

**FINAL NAVAL AIR STATION ALAMEDA RESTORATION ADVISORY BOARD  
MEETING SUMMARY**

Building 1, Suite 140, Community Conference Room  
Alameda Point  
Alameda, California

August 6, 2002

**ATTENDEES**

See attached list.

**MEETING SUMMARY**

**I. Approval of Minutes**

Michael John Torrey, Community Co-Chair, called the meeting to order at 6:37 p.m.

Mr. Torrey asked for comments on the July 2, 2002, Restoration Advisory Board (RAB) Meeting Minutes. The minutes were approved with two abstentions. No comments were made.

**II. Co-Chair Announcements**

Mr. Torrey made the following announcements.

Mr. Torrey received a letter from the Institute of Science and Interdisciplinary Studies at Hampshire College expressing thanks for his participation in the 2002 Federal Facilities Cleanup Workshop. That letter will be included in the mid-monthly mailing.

Mr. Torrey also shared portions of an article published in the July 2002 issue of *Military and the Environment* pertaining to an agreement by the Department of Defense to promulgate a rule governing the operation of RABs by mid-2003. Copies of the article also will be included in the mailing. For further information, RAB members may contact the Center for Public Environmental Oversight at:

1101 Connecticut Avenue  
Northwest Suite 1000  
Washington D.C. 20036-4374

(202) 452-8038 (telephone)  
(202) 452-8095 (facsimile)

Mike McClelland, Department of the Navy (Navy), made the following announcements.

Mr. McClelland introduced and welcomed Judy Huang, the new representative for the Regional Water Quality Control Board.

Jo-Lynne Lee, who was unable to attend the meeting, will be writing an article for the magazine *Alameda* and asked Mr. McClelland to solicit help from other RAB members who may be interested in joining the effort. RAB Members interested in contributing to the article should contact Ms. Lee directly.

Ms. Lee, Lea Loizos, and Kurt Peterson are also in the process of setting up monthly community meetings to work on project team goals. Attendance at the meetings will not be mandatory; however, it is expected that the time spent at the meetings will be a very productive and efficient way for project team members to contribute to their respective team goals. RAB members agreed to hold the first community meeting on Thursday, August 22, 2002, at 6:30 in Building 1, Room 140. Rezsine Jaulus, Alameda Point Collaborative (Collaborative), asked if community members who are not on a project team are welcome to join the meeting. Mr. McClelland confirmed that anyone interested is welcome to attend. Mr. McClelland will determine if Room 140 is available. Ms. Jaulus stated that if Room 140 is not available, the meeting could be held at the Collaborative.

Various correspondence and documents were distributed to the RAB.

### **III. September Meeting Change and Future Agenda Items**

Mr. McClelland confirmed that the September 2002 RAB meeting will be rescheduled from September 3 to September 10, 2002, at 6:30 p.m. in Building 1, Room 140. A panel discussion with risk assessors from the Navy and the agencies is planned for that meeting.

In the future, project teams will be included on the meeting agendas again; however, only one or two will be scheduled to report at each meeting. Mr. McClelland encouraged RAB members to contact the Navy, Ms. Lee, or Mr. Torrey with any potential agenda items they would be interested in. Mr. Peterson stated that he would like an update on the status of the early transfer discussions. Andrew Dick, Navy, stated that the Navy has met with the City of Alameda (City) and the developers. The developers have proposed a footprint of an area they would be interested in. The most recent proposed footprint covers a significantly larger area than the prior estimates. In addition to the original footprint which consisted primarily of the southeastern region of the base, the developers are now interested in pursuing the Seaplane Lagoon, the area north of the Seaplane Lagoon including the hangars but excluding Site 5, the northwest territories (golf course area), and OUs-2A and -2B. The area will not include Site 25 or Economic Development Conveyance (EDC) 11. In addition, the developers are proceeding with their due diligence efforts and developing a proposal that includes potential financial savings by combining remediation and redevelopment activities. Mr. Dick cited the use of dredge materials from the Seaplane Lagoon for construction of the golf course as an example of such savings. This would allow a one-time excavation of an area that would otherwise be excavated once during the cleanup process and again during the development process. The next meeting is scheduled for September 10, 2002.

Ingrid Baur asked if the City has come to an official agreement that they are committed to early transfer. Mr. Dick explained that there has been no formal agreement yet. The City and the Navy must agree, and must receive approval from the governor of California and the U.S. Environmental Protection Agency (EPA). The City has contracted Levine Fricke, an environmental consulting firm, to conduct its due diligence. This process involves examining data collected by the Navy so far in the investigation to get a clear idea of nature and extent of the remaining remedial activities that are required at Alameda Point. In doing so, they will identify opportunities to save money by combining remedial and redevelopment activities. It will be necessary for the developer to prove to the Navy that early transfer ultimately will lower the cost of remediation.

Mr. Peterson emphasized that the community desires more involvement in the process of determining if and when early transfer will occur; he also expressed a general sentiment among community members that they have been left out of the preliminary stages of the process. Mr. McClelland responded that he has talked to Laurie Nelson, who leads the Navy's transfer group, and there may be a presentation

regarding the status of early transfer as soon as the October 2002 RAB meeting. Ms. Nelson, Elizabeth Johnson, and representatives from the developers and the City might all be involved in that presentation.

Ms. Baur asked why the meetings between the Navy, the developer, and the City are not open to the public. Tom Pinard, Navy, stated that the main reason is that they are considered to be staff meetings. Any decision meetings, such as city council meetings, would be open to the public.

Mr. Peterson suggested that the RAB draft a letter to Ms. Johnson, the mayor, and the city council requesting to be kept more informed on a regular basis. After a brief discussion regarding the content of the letter, Ms. Baur motioned that Mr. Peterson draft the letter. The motion was agreed to.

#### **IV. Report on Environmental Conference**

Dale Smith was not present to report to the RAB on the environmental conference.

#### **V. Operable Unit (OU)-5/Alameda Annex Installation Restoration (IR)-02 Remedial Investigation (RI)/Feasibility Study (FS)**

Anthony Talamantez, Engineering/Remediation Resources Group, presented the following information on the proposed outline for the focused groundwater RI/FS, Alameda Point Site 25, and Alameda Annex. A handout was provided.

Preparation of the document will involve compiling and analyzing previously collected data at both sites to determine if significant risks to human health or the environment are associated with benzene and water. If the RI determines that risk exists, the FS will evaluate remedial alternatives and recommend the best-suited technology. Jean Sweeney asked Mr. Talamantez if any original research or data collection would be conducted. Mr. Talamantez stated that there is none planned; however, if their evaluation indicates that previously collected data are not sufficient to conduct risk assessments, additional sampling will be conducted.

The document will follow a fairly typical FS outline, with the exception of Sections 3.6 (Groundwater Beneficial Use), and 2.4 (Objectives/Rationale for Previous Groundwater Investigations). The primary focus of this report is the shallow benzene plume located beneath Alameda Point Site 25 and Alameda Annex IR-02. Other constituents have been detected, but are not present at elevated levels.

Mr. Talamantez pointed out a photograph in the handout showing a "stained area" in soil located at the approximate center of the benzene plume. The source of the stain and the plume are uncertain; however, there are several possibilities, including leaching from the Marsh Crust and several point source areas.

Patrick Lynch stated that the stained area shown in the photograph is the former location of a site the Navy used to burn wastes.

Mr. Talamantez noted that no monitoring wells are depicted in the photograph; however, several wells are in place around the plume. In addition, there have been several soil gas investigations and Hydropunch® sampling events. The data from these studies will be available in the report.

George Humphreys asked if benzene is the only constituent present, or if toluene, ethylbenzene and xylene are also present. Mr. Talamantez stated that very low concentrations of xylenes were found, but were not significant.

Mr. Lynch stated that he recalled studies showing elevated levels of naphthalene in the area of the benzene plume and that naphthalene and benzene were detected outside of the plume area, in the western portion of the Coast Guard Housing Area (CGHA). Mr. Lynch also stated that the CGHA was used as a storage and transfer facility by Naval facilities throughout the San Francisco Bay Area and that accounting of waste that was shipped in and out of the area was substandard and may have resulted in thousands of tons of undocumented barrels of waste. Mr. Lynch feels that the presence of the Marsh Crust and benzene in groundwater may be attributable to the alleged undocumented barrels.

Ms. Sweeney asked what technology would be used for remediation of the benzene plume.

Mr. Talamantez stated that it will be determined during the FS process, which will evaluate alternative technologies, and determine which of them is most suitable, based on current and expected future risks, and the beneficial uses of groundwater.

Ms. Baur asked if the previous studies that the report would be based on were conducted in the dry or wet season. Mr. Dick stated that quarterly groundwater monitoring data would be used to accurately reflect year-round conditions. Ms. Baur asked if risks are increased when the water table rises during the wet season. Mr. McClelland responded that the results of soil gas sampling indicate that no increased risks are caused by volatilization from benzene during the wet season.

Mr. Lynch stated that the Navy knew about the existence of the benzene plume when they built the housing units above it and that tests inside of the housing units have indicated unsafe levels of benzene. In addition, Mr. Lynch stated that he believes that the Navy did not follow recommendations that were made 10 years ago to monitor indoor air on an annual basis and to clean up groundwater.

Mr. Torrey asked why there is a need for preparation of another report, rather than proceeding to remediation, if it has been determined that there is a risk. Mr. McClelland responded that it has not been determined that there is a risk. Several risk assessments conducted in the past have indicated that there is not an unacceptable risk associated with this plume; however, the Navy is following standard guidelines to be certain all measures are taken to get the most accurate risk assessment possible on which to base the final remedial decision. A discussion ensued regarding the risks associated with volatilization of benzene from the groundwater plume.

Ms. Baur asked what the planned reuse is of the two sites above the plume. Mr. McClelland stated that the western third of Alameda Annex IR-02 will be residential. Mr. Lynch stated that he believed the proposed reuse of the property had been changed from a school site to a residential area. In addition, Mr. Lynch expressed some uncertainty about the validity of the Navy's risk assessments, however, Mr. McClelland assured him that all risk assessment guidelines are followed when conducting risk assessments.

Mr. Peterson asked how old the data being used are. Mr. Talamantez responded that the report will include data collected over a 12-year period, from about 1989 to 2001.

Bert Morgan asked if the source of the plume has been identified or removed. Mr. Talamantez stated that none of the previous investigations identified a source, so none have been removed. However, it is believed that there is currently no continuing source, based on monitoring data that indicate no increase in the size or concentration of the benzene plume. If a continuing source were present, one would expect that the plume would either expand or increase in concentration.

Ms. Baur asked if either of the sites have been transferred. Mr. McClelland stated that all of the Alameda Annex has been transferred, however, the Navy is retaining responsibility for the cleanup.

A community member asked Mr. Talamantez to elaborate on the beneficial use section of the outline. Mr. Talamantez stated that this section will evaluate the two previous studies that have focused on the beneficial uses of groundwater. Because the Department of Toxic Substances Control (DTSC) is the lead agency at Alameda Annex and EPA is the lead agency for Alameda Point, both state and federal criteria will be used in evaluating groundwater. Both of the previous studies concluded that there are no beneficial uses of groundwater at this location because the salinity is too high and the yield is too low.

Ms. Baur stated that despite the ruling that groundwater has no beneficial use, she is aware of neighbors who live in the vicinity of the benzene plume who use wells for irrigation of homegrown produce. In addition, Ms. Jaulus stated that the Collaborative will have housing built above the benzene plume and that they encourage their tenants to grown produce as a low-cost method of obtaining healthy foods. She voiced concern that the root systems of those plants and trees reach into the groundwater. Marcia Liao, DTSC, stated that the risk assessment might include an evaluation of the ingestion of homegrown produce as a potential exposure pathway for soil.

A community member asked how this RI would differ from the Alameda Point OU-5 RI report. Mr. McClelland stated that historically, investigations at Alameda Point and Alameda Annex have been conducted independently. Soil and groundwater at Site 25 and Alameda Annex, including the benzene plume, were addressed in separate reports. However, after RI data concluded that the plumes at Site 25 and at Alameda Annex were not separate, the Navy and the agencies agreed to conduct a single FS that would evaluate remedial alternatives to treat it as a single plume. Therefore, groundwater at Site 25 will be included in the Remedial Action Plan /Record of Decision (RAP/ROD) for basewide groundwater at Alameda Annex.

Jim Sweeney asked if the benzene plume beneath Alameda College is the same as the plume beneath OU-5. Mr. Talamantez stated that the outer fringe of the lowest concentrations of the plume does extend slightly beneath the track outside of the school. However, there have been no indications that it extends any farther.

Kevin Reilly asked about the next step in the process after the RI/FS is completed. Mr. McClelland stated that final decisions will be made in the RAP/ROD for Alameda Annex, which is expected to be submitted in 2003.

Mr. Humphreys asked for clarification about what a RAP is. Mr. McClelland stated that it is the state agency equivalent of a ROD. Because the lead agency for Alameda Annex is DTSC and the lead agency for Alameda Point is EPA, both a RAP and a ROD will be prepared for the combined groundwater decision.

## **VI. Base Realignment and Closure Cleanup Team (BCT) Activities**

Mr. McClelland provided the following report on BCT activities for July 2002.

The BCT Monthly Tracking Meeting was held July 16, 2002. BCT members discussed revision of the Fiscal Year (FY) 2003 site management plan, the OU-5/Alameda Annex FS, and the preliminary results of the polynuclear aromatic hydrocarbon (PAH) investigation. The federal facilities agreement lays out the dates for submittal of all deliverables. Each year the BCT sets target dates for each document and the revisions are reviewed and finalized by the agencies, at which point the schedules become legally binding. The finalized FY 2003 schedules will be included in the mid-monthly mailing.

The discussion of the OU-5/Alameda Annex FS covered the same material as was presented to the RAB.

Prior to conducting the PAH investigation, the Navy and the agencies agreed to a cleanup level of 0.62 milligrams per kilogram (mg/kg), based on total PAHs, in which the detected concentration of each PAH is expressed as the equivalent concentration of benzo(a)pyrene in terms of carcinogenic potential. Concentrations below 0.62 mg/kg would not require remediation, concentrations between 0.62 and 1.0 mg/kg would be considered within the risk management range, and any concentrations above 1.0 mg/kg would require active remediation. Out of 1,839 samples collected during the investigation, 36 samples contained PAHs at concentrations of above 0.62 mg/kg and will require further investigation to determine if active remediation is warranted. Of those 36, 18 samples showed concentrations above 1.0 mg/kg and will require active remediation. Most of the high concentrations were found in isolated areas, either in Federal Agency-to-agency Transfer Parcel 1A or in Economic Development Conveyance 5. The Preliminary Assessment/Site Inspection (PA/SI) Report will be completed by January 2003. Areas that are determined to require active remediation will become new Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites.

The BCT also had a brief discussion about how Resource Conservation and Recovery Act (RCRA) issues will factor into the status of otherwise transferable sites. RCRA Part A and B units were in place when the base was active. For property to transfer, all requirements for CERCLA and RCRA must be met. The BCT is looking into ways to free up portions of sites outside of the RCRA-permitted areas for transfer.

## **VII. Community and RAB Comment Period**

A brief discussion regarding RCRA-permitted areas continued. Mr. Lynch stated that RCRA requirements apply to Marina Village Housing, which received hazardous waste generated at all San Francisco Bay Area installations under a Part A permit. When the housing was built on top of this site, Mr. Lynch believes that the Navy failed to fulfill the requirement to perform a site investigation required as part of the final Part B permit that was received for the area. Mr. Lynch feels that there is a significant amount of confusion because the property is no longer part of the Fleet Industrial Supply Center, Alameda Annex, and has been moved into the former Naval Air Station; the requirements have never been met, leaving questions about the safety of the site for residential use. Mr. Lynch stated that it seems obvious to him that there is a link between the hazardous waste activities previously conducted at this site and the impacts to soil and groundwater in the Marina Village Housing and the surrounding areas, including the CGHA, the Miller School, and the adjacent preschool. Mr. Lynch encouraged community and RAB members to visit the San Francisco Bay Guardian website at SFBG.com and review past editions, including the July 4, 2001 edition, which included interviews with Navy and DTSC about this issue.

Ms. Liao clarified that there are 13 RCRA units, 7 of which are included in the RCRA Part B permit, and four of those units have not been formally closed. The rest of the RCRA sites at Alameda Point have been closed; however, until all units are closed, the permit remains open.

Mr. Humphreys asked if the landfills at Sites 1 and 2 would have required RCRA permits if RCRA had been in place when the landfills were operational. Mr. Dick stated that they would, but explained that even without having a RCRA permit, the RCRA requirements qualify as applicable or relevant and appropriate requirements and therefore will be fulfilled by the CERCLA Program.

Ms. Baur asked if closure of the RCRA permits falls under Superfund. Mr. McClelland stated that because all of Alameda Point is on the National Priorities List, it is considered to be a Superfund site, but

is funded by the Navy. Therefore, budget issues related to Superfund will not affect funding of the cleanup at Alameda.

Mr. Peterson asked why OU-5 soil and groundwater are being dealt with separately. Mr. McClelland reiterated that groundwater at Alameda Point Site 25 and Alameda Annex IR-02 historically have been dealt with separately because they are on separate bases. However, IR data indicate that they are actually a single plume, and therefore, remediation will be handled under one FS. Impacts to soil at each of the sites, however, are not related to the shared groundwater plume and therefore will be dealt with separately.

Mr. Peterson suggested that a portion of the Technical Assistance for Public Participation Grant money be used to fund a third-party review of the OU-5/Annex groundwater FS. Mr. Torrey recommended that this issue be on the agenda at the first community meeting on August 22, 2002.

Ms. Sweeney asked the identity of the material that is being hauled out of the East Housing area. Mr. McClelland stated that he could not give a definite answer since it is a City redevelopment project being done by Catellus, but that the material is most likely chlordane-impacted soil. Following demolition of the buildings in that area, extra precautions were taken to ensure that the new housing would be built on clean soil. Elevated levels of chlordane were found in samples of the dirt beneath the foundations. There is some disagreement about whether this chlordane is a CERCLA release. The Navy believes that the concentrations are a result of normal application of chlordane as a pesticide; however, the City believes it should be classified as a CERCLA release and therefore funded by the Navy.

Mr. Torrey announced that he, Lyn Stirewalt, Jim Leach, and Mr. Peterson recently attended the Arts and Wine Festival and set up a booth for the RAB. They received many compliments and requests for literature about the RAB and the cleanup. Several people expressed potential interest in joining the RAB.

The meeting was adjourned at 8:25 pm.

**ATTACHMENT A**

**NAVAL AIR STATION ALAMEDA**  
**RESTORATION ADVISORY BOARD MEETING AGENDA**  
**AUGUST 6, 2002**

**(One Page)**

# ***RESTORATION ADVISORY BOARD***

***NAVAL AIR STATION, ALAMEDA***

## ***AGENDA***

**6 AUGUST, 2002 6:30 PM**

**ALAMEDA POINT – BUILDING 1 – SUITE 140**

**COMMUNITY CONFERENCE ROOM**

**(FROM PARKING LOT ON W MIDWAY AVE, ENTER THROUGH MIDDLE WING)**

<b><u>TIME</u></b>	<b><u>SUBJECT</u></b>	<b><u>PRESENTER</u></b>
<b>6:30 - 6:35</b>	<b>Approval of Minutes</b>	<b>Michael John Torrey</b>
<b>6:35 - 6:50</b>	<b>Co-Chair Announcements</b>	<b>Co-Chairs</b>
<b>6:50 - 7:05</b>	<b>September Meeting Change Future Agenda Items</b>	<b>Mike McClelland</b>
<b>7:05 - 7:15</b>	<b>Environmental Conference Update</b>	<b>Dale Smith</b>
<b>7:15 - 8:00</b>	<b>OU-5/Alameda Annex IR-02 RI/FS</b>	<b>Anthony Talamantez (ERRG)</b>
<b>8:00 - 8:15</b>	<b>BCT Activities</b>	<b>Mike McClelland</b>
<b>8:15 - 8:25</b>	<b>Community &amp; RAB Comment Period</b>	<b>Community &amp; RAB</b>

**RAB Meeting Adjournment**

<b>8:25 - 9:00</b>	<b>Informal Discussions with the BCT</b>
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**ATTACHMENT B**

**NAVAL AIR STATION ALAMEDA**  
**RESTORATION ADVISORY BOARD MEETING SIGN-IN SHEETS**

**(Four Pages)**

**ALAMEDA POINT  
RESTORATION ADVISORY BOARD  
Monthly Attendance Roster for 2002**

Date: July 2, 2002

Please initial by your name

COMMUNITY MEMBERS	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Ingrid Baur	X	X		X		X		IB				
Clem Burnap												
Ardella Dailey		*			X	X						
Nick DeBenedittis												
Douglas deHaan		X	X		X	X						
Tony Dover	X		X				X					
George Humphreys	X	X	X	X	X	X	X	GH				
James D. Leach	X	X	*	*	X	X	X					
Jo-Lynne Lee	X	**	X		**							
Lea Loizos	X	X	X	X		X	X					
Bert Morgan	X	X	X	X	X	X		BM				
Ken O' Donoghue												
Kurt Peterson				X	X	X	X	KP				
Kevin Reilly	X	X			X	X	X	KRR				
Bill Smith (attending for Mary Sutter)	X	X	X	X								
Dale Smith (attending for Mary Sutter)				X	X	X						
Lyn Stirewalt	X	X	*		*	X						
Mary Sutter												
Jean Sweeney						**		JS				
Jim Sweeney						**	X	JS				
Luann Tetirick		X	X		X	X	X	LT				
Michael John Torrey	X	X	<del>X</del>	X	X	X	X	MST				

\* Denotes excused absence

COMMUNITY MEMBERS	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Dana Kokubaun												
Golden Gate Audubon Society												
Betsy P. Elgar												
Debbie Collins	X	X					X					
REGULATORY AND OTHER AGENCIES	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Anna-Marie Cook	X	*	X	X	X		X					
David Cooper	X	X	X					X				
Elizabeth Johnson	X	X		X	X	**	**					
Marcia Liao			*	X		X	X	X				
Laurent Meillier												
Patricia Ryan	X	X	X	X	X	X						
Sophia Serda					**							
Judy C. Huang												
Michael Shields USCG												

\* Denotes excused absence

U.S. NAVY	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Glenna Clark												
Andrew Dick	**			X	X			AD				
Steve Edde	X	X	X	X			X					
Greg Lorton							X					
Mike McClelland	X	X	X	X		**	X	WCP				
Tom Pinard	X	X		X	X	X	X	WCP				
Rick Weissenborn	X			X	X	X	X					
TETRA TECH EMI	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Courtney Colvin	X	X	X		X	X	X	X				
Tracy Craig	X	X	X			X		X				
Chris Fennessy						X						
Jim Helge						X						
Marie Rainwater												
Leah Waller	X	X	X									
Corinne Crawley				X								
GPI	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Michael Stone	**	**	**	**	**	**	**					

\* Denotes excused absense

OTHER	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Charlene Washington-EBCRC												
Janet Argyres-Bechtel					X							
Bart Draper-Bechtel												
Stephen Quayle-Bechtel												
Bruce Marvin - IT, Aquifer Solutions	X											
Rezsins Jaulus-Alameda Point Coll.				X		X		RF				
Eric Johansen - Bechtel					X			RF				
Ron Rinehart, Pacific States			X	X	X	X	X	RF				
Aidan Barry - APCP					X	X	X					
Bill Howell - 3-D Environmental					X	X						
Lee Dodge - LFR							X					
David Rheinheimer								X				

\* Excused absence

\*\* Attended but did not sign roster

\* Denotes excused absence

## **ATTACHMENT C**

### **NAVAL AIR STATION ALAMEDA RESTORATION ADVISORY BOARD MEETING HANDOUT MATERIALS**

Military Waste Cleanup Program, Hampshire College. 2002. Letter Regarding Participation in 2002 Federal Facilities Cleanup Workshop. To Michael John Torrey, Restoration Advisory Board. From Dori Digenti. July 8.

Fiscal Year 2003 Budget Information. 2002, *Military and the Environment.*, July.

Proposed Outline for the Groundwater Remedial Investigation/Feasibility Study, Alameda Point (OU-5) and Alameda Annex. 2002. Presented by Anthony Talamantez, Engineering/Remediation Resources Group. August 6.

**Military Waste Cleanup Program, Hampshire College. 2002. Letter Regarding  
Participation in 2002 Federal Facilities Cleanup Workshop.**

**(One Page)**

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**ISIS**  
Prescott D-1  
Hampshire College  
Amherst, MA 01002



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isis@hampshire.edu  
<http://isis.hampshire.edu>

July 8, 2002

Michael Torrey  
174 Maple Way  
Alameda, CA 94501

Dear Michael,

This letter is to express our sincere thanks for your participation in our 2002 Federal Facilities Cleanup Workshop. Your enthusiasm and dedication to the cleanup of military and nuclear waste created the positive energy that made the Workshop a success. The learning and exchange that took place at the Workshop opened new possibilities for working with communities and with scientists; the challenge is to channel our energies and resources into projects that will have the largest and best impact on the national cleanup effort. There are several follow-up explorations underway, which we will continue to share through our monthly newsletter and periodic updates. The success of future projects, though, is dependent on your guidance and feedback, so please be in touch with us through phone and/or email. We are very interested in your feedback and ideas on how we can go forward.

Enclosed please find additional materials from the Workshop that did not make it into the Sourcebook. We are also posting as many materials as possible to our website at [www.milwaste.org](http://www.milwaste.org). Again, thank you for your participation and interest in working with ISIS and the MilWaste Program.

Sincerely,

Dori Digenti  
Military Waste Cleanup Program  
Hampshire College/ISIS  
893 West St., Prescott D1  
Amherst, MA 01002  
tel 413-559-5129  
fax 413-559-5611

Enc: Presentation materials

**Fiscal Year 2003 Budget Information. 2002. *Military and the Environment.* July.**

**(Two Pages)**

**Program Summary as of February 20, 2002**  
 Figures in constant FY 2003 \$ million

	FY 2001	FY 2002	FY 2003
<b>Cleanup</b>			
Army	389	387	396
Navy	293	255	257
Air Force	375	383	390
Former Sites	231	221	212
Agencies	21	23	23
<b>Subtotal</b>	<b>1,310</b>	<b>1,269</b>	<b>1,278</b>
<b>Base Closure Cleanup</b>			
Army	255	143	147
Navy	385	222	249
Air Force	147	222	119
Agencies	7	7	5
<b>Subtotal</b>	<b>793</b>	<b>594</b>	<b>520</b>
<b>Compliance (Incl. Personnel &amp; Training)</b>			
Army	521	598	641
Navy <sup>A</sup>	519	535	490
Air Force	359	358	409
Agencies	227	168	166
<b>Subtotal</b>	<b>1,626</b>	<b>1,659</b>	<b>1,706</b>
<b>Conservation</b>			
Army	72	78	94
Navy	34	21	22
Air Force	63	51	35
Agencies	13	14	1
<b>Subtotal</b>	<b>183</b>	<b>164</b>	<b>152</b>
<b>Pollution Prevention</b>			
Army	39	45	39
Navy	72	83	84
Air Force	97	94	101
Agencies	3	19	23
<b>Subtotal</b>	<b>212</b>	<b>241</b>	<b>247</b>
<b>Environmental Technology</b>			
Army	96	77	53
Navy	101	66	64
Air Force	1	-	-
SERDP <sup>B</sup>	59	63	60
ESTCP <sup>C</sup>	29	21	28
<b>Subtotal</b>	<b>286</b>	<b>226</b>	<b>205</b>
<b>Total</b>			
Army	1,372	1,328	1,370
Navy	1,404	1,182	1,166
Air Force	1,042	1,108	1,054
Former Sites	231	221	212
Agencies	359	315	306
<b>Grand Total</b>	<b>4,410</b>	<b>4,152</b>	<b>4,108</b>

**FY2003 Military Munitions  
 Cleanup Budget**  
 Current Year \$ (\$ in 000s)

	FY 2000	FY 2001	FY 2002	FY 2003
<b>Cleanup</b>				
Army	10,000	10,042	10,000	10,000
Navy	3,000	3,000	8,000	8,000
Air Force	25	600	1,153	400
Former Sites	54,733	58,162	64,073	70,100
<b>Subtotal</b>	<b>67,758</b>	<b>71,804</b>	<b>83,226</b>	<b>88,500</b>
<b>Base Closure Cleanup</b>				
Army	19,241	38,347	20,221	13,422
Navy	13,096	1,910	7,422	18,649
Air Force	0	0	0	0
<b>Subtotal</b>	<b>32,337</b>	<b>40,257</b>	<b>27,643</b>	<b>32,071</b>
<b>Service Operations and Maintenance</b>				
Navy <sup>A</sup>	34,819	60,000	67,000	25,000
Army <sup>D</sup>	30,200	12,000	35,900	80,100
<b>Research, Development, Test, &amp; Evaluation</b>				
SERDP	2,400	2,700	10,000	11,400
ESTCP	4,200	7,800	4,255	6,100
Army	1,700	1,700	6,400	10,900
Navy	0	730	1,000	1,000
<b>Subtotal</b>	<b>8,300</b>	<b>12,930</b>	<b>21,655</b>	<b>29,400</b>
<b>Grand Total</b>	<b>173,414</b>	<b>196,991</b>	<b>235,424</b>	<b>255,071</b>

Subtotals and totals may not add due to rounding.

<sup>A</sup>Navy Totals include Kaho'olawe

<sup>B</sup>Strategic Environmental Research & Development Prog.

<sup>C</sup>Environmental Security Technology Certification Program

<sup>D</sup>Range ID/Massachusetts Military Reservation

**HOUSE CUTS SERDP AND ESTCP**

The House of Representatives has slashed the fiscal year 2003 budgets for two small, but important Defense environment research and development programs, the Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP). The House version of the Defense Authorization Act cut \$8 million from the Pentagon's \$28 million ESTCP request and \$30 million (nearly half) from the \$60.5 million SERDP request.

The Senate Armed Services Committee, on the other hand, increased the ESTCP budget by \$5 million for projects related to unexploded ordnance

(continued on page 6)

response, and it upped SERDP by \$3 million for the same purpose. The full Senate has not yet acted on this year's Defense Authorization bill.

The proposed House cuts, if upheld, are likely to severely hamper the work of these two valuable programs. SERDP and ESTCP work closely together. SERDP's research tends to be more basic; ESTCP's more applied. They support research and development, at military, private, and academic labs, on key military environmental challenges in cleanup, compliance, pollution prevention, and ordnance response.

Though small, they have a great deal of leverage. For example, they have supported the evaluation of Permeable Reactive Barriers, an innovative technology for groundwater treatment. At Moffett Field, California, the Navy funded installation of the Barrier as part of the cleanup program. ESTCP (and later SERDP) supported the evaluation of the technology, so the results from Moffett could prove useful elsewhere.

These programs are also known for their foresight, identifying problems before they are widely recognized. For example, a growing number of military installations are finding perchlorate contamination in groundwater. Someone should be doing something about it, and in fact, they are. SERDP has been sponsoring innovative research into perchlorate remediation for at least a few years.

Finally, the SERDP/ESTCP research office provides technical leadership for the Defense Department's growing program in munitions response. If Congress wants a more reliable, cost-effective program to deal with unexploded ordnance and explosive wastes, it should boost the programs that are likely to make that happen. This is the direction that the Senate is heading. The House, without much explanation, is moving in the wrong direction.

The Authorization level will be resolved in Conference committee, and the funding levels may also be adjusted in Appropriations legislation.

### RAB RULE

The Defense Department (DOD) has agreed to promulgate a rule governing the operation of Restoration Advisory Boards (RABs) by mid-2003. *Defense Environmental Alert* (December 18, 2001) reported, "At a Dec. 10 hearing on the case 'Curt Gandy et al v. U.S. Department of the Army et al,' U.S. attorneys representing the Pentagon said the Secretary of Defense acknowledged that

DOD had not developed a so-called RAB rule, despite Congressional direction to do so." Gandy, leader of the Fort Ord Toxics Project, brought the lawsuit to challenge the Army's dissolution of the Fort Ord RAB.

The Fiscal Year 1996 Defense Authorization Act required the Department to develop the rule, and it published a proposed rule in the Federal Register on August 6, 1996 (pp. 40764-40772). Groups such as CPEO (CAREER/PRO at the time) and ARC Ecology commented on the proposed rule, but it was never finalized.

One can expect the Department to draw from the original proposed rule as well as the current Defense Environmental Restoration Program management guidance. The latter document contains language establishing criteria for abandoning RABs, but it has never been formally promulgated.

### FY 2003 DEFENSE ENVIRONMENTAL BUDGET

We print below two tables based upon the Defense Department's budget request for fiscal year 2003. The first is a summary of the environmental program. If Congress goes along, Defense environmental funding will remain stable. The second, for the first time—at the instruction of Congress—breaks out funds related to military munitions cleanup. This should provide Congress with the information it needs to decide how long it wants the military to take to complete responses at former munitions ranges and other ordnance sites.

**Proposed Outline for the Groundwater Remedial Investigation/Feasibility Study, Alameda  
Point (OU-5) and Alameda Annex. 2002.**

**(Seven Pages)**



**Proposed Outline  
Groundwater RI/FS  
Alameda Point (OU-5) and Alameda Annex**



***Prepared For:***

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***Prepared by:***

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4070 Nelson Avenue, Suite B  
Concord, CA 94520**

**August 6, 2002**

**Proposed Outline  
for:  
FOCUSED GROUNDWATER RI/FS,  
ALAMEDA POINT (OU-5) AND ALAMEDA ANNEX**

---

Executive Summary

1. Introduction

- 1.1 Purpose of Report
- 1.2 Site Background
  - 1.2.1 Site Description
  - 1.2.2 Site History
- 1.3 Report Organization

2. Previous Investigations Pertaining to Groundwater

- 2.1 Alameda Point (OU-5; IR-25)
- 2.2 Fleet and Industrial Supply Center, Alameda Annex (IR-02)
- 2.3 Combined Alameda Point/Alameda Annex Investigations
- 2.4 Objectives/Rationale for Previous Groundwater Investigations

3. Physical Characteristics of the Study Area

- 3.1 Surface Features
- 3.2 Soils
- 3.3 Geology
- 3.4 Hydrogeology
- 3.5 Utilities
- 3.6 Groundwater Beneficial Use

4. Nature and Extent of Contamination

- 4.1 Results of Site Characterization
  - 4.1.1 Soils Contamination as Related to Groundwater
  - 4.1.2 Possible Contaminant Sources
  - 4.1.3 Groundwater Contamination
  - 4.1.4 Soil-Gas
- 4.2 Summary: Nature and Extent of Contamination

5. Contaminant Fate and Transport

- 5.1 Possible Routes of Migration
- 5.2 Contaminant Persistence
- 5.3 Contaminant Migration
- 5.4 Summary of Groundwater Fate and Transport

6. Risk Assessment

- 6.1 Human Health Evaluation
- 6.2 Environmental Evaluation
- 6.3 Summary: Risk Assessment

7. Identification and Screening of Technologies

- 7.1 Groundwater Remedial Action Objectives
  - 7.1.1 Groundwater Contaminants of Interest
  - 7.2.2 Allowable Exposure Based on Risk Assessment
  - 7.2.3 Groundwater Remediation Goals
- 7.2 General Response Actions
- 7.3 Identification and Screening of Technology Types and Process Options
  - 7.3.1 Identification and Screening of Technologies
  - 7.3.2 Evaluation of Technologies and Selection of Representative Technologies
- 8. Development and Description of Remedial Alternatives
  - 8.1 Alternative 1 – No Action Alternative
    - 8.1.1 Description
    - 8.1.2 Evaluation
  - 8.2 Alternative 2 – Monitored Natural Attenuation
    - 8.2.1 Description
    - 8.2.2 Evaluation
  - 8.3 Alternative 3 – TBD
    - 8.3.1 Description
    - 8.3.2 Evaluation
- 9. Detailed Analysis of Alternatives
  - 9.1 Individual Analysis of Alternatives
    - 9.1.1 Alternative 1 – No Action
      - 9.1.1.1 Description
      - 9.1.1.2 Assessment
    - 9.1.2 Alternative 2 – Monitored Natural Attenuation
      - 9.1.2.1 Description
      - 9.1.2.2 Assessment
    - 9.1.3 Alternative 3 – TBD
      - 9.1.3.1 Description
      - 9.1.3.2 Assessment
  - 9.2 Comparative Analysis and Recommended Alternative

## References

## Appendices

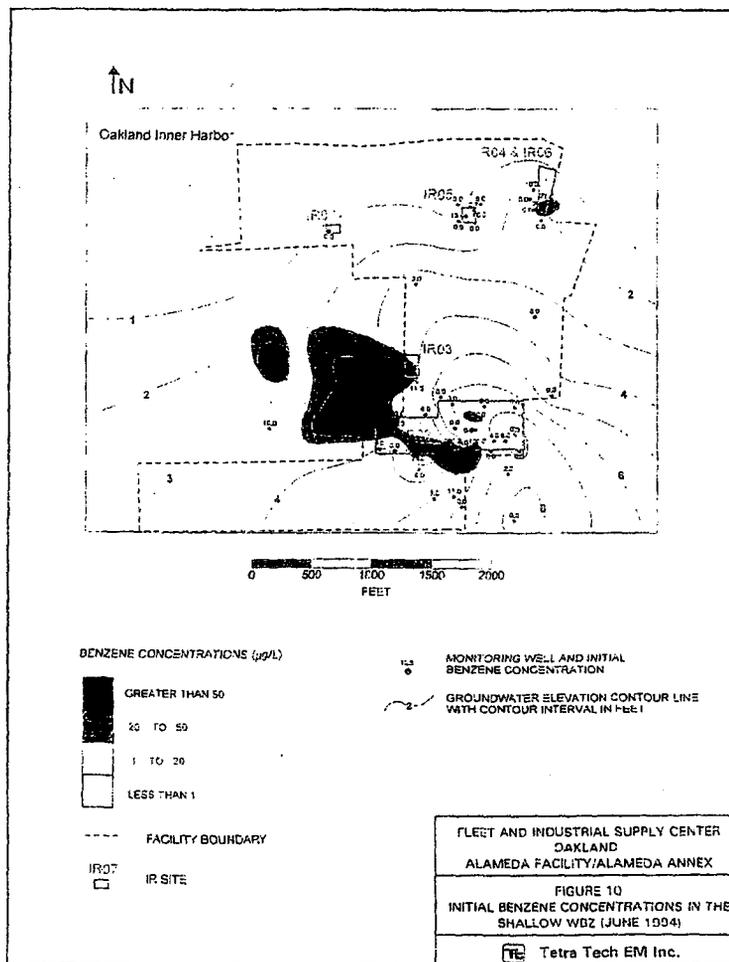
- A. Technical Memoranda on Field Activities
- B. Tabulated Analytical Data
- C. Risk Assessment Methods
- D. RWQCB Memo on Groundwater Beneficial Use
- E. Others....

## Figures

## Tables



View Northwest of Benzene Plume Area



## Alameda Annex Key Documents

Alameda Annex and Screening Lot and Scrapyard, Sampling Results Tech Memo  
PRC, February 1993

Final Remedial Investigation, Fleet Industrial Supply Center, Alameda Annex  
PRC/Versar, 1996

Final Tech Memo, Groundwater Contaminant Fate and Transport Modeling, FISCO  
TtEMI; 10/02/98

Draft Basewide Focused FS for Soil and Groundwater  
TtEMI; 11/24/98

Groundwater Beneficial Uses Evaluation, Alameda Annex  
TtEMI, 11/02/99

Baseline Human Health Risk Assessment, FISCO  
New Fields; 01/14/00

## Combined Alameda Point/Alameda Annex Key Documents

Updated Alameda Point/Alameda Annex Benzene Soil-gas Investigation  
TtEMI, 10/20/99

Final Feasibility Study for the Marsh Crust and Groundwater at FISCO, and  
Feasibility Study for the Marsh Crust and Former Subtidal Area, Alameda Point  
TtEMI, 03/31/00

## Alameda Point Key Documents

Data Summary Report, Site 25 Remedial Investigation, Alameda Point  
TtEMI, 01/29/99

Final Determination of Beneficial Uses of Groundwater, Alameda Point  
TtEMI, 07/01/00

Final Comprehensive Guide to the Environmental Baseline Survey  
IT, 06/29/01

Draft Field Summary Report for Operable Unit 5 Addendum Activities  
IT, 07/23/01

Storm Sewer Study Tech Memo Addendum and RTCs on the Draft Final Storm  
Sewer Study Report  
TtEMI, 08/30/01

Draft Final Remedial Investigation Work Plan for Operable Unit 5, Alameda Point  
Neptune, 05/09/02

Revised Draft Work Plan for Basewide GW Monitoring Program, Alameda Point\*  
IT; 06/13/02

Draft Final Remedial Investigation, Alameda Point  
IT; 07/15/02

\* Addresses Alameda Point and benzene-impacted areas of Alameda Annex

*Focused Groundwater RI/FS:*  
*Alameda Point and Alameda Annex*  
*ERRG, Oct 2002*

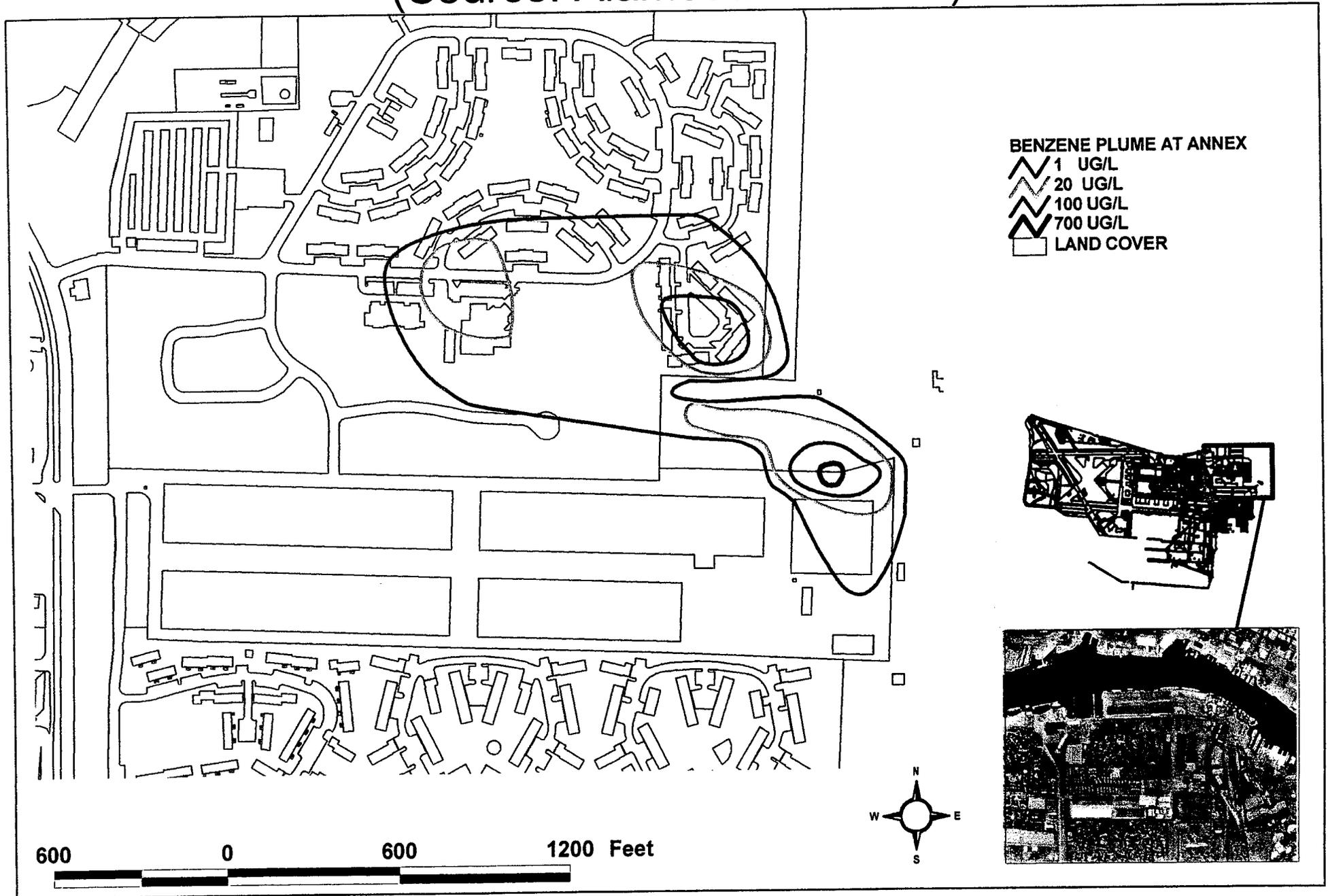
**Alameda Point/Annex**  
**Key Groundwater Documents**



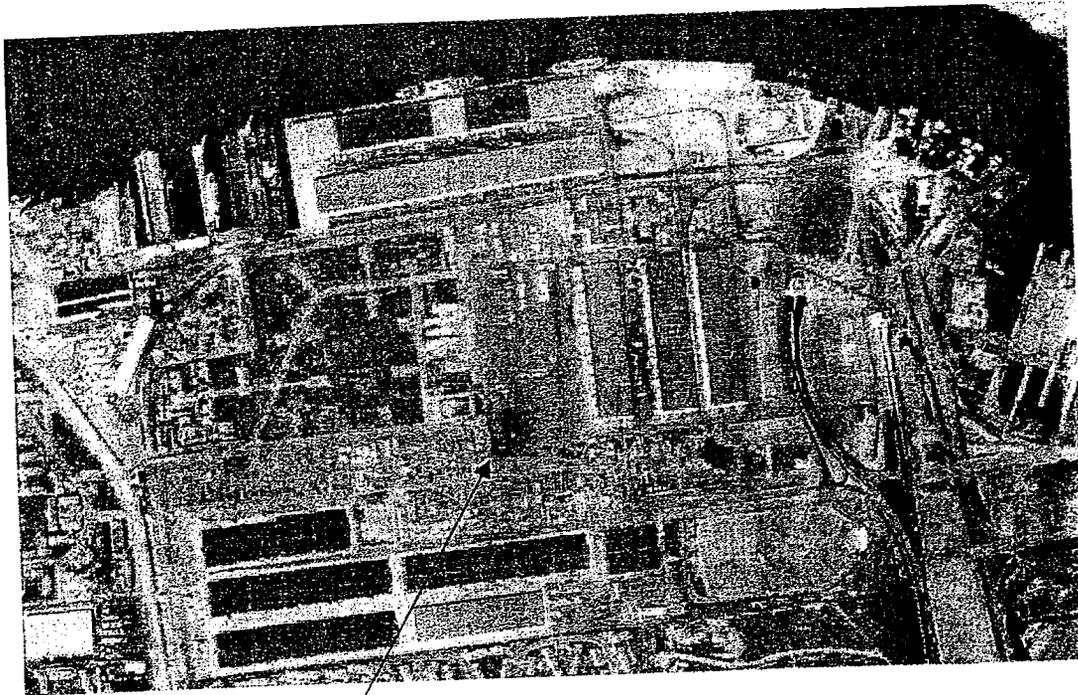
ERRG

# Benzene in Shallow G.W. - 1996

(Source: Alameda Annex RI)



**Figure 2-4. 1968 Aerial Photograph Depicting Stain**



**"Stained" Area**



TRANSMITTAL/DELIVERABLE RECEIPT

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Naval Facilities Engineering Command
Southwest Division
1230 Columbia Street, Suite 1100
San Diego, CA 92101-8517

DATE: 04/03/03
DO: 021
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FROM: Michael Wanta, Contract Manager

DOCUMENT TITLE AND DATE:

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