



FINAL NAVAL AIR STATION ALAMEDA Restoration Advisory Board (RAB) Meeting Minutes

November 8, 2012

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950 West Mall Square, Alameda City Hall West
Room 140, Community Conference Room
Alameda Point
Alameda, California

The following participants attended the meeting:

Co-Chairs:

Derek Robinson Base Realignment and Closure (BRAC) Program Management Office
(PMO) West, BRAC Environmental Coordinator (BEC), Navy Co-chair

Dale Smith Restoration Advisory Board (RAB) Community Co-chair

RAB Members

Richard Bangert; Susan Galleymore; Carol Gottstein, M.D.; Daniel Hoy; George Humphreys;
James Leach; Bert Morgan; Bill Smith; Jim Sweeney; Michael John Torrey. Kurt Peterson was
excused.

Community Members/ Public Attendees

Karen Maxwell; Skip McIntosh; Ken Peterson; Bill Smith

Navy Attendees

Bill McGinnis, Lead Remedial Project Manager (Lead RPM)
Dave Darrow, RPM

Regulatory Agencies

James Fyfe, California EPA Department of Toxic Substances Control (DTSC)
Chris Lichens, United States Environmental Protection Agency (EPA)
John West, San Francisco Bay Regional Water Quality Control Board (Water Board)

City of Alameda

Doug deHaan, Alameda City Council
Peter Russell, Russell Resources, City of Alameda

Contractors

John McMillan, Shaw Environmental and Infrastructure
Betty Schmucker, Trevet
Tommie Jean Valmassy, Tetra Tech EMI

The meeting agenda is provided as [Attachment A](#).

MEETING SUMMARY

I. Welcome and Introductions

Derek Robinson (RAB Navy Co-chair) called the November 2012 former Naval Air Station Alameda (Alameda Point [AP]) RAB meeting to order. He welcomed all to the meeting and asked for introductions.

II. Community and RAB Comment Period

Dale Smith (RAB Community Co-chair) announced that she had an Action Item for Operable Unit (OU) 2-C. She asked that an update be provided by the Navy on the status of an area at Building 5 where, the RAB was told at the September 2011 RAB meeting, radium paint was handled. The RAB would like to know how the area was or will be addressed.

George Humphreys (RAB Member) provided a copy of his comment letter on the OU-2C Proposed Plan ([Attachment B-1](#)).

III. Co-Chair Announcements

Mr. Robinson said that the 2013 RAB calendar was sent out with this meeting's mailer and available on the table in the back of the room ([part of Attachment A](#)). The calendar shows scheduled RAB meetings for 2013, to help RAB members plan ahead, and tentative dates for the OU-2B Proposed Plan public meeting and the annual RAB Site Tour in July, to be confirmed.

Ms. Smith said the RAB submitted a comment letter on the OU-2C Proposed Plan that was signed by almost all the RAB members except Michael John Torrey (RAB Member), due to an electronic issue. Mr. Torrey said he supports the letter but had not had a chance to sign it. Mr. Robinson agreed to sign for Mr. Torrey. Ms. Smith asked that the letter be included with this RAB meeting packet ([Attachment B-2](#)). Ms. Smith said she was disappointed that the regulators did not seem to feel as strongly as the RAB members about cleaning up the drain lines, as the regulators supported the Navy's alternative. She said the community feels the drain lines are a burden for the City of Alameda (City).

Ms. Smith said she received a copy of the closure letter from the Water Board about a leaking underground storage tank (UST) in the least tern area. She noted that the former Navy BEC, Thomas Macchiarella, had the tank pulled and the area cleaned up, thus receiving tank closure; however, a plume was left on site. The Water Board has stated that the land in the vicinity of the plume will only be used as open space.

Ms. Smith said that a RAB membership application was received from Community Member William (Skip) McIntosh ([Attachment B-3](#)). Mr. Robinson said he will scan and e-mail the application to the RAB members for review, with a hard copy to Mr. Humphreys. Mr. McIntosh's membership will be voted on at the January RAB meeting.

Ms. Smith asked when the Navy will deliver the 2013 Site Management Plan (SMP) to the RAB members. Mr. Robinson said he handed it out at the October OU-2C Proposed Plan meeting, but had extra hard copies with him and provided these to Mr. Humphreys and Bert Morgan (RAB Member). Mr. Robinson will send the SMP electronically to the rest of the RAB members.

IV. 2013 RAB Community Co-chair and Vice Co-chair Nominations

Mr. Robinson asked for nominations for RAB Community Co-chair and Vice Co-chair for 2013. He said these are one-year positions. Nominations will be taken tonight and elections will be held as the first item of business at the January 2013 RAB meeting. He asked for nominations for Community Vice Co-chair and Community Co-chair.

Vice Co-chair: Susan Galleymore (RAB Member) nominated Mr. Humphreys. Carol Gottstein (RAB Member) nominated Richard Bangert (RAB Member).

Co-Chair: Mr. Bangert nominated Dr. Gottstein. Ms. Galleymore nominated Ms. Smith.

V. Vote on New RAB Member

Ms. Smith called for a vote on membership for Bill Smith, whose application was submitted at the September RAB meeting and reviewed by RAB members. Mr. Smith was voted in as a new RAB member, with Mr. Humphreys opposing and Ms. Galleymore abstaining.

VI. Petroleum Program Update

Mr. Robinson introduced David Darrow (Navy) to present an update on the AP Petroleum Program ([Attachment B-4](#)). Mr. Robinson noted that since petroleum is not normally addressed under CERCLA (the Comprehensive Environmental Response, Compensation, and Liability Act), the RAB, which focuses on CERCLA issues, does not regularly receive Petroleum Program updates. Mr. Darrow began the presentation and then introduced John West (Water Board) to give an update on the Water Board's work on the Navy's Petroleum Program.

During the review of Slide 3, Mr. West said there has been a recent staff increase to address AP petroleum site closures. He said a Petroleum Management Plan was prepared a few years ago for AP and numerous sites were listed for closure. There is a "mix" of petroleum sites where some have been easy to close, and some require more work to reach closure. He explained that the Water Board's recent "low-threat petroleum strategy" has been implemented state wide. The San Francisco Water Board, his office, has been following this strategy for ten years, and the purpose of state-wide implementation is to provide consistency across all regional boards. The statewide implementation of this strategy reflects a balancing act, evaluating whether it is appropriate to spend significant cleanup funds relative to the risk or threat posed by a particular petroleum site. Ms. Smith asked what the Sacramento Water Board (Region V) was doing that was not as "rigorous" as the other regions. Mr. West explained that regional boards varied in terms of considering beneficial uses, depth to groundwater, and geology, for example, and he noted it is often harder to receive site closure in Region V. Mr. Bangert noted that in some cases fuel tanks have been left in place and wondered how this would affect site reuse. Mr. West said each site must be evaluated in terms of the low-threat strategy. Depth to groundwater and accessibility to product (petroleum) are considered. A waiver was given in the 1990s for home heating-oil tanks, as the chemistry of heating oil poses less of a threat. The contents were removed but some tanks may have been left in place.

During the review of Slide 12, John McMillan (Shaw) said that over 100,000 pounds of free product (aviation fuel) were extracted out of Corrective Action Area (CAA) C, and CAA C is

now closed. Ms. Smith asked about free product rebound at Building 410. Mr. Darrow said some free product rebound was observed.

Mr. Bangert asked about the area between Building 410 and Building 530, and wondered if all the piping is connected to cleanup at Building 410. Mr. McMillan said the area west of Building 530 was an old defueling area. It was part of CAA 13, and parts of Building 530 are still being remediated. Mr. Smith asked if there are restrictions on closed sites and whether the Water Board should consider restrictions on land use for petroleum sites. Mr. Darrow said all AP petroleum sites that have been closed to date within the Finding of Suitability to Transfer (FOST) footprint were closed without restrictions. Mr. West said petroleum cleanups are geared to proposed reuse and different templates are used for site closure. All the AP sites so far have received unrestricted reuse, but a site designated for commercial reuse may require a deed restriction. He noted that different land-use controls and vapor-intrusion guidelines may be required, depending on future reuse. Mr. Bangert asked if any USTs are left in place at AP. Mr. West said Water Board policy is to generally remove USTs except in rare situations; for example, if USTs are located beneath buildings, or if they are exceptionally large, they may be left in place. Mr. McIntosh asked if leaving USTs in place presents difficulties. Mr. Darrow said he was not aware of any USTs left in place at AP. Mr. West said the level of risk to human health and the environment and future land use are considered, and each site is evaluated individually. He said he will forward the template used for each type of tank closure situation to interested RAB members. Mr. Smith asked for a copy.

Mr. Humphreys asked if CAA 5B West impacts underground industrial drain lines in the area. Bill McGinnis (Navy) noted that the industrial waste lines are closer to the street and the utility corridor, and away from CAA 5B West; there is no overlap. Mr. Bangert asked what an oil/water separator (OWS) is and how it works. Mr. Darrow explained that a weir separates oil and water, allowing the water to drain and the oil is held back. Mr. McGinnis explained that the oil is skimmed off into a separate tank and collected. Ms. Smith noted that the OWS at Building 360 was not working properly; it got clogged and holes were drilled in it to increase drainage. She asked if OWSs are double checked to see if they have been modified or have not been maintained. Mr. West said the Water Board takes OWSs very seriously because they generally contained waste oil. The structures around the OWSs are sampled to characterize the soil and nearby groundwater may also be sampled. The OWS at Building 360 was removed. Mr. Smith asked about restrictions on petroleum sites and land use. Mr. West said to date most of the tank sites have been cleaned up to unrestricted use. It may become necessary in the future to put deed restrictions on property that is designated for commercial use to keep the use non-residential. Dr. Gottstein observed that land-use deed restrictions are political, as the City Council is involved in land use changes. Mr. West reiterated that there may be deed restrictions for commercial-use property until/unless the cleanup matches the level of reuse.

Ms. Smith asked if the Water Board has a mechanism similar to DTSC's TeraDex, where a change in land use triggers a response; Mr. West said no. Ms. Galleymore asked how the details of transfer and reuse of petroleum sites will be worked out. Peter Russell (City) said the Navy, City, and Water Board are all working together on a viable program. The 700 acres of proposed FOST property have closed petroleum sites on them with no restrictions, while a number of petroleum sites are open and are being worked on. He noted that the City's Building Department will track these petroleum properties for future development plan checks, and a flag will be

raised when a permit is pulled. He said this process is in flux but is being ironed out. Daniel Hoy (RAB Member) asked about the Navy's planning overlay and whether the restricted areas are known to the City and developers. Mr. Robinson said yes, for areas with unevaluated petroleum sites, restrictions are in place and they are known by the City. Dr. Russell said the AP Site Management Plan (SMP; not to be confused with the Navy's document of the same name) will explain how to address future development on AP. There is also an SMP for the Fleet and Industrial Supply Center Oakland, Alameda Facility/Alameda Annex (FISCA) area. These documents should be in the City Development Department.

Ms. Smith asked what is going on at Building 25, located west of Seaplane Lagoon. She said it is an old building, as indicated by its low number, but was apparently not used until the 1970s or 1980s. She noted that it was a corrosion-control facility, there are numerous monitoring well heads present, and part of the area is fenced off. Dr. Russell confirmed it was a corrosion-control facility that had its own industrial waste treatment plant. The site has been very well investigated and was closed.

VII. Site 33 Removal Action Update

Mr. Robinson gave an update on the status of the Site 33 removal action ([Attachment B-5](#)). A time-critical removal action (TCRA), consisting of excavation in limited areas of Site 33, was begun in September 2012. Multiple layers of asphalt and asphaltic concrete were removed and confirmation samples have been collected. The Navy is evaluating the results and will decide the next steps to be taken. Mr. Bangert said that the TCRA work plan said that polycyclic aromatic hydrocarbons (PAHs) came from dredged sediments and so were old materials from the coal gasification plant.

Ms. Galleymore asked if there are Navy records to indicate what was present in and under the asphalt layers. Mr. Robinson said historical records are studied prior to starting CERCLA actions. Ms. Smith said the records should be available, such as were found for Treasure Island at San Bruno. Dr. Gottstein said there are a number of historic documents that, if not available upstairs, should be available at Port Hueneme or San Bruno, or electronically. The histories seem to be well documented.

Mr. Humphreys noted that the Navy said the Marsh Crust was originally formed from the old coal gasification plant but more recently has said it was formed from the former oil refinery. He asked why the Navy has changed its attribution of the source of the Marsh Crust. Mr. Robinson said that multiple historical bay activities contributed to formation of the Marsh Crust and that for convenience, one source may have been cited. Ms. Smith noted that high PAH levels occur in certain parts of AP and not others, but the Marsh Crust is located all over.

Mr. Humphreys asked that the Site 33 photos be included with these meeting minutes.

VIII. BCT Update

Chris Lichens (EPA) gave an update on what the Base Realignment and Closure [BRAC] Cleanup Team (BCT) discussed at the September 20 and October 11 meetings. The five topics included:

- The Record of Decision (ROD) for OU-2A. The ROD is final and the signature sheet is being routed among the agencies.
- The Navy is preparing responses to BCT comments on the Site 2 90-Percent Remedial Design/Remedial Action Work Plan.
- The Final OU-2B Feasibility Study Addendum incorporates the Groundwater Beneficial Use Exception granted by the Water Board and agreed to by the other BCT members. The OU-2B Proposed Plan is in progress.
- For OU-5/IR-02, the BCT is discussing the Navy's plan to prepare a ROD Amendment that reflects the selection of a different remedy. BCT members are requesting more data.
- The BCT is working hard to ensure the FOST is finalized in a timely manner.

Ms. Smith asked if the California Department of Public Health (CDPH) will review the FOST. Mr. Fyfe said he is working with CDPH, and it may be necessary to "carve out" a few small areas from the FOST until further study is done. Dr. Russell showed on a map the sites/areas for exclusion from the FOST, such as Sites 1, 17, and 32; Buildings 7, 66, 113, and the courtyard of 114; and former smelter areas. Dr. Russell also explained the Tidelands Trust Transfer, which was discussed in a newspaper article.

IX. Approval of September 13, 2012, RAB Meeting Minutes/Review Action Items

Mr. Humphreys made the following comments:

- Page 1 of 8, Community Members/Public Attendees: please move Susan Galleymore's name to "RAB Members," as she was voted onto the RAB at the last meeting.
- Page 6 of 8, second paragraph, 7th line: please rewrite the sentence: "She also noted that the City of Alameda has guaranteed no damage will occur to the existing lupine against the fence line, which is endemic to Alameda" to "She also noted that the City of Alameda has guaranteed no damage will occur to the existing lupine, which is endemic to Alameda, against the fence line."

Ms. Smith made the following comments:

- Page 2 of 8, third paragraph under "Community and RAB Comment Period:" please change "Ms. Smith said she would present to the Navy..." to "Ms. Smith presented to the Navy..."
- Page 4 of 8, third paragraph, 11th line: please change:"...concern that the 20-year-old funnel-and-gate system should have been replaced" to "concern that the iron filings in the 20-year-old funnel-and-gate system should have been replaced."
- Page 6 of 8, second paragraph: please change: "She also noted that the City of Alameda has guaranteed no damage..." to "She also noted that the Navy has guaranteed that no damage..."

Mr. Torrey moved that the September 13, 2012, meeting minutes be approved with the noted changes and Mr. Bangert seconded the motion. The motion carried.

Mr. Bangert asked about the dates for the Site 1 ROD amendment and issuance of the Site 2 Remedial Design, based on what he saw in DTSC's Envirostor database. Mr. Robinson said the

Site 2 Remedial Design has been delayed a few months. Mr. Bangert asked if the work on Seaplane Lagoon (Site 17) is on track. Mr. Robinson said yes; the sediment handling should be completed by December, but the fencing will stay in place for future work.

The status of previous action items was reviewed and is provided in the updated table below. New action items from this meeting are included.

The next RAB meeting will be held on January 10, 2013.

Action Items:	Previous Item #/ Action Item Status/ Action Item Due Date:	Initiated by:	Responsible Person:
1. Request for Presentations: a. Site 25 Plume Status Tracking b. Site 1 Radiological RD/RA work plan	Pending	RAB	Mr. Robinson
2. Navy report to RAB whether there are institutional controls in place at Site 35 that AP Collaborative should be following with regard to planting. If no ICs, explain how that decision was reached and where it is documented.	Complete	Mr. Humphreys	Navy
3. Ms. Smith and Mr. Humphreys to confer about which action items from the RAB's November 2011 letter still need to be added to the action item list. Ms. Smith will let Mr. Robinson know and he will have the items added.	Complete	Mr. Humphreys	Ms. Smith
4. Send hard copies of the Site 1 presentation to RAB members.	Complete	RAB	Navy
5. Distribute the Navy's Draft-Final SMP electronically to RAB members.	Pending	Navy	Navy
6. Navy to provide status update for Building 5 in OU-2C where radium paint was used.	New	Ms. Smith	Navy

The meeting was adjourned at 8:35 PM.

ATTACHMENTS

NAVAL AIR STATION ALAMEDA RESTORATION ADVISORY BOARD MEETING ATTACHMENTS

- A. Naval Air Station Alameda Restoration Advisory Board Meeting Agenda, November 8, 2012 (1 page) and 2013 Calendar (1 page)
- B-1 George Humphreys' Comment Letter on the OU-2C Proposed Plan (3 pages)
- B-2 RAB Comment Letter on the OU-2C Proposed Plan (3 pages)
- B-3 RAB Application for William (Skip) McIntosh
- B-4 Alameda Point Petroleum Program (6 pages)
- B-5 Site 33 Removal Action Update (3 pages)

RESTORATION ADVISORY BOARD

NAVAL AIR STATION, ALAMEDA

AGENDA

NOVEMBER 8, 2012, 6:30 PM

**ALAMEDA POINT – 950 WEST MALL SQUARE, ALAMEDA CITY HALL WEST
SUITE 140/COMMUNITY CONFERENCE ROOM
(FROM PARKING LOT ON W. MIDWAY AVENUE, ENTER THROUGH MIDDLE WING)**

<u>TIME</u>	<u>SUBJECT</u>	<u>PRESENTER</u>
6:30 – 6:35	Welcome and Introductions	Community and RAB
6:35 – 6:50	Community and RAB Comment Period*	Community and RAB
6:50 – 7:10	Co-Chair Announcements	Co-Chairs
7:10 – 7:20	2013 RAB Community Chair and Co-Chair Nominations	RAB
7:20 – 7:25	Vote on New RAB Member	RAB
7:25 – 8:05	Petroleum Update	David Darrow
8:05 – 8:25	Site 33 Removal Action Update	
8:25 – 8:35	BCT Update	
8:35 – 8:45	Approval of Minutes	Dale Smith
8:45	RAB Meeting Adjournment	

* If there is time at the end of the agenda, additional comments will be taken.

January	Feb	Mar
<p>Thursday, January 10 – RAB Meeting, 6:30 – 9 PM, Building 1, Alameda Point</p> <p>RAB Co-Chair Vote</p>	<p>*Proposed Plan Meeting for OU-2B (Date TBD)</p>	<p>Thursday, March 14 – RAB Meeting: 6:30-9:00 pm, Building 1, Alameda Point</p>
April	May	June
	<p>Thursday, May 9 – RAB Meeting: 6:30-9:00 pm, Building 1, Alameda Point</p>	
July	August	September
<p>Thursday, July 11 – RAB Meeting: 6:30-9:00 pm, Building 1, Alameda Point</p> <p>RAB Site Tour – date/time TBD</p>		<p>Thursday, September 12 – RAB Meeting: 6:30-9:00 pm, Building 1, Alameda Point</p>
October	November	December
	<p>Thursday, November 14 – RAB Meeting: 6:30-9:00 pm, Building 1, Alameda Point</p>	

George B. Humphreys, P. E.
25 Captains Drive
Alameda, CA 94502-6417
November 2, 2012

Mr. Derek Robinson, P. E.
BRAC Environmental Coordinator
Department of the Navy
Program Management Office West
1455 Frazee Road, Suite 600
San Diego, CA 92108-4310

Subject: Proposed Plan for Operable Unit 2C

Dear Mr. Robinson:

Thank you for the opportunity to comment on the subject document. The following comments are organized into general and specific categories.

General

The preferred alternatives presented in the proposed plan place excessive reliance on institutional controls. This is particularly true with regard to soil and drain lines contaminated with radium-226, which has a half-life of 1620 years. Institutional memory is notoriously unreliable and short-lived. This can be illustrated by the recent “discovery” of the foundations for the original San Francisco City Hall during excavation work in front of the Federal Building. No one in San Francisco remembered where the original building had been located prior to its destruction in the 1906 earthquake. Another example is the San Bruno pipeline failure and the later revelation that P.G. & E’s maintenance records were missing or had been falsified. Another problem is the survival of the institutions themselves. To my knowledge, no government has survived for the millennia needed to protect future generations. There also is the problem of maintaining institutional controls in a retrievable format. With the rapid technological changes in computers and information storage, today’s records will likely become irretrievable unless continually transferred from one format to another.

The engineered barriers (paving and slabs) and the building structures themselves are not likely to survive future seismic and other natural events (e.g. sea level rise, cataclysmic storms, tidal waves) for the thousands of years necessary to maintain containment of the radiologically contaminated materials. It is quite likely that within 50 or 100 years either or both Buildings 5 and 400 will suffer major seismic damage and will have to be demolished. In such an event, there may be pressure to convert usage to residential and there will be no institutional memory of why the area was restricted to commercial/industrial use.

This calls into question whether the selected alternatives are truly “protective of human health and environment” as stated in the Proposed Plan. As you know, the rationale for engineering registration in California is the protection of public safety, not the enhanced prestige or earning potential of the individual designated as a professional engineer. That professional duty of protecting the public surpasses loyalty to one’s employer, even if speaking out threatens the security of one’s employment.

Another general deficiency in the Proposed Plan is its lack of disclosure regarding the location and disposition of radioactive contamination. Although the presence of

radium-226 is discussed with regard to drain lines under and outside Building 5 and in the storm drain lines, no mention is made of possible radioactive contamination within the building structure itself. During the January 6, 2011 RAB meeting, I again raised the question of possible radium contamination in the Building 5 mezzanine rooms and ventilation ductwork. Mary Parker and Andrew Bullard responded that there had been radium spills in these rooms and that demolition of the rooms and removal of the contaminated ductwork already had occurred. The minutes of that meeting only states that the radiological concerns would be addressed in an FS addendum or in the Basewide radiological report. I believe that the OU-2C Proposed Plan should have addressed this subject of radiological contamination within Building 5 itself (and probably Building 400). Certainly the City and any future lessee/commercial tenant deserve to have full disclosure about such radiological contamination and specifically what was done to remedy the situation. There may even be a legal obligation to disclose pre-existing conditions. Neither the City nor future commercial tenant will have the resources or know-how to decontaminate properly and dispose of such radiological debris at an out-of-state site.

Another radiological concern was raised by me regarding radiologically contaminated liquids that were discharged through storm drain lines via outfalls A and B into the Oakland estuary and inner harbor. Sediments dredged from these areas were used to fill large portions of Alameda Point and possibly areas on the Oakland side of the estuary. Have these fill areas ever been adequately surveyed for radiological contamination? Are radiation levels in these areas being used to establish "background" levels for OU-2C cleanup? The proposed plan should clearly state what background levels of radium-226 are being used and where those background levels were measured. It is possible that the Navy also has contaminated the so-called background areas.

It seems to me that the entire subject of radiological contamination has been treated with unnecessary mystique and secrecy. This mindset seems to go back to an era when development of nuclear weapons was occurring and national security was involved. Certainly, there can no longer be any valid reason for withholding information from the public. Such a policy only exacerbates public fears and imagined dangers.

Soils

The Navy's preferred alternative, S2, is unacceptable because it relies on institutional controls, as discussed above. The preferred alternative should be either S4 or S5. These alternatives are similar, except that S5 uses soil vapor extraction to remediate soil contaminated with volatile organic compounds in areas east and south of Building 5.

Shallow Groundwater

The preferred alternative should be GS5 because it uses electrical resistance heating (ERH) that has already been demonstrated as highly effective for areas within Building 5.

Deep Groundwater

The Navy's preferred alternative, GD 2, is not viable because it relies exclusively on institutional controls. The preferred alternative should be GD 5 because it uses ERH that has been demonstrated as effective in removing dense non-aqueous phase liquids.

Drain Lines

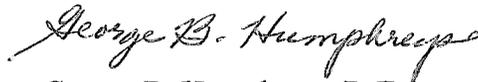
The Navy's preferred Alternative D5 is unacceptable because it leaves the "deteriorated" industrial drain lines in place and relies on institutional controls to protect future generations. If the industrial drain lines are in deteriorated condition, radioactively contaminated material has almost certainly contaminated the soil surrounding these industrial drain lines. Therefore, my preference would be Alternative D6, hydro jetting of the main trunk of storm drain lines A, B, and G and excavation and disposal of the industrial drain lines. However, the alternative should be expanded to include excavation and offsite disposal of radioactively contaminated soil surrounding excavated sections of the main trunk storm drains and the industrial drain lines.

Conclusions

In general, the Navy and regulators have endorsed less costly remedial alternatives and those relying extensively on institutional memory. This is unacceptable. Further, regarding costs the Navy's cost estimates are expressed to a degree of accuracy not merited by the actual detail that went into building up the estimates. Finally, cost comparisons are made on the basis of the "present value" of future costs. This approach assumes that the government would invest a sum of money at the present time, which with interest earned, would be sufficient to cover future costs. This approach has the effect of making future costs beyond 30 years negligible. As you know, this is not the way governments operate. Present moneys are spent and deficits are run and nothing is set aside. As a result, when the need for future expenditures arises they must be met out of future revenues or borrowings at inflated costs. These future costs could go on for millennia.

While I can understand the Navy's motivation to reduce costs and keep expenditures within budgetary constraints, these budgets were set in compliance with the Navy's 5-year budgeting process. This means that the budget for the cleanup of OU-2C was established 5 years ago, based on assumed remedial alternatives that were selected before the feasibility studies and proposed plan were written, i.e. a predetermined conclusion. Again, thank you for the opportunity to comment on the OU-2C proposed plan.

Sincerely,



George B. Humphreys, P. E.

**NAVAL AIR STATION ALAMEDA
RESTORATION ADVISORY BOARD**

Mr. Derek Robinson
Department of the Navy
Base Realignment and Closure, Program Management Office West
1455 Frazee Road
San Diego 92108

November 3, 2012

Re: OU-2C Proposed Plan

Dear Mr. Robinson,

Thank you for the opportunity to comment on the above document.

We have commented extensively on this site over the years. It is an area of great importance to the future wellbeing of Alameda and figured prominently in US EPA's strategy with respect to using six-phase heating to remove chlorinated solvents. We are, as a result, disappointed in the preferred alternatives chosen by the Navy, that seem to be driven almost exclusively by cost in almost every instance and by the Navy's own standards are not "rated the highest overall in satisfying the balancing criteria." None of the treatments recognize the impact of an earthquake on the movement of contaminants through soil and into the atmosphere or workplace. Nor do they recognize the impact of impending sea-level rise; while various scientific and research communities differ on how much sea level will rise, the majority agree sea level will affect the bay shoreline and Bay Area.

Soils

The reply to our comments on our preferred alternative (Restoration Advisory Board Comments on OU-2C Revised Draft Feasibility Study, February 3, 2011) did not address the concern that "ICs would have to be maintained for thousands of years" because of the radiologically impacted soils under buildings 5 and 5A. "Institutional controls have diminishing effectiveness with time". By selecting Institutional Controls as the alternative, two assumptions have been made: 1. development of the property will never occur and 2. if it does, the developer or landowner will assume liability in perpetuity.

The RAB prefers either alternative S5 or S6, assuming that soil vapor extraction is equally effective as excavation in removing the soil contamination in areas east and south of Building 5. Excavation of the radioactively-contaminated drain lines under buildings 5 and 400 is necessary because institutional controls can not be guaranteed to be effective for thousands of years. The soil surrounding these lines must be sampled and any radioactively-contaminated soil removed. Grouting these lines, as suggested in alternative S3, is unacceptable because it will not take care of radium in the surrounding contaminated soil.

NAVAL AIR STATION ALAMEDA RAB

The Navy's preferred alternative S2 does not even mandate maintenance of the building slabs because the wording is that ICs "may" include such maintenance or engineering controls. This comment also applies to alternative S3 that does not make such maintenance mandatory.

Shallow Groundwater

The Navy's preferred alternative and all alternatives rely on enhanced bioremediation as treatment. However, the feasibility study only mentions natural attenuation as bioremediation, i.e. pollution dilution. Again, the Navy's preferred alternative is the cheapest and does not effectively protect human health if the property is developed. The RAB prefers alternative GS5 because GS5 uses ERH that would be more effective in removing dense non-aqueous phase liquids (DNAPLs), the remediation actually remediates the site and reliance on pollution dilution is minimized.

Deep Groundwater

The Navy's proposed alternative is the cheapest of all alternatives and does not meet the Navy's stated criteria of being the highest overall in satisfying the balancing criteria. The RAB continues to prefer alternative GD5 because it is likely the most effective for DNAPLs at depth.

Drain Lines

Drain lines were not considered in the final Feasibility Study and as a result the RAB did not comment on them. Dr. Peter Russell requested the Navy investigate radiological contamination in the drain lines under and outside buildings 5, 5A and 400. The Navy again has selected an inexpensive solution to a problem that will saddle the city with health issues far beyond any of our lives or those of our children. If industrial drain lines are in a "deteriorated" condition, it is reasonable to believe that soil surrounding them is contaminated with RA⁻²²⁶. Our choice of clean up is not offered in the Navy's menu. We prefer hydro-jetting all storm drain lines to the point at which no contamination is detected and the excavation and disposal of the industrial waste lines and all soils around those lines that are contaminated radioactively.

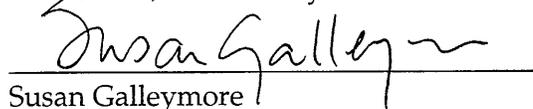
What epidemiological studies have been conducted of mortality rates of former base employees who worked painting radium dials to determine mortality rates from cancers or other diseases? Please share those studies with the RAB.

Again, thank you for the opportunity to comment on this document.

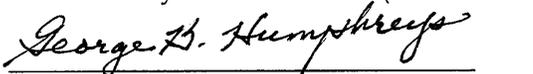
Yours



Dale Smith, Community Co-chair



Susan Galley



George Humphreys



Richard Bangert

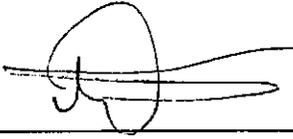


Daniel Hoy

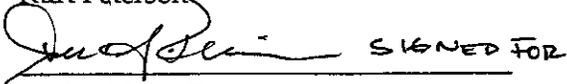


Jim Leach

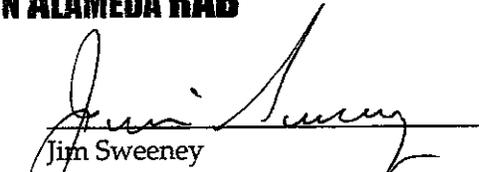
NAVAL AIR STATION ALAMEDA RAB



Kurt Peterson

 SIGNED FOR

Michael John Torrey



Jim Sweeney



CAROL GOTTSTEIN, MD

- Copies:
- Councilmember deHaan
 - Dr. Peter Russell, Russell + Associates
 - Xuan-Mai Tran, US EPA
 - Christopher Lichens, US EPA
 - James Fyfe, Cal EPA DTSC
 - Jim Polisini, Cal EPA DPH
 - John West, SF RWQCB
 - Jennifer Ott, City of Alameda

Naval Air Station-Alameda / Alameda Point Restoration Advisory Board Community Membership Application

The Restoration Advisory Board (RAB) is an instrumental part of the environmental investigation and clean-up effort at the former Naval Air Station-Alameda. It is an avenue for community input into the process, as required by federal regulation. RAB membership is an important obligation. Duties and responsibilities include reviewing and commenting on technical documents and activities associated with the investigation and clean-up effort. Members should be willing to communicate with their constituencies, with the general public, and with interested groups who are concerned with base clean-up issues. RAB members are expected to serve a two-year term and attend all RAB meetings. There are also many opportunities to participate in subcommittees, which address topics that need more extensive discussion.

Individuals and organizations serving the community affected by the environmental investigation and clean-up at the former naval air station are encouraged to apply.

Name: William McArthur SKIP@ERAS.BIZ
Add your e-mail address (if any)

Address: [REDACTED] ALAMEDA AV [REDACTED] ALAMEDA CA 94601
Street, Apt. # City State/Zip

Phone: [REDACTED] [REDACTED] (510) [REDACTED]
Daytime Evening Specify: Fax/Cell/Voicemail etc.

Occupation: PROJECT MANAGER

Employer(s): ERAS ENVIRONMENTAL, INC.

1. Are you affiliated with any group or agency? NO

2. How has the base closure/clean-up/conversion affected you and your community or neighborhood?
1) AS A RESIDENT / TAXPAYER in ALAMEDA
2) professionally interested in best practices, best available Technology

3. Why are you applying? Please explain how you can contribute to the RAB. EXPERIENCE & INTEREST IN REMEDIATION STRATEGIES / METHODS.

Please return to: Ms. Dale Smith Community Co-Chair 2935 Otis Street Berkeley, CA 94703 (510) 841-2115 dale2smith@yahoo.com	Date of submittal: _____
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Alameda Point Petroleum Program Update

David Darrow - Navy Project Manager

John West - Water Board





Introduction

BRAC
PMO WEST

- Navy Team
 - Derek Robinson (BEC)
 - Bill McGinnis (LRPM)
 - Dave Darrow and Jacques Lord (RPMs)
- Water Board Team
 - David Elias
 - John West
 - Myriam Zech
 - Adriana Constantinescu



Water Board Update

BRAC
PMO WEST

- Program staffing increased 2012 to provide additional Navy support
- Current Status of WB Site Closure Summary Review
- State Water Resources Control Board Resolution No. 2012-0016 (2012)
 - Establish consistent statewide closure criteria for low-threat petroleum UST sites and to increase process efficiency.
 - Consistent with existing statutes, regulations, State Water Board precedential decisions, policies and resolutions
 - To provide clear direction to RPs and regulatory agencies.
 - Improved efficiency = preserve limited resources for cleanup where it is most needed.



Alameda Point Petroleum Program Overview

BRAC
PMO WEST

- Alameda Point Petroleum Program status was summarized in the 2010 Petroleum Management Plan (PMP). The PMP was updated in 2012.
- Since 1990, 68 petroleum program sites have received NFA concurrence from the WB and are now closed.
- Current inventory of the Alameda Point Petroleum Program is 221 open sites or “Features” (known or potential petroleum releases), including:
 - 3 Areas of Concern (AOCs)
 - 70 Above Ground Storage Tanks (ASTs)
 - 21 Corrective Action Areas (CAAs)
 - 5 Generator Accumulation Points (GAPs)
 - 15 Oil/Water Separators (OWS)
 - 70 Underground Storage Tanks (USTs)
 - 2 Waste Discharge (WD) areas
 - 7 Miscellaneous sites
 - 28 Fuel Lines (FLs)



Site Closure Summary Status

BRAC
PMO WEST

- Since 2011, the Navy has prepared 65 Site Closure Summaries requesting closure of a specified feature.
 - 11 sites have been closed
 - 48 site closure summaries remain in WB review
 - 1 site closure summary will be re-evaluated
 - Other Petroleum Program “sites” that were incorrectly added to Petroleum Inventory, need WB input on what paperwork is needed to close sites



Site Closure Summaries

BRAC
PMO WEST

- Site Closure Summary
 - Agency info
 - Site info
 - Release and Site Characterization info
 - Treatment and disposal info
 - Contaminant concentration info (before and after cleanup)
 - Closure determination
 - References (documents/correspondence supporting closure).
 - Attachments (fact sheets, lab data summary, etc.)



Petroleum Field Work - Status CAA 4C and CAA 5B West

BRAC
PMO WEST

- **CAA 4C**

More remediation is needed at CAA 4C.
AS/SVE expected to begin March 2013.



- **CAA 5B West**

Remediation complete. Groundwater will be monitored 2x yearly under the Petroleum Program groundwater monitoring program to develop case for closure.





Petroleum Field Work - Status CAA 6 and CAA 7

BRAC
PMO WEST

- **CAA 6**

More remediation is needed at CAA 6. FP bailing to begin March 2013.



- **CAA 7**

More remediation is needed at CAA 7. AS/SVE to begin March 2013.





Petroleum Field Work - Status CAA 11 and Bldg 410

BRAC
PMO WEST

- **CAA 11**

More remediation is needed at CAA 11.
No action is currently planned for CAA 11.



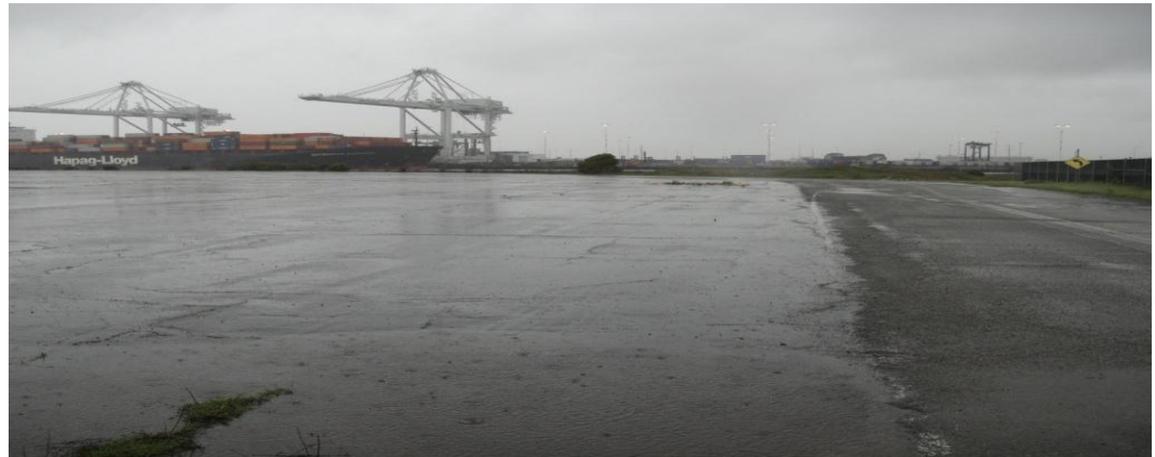
- **Building 410**

More remediation is needed at Bldg 410.
AS/SVE to begin March 2013.



- **AOC 23G**

Remediation complete.
Closure package for the AOC
to be submitted 2013.





2010-2013 Data Gap Investigation (DGI)

BRAC
PMO WEST

- Purpose of the DGI is to “implement” the 2010 PMP.
- 73 Petroleum Features Assessed based on usage
 - 663 soil samples
 - 209 groundwater samples
 - 32 petroleum features determined to be suitable for closure
 - 15 petroleum features within CAA11 may be suitable for closure, fuel lines need to be evaluated
 - 26 petroleum features require additional investigation
- Option 2 Awarded in 2012. Will include assessment of 22 additional features.
 - Selection of features will be selected based on prior criteria, presumed little to no petroleum impact and selected to support the current FOST effort and priority sites as specified by the City
 - Field work anticipated to begin April 2013



DGI Field Work 2011

BRAC
PMO WEST



Sampling Along FL-125 at West Atlantic and Ferry Point (Looking North)



Hand Auguring Upper 5 Feet at ASTs 037A to D



Direct Push Sampling at UST 37-13 to 16



Coring Through Hangar 23 Floor for AST 540



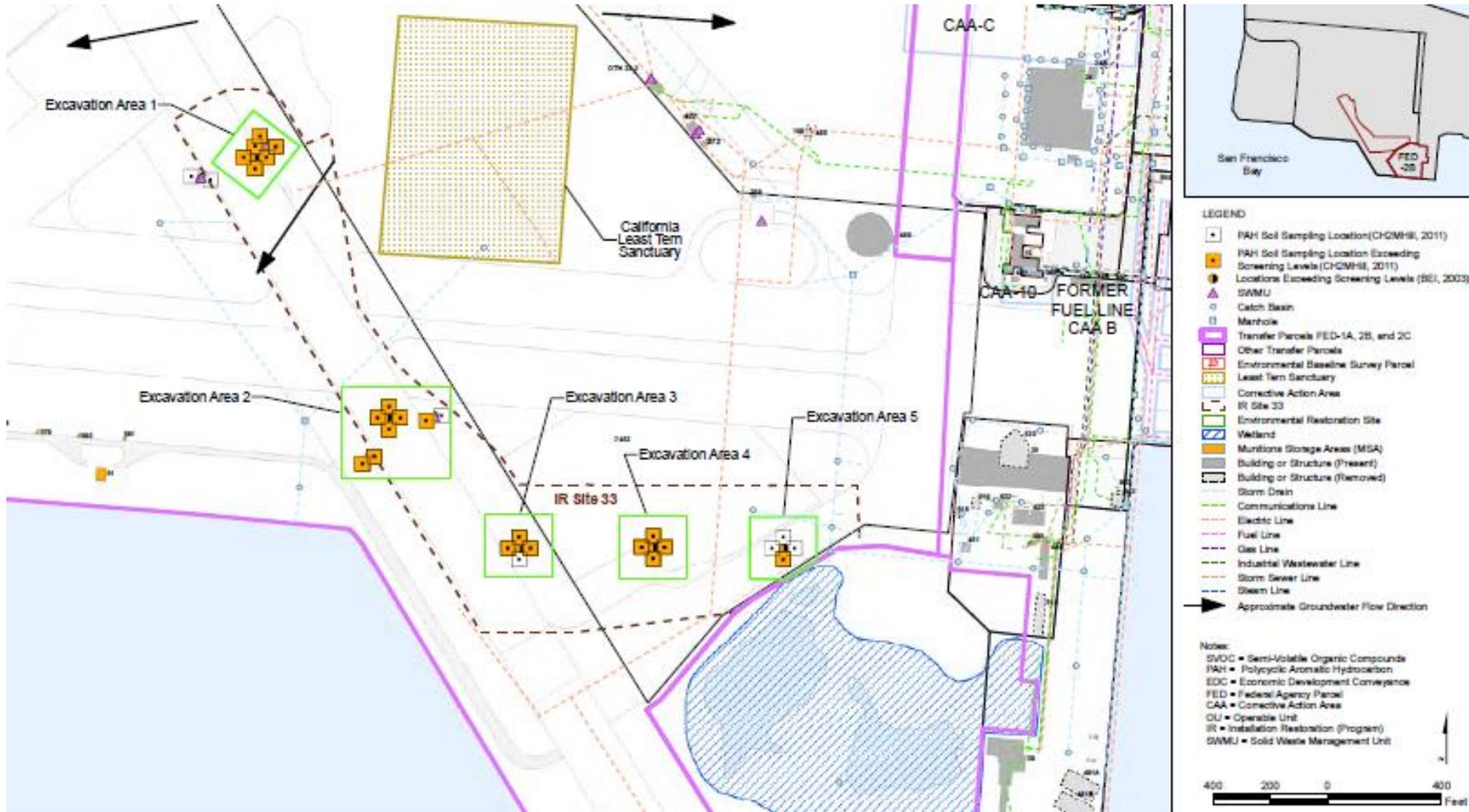
2012-2014 Petroleum Field Work

BRAC
PMO WEST

- Navy recently awarded a contract for continued groundwater monitoring of Petroleum Program sites CAA C, 4C, 5B West, 6, 7, and Bldg 410
- Planning documents in preparation.
- Field work anticipated to commence March 2013.
- In addition to Petroleum Program groundwater monitoring, this contract will also include corrective actions at CAA 4C, 6, 7, and Bldg 410.
- Corrective action at sites CAA C, 4C, 5B West, 7, and Bldg 410 to include air sparge with soil vapor extraction.
- Corrective Action at CAA 6 will consist of FP bailing initially and additional corrective active, if warranted.



IR Site 33 TCRA Excavation Areas





IR Site 33 TCRA

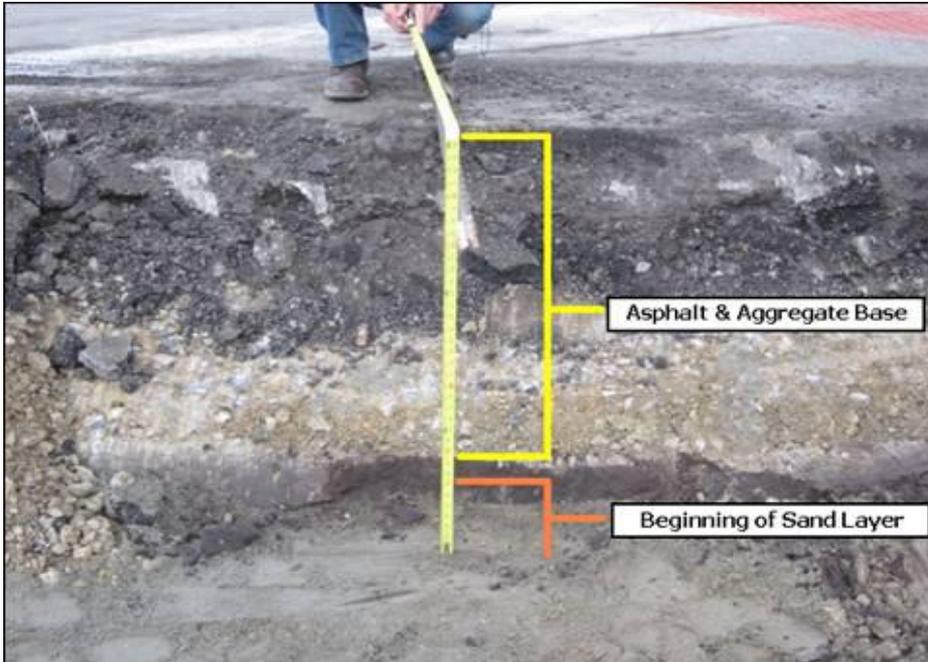


Breaking asphalt at excavation locations at EA-1

Attachment B-5 (4 pages)



IR Site 33 TCRA



Asphalt concrete and aggregate base and beginning of sand layer in the main runway at EA-2, subarea B



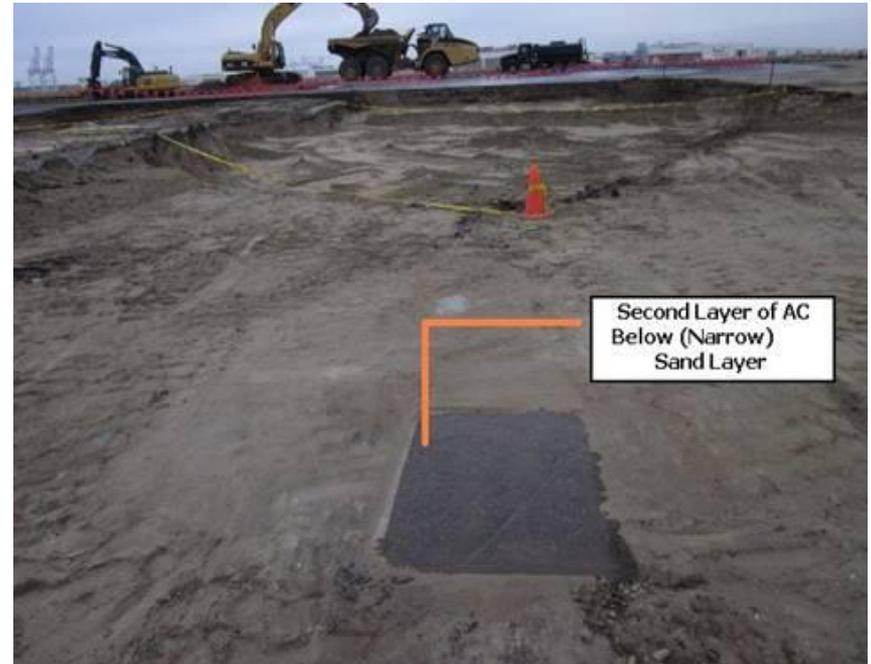
Second asphalt concrete layer on main runway beneath sand layer at EA-2, subarea C at 2 ft excavation depth



IR Site 33 TCRA



Excavation at EA-2 subarea F



Second asphalt layer beneath sand layer within the taxiway at EA-2 subarea G