A2 (L)
AIRPORT SUPPORT
53 ACRES GROSS

K (H)
AIRFIELD
912 ACRES GROSS

A2 (L)
AIRPORT SUPPORT
53 ACRES GROSS

O (L)
RESTRICTED
USE
48 ACRES GROSS

A3 (L)
AIRPORT
SUPPORT
31 ACRES GROSS

A4 (H)
CARGO
46 ACRES GROSS

A4a (H)
ST. VINCENT
DE PAUL
7 ACRES GROSS

A4b (H)
SALVATION ARMY/
IRVINE TEMP HOUSING/
O. C. COMMUNITY
DEVELOPMENT COUNCIL
7 ACRES GROSS

M (M)
TRANSPORTATION
CENTER
16 ACRES GROSS

F1
PARKING
32 ACRES GROSS

F2
MAINTENANCE YARD
(RESTRICTED)
8 ACRES GROSS

F4a
MAINTENANCE
YARD
47 ACRES GROSS

F4a
MAINTENANCE
YARD
47 ACRES GROSS

F6
RESEARCH & DEVELOPMENT/
LIGHT INDUSTRIAL &
INSTITUTIONAL
151 ACRES GROSS

F7
R & D/L.I. & I.
45 ACRES GROSS

- LEGEND**
- ▲ ACTIVE UNDERGROUND STORAGE TANK
 - REMOVED UNDERGROUND STORAGE TANK
 - INACTIVE UNDERGROUND STORAGE TANK
 - ▲ ABOVEGROUND STORAGE TANK
 - ↑ OIL/WATER SEPARATOR
 - SOLID WASTE MANAGEMENT UNIT
 - ⊕ LESS THAN 90-DAY ACCUMULATION AREA
 - PCB TRANSFORMER LOCATION
 - ▭ BUILDING OR PAD
 - ROADS
 - AIRFIELD
 - WASH OR STREAM
 - - - PARCEL BOUNDARY
 - - - MCAS EL TORO BOUNDARY
 - - - GROUNDWATER CONTAMINATION COMPOSITE PLUMES
 - FIGURE BOUNDARY
 - - - IRP SITE WITH NO FURTHER ACTION REQUIRED
 - - - FEATURE OF POTENTIAL ENVIRONMENTAL CONCERN IDENTIFIED IN PERSONNEL INTERVIEWS
 - IRP SITE

USTs PLOTTED ON FIGURE 3-6

UST 159	UST 306A
UST 298A	UST 306C
UST 298B	UST 308B
UST 298D	UST 493
UST 314A	UST 319
UST 314B	UST 672
UST 314D	UST 672B
UST 324A	UST 708B
UST 324B	UST 759B
UST 324C	UST 800A
UST 324D	UST 800B
UST 324F	UST 800C
UST 326A	UST 800D
UST 326B	UST 800E
UST 335	UST T-11

- ABBREVIATIONS**
- MCL - MAXIMUM CONTAMINATION LEVEL
 - IRP - INSTALLATION RESTORATION PROGRAM
 - PCB - POLYCHLORINATED BIPHENYLS
 - VOC - VOLATILE ORGANIC COMPOUND
 - H - HIGH PRIORITY
 - M - MEDIUM PRIORITY
 - L - LOW PRIORITY

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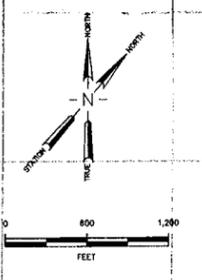
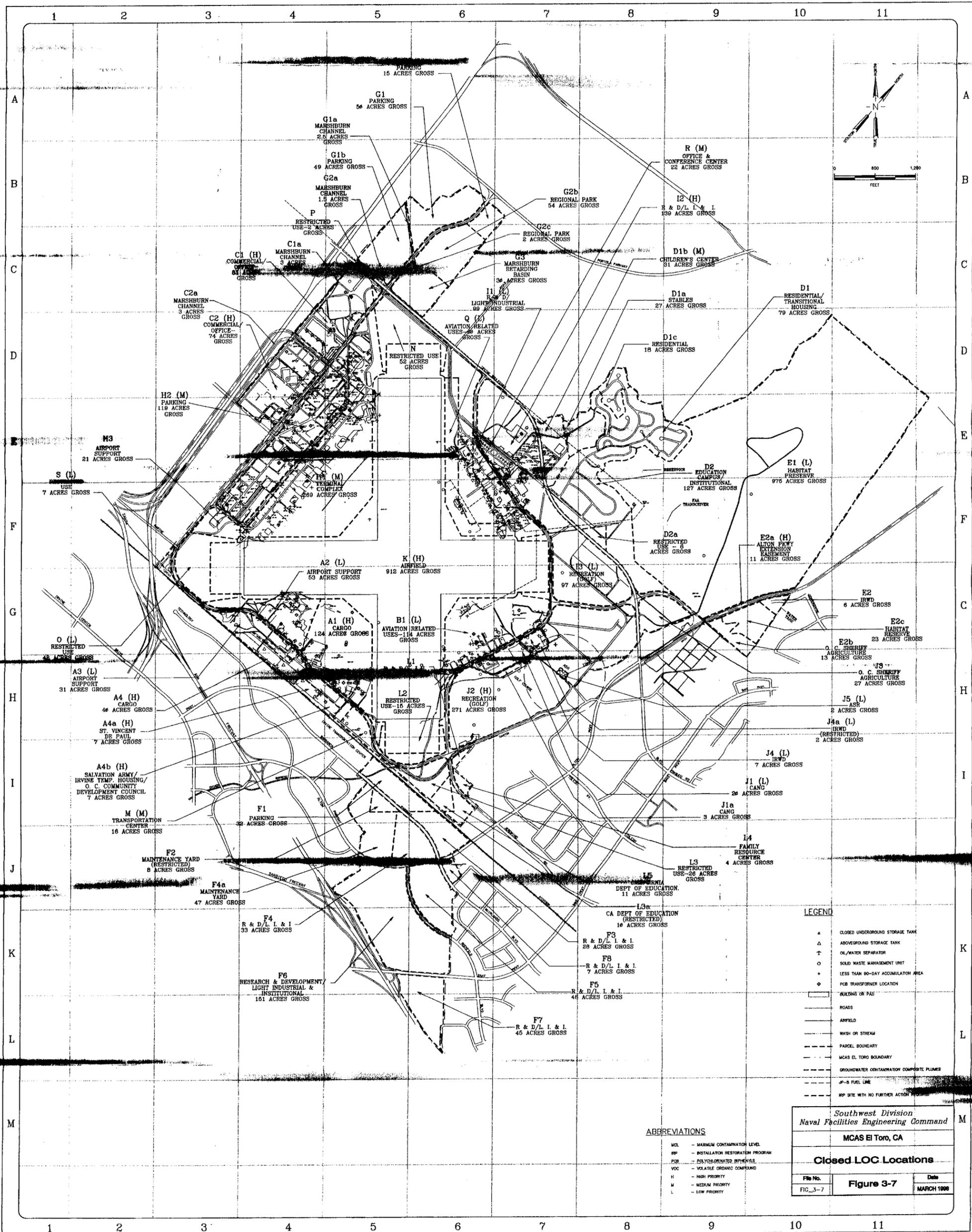
Active LOC Locations

File No.	Figure 3-6	Date
FIG_3-6		MARCH 1988

3-225

PAGE NO. 3-226

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LEGEND

- ▲ CLOSED UNDERGROUND STORAGE TANK
- △ ABOVEGROUND STORAGE TANK
- ⊕ OIL/WATER SEPARATOR
- SOLID WASTE MANAGEMENT UNIT
- ⊕ LESS THAN 90-DAY ACCUMULATION AREA
- PCB TRANSFORMER LOCATION
- ▭ BUILDING OR PAD
- ROADS
- AIRFIELD
- WASH OR STREAM
- - - PARCEL BOUNDARY
- - - MCAS EL TORO BOUNDARY
- - - GROUNDWATER CONTAMINATION COMPOSITE PLUMES
- - - JP-8 FUEL LINE
- - - RFP SITE WITH NO FURTHER ACTION

ABBREVIATIONS

- MDL - MAXIMUM CONTAMINATION LEVEL
- RFP - RESTORATION PRIORITY PROGRAM
- POB - POLYCHLORINATED BIPHENYLENE
- VOC - VOLATILE ORGANIC COMPOUND
- H - HIGH PRIORITY
- M - MEDIUM PRIORITY
- L - LOW PRIORITY

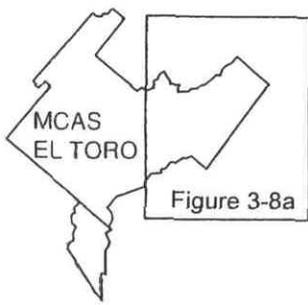
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA

Closed LOC Locations

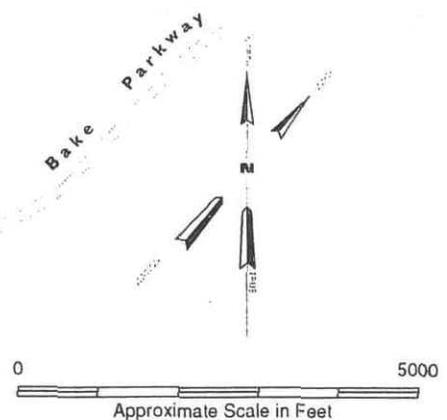
File No.	Date
FIG. 3-7	MARCH 1998

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Bee Canyon Access



LEGEND

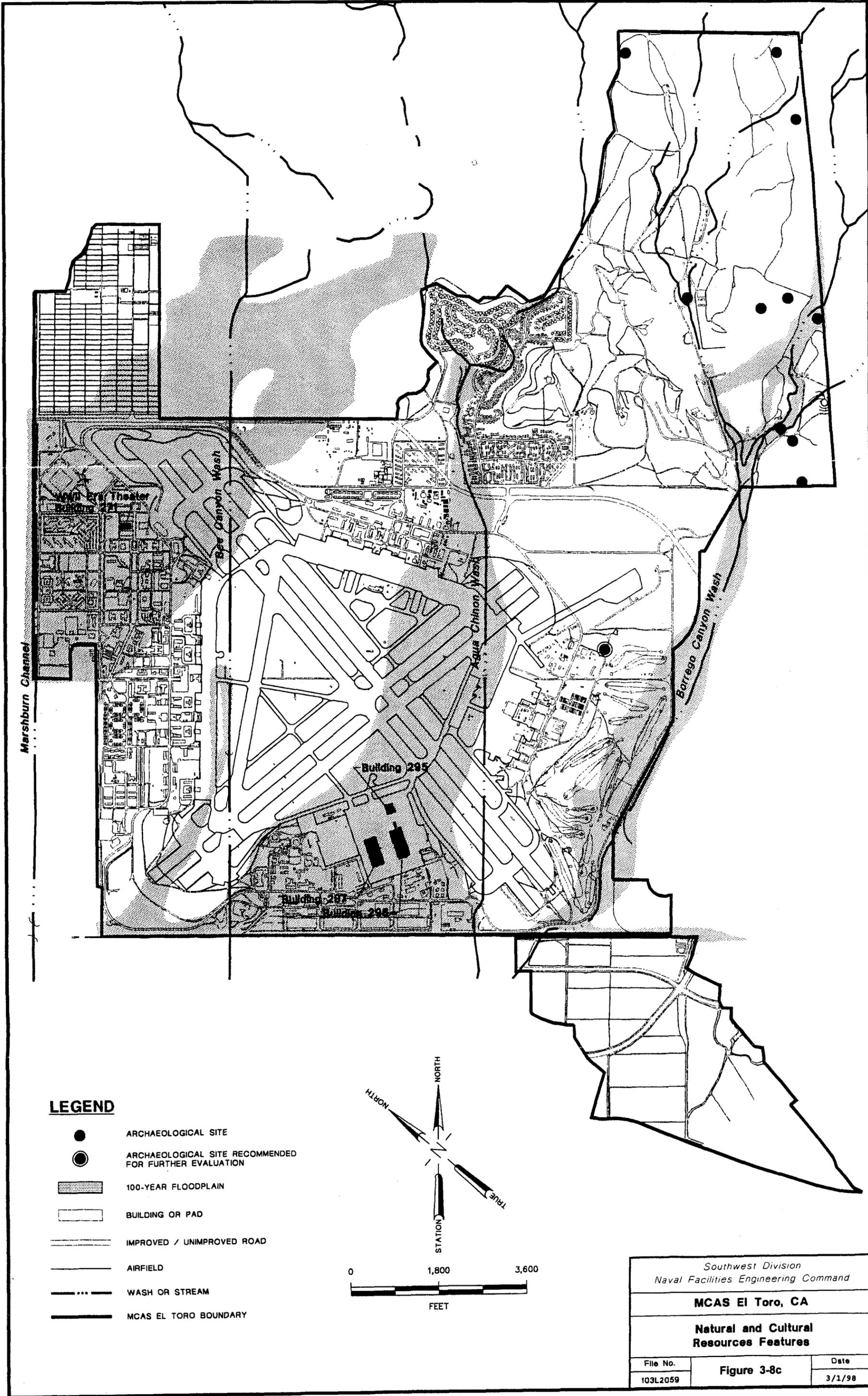
- Coastal Sage Scrub
- Southern Cactus Scrub
- Riparian Scrub
- Annual Grassland
- Native Grassland
- Mexican Elderberry Woodland
- Agriculture/Orchards
- Developed/Disturbed Areas
- Open Water
- Station Boundary

<i>Southwest Division</i> <i>Naval Facilities Engineering Command</i>		
MCAS El Toro, CA		
Vegetation Communities in Natural Area		
File No.	Figure 3-8a	Date
veg103.al		3/1/98

Source: Dames and Moore, 1994.

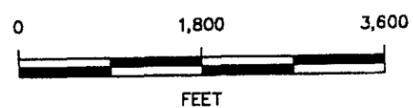
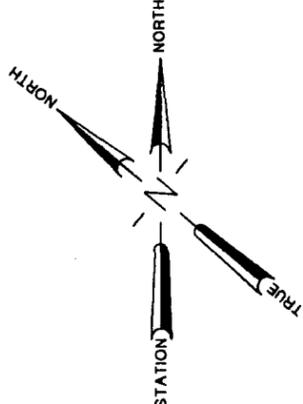
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LEGEND

- 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



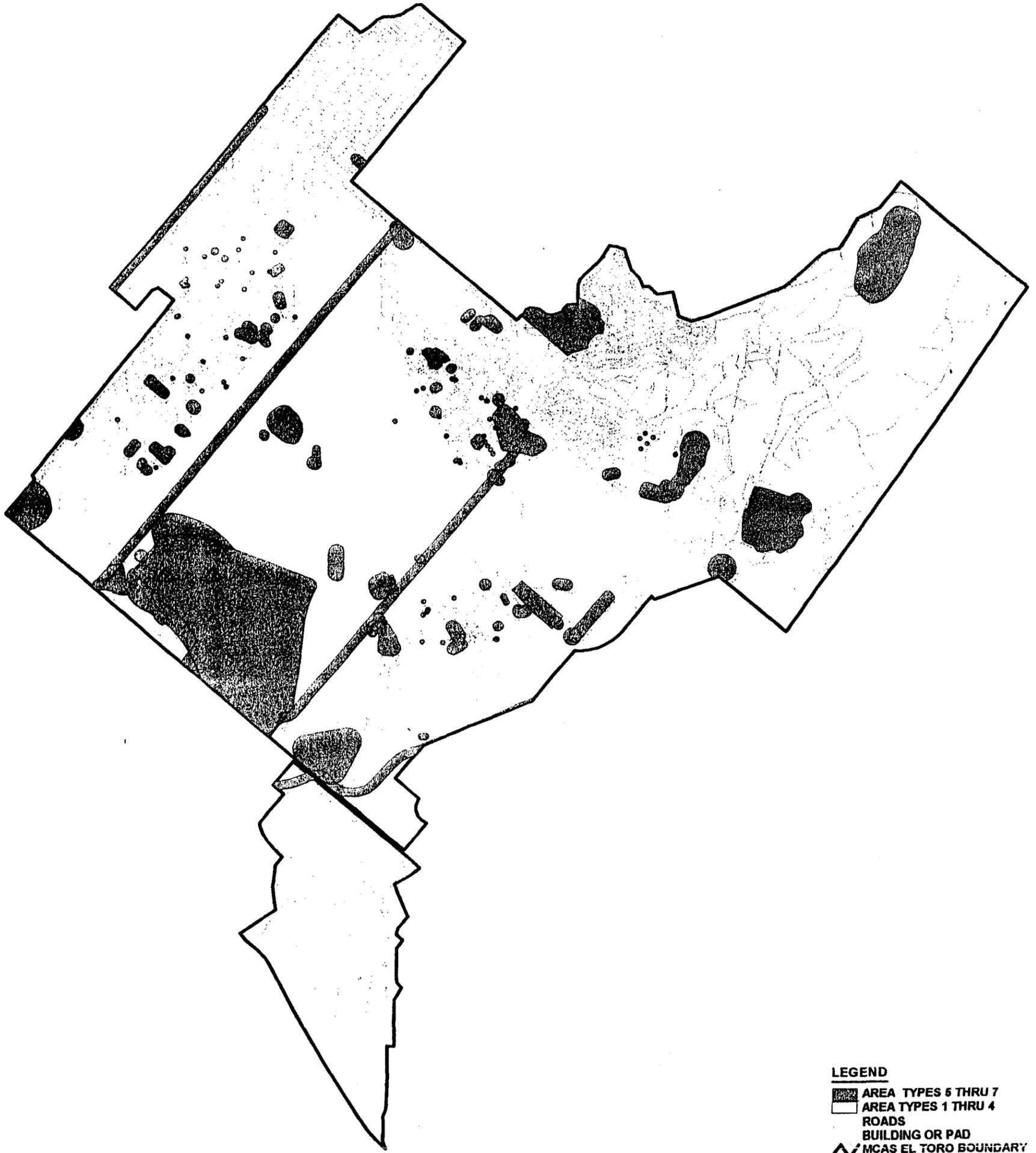
Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Natural and Cultural Resources Features		
File No.	Figure 3-8c	Date
103L2059		3/1/98

PAGE NO. 3-234

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Reserved for Figure 3-9 (D-size)

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LEGEND
 [Solid Black Box] AREA TYPES 5 THRU 7
 [Stippled Box] AREA TYPES 1 THRU 4
 [Thin Line] ROADS
 [Black Shape] BUILDING OR PAD
 [Wavy Line] MCAS EL TORO BOUNDARY



Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Suitability of Property for Transfer		
File No.	Figure 3-10	Date
103R1782		3/1/98

PAGE NO. 3-238

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Chapter 4

Installation-wide 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.

In order to focus the environmental closure activities prior to a final reuse ROD, the Station was initially divided into five zones based on geographic considerations, mission activities, and conceptual 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 1997 CRP will eventually change 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 in 1998. The LRA has designated high, medium, and low priority IRP sites that best support the conceptual reuse discussed in Chapter 2. High priority IRP sites are 2, 3, 5, 7, 8, 16, 18, and 24. Medium and Low priority sites are 1, 11, 12, 14, and 17. The environmental CERCLA activities managed by the FFA take into account the LRA's site priorities.

The IRP sites are grouped into three OU categories based on similar types of potential contamination media to be investigated and possible final remedial solutions. Therefore, zone designations do not correlate to OU designations.

The current schedule of activities for OUs is presented in Section 4.1.3.

Early action strategies have been planned/implemented for several IRP sites. The early action strategies planned and/or performed to date include removal actions, SVE pilot tests, and withdrawal of sites from the IRP. Some of the early actions implemented brought some sites to closure under no further investigation (NFI) decisions.

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, 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 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 successful community involvement.

4.1 ZONE/OPERABLE UNIT DESIGNATION AND STRATEGY

The following sections discuss zones identified for the BCP and remaining 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 conceptual parcel disposal considerations. To best accelerate the environmental closure of MCAS El Toro and support its eventual reuse, IRP OUs have been defined primarily by the type of IRP sites (such as the source areas for the VOC contamination in groundwater) rather than by geographic locations. The current zone designations, therefore, do not have a 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 zones are based on existing land use. Even though the BCP parcels have been updated according to the latest LRA reuse plan, the zone designations remain the same. 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. Remaining IRP Site 14 and a portion of 18 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. Remaining IRP Sites 1 and 3 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. Remaining IRP Sites 8, 11, 12, and portions of 18 and 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. Remaining IRP Sites 2, 7, 16, 17, and portions of 18 and 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. 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 the LRA's recommended conceptual future use. Copies of the CRP parcel map appear in Section 2 of this document (Figure 2-1). This BCP update incorporates the new parcel designations. New zones may not be changed until 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 remaining OU-1, OU-2A, OU-2B, OU-2C, and OU-3 IRP sites at MCAS El Toro were revised many times in 1997. The current schedules for the OUs are also discussed in Chapters 3 and 5. The current OU sequencing is as follows.

1. OU-2A (Site 24 Vadose Zone): Current ongoing or planned post ROD activities include Remedial Design (RD) and Remedial Action (RA) work plans, and RD, RA, and Site Closure reports. Remediation of the vadose zone is estimated to require 2 to 4 years.
2. OU-2B (Sites 2 and 17 inactive landfills) and OU-2C (Sites 3 and 5 inactive landfills): Public Comment on the Proposed Plan for all four former landfills is expected to close in Spring 1998. The ROD is anticipated to be signed by all parties of the FFA in Fall 1998. Remedial Design will begin in 1999 with Remedial Action to start in 2000.
3. OU-1 (Site 18 Regional Groundwater) and OU-2A (Sites 24 VOC Source Area Groundwater): Proposed Plan development is estimated for Spring/Summer 1998 with Public Comment in Fall 1998. The final groundwater ROD is expected to be signed at the time of operational closure of the Station in July 1999. Following signing of the groundwater ROD, Remedial Design activities will commence; Remedial Action is anticipated to be fully operational in 2001.
4. OU-3 (Sites 8, 11, and 12): The Proposed Plan development is scheduled for the Summer 1998 with Public Comment anticipated in Fall 1998. The ROD for Sites 8, 11, and 12 is expected to be signed in Spring 1999 just prior to the operational closure of the Station in July 1999.
5. OU-3 (Sites 7, 14, and 16): These sites require additional evaluation to determine what remedial actions are required, if any. A Feasibility Study is expected to be completed by Spring 1999 followed by Public Comment in early 2000 and a ROD signed later in 2000.
6. OU-3 (Site 1): Since Site 1, Explosive Ordnance Disposal (EOD) Range, continues as an active training range, environmental closure investigation activities will begin post operational closure of the Station in July 1999. The Remedial Investigation is expected to be complete in Summer 2000 and a Feasibility Study completed in early 2001 with Public Comment later that same year. The final ROD should be signed in 2002 which would then allow any required RD and RA activities to formally begin.

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 1998. The implementation dates for sites with B and C priorities have not yet been determined.

Early action strategies for IRP sites have been developed and employed. Early actions expedite the cleanup process at IRP sites where the nature and extent of contamination is well characterized by Phase I and II RI data and amenable to a removal action. Early actions may bring sites to the NFI or possibly NFA stage. Early action strategies currently completed 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 (Site 24) 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);
- risk assessment;
- applicable remedies;
- cost-effectiveness;
- use of presumptive remedies as applicable; and
- petroleum, oils, and lubricants.

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 Installation-wide 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 evaluated in 1998, reference Table 3-1b.

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

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.

4.2.1.1 Underground Storage Tanks

A total of 398 USTs has been identified at the Station. This total includes 53 active tanks, 22 inactive tanks, 318 removed tanks, and 5 abandoned tanks. The UST Tiger Team has continued to meet regularly to assure compliance and removal of nonessential USTs. Prior to December 1996, a total of 249 USTs had been removed. As of December 31, 1997, an additional 69 USTs have been removed. To date, 262 UST sites have been closed; 194 by OCHCA, and 68 by RWQCB.

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. Non-intrusive 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 non-intrusive 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 300 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 22 inactive USTs remaining at MCAS El Toro. Of these, 7 are planned for removal in 1998. The remaining 15 have to be deferred until operational closure because of their location under or very near other active facilities.

Active USTs. There are 53 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 non-intrusive 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 was conducted in early 1997. To date, 25 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 and waste JP-5 at Building 326 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 of the active accumulation areas are performed annually by both DTSC and OCHCA.

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.

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.

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 Final FS will be submitted for agency concurrence in January 1998.
- 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 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.

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 base-wide asbestos surveys will not be conducted on the Station. Buildings with identified friable asbestos where staff or public may be exposed to ACM will be re-inspected and, where necessary, corrective actions taken.

Prior to base closure, corrective actions will not be taken for property containing friable ACM in areas not used by staff or public, or areas with non-friable ACM. Such properties will be conveyed or otherwise disposed of without the DoD taking any corrective actions.

After transfer of a property the transferee assumes responsibility for the management of any ACM and must follow applicable local, state and federal laws and regulations.

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.

4.2.6.1 Radium

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. A Radiological Survey for Hangers 296 and 297 will be conducted at the end of February 1998, the Radiological Survey Report is expected by the end of April 1998.

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 287 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. SWMU 298 (Former Underground Storage Tank Site 392A) was closed by Orange County Health Care Agency on 9 December 1996 and no further actions are required at this site.
- 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. SWMU 145 (UST 529) was removed during 1997 and the tank site is under remediation.
- 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. Near-surface soils were removed from SWMUs 7 (Transformer storage area near Bee Canyon Wash), 131 (Engine Test Cell at Building 497), and 244 (PCB Spill Area near Building 457) during October 1997.

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.

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. The results of the LBP survey conducted at family housing and related areas were released in December 1995. Non-residential buildings built or maintained before 1980 are assumed to contain LBP. LBP in all residential has been abated by encapsulation or removal. LBP will not be abated in non-residential buildings.

After transfer of the base, the LRA will be responsible for the management of LBP and must follow local, state and federal laws and regulations.

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.

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 ten 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, one federally listed threatened specie, the California gnatcatcher, and several sensitive species, are known to exist in significant numbers on-Station. A conservation plan for the natural area at the Station was completed in March 1995.

This area, termed as a Habitat Conservation Area, of 1,754.2 acres, supports one of the largest concentrations of the federally-listed threatened California gnatcatcher (*Polioptila californica*) in Orange County. Most of the other sensitive species are federal or state Species of Special Concern.

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 (Dames and Moore 1996). Further investigations of the remainder of the Station will be completed as part of the disposal/reuse EIS.

Wetlands are areas where soils are inundated or saturated by surface or ground water at a frequency or duration sufficient to support vegetation adapted to such

conditions. Wetlands and waters of the U.S. are protected under Section 404 of the Clean Water Act. Dames and Moore (1996) reviewed and expanded upon the MCAS El Toro National Wetlands Inventory (1994) to identify two seasonal ponds and one natural spring as wetland features. Although the stock pond is artificial, it functions as a wetland important for wildlife habitat (Figure 3-8b). Borrego Canyon Wash and Agua Chinon Wash are considered waters of the U.S. If the Habitat Conservation Area remains as such, no permitting actions are anticipated. Projects such as flood control improvements, road maintenance, or recreational development may warrant permits in the future.

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, Proposed Plan, 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 Proposed Plan. 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 Proposed Plan and other applicable documents.

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 addressed under any other IRP Site.	Not Applicable ¹	18
OU-2A	Volatile Organic Carbon (VOC) Source Area.	A1, A2, A4, A4a, A4b, M	24
OU-2B	Two landfill sites that require full investigation and will likely have a presumptive remedy applied. Four landfill sites that have been fully investigated and RI/FS reports have been approved. All remedial alternatives discussed in the FS reports, with the exception of the base line No Action alternatives include presumptive remedy capping and long-term monitoring.	E1	2
		E1	17
OU-2C	Two landfill sites that will undergo further groundwater monitoring to confirm that groundwater is not being impacted.	I2	3
		I3	5
OU-3	Shallow soil contaminated sites that have remedial alternatives outlined in a Draft/Final FS report. The DoN will submit a Proposed Plan for these sites during 1998. A soil and groundwater contaminated site below a former fire fighting training area within the Station flight zone adjacent to the runways. Ten previously listed shallow soil contaminated sites now have RODs for No Further Actions. There are no impacts to parcels.	A2	8
		A3	11
		H1	12
			16
OU-3	The Explosive Ordnance disposal (EOD) Range, an operational training area, will not be addressed until after operational closure of the base in July 1999. Shallow soil contaminated sites where further investigation is planned.	E1	1
			7
			14
		A1 H1	

Notes: ¹ Site 18 is limited to groundwater and, therefore, is not assigned a parcel number

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 4-2
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	<ul style="list-style-type: none"> Restrict access to landfill sites. Abate erosion of landfill materials by surface runoff. Relocate previously eroded landfill debris to central locations within landfills. 	Completed	A ²	5C
IRP15 (Unit 1)	Suspended Fuel Storage Tanks	Removed from the IR Program via CERCLA petroleum exclusion.	Expedite environmental restoration.	Completed	B	1D
IRP17	Communication Station Landfill	Time-Critical Removal Action	<ul style="list-style-type: none"> Restrict access to landfill sites. Abate erosion of landfill materials by surface runoff. Relocate previously eroded landfill debris to central locations within landfills. 	Completed	A	5C
IRP19 (Units 1 and 4)	Aircraft Expeditionary Refueling Site	Removed from the IR Program via CERCLA petroleum exclusion.	Expedite environmental restoration.	19, Unit 1 Closed 14 May 97	B	5A
IRP19 (Unit 2)	Aircraft Expeditionary Refueling Site	Non-Time-Critical Removal Action	<ul style="list-style-type: none"> Cover the PCB-contaminated soil with a 10 foot thick layer of clean soil. Comply with US EPA requirements for PCB-contaminated soil. 	Completed	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.	20, Units 2 and 3 Closed	B	1B
IRP24	VOC Source Area	Soil vapor extraction pilot testing at 22 wells	<ul style="list-style-type: none"> • Remove soil contamination • Test effectiveness of recommended remedial alternatives 	Summer 1997 - Summer 1998	A	A3, A4, A4a

- 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 529	529	SWMU/AOC 145 (inactive waste oil tank)	Remove tank.	Remove possible sources of groundwater contamination.	Completed in 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	B	4B
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
Tank 398 Site	398		Continue pumping free product and operating SVE system.	Remove free product from groundwater and remove petroleum hydrocarbons from vadose zone.	1998		

- 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	TBD - to be determined
BCP – Base Realignment and Closure (BRAC) Cleanup Plan	TF - tank farm
UST – underground storage tank	OWS - oil/water separator
SWMU/AOC – solid waste management unit/area of concern	

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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. General schedule and prioritization parcels for reuse, based on the final Community Reuse Plan (P&D Consultants Team 1996), was provided by the LRA in 1997. The LRA's parcel prioritization has not impacted continued progress of El Toro's closure programs listed above.

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. Future funding requirements for MCAS El Toro are continually being evaluated by the DoN. This information may be released under a separate cover as it becomes approved and finalized.

A Master Integrated Schedule (MIS) is currently under development for MCAS El Toro. The MIS is intended to provide MCAS El Toro with the ability to track the various LOCs that require environmental action by geographical location (i.e., by parcel boundaries) and the potential to assign cost and a time frame for the remediation of each parcel based on the various LOCs contained within it.

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 shown in Figure 5-1 (Master Program Schedule Installation Restoration Program) are for OU-1, OU-2A, OU-2B, OU-2C, and OU-3 sites and are based on the current FFA milestone deliverables.

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 1997.

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, OWSs, and TAAs; follow-up investigations at the remaining SWMUs/AOCs identified for further action; and caretaker issues related to maintenance activities after operational closure of the Station. 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 planned 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 prior to 1997.

5.4 BRAC CLEANUP TEAM/PROJECT MEETING SCHEDULE

A list of 1997 key meetings attended by the BCT is provided in Table 5-1 (BRAC Cleanup Team Meeting Schedule). For 1998, at a minimum, the BCT will meet quarterly to discuss FFA requirements and during the other months for technical issues, scheduling issues, program status, and team building. Additional meetings will be scheduled as required.

Table 5-1
BRAC Cleanup Team Meeting Schedule
(Sheet 1 of 2)

SITE 24 PILOT TEST UPDATE MEETINGS FOR 1997	
Date	Conference Call/Meeting
1/15/97	Telephone Conference Call
4/16/97	Telephone Conference Call
5/27/97	Telephone Conference Call
6/16/97	BNI, San Diego Office
7/9/97	Telephone Conference Call
7/16/97	Telephone Conference Call
7/23/97	Telephone Conference Call
7/30/97	Telephone Conference Call
8/13/97	MCAS El Toro
8/20/97	Telephone Conference Call
8/27/97	Telephone Conference Call
9/3/97	Telephone Conference Call
9/10/97	Telephone Conference Call
9/17/97	Telephone Conference Call
9/24/97	Telephone Conference Call
10/1/97	Telephone Conference Call
10/8/97	Telephone Conference Call
10/15/97	Telephone Conference Call
10/22/97	Telephone Conference Call
10/29/97	Telephone Conference Call
11/12/97	Telephone Conference Call
11/19/97	Telephone Conference Call
12/3/97	Telephone Conference Call
12/10/97	Telephone Conference Call
12/17/97	Telephone Conference Call
12/30/97	Telephone Conference Call

Table 5-1
BRAC Cleanup Team Meeting Schedule
(Sheet 2 of 2)

BCT MEETINGS FOR 1997	
Date	BCT Meeting Location
1/30/97	MCAS El Toro
2/6/97	MCAS El Toro
2/20/97	Telephone Conference Call
2/27/97	Telephone Conference Call
3/13/97	Telephone Conference Call
3/26/97	MCAS El Toro
5/28/97	MCAS El Toro
7/1/97	Telephone Conference Call
7/9/97	Telephone Conference Call
8/6/97	MCAS El Toro
10/9/97	SWDIV BRAC Office
11/5/97	Telephone Conference Call
12/2/97	MCAS El Toro
12/3/97	MCAS El Toro

Figure 5-1 (Continued)
Master Program Schedule MCAS El Toro
Installation Restoration Program

Activity Description	Early Start	Early Finish	97		1998				1999				2000				2001				2002				
			3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
OU2B/C-Landfills (Sites 2, 3, 5 & 17)	11/7/97	11/3/98		████████████████████																					
Feasibility Study	11/7/97	11/7/97	◆	11/7																					
Proposed Plan	11/7/97	3/2/98	█	█																					
Public Comment	3/16/98	4/14/98			█																				
Record of Decision (ROD)	4/14/98	11/3/98				█	█	█																	
ROD Signature	11/3/98	11/3/98							◆	11/3															
Start Remedial Design/Action	11/3/98	11/3/98							◆	11/3															
OU3-Shallow Soil (Sites 8, 11 & 12)	2/13/98	5/28/99		████████████████████																					
Feasibility Study	2/13/98	2/13/98	◆	2/13																					
Proposed Plan	2/13/98	9/18/98		█	█	█	█																		
Public Comment	9/25/98	10/26/98						█																	
Record of Decision (ROD)	10/26/98	5/28/99							█	█															
ROD Signature	5/28/99	5/28/99									◆	5/28													
Start Remedial Design/Action	5/28/99	5/28/99									◆	5/28													

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**Figure 5-2
Master Program Schedule MCAS EI Toro
Mission Related Compliance**

Activity Description	Early Start	Early Finish	1995				1996				1997				1998				1999				2000				
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Maintenance of Air Permits	1/1/95	2/16/01	[Gantt bars showing activity from 1/1/95 to 2/16/01]																								
Continued NPDES Monitoring	1/1/95	2/16/01	[Gantt bars showing activity from 1/1/95 to 2/16/01]																								
UST Management/Monitoring	1/1/95	2/16/01	[Gantt bars showing activity from 1/1/95 to 2/16/01]																								
Installation Closure Date	7/2/99	7/2/99																	◆ 7/2								

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**Figure 5-3
Master Program Schedule MCAS El Toro
Closure Related Compliance**

Activity Description	Early Start	Early Finish	1995				1996				1997				1998				1999				2000				2001				2002			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
RCRA Closure of TSD Facility Completed	3/8/96	3/8/96					◆	3/8																										
RFA Follow-up Investigations	1/16/95	7/2/99	[Solid black bar]																															
Removal of Nonessential USTs	1/1/95	3/12/99	[Solid black bar]																															
Removal of Mission-essential USTs	7/2/98	1/1/02	[Stippled bar]																															
Removal of Mission-essential OWSs	7/2/99	1/1/02	[Stippled bar]																															
Maintenance of NPDES Permits during Caretaker Activities	7/2/99	1/1/03	[Stippled bar]																															
Maintenance of Air Permits during Caretaker Activities	7/2/99	1/1/03	[Stippled bar]																															
Closure of Fuel Pipeline	7/2/99	7/2/99													◆	7/2																		
Installation Closure Date	7/2/99	7/2/99													◆	7/2																		

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**Figure 5-4
Master Program Schedule MCAS El Toro
Natural/Cultural Resources Activity**

Activity Description	Early Start	Early Finish	1994				1995				1996				1997				1998				1999			
			Q1	Q2	Q3	Q4																				
Sensitive Habitats Survey	1/1/94	10/7/94	█	█	█	█																				
Survey/Mgmt of Threatened & Endangered Species	1/1/94	7/2/99	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Biological Resources Management	1/1/94	7/2/99	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Erosion Control	1/1/94	7/2/99	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Review and Assessment of Archeological Survey	1/1/94	8/15/96	█	█	█	█	█	█	█	█	█	█	█	█												
Wetland Survey	1/1/94	3/15/95	█	█	█	█																				
Installation Closure Date	7/2/99	7/2/99																								

◆ 7/2

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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 and the policy for on-site decision making.

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), UST, and the RFA. An extensive amount of analytical data was collected for these programs under agency-approved quality assurance project plans (QAPPs). Analyses for the IRP work were generally performed at data quality level 4, and all data are checked via data validation efforts. The validated data from these programs are loaded into a Central Management System database at SWDIV. 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, not all data from UST removals performed at the Station are 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

Listed below are currently identified data gaps that will need to be addressed by the BCT:

- IRP sites 7 and 14 require the BCT to assess if there are data gaps that prevent these sites from being finalized in a RI report.
- 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.

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 continue to be collected in accordance with the current groundwater sampling plan and remedial investigation work plans (BNI 1995). The BCT will consider assessing regional background concentration, if practicable, for inorganic compounds in groundwater after existing regional groundwater data is analyzed as part of the overall longterm groundwater monitoring work plan developed in 1998.

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 "1" data 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 on a case by case basis.

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 item:

- reach consensus on background levels if practicable for storm water, sediment, and groundwater after Phase II investigation and additional groundwater sampling events are completed. Concentration levels may be decided on a case by case basis.

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 I and II RI activities to date had established ambient and background levels. Background concentrations may be adjusted if significant data trends are identified by the BCT.

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 through 1997.

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 non-time critical 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 sites to protect human health. In addition, an ecological risk assessment will be prepared for appropriate areas of 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 Final FSs 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 will continue to evaluate the withdrawal of IRP sites from the CERCLA process under the CERCLA petroleum exclusion sites excluded will be addressed in El Toro's Petroleum Corrective Action Program under RWQCB oversight.
- The transfer of sites from RI/FS process to the EE/CA process will be recommended if such action will support a 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 non-operational 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

Seven interim groundwater sampling events have been completed to date at MCAS El Toro in addition to the sampling of other monitoring and irrigation wells in the area that were not included in those sampling events. An initial 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. This sampling program concluded in the October 1997 sampling events. A long-term groundwater monitoring plan is being developed. That plan is scheduled to be submitted in draft form in spring 1998.

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 samples surface waters that migrate off the station.

Two ponded water sampling events were conducted in mid-1994. Analytical data for these sampling events is included in the Phase II RI reports.

6.8 EXCAVATION OF CONTAMINATED MATERIALS

Excavation of contaminated materials may 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
- adjustments to the existing 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 FFA and any 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 for the IRP sites that remain in the CERCLA program 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 Final 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. Acceleration of ongoing or future clean-up activities will continue to be in strict compliance with applicable rules, regulations, and public health and safety requirements. 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 sites in the Petroleum Corrective Action Program 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 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 signing of an interim ROD for the vadose zone portion of Site 24 in 1997.
- 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 continued SVE pilot testing. SVE is the presumptive remedy selected for VOC-contaminated soil at MCAS El Toro for Site 24.

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 concluded at the end of 1997. Therefore, the transfer of DoD-owned equipment within the same regulatory jurisdiction to a similar site (MCAS El Toro Site 24) should result in considerable capital-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 backfilled an excavation which provided 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 site or parcel specific finding of suitability for transfer (FOST) document 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 1995 CERFA report and the basewide EBS reports dated 01 April 1995. The U.S. EPA reviewed the 1995 CERFA and EBS reports and concurred that 2,982 acres of MCAS El Toro can be classified as uncontaminated under CERFA. Cal-EPA agreed with the U.S. EPA decision. Since then, additional property has been found to be ECP Area type 1.

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 support the DoN's transfer of MCAS El Toro property. The BCT will continue to determine ECP area types.

6.16.2 Rationale

MCAS El Toro intends to complete military operations at 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 intended reuse of the property should be integrated with the remediation of the base.

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 were conducted concurrently with the OU-2 RI/FS;
- 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 SWDIV to aggressively issue numerous contracts for investigation and remediation activities. Flexible contracting procedures should be implemented to expedite installation restoration and minimize impacts to closure schedules.

In an effort to improve the efficiency of installation restoration activities, SWDIV 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 Homeless Assistance Submission (HAS) were submitted to the ASN and the U.S. Department of HUD on 13 December 1996.

Regular meetings and clear communication between the DoN and the LRA will be critical to incorporate the adopted CRP into the restoration plans for the Station. Since January 1997, regular meetings between the DoN and the LRA staff occur.

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 ACTION

The BCT and Project team should continue to consult with experts to provide input on effective 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 ROD signed for the vadoze zone soil portion of the VOC source area (Site 24) selected soil vapor extraction as the presumptive remedy. 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
- Sincerity
- Empathy
- Responsibility
- Objectivity
- Dependability
- Accountability
- 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 pre-proposal 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.

**Table 6-1
Future Land Use Risk Assessment for Development of Remedy Selections
(Sheet 1 of 3)**

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	Habitat Preserve
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	Habitat Preserve
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	R & D/L.I.&I.
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	Recreation (Golf)
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	Cargo
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	Trans. Center & Salvation Army/ Irvine Housing

Table 6-1
Future Land Use Risk Assessment for Development of Remedy Selections
(Sheet 2 of 3)

Site ID	Risks	CONTAMINANTS ¹			Current Use	Adjacent Use	Anticipated Use
		Groundwater	Subsurface Soil	Surface/Sediment ²			
11 (OU-3A)	Refer to Appendix E	Not investigated	Not investigated	Pesticides, PCBs, TRPH.	Storage area	Supply/storage, maintenance, administrative support	Airport Support
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	Airport Support
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	Terminal Complex
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	Terminal Complex
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	Habitat Preserve
18 (OU-1)	Refer to Appendix E	VOCs	---	---	Not applicable	Not applicable	N/A
24 (OU-2A)	Refer to Appendix E	VOCs	VOCs	VOCs	Airfield operations, supply/storage, maintenance, administrative support	Airfield operations, supply/storage, maintenance, administrative support	N/A

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Table 6-3
Surface Water Standards¹
(Sheet 1 of 1)

Constituent/Parameter	Concentration Limit ($\mu\text{g/L}$)/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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- CCR. *See* California Code of Regulations.
- CDMG. *See* California Division of Mines and Geology.
- CFR. *Code of Federal Regulations*.
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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)	FY 1997 (\$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	1779.5		7958.2	
		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	3925.8	8204.8	
	25	PA																
		RI/FS											3201.8		93.8	46.7	3342.3	
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	364.4		4502.5	
		IRA												8.9	2065.1		2074.0	
	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	364.4		3123.3	
		IRA																2065.1

**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)	FY 1997 (\$000)	Total (\$000)	
OU-3 (cont.)	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	46.6	1530.5	
	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	46.7	1530.6	
	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	205.5	1689.4	
		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	205.5	1689.4	
	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	46.6	1530.5	
		RA											126.6			126.6	
	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	46.6	1530.5	

**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)	FY 1997 (\$000)	Total (\$000)	
OU-3 (cont.)	16	PA				1.4										1.4	
		RI/FS					1.1	12.2	27.0	857.0	98.2	76.6	376.6	35.2	26.9	1510.8	
	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		46.6	1496.1	
		IRA												290.9		290.9	
		RA											126.6			126.6	
	20	RI/FS							13.0	27.0	857.0	98.2	76.6	376.6	35.2	46.7	1530.6
		RA												126.6			126.6
	21	RI/FS							13.0	27.0	857.0	98.2	76.6	376.6	35.2	46.6	1530.5
	22	RI/FS							13.0	27.0	857.0	98.2	76.6	376.6	35.2	46.7	1530.6
	23	SI								1.2	32.0	20.0					53.2

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	1997
OU-1	18	PA ■		SI ■	HRS SI ■ ■	SI RI ■ ■	RI ■	RI ■	RI ■	RI FS ■ ■				
	24										RI ■	RI ■	RI FS ■ ■	RI FS IROD ■ ■ ■
	25										RI ■	RI ■	RI ■	RI ROD ■ ■
OU-2B	2	PA ■			HRS SI ■ ■	SI RI ■ ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI FS ■ ■	RI FS ■ ■
	17	PA ■			HRS SI ■ ■	SI RI ■ ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI FS ■ ■	RI FS ■ ■
OU-2C	3	PA ■			HRS SI ■ ■	SI RI ■ ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI FS ■ ■	RI FS ■ ■
	5	PA ■			HRS SI ■ ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI FS ■ ■	RI FS ■ ■
OU-3	1	PA ■			HRS ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■
	4				HRS SI ■ ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	ROD ■
	6	PA ■			HRS ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	ROD ■
	7	PA ■			HRS ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■
	8				HRS ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI FS ■ ■
	9	PA ■			HRS ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	RI ■	ROD ■

(figure continues)

Legend

- PA Preliminary Assessment
- RI Remedial Investigation
- SI Site Inspection
- SI* Investigated in RFA
- FS Feasibility Study
- HRS Hazard Ranking System Scoring
- ROD Record of Decision
- IROD Interim Record of Decision

Southwest Division		
Naval Facilities Engineering Command		
MCAS El Toro, CA		
Past Restoration Schedule		
File No.	Figure A-1	Date
103figa1.ppt		3/1/98

OU	Sites	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
OU-3 (cont'd)	10	PA ■			HRS ■	RI ■	ROD ■							
	11	PA ■			HRS ■	RI ■	RI FS ■ ■							
	12				HRS ■	RI ■	RI FS ■ ■							
	13	■			HRS ■	RI ■	ROD ■							
	14	PA ■			HRS ■	RI ■								
	15	PA ■			HRS ■	RI ■	ROD ■							
	16				HRS ■	RI ■								
	19				HRS SI ■ ■	RI ■	ROD ■							
	20						RI ■	ROD ■						
	21						RI ■	ROD ■						
	22						RI ■	ROD ■						

Legend

- PA Preliminary Assessment
- RI Remedial Investigation
- SI Site Inspection
- SI* Investigated in RFA
- FS Feasibility Study
- HRS Hazard Ranking System Scoring
- ROD Record of Decision
- IROD Interim Record of Decision

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Past Restoration Schedule		
File No.	Figure A-1	Date
103figa1.ppt	(continued)	3/1/98

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 13)**

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)
1993	RI	MCAS El Toro Phase I RI Technical Memorandum.	10	1 through 17, 19 through 22, 25	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	1 through 17, 19 through 22, 24, 25	June 1995 - BNI (CLEAN II)

**Table B-1
Project Deliverables
(Sheet 2 of 13)**

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
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)
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	UST	May 1995 - BNI (CLEAN II)
1995	RI	Final Addendum to RCRA Facility Assessment (RFA) Work Plan, MCAS El Toro, CA.	21	RFA	May 1995 - BNI (CLEAN II)
1995	RI	Final Site Assessment Report, Former Underground Storage Tank, Site 66A, MCAS El Toro, CA.	22	UST	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)

**Table B-1
Project Deliverables
(Sheet 3 of 13)**

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
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)
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	UST	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	UST	September 1995 - BNI (CLEAN II)
1995	RI	Draft ^k Site Assessment Report, Former Underground Storage Tank, Site 372B, MCAS El Toro, CA.	32	UST	September 1995 - BNI (CLEAN II)
1995	RI	Draft Site Assessment Report, Former Underground Storage Tank, Site 443, MCAS El Toro, CA.	33	UST	September 1995 - BNI (CLEAN II)
1995	RI	Draft Site Assessment Report, Former Underground Storage Tank, Site 126, MCAS El Toro, CA.	34	UST	November 1995 - BNI (CLEAN II)
1995	RI	Draft Site Assessment Report, Former Underground Storage Tank, Site 364A, MCAS El Toro, CA.	35	UST	November 1995 - BNI (CLEAN II)
1995	RI	Draft Site Assessment Report, Former Underground Storage Tank, Site 366, MCAS El Toro, CA.	36	UST	November 1995 - BNI (CLEAN II)
	RI	Draft Site Assessment Report, Former UST, Site 367, MCAS El Toro, CA.	37	UST	November 1995 - BNI (CLEAN II)
1995	RI	Final Work Plan, Anthropogenic PAH Reference level Study, MCAS El Toro, CA.	38	1 through 17, 19 through 22, 24, 25	November 1995 - BNI (CLEAN II)
1995	RI	Draft Site Assessment Report, Former Underground Storage Tank, Site 451, MCAS El Toro, CA.	39	UST	November 1995 - BNI (CLEAN II)
1995	RI	Draft Site Assessment Report, Former Underground Storage Tank, Site 75B, MCAS El Toro, CA.	40	UST	December 1995 - BNI (CLEAN II)

**Table B-1
Project Deliverables
(Sheet 4 of 13)**

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
1995	RI	Draft Site Assessment Report, Former Underground Storage Tank, Sites 553 and 554, MCAS El Toro, CA.	41	UST	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	RFA	November 1995 - BNI (CLEAN II)
1995	RI	Final Work Plan Anthropogenic PAH Reference Level Study, MCAS El Toro, CA.	44	1 through 17, 19 through 22, 24, 25	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)
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	RFA	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	1 through 17, 19 through 22, 24, 25	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)
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)

**Table B-1
Project Deliverables
(Sheet 5 of 13)**

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
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.	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	RI	Draft RI Sites 4, 6, 8, 9, 10, 11, 12, 13, 15, 16, 19, 20, 21, 22.	62	4, 6, 8, 9, 10, 11, 12, 13, 15, 16, 19, 20, 21, 22	November 1996 - BNI (CLEAN II)
1996	FS	Air Sparging Pilot Test report, Site 24, MCAS El Toro, CA.	63	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.	64	19	November 1996 - OHM (RAC)
1997	FS	Draft Final Phase II Feasibility Study Report, Site 17, MCAS El Toro, CA.	65	17	January 1997 - BNI (CLEAN II)
1997	FS	Draft Final Phase II Feasibility Study Report, Site 2, MCAS El Toro, CA.	66	2	January 1997 - BNI (CLEAN II)
1997	RI	Draft Phase II Remedial Investigation Report, Site 25, MCAS El Toro, CA.	67	25	January 1997 - BNI (CLEAN II)
1997	RI	Draft Base Realignment and Closure Cleanup Plan (BCP).	68	All	January 1997 - BNI (CLEAN II)
1997	FS	Draft Final Feasibility Study Sites 3 and 5.	69	3, 5	February 1997 - BNI (CLEAN II)
1997	RI	Groundwater Monitoring Report Nov. - Dec. 1996 Sampling Round Vols. I, II.	70	18	February 1997 - CDM Federal (DO 0009)
1997	Proposed Plan	Draft Proposed Plan - Site 24 OU-2A (Soil).	71	24	March 1997 - BNI (CLEAN II)

**Table B-1
Project Deliverables
(Sheet 6 of 13)**

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
1997	RI	Draft Final Phase II Remedial Investigation Report OU 2A Site 24 Vols. I, II, III, IV - App. A-J & K-P.	72	24	March 1997 - BNI (CLEAN II)
1997	FS	Draft Final Phase II Vadose Zone Feasibility Study Report OU-2A Site 24.	73	24	March 1997 - BNI (CLEAN II)
1997	RI	Draft Final Phase II Site 25 RI/FS Addendum (Major Drainages).	74	25	April 1997 - BNI (CLEAN II)
1997	RI	Draft Final Phase II Remedial Investigation Report OU - 2B Site 2 & 17 Vols. I - IV.	75	2, 17	April 1997 - BNI (CLEAN II)
1997	RI	Draft Final Phase II Remedial Investigation Report OU-2C Site 3 & 5 Vols. I - V.	76	3, 5	April 1997 - BNI (CLEAN II)
1997	Proposed Plan	Draft Proposed Plan - OU-3, No Further Action Sites.	77	4, 6, 9, 10, 13, 15, 19, 20, 21, 22, 25	April 1997 - BNI (CLEAN II)
1997	RI	Groundwater Monitoring Report March 1997 Sampling Round Vols. I, II.	78	18	June 1997 - CDM Federal (DO 0009)
1997	FS	Draft Phase II Feasibility Study OU-3A Sites 8, 11 & 12.	79	8, 11, 12	July 1997 - BNI (CLEAN II)
1997	ROD	Draft Site 24 Vadose Zone ROD.	80	24	July 1997 - BNI (CLEAN II)
1997	RS	Draft Site 24 Responsiveness Summary.	81	24	July 1997 - BNI (CLEAN II)
1997	FS	Draft Final Groundwater Remediation Pilot Test Work Plan.	82	24	July 1997 - BNI (CLEAN II)
1997	Proposed Plan	Draft Proposed Plan - Landfill Sites - OU-2B (Sites 2 & 17) & OU-2C (Sites 3 & 5).	83	2, 3, 5, 17	August 1997 BNI (CLEAN II)
1997	FS	Draft Final Phase II Feasibility Study Report Site 2 & 17.	84	2, 17	August 1997 - BNI (CLEAN II)
1997	ROD	Draft No Action ROD.	85	4, 6, 9, 10, 13, 15, 19, 20, 21, 22, 25	August 1997 - BNI (CLEAN II)

**Table B-1
Project Deliverables
(Sheet 7 of 13)**

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
1997	ROD	Draft Final Site 24 ROD.	86	24	September 1997 - BNI (CLEAN II)
1997	ROD	Final Site 24 ROD (Date Signed).	87	24	September 1997 - BNI (CLEAN II)
1997	RS	Draft No Action Responsiveness Summary.	88	4, 6, 9, 10, 13, 15, 19, 20, 21, 22, 25	September 1997 - BNI (CLEAN II)
1997	ROD	Draft Final No Action ROD.	89	4, 6, 9, 10, 13, 15, 19, 20, 21, 22, 25	September 1997 - BNI (CLEAN II)
1997	ROD	Final No Action ROD (Date Signed).	90	4, 6, 9, 10, 13, 15, 19, 20, 21, 22, 25	September 1997 - BNI (CLEAN II)
1997	RA	On Scene Coordinator Report Non-Time Critical Removal Action for Site 19, Unit 2 Aircraft Expeditionary Refueling Site.	91	19	September 1997 - OHM Remediation (DO 0059)
1997	RI/FS	Project Plans, Groundwater Remediation Pilot Test, Site 24, MCAS El Toro.	92	24	August 1997 - OHM (RAC)
1997	RI/FS	Raw Data Package, Site 24 Soil Vapor Extraction Pilot Test, MCAS El Toro.	93	24	September 1997 - OHM (RAC)
1997	RA	Technical Memorandum, Subject: Catch Basin Clean-out West of IRO Site 21-Materials Management Group, Building 320, MCAS El Toro.	94	21	September 1997 - OHM (RAC)
1997	RA	Tank 398 Site, Free-Product Recovery Project, MCAS El Toro, Draft Air Sparging Pilot Test Report.	95	UST	August 1997 - OHM (RAC)

**Table B-1
Project Deliverables
(Sheet 8 of 13)**

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
1997	RA	Monitoring Report, Tank 398 Site, MCAS El Toro.	96	UST	February 1997 - OHM (RAC)
1997	RA	Monitoring Report, Tank 398 Site, MCAS El Toro.	97	UST	June 1997 - OHM (RAC)
1997	RA	Monitoring Report, Tank 398 Site, MCAS El Toro.	98	UST	November 1997 - OHM (RAC)
1997	RA	Soil Vapor Extraction System Performance Summary, Tank Farm 2, MCAS El Toro.	99	UST	September 1997 - OHM (RAC)
1997	RA	Soil Vapor Extraction System Performance Summary, Tank 398 Site, MCAS El Toro.	100	UST	October 1997 - OHM (RAC)
1997	RA	Draft Supplemental Work Plan, Closure of Various Temporary Accumulation Areas and RCRA Facility Assessment Sites, MCAS El Toro.	101	RFA	March 1997 - OMH (RAC)
1997	RA	Technical Memorandum, Former Underground Storage Tank Sites 114A, 295, 296, 435, 455, 605A, and 606A, MCAS El Toro.	102	UST	March 1997 - SWDIV
1997	RA	Site Assessment report, Suspended Fuel Tanks, Former Installation Restoration Program (IRP) Site 15, Unit 1, MCAS El Toro.	103	15	April 1997 - OMH (RAC)
1997	RA	Site Assessment report, Aircraft Expeditionary Refueling Site, Former Installation Restoration Program (IRP) Site 19, Unit 1, MCAS El Toro.	104	19	April 1997 - OMH (RAC)
1997	RA	Addendum, Site Assessment Report, Former Underground Storage Tank Site 272, MCAS El Toro.	105	UST	April 1997 - SWDIV
1997	RA	Tank Removal and Site Closure Report, Underground Storage Tank 627, MCAS El Toro.	106	UST	May 1997 - OMH (RAC)
1997	RA	Tank Removal and Site Closure Report, Underground Storage Tank 762B and Oil/Water Separator 762A, MCAS El Toro.	107	UST	May 1997 - OMH (RAC)
1997	RA	Tank Removal and Site Closure Report, Underground Storage Tank 9001 and 9002, MCAS El Toro.	108	UST	May 1997 - OMH (RAC)

**Table B-1
Project Deliverables
(Sheet 10 of 13)**

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
1997	RA	Tank Removal and Site Closure Report, Underground Storage Tank 454, MCAS El Toro.	122	UST	July 1997 - OHM (RAC)
1997	RI	Addendum, Site Assessment Report, Former Underground Storage Tank Site 54A, MCAS El Toro.	123	UST	August 1997 - SWDIV
1997	RA	Technical Memorandum: UST Sites 6A, 47C, 56C, 65B, and 98B, MCAS El Toro.	124	UST	September 1997 - OHM (RAC)
1997	RA	Tank Removal and Site Closure Report, Oil/Water Separator 445, MCAS El Toro.	125	OWS	September 1997 - OHM (RAC)
1997	RA	Tank Removal and Site Closure Report, Oil/Water Separator 314C, MCAS El Toro.	126	OWS	September 1997 - OHM (RAC)
1997	RA	Technical Memorandum, Underground Storage Tank Site 606B, MCAS El Toro.	127	UST	September 1997 - OHM (RAC)
1997	RA	Tank Removal and Site Closure Report, Underground Storage Tanks 445A and 445B, MCAS El Toro.	128	UST	September 1997 - OHM (RAC)
1997	RA	Tank Removal and Site Closure Report, Underground Storage Tanks 317, 318, and 319, MCAS El Toro.	129	UST	September 1997 - OHM (RAC)
1997	RA	Addendum, Site Assessment Report, Former Underground Storage Tank Site 374B, MCAS El Toro.	130	UST	September 1997 - SWDIV
1997	RA	Summary Report, Former Underground Storage Tank Site 68, MCAS El Toro.	131	UST	September 1997 - SWDIV
1997	RA	Tank Removal and Site Closure Report, Underground Storage Tank 56A, MCAS El Toro.	132	UST	October 1997 - OHM (RAC)
1997	RA	Tank Removal and Site Closure Report, Underground Storage Tank 60, MCAS El Toro.	133	UST	October 1997 - OHM (RAC)
1997	RA	Tank Removal and Site Closure Report, Underground Storage Tank 279, MCAS El Toro.	134	UST	October 1997 - OHM (RAC)
1997	RA	Tank Removal and Site Closure Report, Oil/Water Separator 357, MCAS El Toro.	135	OWS	October 1997 - OHM (RAC)

**Table B-1
Project Deliverables
(Sheet 11 of 13)**

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
1997	RA	Site Assessment Report, South Drainage Ditch at the Hobby Shop, Former Installation Restoration Program (IRP) Site 20, Unit 2, MCAS El Toro.	136	20	October 1997 - SWDIV
1997	RA	Summary Report, Former Underground Storage Tank Sites 553 and 554, MCAS El Toro.	137	UST	October 1997 - SWDIV
1997	RA	Site Assessment Report, Former Underground Storage Tank Site 38, MCAS El Toro.	138	UST	November 1997 - OHM (RAC)
1997	RA	Technical Memorandum, Underground Storage Tank Site 259.	139	UST	November 1997 - OHM (RAC)
1997	RA	Tank Removal and Site Closure Report, Underground Storage Tanks 66B and 66C, MCAS El Toro.	140	UST	November 1997 - OHM (RAC)
1997	RA	Site Assessment Report, Former Underground Storage Tank Site T-5, MCAS El Toro.	141	UST	November 1997 - SWDIV
1997	RA	Site Assessment Report, Former Underground Storage Tank Site 364B, MCAS El Toro.	142	UST	November 1997 - SWDIV
1997	RA	Site Assessment Report, Former Underground Storage Tank Site 58, MCAS El Toro.	143	UST	November 1997 - SWDIV
1997	RA	Underground Storage Tank 647A Site Closure Report, MCAS El Toro.	144	UST	December 1997 - OHM (RAC)
1997	RA	Underground Storage Tank 647B Site Closure Report, MCAS El Toro.	145	UST	December 1997 - OHM (RAC)
1997	RA	Site Assessment Report, Former Underground Storage Tank Sites 447A and 447B, MCAS El Toro.	146	UST	December 1997 - OHM (RAC)
1997	RA	Site Assessment Report, Former Underground Storage Tank Site 115B, MCAS El Toro.	147	UST	December 1997 - OHM (RAC)
1997	RA	Site Assessment Report, Former Underground Storage Tank Site 117, MCAS El Toro.	148	UST	December 1997 - OHM (RAC)
1997	RA	Site Assessment Report, Former Underground Storage Tank Site 256, MCAS El Toro.	149	UST	December 1997 - OHM (RAC)
1997	RA	Site Assessment Report, Former Underground Storage Tank Sites 55A and 55B, MCAS El Toro.	150	UST	December 1997 - OHM (RAC)

**Table B-1
Project Deliverables
(Sheet 12 of 13)**

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
1997	RA	Site Assessment Report, Former Underground Storage Tank Site 62, MCAS El Toro.	151	UST	December 1997 - OHM (RAC)
1997	RA	Tank Removal and Site Closure Report, Under Ground Storage Tank 267, MCAS El Toro.	152	UST	December 1997 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 80, MCAS El Toro.	153	UST	April 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 625, MCAS El Toro.	154	UST	June 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 11, MCAS El Toro.	155	UST	July 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 78, MCAS El Toro.	156	UST	July 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 327, MCAS El Toro.	157	UST	August 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 1A, MCAS El Toro.	158	UST	September 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 33, MCAS El Toro.	159	UST	September 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 35, MCAS El Toro.	160	UST	September 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 53, MCAS El Toro.	161	UST	September 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 105A, MCAS El Toro.	162	UST	September 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 241, MCAS El Toro.	163	UST	September 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 273, MCAS El Toro.	164	UST	September 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 280, MCAS El Toro.	165	UST	September 1996 - OHM (RAC)

**Table B-1
Project Deliverables
(Sheet 13 of 13)**

Year	Phase	Project Title	Report No.	Sites Examined	Deliverable Date/Author
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 24, MCAS El Toro.	166	UST	October 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Sites 63A and 63B, MCAS El Toro.	167	UST	November 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 115B, MCAS El Toro.	168	UST	November 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 405, MCAS El Toro.	169	UST	November 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 406, MCAS El Toro.	170	UST	November 1996 - OHM (RAC)
1996	RA	Addendum, Site Assessment Report, Former Underground Storage Tank Site 263, MCAS El Toro.	171	UST	November 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 276, MCAS El Toro.	172	UST	December 1996 - OHM (RAC)
1996	RA	Site Assessment Report, Former Underground Storage Tank Site 463, MCAS El Toro.	173	UST	December 1996 - OHM (RAC)

- 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

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Table B-2
Site Deliverables¹
(Sheet 1 of 2)

Site No.	PA/SI	RI/FS	Close Out	IRA	LTM	NFRAP
1	1, 2	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 47, 52, 68				
2	1, 2, 6	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 47, 49, 52, 56, 60, 66, 68, 75		60		
3	1, 2, 7, 9	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 47, 52, 54, 59, 68, 76				
4	1, 2	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 24, 22, 38, 42, 44, 47, 52, 62, 68	77, 85, 88, 89, 90			
5	1, 2, 5	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 47, 52, 55, 58, 68, 76				
6	1, 2	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 47, 52, 62, 68	77, 85, 88, 89, 90			
7	1, 2	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 47, 52, 68				
8	1, 2	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 47, 52, 62, 68				
9	1, 2	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 47, 52, 62, 68	77, 85, 88, 89, 90			
10	1, 2	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 47, 52, 62, 68	77, 85, 88, 89, 90			
11	1, 2	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 25, 38, 42, 44, 47, 52, 62, 68				
12	1, 2, 9	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 47, 52, 62, 68				
13	1, 2	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 26, 38, 42, 44, 47, 52, 62, 68	77, 85, 88, 89, 90			
14	1, 2	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 27, 38, 42, 44, 47, 52, 68				
15	1, 2	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 47, 52, 62, 68	77, 85, 88, 89, 90			
16	1, 2	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 47, 52, 68				
17	1, 2, 4	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 47, 51, 52, 60, 65, 68, 75		60		
18	2, 3	8, 47, 70, 78				
19	2	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 28, 38, 42, 44, 47, 52, 62, 64, 68	77, 85, 88, 89, 90	91		
20	⁻²	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 29, 38, 42, 44, 47, 52, 62, 68	77, 85, 88, 89, 90			
21	⁻²	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 47, 52, 62, 68	77, 85, 88, 89, 90			

Table B-2
Site Deliverables¹
(Sheet 2 of 2)

Site No.	PA/SI	RI/FS	Close Out	IRA	LTM	NFRAP
22	⁻²	10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 47, 52, 62, 68	77, 85, 88, 89, 90			
23	9		9			
24	⁻²	11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 45, 46, 47, 48, 52, 53, 61, 62, 68, 72, 92, 93				
25	⁻²	10 ³ , 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 38, 42, 44, 47, 52, 67, 68, 74	67, 74, 77, 85, 88, 90			

- 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

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 30 September 1997, the following RODs have been prepared for the IRP sites at MCAS El Toro: Operable Unit-3A, Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, and 22; and Operable Unit-2A, Sites 24 and 25. 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, 5, 7, 8, 11, 12, 14, 16, and 17. The conceptual site models for Sites 2, 3, 5, 8, 11, 12, 16, and 17, 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 column are Non-Parametric

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Table E-2b
Results of Background Statistical Analysis – Pesticides
(Sheet 1 of 1)

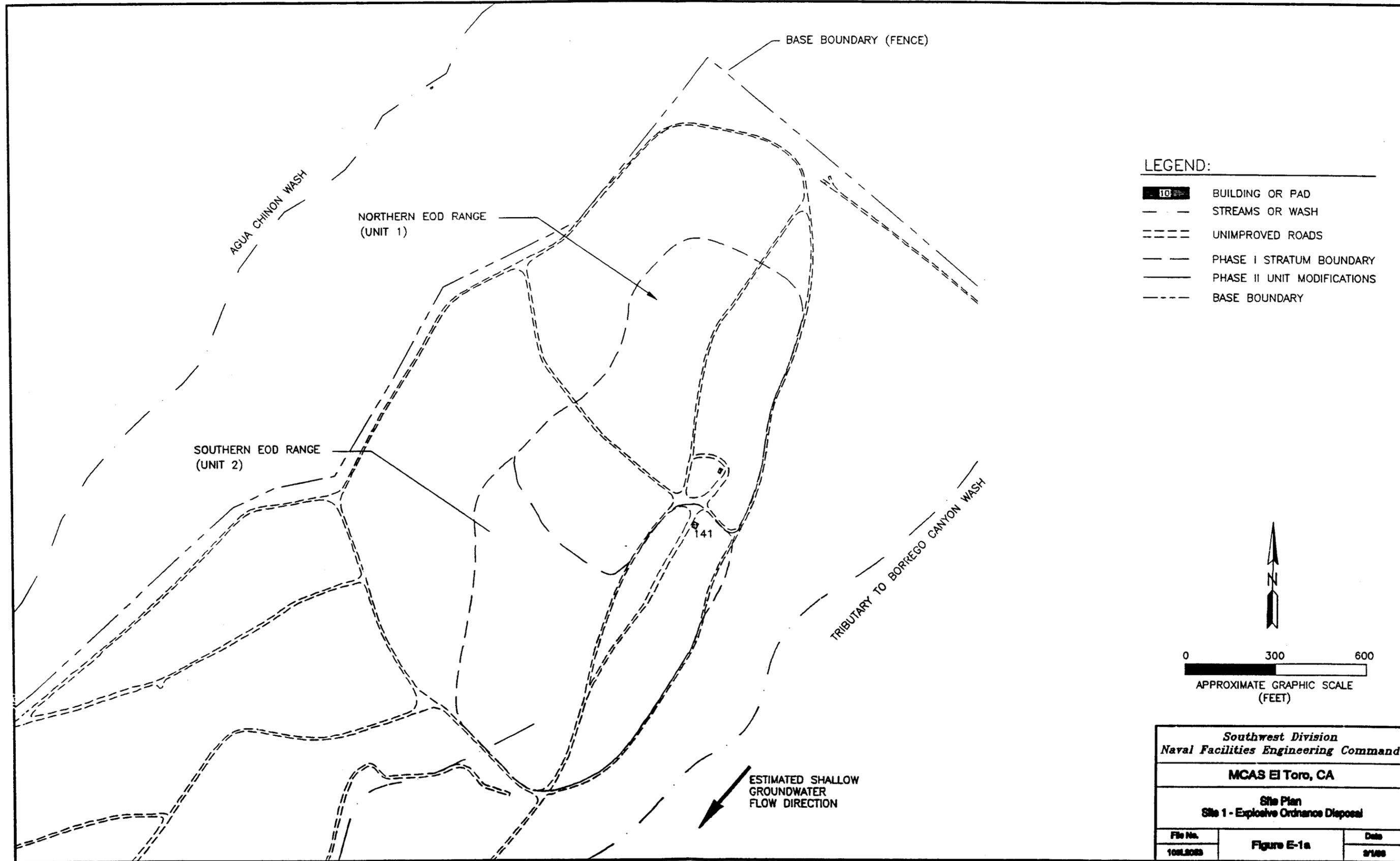
Parameter	Number of Stations	Mean (µg/kg)	95th Confidence Limit on 50% Quantile (µg/kg)	Background Level 95th Quantile (µg/kg)*
Pesticides				
Alpha-Chlordane	47	1.39	1.00	2.24
Gamma-Chlordane	47	1.43	1.01	2.7
4,4'-DDD	47	5.1	1.99	36.1
4,4'-DDE	47	16.5	1.99	145.0
4,4-DDT	47	22.27	1.99	236.0
Dieldrin	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

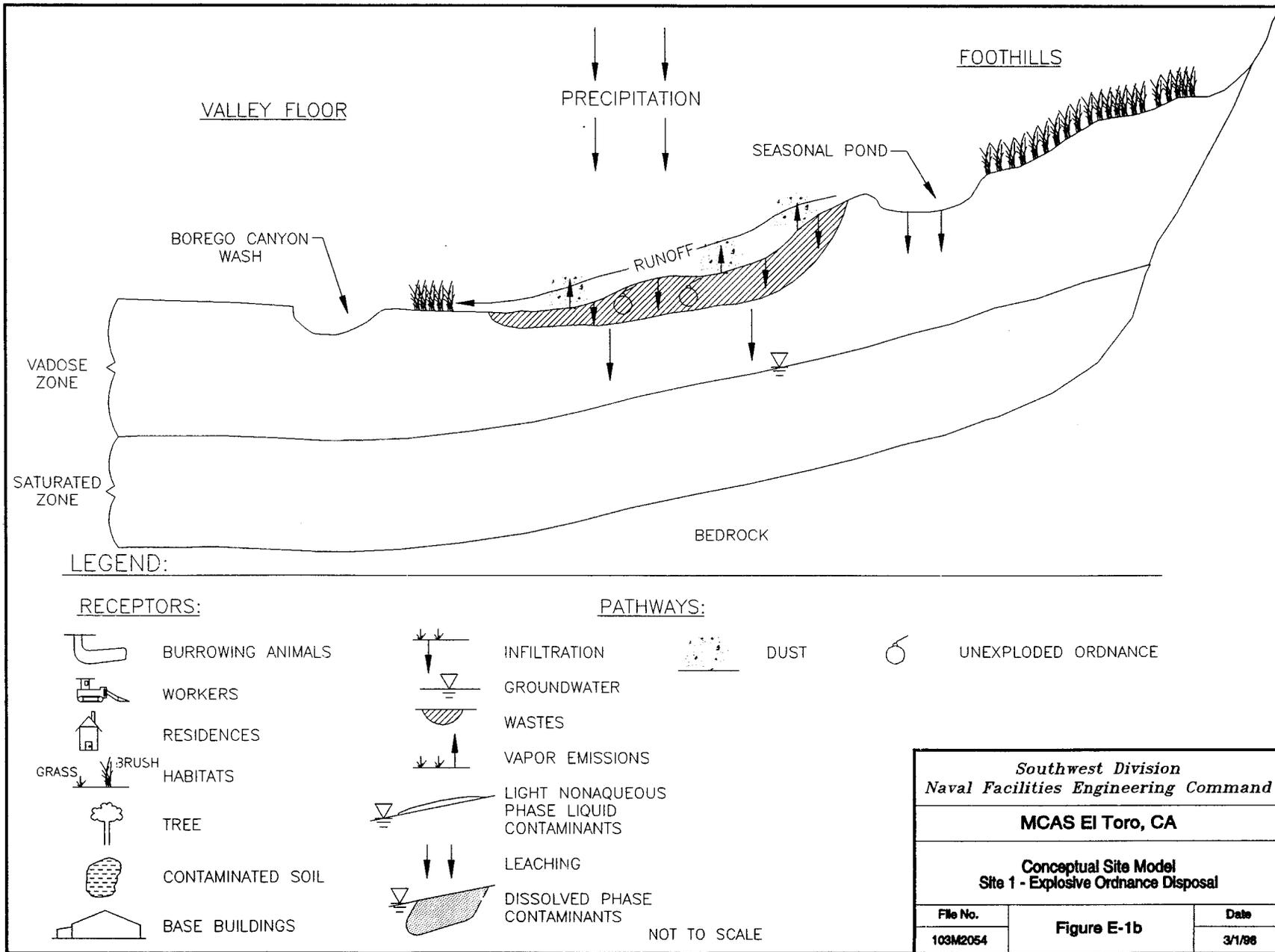
* – All values in this column are Non-Parametric

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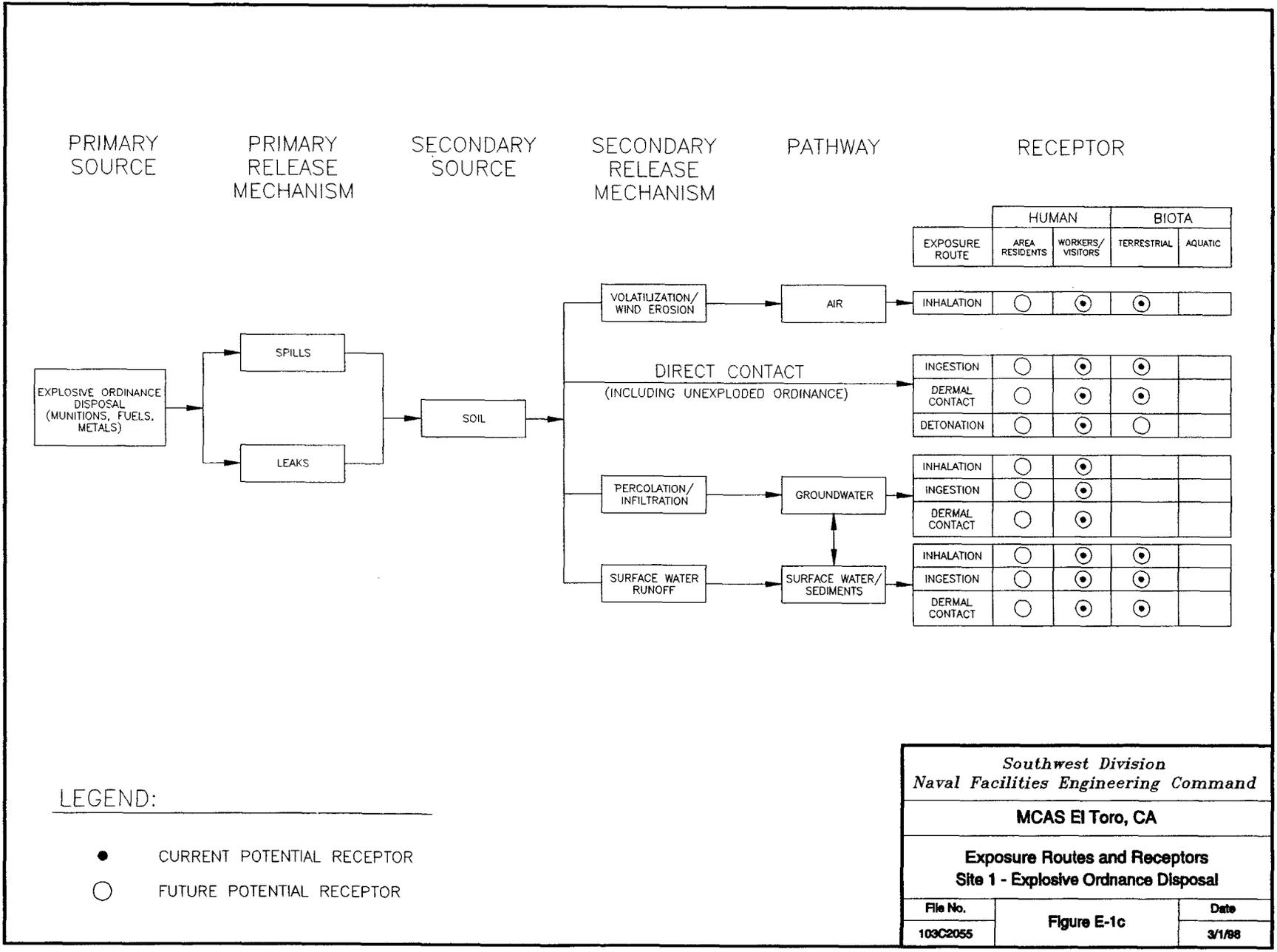


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Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

Exposure Routes and Receptors
Site 1 - Explosive Ordnance Disposal

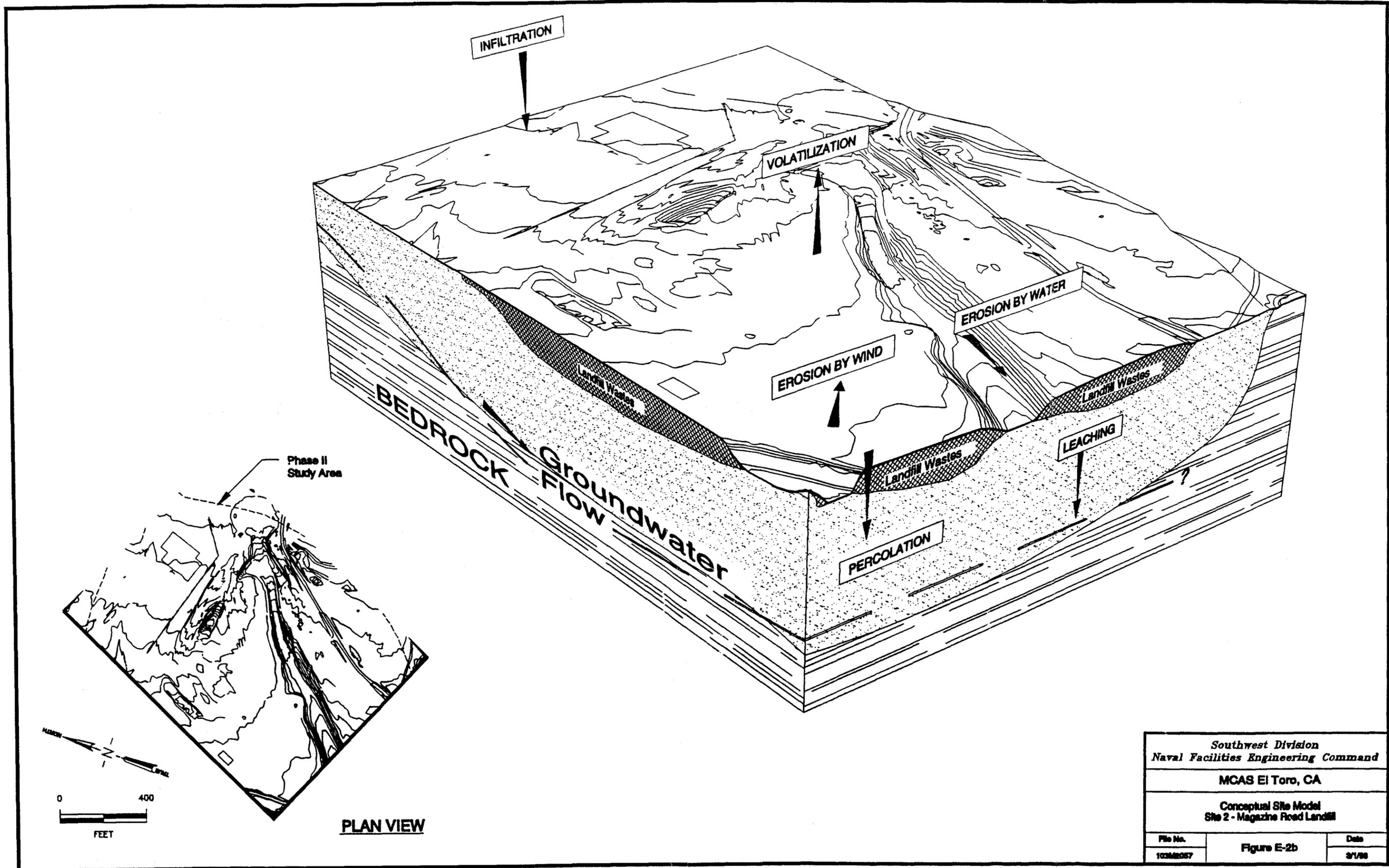
File No.	Figure E-1c	Date
103C2055		3/1/88

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PAGE NO. E-14

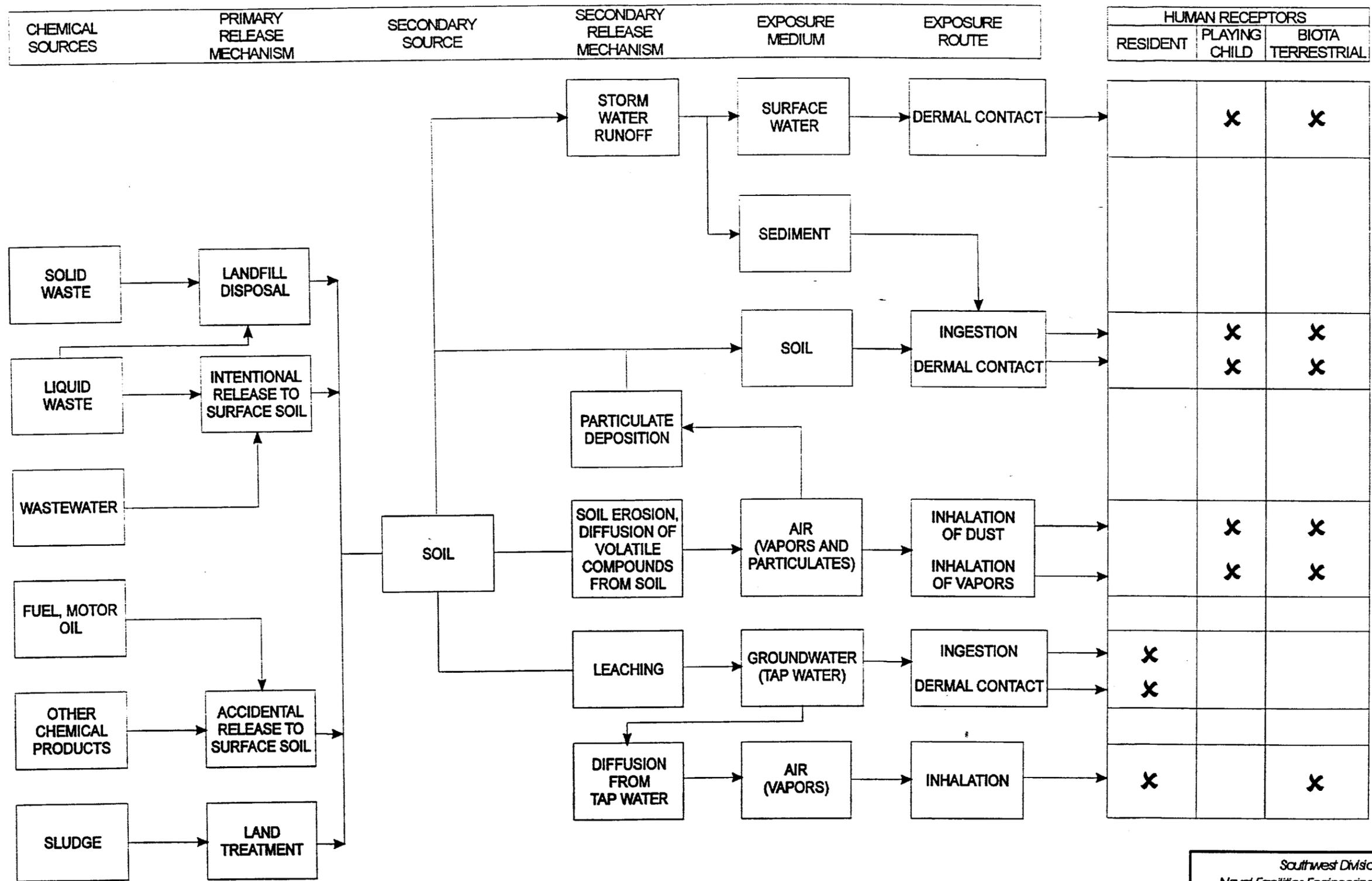
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Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Conceptual Site Model Site 2 - Magazine Faced Landfill		
File No.	Figure E-2b	Date
103M2057		3/78

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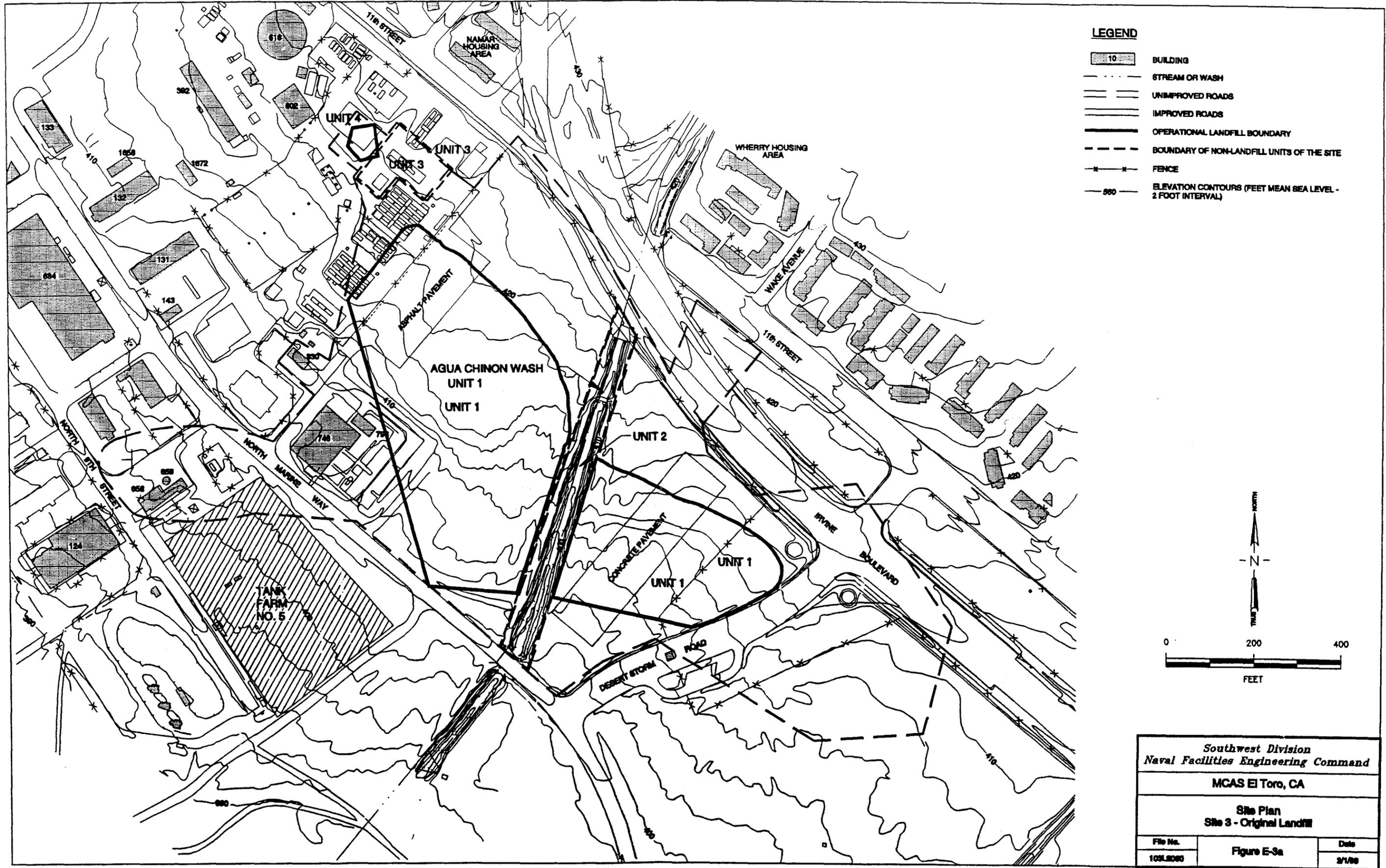


Southwest Division
 Naval Facilities Engineering Command
 MCAS El Toro, CA
 Exposure Routes and Receptors
 Site 2 - Magazine Road Landfill

File No. 103C2118	Figure E-2c	Date 3/1/96
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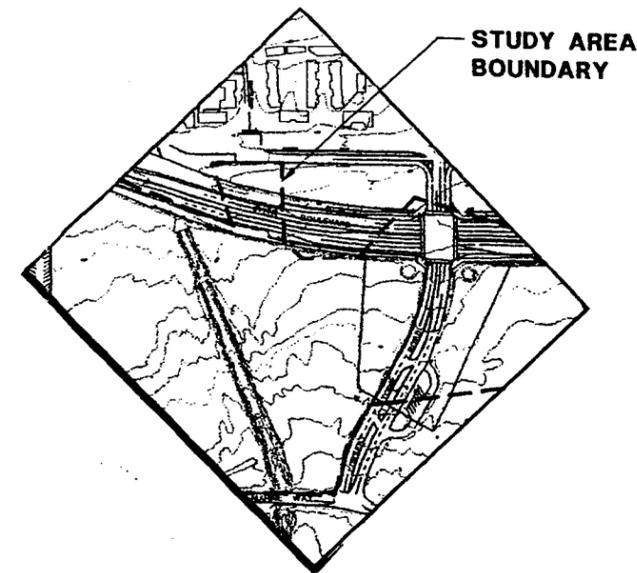
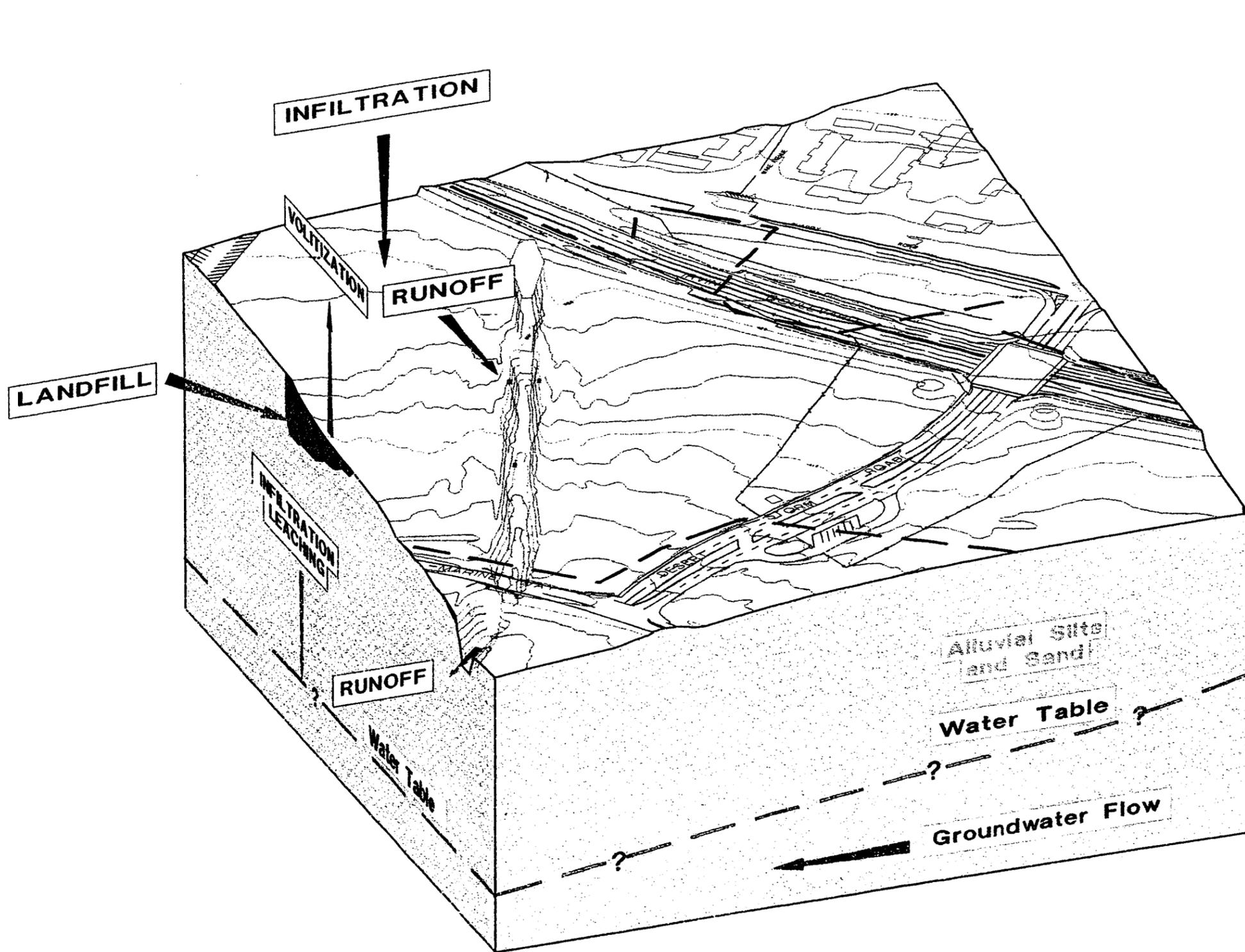
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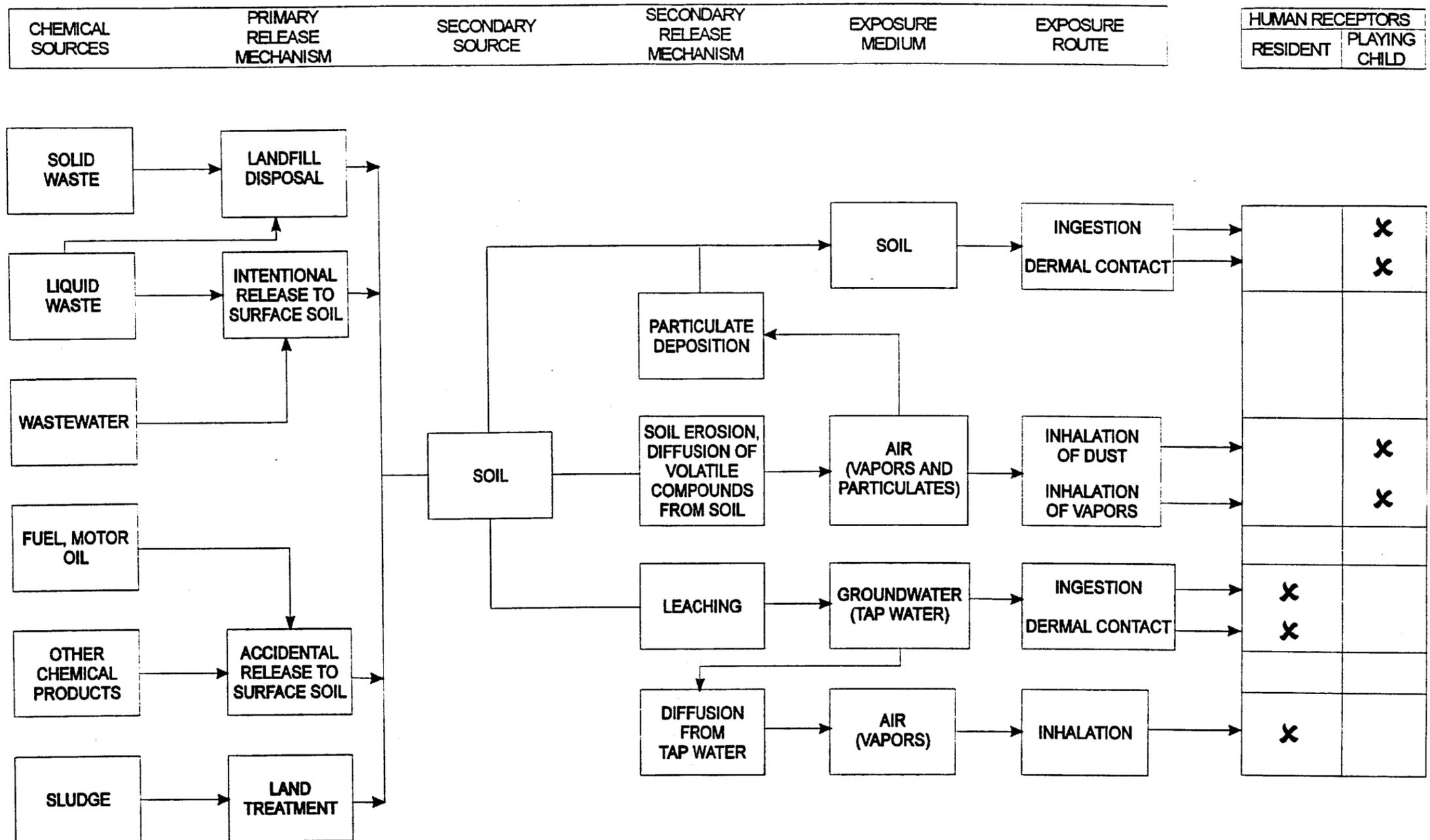


— — — — — STUDY AREA BOUNDARY

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Conceptual Site Model Site 3 - Original Landfill		
File No.	Figure E-3b	Date
		3/1/98

PAGE NO. E-22

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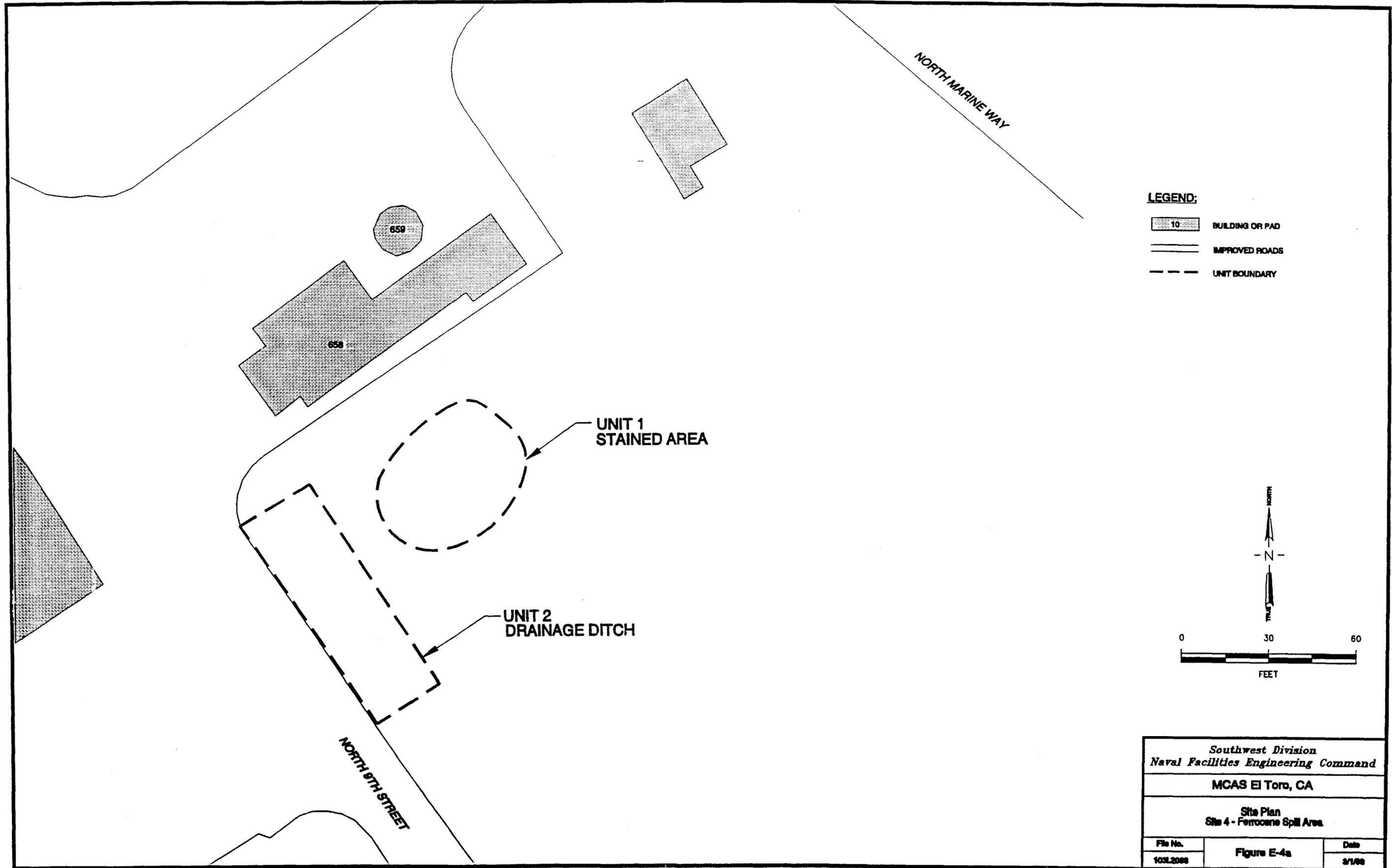


Southwest Division
 Naval Facilities Engineering Command
 MCAS El Toro, CA
 Exposure Routes and Receptors
 Site 3 - Original Landfill

File No.	Figure E-3c	Date
103C2119		3/1/98

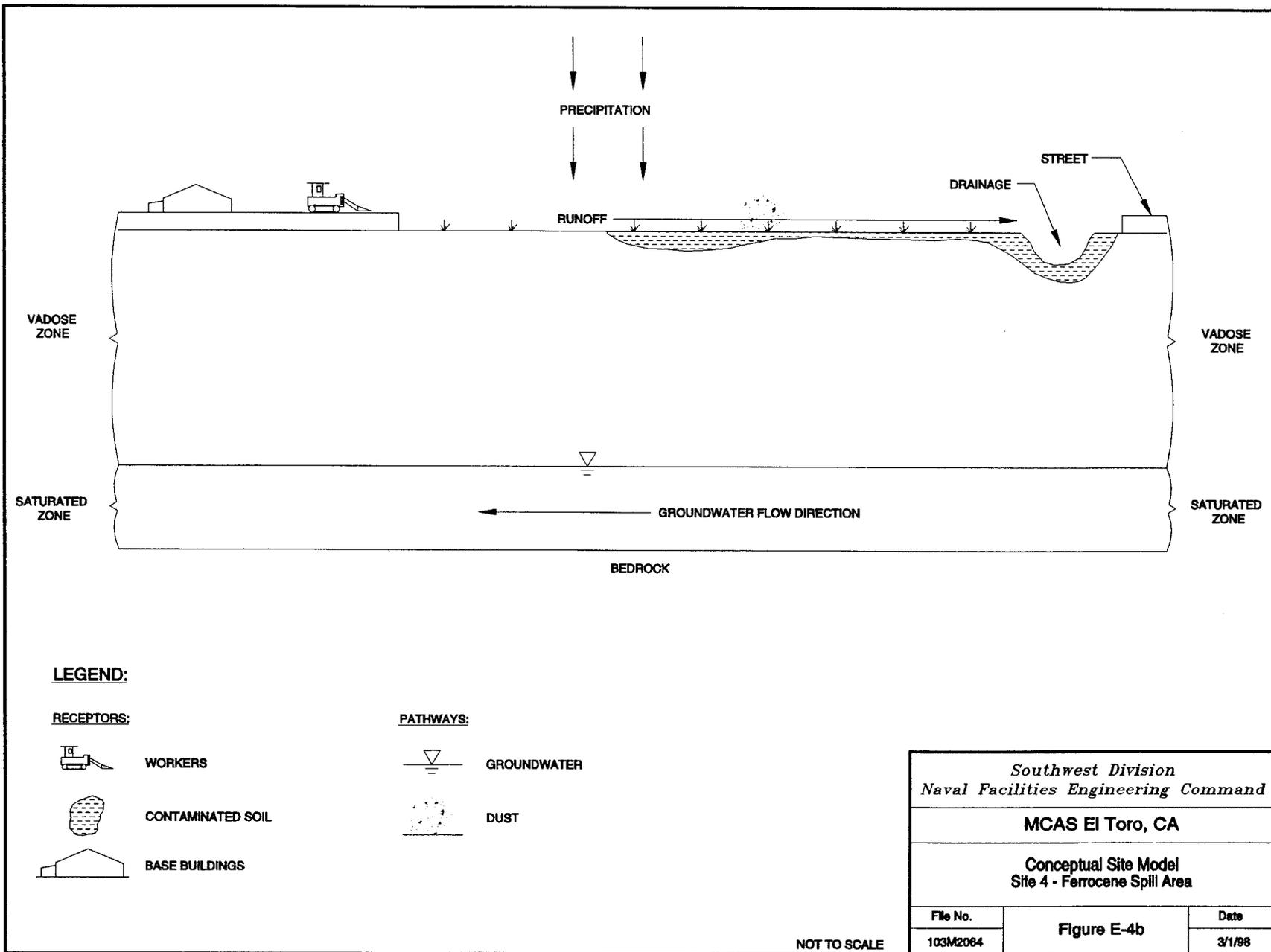
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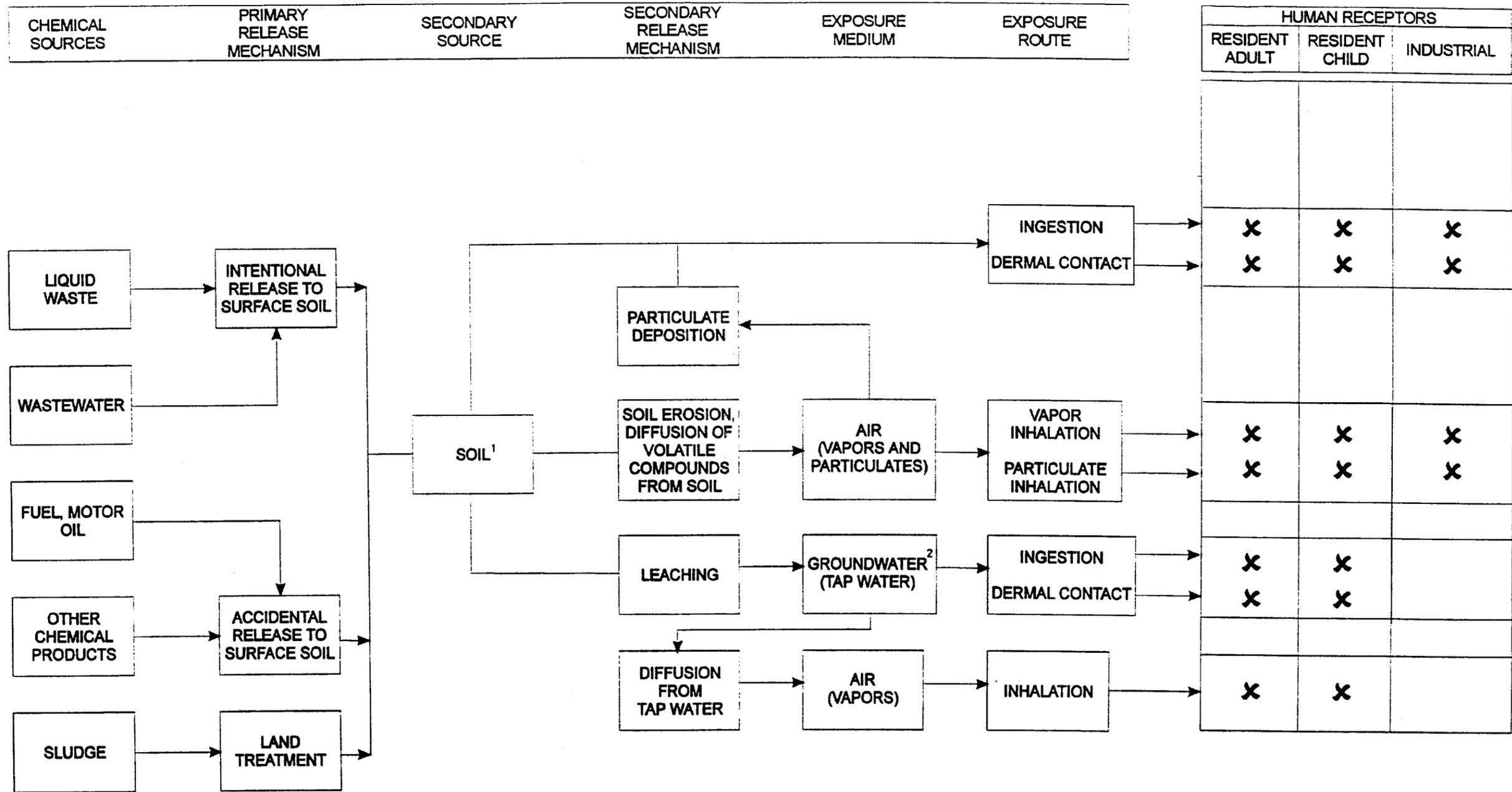
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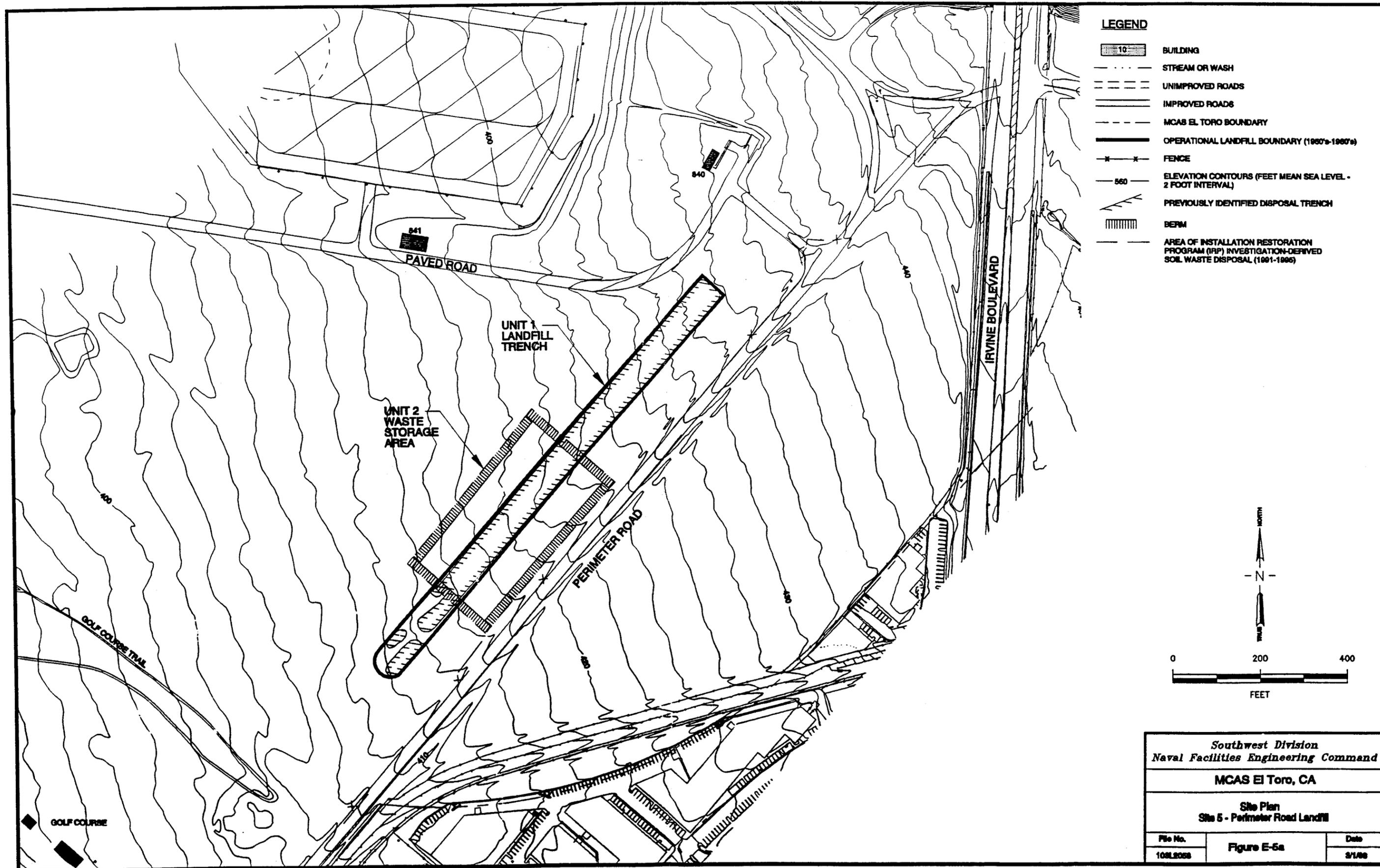
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- 2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Exposure Routes and Receptors Site 4 - Ferrocene Spill Area		
File No. 103C2065	Figure E-4c	Date 3/1/98

PAGE NO. E-30

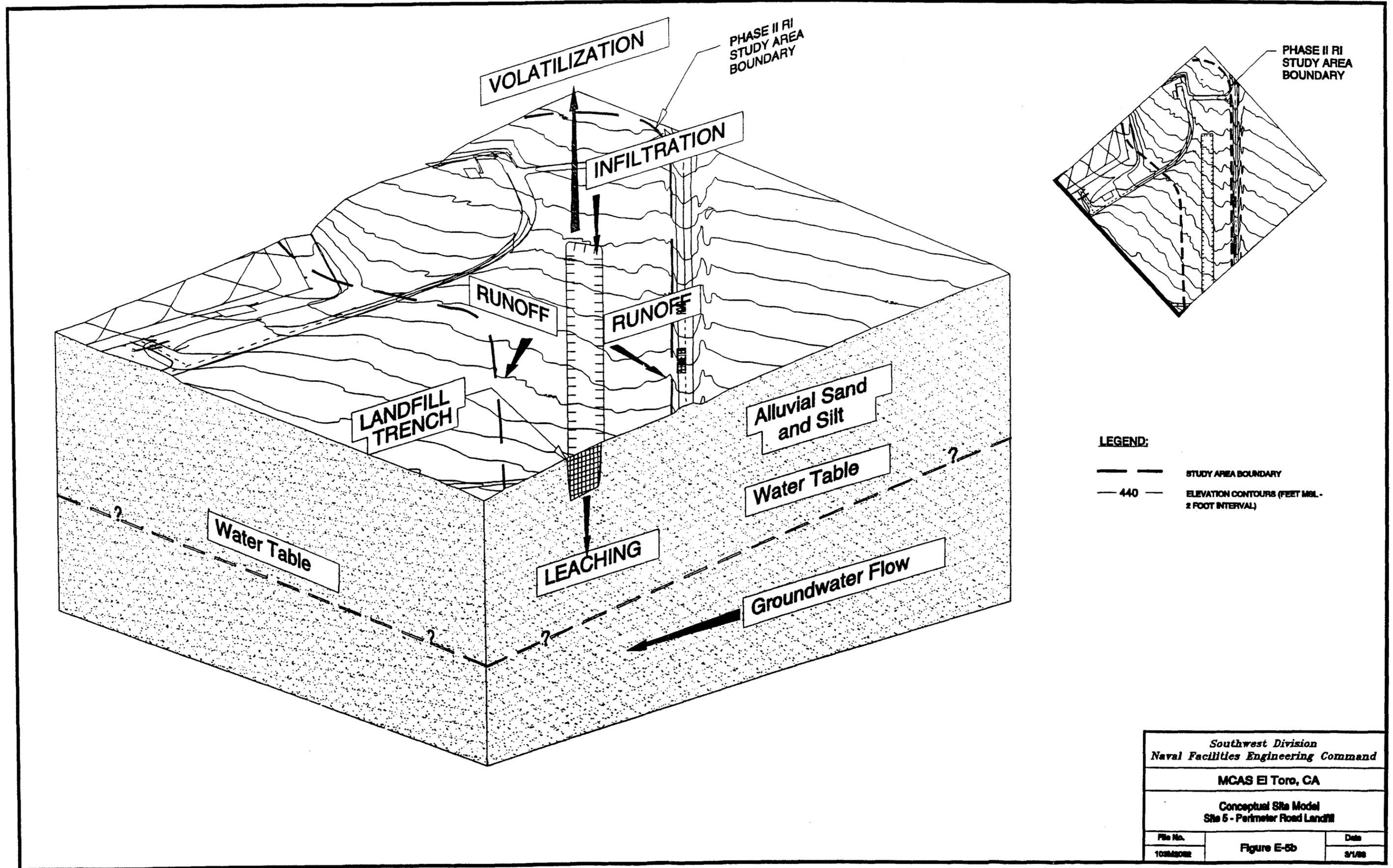
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Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Site Plan Site 5 - Perimeter Road Landfill		
File No.	Figure E-5a	Date
108L2008		2/1/98

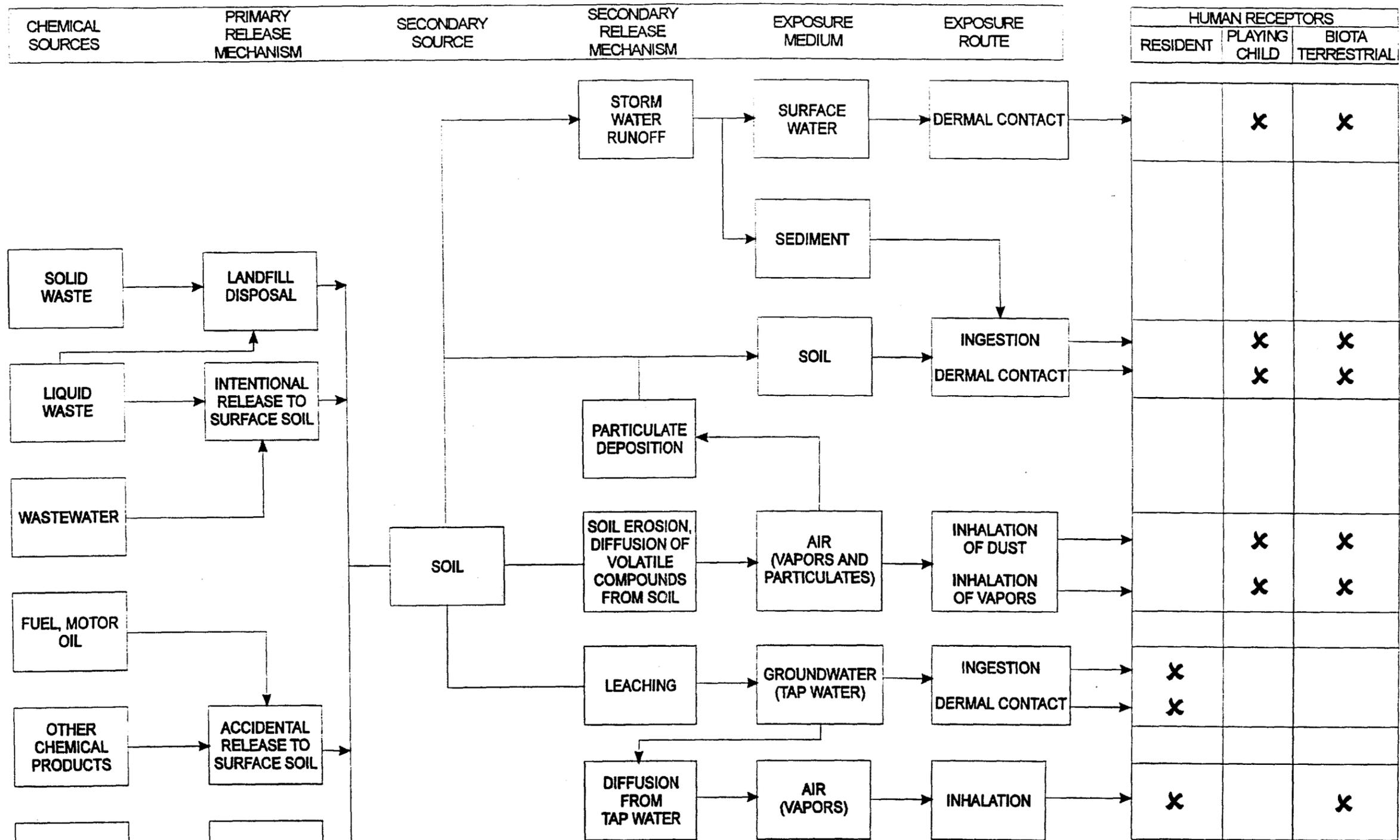
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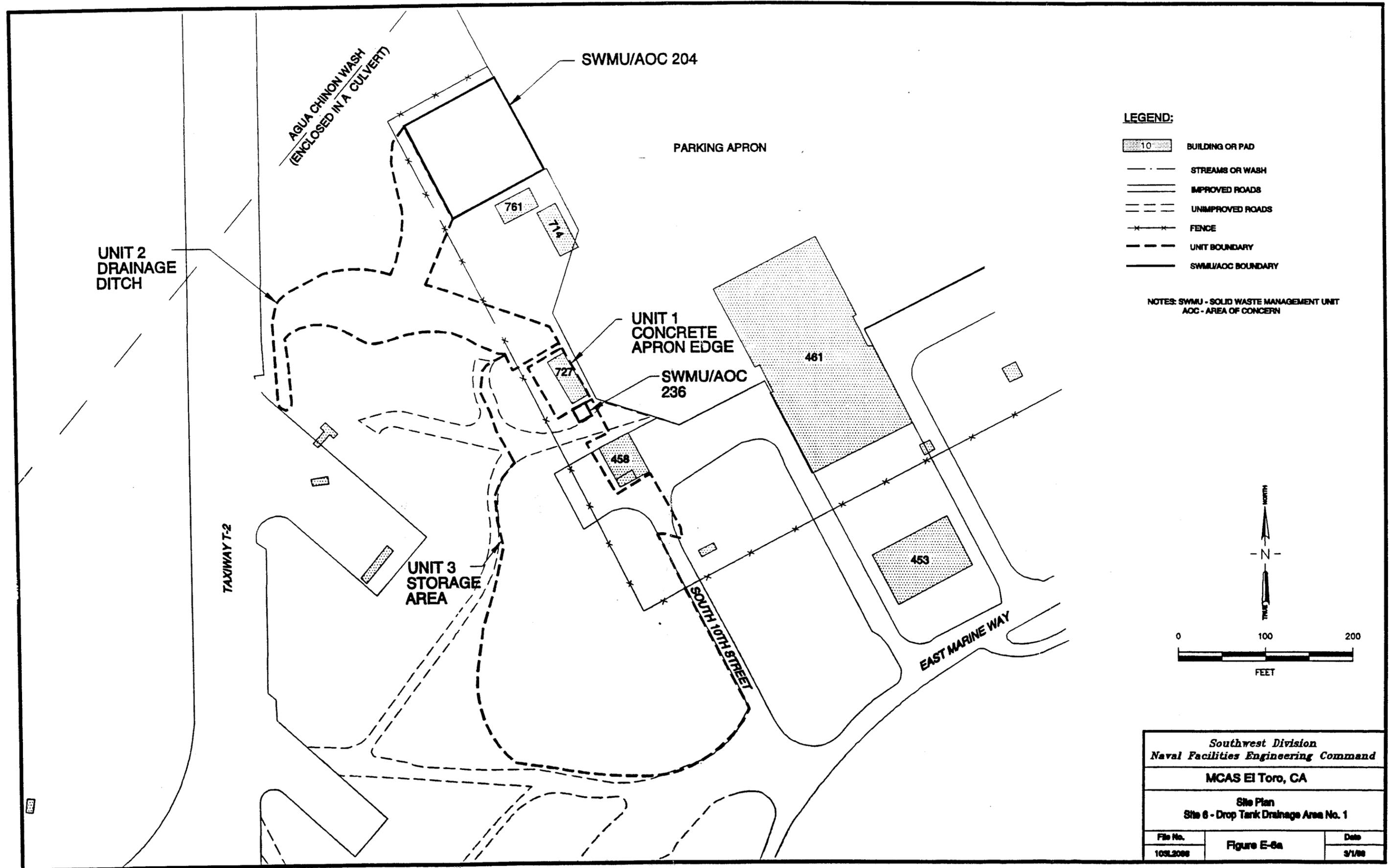


Southwest Division
 Naval Facilities Engineering Command
 MCAS El Toro, CA
 Exposure Routes and Receptors
 Site 5 - Perimeter Road Landfill

File No.	Figure E-5c	Date
103C2120		3/1/98

PAGE NO. E-36

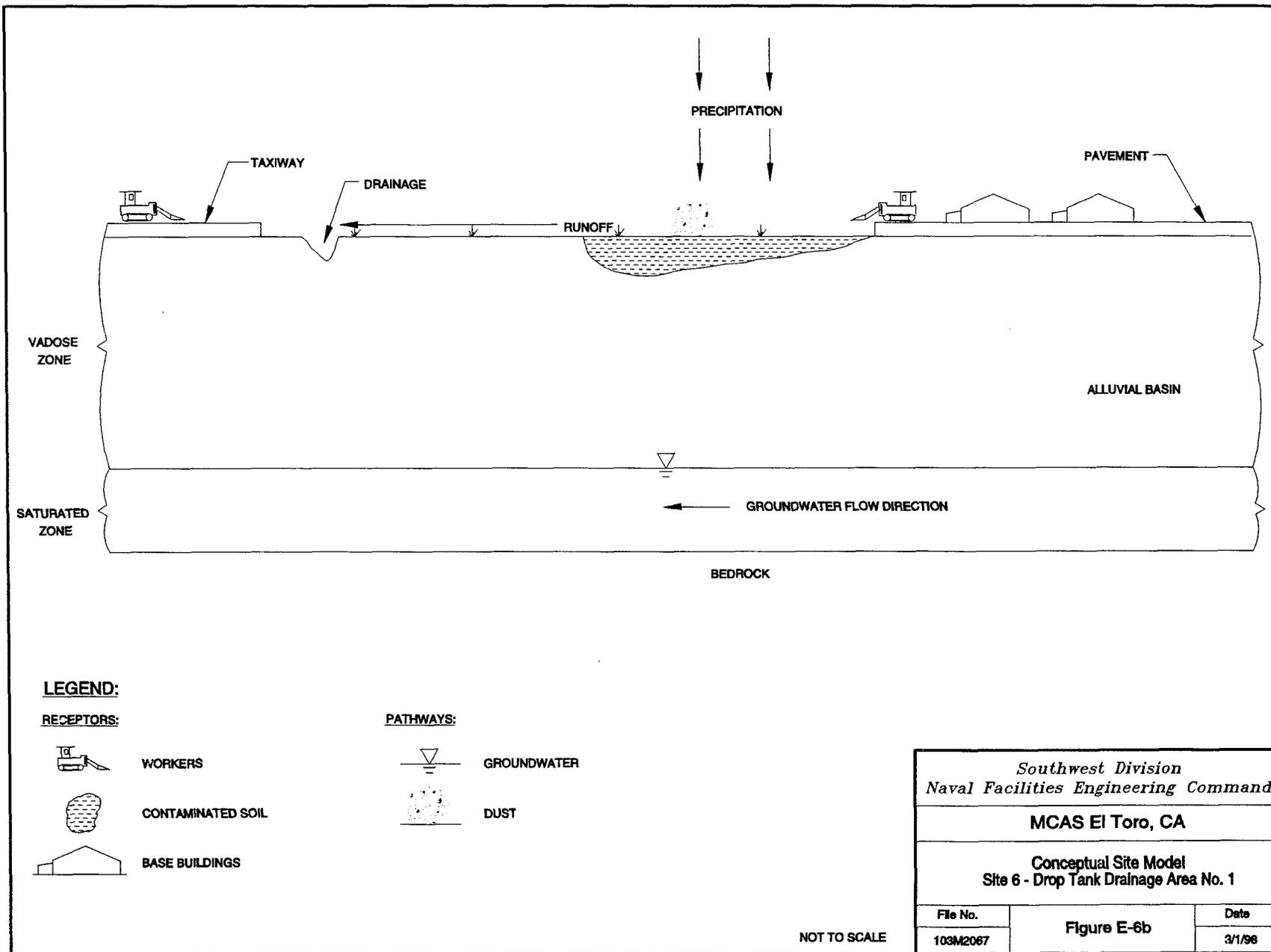
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<i>Southwest Division</i>		
<i>Naval Facilities Engineering Command</i>		
MCAS El Toro, CA		
Site Plan		
Site 6 - Drop Tank Drainage Area No. 1		
File No.	Figure E-6a	Date
10SL2008		3/1/08

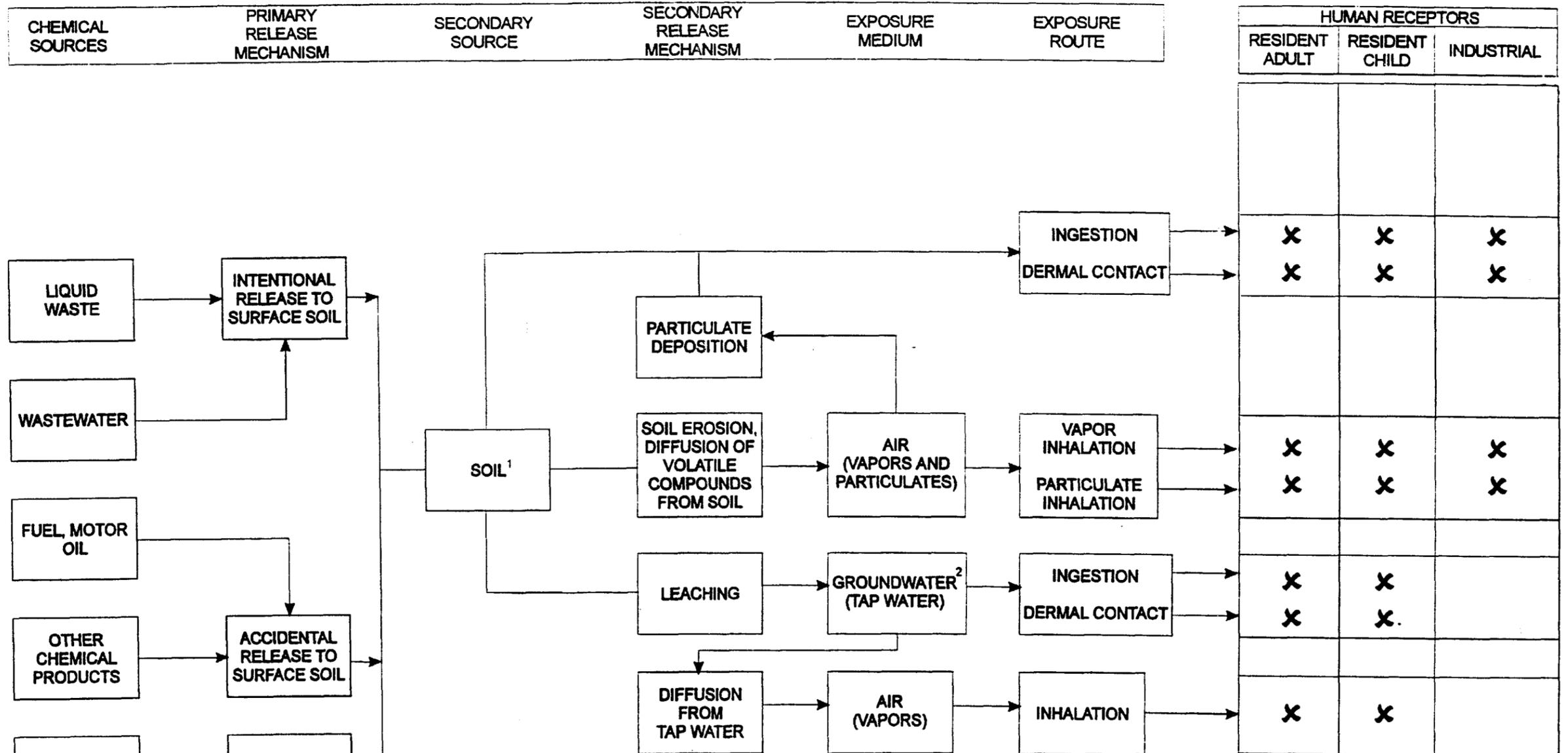
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<i>Southwest Division</i> <i>Naval Facilities Engineering Command</i>		
MCAS El Toro, CA		
Conceptual Site Model Site 6 - Drop Tank Drainage Area No. 1		
File No.	Figure E-6b	Date
103M2067		3/1/98

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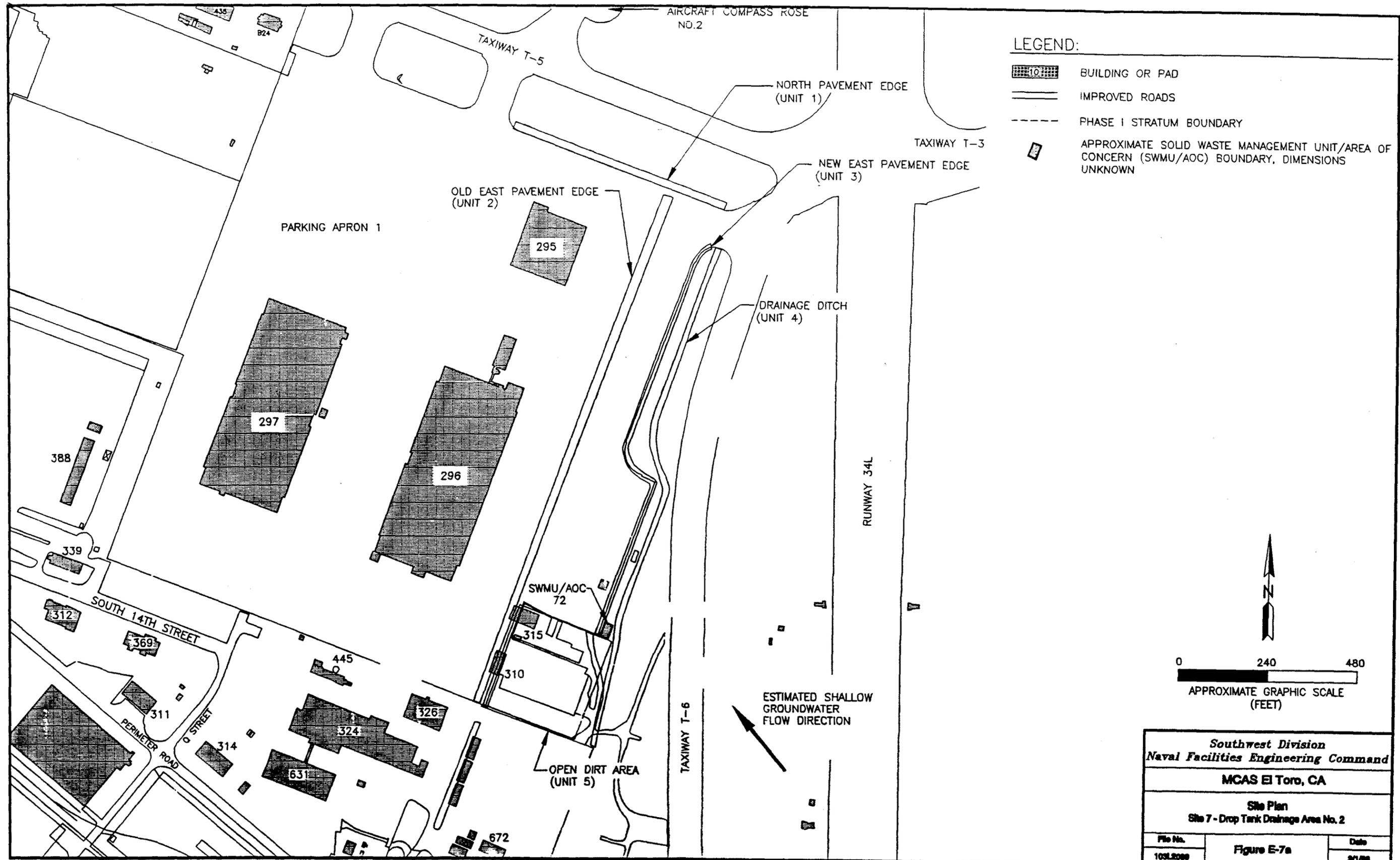
LEGEND

- 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.	Figure E-6c	Date
1032008		9/1/88

PAGE NO. E-42

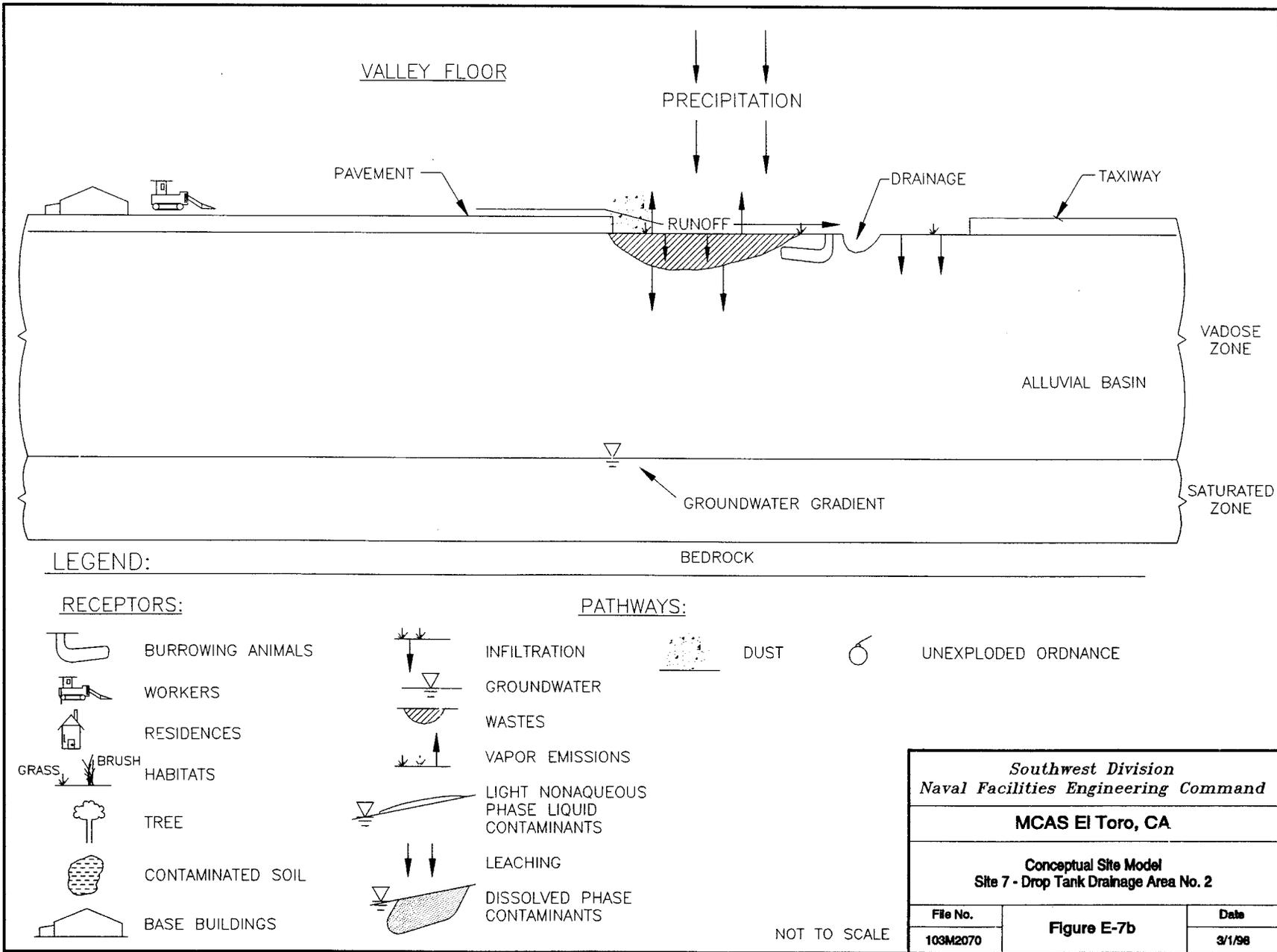
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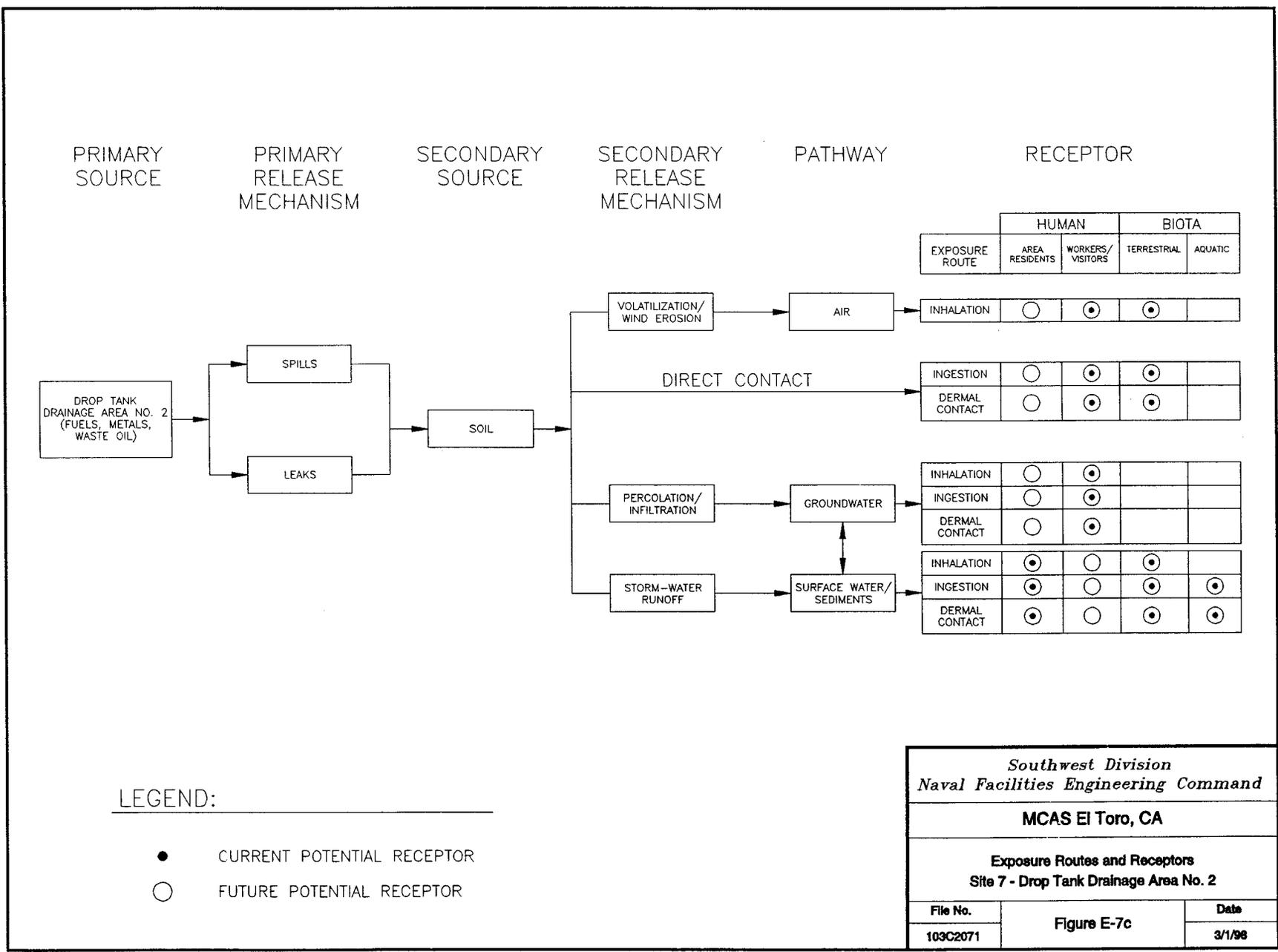
Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Site Plan Site 7 - Drop Tank Drainage Area No. 2		
File No.	Figure E-7a	Date
103L2000		8/1/88

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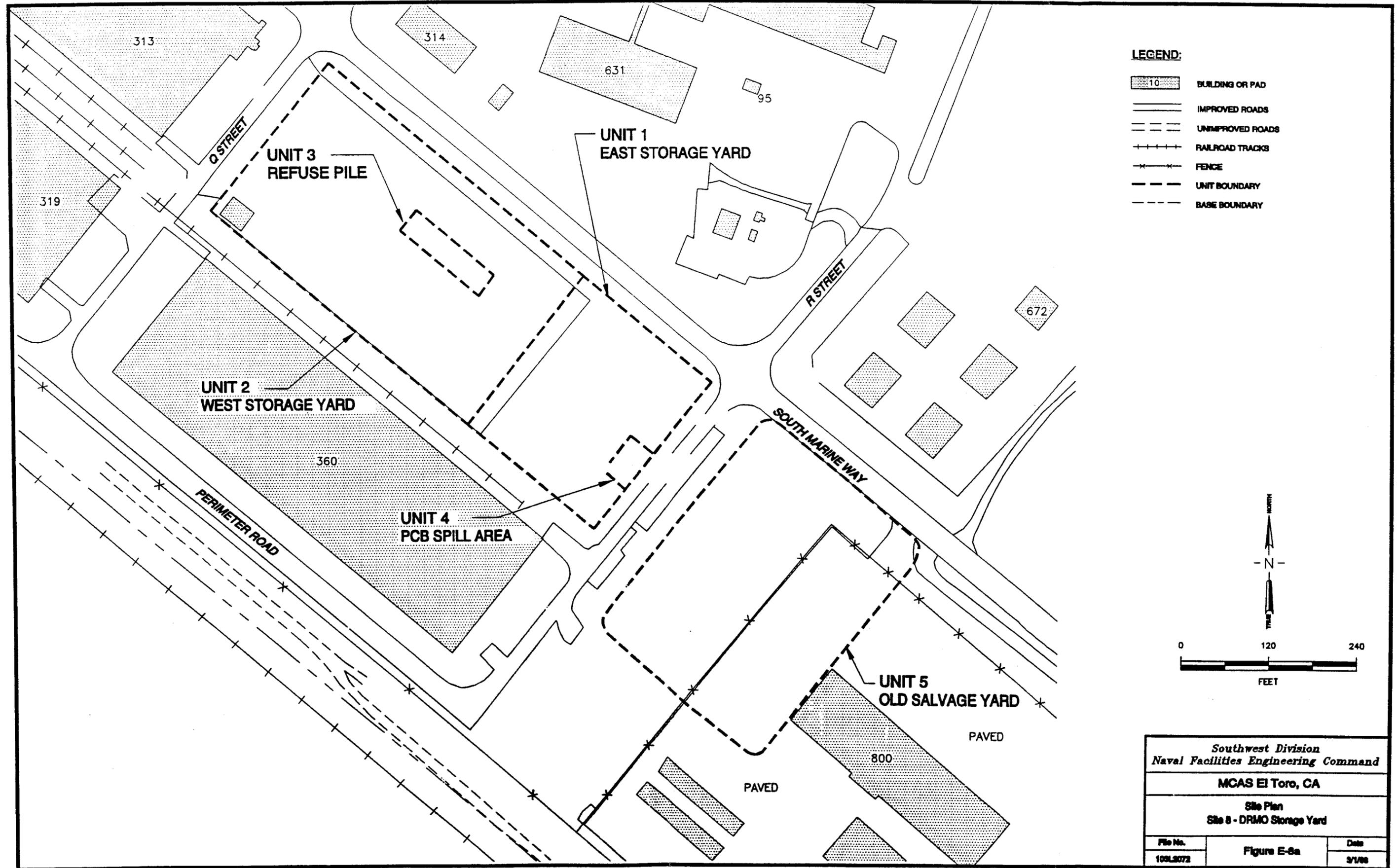
Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

Exposure Routes and Receptors
Site 7 - Drop Tank Drainage Area No. 2

File No.	Figure E-7c	Date
103C2071		3/1/98

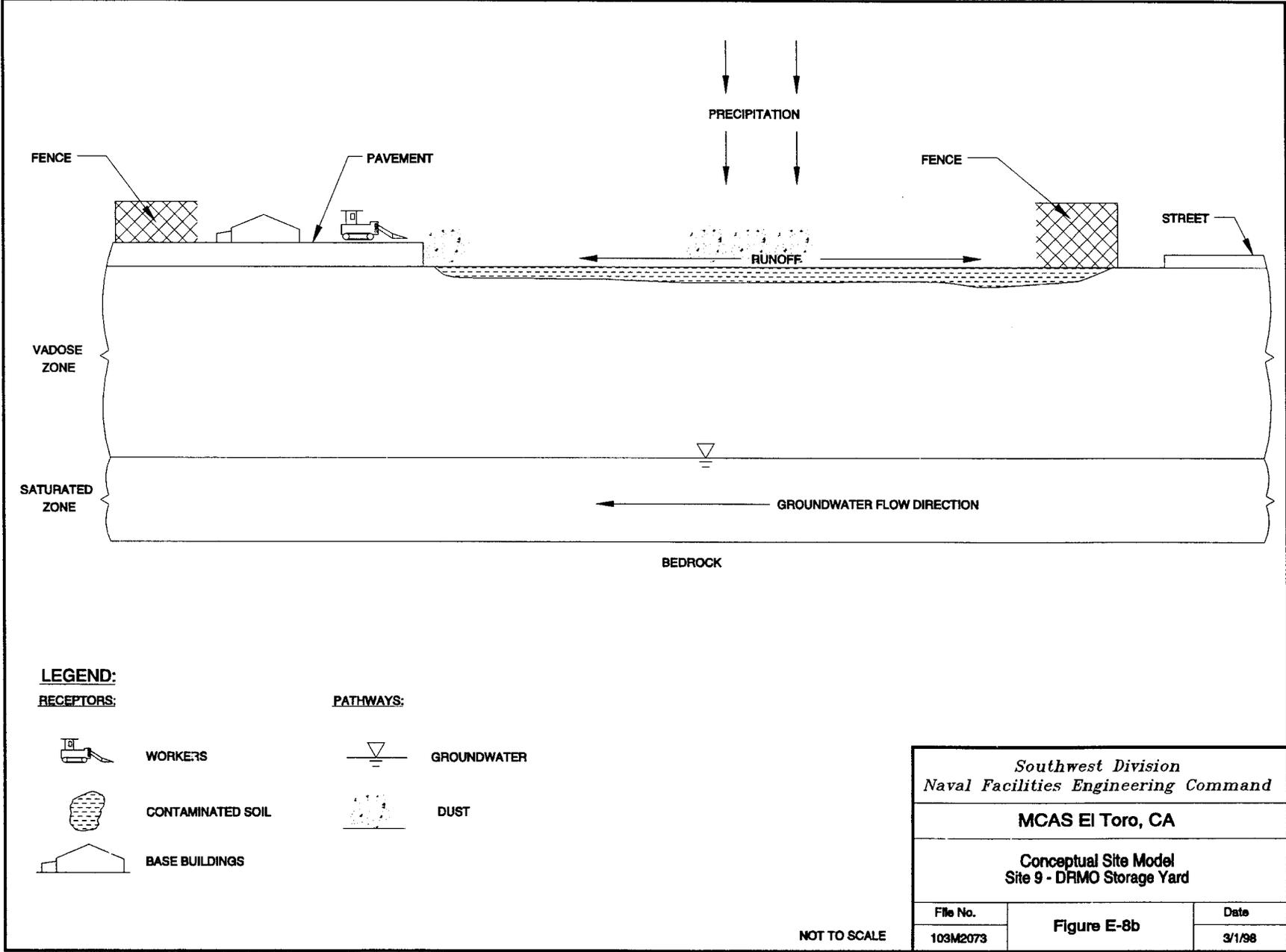
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<i>Southwest Division</i>		
<i>Naval Facilities Engineering Command</i>		
MCAS El Toro, CA		
Site Plan		
Site 8 - DRMO Storage Yard		
File No.	Figure E-8a	Date
100L2072		3/78

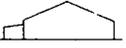
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RECEPTORS:

-  WORKERS
-  CONTAMINATED SOIL
-  BASE BUILDINGS

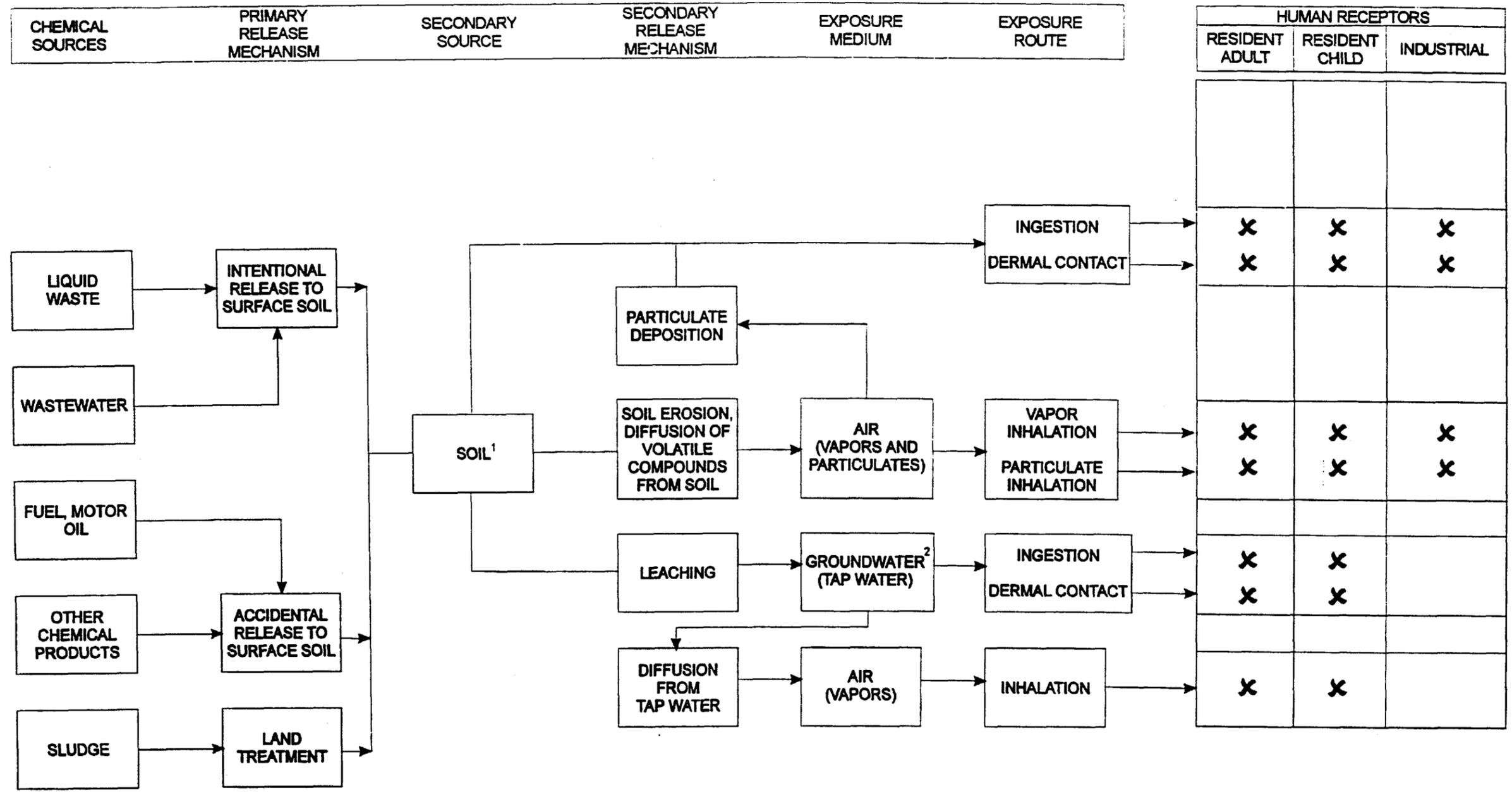
PATHWAYS:

-  GROUNDWATER
-  DUST

<i>Southwest Division</i> <i>Naval Facilities Engineering Command</i>		
MCAS El Toro, CA		
Conceptual Site Model Site 9 - DRMO Storage Yard		
File No.	Figure E-8b	Date
103M2073		3/1/98

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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

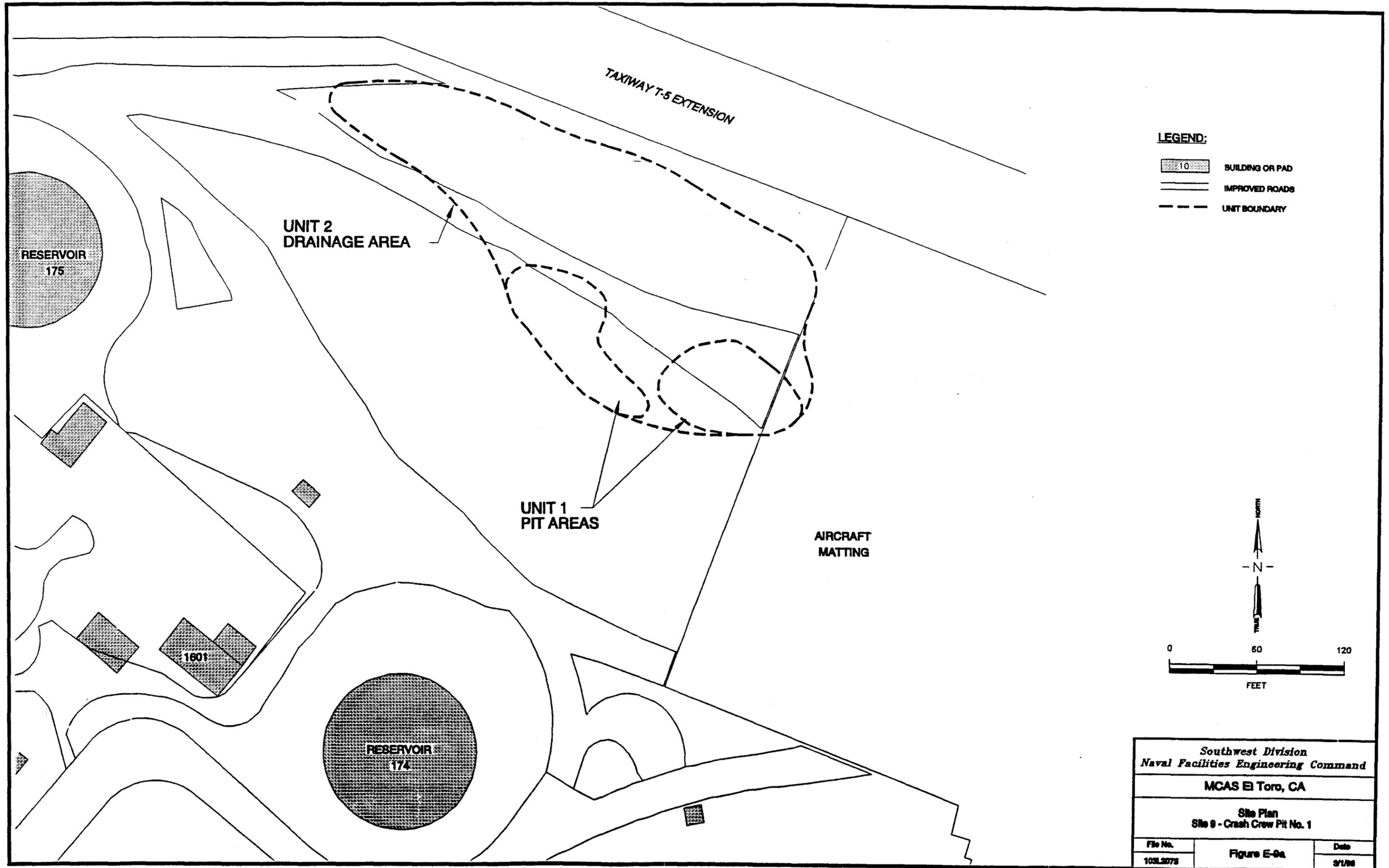
MCAS El Toro, CA

Exposure Routes and Receptors
Site 8 - DRMO Storage Yard

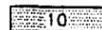
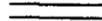
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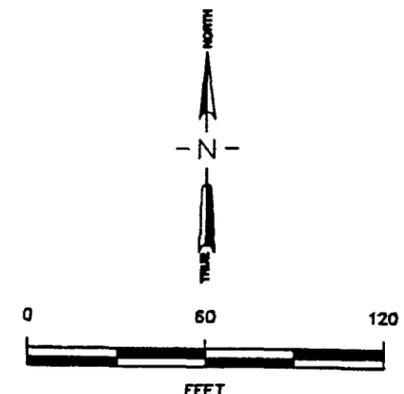
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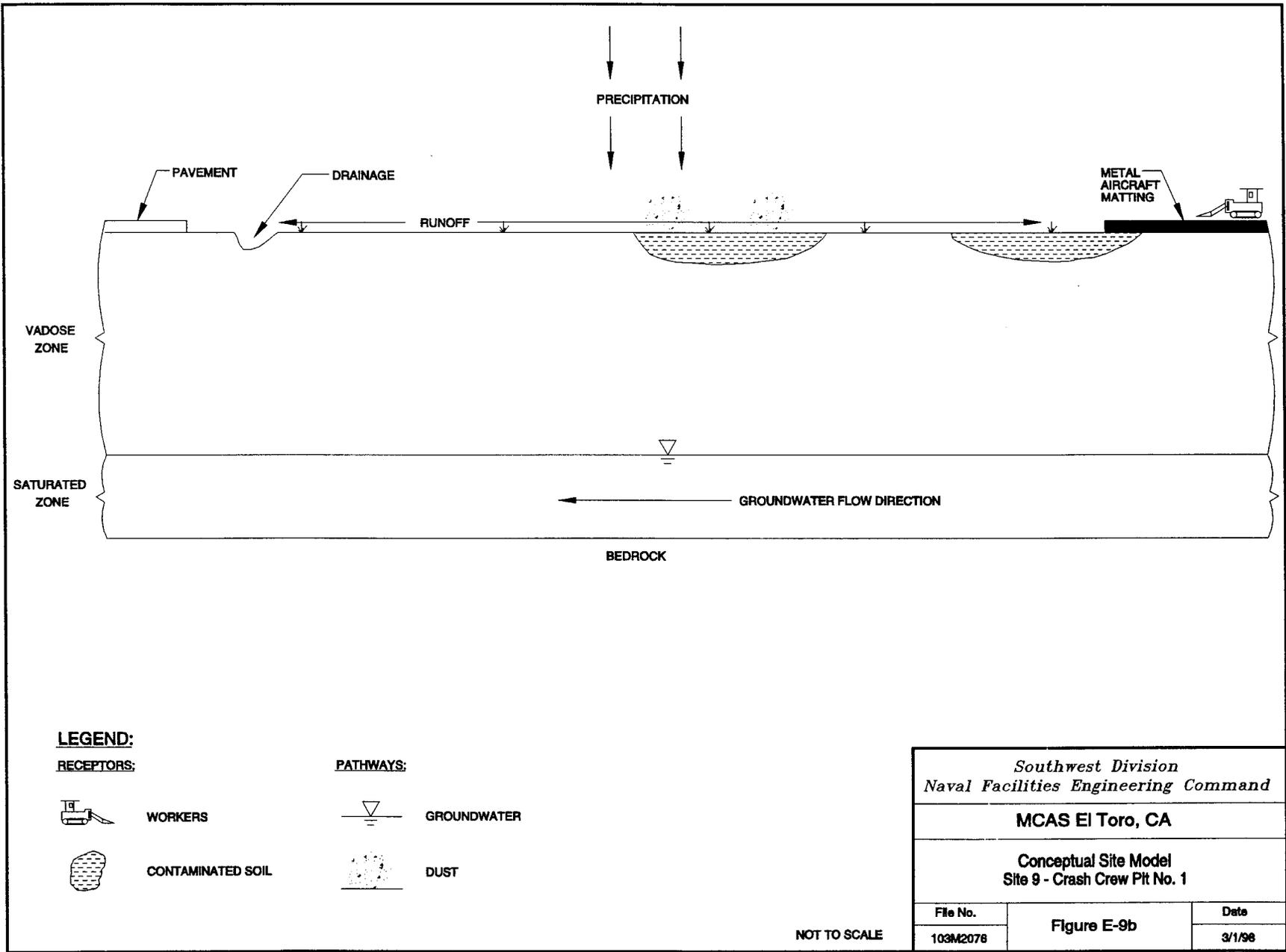
-  BUILDING OR PAD
-  IMPROVED ROADS
-  UNIT BOUNDARY



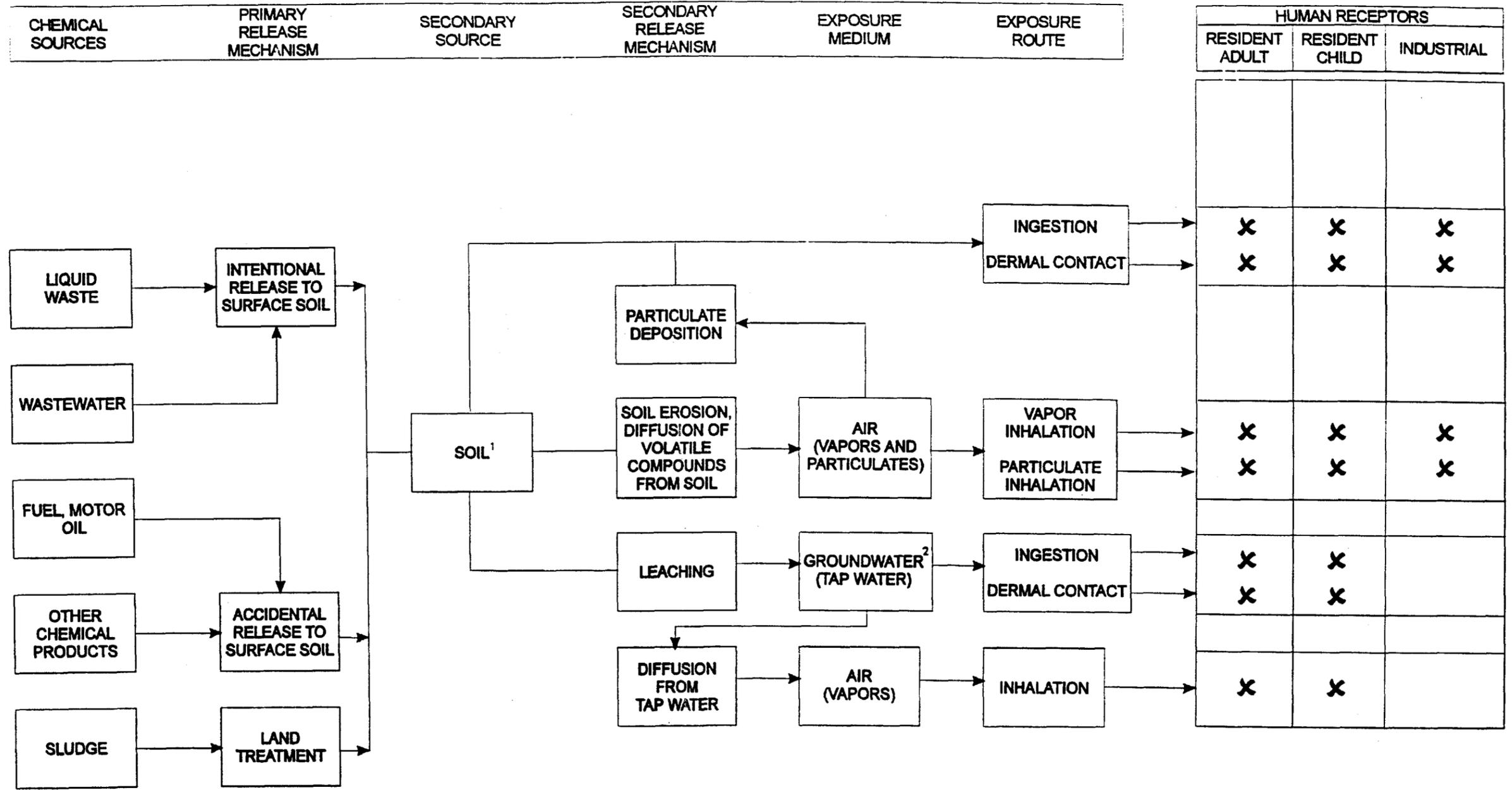
Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Site Plan Site 9 - Crash Crew Pit No. 1		
File No. 103L2075	Figure E-9a	Date 3/1/88

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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

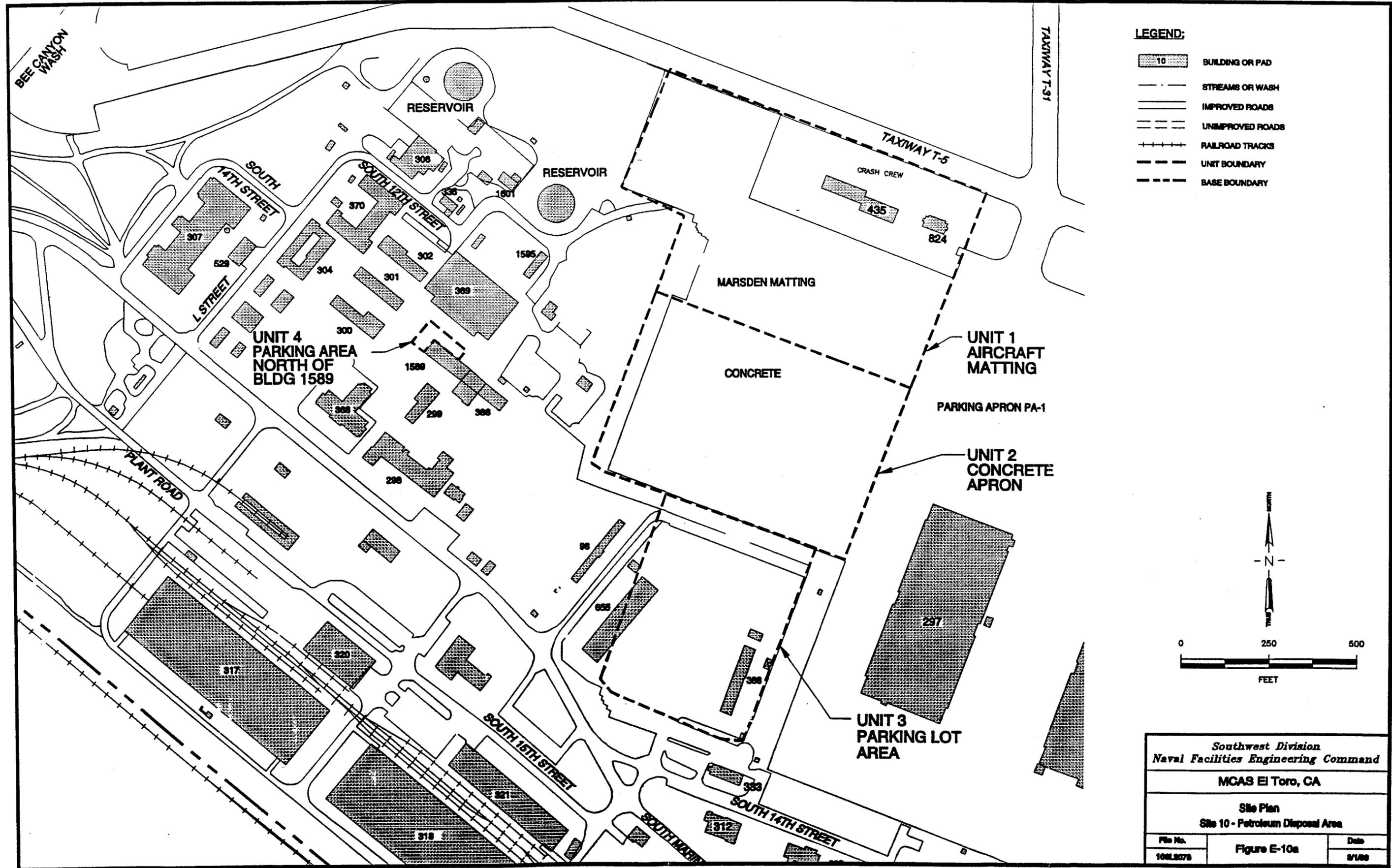
MCAS El Toro, CA

Exposure Routes and Receptors
Site 9 - Crash Crew Plt No. 1

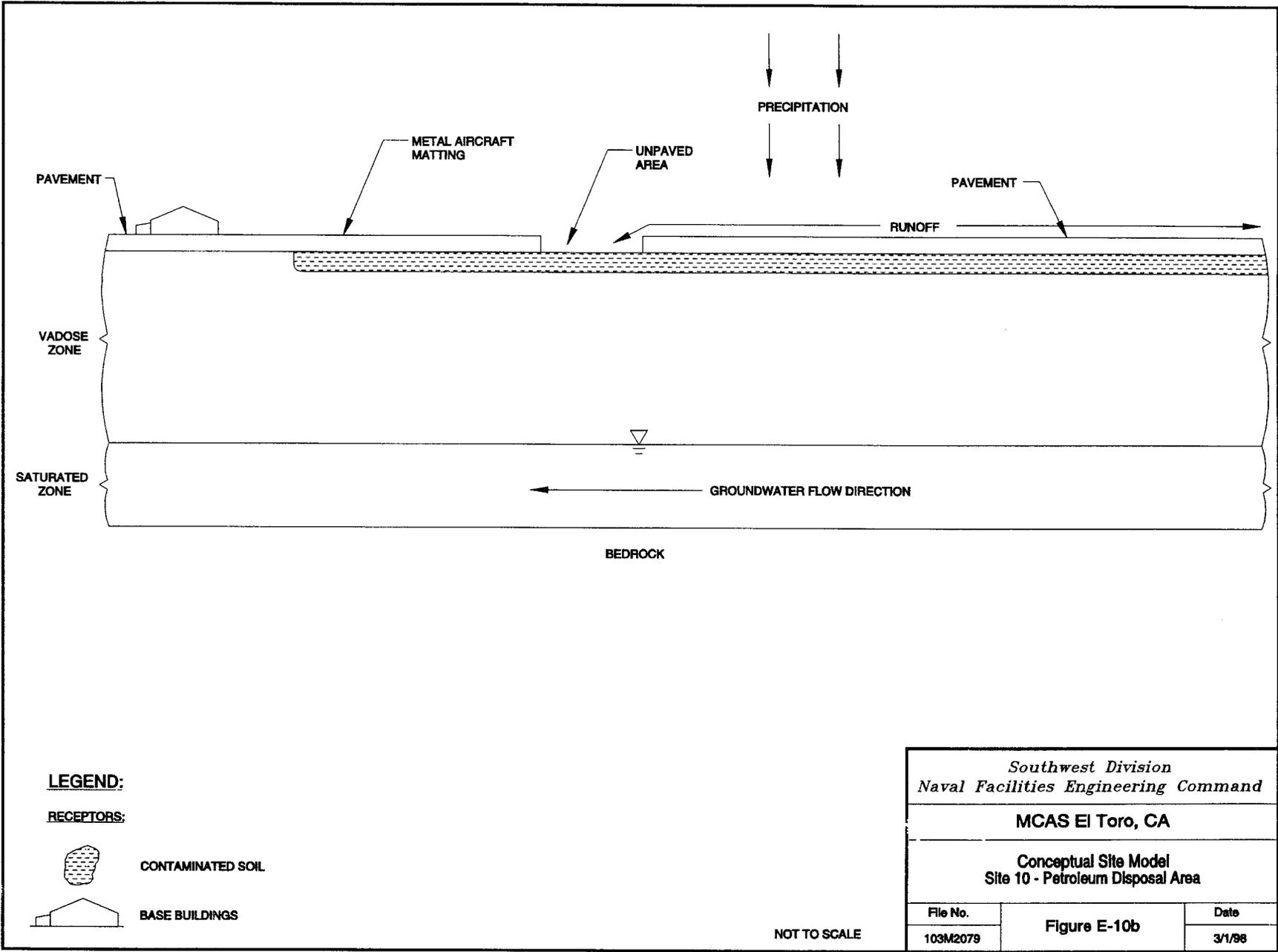
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10SC8077		9/1/88

PAGE NO. E-60

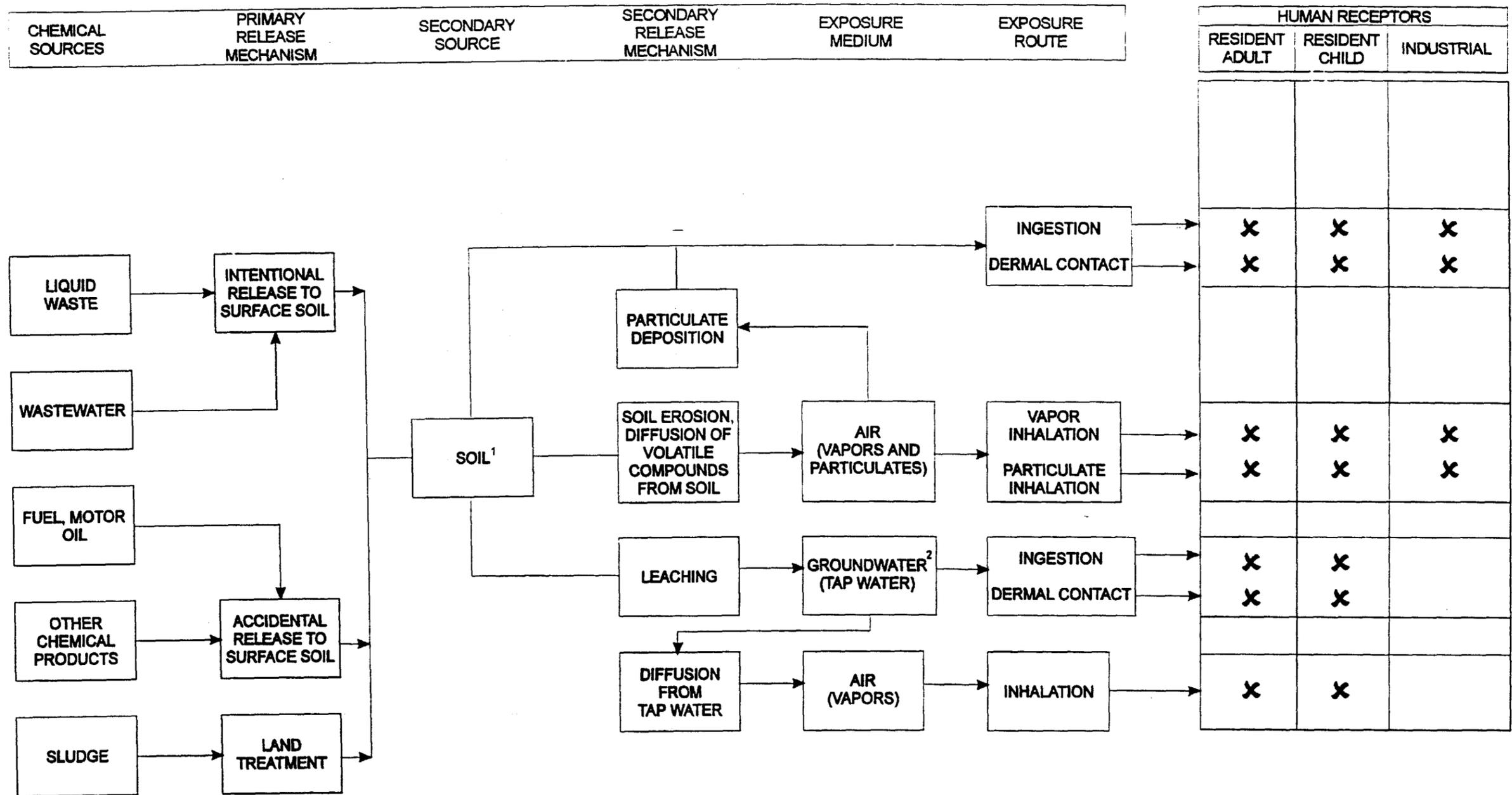
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MCAS El Toro, CA		
Site Plan Site 10 - Petroleum Disposal Area		
File No.	Figure E-10a	Date
108L8078		8/1/88



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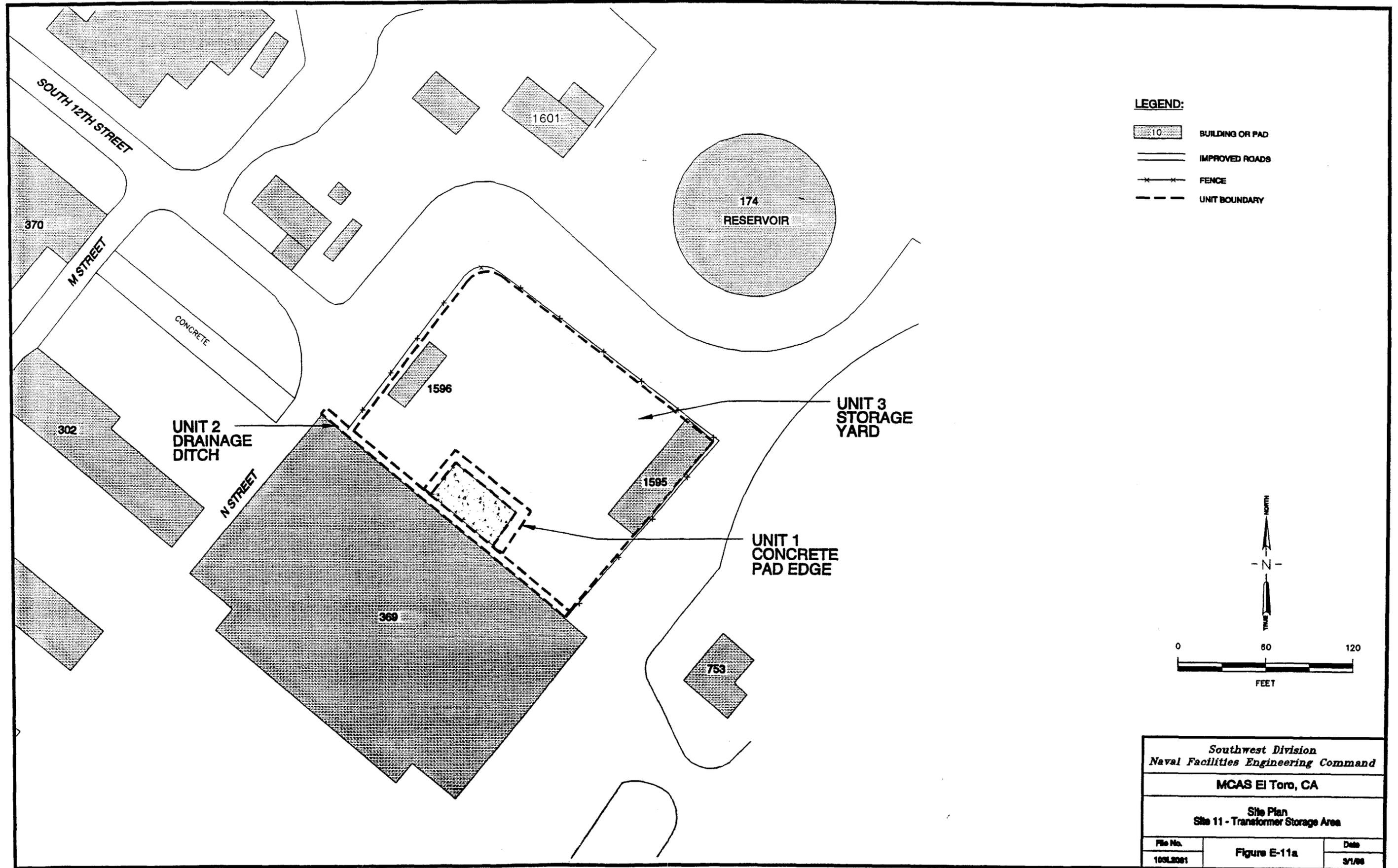
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- 2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

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
109C2080		3/1/88

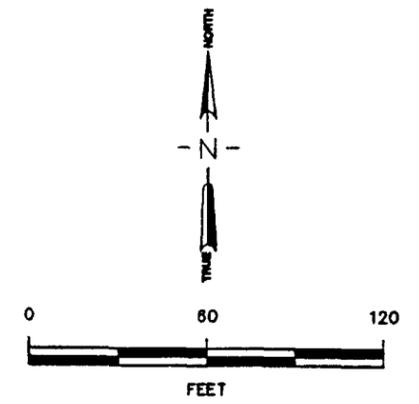
PAGE NO. E-66

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LEGEND:

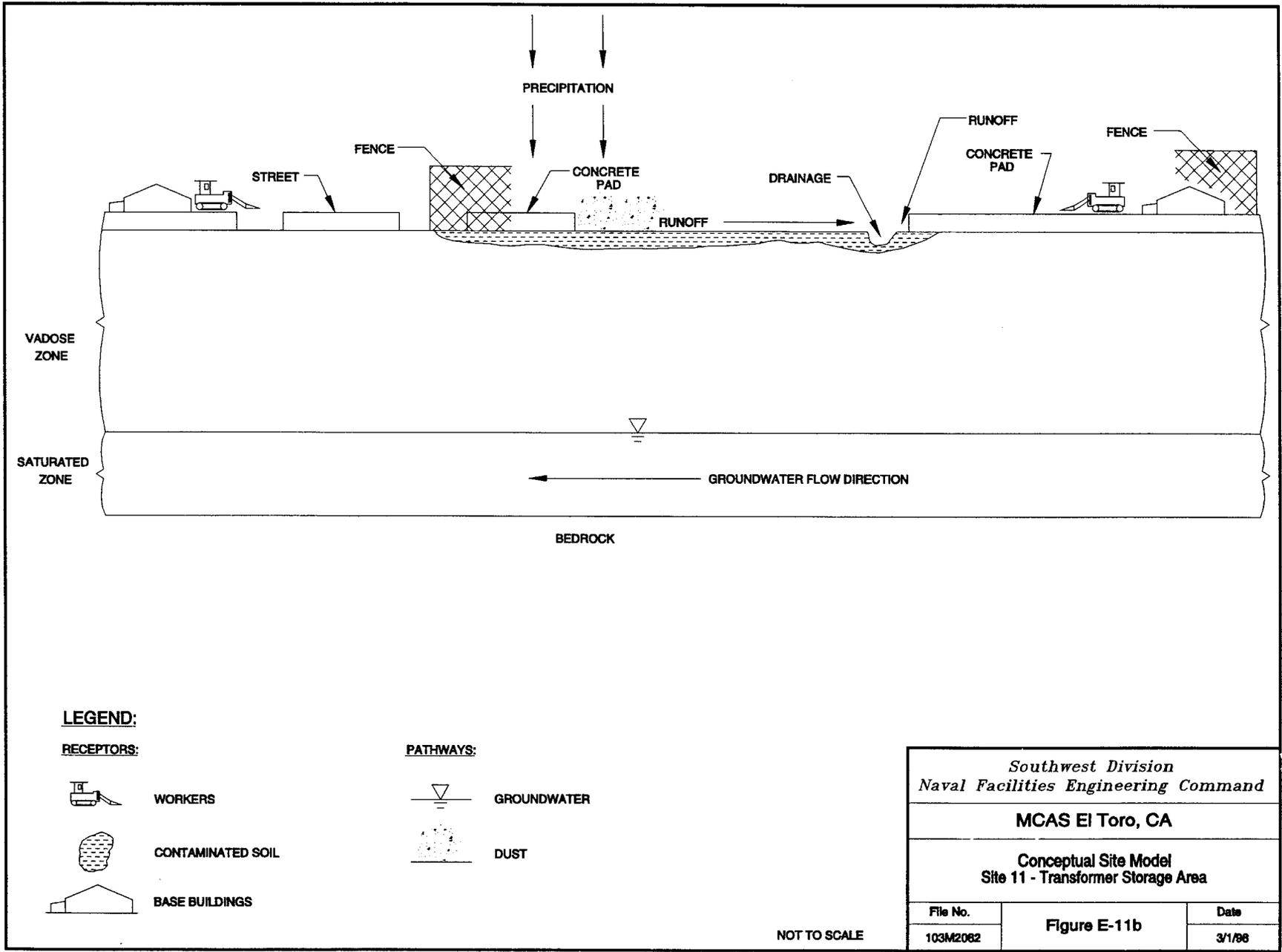
-  BUILDING OR PAD
-  IMPROVED ROADS
-  FENCE
-  UNIT BOUNDARY



<i>Southwest Division</i> <i>Naval Facilities Engineering Command</i>		
MCAS El Toro, CA		
Site Plan Site 11 - Transformer Storage Area		
File No.	Figure E-11a	Date
103L2001		3/1/88

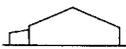
PAGE NO. E-68

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LEGEND:

RECEPTORS:

-  WORKERS
-  CONTAMINATED SOIL
-  BASE BUILDINGS

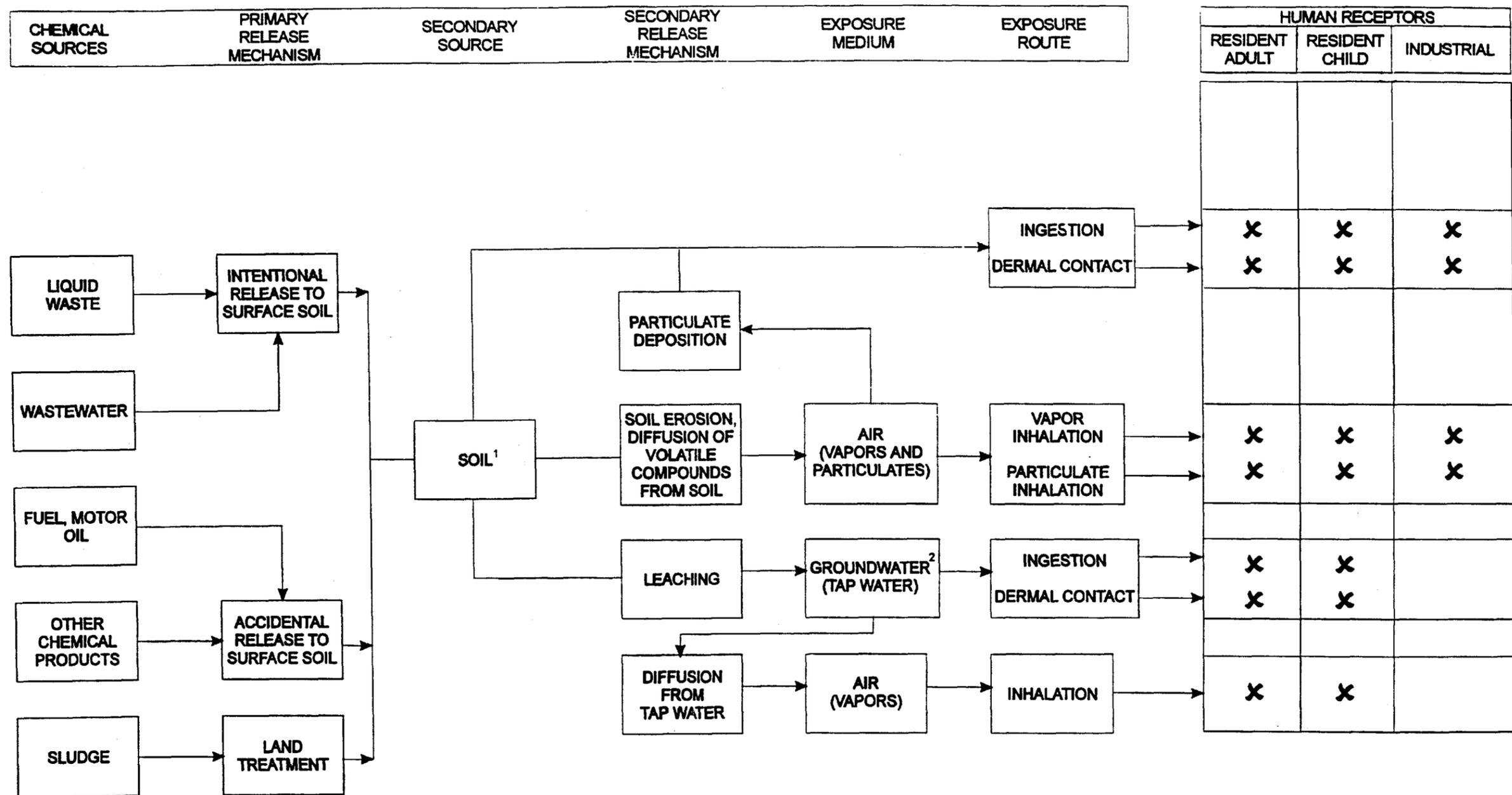
PATHWAYS:

-  GROUNDWATER
-  DUST

<i>Southwest Division Naval Facilities Engineering Command</i>		
MCAS El Toro, CA		
Conceptual Site Model Site 11 - Transformer Storage Area		
File No.	Figure E-11b	Date
103M2062		3/1/88

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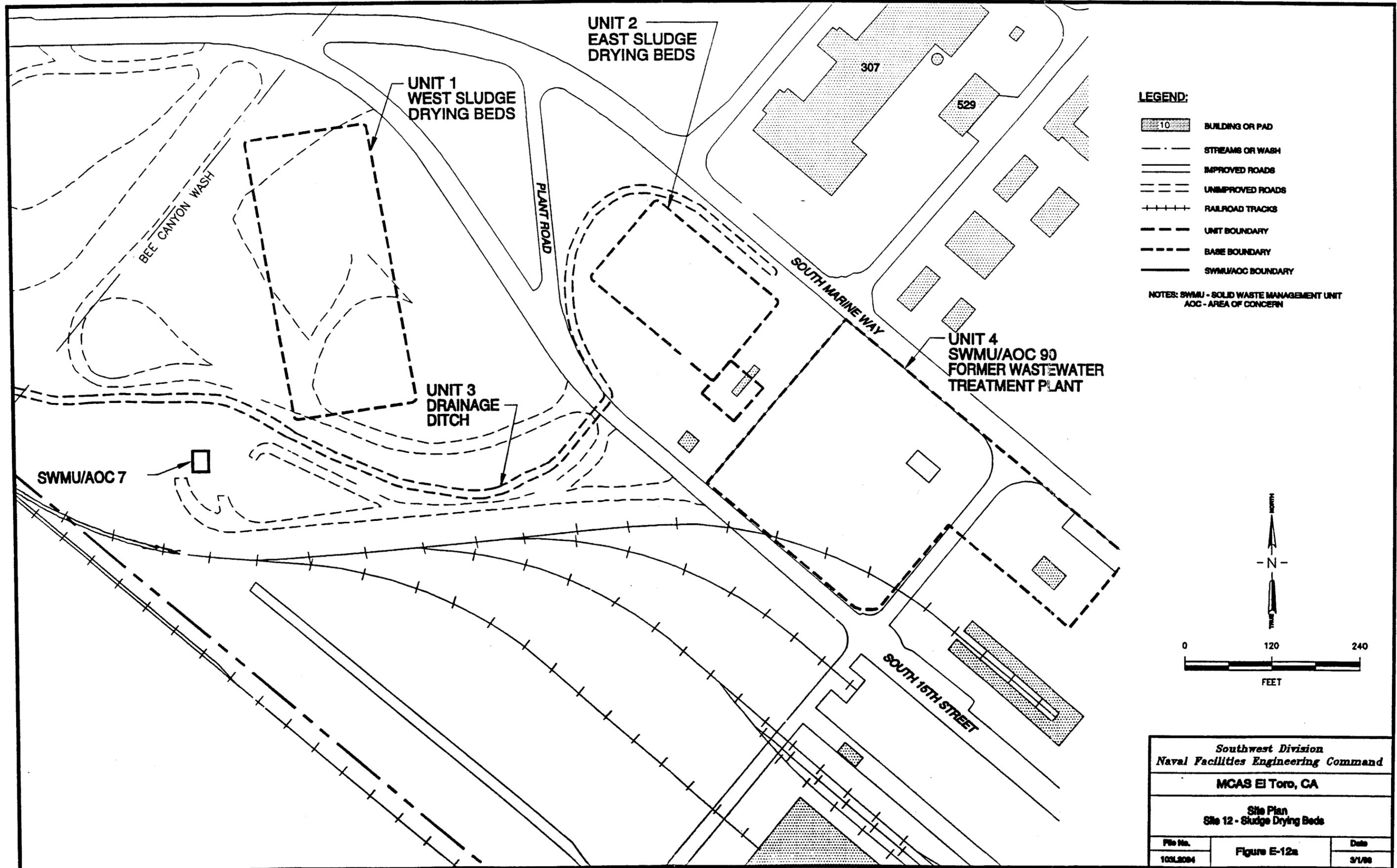
LEGEND

- 1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)
- 2 EVALUATED FOR SITE 18 ONLY (BY THE ENTIRE SITE)

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Exposure Routes and Receptors Site 11 - Transfer Storage Area		
File No.	Figure E-11c	Date
103C2083		2/1/88

PAGE NO. E-72

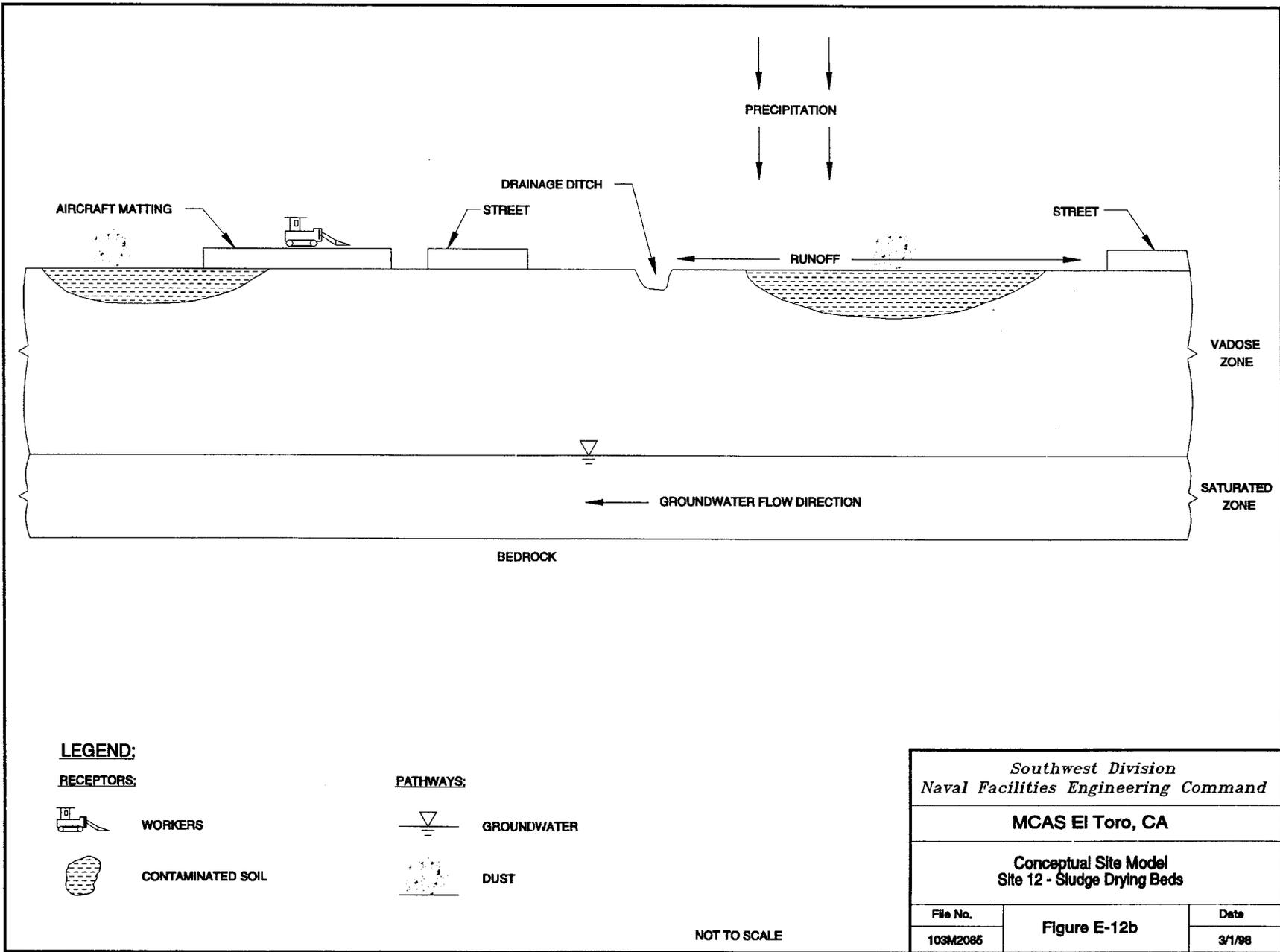
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Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Site Plan Site 12 - Sludge Drying Beds		
File No.	Figure E-12a	Date
103L2004		3/1/88

PAGE NO. E-74

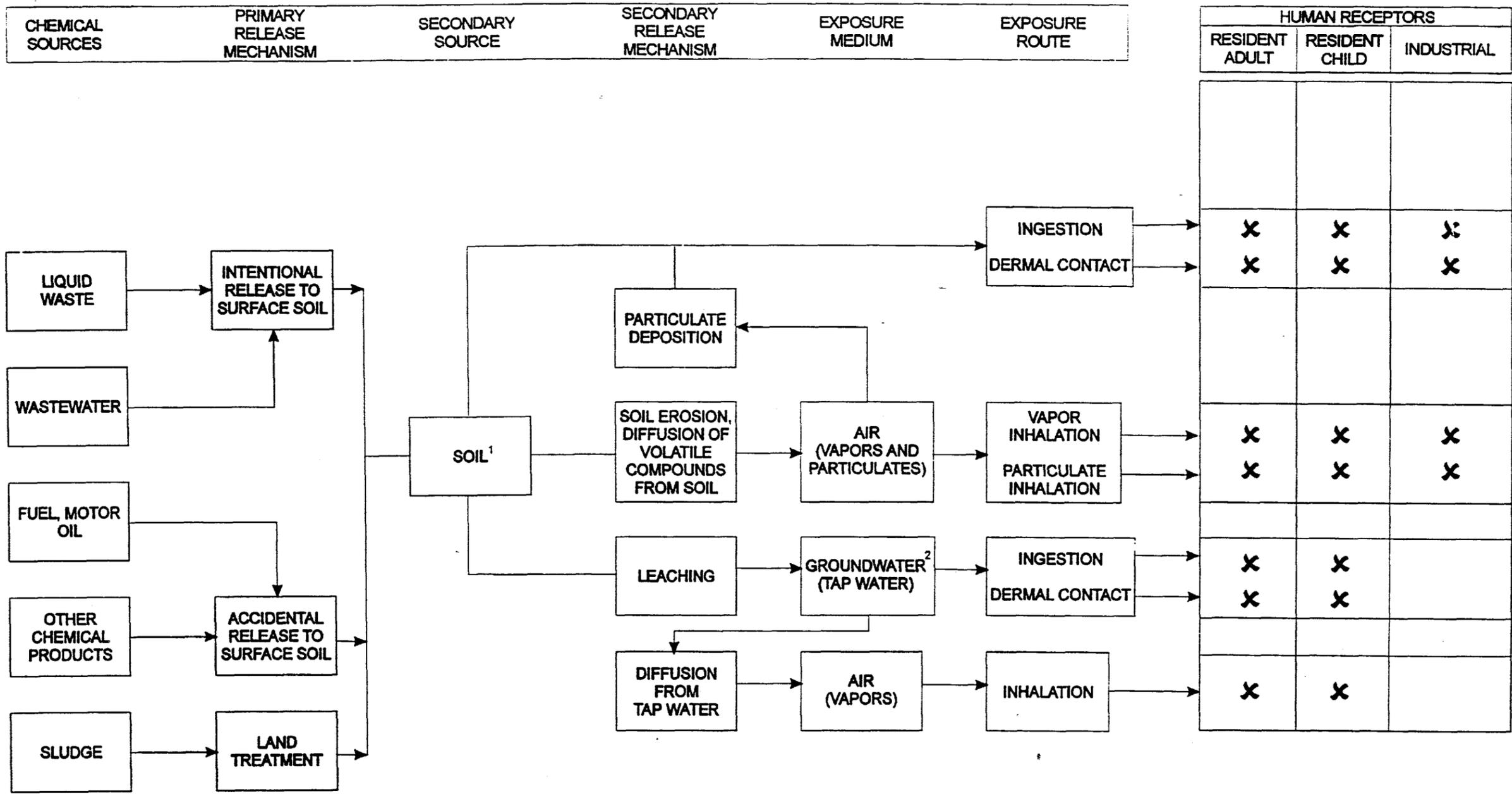
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NOT TO SCALE

<i>Southwest Division</i> <i>Naval Facilities Engineering Command</i>		
MCAS EI Toro, CA		
Conceptual Site Model Site 12 - Sludge Drying Beds		
File No.	Figure E-12b	Date
103M2085		3/1/98

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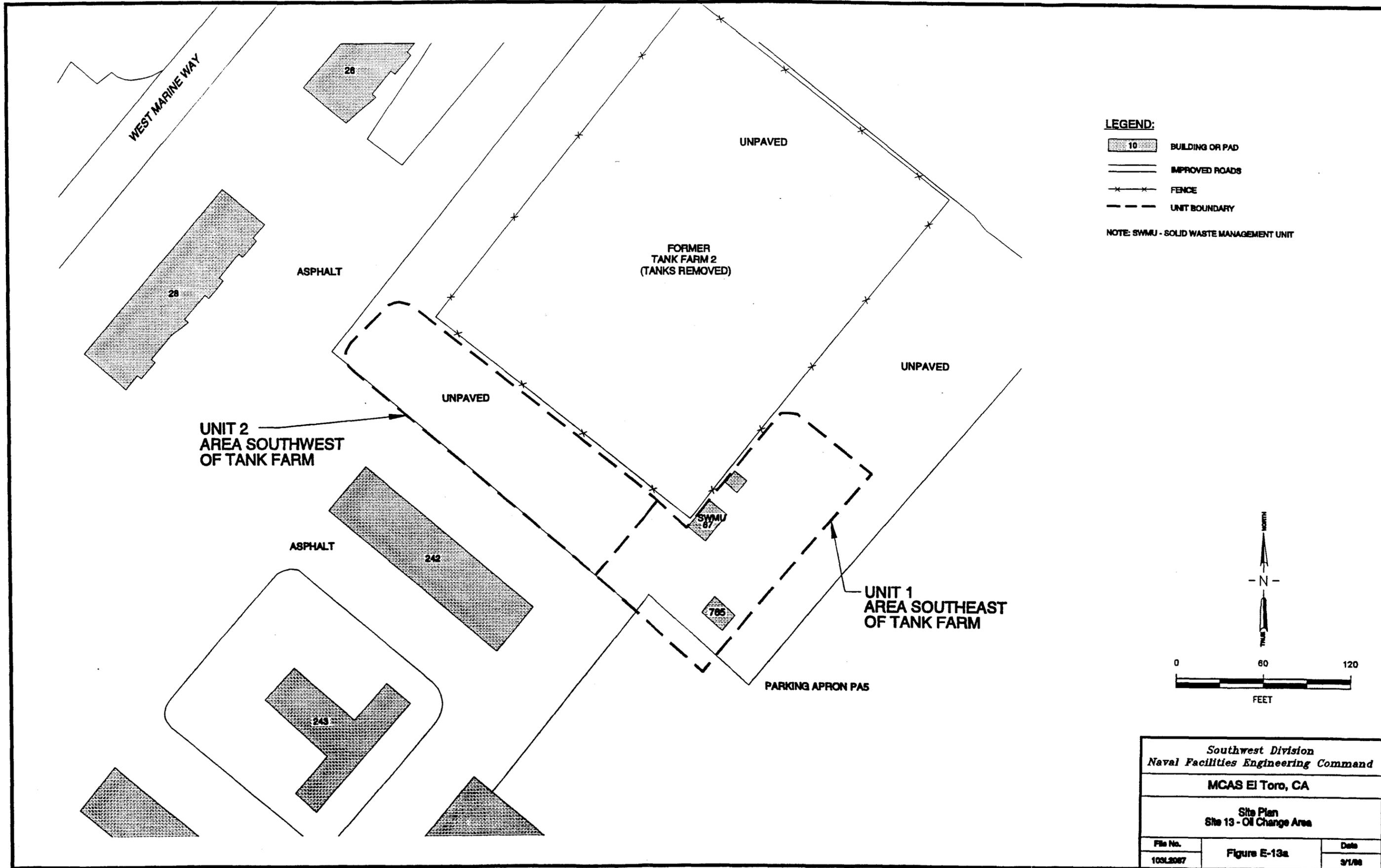
LEGEND

- 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.	Figure E-12c	Date
100C2088		3/1/88

PAGE NO. E-78

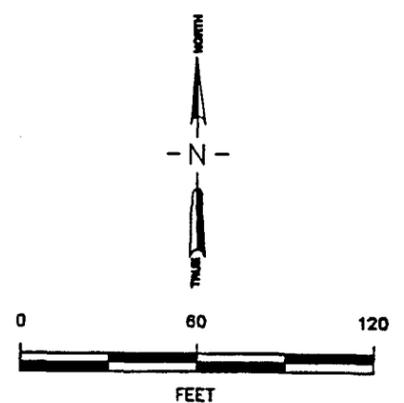
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LEGEND:

-  BUILDING OR PAD
-  IMPROVED ROADS
-  FENCE
-  UNIT BOUNDARY

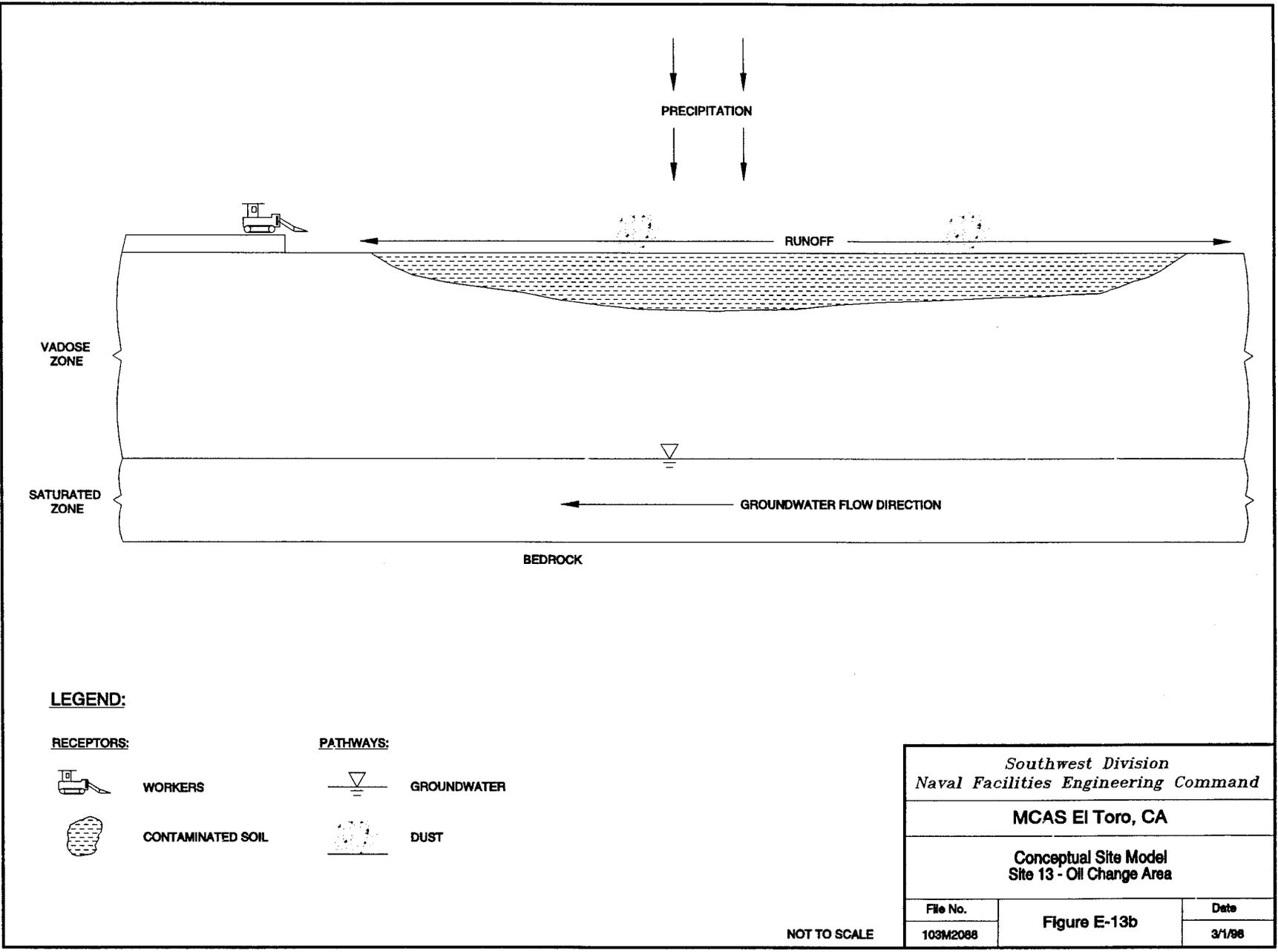
NOTE: SWMU - SOLID WASTE MANAGEMENT UNIT



<i>Southwest Division</i> <i>Naval Facilities Engineering Command</i>		
MCAS El Toro, CA		
Site Plan Site 13 - Oil Change Area		
File No.	Figure E-13a	Date
103L2087		3/1/88

PAGE NO. E-80

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LEGEND:

RECEPTORS:

-  WORKERS
-  CONTAMINATED SOIL

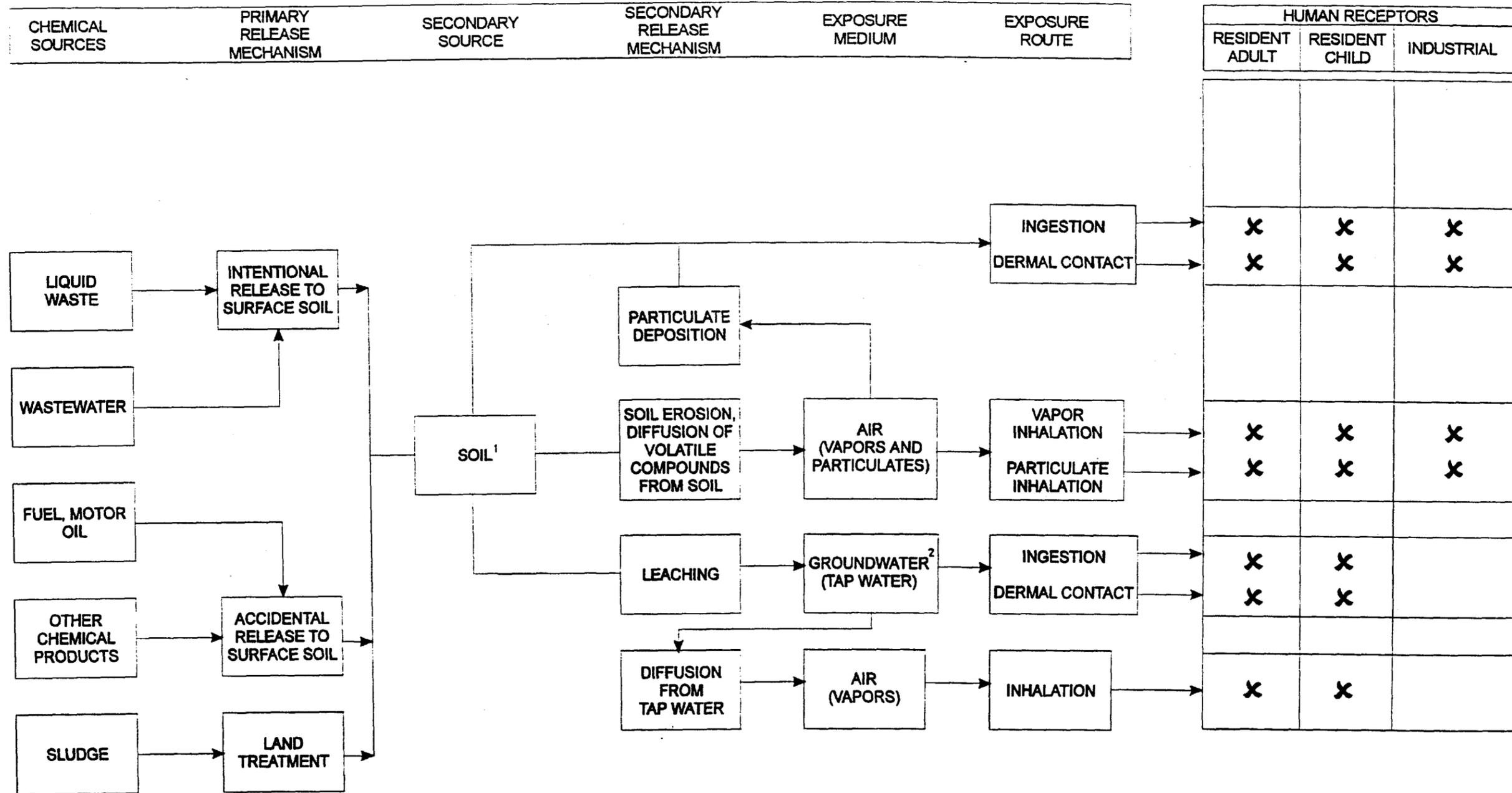
PATHWAYS:

-  GROUNDWATER
-  DUST

<i>Southwest Division</i> <i>Naval Facilities Engineering Command</i>		
MCAS El Toro, CA		
Conceptual Site Model Site 13 - Oil Change Area		
File No.	Figure E-13b	Date
103M2088		3/1/98

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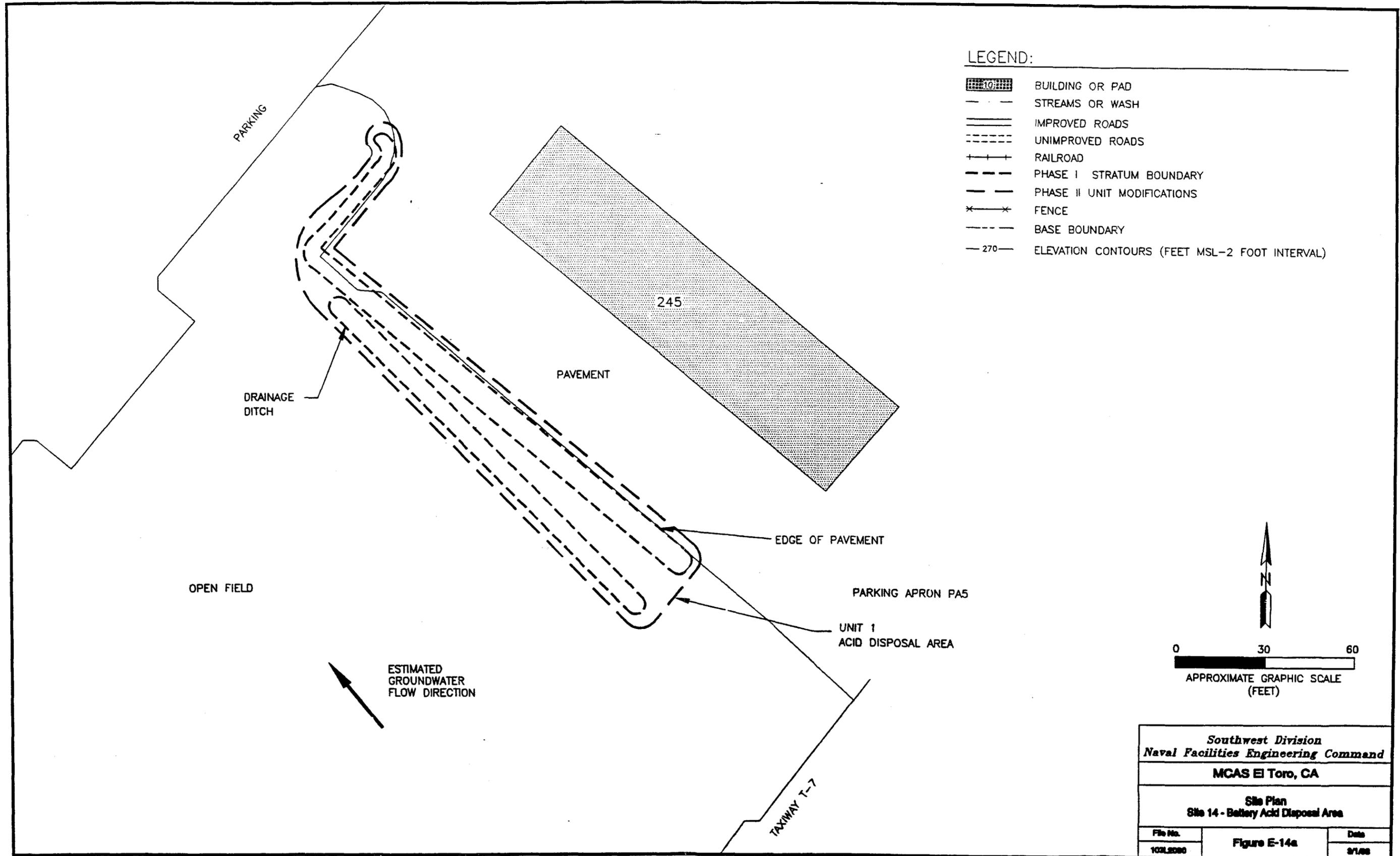
LEGEND

- 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.	Figure E-13c	Date
109C2089		3/1/88

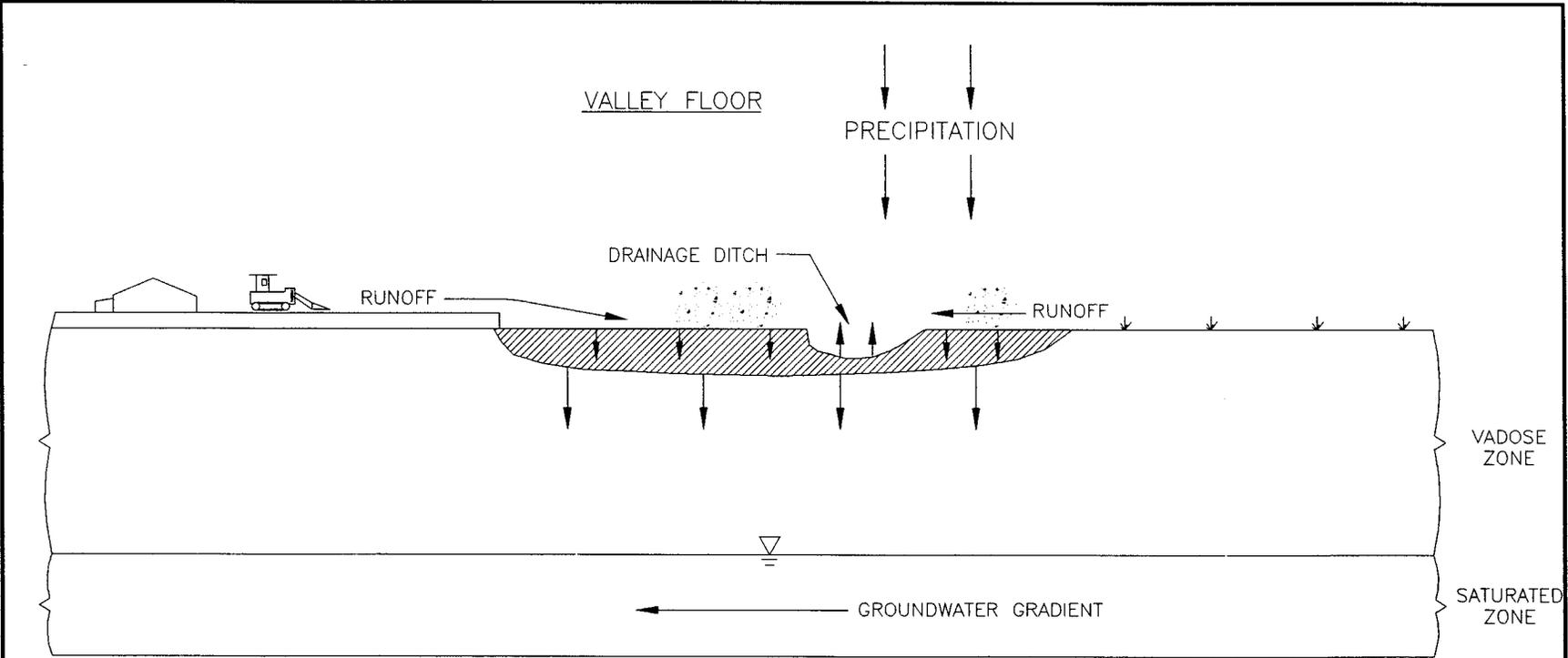
PAGE NO. E-84

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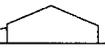
PAGE NO. E-86

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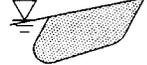


LEGEND:

RECEPTORS:

-  BURROWING ANIMALS
-  WORKERS
-  RESIDENCES
-  GRASS BRUSH HABITATS
-  TREE
-  CONTAMINATED SOIL
-  BASE BUILDINGS

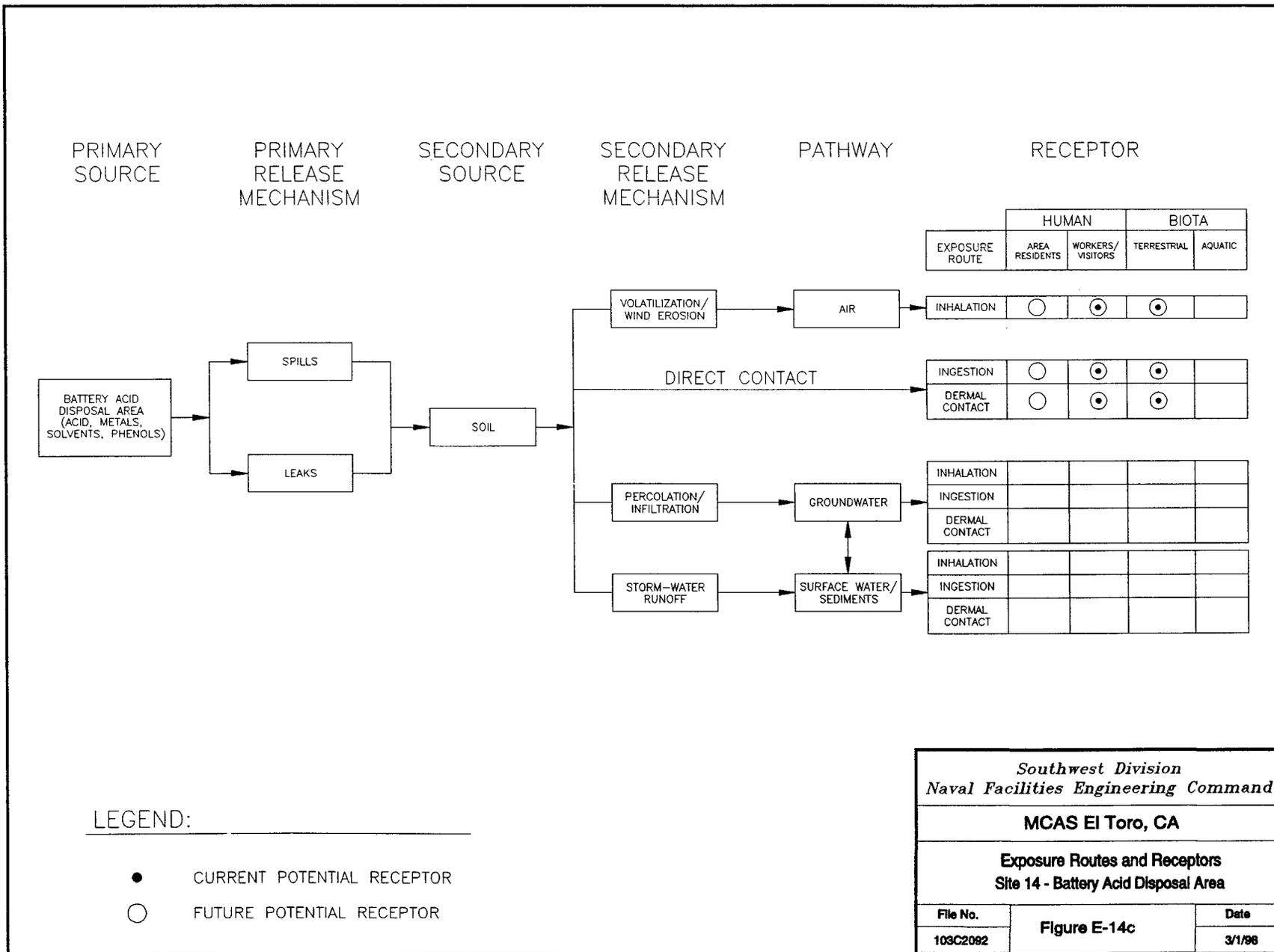
PATHWAYS:

-  INFILTRATION
-  GROUNDWATER
-  WASTES
-  VAPOR EMISSIONS
-  LIGHT NONAQUEOUS PHASE LIQUID CONTAMINANTS
-  LEACHING
-  DISSOLVED PHASE CONTAMINANTS
-  DUST
-  UNEXPLODED ORDNANCE

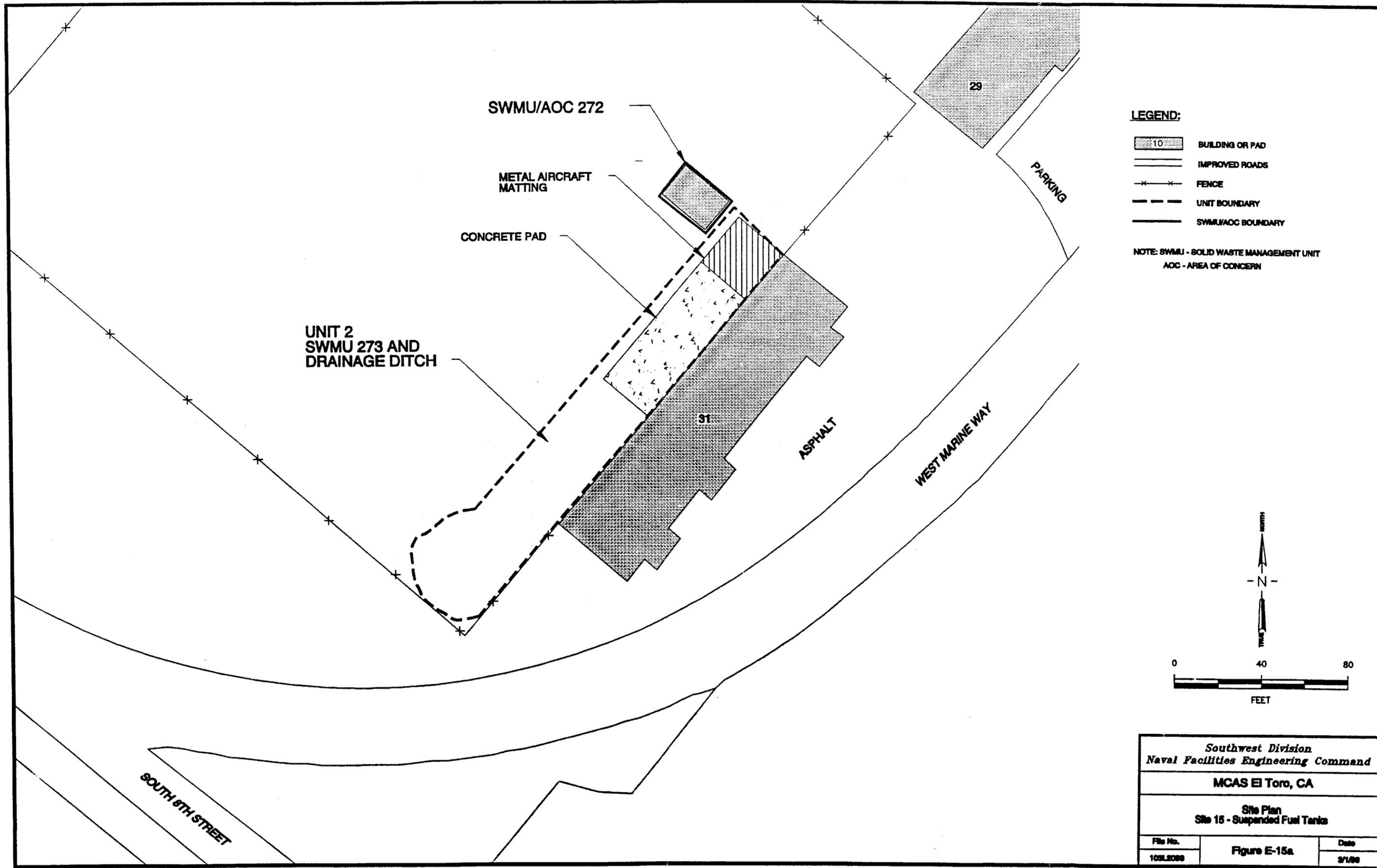
NOT TO SCALE

<i>Southwest Division</i> <i>Naval Facilities Engineering Command</i>		
MCAS EI Toro, CA		
Conceptual Site Model Site 14 - Battery Acid Disposal Area		
File No.	Figure E-14b	Date
103M2091		3/1/88

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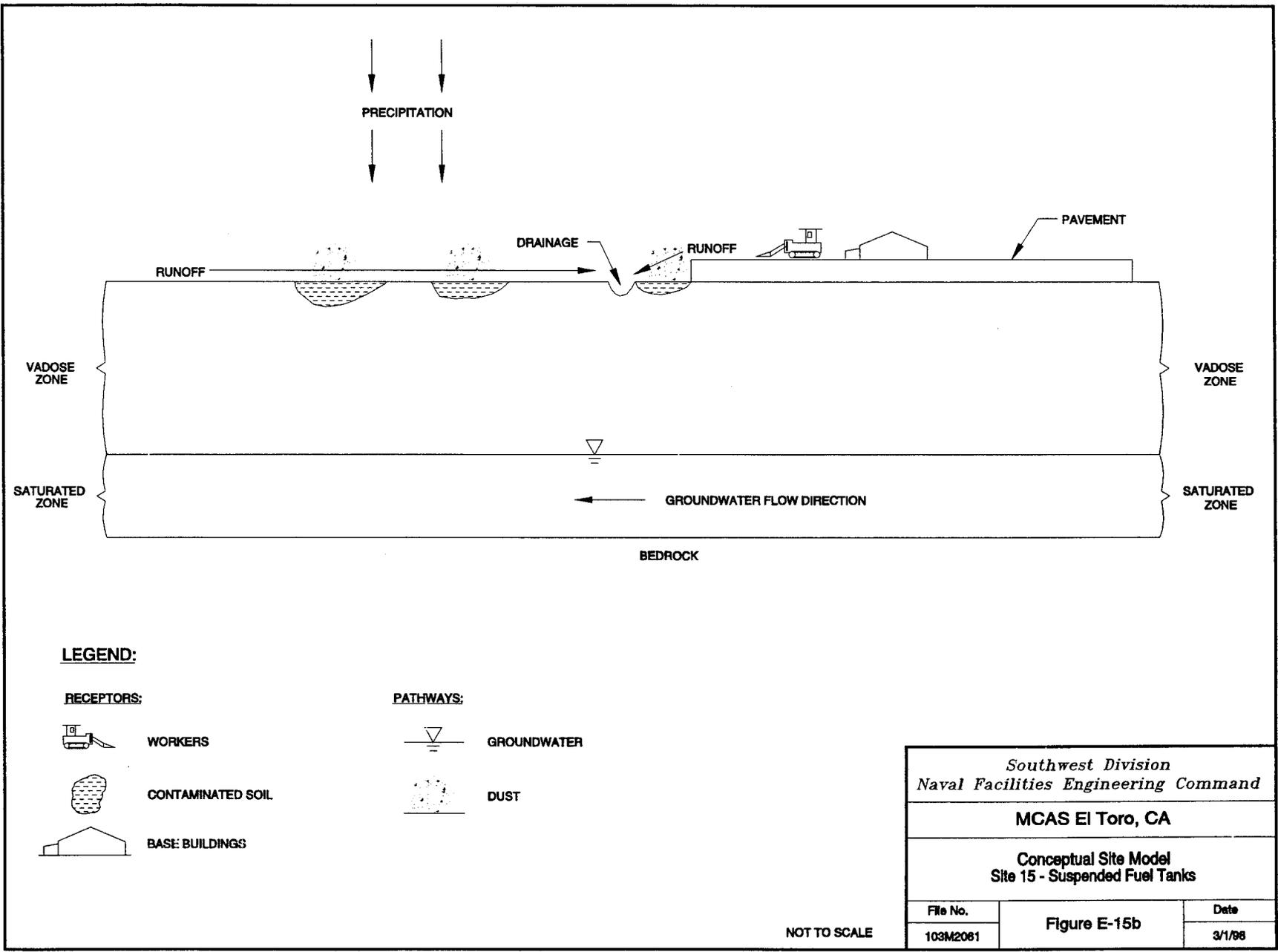
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<i>Southwest Division</i> <i>Naval Facilities Engineering Command</i>		
MCAS El Toro, CA		
Site Plan Site 15 - Suspended Fuel Tanks		
File No.	Figure E-15a	Date
10SL2088		3/1/98

PAGE NO. E-92

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LEGEND:

RECEPTORS:

-  WORKERS
-  CONTAMINATED SOIL
-  BASE BUILDINGS

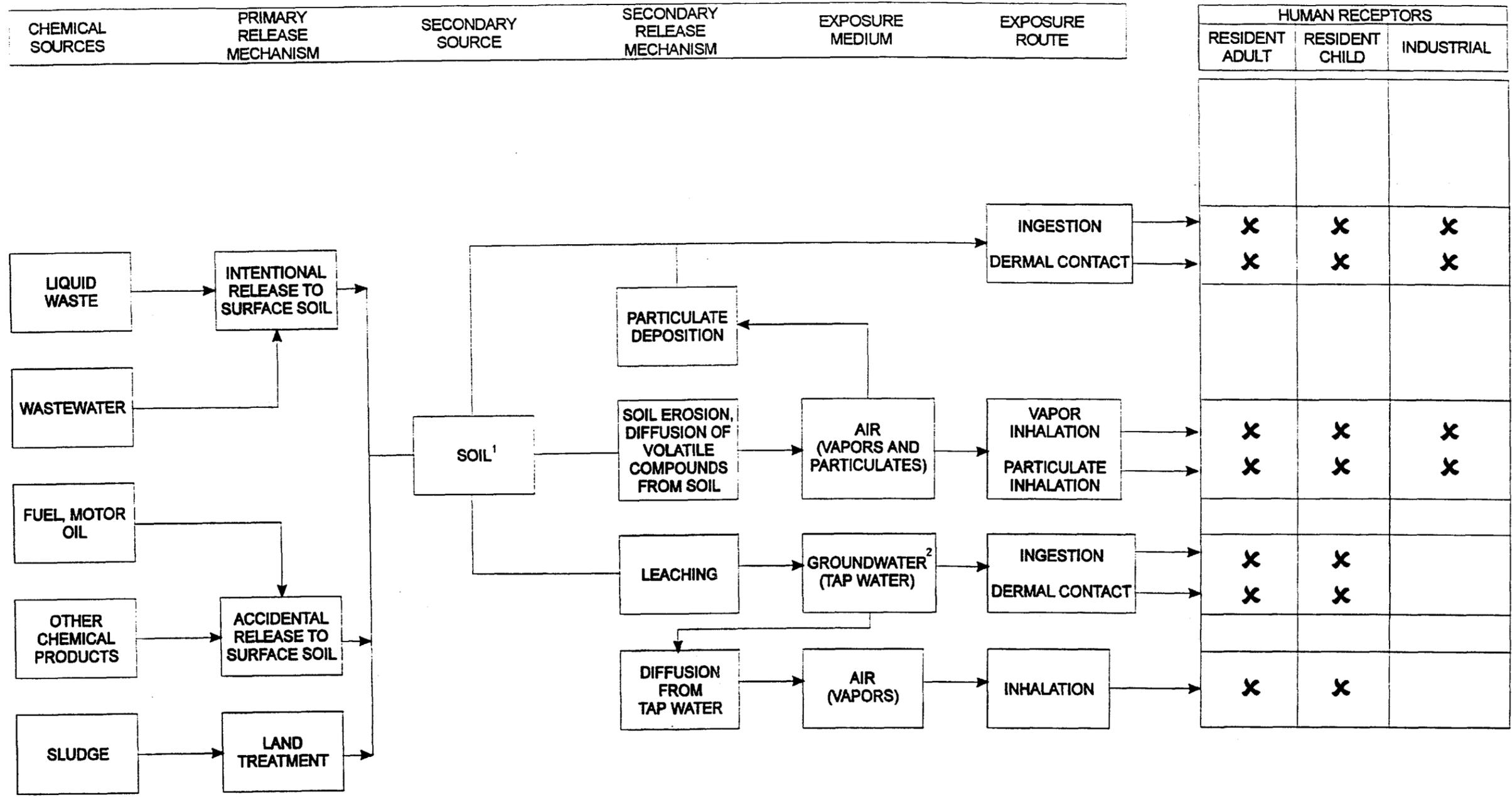
PATHWAYS:

-  GROUNDWATER
-  DUST

<i>Southwest Division</i> <i>Naval Facilities Engineering Command</i>		
MCAS El Toro, CA		
Conceptual Site Model Site 15 - Suspended Fuel Tanks		
File No.	Figure E-15b	Date
103M2061		3/1/98

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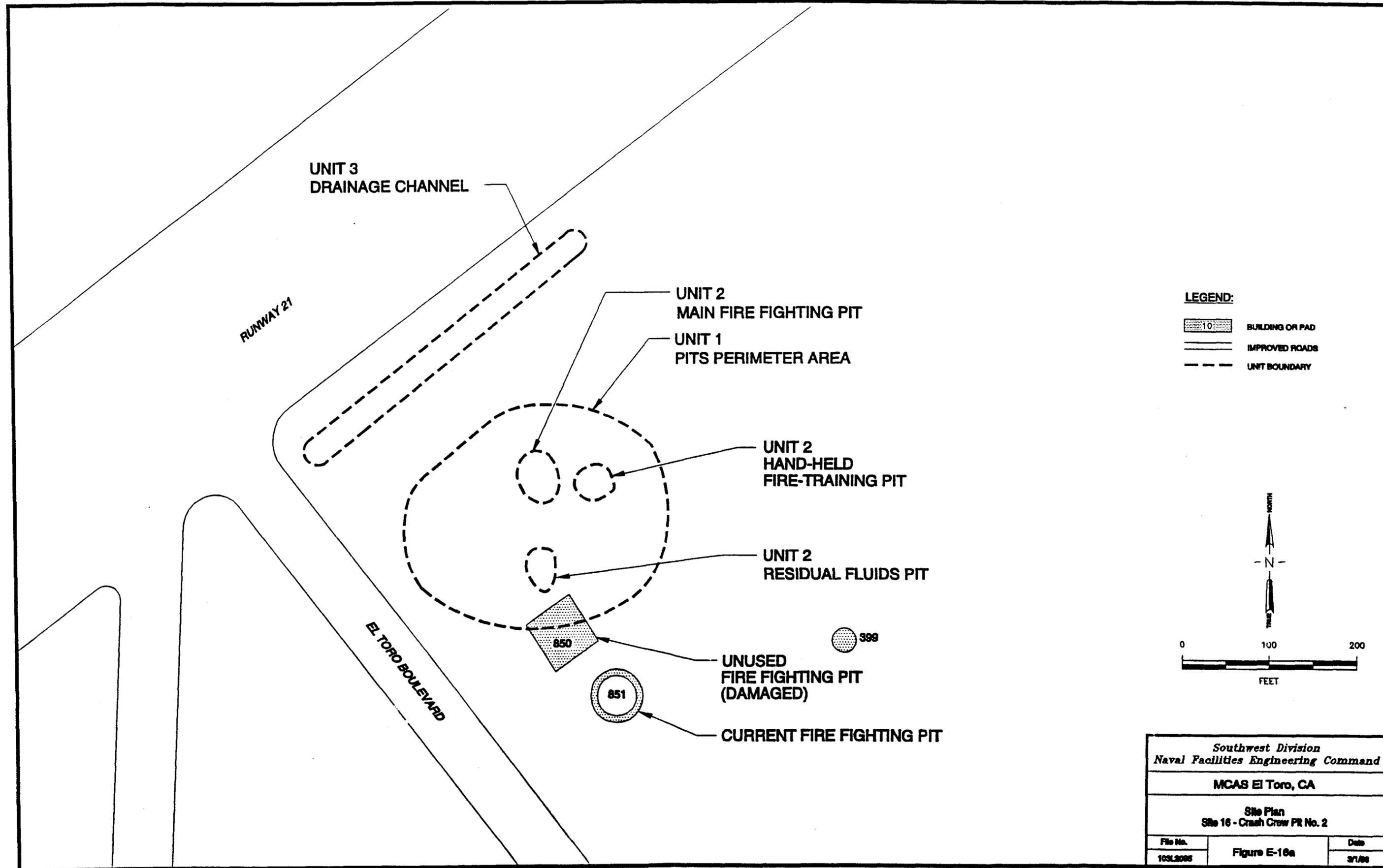
LEGEND

- 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.	Figure E-15c	Date
109C2094		3/1/98

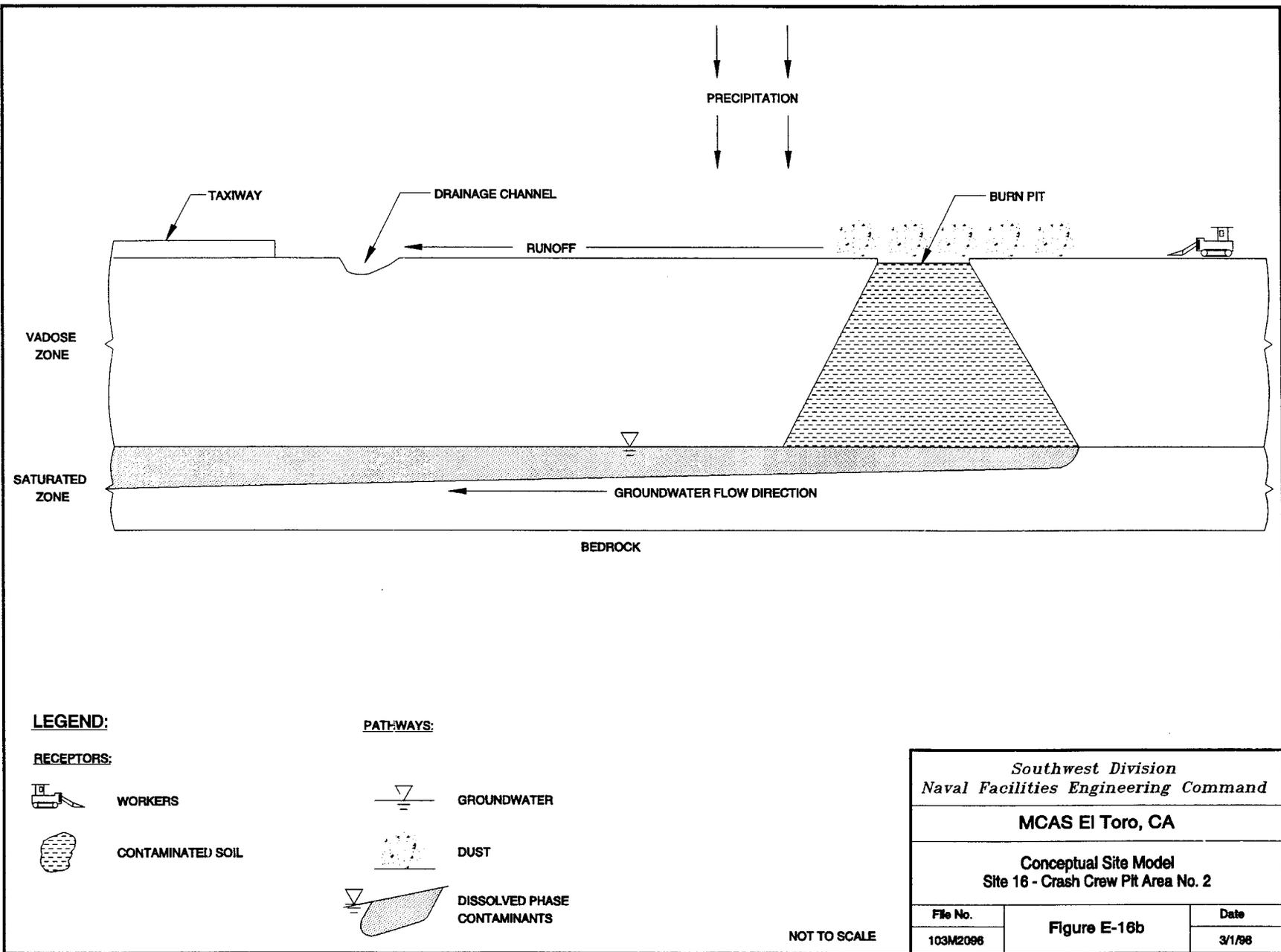
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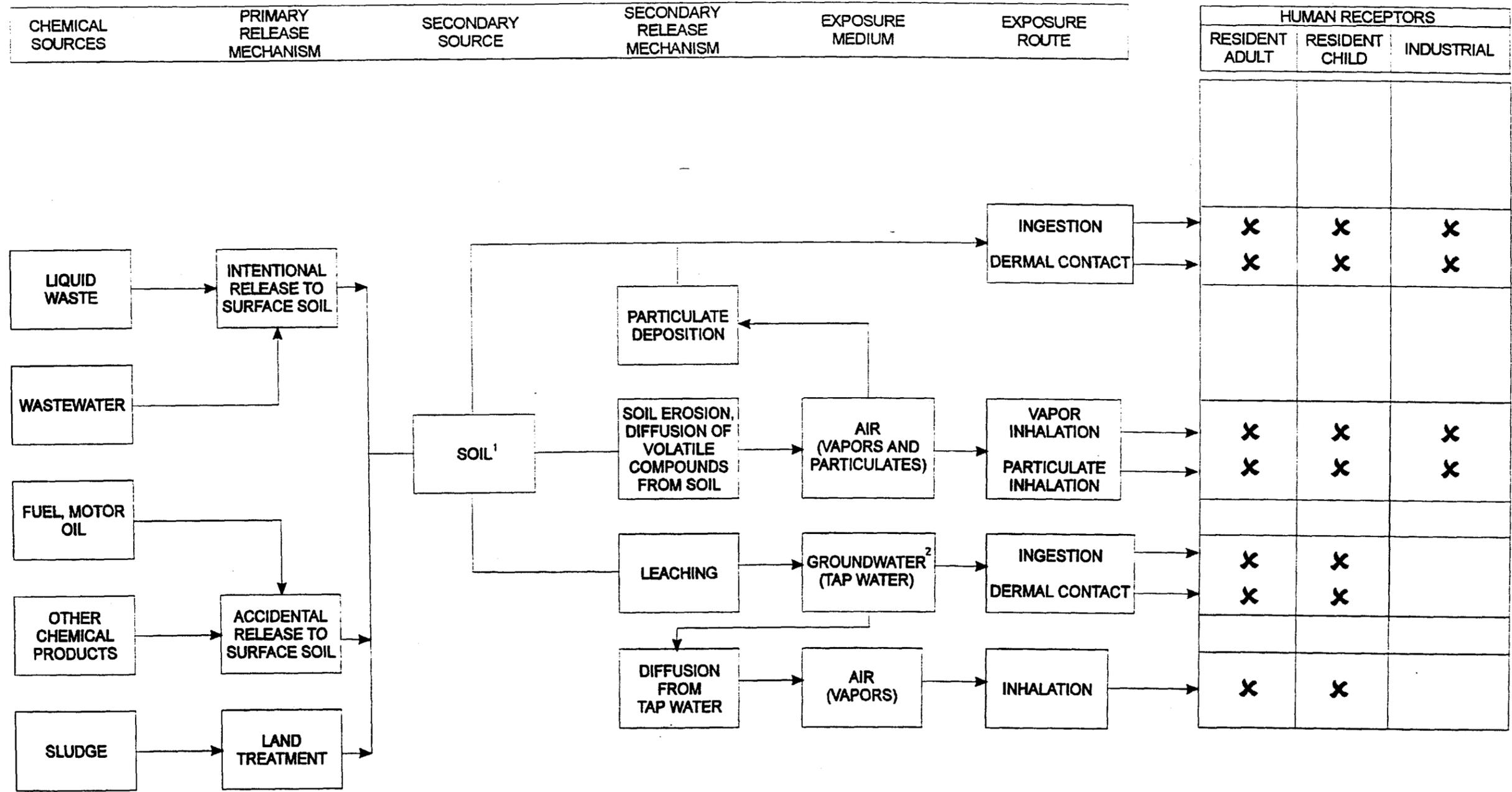
PAGE NO. E-98

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<i>Southwest Division</i> <i>Naval Facilities Engineering Command</i>		
MCAS El Toro, CA		
Conceptual Site Model Site 16 - Crash Crew Pit Area No. 2		
File No.	Figure E-16b	Date
103M2096		3/1/98

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LEGEND

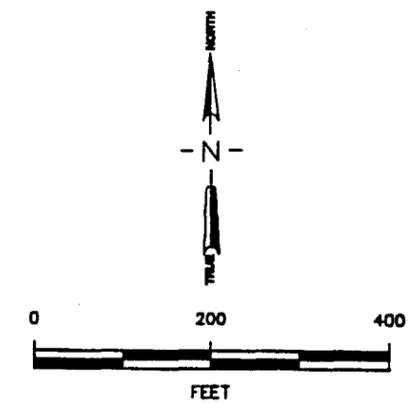
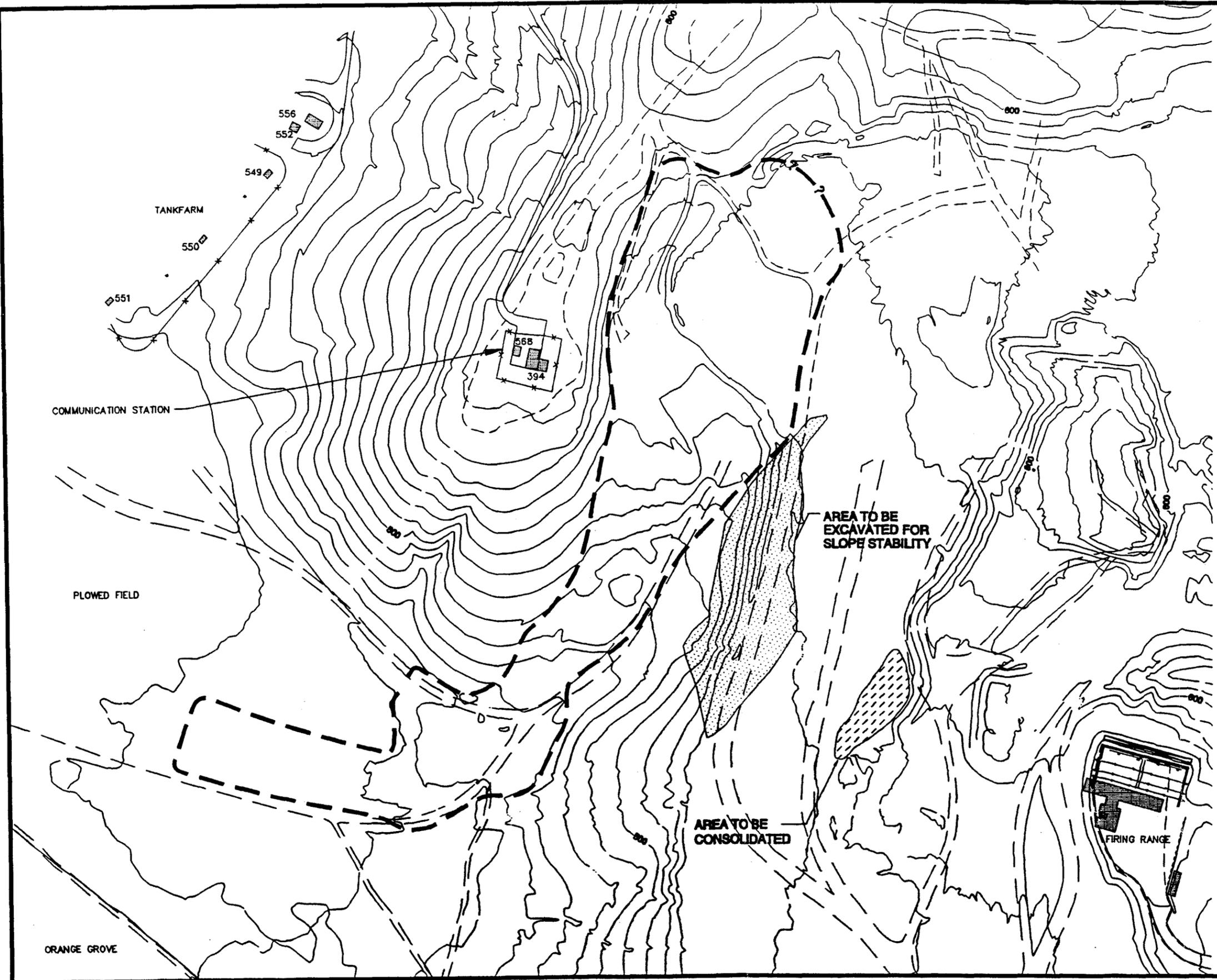
- 1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)
- 2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Exposure Routes and Receptors Site 16 - Crash Crew Pft No. 2		
File No.	Figure E-16c	Date
103C2097		3/1/98

PAGE NO. E-102

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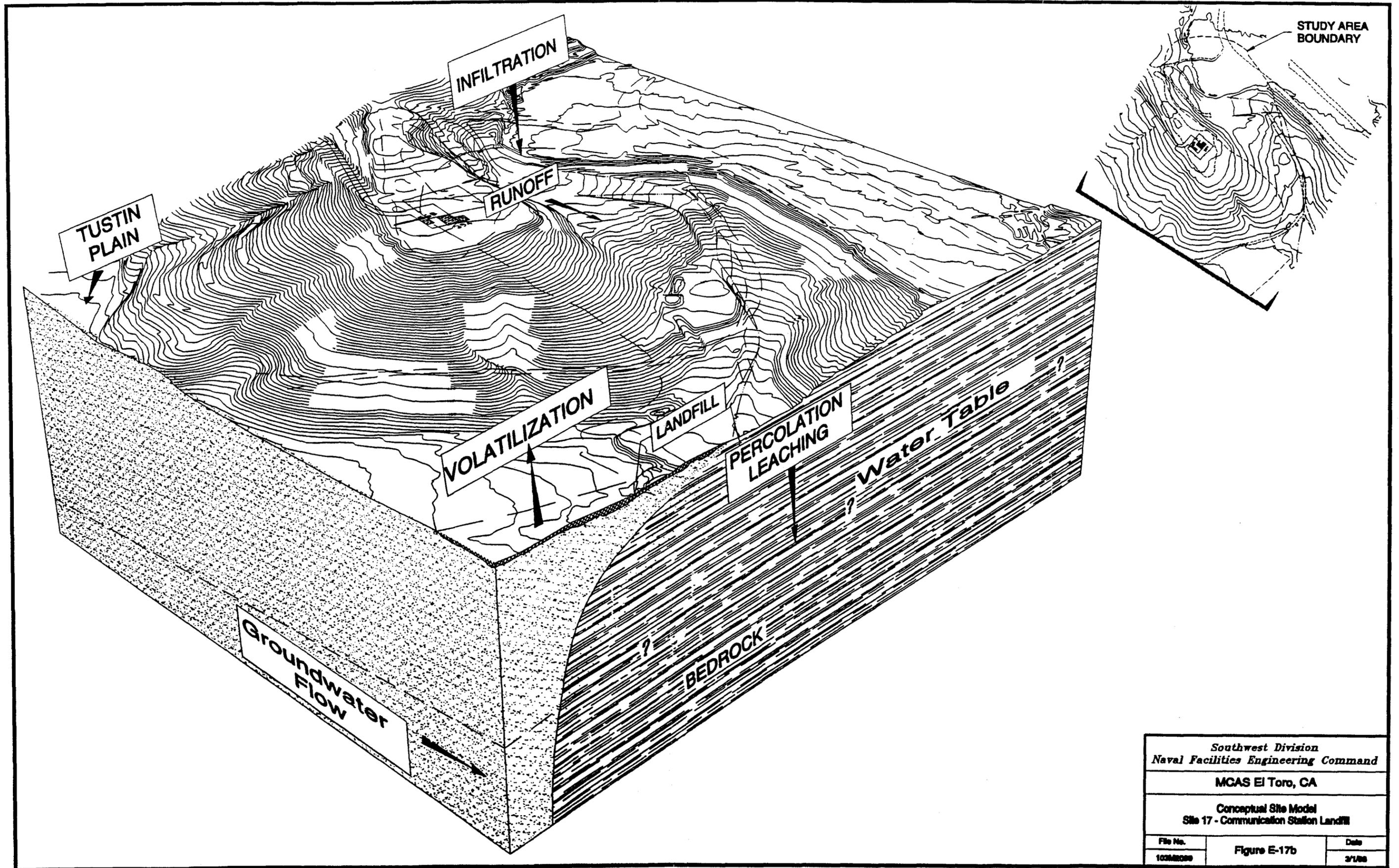
- LEGEND**
-  BUILDING
 -  STREAM OR WASH
 -  UNIMPROVED ROADS
 -  IMPROVED ROADS
 -  APPROXIMATE LANDFILL WASTE BOUNDARY
 -  FENCE
 -  ELEVATION CONTOURS (FEET MEAN SEA LEVEL - 10 FOOT INTERVAL)
 -  AREA TO BE EXCAVATED FOR SLOPE STABILITY
 -  AREA TO BE EXCAVATED AND CONSOLIDATED UNDER PROPOSED LANDFILL CAP



<i>Southwest Division</i> <i>Naval Facilities Engineering Command</i>		
MCAS El Toro, CA		
Site Plan Site 11 - Communication Station Landfill		
File No. 103L2000	Figure E-17a	Date 2/1/00

PAGE NO. E-104

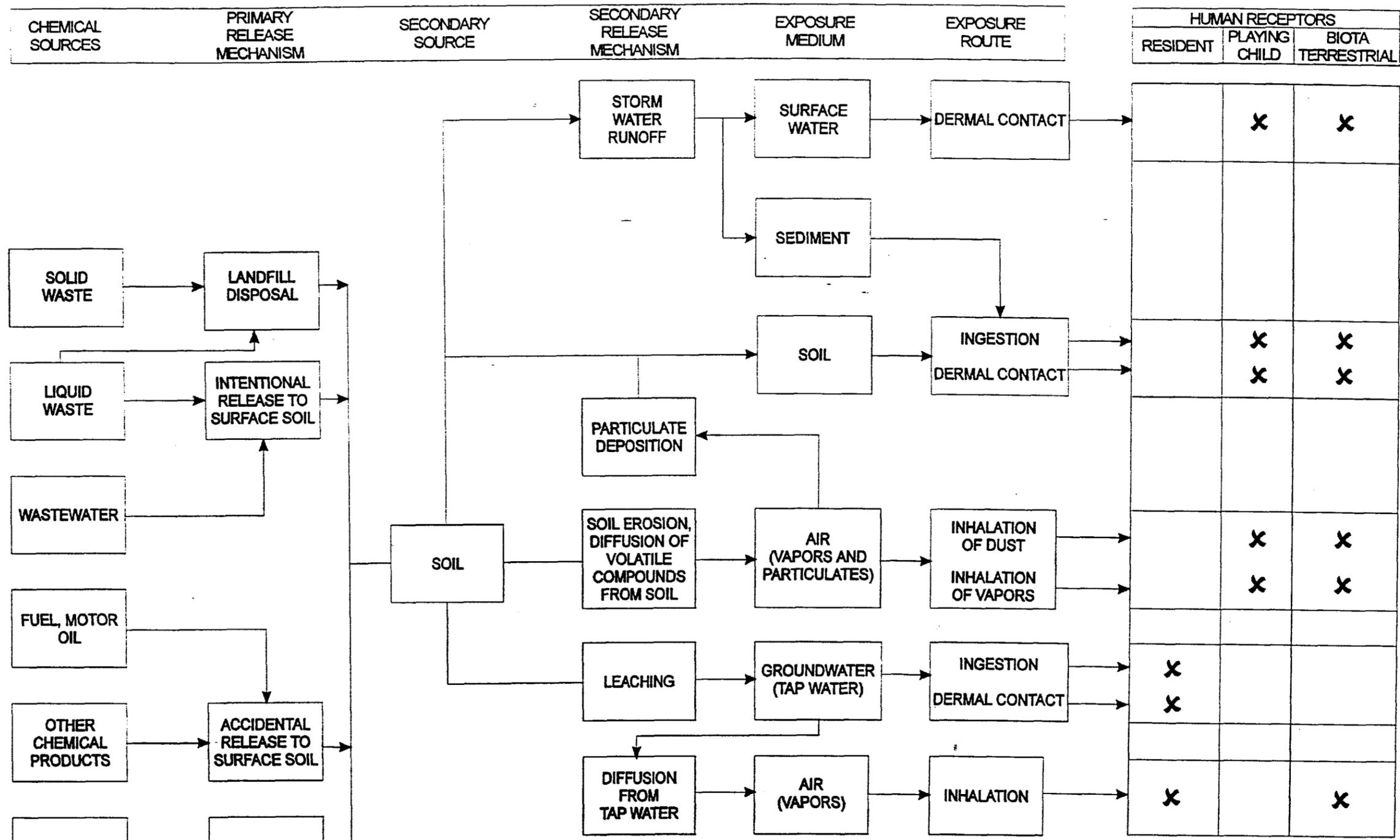
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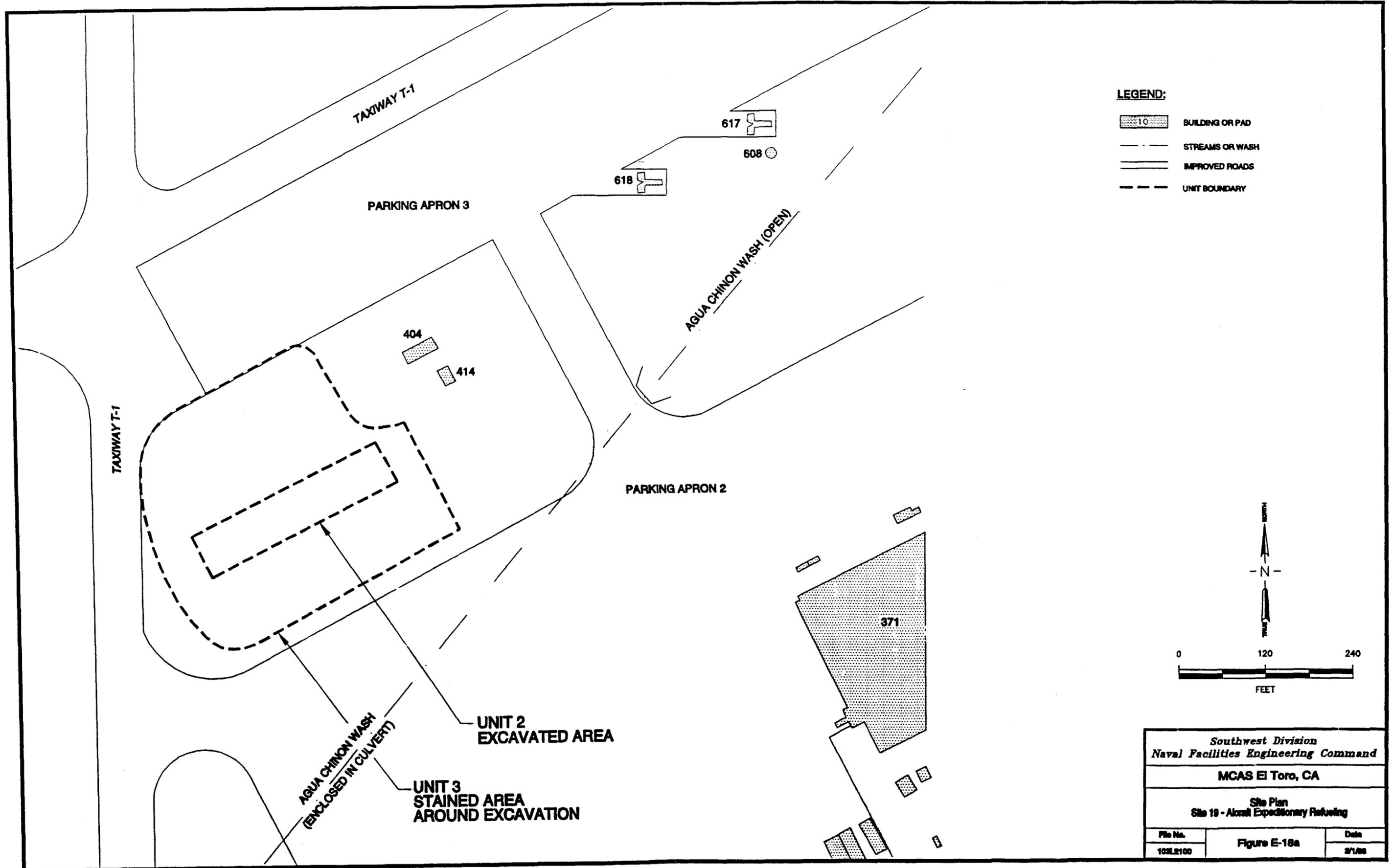
Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Conceptual Site Model Site 17 - Communication Station Landfill		
File No.	Figure E-17b	Date
100M0000		2/1/88

PAGE NO. E-106

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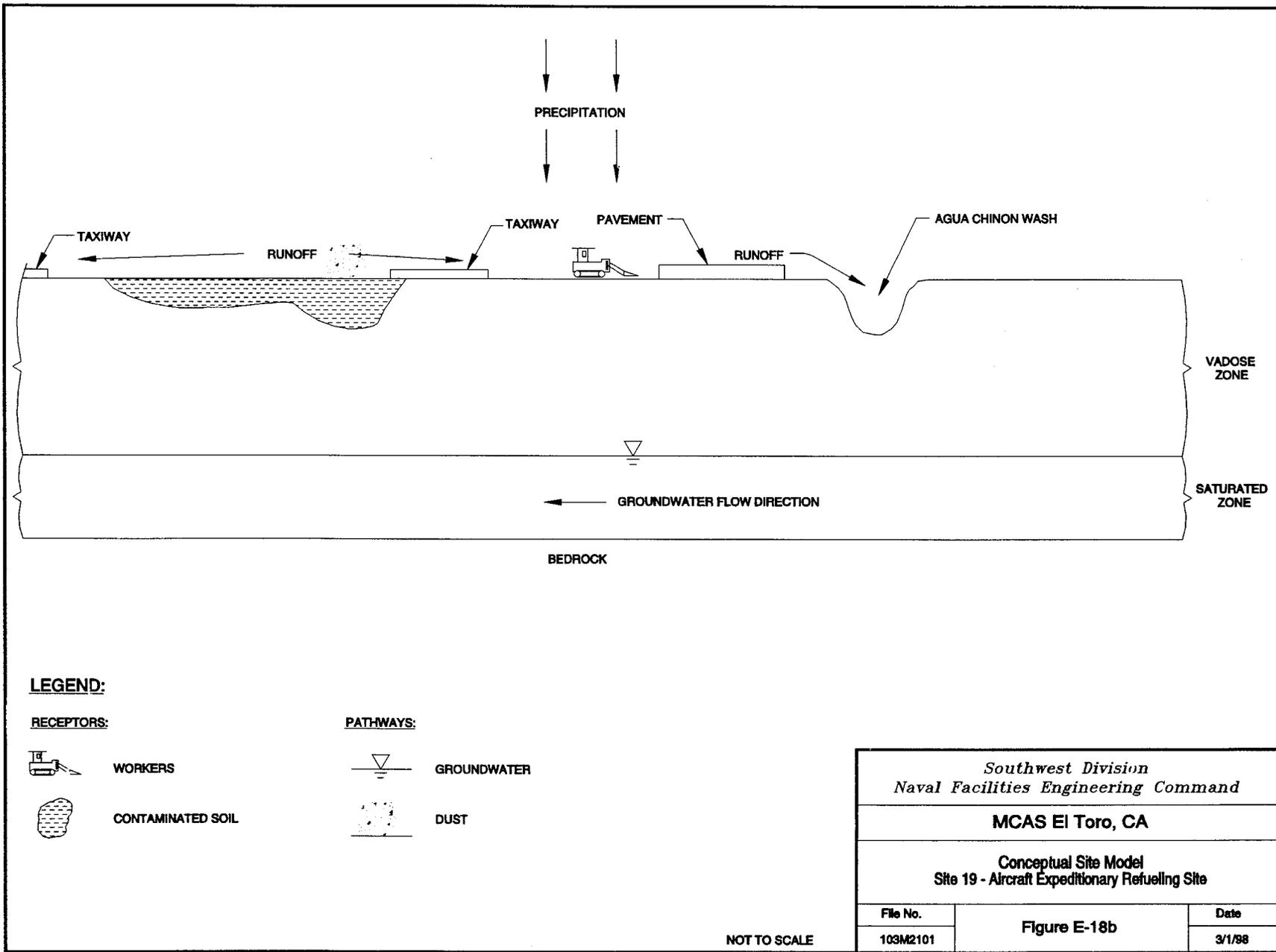
Southwest Division
Naval Facilities Engineering Command
MCAS El Toro, CA
Exposure Routes and Receptors
Site 17 - Communication Station Landfill
File No. 103C2121 Figure E-17c Date 3/1/96



Southwest Division		
Naval Facilities Engineering Command		
MCAS El Toro, CA		
Site Plan		
Site 19 - Aircraft Expeditionary Refueling		
File No.	Figure E-18a	Date
103L2100		2/1/88

PAGE NO. E-110

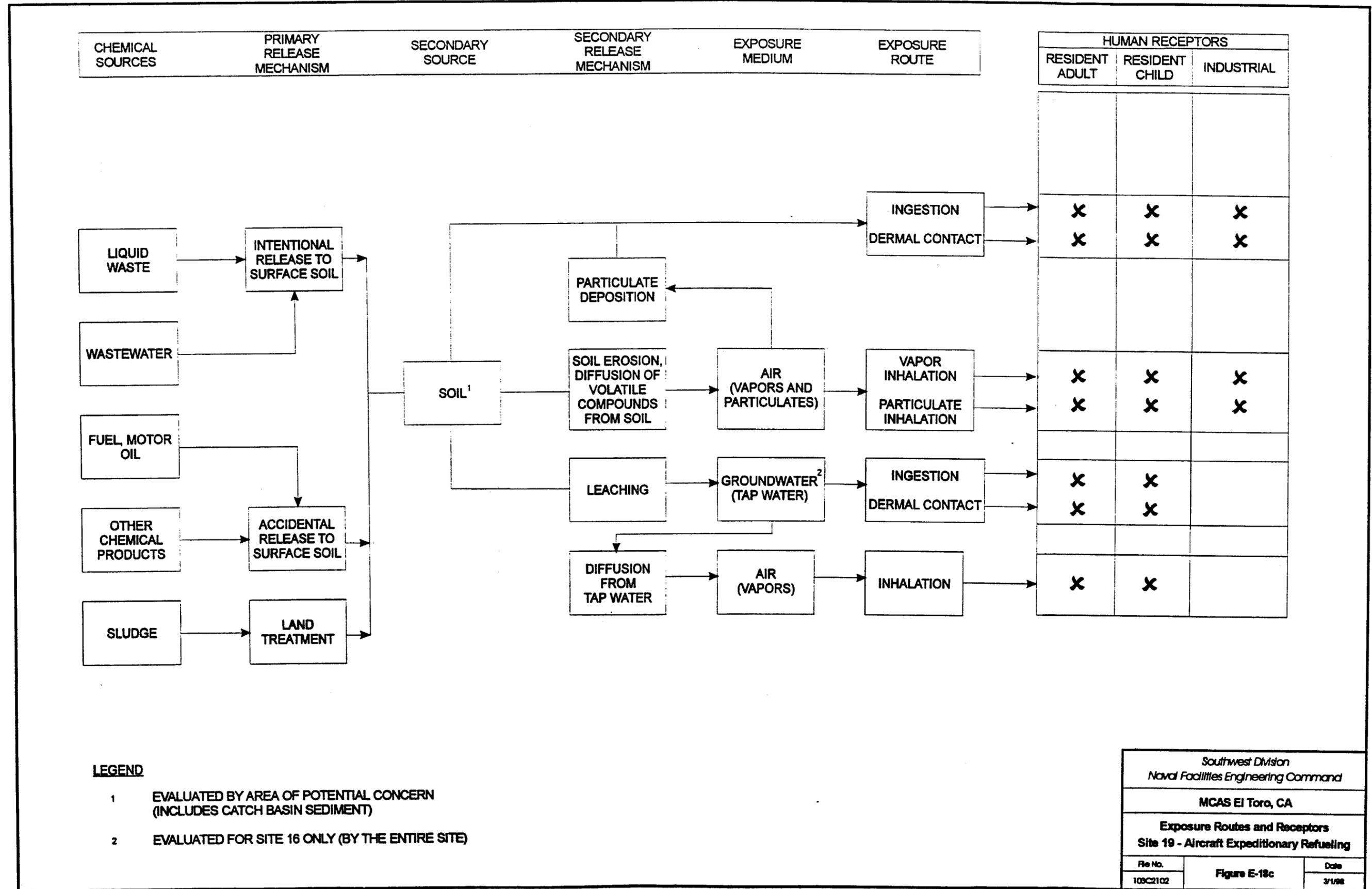
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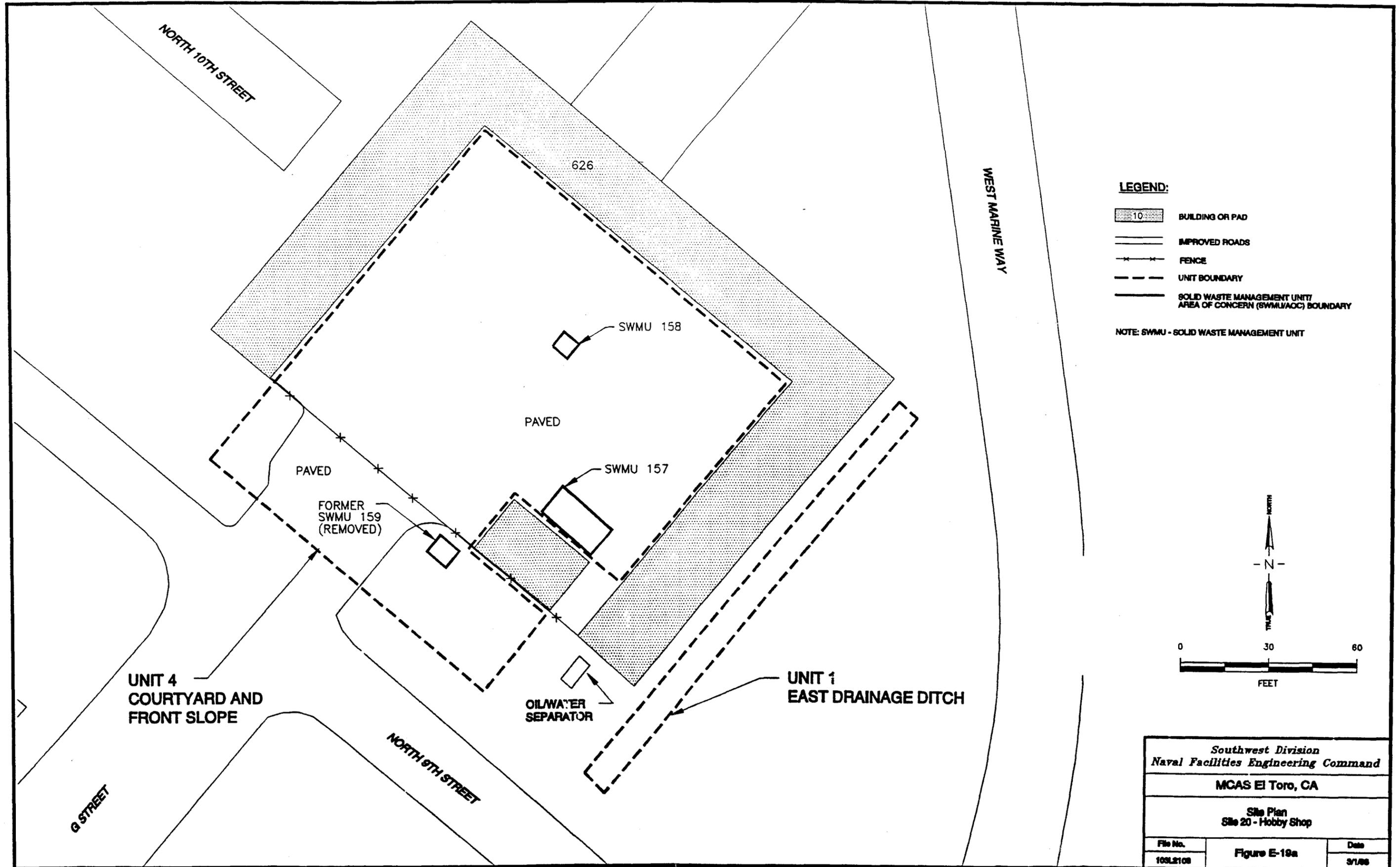
Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Conceptual Site Model Site 19 - Aircraft Expeditionary Refueling Site		
File No.	Figure E-18b	Date
103M2101		3/1/88

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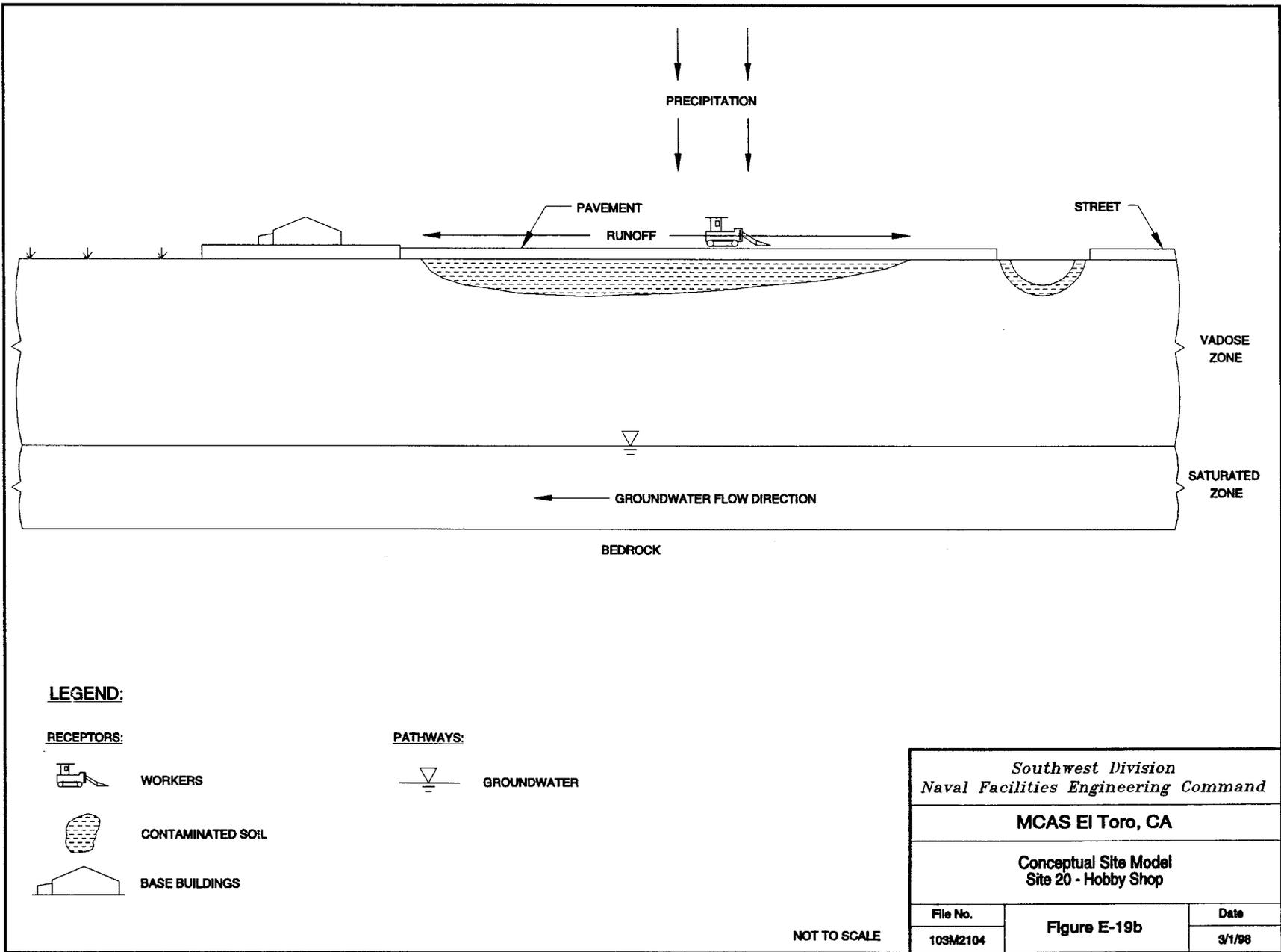
PAGE NO. E-114

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PAGE NO. E-116.

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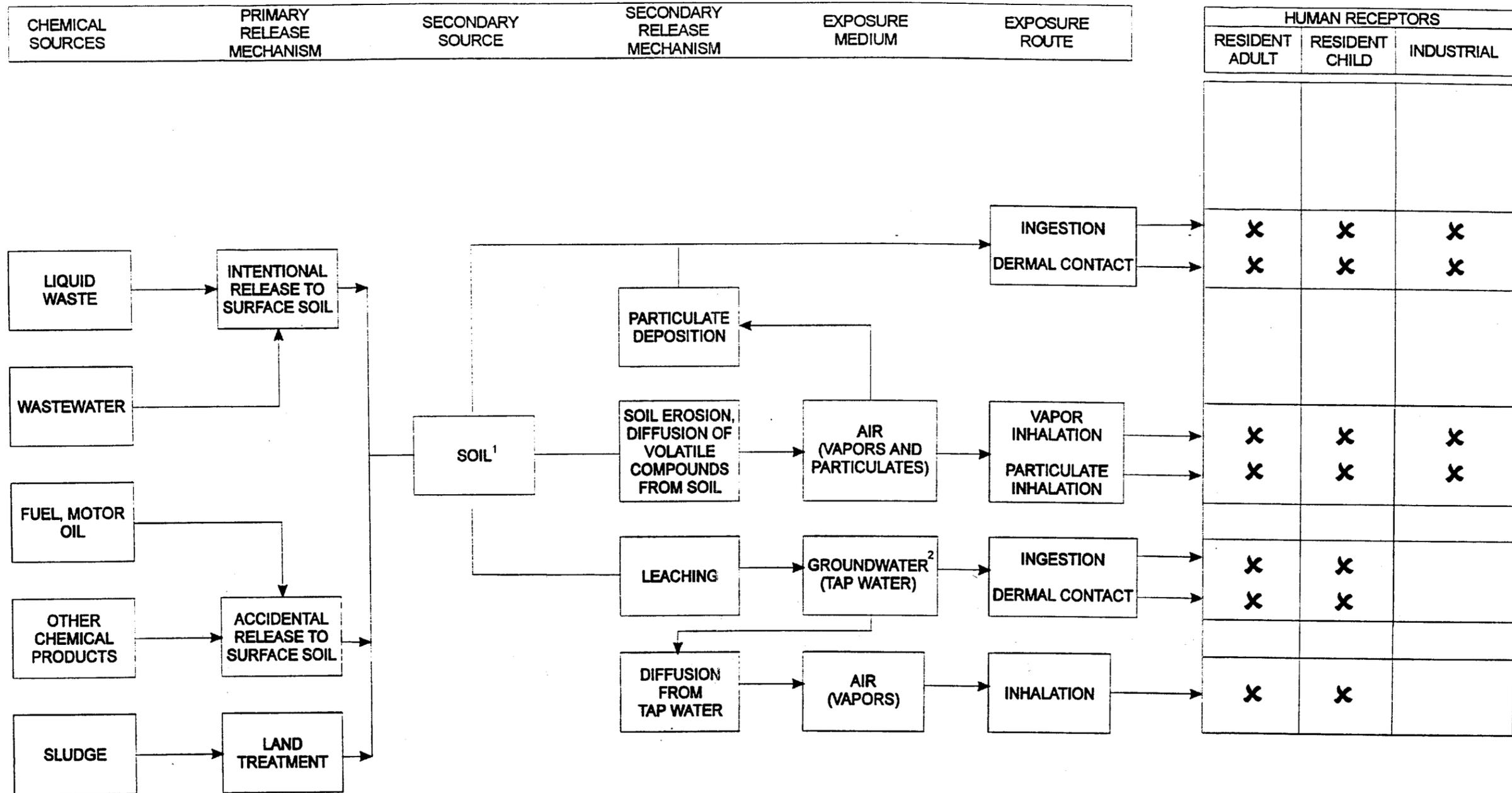
<i>Southwest Division Naval Facilities Engineering Command</i>		
MCAS EI Toro, CA		
Conceptual Site Model Site 20 - Hobby Shop		
File No.	Figure E-19b	Date
103M2104		3/1/98

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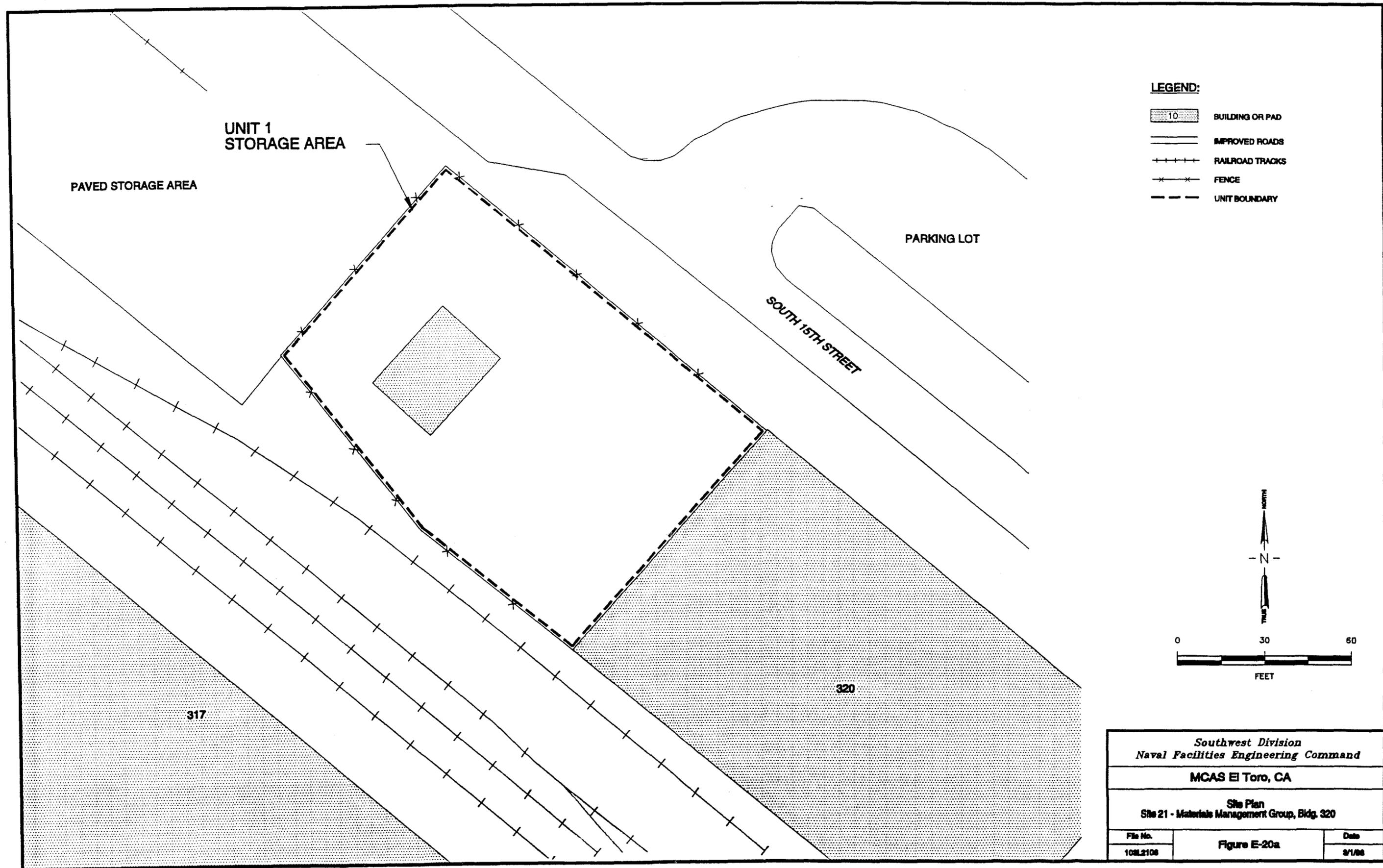
LEGEND

- 1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)
- 2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

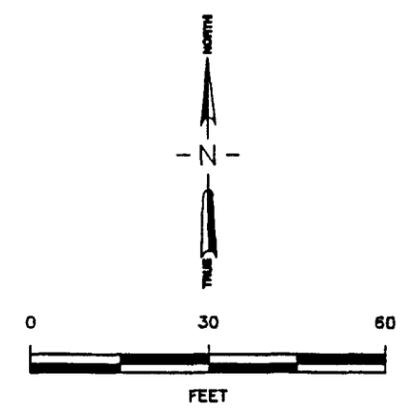
Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Exposure Routes and Receptors Site 20 - Hobby Shop		
File No.	Figure E-19c	Date
108C2105		3/1/98

PAGE NO. E-120

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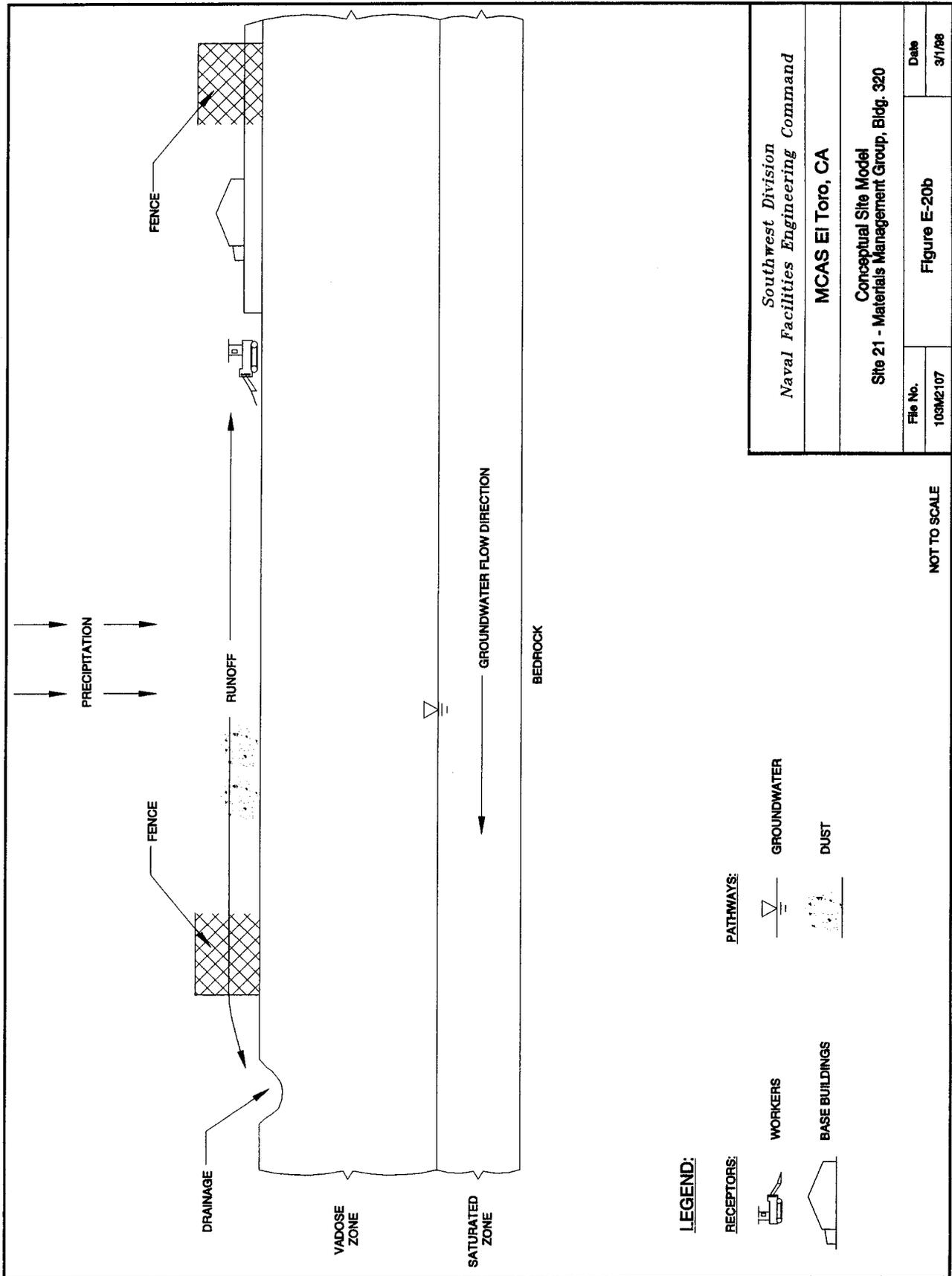
- LEGEND:**
-  BUILDING OR PAD
 -  IMPROVED ROADS
 -  RAILROAD TRACKS
 -  FENCE
 -  UNIT BOUNDARY



<i>Southwest Division</i> <i>Naval Facilities Engineering Command</i>		
MCAS El Toro, CA		
Site Plan Site 21 - Materials Management Group, Bldg. 320		
File No.	Figure E-20a	Date
108L2108		2/1/88

PAGE NO. E-122

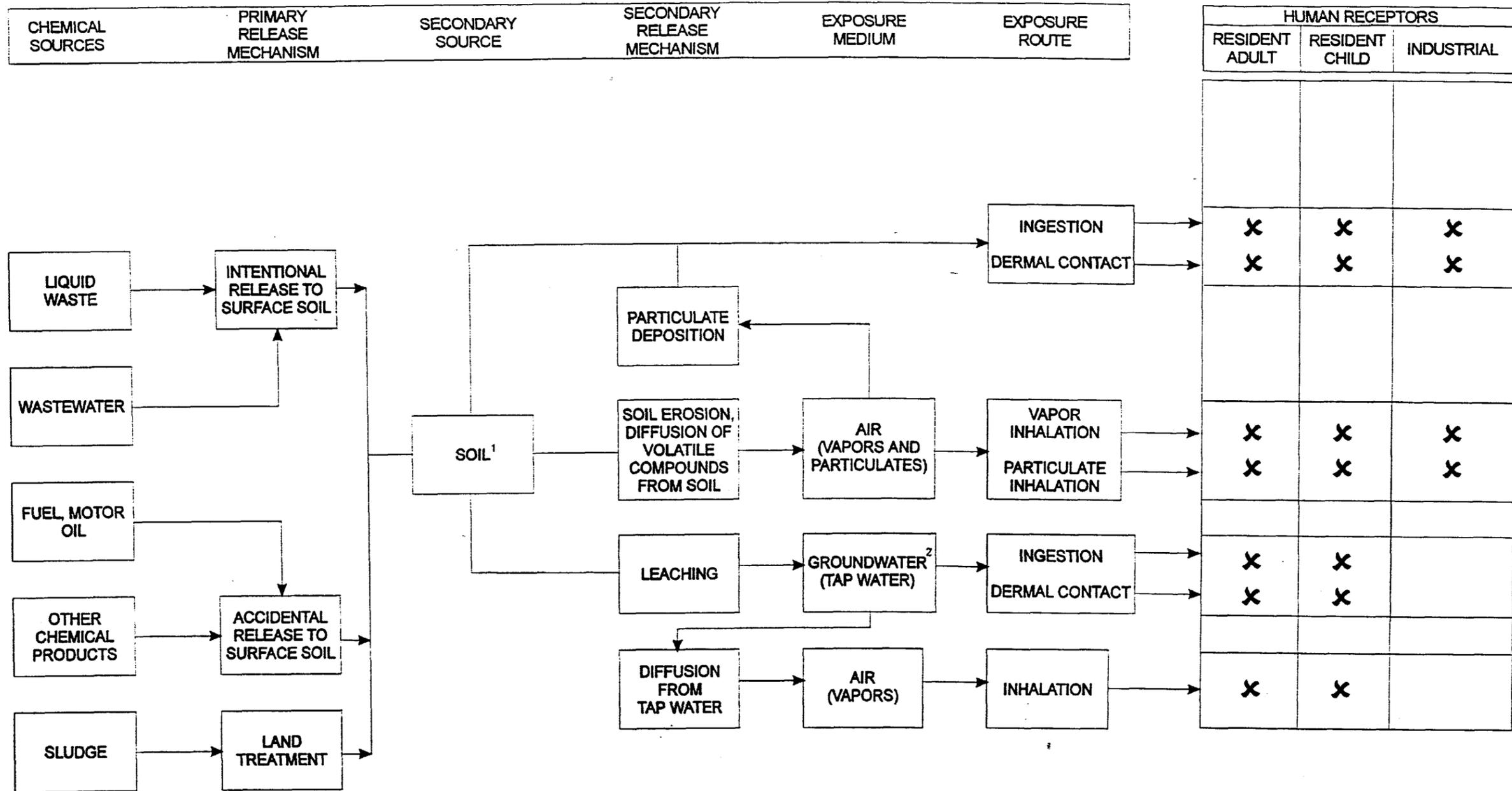
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Southwest Division Naval Facilities Engineering Command	
MCAS El Toro, CA	
Conceptual Site Model Site 21 - Materials Management Group, Bldg. 320	
File No. 103M2107	Date 3/1/88
Figure E-20b	

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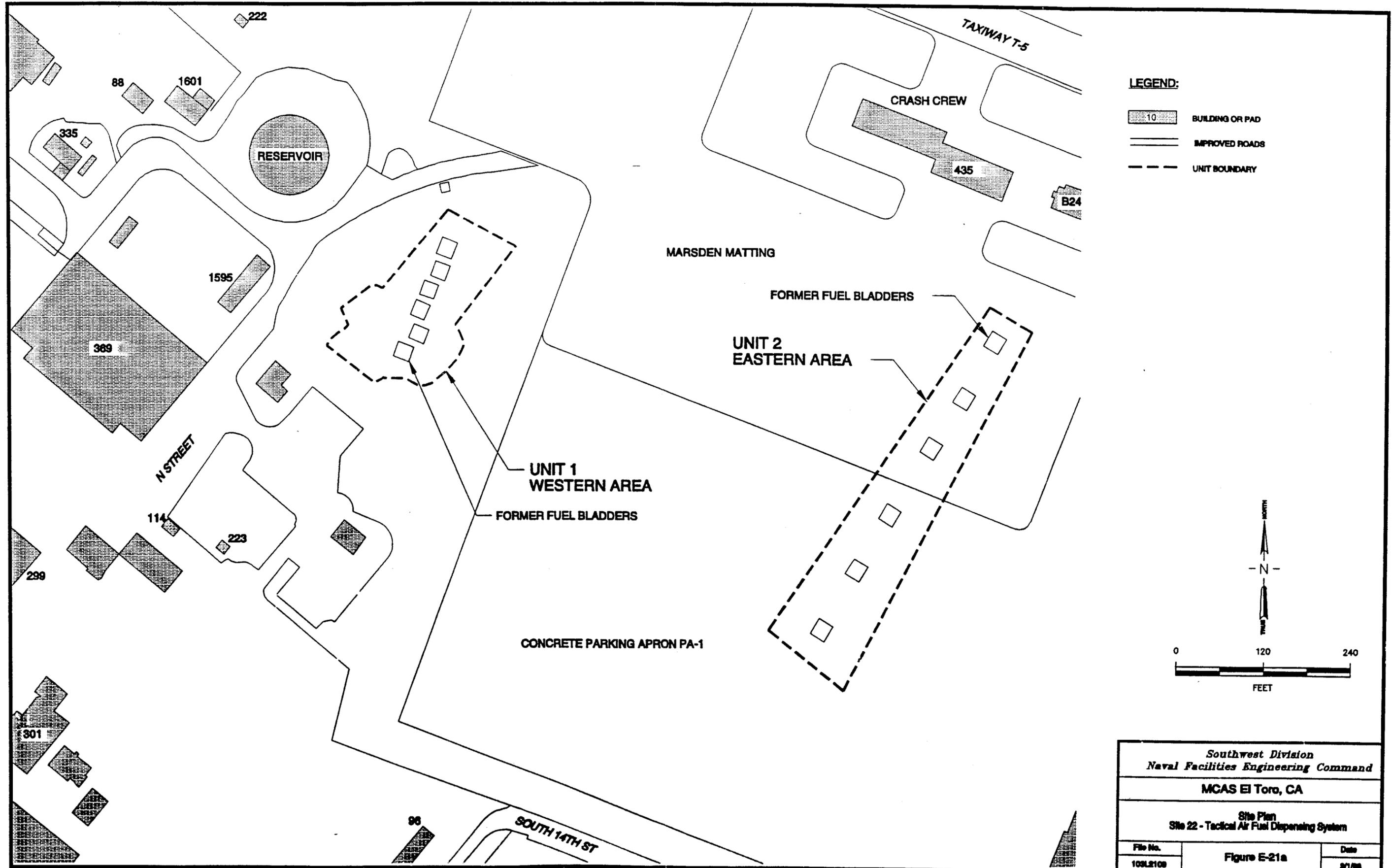
LEGEND

- 1 EVALUATED BY AREA OF POTENTIAL CONCERN (INCLUDES CATCH BASIN SEDIMENT)
- 2 EVALUATED FOR SITE 16 ONLY (BY THE ENTIRE SITE)

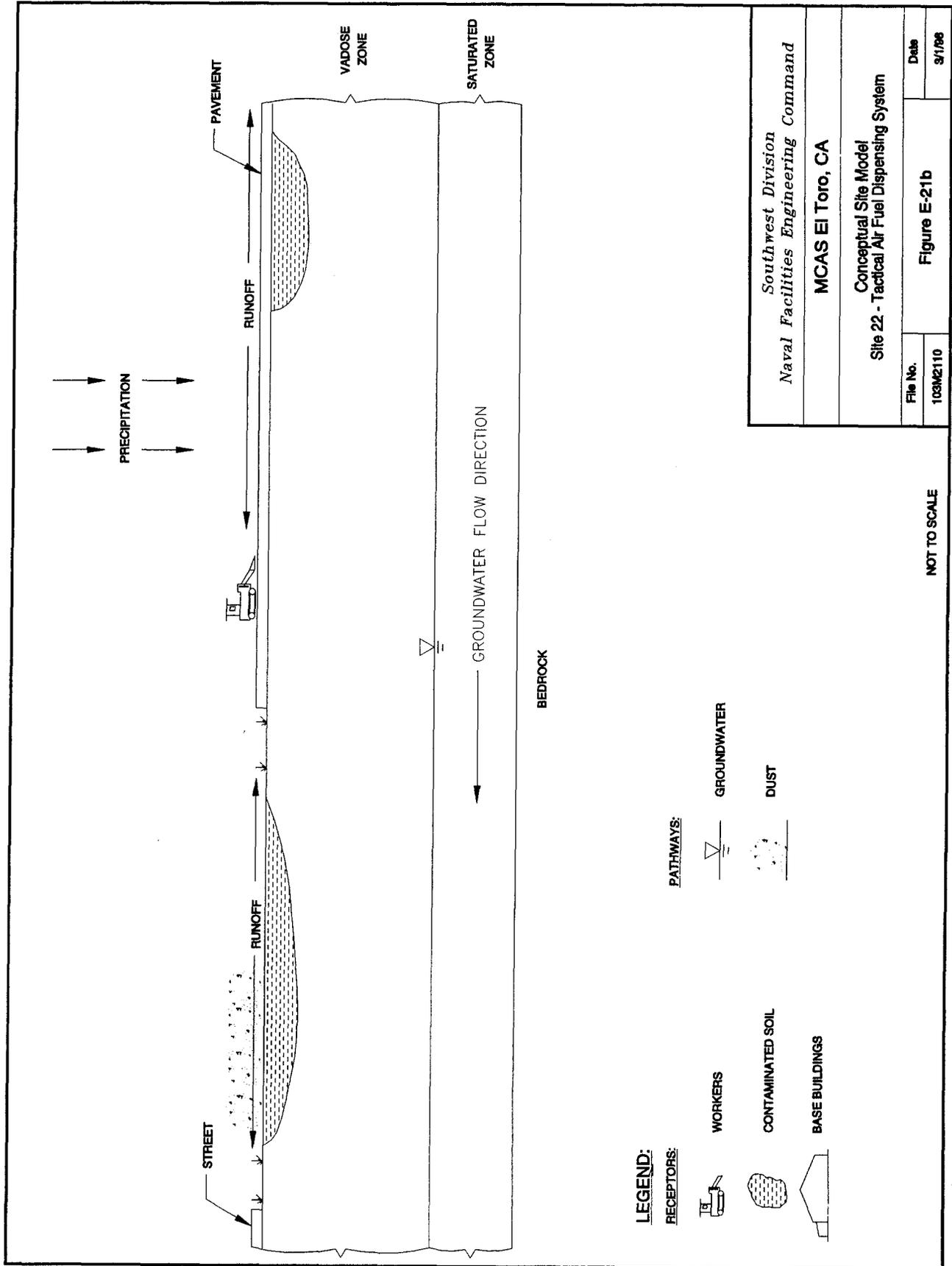
Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Exposure Routes and Receptors Site 21 - Materials Management Group-Bldg 20		
File No.	Figure E-20c	Date
103C2108		3/1/98

PAGE NO. E-126

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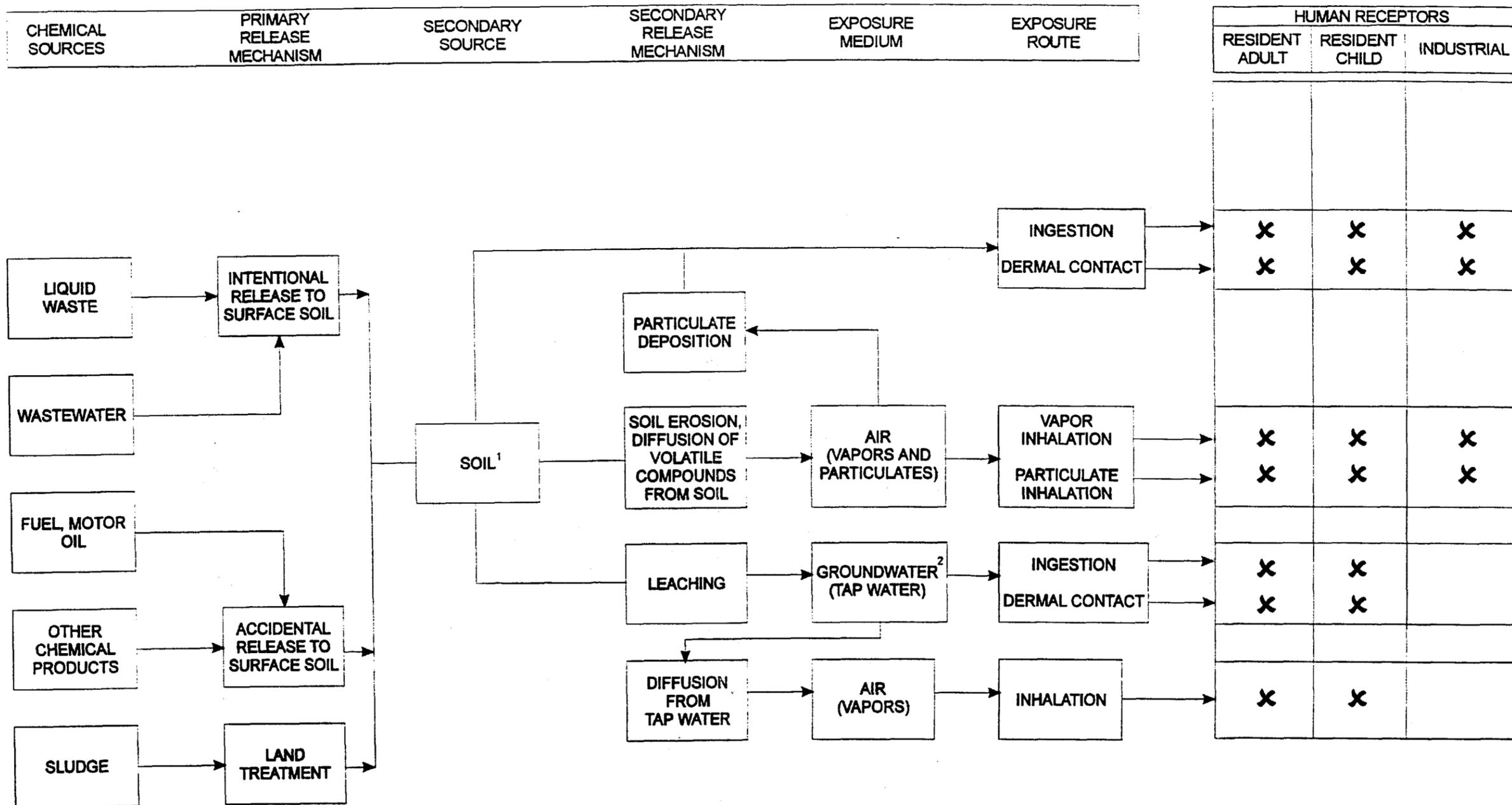
Southwest Division		
Naval Facilities Engineering Command		
MCAS El Toro, CA		
Site Plan		
Site 22 - Tactical Air Fuel Dispensing System		
File No.	Figure E-21a	Date
109L2108		01/98



Southwest Division
 Naval Facilities Engineering Command
 MCAS El Toro, CA
 Conceptual Site Model
 Site 22 - Tactical Air Fuel Dispensing System
 File No. 103M2110
 Date 9/1/98
 Figure E-21b

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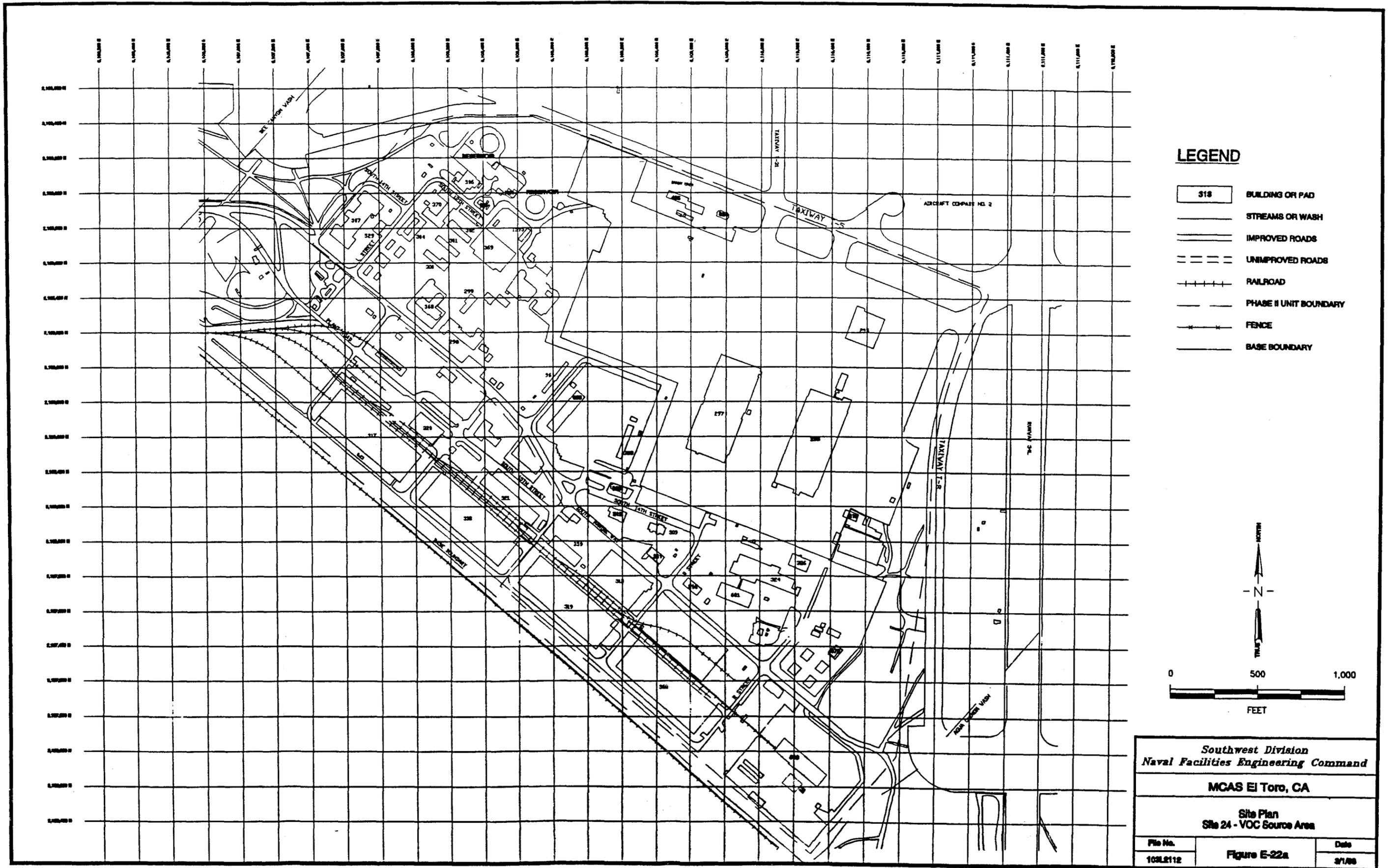
LEGEND

- 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.	Figure E-21c	Date
103C2111		3/1/98

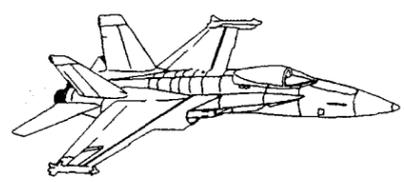
PAGE NO. E-132

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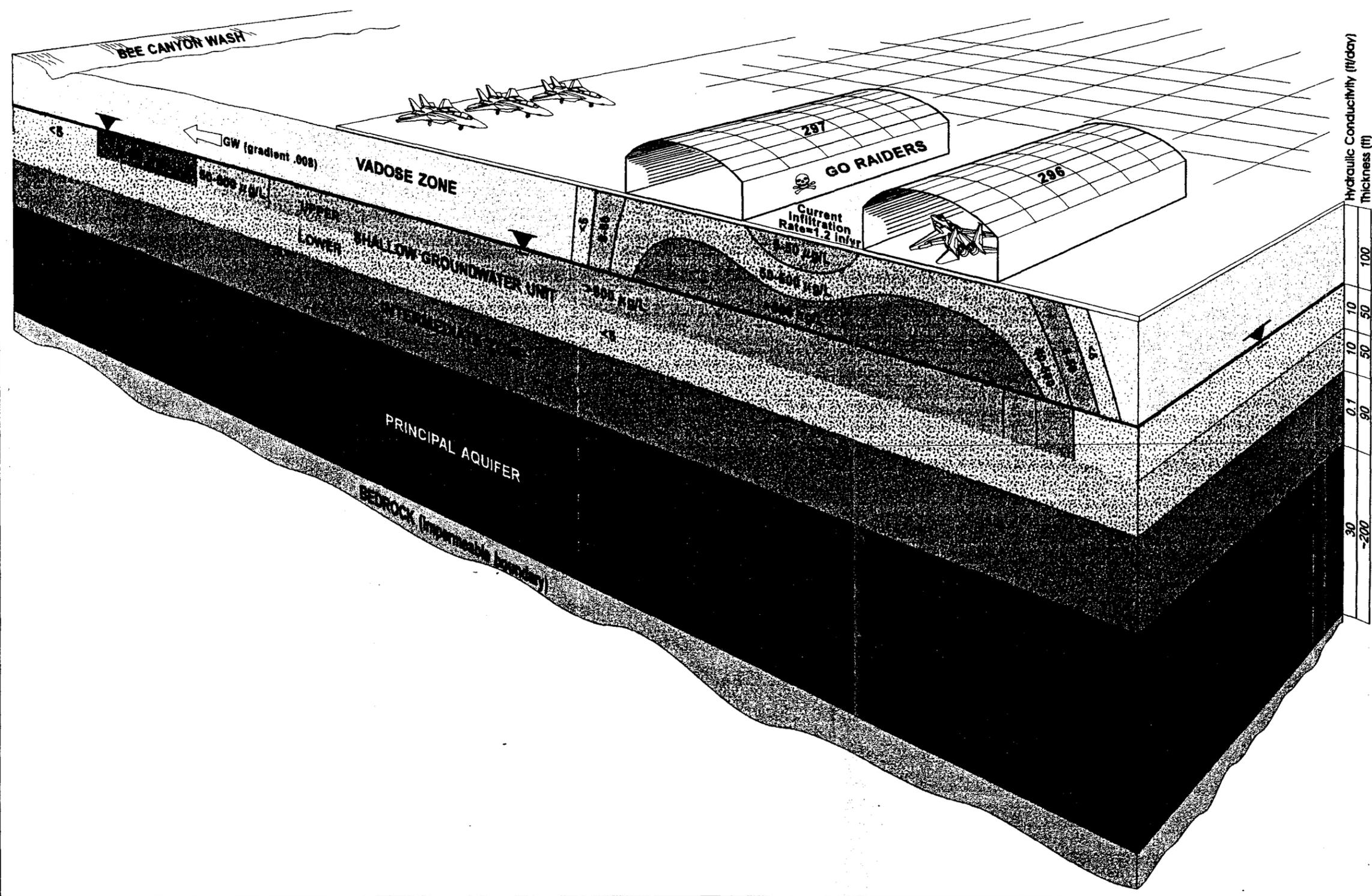
PAGE NO. E-134

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LEGEND:
 TCE in Vadose Zone ($\mu\text{g/L}_{\text{air}}$) and Groundwater ($\mu\text{g/L}_{\text{water}}$)

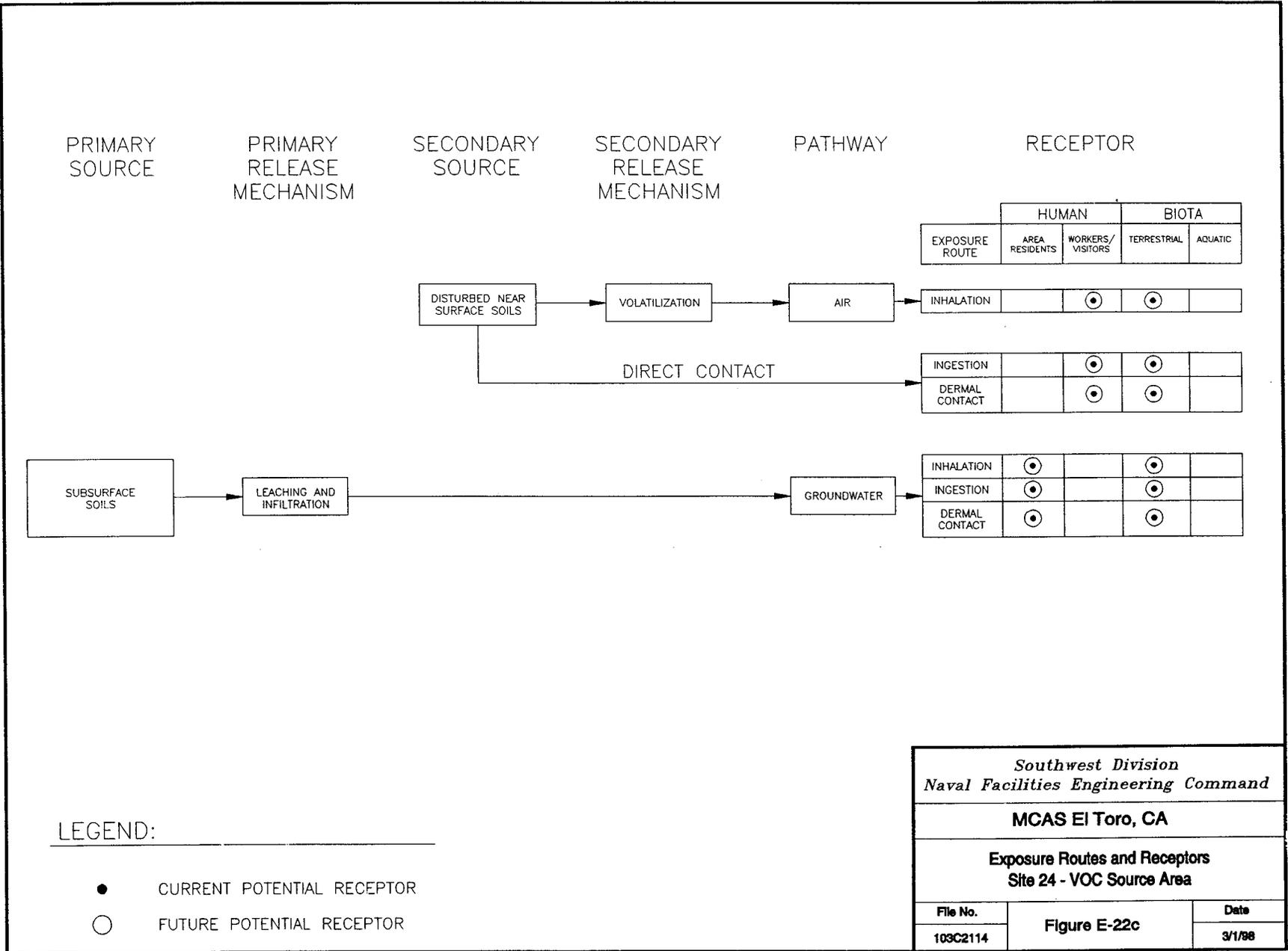
[Light stippled pattern]	<5
[Dark stippled pattern]	5-50
[Medium stippled pattern]	50-500
[Dense stippled pattern]	>500



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		3/1/98

PAGE NO. E-136

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Southwest Division
Naval Facilities Engineering Command

MCAS El Toro, CA

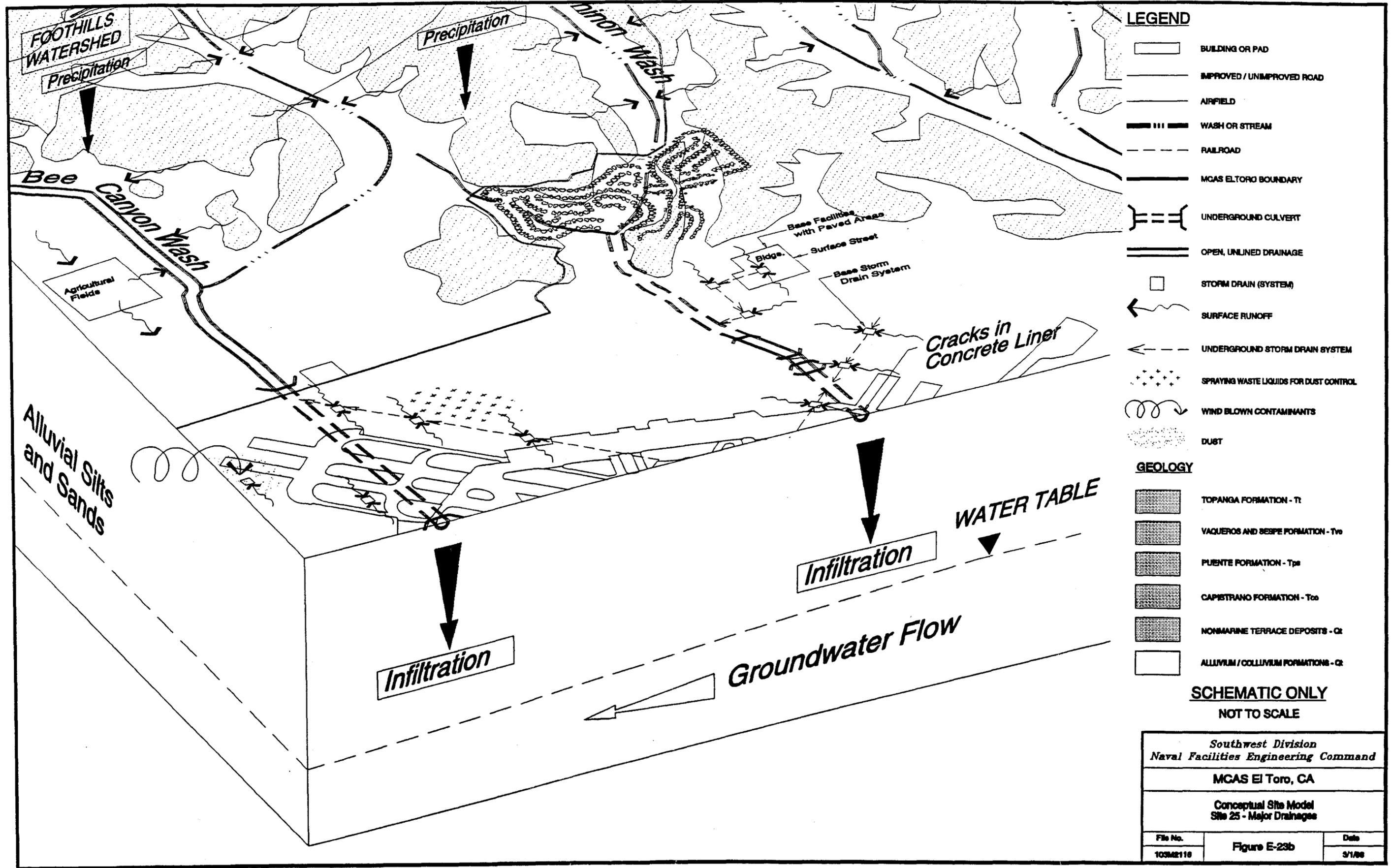
Exposure Routes and Receptors
Site 24 - VOC Source Area

File No.	Figure E-22c	Date
103C2114		3/1/98

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PAGE NO. E-140

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LEGEND

- BUILDING OR PAD
- IMPROVED / UNIMPROVED ROAD
- AIRFIELD
- WASH OR STREAM
- RAILROAD
- MCAS EL TORO 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

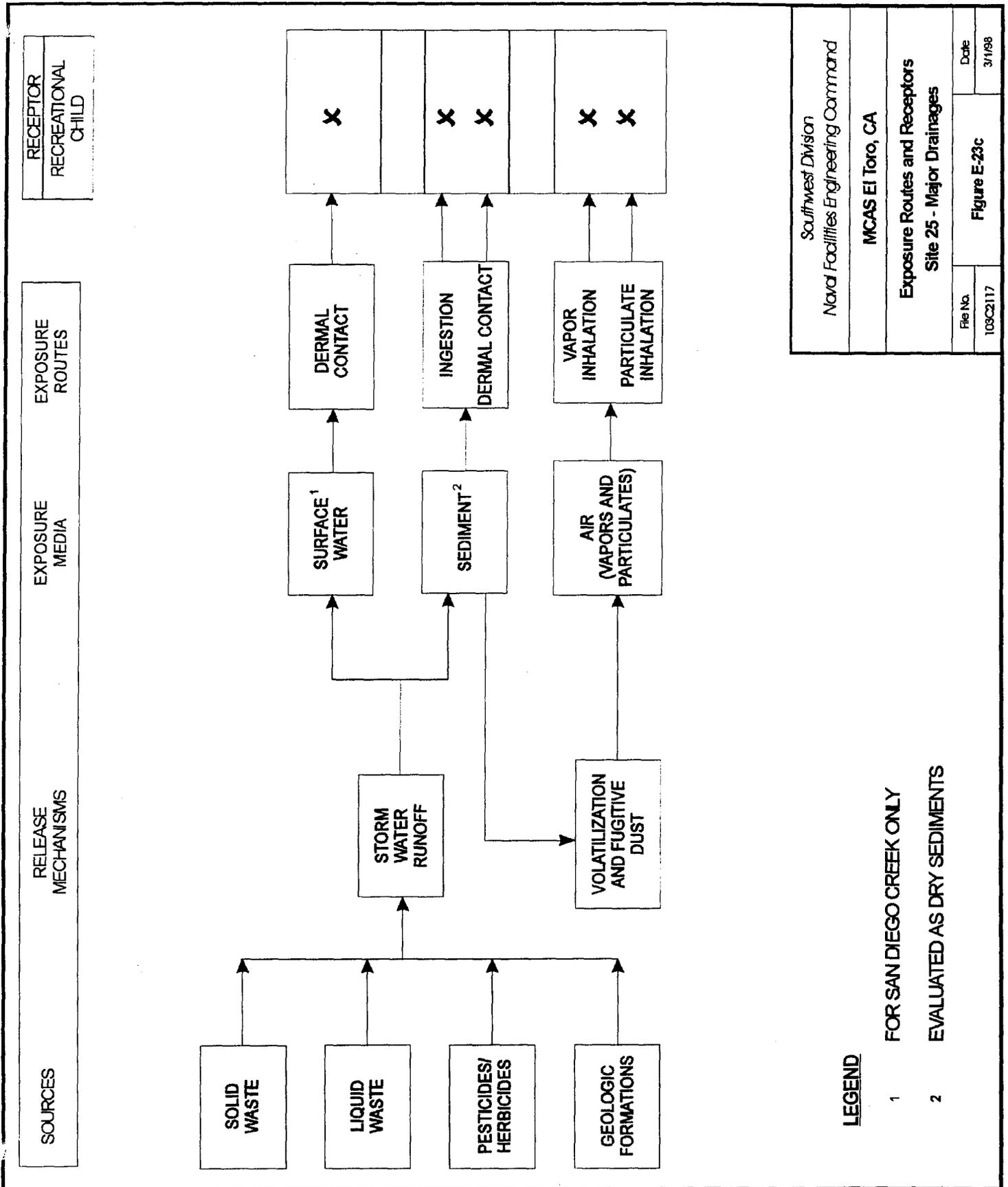
- TOPANGA FORMATION - T1
- VAQUEROS AND BESPE FORMATION - Tvo
- PUCALLPA FORMATION - Tpa
- CAPISTRANO FORMATION - Tca
- NONMARINE TERRACE DEPOSITS - Qn
- ALLUVIUM / COLLUVIUM FORMATIONS - Qa

SCHEMATIC ONLY
NOT TO SCALE

Southwest Division Naval Facilities Engineering Command		
MCAS El Toro, CA		
Conceptual Site Model Site 25 - Major Drainages		
File No.	Figure E-23b	Date
103M2116		3/1/88

PAGE NO. E-142

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Southwest Division		File No. 109C2117	Date 3/1/98
Naval Facilities Engineering Command			
MCAS El Toro, CA		Figure E-23c	
Exposure Routes and Receptors Site 25 - Major Drainages			

LEGEND

1 FOR SAN DIEGO CREEK ONLY

2 EVALUATED AS DRY SEDIMENTS

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