

Contractors

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

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

MEETING SUMMARY

I. Welcome and Introductions

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

II. Co-Chair Announcements/Community and RAB Comment Period

Mr. Robinson thanked the RAB members for their November 18, 2011, letter with input on RAB meetings. He transmitted the letter to his management. After clarifying a few parts of the letter with the RAB tonight, Mr. Robinson will then meet with his management and present the RAB's input. It was moved by Michael John Torrey (RAB member) and seconded by Richard Banger (RAB member) to add this as an agenda item after the presentations. The motion carried unanimously.

Dale Smith (RAB Community Co-chair) welcomed back RAB member Bert Morgan.

Mr. Robinson said that three Navy RPMs were in attendance to present updates on their respective projects to the RAB, as the RAB had requested several presentations. Mr. Robinson noted that the stockpiled soil had been removed from the apron/runway area north of Seaplane Lagoon.

III. Site 17 Dredging Update

Mr. Robinson introduced Mary Parker (Navy) to present an update on the dredging at Site 17 ([Attachment B-1](#)).

During the review of Slide 3, Kurt Peterson (RAB member) asked how large the northeast remediation area, shown as 6.5 acres on the slide, was in size. Ms. Parker said that she did not know the size in feet. Peter Russell (City of Alameda) replied that the 6.5 acres indicated would be roughly 300 by 600 feet. Also on Slide 3, George Humphreys (RAB member) asked if "Area to be dredged to 5 ft" was "Area C." Ms. Parker said that while "Area A" and "Area B" were identified on the map, the area to be dredged to 5 feet does not have a similar identifier.

During the review of Slide 8, Carol Gottstein (RAB member) asked what the small item was that was found during excavation and labeled "radiological device." Ms. Parker said the item shown on the slide, about half the size of a dime, had no identifying marks but may have had radioluminescent paint on it. Ms. Parker explained that the item shown was very typical of tiny pieces of devices encountered in the sediment, and the radiological levels were consistent with

radioluminescent paint used in instrumentation dials. One toggle switch was recovered, also shown on Slide 8.

Ms. Parker said Slide 11 was prepared in response to questions received from the RAB via e-mail. Mr. Peterson asked how much of the sediment was considered hazardous, and Ms. Parker said that 2,750 tons were transported off site as hazardous. Dr. Gottstein requested a conversion from tons to cubic yards (cy) for consistency with the two previous reported amounts. Mr. Robinson said the rough equivalent of 2,750 tons was about 1,719 cy. It was requested that in the future the same measurement terms be used when talking about a project. Mr. Robinson agreed that in the future, presentations will use one measurement term.

During the review of Slide 14, Mr. Torrey asked if the barge metal recovered contained any copper. Ms. Parker replied the metal recovered was steel.

During the review of Slide 17, Ms. Smith asked if the schedule for sediment removal in the northwest area of Site 17 was shorter because the soil is not as crusted as in the northeast area. Ms. Parker said the soil was very hard in the northwest area too, but the Navy changed dredging companies and a different dredger was used. She also noted the northeast area is larger than the northwest area (6.5 acres vs. 3.3 acres).

Mr. Peterson asked if preliminary screening was done after sediment drying in the northwest. Ms. Parker said the sediment is now being moved around to let it dry; screening has not started and no data are available yet. Mr. Peterson expressed concern that the dredging was completed so quickly (in one-quarter the time of the northeast area), but radium was present in higher levels in the northwest area. Ms. Parker explained that good radiological controls were – and remain – in place, and moving the material around within the dewatering pad is being conducted carefully to ensure all sediment remains within the pad. The current dredging company is experienced and operated more powerful dredge equipment. Dr. Gottstein suggested that perhaps the Navy was able to move more quickly in the northwest area due to “lessons learned” in the northeast portion.

Ms. Smith asked Mr. Bangert if all his questions had been answered. Mr. Bangert said not all, but he noted that using different, more powerful equipment and a different way of dredging could explain the project duration difference. He asked why soil has to reach a certain moisture level before screening and wondered if the moisture level would affect radiological readings. Mr. Robinson replied that the soil has to be spread out in six-inch lifts before screening, and the moisture level affects how the soil can be handled. Ms. Parker offered to consult with a radiological expert for a more technical response if Mr. Bangert wanted one; he said that would be good. Ms. Parker will follow up on a response.

Mr. Bangert asked if there is a sampling process for the contaminated dredged materials. Ms. Parker said the Site 17 Work Plan and the Sampling and Analysis Plan outlined the process, which is the same for the northeast and northwest areas. The Navy worked collaboratively with the regulatory agencies to make sure the proposed sampling areas were satisfactory. The regulatory agencies also reviewed the results after dredging to make sure they were protective of human health and the environment and met the requirements of the Record of Decision and the Sampling and Analysis Plan (SAP). This was done for the northeast area and will be done for the northwest area.

Jim Sweeney (RAB member) asked if the sampling uses hydrographic survey. Ms. Parker said the sampling was done using a Vibracore and the samples were sent to a laboratory for analysis. She said that a bathymetric survey was done to verify the depths of the sediment removal to make sure the digging was done to the proper depth.

Mr. Humphreys asked if the anomaly area was removed prior to dredging; Ms. Parker said yes.

In regard to Slide 7, Mr. Peterson asked if dust became airborne during the radiological screening process and what process was used to control dust. Ms. Parker said that a water truck was on site to spray down any dust that was generated and air monitoring was conducted. This was done the entire time soil was on site, not just during the screening. Mr. Peterson asked for a cost estimate of the work conducted so far. Ms. Parker replied that the Record of Decision (ROD) estimate was \$24.6 million for remediation, and the current total is over \$46 million.

Ms. Smith said she saw concrete barriers used as fencing for soil on Site 17 and asked what they are. Ms. Parker replied they are holding pads for dirt that is piled up after radiological screening and sampling, until laboratory results are received. Ms. Smith said she read in the newspaper that Battelle was fired from the project and asked if that was true. Ms. Parker said no, Battelle's contract expired and the work was continued in the northwest by Tetra Tech.

Mr. Humphreys asked if the same assessment was done in the northwest area as was done in the northeast area of Site 17. Ms. Parker replied that the Navy has just completed the dredging and bathymetry in the northwest area, and will conduct the same assessment as was done for the northeast area. Approximately 30,000 cy of sediment were removed in the northwest area.

IV. Site 24 Dredging Update

Mr. Robinson introduced Lora Battaglia (Navy) to present an update on the dredging at Site 24 ([Attachment B-2](#)).

During the review of Slide 8, Mr. Torrey asked how deep the dredging under the wharf could go. Ms. Battaglia said hydraulic dredging could reach a depth of 14 feet.

During the review of Slide 10, Mr. Torrey asked what happened to the sediment that was captured in the geotubes and if it was shipped off of Alameda. Ms. Battaglia said the geotubes were cut open and the sediment air dried. If the sediment is determined to be hazardous it is removed off site. If the sediment is not hazardous, it may be reused at another site.

During the review of Slide 12, Ms. Smith asked about treatment of the sediment water. Ms. Battaglia said water drained from the geotubes goes into the treatment system shown on the slide and is sampled before discharge to the bay. No exceedances of water quality criteria have been reported.

During the review of Slide 13, Ms. Smith asked if turbidity monitoring is conducted further out. Ms. Battaglia said turbidity is monitored outside the curtain and no exceedances have been reported.

During the review of Slide 14, Dr. Gottstein asked when the submerged barge sunk. Ms. Battaglia said the Navy can find no records regarding the submerged item, assumed to be a sunken barge. Ms. Smith said the Site 24 Work Plan stated debris would not be removed, and

the sediment could not be cleaned because of the debris. Ms. Battaglia said the barge is about 20 feet below the water surface, and that some abandoned debris was removed (about 200 cy total), as shown on Slide 15.

Mr. Bangert asked how long sediment will sit on the dewatering pad, and asked whether the sediment must be spread into six-inch layers and scanned for radioactivity. Ms. Battaglia said about 3,800 cy of sediment will be dried on the pads, and that spreading for radiological scanning does not need to be done at Site 24.

Ms. Smith expressed concern about fieldwork exceeding the April 15 bird-nesting deadline, and whether Fish and Game would approve. Ms. Battaglia responded that the work is expected to be completed by March 15, and the schedule is being expedited to meet that. A biological monitor will be on site, as was discussed with the U.S. Fish and Wildlife Service and as presented in the Work Plan. There is a provision in the Work Plan for work stoppage if needed.

Ms. Smith asked whether the Site 24 dredge spoils would go to Site 2. She had not seen a Work Plan (WP) for Site 2 and asked if soil reuse is mentioned in the WP. Ms. Battaglia said the spoils will be stored at the end of the runway, and she could not answer for reuse at Site 2.

Mr. Humphreys said the excavation is being done because of metals, and asked why spoils would go to Site 2. Ms. Battaglia said the spoils will be characterized first and either sent off site (if hazardous) or reused on Alameda (if not).

Mr. Peterson asked about the original budget and the actual cost for this project. Ms. Battaglia said the budget was \$3.2 million, and the Navy hopes to complete the work within \$5 million. Additional sampling and dredging to meet remediation goals will add to the original budget. Ms. Smith expressed concern that the sediment was “under-characterized” and this led to additional dredging and sampling and budget overruns. Ms. Battaglia added that variability in the sediment being dredged was also partly responsible for the additional work.

Ms. Smith expressed concern about the rip rap near the pier and posts and asked if that concern, as originally voiced by EPA, was addressed in this project. Ms. Battaglia said yes, the rip rap evaluation was part of the Wharf Stability Evaluation, and this evaluation is included as an Appendix to the Site 24 WP. The conclusion was that the removal would not impact the wharf stability.

Mr. Bangert asked if the 38 sediment confirmation samples (Slide 17) were taken underneath the wharf. Ms. Battaglia said the 38 samples were taken in the open lagoon area, and an additional 39 samples are planned to delineate the depth of contamination in areas where the contamination remains above remediation goals.

V. In Situ Thermal Treatment (ISTT) Treatability Study Update

Mr. Robinson introduced Curtis Moss (Navy) to present an update on the ISTT study at Operable Unit (OU) 2B ([Attachment B-3](#)).

During the review of Slide 9, Mr. Torrey asked how the liquid and vapor streams are kept separate. Mr. Moss explained that the liquid is being turned into vapor and the trichloroethene (TCE) is captured as vapor in the granular activated carbon.

Mr. Bangert asked that when the pilot system is shut down in May, some contaminants will remain and asked if natural attenuation will address that. Mr. Moss replied that greater than 90 percent of the mass is anticipated to be removed and post-removal sampling will help direct any additional action needed. Mr. Bangert asked if ISTT could be used anywhere else in OU-2B. Mr. Moss said it is unlikely to be both technically and cost effective in other parts of OU-2B because of the size of the remaining hot spots is relatively small.

Mr. Peterson asked about the timeframe for the next steps. Mr. Moss said ISTT has been used at three other sites on AP and the process is that mass removal starts being seen at approximately 74° Centigrade (C) as the system ramps up, then levels off and it no longer becomes cost effective to continue the heating operation. However, the soil in the treated area can stay warm for 1 to 1.5 years.

Dr. Gottstein asked if the heat is enough to break the chemical bonds and if, in the process, would new compounds be created. Mr. Moss said the largest compound with the most chlorine molecules (TCE) is targeted for vaporization, so the smaller-molecule compound present (dichloroethene, or DCE) would vaporize at a lower temperature. The full range of volatile organic compounds (VOCs) is sampled for post-treatment.

Mr. Humphreys noted that it took several years to treat the contaminated area at Building 5 and asked how long it will take at OU-2B. Mr. Moss said the treatment area at OU-2B is smaller than the area at Building 5, so treatment will not take as long, approximately six months.

Mr. Humphreys asked about groundwater salinity at OU-2B compared to the groundwater salinity at Building 5. Mr. Moss said OU-2B groundwater is more saline. The underground utility corridor containing the sewer is subject to tidal influence, but the area was plugged to prevent seawater from moving in and out. Groundwater salinity affecting electrical conductivity is part of the evaluation for ISTT effectiveness at OU-2B.

Ms. Smith asked if the contaminant plume is moving. Mr. Moss said no, the groundwater gradient at OU-2B is very flat. Ms. Smith said that if the Water Board does not think there is an issue with a groundwater plume entering Seaplane Lagoon, then why spend so much money on this project. She was concerned about applying an innovative technology at OU-2B when other sites could better use the funds. Mr. Moss replied that the original study question was, “can this technology be used under saline conditions?” In addition, the ISTT data results are useful at other sites, and the Navy wants to remove as much source area as possible. Mr. Robinson added that the source area has to be treated for commercial reuse to address potential vapor intrusion risk.

Ms. Smith expressed concern about rebound at OU-2A and wondered why the Navy is addressing OU-2B when it could be addressing OU-2A. Dr. Russell provided her the Site Management Plan and she said that the document reported some rebound at OU-2A. Dr. Russell clarified that the rebound is at petroleum sites, not CERCLA sites (e.g., the fuel farm, Corrective Action Area 11). The rebound is being addressed under the petroleum program.

Mr. Morgan asked about the power source for the ISTT system. Mr. Moss said Alameda Municipal Power provides the power source. The contractor operating the system, Shaw, installed a unique power line for the operation. Mr. Morgan asked if the system would go down if the power goes out. Mr. Moss said yes, but because the soil and groundwater do not cool off

quickly, a brief power outage would not negatively impact the success of the project. John McGuire (Shaw) explained the power system safety backups are currently in place and said that if power went out for a day, the soil temperature would change very little. It would take about one week for the soil temperature to drop 1° C.

VI. Discussion of RAB Member Letter

Mr. Robinson raised the topic of the RAB's letter regarding meetings and the Navy's response ([Attachments B-4, B-5](#)). He asked for clarification concerning several items in the RAB's letter.

- Time to begin and end meetings: it was agreed to keep the meeting start time at 6:30, but it was suggested that meetings run until 9:00 PM and that the agendas reflect that time change. The RAB voted to approve a standard meeting agenda of 2.5 hours.
- Number of presenters: Ms. Smith suggested that Mr. McGinnis, as the Lead RPM, give more of the presentations as is done at the Treasure Island RAB, to reduce the number of staff required to be present at RAB meetings. Dr. Gottstein asked if the presentations could be ready ahead of time and posted on the Navy's web site. No decision was made on this suggestion.
- Hold RAB meetings on the same day as BCT meetings. Ms. Smith noted that RAB meetings have to follow BCT meetings so the BCT update at the RAB meeting includes the latest BCT meeting information. Discussion followed about RAB members' available meeting nights and potential conflicts with other community meetings. Mr. Robinson said the RAB meetings will continue to be held on the second Thursday of the month, as per the RAB's request (instead of the first Thursday of the month) and the BCT meeting held on separate days for the time being.
- Coordinating Proposed Plan meetings with RAB meetings: Mr. Robinson asked if the RAB would be amenable to holding an abbreviated meeting (about one hour long) before a scheduled Proposed Plan public meeting. The formal Proposed Plan public meeting has a court reporter to take official comments. It was agreed that these abbreviated RAB meetings would be held on Thursdays (if possible). The Navy expects to hold two or three Proposed Plan meetings this year. The RAB voted to hold additional abbreviated RAB meetings to coincide with the Proposed Plan meetings for 2012.

Mr. Robinson thanked RAB members for their input and said he would take this information to his management to determine a path forward for RAB meetings in 2012. At 8:30 Mr. Robinson asked for a vote to extend the meeting. The RAB voted to extend the meeting for 30 minutes.

VII. BCT Update

Mr. Robinson introduced Pankaj Arora (EPA) to give an update on what the BCT discussed at the December 2011, January 2012, and February 2012 BCT meeting.

Mr. Arora summarized the topics discussed at the three BCT meeting held since that last RAB meeting. He noted that the BCT January meeting was held over two days. Status updates and an annual update of nearly all the AP sites were presented. Remedies for OUs 2A, 2B, and 2C were discussed. The plan is to complete the three RODs by the end of 2012, and the goal is to do the right thing with the correct funding and resources available. He explained the division of sites

between himself and Xuan-Mai Tran (EPA) and the responsibilities of the Water Board and DTSC.

The BCT also discussed remedies in place and how they are working. Remedies are looked at during the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Five-Year Reviews. In addition, a groundwater-use exception is being discussed with the regulatory agencies. The question under discussion is whether groundwater should be cleaned up to drinking-water standards if groundwater is not being used as a drinking water source. The team wants to assure the remedies match proposed reuse on a case-by-case basis.

Mr. Bangert said comments about OU-2B noted restrictions on groundwater use and on ground floor residential reuse. There is concern about how buildings would be constructed and whether a special foundation is needed to protect second-floor residents. There is also the perception about living on the formerly contaminated sites with only second-floor residential allowed, which could become a public relations issue. Mr. Arora noted that “Brownfield” sites (sites that are cleaned up and reused) have perception issues, but the regulatory agencies work to make sure there is no risk associated with reuse and any institutional controls in place are adhered to.

Mr. Humphreys wondered whether vapor monitors are available to monitor spaces occupied by commercial and industrial occupants and by second-floor residents. He said these monitors would be analogous to the carbon monoxide monitors currently required for residences.

Mr. Peterson asked what would happen to the RAB once property is transferred. Mr. Robinson said RAB involvement does not necessarily end with property transfer, and can continue as the environmental program continues. Ms. Smith asked if the RAB is entitled to know what the Navy and the City of Alameda are planning. Dr. Russell replied that the City gets all the Navy documents and is copied on all correspondence and e-mail with the regulatory agencies. Dr. Russell said he is part of the BCT discussions, reviews documents, and prepares draft letters to the Navy, all on behalf of the City.

At 9:00 Mr. Robinson asked for another vote to extend the meeting. The RAB voted to extend the meeting another 15 minutes.

VIII. Community and RAB Comment Period

John Rumisel of the Alameda County Mosquito Abatement District asked to comment. Mr. Rumisel explained that the County needs to access certain parts of AP to abate mosquitoes. The County uses a bacterium or an insect growth regulator to treat mosquitoes. He sent an e-mail to Doug DeLong (Navy) and had talked with Mr. Robinson about accessing Site 2. Mr. Robinson explained the situation and that no one can access Site 2 for another two weeks, and he apologized for the delay. Mr. Rumisel said he understands the Navy is working on access.

Mr. Humphreys noted that at the December RAB meeting Doug Biggs (Alameda Point Collaborative) made some comments about digging restrictions. Mr. Humphreys researched past RAB meeting minutes back to 2003 for information on excavation in the AP Collaborative area (the area addressed by Mr. Biggs). The issue was planting of trees and whether they could be planted deeper than two feet or whether there were restrictions everywhere, including the AP Collaborative area. Mr. Humphreys said that at a two-foot depth in the Site 25 area, as well as in the Collaborative Area, orange mesh was placed to indicate contaminated soil beneath it. He

concluded that there should be institutional controls (ICs), in addition to the Marsh Crust Ordinance, imposed on AP property to address the prohibition on digging to depths greater than two feet. However, Mr. Humphreys noted that he personally does not feel ICs are always reliable.

Mr. Robinson paraphrased Mr. Humphreys' concern about potential health risks posed by digging, and offered to put together a summary addressing Mr. Humphreys' issue and planting in the AP Collaborative area.

VIII. Approval of December 1, 2011 RAB Meeting Minutes

Ms. Smith made the following comments:

- Page 1 of 12: George Humphreys' last name was misspelled.
- Page 2 of 12, under Co-Chair Announcements; change "Dale Smith (RAB Community Co-Chair) then asked RAB members to express their thoughts about..." to "... then asked RAB members to *say a few words about...*"
- Page 3 of 12, first paragraph, fifth line: Change the sentence "...the area now proposed for LBNL was under remediation and rebound was occurring" to "...was under remediation and *now* rebound *is* occurring."

Dr. Gottstein asked for clarification of a sentence on Page 4 of 12, third paragraph, third from last sentence: Mr. McGinnis said "rad" at Site 17 is not a COC; the cleanup is being done for other COCs." Mr. McGinnis explained that rad is not a COC at Site 17, and it was decided to delete the word "other" before COCs for clarification.

Mr. Humphreys provided the following comment:

- Page 7 of 12, end of the first paragraph, add two sentences as follows: "*Mr. Humphreys said that the discussion of soil and groundwater alternatives was unclear. He would like a better description, including drawings, of the alternatives.*"

Mr. Peterson provided the following comment:

- Page 7 of 12, second paragraph: "Mr. Peterson clarified that Building 360 is proposed for commercial reuse." After discussion it was agreed that the sentence should be changed to "Mr. Peterson clarified that Building **5** is proposed for commercial reuse."

Mr. Torrey provided the following comments:

- Page 7 of 12, last paragraph, next to last sentence: "Mr. Torrey asked about changing the RAB meetings to Tuesdays to coincide with BCT meetings, which was an action item." Mr. Torrey said he did not make that comment, and it was deleted from the minutes.
- Mr. Torrey requested that the watermark be removed from the document.

The December 1, 2011, meeting minutes were approved with the noted changes.

IX. Review of Action Items

The status of previous action items was not reviewed. The table below has been updated based on actions since the December RAB meeting. New action items from this meeting are included.

Action Items:	Previous Item #/ Action Item Status/ Action Item Due Date:	Initiated by:	Responsible Person:
<p>Article I.</p> <p>1. Request for Presentations: a. Site 25 Plume Status Tracking Postponed Presentations (pending further action or information prior to scheduling the presentation): 1. Site 1 Radiological RD/RA work plan</p>	<p>a./Pending/2011 Article II.</p>	<p>Article III.</p> <p>RAB</p>	<p>Article IV.</p> <p>Mr. Robinson</p>
<p>2. Find out if current RAB meeting space, Room 140, would be available to the RAB for unofficial RAB meetings</p>	<p>Complete</p>	<p>Mr. Leach</p>	<p>Mr. Robinson</p>
<p>3. See if Navy management will allow more than four RAB meetings a year if they are held the same day as BCT meetings.</p>	<p>Complete</p>	<p>Mr. Humphreys</p>	<p>Mr. Robinson</p>
<p>4. Check for availability of videoconferencing equipment at City and ARRA.</p>	<p>Complete</p>	<p>RAB</p>	<p>Mr. deHaan and Mr. Russell</p>
<p>5. RAB members to review SMP document schedule and make proposal for Mr. Robinson to take to management re: number of meetings for 2012.</p>	<p>Complete</p>	<p>RAB</p>	<p>RAB</p>
<p>6. Navy (M. Parker) to provide additional information about why Site 17 sediment has to reach a certain moisture level before screening, particularly whether the moisture level would affect radiological readings.</p>	<p>New</p>	<p>Mr. Bangert</p>	<p>Ms. Parker and Mr. Robinson</p>
<p>7. Availability of toxic vapor monitors for commercial and residential occupied spaces at OU-2B</p>	<p>New</p>	<p>Mr. Humphreys</p>	<p>Navy</p>
<p>8. Investigate whether prohibitions exist on excavating >2 feet in the Housing/Collaborative areas</p>	<p>New</p>	<p>Mr. Humphreys</p>	<p>Navy</p>

The meeting was adjourned at 9:40 PM.

ATTACHMENTS

NAVAL AIR STATION ALAMEDA RESTORATION ADVISORY BOARD MEETING ATTACHMENTS

- A. Naval Air Station Alameda Restoration Advisory Board Meeting Agenda, March 8, 2012 (1 page)
- B-1. Site 17 (Seaplane Lagoon) Update (18 pages)
- B-2. Remedial Action, Installation Restoration Site 24 (10 pages)
- B-3. In Situ Thermal Treatment Treatability Study Update, Operable Unit 2B (5 pages) and Alameda OU-2B IR Site 4, Plume 4-1 Navy/SERDP DNAPL Treatability Study Update (1 page)
- B-4. RAB Letter Re: Curtailment of RAB Meeting, dated November 18, 2011 (5 pages)
- B-5. DON Response to RAB Letter, dated December 20, 2011 (3 pages)

RESTORATION ADVISORY BOARD

NAVAL AIR STATION, ALAMEDA

AGENDA

MARCH 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 – 6:45	Co-Chair Announcements	Co-Chairs
6:45 – 7:05	Site 17 Dredging Update	Mary Parker
7:05 – 7:25	Site 24 Dredging Update	Lora Battaglia
7:25 – 7:45	OU-2B Electro-Resistive Heating	Curtis Moss
7:45 – 7:55	BCT Update	Pankaj Arora
7:55 – 8:15	Community and RAB Comment Period	Community and RAB
8:15 – 8:30	Approval of Minutes Review Action Items	Dale Smith
8:30	RAB Meeting Adjournment	



Welcome



**Site 17 (Seaplane Lagoon) Update
Alameda Point, CA**

**Restoration Advisory Board (RAB) Meeting
March 8, 2012**

Mary Parker, Project Manager, Navy BRAC



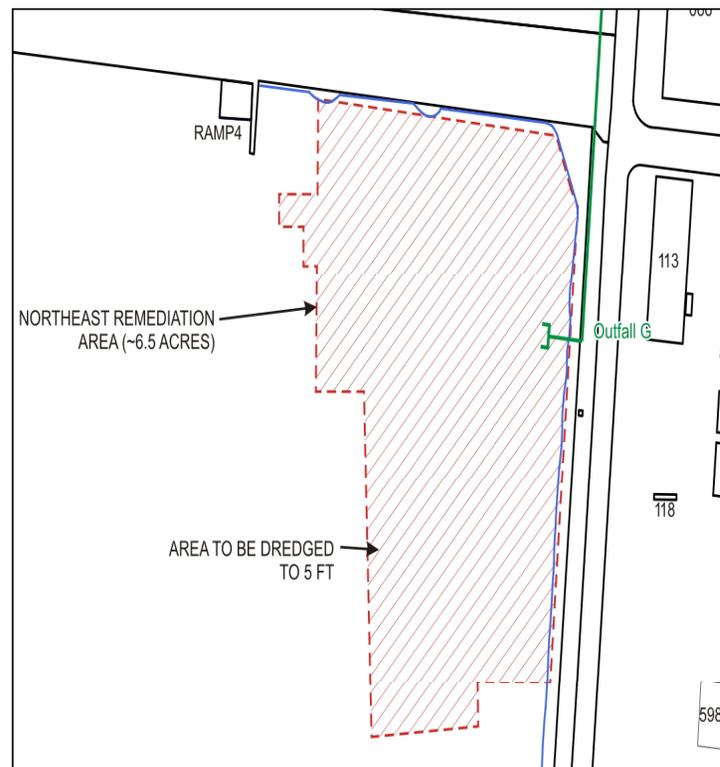
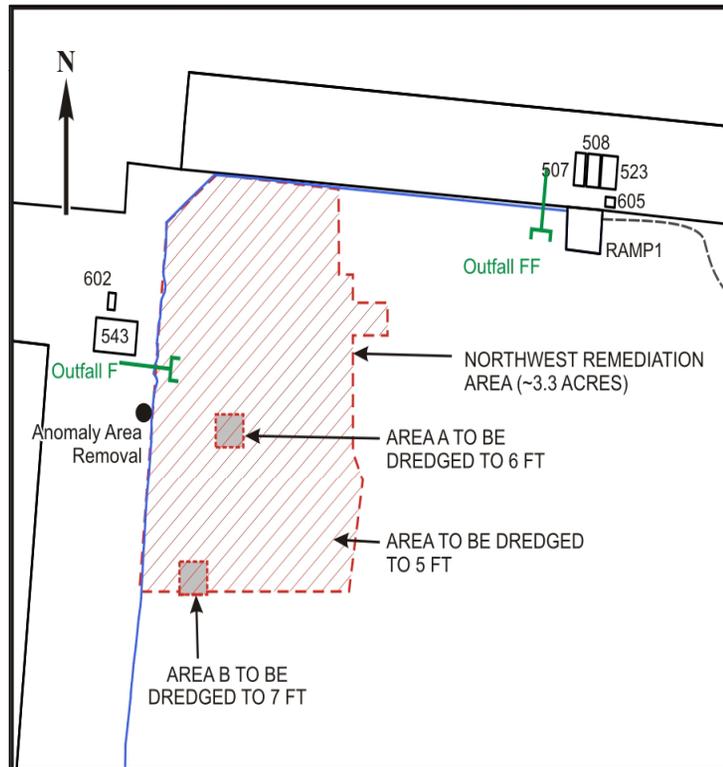
Site 17 Clean Up



- Remove sediment/debris
- Collect and treat wastewater
- Discharge treated water to Seaplane Lagoon or use for dust control
- Radiologically screen sediment/debris
- Characterize and properly dispose solid waste



Areas of Sediment Removal





Timeline: Northeast Clean Up



Key Site 17 Activities – Northeast Clean Up:

- October 2010: Mobilization to Construct Facilities for Northeast (NE) Cleanup
- January through April 2011: NE Sediment Removal
- May - December 2011: NE Sediment Processing



Dredging Northeast Area





Northeast Dewatering Pad





Radiological Screening





Northeast Radiological Devices





Northeast Dewatering Pad





Sediment Removed in NE





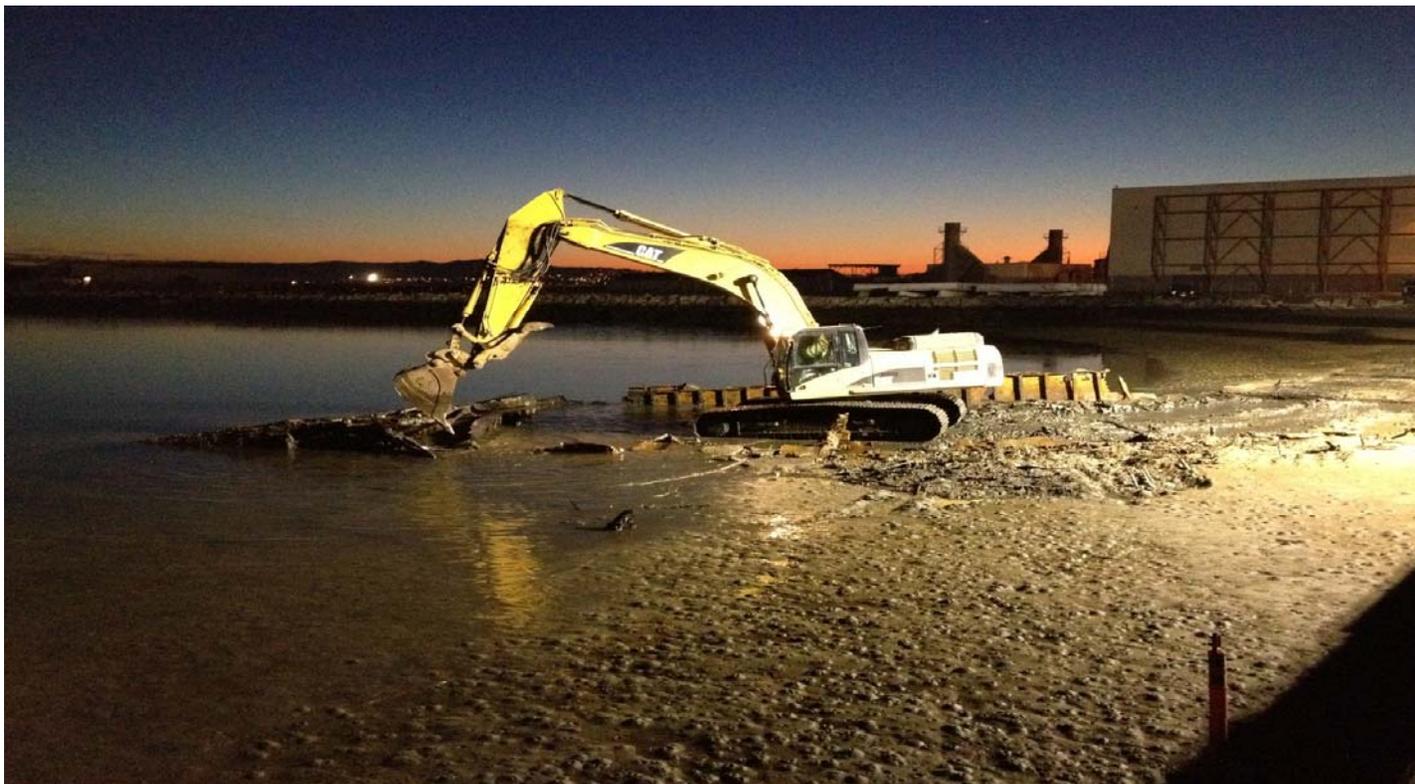
Northeast Sediment Summary



- Total estimated sediment removed: 75,628 cubic yd
- Total estimated volume of soil for re-use (sediment and pad construction materials): 76,490 cubic yd
- Total hazardous waste transported off-site: 2,750 tons
- Total estimated volume of low-level radiological waste: 11 cubic yd
- NE Radiological: Small pieces of devices and 12 inches of soil removed around each device



Removal Of Sunken Barge





Removal Of Sunken Barge



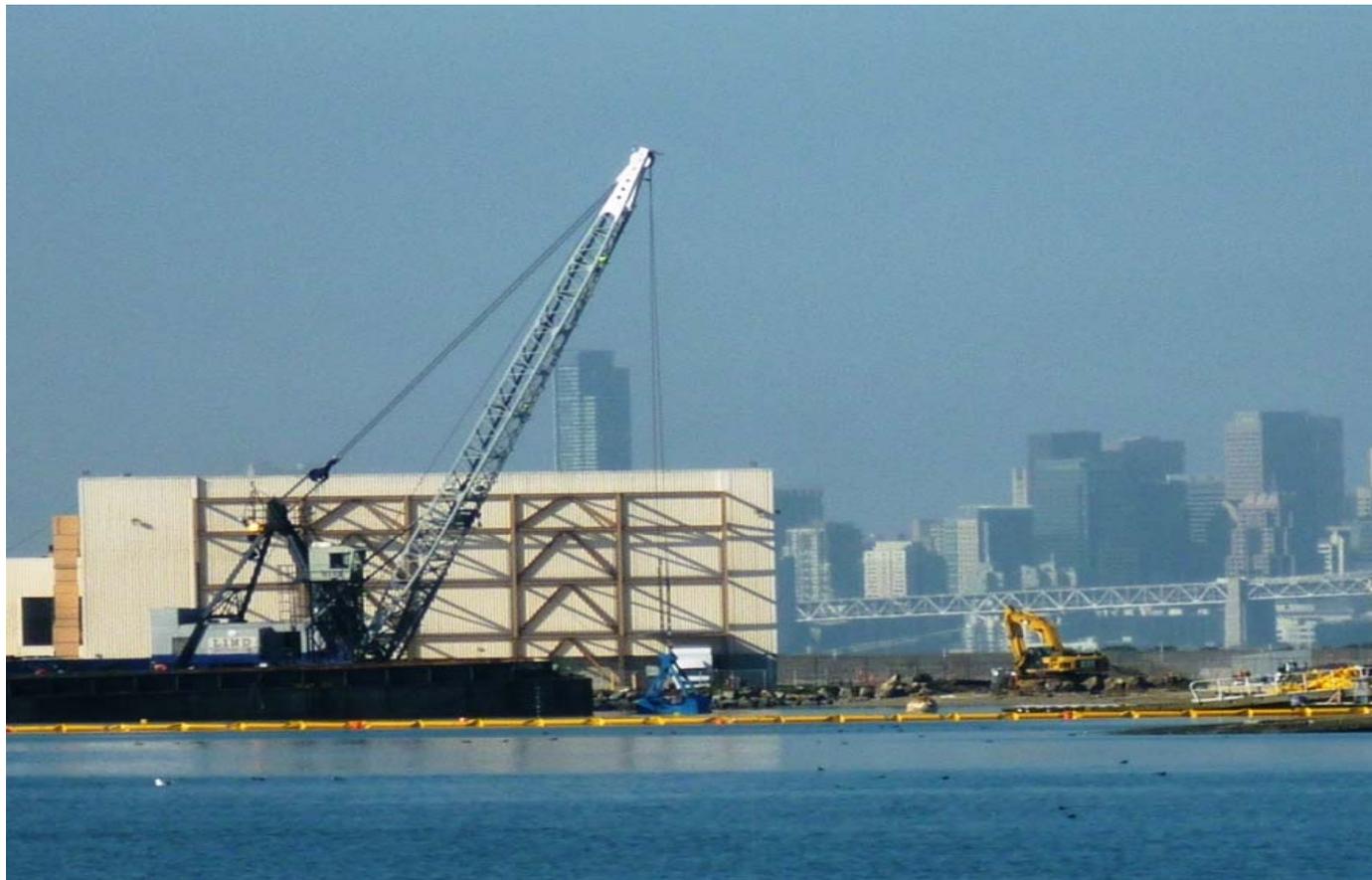


Barge Metal: 66 Tons Recycled





Northwest Dredging





Northwest Dredging





Timeline: Northwest Clean Up



Key Site 17 Activities – Northwest Clean Up:

- October 2011: Mobilization to Construct Facilities for Northwest (NW) Cleanup
- January 2012: Sunken Barge Removal
- January 16 to Feb. 22, 2012: NW Sediment Removal
- March - Dec. 2012: NW Sediment Processing, Transportation/Disposal, and Demobilization
- April 2013: Draft Completion Report



Discussion



QUESTIONS?



Welcome



Remedial Action Installation Restoration Site 24 Alameda Point, CA

RAB Meeting
March 8, 2012

Lora Battaglia
Navy RPM



Overview



- Field work update
- Construction photos
- Challenges/resolutions
- Confirmation sampling results
- Additional sampling
- Schedule



IR Site 24 Remedial Action



Mechanical Dredging

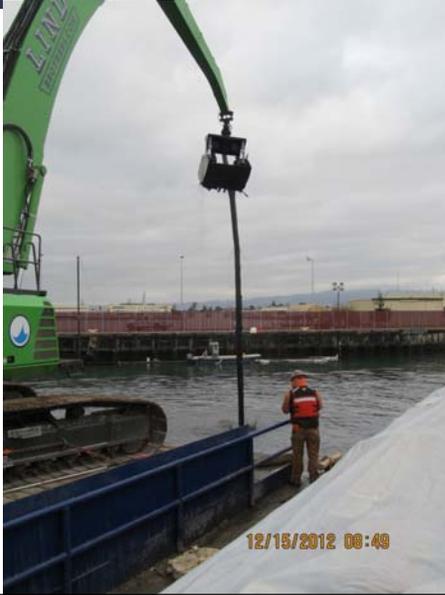


Open Water Area

- Dredging began January 13, 2012
- Dredging was completed on January 19, 2012
- Confirmation samples were collected on January 20, 2012
- A total of 2,001 cy of sediment was removed from under the wharf



Mechanical Dredging



Dewatering pad for mechanical dredging sediment





Hydraulic Dredging



Under the Wharf

- Dredging began December 27, 2011
- Dredging was completed on February 16, 2012
- Confirmation samples were collected on February 19, 2012
- A total of 1,847 cubic yards (cy) of sediment was removed from the open water portion



Hydraulic dredging under the wharf





Booster pump used to convey sediment to the geotubes



Geotubes used to contain water and filter sediment from hydraulic dredge





1-million gallon water storage tank



A total of 7,292,213 gallons of water has been treated and discharged



Water Treatment Plant





Turbidity monitoring



Challenges



Large amounts of debris was encountered



A large submerged barge was encountered in the open water area

Chasing tides



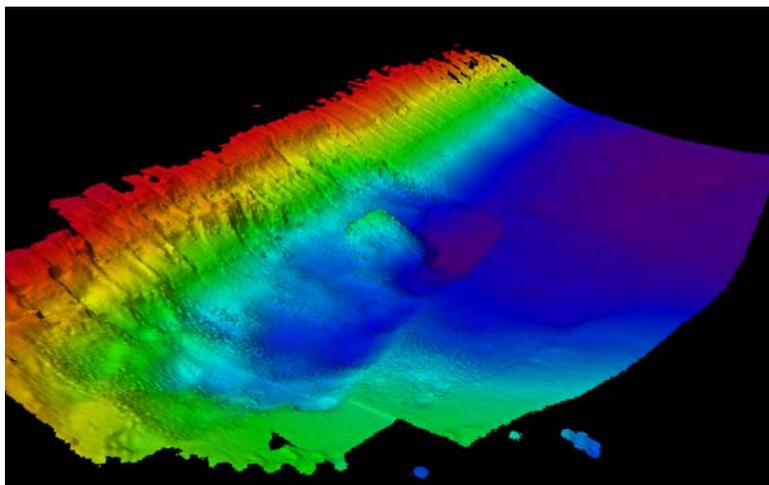
Debris



200 cy of debris was removed from the site

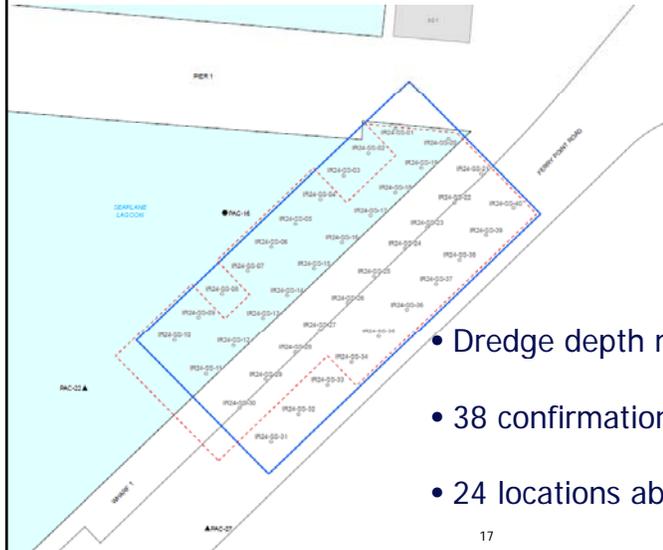


Bathymetry





Results



- Dredge depth met below the wharf
- 38 confirmation samples
- 24 locations above the RGs

17



Additional Sampling



- Based on results of confirmation sampling, we are planning to perform additional sampling to delineate depth of contamination at locations where contamination remains above RGs
- Once contamination depths are determined, additional dredging will be performed





Schedule



- Fieldwork began on December 15, 2011
- Completed dredging on February 16, 2012

- Perform additional sampling early March
- Additional dredging based on sample results
- Complete sediment processing/disposal and water treatment by May 29, 2012

- Draft RACR to be issued in September 2012



Thank You!



QUESTIONS?

 **WELCOME** 

**In Situ Thermal Treatment
Treatability Study Update**

**Operable Unit 2B
Alameda Point, CA**

Curtis Moss, P.G.
Project Manager
U.S. Navy BRAC PMO

RAB Meeting
March 8, 2012

 **OU2B ISTT Study Location** 

ISTT Treatment Location



2



OU-2B Treatability Study Objectives



Project Goal:

Evaluate the effectiveness of In Situ Thermal Treatment (ISTT) to remove chlorinated solvents in groundwater

Performance Objective:

90% contamination removal – by reducing total contamination exceeding 10 milligrams per liter (mg/L) to 1 mg/L

3



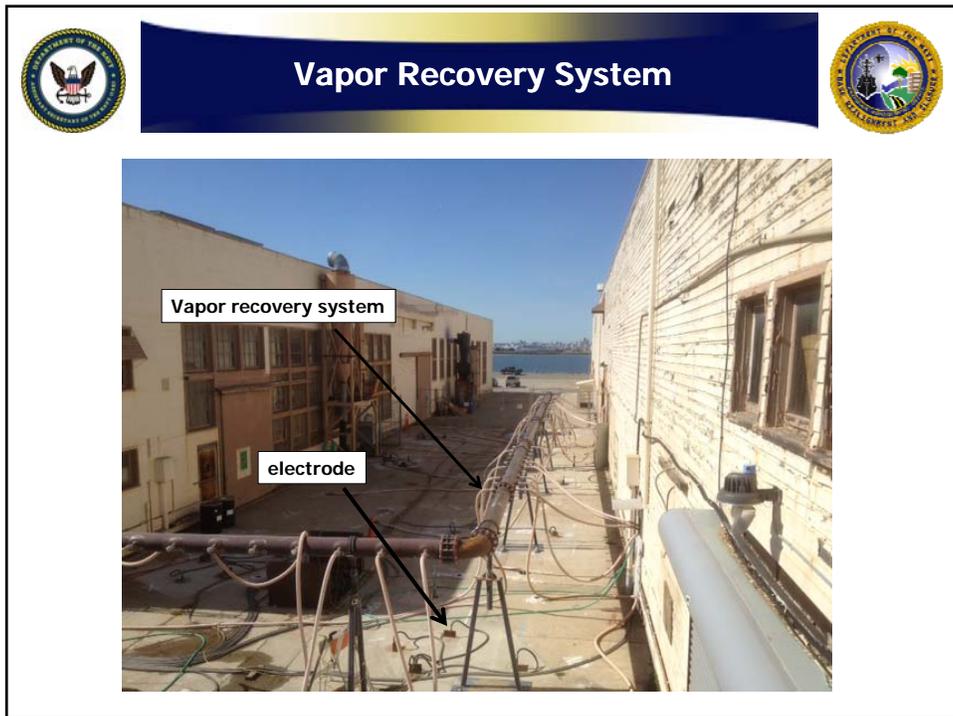
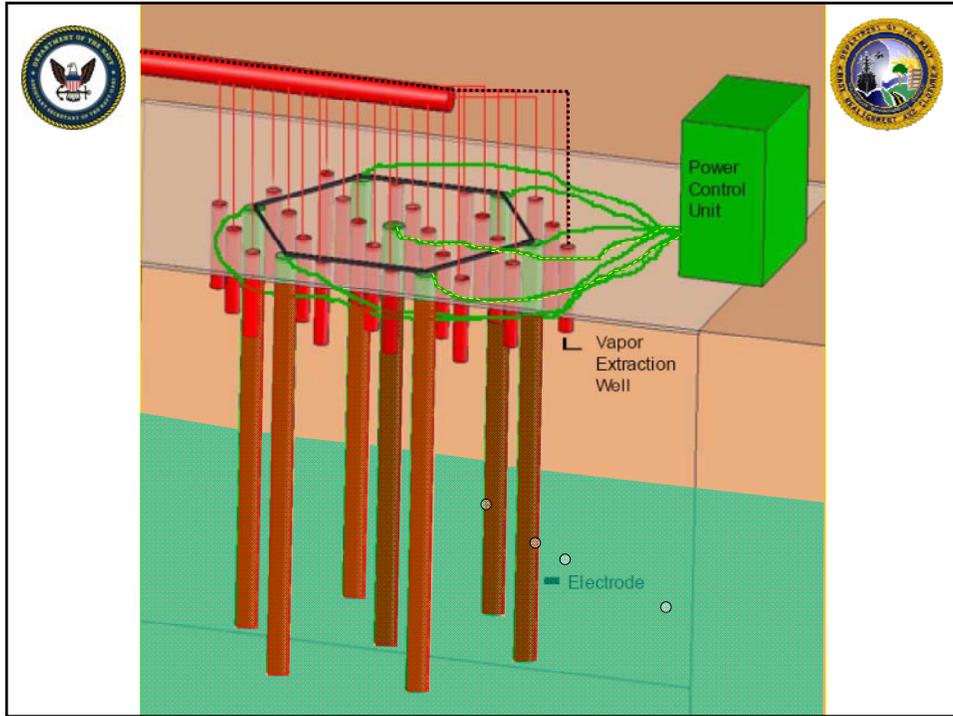
Six Phase Heating Technology



Heating & Contamination Removal Process:

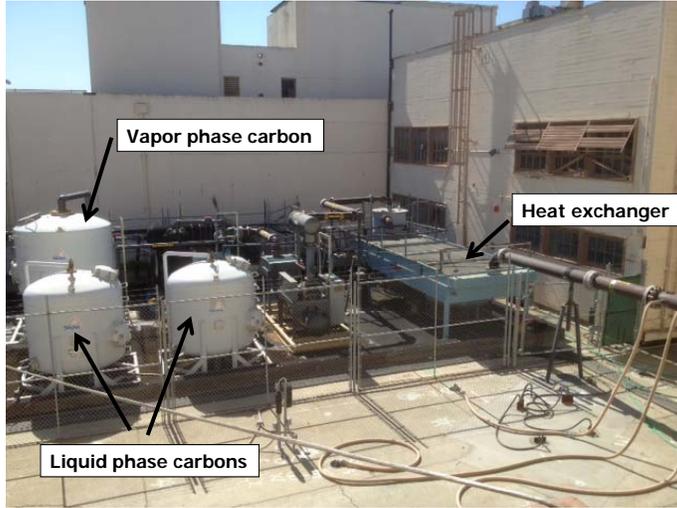
- Electrodes installed vertically in hexagon pattern
- Resistance of soil & water between electrodes results in heating
- Heated vapors recovered by vacuum extraction
- Filter contaminant vapors with granulated activated carbon (GAC)

4

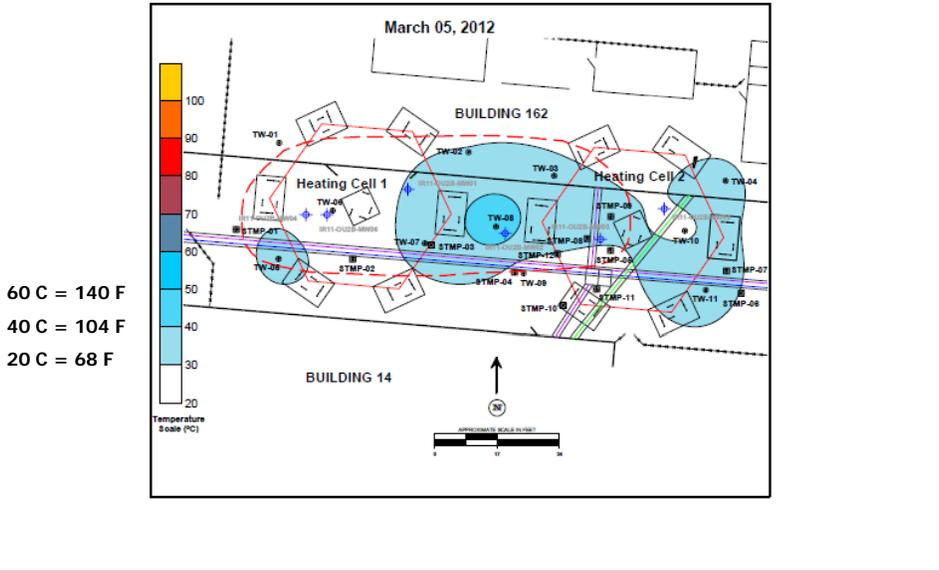




VOC Treatment System



Temperature Profile as of 05-Mar-2012





Next Steps



- Increase temperature to 194 degrees Fahrenheit
 - TCE boiling point is 189 degrees F
- Heating scheduled to continue through May 2012
- Continue vapor sample collection measuring mass removal
- During cool down, sample soil and groundwater to assess mass removal

Alameda OU-2B IR Site 4

Plume 4-1 Navy/SERDP DNAPL Treatability Study Update

Current Phase: In Situ Bioremediation (ISB) Source Zone Treatment Test

- January 2012 began laboratory 'soil column test' to assess the effectiveness of ISB using *bioaugmentation* to treat trichloroethene (TCE) DNAPL
 - *Bioaugmentation* is the introduction of commercially engineered dechlorinating microorganisms to speed up ISB remedies
 - Lab test is measuring DNAPL dissolution rates, TCE dechlorination rates, and microbial population growth
- Currently developing the conceptual design for field-scale test of enhanced bioremediation
 - Design includes recirculation of groundwater through DNAPL source area using existing injection/extraction well system
 - Inject nutrients (e.g., lactate, vegetable oil) and bioaugment to develop and sustain a healthy microbial population to enhance DNAPL dissolution and breakdown dissolved contamination

Performance Criteria for ISB Test:

- Biologically enhance DNAPL dissolution
- Achieve complete dechlorination of TCE as evidenced by ethene generation
- Substantial decrease in dissolved contaminant flux so final MNA remedy can be obtained

Ultimate Goals of Study:

- Successful test will reduce contaminant mass from the source zone as well as shut down contaminant mass flux
- Gain site specific data and implementation insight to support the Remedial Design for groundwater at OU2B

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

November 18, 2011

Re: Curtailment of RAB meetings

Dear Mr. Robinson,

At the October meeting the curtailment of the RAB meetings to four times a year was announced without a vote. Subsequently, a December meeting was announced. The community members are quite concerned about the Navy's failure to follow *RAB Rules of Operation* that require a majority vote by those members present at a RAB meeting.

There are many documents still to be developed and released that will not fall neatly into a four-times-a-year pattern. It seems unwieldy to move meetings around depending on document releases and comment due dates. That would appear to require the community members to hold the monthly meeting slot open in case the Navy decides to communicate with us. How much time would we be given before the meeting? We could not anticipate document releases because we do not get monthly document tracking lists, as we used to and as occurs at other bases. The dates on the document tracking list we have gotten from you sporadically often doesn't conform to actual delivery dates and some documents on the list do not show up at all. Additionally, the community co-chair, has not been receiving documents. The poor tracking system and the partial receipt of documents exacerbates the problems caused by fewer meetings.

We did not effectively decide what mechanism would remedy this situation and the Navy has not proposed to have a discussion. Communication is to be primarily through email (although the BEC has been calling people and talking on the phone, without informing the co-chair). The reason given is that "The truth is...as soon as I am with my family, work is the last thing on my mind." But, "I am available from 6:30am to 4pm (sometimes I leave at 3:30pm to pick up my daughter) to answer emails or answer questions via phone." The community co-chair works and would have to make calls on work time under this arrangement. This also requires RAB community members to incur the cost of long-distance phone calls or maintain Internet access. This is not in keeping with the Navy's guidance on RAB administrative support, which states the purpose of the RAB is to "[p]rovide an opportunity for RAB members to review progress and participate in a dialogue with the installation's decision makers concerning environmental restoration matters. Installations will listen, carefully consider, and provide specific responses to the recommendations provided by the individual RAB members." And "[b]y establishing a RAB, DoD hopes to ensure that interested stakeholders have a voice and can actively participate in a timely and thorough manner in the planning and implementation of the environmental

Community members of
Naval Air Station Alameda Restoration Advisory Board
2935 Otis Street, Berkeley, CA 94703
510 841 2115 dale2smith@yahoo.com

restoration process. A RAB will serve as one method for the expression and careful consideration of diverse points of view.”

The Navy RAB guidelines state that the RAB is “[t]o act as a forum for the discussion and exchange of restoration program information between DoD, regulatory agencies, and the community.” The EPA and DTSC guidelines state “[t]he EPA member should serve as an information, referral and resource bank for communities, installations and agencies regarding installation restoration”. And that “[t]he BCT should maintain a close working relationship with other members of the RAB”. We have not heard how the regulators feel about this change. Did they vote at the BCT meeting to curtail our participation in installation restoration? If so, this appears to be contrary to all the guidelines.

The Navy could reduce the cost of RAB meetings by limiting the number of Navy, consultants and agency personnel to only those essential to the meeting. In the past as many as 16 representatives of the government have attended the RAB meetings. RAB guidelines state “[i]deally, DoD believes that RABs should have only one representative from each government agency, so as to prevent an inordinate representation by government and DoD officials. While DoD encourages other government representatives to attend RAB meetings, these representatives’ role will be strictly one of providing information and support.”

Additionally, there have been specific problems concerning communication and the sharing of information in the last two years that you should be aware of and, if possible, remedy. Some of them the community co-chair has brought up before; some have occurred recently and are only being shared with you now.

1. The community, as represented by the community co-chair, has not received all documents released by the Navy. It is unclear if the Navy has chosen not to release the documents to the public or if this is a lack of quality control. The community co-chair has received only final documents and not the drafts in some cases, thereby effectively being prevented from reviewing the draft and providing comments.
2. The City has not received all documents either. If the documents are not in the information repository, the public, who desire to review them, is unable to do so. This would appear to be in direct conflict with the federal guidelines on the operation of the Department of Defense on communication with the public. Also, the Response to Comments is not printed out in the hardcopy. If a member of the public goes to the repository and the document is there, they will not be able to read the concerns of the regulators and the Navy’s position about those concerns. The Alameda repository does not offer a computer for viewing documents.
3. The upcoming document list deviates significantly from the one released by Mr. Macchiarella, which is identical to the one for Treasure Island. This document has not been released since May 2011.

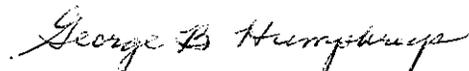
4. We have not been receiving updates on on-going projects. The change to reviewing only documents prior to RODs occurred within the last year. Significant clean-up issues arise after the signing of the ROD. The RAB has repeatedly asked for a short overview of projects to keep us abreast of events.
5. We have not received the current Site Management Plan.
6. The contact list is out of date.
7. George and I put together a list of key background documents as an orientation packet for the new members. They did not receive the complete set, as you said you could.
8. Cover letters for draft documents do not always have comment due dates.
9. Direct communication by the BEC with individual RAB members, particularly with regard to the nomination process, has created a good deal of confusion and dissention within the RAB. This is something new. Our understanding of the nomination process is that the process should occur at the RAB meeting, not solicited by the BEC outside the prescribed process.

Most of these issues have been raised before and we are hoping to resolve them. The current situation doesn't lend itself to doing so, however. We hope these issues get resolved so that the RAB can continue to provide meaningful input. The RAB has been productive and resulted in significant improvements in the base clean-up. Both the federal EPA and California DTSC sent their public participation specialists to our meeting to praise our efforts and our professionalism.

Sincerely yours,



Dale Smith
Community co-chair



George Humphreys
Vice community co-chair

Action Items for
Restoration Advisory Board

1. OU-5/FISCA IR-02

The Navy is remediating two hot spots. What happens to the areas near the College of Alameda and under Woodstock/Island High? How can natural attenuation finish cleanup when it didn't cleanup the producer gas residue in 110 years?

2. Basewide Radiological Contamination

Radium-contaminated sediment from the estuary/Oakland Inner Harbor may have been used to fill FED-1A, IR Site 1 and part of Site 32. Why hasn't the Navy done an area survey of exposed soil in FED-1A?

3. IR Site 1-Plume Shape

The presentation to the RAB was logically inconsistent. A narrow plume would indicate a gap in the wall, but there is no opening and the plume dips under the wall. The groundwater should be sampled on the bay side of the funnel and gate.

4. IR Site 1-Burn Area

Last year, we were told that the burn area portion of IR Site 1 extends farther in a north-south direction than previously expected. It also is deeper and extends under the riprap into the bay. What plans have been made to excavate or remediate this material?

5. IR Site 1-Radioactivity

The trenching report (Figure 1-1) shows that the southernmost cell (in which T-6 was excavated) overlaps or abuts the base of the riprap. This indicates that either wastes from this cell currently are exposed to the Bay or that they could be easily exposed by minor shore erosion. All of the excavated soil from this cell was radioactively impacted. Were the beach area and the shoreline wall opposite T-6 ever sampled for radioactivity and other contaminants? If so, what were the results?

6. IR Site 32- Radium Contamination

The site was reconfigured in 2008. There no results yet from a radiation survey. Will the radioactively-contaminated soil be excavated? Capped? Why is transfer to the City slated for December 2019?

7. OU-2A- Tarry Refinery Wastes and Rail Cars

The area of tarry refinery wastes should be continued under Superfund. Tar is coming to the surface. The Historical Radiological Survey indicates that uranium was leaking from rail cars at this site. Was a survey conducted under the Basewide Radiological Survey?

8. OU-2B. Six-Phase Heating ; Building 360

What have been the results from the six-phase heating test between buildings near the seaplane lagoon? Higher salinity and conductivity may require higher current flow for the same soil heating.

What about the chlorinated solvents under Building 360? Tests with nano zero-valent iron failed. Six-phase heating is precluded because of the proximity to power lines and switchgear. The crawl space under the floor prevents reliance on the floor as a barrier.

9. OU-2B University Study

What is the status of the University Study on groundwater flow? Are any results available?

10. IR Site 24. Under the Road Near the Seaplane Lagoon

Has dredging of the silt contaminated with heavy metals from the plating shops started?

11. IR Site 16. Seaplane Lagoon

Has the dewatered dredged material been removed before the rains? Has dredging of the other corner of the lagoon started?



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Ser BPMOW.djr/0128
DEC 20 2011

Ms. Dale Smith
Community Co-chair
Restoration Advisory Board
2935 Otis St.
Berkeley, CA 94703

Dear Ms. Smith:

Thank you for your letter of November 18, 2011 regarding the Alameda Point Restoration Advisory Board (RAB) meeting frequency and associated focus areas. The Navy has proposed a quarterly RAB meeting schedule, in addition to our annual community tour, plus other on-site public meetings for Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Proposed Plan documents. As we have discussed in our meetings and via email and phone calls, our goal is to maintain or increase our communication and overall effectiveness, while reducing costs consistent with Department of Defense direction and Executive Orders released in 2011 from the White House, Office of the Press Secretary.

The Navy is firmly committed to supporting our Installation Restoration (IR) Program at Alameda Point through robust public outreach. The Alameda IR Program has achieved unparalleled success in recent years due to the outstanding Navy, BRAC Cleanup Team (BCT), and RAB group of dedicated professionals working together towards a common goal. Over the last two years, the Navy, BCT and RAB have worked extremely hard to provide a professional and positive forum where the community can ask questions and provide input to assist in the decision making process for the Alameda Point environmental program. Together, we have continuously improved communication and welcomed differences of opinion in an open and professional manner.

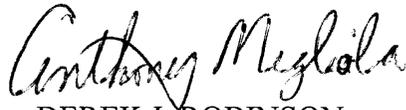
As a testament to this collaboration, we have executed five CERCLA Record of Decision (ROD) documents (Sites 1, 2, 24, 25, and 34) and partnered on two exceptionally successful community tours of key environmental sites. Each of these decision documents, tours, as well as a host of other important project documents required input and teamwork amongst the Navy, BCT, RAB, and community members. As you know, out of 30-plus environmental sites at Alameda Point, only four RODs covering multiple sites still need to be executed, and we are working hard to complete those in the near future.

The Alameda Point RAB will continue to serve as a focal point for public participation and as the key forum for the Navy, regulators, RAB members, and community to exchange information regarding the on-going CERCLA Program. Indeed, we believe there is potential to effectively incorporate the use of tools such as video teleconference, teleconference calls, and other internet based communication, as has been proposed by individual RAB members. Over the last several months, we have discussed opportunities for alternative communication means as well as budgetary constraints. As a group, we can continue to discuss these ideas and explore new ones

with the goal to agree on a go-forward plan that optimizes our effectiveness while reducing operating costs to the greatest extent possible. While many ideas have been informally discussed, I would greatly appreciate receiving in writing the RAB's consensus recommendations on how best to achieve our collective goals and objectives. This will assist me in advocating for the necessary resources to implement your recommendations.

The Navy remains committed to robust communication with the community of Alameda and looks forward to working with the RAB to develop a plan that satisfies this goal, reduces costs, and is responsive to the diverse needs of the Alameda community. I look forward to continued collaboration and progress at Alameda Point.

Sincerely,

for 
DEREK J. ROBINSON
BRAC Environmental Coordinator
By direction of the Director

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DEC 20 2011

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DEC 20 2011

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