

NAVAL AIR STATION (NAS) ALAMEDA RESTORATION ADVISORY BOARD

MEETING SUMMARY

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

Tuesday, 11 November 1999

ATTENDEES:

See the attached list.

MEETING SUMMARY

I. Approval of Minutes

Jo-Lynne Lee, Community Co-chair, began the meeting at 6:30 p.m. The following attendees introduced themselves: Marty Martinson; Navy representatives Ken Spielman, Stacey Curtis, Izzat Ahmadiyya, Larry Ramos, Bill Kaktis, and Mike McClelland; Kathleen Ellis, Gutierrez-Palmenberg, Inc. (GPI); and Joan McClelland. Ms. Lee called for changes to the minutes. Robert Berges moved to accept the minutes with no changes; all were in favor.

II. Co-Chair Announcements

Steve Edde, Navy Co-chair, stated that the following members have excused absences: Dan Zerga, Tom Palsak, and Mary Rose Cassa, Department of Toxic Substances Control (DTSC). He stated that Mr. McClelland will replace him as the new BRAC Environmental Coordinator (BEC) for Alameda Point. Mr. McClelland was the former BEC at Hunters Point Shipyard (HPS) for five years; he has been with the Navy for over 30 years. He will officially serve as the new Alameda Point BEC as of 1 January 2000.

Ms. Lee stated that Kurt Peterson and Lyn Stirewalt also have excused absences. She received the Draft Federal Facilities Agreement (FFA) and the Final Environmental Impact Statement (EIS), Volumes I and II. Ms. Lee provided to the Planning Board some information related to the contamination found at the base; she allowed the RAB to peruse the information during the meeting. Copies of pertinent articles were also distributed.

III. Membership Update/Officer Nomination

Ms. Lee stated that nominations are being accepted for at least four positions. Membership

applications are also sought. Bert Morgan stated that nominations will be closed this evening; elections will take place in December. He added that they have exhausted all of their sources for potential RAB members; he encouraged attendees to recruit new members.

Ms. Lee stated that there are two nominations for officers. If there are additional nominations within the next two weeks, she encouraged attendees to contact herself or Ms. Stirewalt. Applications were distributed during the meeting; one will be included in the mid-month mailing. Completed applications should be submitted to Lisa Fasano, EFA West.

IV. Projects Update

Mr. Edde stated that various Navy remedial project managers (RPM) will provide updates.

OU-1

Mr. Edde stated that OU-1 is comprised of Sites 15, 8, 6, 7, and 16. A meeting took place with respect to addressing data gaps as a result of the regulator and RAB comments received. Additional sampling will take place at Site 15 which is North of the excavation and beyond the fence line. Samples show elevated levels of lead and polychlorinated biphenyls (PCBs) in that area. Additional sampling will also be conducted for Site 6. Historical records show a storage tank in the middle of the tarmac area between the hangars West of Hangar 41. This was the former aircraft intermediate maintenance department which utilized degreasing fluids and solvents. Field work should begin shortly. A Draft Final Feasibility Study (FS) will be issued early next year. Mary Sutter requested that the sampling plan consider their OU-2 Remedial Investigation (RI) comments regarding the spill. Mr. Edde stated that Patricia McFadden, EFA West, will give Ms. Sutter a follow-up call. Ken Kloc asked if the Navy will still propose No Further Action at Site 16 given the dichlorobenzene plume that is above preliminary remediation goals (PRGs). Mr. Edde replied that he will ask Ms. McFadden to follow up on this.

Mr. Martinson stated that he served as a fireman for four years prior to the base closure. His concern pertains to the issue of past contamination at installation restoration (IR) sites, stating that there are no options available to former employees with exposure to an IR site. After Site 15 was confirmed as an IR site, firemen continued to work without protective equipment as they were not informed by the Navy about the contamination.

Mr. Martinson added that Secretary of the Navy Hultin acknowledged that the Navy withheld the information from the firemen, when such disclosure would have resulted in their wearing protective equipment, having their medical records reflect that they worked in an IR site, and other procedures.

The Navy gave a presentation to the RAB in 1997 regarding this situation, but the Navy Environmental Health Center (NEHC) replied that they do not believe the firefighters were exposed to significant levels of contaminants, nor are there any adverse health effects or increased cancer risk. Mr. Martinson noted that this is incongruent with Site 15 studies.

He noted that the RAB is the only conduit through which the public can express its concerns about the effects of contamination. When the firemen brought up this issue in 1996, the Navy denied it. An inspector general investigation could not substantiate their claims. It took three years, two investigations, and an outside inquiry before the Navy admitted that they withheld information from the firefighters who should have been provided protective equipment, medical entry records, medical surveillance, decontamination procedures, and other steps.

He explained that the firefighters wanted a statement for medical records that documents unprotected exposure to the chemicals of concern at the site. Congressman Ronald Dellums intervened, after which three months transpired before the Navy met with the firefighters and promised this medical entry. The base then closed, the firemen's union disbanded, and only Mr. Martinson received the statement for his medical records. He was told that the statement was included in the records of 25 other firemen, but these records are contained in a closed base in Concord. These records therefore do not serve any purpose to the firemen with respect to their personal physicians. The Navy refused to attempt to reach other firemen as it was considered to be an "administrative burden."

Part of the OSHA regulation that Secretary Hultin admitted to violating pertained to medical entries. Mr. Martinson commented that at the very least, the Navy could provide a statement for medical records stating that there was unprotected exposure to chemicals of concern, such as PCBs, leads, dioxins, and others, which may or may not result in adverse health effects in the future.

In response to Dianne Behm's inquiry, Mr. Martinson stated that the civilian firefighters were employed by the Navy. The records would remain with the Navy unless they are specifically requested.

Mr. Martinson stated that NEHC refused to comment and considered the matter closed, which contradicts their human health risk assessment on Site 15. He noted that the contamination did not begin in July 1997 when the base closed; the issue of the employees working at the site needs to be addressed. If this issue is not within the purview of the RAB, he requested that the RAB inquire of the Navy how to deal with this issue, as the former firemen now experience a variety of medical problems.

OU-2

Mr. Ramos, who has been assigned as an RPM to Alameda Point, explained that he was born in Alameda and lived in Oakland for 30 years. He worked with the Navy from 1984 to 1995 and was stationed in Alameda Point. His interest in base cleanup stems from his connections to the community, noting that a win-win situation can occur both for the Navy and for the City of Alameda.

Mr. Ramos stated that the major portion of the rework took place at Building 5 and at Site 4. Site 3, eastern area, involves partially aboveground and partially underground storage tanks. The southeastern area housed a refinery and involves petroleum issues. The Draft Remedial Investigation (RI) was issued last June and many comments were received. Building 5 involves chlorinated solvents; Site 10 is Building 400; and Site 12 is the steam power plant.

Part of the problem encountered is reflecting the data on maps. He displayed a map which showed the Environmental Baseline Study (EBS) and RI sample locations; it did not include data from 1997 and 1998. The underground storage tank (UST) data and treatability studies still need to be considered. Ms. Behm asked if the GIS program can be utilized to create overlays that would synthesize the data in one map. Mr. Ramos replied that there are still some pending data; he thanked her for the suggestion. On the following Wednesday, the Navy will provide maps to the Board for input.

The Navy took samples in 1997 and 1998; monitoring wells will be installed as suggested by the Environmental Protection Agency (EPA). The draft monitoring plan will be issued in January for regulator review. Ms. Lee reiterated Ms. Sutter's concern that potential sources were difficult to locate with respect to the sampling locations. Mr. Ramos replied that information regarding Building 5 will be included in the Draft RI.

Ms. Sutter asked if there will be a map that will juxtapose the potential source locations with the sampling locations. Mr. Ramos replied that the information will be presented through textual descriptions and maps. Brad Job, Regional Water Quality Control Board (RWQCB), commented that industrial facility spills usually involve accidental spills through a storm drain or a sanitary sewer pipe. The viscosity of tetrachloroethylene (PCE) is such that it will drip through numerous hairline cracks in clay pipes; it is more likely a line source than a point source. He commended the Navy's decision in researching the sewers and shops. In terms of pinpointing the sources of volatile organic compounds (VOCs), he noted that PCE can sometimes be found several hundred feet from the source due to the sewer pipe problem.

Mr. Ramos stated that sampling should begin by February. The results should be received on the following month. He will provide a schedule at the next meeting. Some additional funds may be needed for the work on the maps.

Ms. Sutter asked as to the status of funding for Building 5. Mr. Edde replied that he will discuss the project later on in the meeting, but not necessarily the funding aspect. He added that the Installation Restoration (IR) program is funded, while the rad project utilized its allocated funds.

Mr. Edde noted the following changes to the focus groups: Operable Unit (OU)-1 add Patricia McFadden, OU-2 add Larry Ramos, OU-3 add Bill Kaktis, OU-4 add Ron Yee and Stacey Curtis, UST program add Izzat Ahmadiyya, Site 25 add Ms. McFadden.

OU-3

Mr. Edde stated that OU-3 is the IR Site 1 landfill, located on the Northwest corner of the base. Mr. Kaktis has served the Navy as a civilian engineer for 20 years. He has been working in the environmental department since 1995. He commented that due to the current Navy transition, he is uncertain of his availability after the latter half of next year. He encouraged attendees to call him with any questions. The objective is to contain the material that was deposited at OU-3 over the years, and to remediate the groundwater contaminants present. Other issues include radiological

exposure, unexploded ordnance (UXO), and a former pistol range which may involve lead. East of the funnel and gate is an area with the highest concentration of chlorinated solvents and hydrocarbons; they are trying to remediate the groundwater. They are currently conducting additional groundwater characterization to further identify how some contaminants are migrating and to address whether methane and volatile organic compound (VOC) vapors pose a significant problem.

A remedial investigation will begin on 1 December to incorporate the additional findings to the RI which were released last January. This investigation is to address data gaps created by the initial wells not being spaced close enough to eliminate possibilities of contaminant migration. Mr. Kaktis emphasized that there are two ways to look at polychlorinated biphenyls (PCB): 1) Which PCBs are present in soil and groundwater derived from ongoing investigations; and 2) The operational perspective, which considers the history of all the electrical equipment at the base, if there was oil-filled equipment and whether it contained significant levels of PCBs, whether the equipment needs to be sampled, and if there is a possibility of a significant leak or spill from a piece of equipment that may have gotten onto the supporting pad or onto the adjacent soil.

The lead-based paint program is ongoing. The DoD is working with the EPA to define deteriorated paint. The lead hazards have been abated in pre-1960 residential housing. The Navy may also have to abate pre-1978 residential housing. The nonresidential steel- and wood-sided structures are being examined because they are prone to flaking paint and the potential for soil migration.

In response to Ms. Sutter's inquiry, Mr. Edde stated that the lead-based paint that Ms. Cassa had referred to pertained to the industrial areas. He explained that Mr. Kaktis was referring to the three water towers and a radio tower; the Navy is currently preparing a response to Ms. Cassa's comments. Phillip Ramsey, EPA, added that Ms. Cassa's sampling efforts were conducted as a part of the BRAC Cleanup Team (BCT). He explained that there were problems with commercial buildings, and there has not been much movement on the part of DoD in assessment of nonresidential buildings. The result was a list of buildings targeted for a sampling event; the Navy action is pending. Mr. Edde reiterated that the buildings of concern were wooden and/or metal structures, not stucco or cement structures.

Ms. Lee asked who initiated this independent program. Mr. Ramsey replied that the EPA believes that lead-based paint is considered a Comprehensive Environmental Restoration Compensation and Liability Act (CERCLA) release, which is contrary to DoD's perspective. He opined that the DoD may acknowledge that though it is a CERCLA substance, not all CERCLA releases require action. He noted that the DoD has also stated that lead-based paint is not a CERCLA release and it is being dealt with in a compliance program.

Mr. Edde explained that the lead-based paint abatement in the pre-1960 housing was considered a compliance project, and did not fall under CERCLA. Mr. Ramsey stated that there has been an ongoing disagreement on the need to assess nonresidential structures. Mr. Edde stated that if direction is received from the DoD, more housing may need lead-based paint abatement. In addition,

if some settlement is reached between the EPA and DoD, there could be some additional work with respect to industrial areas as well. Those decisions are pending. Ms. Lee asked if a focus group should be formed to provide public comment. Mr. Kloc replied in the affirmative. Mr. Kaktis stated that after the RI was issued, the BCT noted data gaps. They agreed to supplement the Final RI and to begin working on the Feasibility Study (FS). The Draft FS will be finalized next year. Ms. Lee asked whether presumptive remedy or capping the landfill is being recommended. Mr. Kaktis replied that in addition to containment, they are also remediating the groundwater. Mr. Edde added that the selected remedy will be included in the Proposed Plan. In response to Ms. Lee's inquiry, Mr. Kaktis confirmed that groundwater is being addressed in the FS.

With respect to the soil adjacent to concrete pads, Mr. Martinson asked if they only test for PCBs, or if they also test for dioxins and furans, which are produced when transformers burn out and short-circuit. Mr. Ramsey replied that this would depend on the location of the site, the type of equipment and the circumstances under which it was used. For instance, if it were a large transformer, they would consider how long it was used, if it was constructed some time ago, and when it was taken out of service. Mr. Ramsey stated that the analytical methods used for PCBs would not detect dioxins and furans. Mr. Job added that the dioxin testing method costs about \$1,000 each.

Mr. Job asked if there are records of fires at PCB transformer sites, and Mr. Kaktis replied that there are some such records available.

OU-4

Mr. Edde stated that OU-4 is divided in two groups: Ron Yee is the RPM for the two onshore Sites 2 (landfill) and 18 (storm drain system), and Ms. Curtis is RPM for the other three offshore sites. In regard to IR Site 2, Mr. Edde stated that the RI report will be issued on 30 November. The FS will follow. Site 18 will be in a separate document, in a combined RI/FS and will be issued next year.

Ms. Curtis has been leading the Sediment Work Group (SWG) for the last two months. The group has been looking at the ecological risk assessment and the FS of the offshore areas. The Navy is currently managing the offshore areas at Alameda Point, Hunters Point Shipyard (HPS), and Treasure Island (TI) to determine which areas will benefit from a regional approach. There is ongoing work to pull in existing data, and complete the ecological and human health risk assessments, leading up to the RI. The parallel FS effort is being conducted to evaluate all of the remediation and disposal options for the sediment. The FS consists of Volume I, which is the regional evaluation of potential options; this will provide data and streamline Volume II (site-specific evaluations). The regional approach provides a number of benefits: it reduces costs for the FS, as some procedures can be conducted once, rather than repeatedly for each site. There is a potential for shared cleanup options, including mobilization costs, personnel, equipment, and dewatering areas. Dealing with larger volumes may also result in reduced overall costs.

Alameda Point's sites are 20 (Alameda Inner Harbor), 17 (Seaplane Lagoon), and 24 (pier area). The SWG performs a consulting role for other offshore and wetland areas to enhance consistency and technical approaches.

The regional FS is tentatively scheduled to be issued by the spring of next year, but this release date is dependent on its coinciding with the schedules of the other facilities. The Draft RI will be issued in the summer of next year. The issue date for Volume II of the FS will depend on the completion of the data being pulled together on the technical issues. The revised schedule will be issued by next year and should not impact the estimated transfer dates for Seaplane Lagoon and piers (2003) and Alameda Inner Harbor (2005).

In response to Michael John Torrey's inquiry, Dina Tasini, City of Alameda, stated that the Alameda Inner Harbor will be transferred to the City of Alameda. Ms. Sutter asked if the offshore area of IR Site 1 will also be considered, as it had been separated from the RI with the intention of its being considered within a package. The offshore sediments had not been considered. Ms. Curtis replied that it is not officially within the purview of the SWG. Mr. Kloc commented that this would be relevant to Sites 15 and 16, as well as any site that can possibly impact the sediments. In many of the OU reports, the Navy did not consider certain sites and stated that they will be evaluated on a regional basis. Ms. Curtis will investigate this and follow up.

Ken O'Donoghue asked if the SWG is doing a regional evaluation of options without the site-specific data. Ms. Curtis replied that there is enough data to get a general idea of site-specific issues, using a range of volumes that might be derived from particular areas. Mr. O'Donoghue asked if she expects Volume II to generate any results that would grossly deviate from the Volume I conclusions. Ms. Curtis replied that it is not expected, but Volume II does not preclude new alternatives. However, they are trying to pull together all the reasonable alternatives and then evaluate them site-specifically in Volume II, which will be based on the results of the RI.

Mr. Job commented that sending sediment from San Francisco Bay to Utah, as was done for a site in Richmond, cost hundreds of dollars per ton. Because much of the cost involves transportation, a closer location can save a large amount of money. Mr. Job added that some FS work has already occurred for HPS, which is another sediment site. He stated that the Water Board believes that this is the right way to allocate resources.

Ms. Curtis can be reached via telephone at (650) 244-2596 or e-mail at stacey@spawar.navy.mil.

UST/Fuel Line Removal

Mr. Edde stated that project engineer, Warren Yip, has been replaced by Izzat Ahmadiyya, who also began his civilian tenure at Alameda Point. He has been working on the UST project for two weeks. There are 120 USTs, of which 105 have been removed or destroyed, 14 closed in place, and one awaiting physical action. The latter tank was installed about ten years ago.

Fuel lines have either been closed in place or removed. UST removals have been taking place since 1986, conducted by Public Works Center (PWC), IT Corporation (IT Corp.), Tetra Tech EM Inc. (TtEMI), and others. UST-site soil and groundwater investigations were conducted by ERM-West, Moju, IT Corp., and TtEMI.

A free-phase floating product investigation was conducted at selected UST sites, and no floating product was detected. This is not to say that there is no floating product; USTs may either be closed or require corrective action. The Draft Corrective Action Plan (CAP) will contain site-specific remediation and will be issued on 14 January, 2000.

Mr. O'Donoghue asked for an update on the fuel-line removal hot spots. Mr. Edde replied that there were 46 hot spots and they are scheduled for further review. The CAP will determine what needs to be done in regard to remedial action.

In response to Ms. Lee's inquiry, Mr. Edde explained that the CAP will include the petroleum-only sites that were removed from the IR program.

Mr. O'Donoghue asked if there has been any follow-up on the reconsideration of the 100 parts per million (ppm) limit. Mr. Job replied that in 1996, the Navy conducted a prospective risk assessment which resulted in acceptable concentrations of various types of petroleum in soil that was approved by the Water Board. The limit is dependent upon the fraction of petroleum. There will be more cleanup for gasoline-range petroleum, as opposed to motor oil-range petroleum. As far as diesel-range organics and heavier petroleum, the 1,000 ppm limit is accepted and is economically feasible.

Mr. Job commented that it is unfair to require the Navy to clean up to a level higher than that required for a private site. Mr. O'Donoghue asked if the limits have been approved by the BCT, and Mr. Job replied that the Water Board has sole jurisdiction over petroleum. The Water Board has a case history of about 6,000 UST sites to which the Water Board has applied the same philosophy.

In response to Mr. O'Donoghue's inquiry, Mr. Job confirmed that the Water Board has a sliding scale based on the fraction of petroleum. He added that the specific carcinogen is also taken into consideration; for example, the presence of benzene generally drives the risk, and it is obviously the conservative measurement.

Mr. Job stated that each site must be checked for diesel, according to legislative mandate. He added that in general, the shallow groundwater has low probability of being utilized as drinking water. Therefore, MTBE concerns are most likely driven by ecological risk. The Water Board will meet with the Navy in two weeks. Todd Weidemeyer, a well-respected hydrogeologist, is assisting the Navy in evaluating the fate and transport of some of the petroleum problems.

With respect to OU-2 Draft RI, Mr. Kloc stated that the Navy presented its approach to repairing the storm drains which implied that the groundwater will not need to be cleaned up as there will be no pathways to the Bay. Mr. Job replied that he received a copy of the storm drain investigations in the previous week. The first step is to determine where the storm drains are deeper than the shallow groundwater. He noted that it is possible to focus efforts on the priorities without applying a one-size-fits-all outlook for the entire storm drain system. He stated that it is the major migration route for some of the more inland groundwater plumes.

In response to Ms. Behm's inquiry, Mr. Edde stated that the map which reflects the UST and pipeline locations is in the process of being revised. She asked as to the closure documents for the sites from which USTs were removed. Mr. Job replied that there was soil sampling, perhaps not with the same level oversight as was provided with a private gas station. He added that the documents are not the most well crafted.

For the tanks that are not petroleum-only sites, he intends to close the tanks with a specific disclaimer stating that the Navy is not necessarily finished with all the other issues in that IR site. For petroleum-only sites, the sites will not be closed until they are adequately remediated. His findings are communicated to the BCT.

Mr. Ahmadiyya stated that the CAP will determine if additional monitoring or the installation of additional wells are required. Ms. Behm stated that prior to her leaving the RAB, one of the reviews referred to the old Mobil gas station where there were two monitoring wells, neither of which were along the roadway. She asked as to the location of the tanks in relation to the monitoring wells. Mr. Edde stated that he will note the comment. The location of existing and future wells will be provided in the revised map to provide an overview: separate site-specific maps will also be provided.

With respect to the fact that no floating product was found in the wells, James Leach stated that capping the wells precluded the entry of floating product into the wells. Further, plume materials must be mixed with water in order to enter the well. Mr. Ahmadiyya explained that the screen is installed in the well so that it intersects the water table and causes any product to mix with the water and float to the top. If the wells are screened properly, there should be no problem detecting the floating product. Mr. Job added that he checks the screens at every site to ensure that the top of the screen interval is above the top of the water table. Mr. Leach stated that the well must be protected to keep extraneous materials from the top from entering it. Mr. Job stated that there must be a three-foot chunk of concrete on top of the well. It is therefore not practical to screen a monitoring well that is shallower than three feet; the wells at the base are usually deeper than three feet.

EBS/Finding of Suitability to Transfer (FOST)/Finding of Suitability for Early Transfer (FOSET)

With regard to the EBS, Mr. Edde stated that the Navy is currently in the process of responding to the regulatory comments. The Final EBS will be issued in January. The Draft FOST for the clean parcels will be issued in December. The Navy is currently negotiating with the City of Alameda about early transfer, which is allowed in CERCLA. The properties being considered are the Fleet Industrial Supply Center (FISC) Alameda Annex and the East housing. The rest of the base is being considered for early transfer, but it is on a different schedule.

Radiological

Mr. Edde stated that site surveys were completed for Sites 1 and 2 landfills. The removal action for anomalies was completed for Site 2. The other action for the two landfills is pending additional funding. Building 400 should be completed this week. An abandoned line was found in Building 5

(the fourth rad site) that has radium-226 contamination. Because the building was built over it, the line is located under some of the foundations and must remain until the building is demolished. All of the cement cuttings taken and pathways dug up inside the building have been closed; the building is sealed off. There are still some above-floor areas that need final cleaning and final survey. That ongoing work is funded and should be completed this week. The outside work on the storm drains has been paved over with asphalt up to manhole 5F which is located on the Southwest corner of Building 5. The storm drains leading to Seaplane Lagoon and the laterals that may have had backflow contamination still require remediation, pending funding.

Mr. Edde stated that he will speak with the BCT about the budget for this fiscal year. The BCT will create a project priority list that will be presented to the RAB for input. An update on the Building 5 funding will be provided at the next meeting.

Environmental Impact Statement (EIS)

Mr. Edde stated that effective next week, Jerry Hemstock will be relocated to San Diego where the interim leasing will be handled. The Final EIS was approved by the Navy and released by EPA last Friday. It was announced in the *Federal Register*, is available at all libraries, and has a 30-day No Action period ending 29 November; this is reserved for public comment. A public meeting was held at Alameda High School some months back to provide for public comment. The NEPA Record of Decision (ROD) that applies to both Alameda Point and the Annex property will be issued by the end of the calendar year.

V. Excavation Ordinance for Marsh Crust

Ms. Tasini explained that she will be attending the RAB meetings in place of Elizabeth Johnson, who is now working on a part-time basis for Alameda Reuse and Redevelopment Authority (ARRA). She noted that the contact list should be corrected to reflect this change. She can be contacted at (510) 749-5922.

She distributed a draft ordinance pertaining to excavation restrictions. She will provide the covenant as well as the associated maps at the next meeting. They are scheduled to go to the public meeting at City Hall on 7 December.

In response to Mr. Kloc's inquiry, Ms. Tasini stated that the covenant will be included with the title on the land. Ms. Lee added that the covenant runs with the land, meaning that whoever owns the property is responsible for complying with the restrictions. She noted that Catellus, the developer of the East housing project, is required to notify buyers of the excavation restrictions.

As part of the permitting process, the ordinance requires entities to provide certification of compliance with the restrictions. These steps are delineated from pages 4-7 of the draft. The developer can utilize one of three options: 1) conduct testing to prove that it is unnecessary to comply with the plans; 2) excavate and properly dispose of the soil; or 3) prepare for the handling

of excavation materials as well as create contingency plans.

Mr. Job asked if it is an option to return the excavated soil back to the hole. Ms. Tasini replied that this is possible if it is returned in the same fashion in which it was removed. This would be dependent on the test results for the soil in that particular area. This is not specifically included in the ordinance; nonetheless, it may still be the procedure for utilities and roads.

Ms. Sutter asked which entity ensures that the proper procedures are being followed after permitting. Ms. Tasini replied that oversight will be provided by Cal-OSHA, the Public Works Department, the City Engineer, and the inspection process.

VI. BCT Activities

Mr. Edde stated that a fact sheet was created for IR Site 25/Estuary Park/North Coast Guard housing. It was issued to all the residents, the school district, and day care center staff. A public meeting was held on 27 October which was attended by two residents. Other attendees included BCT members, Coast Guard management, Ardella Dailey, some community members from the West End, including Patrick Lynch, and the principal from George Miller Elementary School.

During the meeting, the following items were discussed: the reason for the meeting; history of the site; the Navy's theory on how PAHs got into the soil; the benzene plume in groundwater; PAHs including benzo(a)pyrene, exposure routes, primarily skin contact and ingestion, inhalation pathways through the wind blowing dust, and the Navy's solicitation of public input.

Tom Huetteman, EPA, spoke on the CERCLA cleanup process under Superfund and the risk range of 10×10^{-6} to 10×10^{-4} . Mr. Edde spoke on site-specific issues as compared to the EPA yardstick. Ms. Fasano and Ms. McFadden obtained public input at the annual Coast Guard meeting during which attendees voiced their desire to get the park back as soon as possible. Mr. Edde stated will look into interim actions to accomplish this goal.

He provided a schedule of continuing activities, including additional sampling to be completed by the end of February. Alternatives will be provided in July, and cleanup will be completed by 2001. An all-day meeting was held on the data quality objectives of the sampling plan. Because residents regularly deal with hazardous chemicals, they do not understand why Navy cleanup is taking so long.

Mr. Ramsey stated that Gwen Eng spoke about the Agency for Toxic Substances and Disease Registry (ATSDR), an independent federal agency. The fact sheets distributed were derived from ATSDR's website. Because the site has been listed on the National Priorities List (NPL), ATSDR will conduct a public health assessment on residential areas.

VII. Community and RAB Comment Period

In response to Mr. Torrey's inquiry, Ms. Tasini stated that the Paladium's reuse of Hangar 40 has been approved by the Planning Board. Mr. Kloc stated that the RAB has not received the data from the Phase I that Catellus conducted on the East housing. Mr. Edde stated that he will contact Mr. Quillen for the information.

Mr. McClelland stated that ATSDR conducts an independent investigation to look at the public health risks for the entire site, and not just for residential areas. He suggested that Mr. Martinson contact ATSDR as that agency also looks at potential exposures to onsite workers, as was done for HPS several years ago. ATSDR conducts this investigation on all NPL sites.

Mr. Martinson asked if the EPA health risk assessment in 1990 and 1993 on the Marina Village also pertained to the North housing. Mr. Edde stated that he is unsure of this, but that Marina Village is located Southwest of the North housing. North housing is North and East of the school. Mr. Martinson stated that the above risk assessment was sent to ATSDR, who recommended that testing on the benzene vapor barrier be conducted annually rather than every five years, as recommended by EFA West. He asked if this recommendation also pertained to the North housing.

Mr. Lynch explained that Mr. Martinson is referring to the testing that the Navy conducted before the housing was constructed which identified a very large benzene plume. When the indoor air was tested, the results showed unsafe levels and ATSDR not only recommended annual indoor testing, but also abating the source of benzene.

He noted that this contamination was not mentioned in the above Coast Guard meeting. He stated that the combined risks to the residents was unacceptable. The Marina Village housing is covered by a federal facility site restoration that was signed by Cal-EPA and the Navy in 1992. He expressed his disappointment that housing construction was initiated, rather than a remedial investigation.

He opined that this is indicative of incompetence on the part of Cal-EPA and downright neglect on the part of the Navy initially for the Navy residents, and now Coast Guard residents. He finds the situation to be despicable and expressed his disgust at being in the same room with regulatory representatives who misrepresented the issue on the previous week.

Mr. Job replied that he has been working in this specific field for seven years, adding that to be considered incompetent decreases his respect for Mr. Lynch's website and some of the activities with which he is involved. Mr. Lynch clarified that he is not speaking of Mr. Job as an individual, but that there is some institutional racism within the Water Board that allows low-income residents to be exposed to risks. Mr. Job replied that he firmly believes that the risk posed by benzene to indoor air is overestimated by all of the risk assessment tools used to date; it is still within the acceptable risk range.

Mr. Lynch replied that results of the indoor air samples contradict the conclusions derived from modeling. Mr. Job replied that there are thousands of benzene sources in the environment. Mr. Lynch

stated that the levels of acetone, naphthalene, and the underground plumes must be considered when concluding if the source is environmental or anthropogenic.

DRAFT

Mr. Job replied that he has no doubt that they are all anthropogenic. However, resource allocation issues must be taken into account and the toxicological measures applied at that site were to the state of the science at that point. He construes the second guessing and conclusions of incompetence as a personal affront to the Water Board.

Mr. Lynch repeated that ATSDR did recommend annual public testing and he cannot understand why it was not followed. He opined that the agencies involved do not seem to have an interest in the exposure to the residents.

Mr. Kloc suggested that the RAB follow up on the ATSDR recommendation.

In the next meeting, Mr. Leach will present a motion with regard to Mr. Martinson's presentation.

Ms. Sutter stated that she read letters to the *Alameda Journal* editor in which a previous onsite employee stated that there was no toxic risk on the base. She noted that the RAB should be aware of statements that may not be in the best interest of the community. Ms. Fasano noted that another letter from a former worker supports that initial letter.

Ms. Fasano stated that Steve Krival left a box containing materials on OU-4 Site 2. The box was placed in the library.

Ms. Lee adjourned the meeting at 8:55 p.m.

The next Restoration Advisory Board Meeting will be held at 6:30 p.m. on Tuesday, 7 December in Building 1, 1st floor, Suite #140, Community Conference Room, Alameda Point.

ATTACHMENT A

**NAVAL AIR STATION ALAMEDA
RESTORATION ADVISORY BOARD MEETING AGENDA**

November 2, 1999

RESTORATION ADVISORY BOARD

NAVAL AIR STATION, ALAMEDA

AGENDA

NOVEMBER 2, 1999 6:30 PM
ALAMEDA POINT - BUILDING 1 - SUITE 140
COMMUNITY CONFERENCE ROOM
(FROM PARKING LOT ON W MIDWAY AVE, ENTER THROUGH MIDDLE WING)

<u>TIME</u>	<u>SUBJECT</u>	<u>PRESENTER</u>
6:30 - 6:35	Approval of Minutes	Jo Lynne Lee
6:35 - 6:45	Co-Chair Announcements	Co-Chairs
6:45 - 6:55	Membership Update/Officer Nomination	Lyn Stirewalt
6:55 - 8:00	Projects Update	Steve Edde/ RPMs
8:00 - 8:10	Excavation Ordinance for Marsh Crust	Dina Tasini
8:10 - 8:20	BCT Activities	Steve Edde
8:20 - 8:30	Community & RAB Comment Period	Community & RAB

ATTACHMENT B

SIGN-IN SHEETS

**ALAMEDA POINT
RESTORATION ADVISORY BOARD
Monthly Attendance Roster for 1999**

Date: November 2, 1999

Please initial by your name

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
COMMUNITY MEMBERS												
Robert E. Berges	P	P	P	A*	P	P	P	P	P	P	REB	
Horst Breuer	A	A	A	A	A	P	A	A	A	A		
Saul Bloom/Ken Kloc	P	P	P	P	P	P	P	P	P	A*	KK	
Ardella Dailey	P	P	P	P	A	A*	A*	A*	P	P		
Douglas deHaan	P	P	P	P	P	A	A	P	P	P		
Tony Dover	P	P	P	P	A*	P	P	P	A	P	AD	
James D. Leach	P	A*	P	P	P	P	P	A	P	P	JDL	
Jo-Lynne Lee	P	P	P	P	P	P	P	P	P	P	JL	
Walter D. McMath	P	P	A	A	P	P	A	P	A	P		
Bert Morgan	P	A	P	P	P	P	A	P	P	A*	BM	
Ken O' Donoghue	P	A	P	P	P	P	P	P	A	P	Ⓚ	

* denotes excused absence

Revised 09/29/99

Name	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Tom Palsak	P	P	P	A*	P	A*	A	A	A	A		
Kurt Peterson	P	P	A	P	P	P	P	P	A	A		
Lyn Stirewalt	A	P	P	A	P	P	A	P	A	P		
Mary Sutter	P	P	P	P	P	P	P	P	P	P	MS	
Michael Torrey	P	P	P	P	P	P	P	P	P	P	MST	
Dr. Patrick Walter	A	P	P	P	P	P	P	P	A	A		
Daniel P. Zerga	P	P	A	A*	A	P	P	A	P	P		
Dianne Behm											P	
M. RAINWATER											PR	

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
REGULATORY & OTHER AGENCIES												
Ravi Arulanantham												
Claire Best												
Mary Rose Cassa												
Anna-Marie Cook												
David Cooper												
Jim Haas												
Brad Job												
Elizabeth G. Johnson DINA TASINI											ASJ DT	
Michael Martin												
Phillip Ramsey											FR	
Steve Schwarzback												
Lynn Suer												
Laurie Sullivan												
Sandre R. Swanson												
Joyce Whiten												
Dave Wilson												

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
U.S. NAVY												
Steve Edde											✓	
Lisa Fasano											✓	
George Kikugawa												
Patricia McFadden												
CDR Scott Smith												
Dennis Wong												
Warren Yip												
Larry Ramos											✓	
Michael McClelland											✓	
TETRA TECH												
Marie Rainwater												
GPI												
Kathleen Ellis											✓	
Maria Villafuerte											✓	
Barry Robbins											✓	

PUBLIC/GUESTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Name	Address								Phone			
Ken Spielman	EFA West								650-244-2539			
Stacey Curtis	SSC SD								650-244-2596			

ATTACHMENT C

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

E-mail Message from George Kikugawa, Navy RPM, to Tony Dover, RAB Member, regarding November RAD Update, November 2, 1999

Letter from OU-3 Focus Group to Bill Katkis, EFA West, regarding comments to the Draft OU-3 Feasibility Study Report, October 18, 1999

Alameda Point Operable Unit 3 presentation information

Site 5 Sampling Information

Regional Sediment Work Group presentation materials, November 2, 1999

Underground Storage Tanks at Alameda Point presentation materials, November 2, 1999

-----Original Message-----

From: Kikugawa, George [SMTP:KikugawaG@EFAWEST.NAVFAC.NAVY.mil]
Sent: Tuesday, November 02, 1999 1:47 PM
To: Edde, Steven L; Tony Dover (E-mail)
Cc: Vincent DeInnocentiis (E-mail); Mary Rose Cassa (E-mail); Anna_Marie Cook (E-mail); Phillip Ramsey (E-mail); McFadden, Patricia A
Subject: NOVEMBER RAD UPDATE

Hi Steve and Tony,

There is a little bit of work left to do. Here is the latest update.

RAD REMOVAL ACTION UPDATE FOR NOVEMBER

Sites 1 and 2 Landfills: Same as last update. Anomaly removal in Site 2 and surveys in Sites 1 and 2 have been completed. The need for future removal and surveys is being evaluated and will proceed when additional funding is available.

Building 400: Except for two minor contaminated spots, final confirmation surveys have been completed.

Building 5: There are still areas on the second and first floor which need to be remediated. Hopefully this work will take place this week.

All openings in the concrete building slab have been filled with concrete. Work on the abandoned line is suspended until additional funding is available.

Storm Drain System: With the replacement of pipe to the 5F manhole, this work is complete and the areas above the trench have been asphalted over. There is still contamination around the 5F manhole and in pipes and laterals out to the Seaplane Lagoon. Work on this line will continue when funding is available. The Navy is considering cleaning some of the lines in lieu of replacement.

The contractor will be doing some minor housekeeping cleanup and repair work in Building 5. Disposal of waste water and tanks, shipping of waste bins and final confirmation sampling remains.

george

.....

Alameda Restoration Advisory Board

October 18, 1999

Commanding Officer, Engineering Field Activity,
West Naval Facilities Engineering Command
Attn: Mr. Bill Kaktis,
Code 612 900 Commodore Drive
San Bruno, CA 94066-2402

Dear Mr. Kaktis:

The OU-3 Focus Group of the Alameda RAB has reviewed the Draft Operable Unit-3 Feasibility Study Report, dated August 27, 1999. In addition, the group has commissioned the Technical Services for Communities (TOSC) group and the Sierra Club to provide an independent assessment the document. The comments are attached.

Sincerely,



Mary Sutter
Restoration Advisory Board at Alameda Point
Team Leader, Operable Unit #3 Focus Group
cc: Steve Edde, Alameda Point
Mary Rose Cassa, DTSC
Philip Ramsey, EPA
Brad Job, RWQCB
Elizabeth Johnson, ARRA

.....

Alameda Restoration Advisory Board OU-3 Feasibility Study (FS) Comments

10/18/99

The Alameda Restoration Advisory Board (RAB) requested that two other entities review the OU-3 FS. Bill Smith of the Sierra Club and Michael Fernandez of TOSC were able to comment on this document. The Sierra Club comments as well as the RAB comments are included in this document. Michael Fernandez of TOSC had a death in the family and will be presenting the RAB with his comments by 10/23/99, at which point the RAB will forward them on to the Navy. The RAB comments are presented first, followed by the Sierra Club comments.

Both the RAB and the Sierra Club feel that the application of the presumptive remedy has been inadvisably used at this site due to the high water table and the fragile Bay ecosystem. A full mechanical excavation should be included in the FS to document this option.

The fact that PCB's are located in this landfill is of great concern to the RAB and the Sierra Club. We strongly believe in a zero tolerance level of this highly dangerous chemical. It should be the utmost priority to protect both human and ecological health from the effects of the bio-accumulation of this toxin.

Alameda RAB Comments

1. **Inappropriateness of the Presumptive Remedy.**
Both the OU-3 Focus Group and the regulatory agencies have registered their disagreement with the Navy's pursuit of a presumptive remedy approach at OU-3 during the remedial investigation (RI) phase. Regardless of our disagreement, the Navy has proposed a presumptive remedy approach in Section 4.2 of the Draft FS. We support the regulatory agencies in their request for additional site characterization and the preparation of an RI Addendum prior to finalization of the FS. We also point out that the Navy's refusal to use a standard RI/FS approach for OU-3, in spite of the advice of the regulatory agencies and the RAB, is likely to result in program inefficiencies and is not in the best interests of the community or the Navy.
2. Page 2-5 the Navy states, "Agreement could not be reached among the agencies on the presentation of one set of risk assessment values." This is a misleading statement. In reality, agreement could not be reached between the Navy, on the one hand, and the regulatory agencies (and the RAB) on the other hand. DTSC and EPA agreement on risk assessment methodology is clearly spelled out by the EPA in their comments on the Draft Final RI for OU-3. Please revise the statement on Page 2-5 so that it correctly represents the state of affairs regarding risk assessment methodologies.
3. **ARARs. (Section 3.0)**
Please include a more detailed discussion of ARARs related to groundwater seepage into the Bay, including a discussion of the Clean Water Act and its requirements. An additional

question: Are there no ARARs related to air toxics, such as vinyl chloride, emanating from the landfill surface?

4. Use of contaminated soils as a landfill cap foundation layer.
We strongly object to this proposal. The landfill at OU-3 is on the edge of the Bay and is sitting in shallow ground water. Instead, we recommend that contaminated soils derived from other Alameda Point sites be disposed of at a landfill that was specifically designed to hold contaminated soils.
5. The first sentence on Page 4-1
This sentence presents an incomplete definition of the purposes of the FS. This sentence should be revised based upon the language presented in the National Contingency Plan (e.g. the Nine Criteria).
6. Remedial Action Objectives. (Section 4.1)
In general, this section is incomplete since the remedial investigation is currently incomplete. We reiterate our support for the additional sampling protocol (soil, soil-gas, and groundwater samples) that the DTSC and the EPA recommended during review of the OU-3 RI.
7. Page 4-4, first paragraph.
We are glad to see that a methane survey will be performed. We believe that this methane survey should include analysis for vinyl chloride and other VOCs, as well as, radon (N.B. Radon should be analyzed, given that it is a daughter product of Ra-226, and given that the amount of Ra-226 in the landfill is not known and has not been estimated).
8. Sections 5.1.2. and 5.1.3.
The heading of these sections refer to "Gas and Groundwater Monitoring," yet there is no description of any gas or air monitoring. Please add the needed sections on gas monitoring.

Sierra Club Comments

Summary

The final feasibility study must include excavation of the entire landfill - an alternative that may be more protective of human health and the environment than any considered in the draft. The justification for omitting consideration of excavation is inappropriate, a national policy established for the remediation of landfills above the water table. Most of the Site 1 landfill lies within the water table and the heavy caps included in the highest scoring alternatives may eventually settle, forcing all of the landfill material below the water table. As the formerly dry landfill material settles below the water table, fresh pollutants may be leached out at considerably higher concentrations than found during the RI investigation.

The final feasibility study must also address hazards posed by PCB sediments within the water table. As tidal action within the landfill is likely to wash PCB laden sediments into the Bay, absolutely no material containing PCBs should be allowed to remain in the landfill. PCB's, together with mercury, are the toxins of most concern found in fish consumed by subsistence fishers in the region.

Removal of volatile organics found in the hot spot by air sparging is acceptable as an initial, and possibly only treatment. The final feasibility study should include a timeline for air sparging and final excavation of contaminant pockets that prove difficult to air strip.

The final feasibility study must also set remedial action objectives for ecological receptors. Ecosystem receptors are frequently more sensitive to contaminants than human receptors, especially for compounds like PCB that bioaccumulate. For example, a remedial action objective to prevent exposure to any detectable concentration of PCBs should be included for the surface soils.

The following are comments on specific areas in the FS.

1. Summary of Remedial Investigations (Section 2.0)

Define and identify as hot spots any subsurface volumes that contain detectable concentrations of PCBs.

2. Applicable or Relevant and Appropriate Requirements (Section 3.0)

No comments - suspect that some may not be properly applied to landfills with material in the water table.

3. Remedial Action Objectives (Section 4.0)

We feel the following two objectives should be added to section 4.1.1:

- ◆ Protect ecological systems from toxic chemicals found in soil and landfill refuse.
- ◆ Protect ecosystems by preventing exposure to any detectable concentrations of PCBs in soil or water.

Additionally, the following objective should be added to section 4.1.2:

- ◆ Protect ecological receptors in the San Francisco Bay by preventing exposure to any detectable concentrations of PCBs in sediments or groundwater.

1. General Response Actions (Section 4.2)

Landfills are an inappropriate presumptive remedy for landfills with material below the water table. Excavation must also be considered.

Agree that methane survey is needed as trapped petroleum hydrocarbons may generate methane for centuries - jet fuel is often converted to methane.

2. How may land reuse plans affect remedy selection? (Section 4.2.1)

The exclusion of excavation as an alternative to consider is justified by a policy statement developed to be generally applicable to landfills above the water table. The policy is neither technically nor financially justifiable at Alameda where the landfills are within the water table and land values are much higher than elsewhere in the nation.

3. Is excavation of contents practical?

As land prices at Alameda Point are more than four times higher than at the average national site, excavation may be practical and should be carried through as an alternative. The draft states that the quantity of material in the landfill, 400,000 cubic yards, is four times greater than the 100,000 cubic yard cutoff for consideration of excavation.

4. Containment Actions (Section 4.2.1.3)

Note that caps destroy native vegetation or at the minimum changes the type of vegetation. A cap does not reduce subsurface contaminant migration where tidal action occurs.

5. Excavation

This section should be added as section 4.2.1.4 to describe excavation of the entire landfill.

Memo

To: Mary Sutter, Alameda RAB
From: Michael Fernandez, TOSC
CC: Mary Masters, TOSC
Date: 11/02/99
Re: Alameda Point OU-3 Draft Feasibility Study

TOSC comments on the Alameda Point OU-3 Draft Feasibility Study are presented below. Please note that these comments are based solely on the FS since TOSC did not review the RI for OU-3.

GENERAL COMMENTS:

It appears that the RI is not complete. Section 2.2.2 refers to a radiological survey and removal action while Section 2.2.3 refers to a UXO survey and removal, which must be performed in the future. Section 4.2.2 states that the eastern boundary of the groundwater hot spot has not been defined. Section 5.2.3 states that delineation of the groundwater hot spot will occur as part of Remedial Alternative 6. Finally, Section 5.2.6 refers to the presence of free product in one of the performance monitoring wells but there is no other mention of free product in the FS. If this investigation work has not been done, then the RI is not complete. The RI must be completed before the final FS may be developed so that the true costs and effectiveness of the remedial options may be evaluated.

USE OF THE PRESUMPTIVE REMEDY

Use of a presumptive remedy for OU-3 does not seem appropriate. Much of the refuse is in direct contact with the water table so the FS should thoroughly evaluate the removal of at least some of the refuse. This would serve to reduce the potential for continued leaching of contaminants into groundwater. It would also reduce the potential for migration of the contaminants into San Francisco Bay where they may adversely affect ecological receptors.

ARARs

Tables 2 through 5 were not included in the TOSC copy of the draft FS. The text of this section does not refer to federal hazardous waste, water quality, or air quality requirements. These requirements must be considered as ARARs. If corresponding state requirements are more stringent, this would be a moot point.

REMEDIAL ACTION OBJECTIVES

Section 4.1.1 should include RAOs that address continued leaching of contaminants from the refuse contained in the landfill and protection of ecological receptors from those contaminants.

GENERAL RESPONSE ACTIONS

Section 4.2.1 states that GRAs were not developed for landfill gas at OU-3 because generation of significant volumes is not anticipated. GRAs for landfill gas must be developed if a properly conducted methane survey indicates that this conclusion may be erroneous.

DEVELOPMENT OF REMEDIAL ALTERNATIVES

In general, the FS considers a sufficiently broad range of remedial alternatives. This section should be expanded to include an alternative that calls for extensive excavation of the landfill contents.

DETAILED ANALYSIS OF LANDFILL REMEDIAL ALTERNATIVES

Again, this section appears to be satisfactory but must be expanded to include an extensive excavation alternative.

DETAILED ANALYSIS OF GROUNDWATER REMEDIAL ALTERNATIVES

For the most part this section is satisfactory. It is difficult to determine if the costs of groundwater remediation alternatives RA6 through RA10 are disproportionately high since the estimates in Appendix B do not give sufficient detail with respect to labor and capital costs. A more thorough breakdown of the types and magnitudes of these costs should be required. Such a breakdown is necessary to compare the various remedial options.

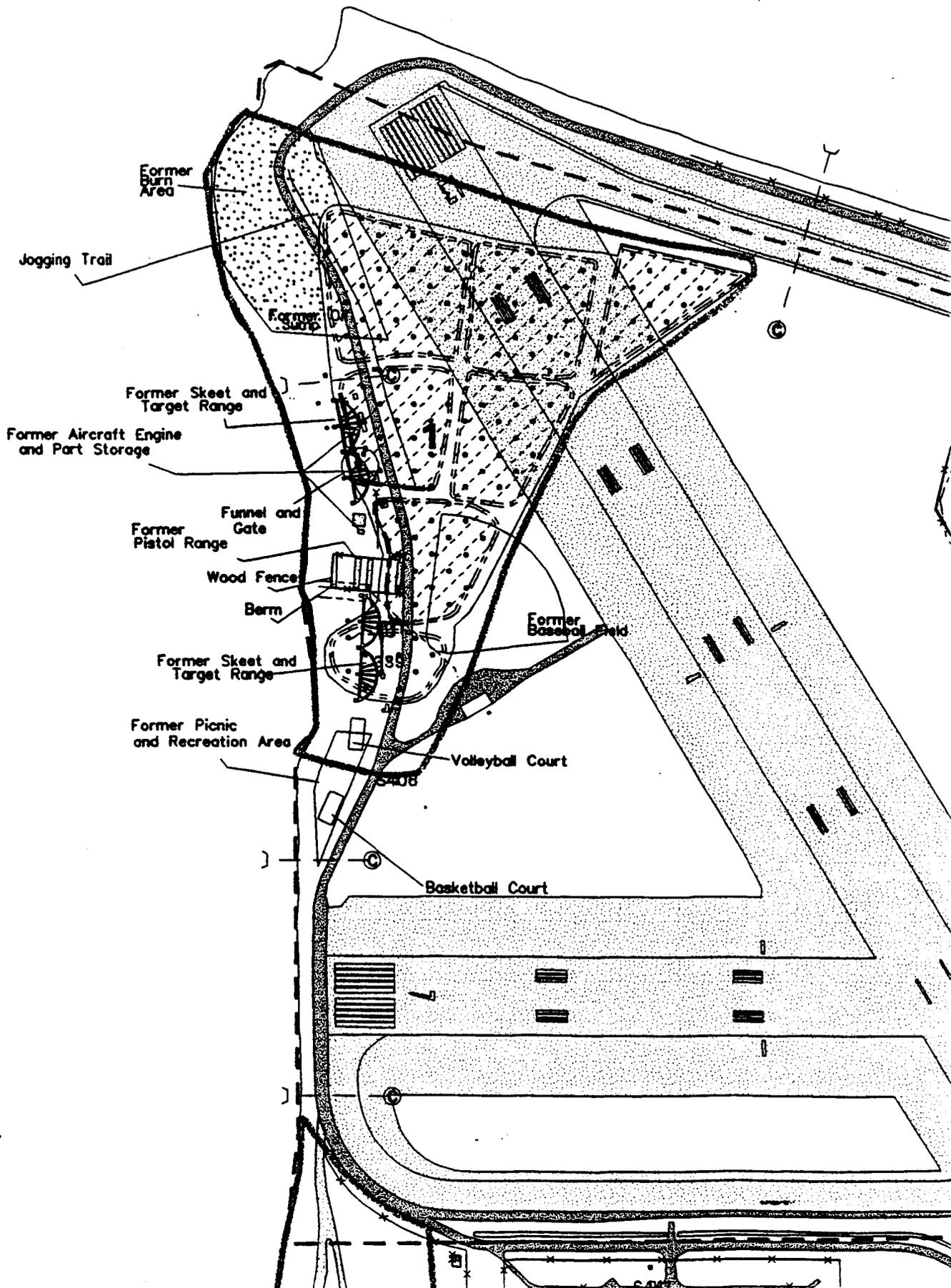
ALAMEDA POINT OPERABLE UNIT 3

LONG TERM APPROACH

- **LANDFILL CONTAINMENT**
- **REMEDICATION OF GROUNDWATER**
- **RADIOLOGICAL, UNEXPLODED ORDNANCE AND LEAD FROM FORMER PISTOL RANGE**
- **REUSE OF LAND AS GOLF COURSE**

SHORT TERM GOALS

- **ADDITIONAL GROUNDWATER SAMPLING**
- **METHANE GAS AND VOLATILE ORGANIC MONITORING**
- **SUPPLEMENTAL REMEDIAL INVESTIGATION**
- **FEASIBILITY STUDY**



ALAMEDA POINT EQUIPMENT PCB PROGRAM

- ONGOING PROGRAM BASED ON FINDINGS OF SURVEY CONDUCTED IN 1999
- FUTURE WORK CONSISTS OF ADDITIONAL SAMPLING AND EQUIPMENT REMOVAL
- CRITICAL COMPONENTS ARE EQUIPMENT, EQUIPMENT PADS AND SOIL ADJACENT TO EQUIPMENT
- NAVY WILL WORK DIRECTLY WITH CITY OF ALAMEDA

ALAMEDA POINT LEAD BASED PAINT (LBP) PROGRAM

- FOCUS OF ASSESSMENT
- LEAD HAZARDS IN SOIL SURROUNDING STRUCTURES
- RESIDENTIAL HOUSING UNITS BUILT PRIOR TO 1978
- NON-RESIDENTIAL WOOD-SIDED BUILDINGS AND STEEL STRUCTURES
- PAINT SURFACES SUBJECT TO FRICTION AND IMPACT, OR PRONE TO FLAKING/SEPARATION, WITH POTENTIAL TO MIGRATE TO SOIL

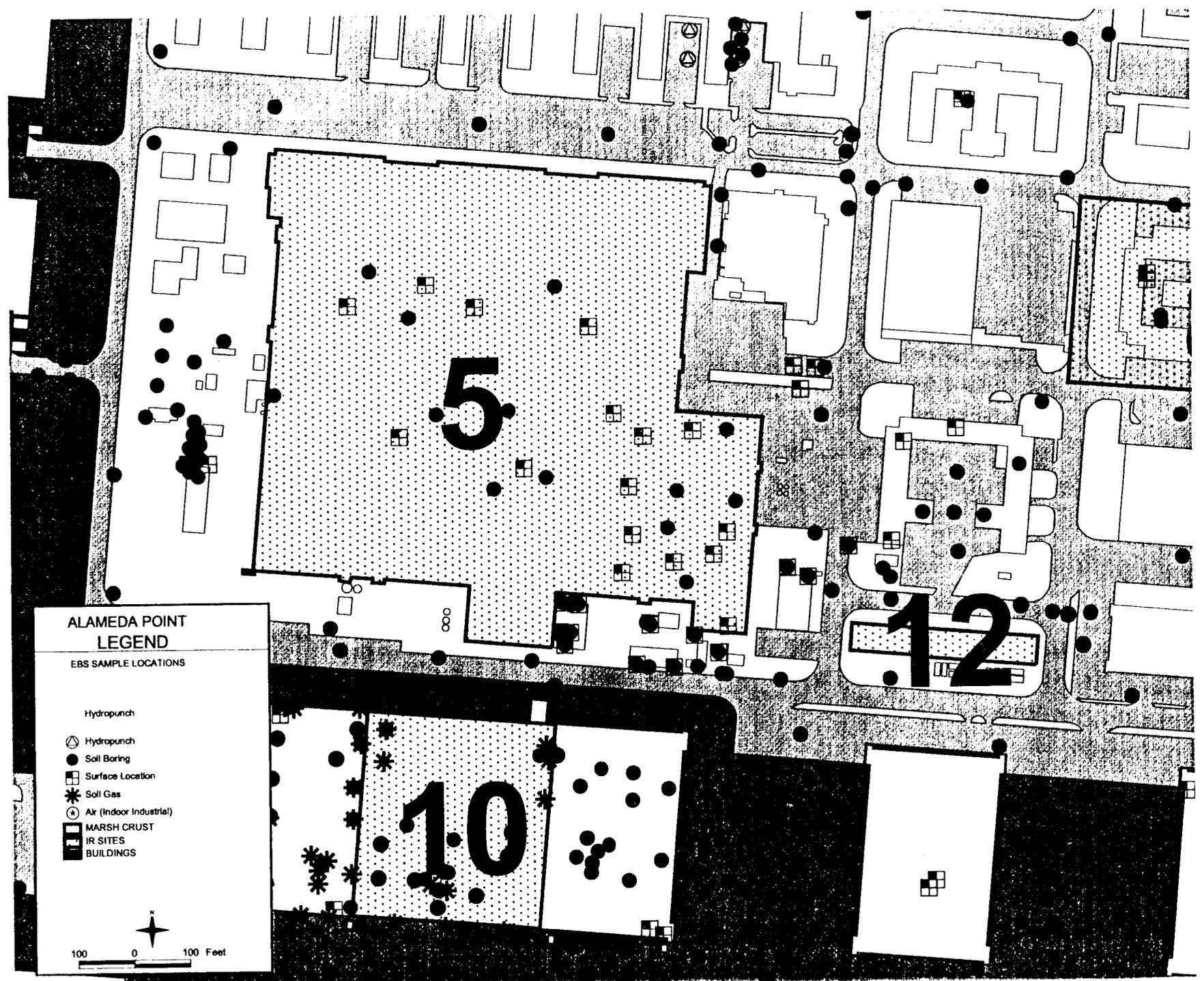
Relevant Investigations/ Activities/Programs at Site 5

- **Installation Restoration Program (IRP)**
- **Environmental Baseline Survey (EBS)**
- **State Petroleum Program**
- **Treatability Studies**
- **Radiological removal action**
- **PCB program**

Chronology of Sampling Events at Site 5

- **1991** **RI - Phases 2B and 3**
- **1992** **RI - Additional Work at Site 5**
- **1993** **EBS - Phase 1/PEP Preparation**
- **1994** **RI - Follow-on Investigation**
- **1995** **EBS - Phase 2 (A&B)**
- **1997/98** **RI - Site 5 Plume Delineation Studies**
- **1997/98** **RI - Quarterly Groundwater Monitoring**
- **1999** **EBS - Phase 2C**
- **1994 to 98** **UST removal and sampling**

Central Area - EBS Sample Locations



**ALAMEDA POINT
LEGEND**

EBS SAMPLE LOCATIONS

Hydropunch

- Hydropunch (circle with cross)
- Soil Boring (solid circle)
- Surface Location (square with cross)
- Soil Gas (star)
- Air (Indoor Industrial) (circle with cross)

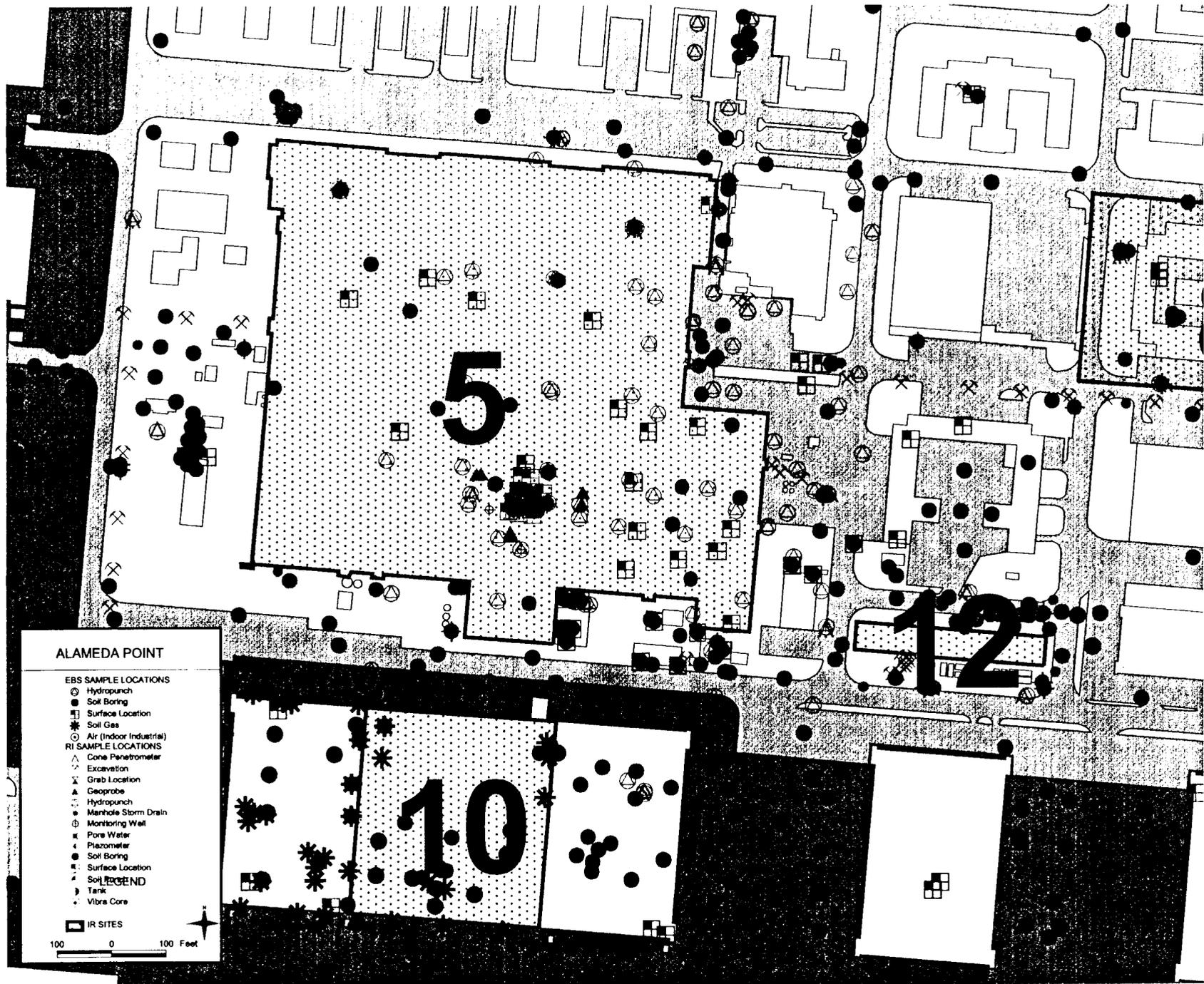
MARSH CRUST (stippled pattern)

IR SITES (solid black)

BUILDINGS (solid black)

100 0 100 Feet

Central Area -EBS/RI Sample Locations





REGIONAL SEDIMENT WORK GROUP (SWG)

NAVFAC Engineering Field Activity WEST

Stacey Curtis

SSC SD, Marine Environmental Quality Branch

650-244-2596



SWG Offshore Areas

- Navy SWG is managing offshore areas at Alameda Point, Hunters Point Shipyard, and Treasure Island
- Consulting role for other offshore areas and wetland habitats to enhance consistency (Mare Island, Naval Fuel Depot Point Molate, Moffett Federal Airfield, and Naval Weapons Station Concord)



Feasibility Study

- Evaluate all remediation and disposal options for sediments
- Two volume FS
 - Volume 1 - Regional evaluation of options
 - Volume 2 - Site-specific evaluations



Regional Remedy

- Reduce cost for feasibility study development
- Potential for shared cleanup options
- Reduce overall remedial action costs



Alameda Offshore Schedule

(Estimated Dates)

- Draft Regional FS Volume 1 - Spring 2000
- Draft RI - Summer 2000
- Draft Site-Specific FS Volume 2 - TBD

- Transfer of Seaplane Lagoon and Piers - 2003
- Transfer of Oakland Inner Harbor - 2005

**ATTACHMENT C – RESTORATION ADVISORY
BOARD MEETING HANDOUT MATERIALS**

**ENCLOSURE 6 – UNDERGROUND STORAGE
TANKS AT ALAMEDA POINT PRESENTATION
MATERIALS**

**11 NOVEMBER 1999 DRAFT RESTORATION
ADVISORY BOARD MEETING SUMMARY**

**THE ABOVE IDENTIFIED ENCLOSURE IS NOT
AVAILABLE.**

**EXTENSIVE RESEARCH WAS PERFORMED BY
NAVFAC SOUTHWEST TO LOCATE THIS
ENCLOSURE. THIS PAGE HAS BEEN INSERTED
AS A PLACEHOLDER AND WILL BE REPLACED
SHOULD THE MISSING ITEM BE LOCATED.**

QUESTIONS MAY BE DIRECTED TO:

**DIANE C. SILVA
RECORDS MANAGEMENT SPECIALIST
NAVAL FACILITIES ENGINEERING COMMAND
SOUTHWEST
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132**

TELEPHONE: (619) 532-3676