



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

May 10, 2012

www.bracpmo.navy.mil

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; Carol Gottstein, M.D.; Daniel Hoy; George Humphreys; James Leach; Bert Morgan; Kurt Peterson; James Sweeney; Michael John Torrey

Community Members/ Public Attendees

Susan Galleymore, Gretchen Lipow, Jack Powell

Navy Attendees

Jacques Lord, Remedial Project Manager (RPM); Bill McGinnis, Lead RPM

Regulatory Agencies

David Elias, San Francisco Bay Regional Water Quality Control Board (Regional Water Board)

James Fyfe, California EPA Department of Toxic Substances Control (DTSC)

John West, Water Board

City of Alameda

Peter Russell, Russell Resources, City of Alameda (City)

Contractors

Jessica Beck, Tetra Tech EMI

Pete Everds, Tetra Tech EC

John McMillan, Shaw Environmental and Infrastructure

Betty Schmucker, Trevet Environmental, Inc.

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

MEETING SUMMARY

I. Welcome and Introductions

Derek Robinson (Navy Co-Chair) called the May 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 announced that Tommie Jean Valmassy (contractor) had a baby girl.

Dale Smith (Community Co-chair) said she sent out an e-mail to the RAB members regarding a discussion between the military and the U.S. Environmental Protection Agency (EPA) about loosening remedial guidelines because of project cost overruns. She said this would be a setback and could weaken the EPA guidelines by returning to 1980 levels. She said that various groups have sent letters to Washington D.C. objecting to the idea.

Ms. Smith requested reopening the RAB vote on the preferred alternative for Operable Unit (OU) 2B groundwater. She sent an e-mail to RAB members about this and noted that the original RAB vote supported Alternative G-3B. Cost estimates were revised for cleanup and dropped about \$4 to 5 million due to a reduction in monitoring frequency. Alternative G-3B came in at the same cost as that for future commercial reuse; however, the Sierra Club does not favor commercial standards for OU-2B because she said the City is now looking at putting affordable housing in that area. Mr. Robinson said if the groundwater is treated to commercial standards, there will be restrictions against residential reuse. Ms. Smith noted that second-floor residential reuse is being considered. She asked RAB members if they wanted a new vote on the preferred alternative to assure better safeguards for possible residential reuse.

George Humphreys (RAB member) indicated the RAB sent a letter in response to the first version of the OU-2B Feasibility Study (FS), which indicated a preference for groundwater Alternative G-3B. He noted that the costs for alternatives between the FS (G-3B) and the FS Addendum (GM-3B) were not much different, but the monitoring periods varied at 15 years for commercial/industrial reuse and 30 years for residential reuse. The treatment period is 5 years for both alternatives. Mr. Humphreys said the difference would be the waiting period to build: 15 years for commercial and 30 years for residential. Mr. Robinson agreed, but explained that institutional controls (ICs) for commercial reuse versus residential reuse would allow residential reuse much sooner than 30 years, as was done at Shinsei Gardens. Mr. Humphreys said he was not sure the residences at Shinsei Gardens are "safe," since no one is measuring the air inside the residences. He said the design for the ventilation system at Shinsei Gardens placed the inlet and the outlet for the sub-slab ventilation in relatively close proximity to each other, posing the possibility of recirculating contaminants. Ms. Smith noted the inlet vents were positioned to capture the prevailing winds from the northwest; however, the winds sometimes shift to the northeast, thus capturing air underneath buildings.

Mr. Humphreys raised the issue of vapor monitors sensitive to vinyl chloride for both commercial and residential units. Mr. Robinson explained that this issue is important to the Navy. Vapor barriers have been in place in locations across the nation for a long time, many studies have been performed, and they have shown that vapor barriers are very effective. The science is not new; it has to do with removing pressure under buildings to keep vapors from

accumulating. Peter Russell (City) said he reviewed the vent designs for the Shinsei Gardens development and they were correctly spaced. If there is an issue with vent placement, it would likely be a construction issue. He noted that vinyl chloride is not a contaminant of concern at Shinsei Gardens. Mr. Humphreys asked how plastic vapor barriers stand up to chlorinated solvents. Dr. Russell said he was not sure, but the alternative would be something more robust, such as sub-slab pressurization, which is designed and built to be redundant (i.e., protective).

Richard Bangert (RAB member) asked what technology the Sierra Club is proposing in order to meet residential safety standards. Ms. Smith said the Sierra Club is not proposing a technology, but is concerned with City of Alameda developments that could present a social justice issue, such as low-income/affordable housing over an untreated groundwater plume. She said that as a Sierra Club member, she cannot support cleanup to commercial standards. Mr. Bangert noted that the City could be more attuned to potential consequences, or the Navy could perform a more robust cleanup. Ms. Smith said observation for rebound is needed for up to 18 months after treatment. Mr. Robinson said construction could commence on the site after 5 years of plume treatment and monitoring because groundwater-plume treatment injections would be complete prior to the end of the fifth-year. Further, interim controls are in place and will be included in the deed at transfer. Dr. Russell noted that the Record of Decision (ROD) states the remedial goals (RGs) that must be met, and that building occupants would be protected from vapor intrusion using sub-slab depressurization as an interim measure until the RGs are achieved. Mr. Bangert asked if monitoring would be required to reach residential RGs; Dr. Russell said yes.

Dr. Russell said there has only been a discussion of second-floor residential reuse over ground-floor commercial reuse. In addition to the sub-slab depressurization, the building design should intend to isolate the first and second floors, thus allowing no air communication between the spaces.

Mr. Robinson asked the RAB how they recommend moving forward. Ms. Smith replied that the Navy should implement Alternative G-3B with residential standards. She noted she had abstained from the original vote.

Mr. Humphreys expressed concern that the treatment was only for shallow groundwater and that deeper contaminants might rise to the surface. Mr. Robinson said that groundwater monitoring will address this concern. Mr. Humphreys added that, in his opinion, residential standards (using residential RGs) could not really be achieved and that even though commercial use is planned, the City is really considering building houses. Mr. Robinson said if the property is remediated to commercial standards, then there will be deed restrictions limiting future use to commercial, unless the City could show that adequate protections will be in place to allow for building second-floor residences. If residential use is planned, then the regulatory agencies will have to review and approve residential use of the property. He expressed confidence that the regulatory agencies will make a good decision about the acceptability of residential use. The Navy is trying to finish the remediation and transfer the property to the City.

Ms. Smith asked Dr. Russell why volatile organic compounds (VOCs) do not migrate upwards from the 75-foot depth to the 30-foot depth, and why seismic events would not accelerate this. Dr. Russell explained that this has been the subject of groundwater modeling conducted by the Navy's contractors. Since halogenated solvents are denser than water, they tend to move downward (i.e., sink). Ongoing monitoring of shallow groundwater would detect any upward movement of contaminants and, if this were to happen, the Navy would be required to address

the issue in accordance with the ROD. Mr. Robinson reiterated the Navy's obligation to monitor in perpetuity whenever contaminants are left in place and unrestricted use is not allowed. Mr. Humphreys expressed concern regarding the degradation product vinyl chloride appearing later and contaminants from deeper levels emerging, even after the shallow groundwater is cleaned up. Dr. Russell said that it is not likely contaminants would suddenly appear after 20 years and that groundwater monitoring would detect this if this scenario were to occur. Mr. Robinson said the Navy has discussed this concern extensively, and will clean down 30 feet into the groundwater table and perform consistent monitoring. Further, the Navy will address any future concerns if it becomes necessary.

Mr. Humphreys noted that some of the OU-2B groundwater alternatives do not actively treat contamination, such as the permeable reactive barriers proposed as part of two alternatives. He assumed that some active treatment alternative, such as G-3B, will be selected.

Carol Gottstein (RAB) asked if the Alameda County Mosquito Abatement District representative would be back to address the RAB, as was done at the March meeting. Mr. Robinson noted that the County has already sprayed for mosquitoes.

Mr. Humphreys commented that he has seen a least tern and a Foster's tern on nearby Bay Farm Island. This was in reference to the Field Work Update ([Attachment B-1](#)) noting that additional focused dredging should be conducted prior to the arrival of nesting terns.

There were no further community comments. Mr. Robinson made several announcements.

1. RAB Calendar. The April 27 date for the Site 32 Revised Draft Remedial Investigation/Feasibility Study (RI/FS) release was updated to September 5, 2012, because the Navy Radiological Affairs Support Office (RASO) required rescanning at the site to acquire more complete data.
2. RAB Tour Date. Mr. Robinson will send out an e-mail with proposed tour dates (a Saturday in June, July, or August) and will coordinate with Ms. Smith before the end of May to select the most convenient tour date and site tour locations.
3. Site Updates: Site 17, Site 1 ([Attachment B-1](#)). Mr. Robinson provided a handout on the additional focused dredging at Site 17 and soil and groundwater work at Site 1 Area 1B. Daniel Hoy (RAB member) asked if parking along Seaplane Lagoon (Site 17) is allowed because he observed cars parked in the area where radioactive soil was recently removed and piled up for scanning. Gaps in the fence around the lot have allowed the owners and tenants to enter the parking lot. Bill McGinnis (Navy) said the parking area is no longer used for Site 17 and owners/tenants should discuss unrestricted parking access in the eastern area directly with the City.

Mr. Robinson provided an update for work at Site 24. Two kinds of dredging were used at Site 24: mechanical dredging and diver-assisted vacuum dredging (conducted underneath the wharf with a diver to help remove debris before vacuuming).

III. RAB Meeting Frequency

Mr. Robinson said the Navy and the RAB reached an oral agreement to conduct bimonthly meetings for the remainder of 2012 and to move Proposed Plan meetings to the second Thursday of alternate months to coincide with RAB meetings. Mr. Robinson said the bimonthly schedule

would carry forward until voted on by members. Ms. Smith clarified that the Navy would like formal approval of the agreement, and Mr. Robinson agreed. Michael John. Torrey (RAB member) so moved and James Sweeney (RAB member) seconded; the vote carried unanimously.

III. Site 2 Remedial Design

Mr. Robinson introduced Jacques Lord (Navy) to present an update on the 90-percent Remedial Design (RD) for Site 2, which is located in the southwest corner of AP ([Attachment B-2](#)). The Draft 90-Percent RD Report was just released for review. Mr. Lord explained the major changes between the 60-percent RD and the 90-percent RD.

During review of Slide 2, Mr. Bangert asked about the depth of the radiological scan. Mr. Lord said scanning is proposed to a depth of 1 foot across Site 2 to identify anomalies and then 2 feet of clean cover soil will be placed over the site, for a total of 3 feet of clean soil down from the surface. Mr. Torrey asked about differences in cost from the previous RD. Mr. Lord said the costs are reduced with the 90-percent RD, primarily due to improvements in design (i.e., elimination of waste consolidation, change in cover thickness and material, reduction in cover slope, and reduction in waste and fuels). James Leach (RAB member) asked if Site 2 will be available for public access. Mr. Lord said probably not, since monitoring wells will be in place and monitoring activities going on. However, the perimeter road will remain intact and potentially could be incorporated into a proposed shoreline path around San Francisco Bay.

Mr. Lord said the Navy would like the RAB to form a committee to work with him to help develop a mixture of grasses and plants that will be used to revegetate Site 2. RAB members were asked to contact Jacques if they are interested in being part of this committee.

Susan Galleymore (public) asked if the Navy has a mitigation plan at Site 2 for sea level rise. Mr. Lord said that future sea level rise will affect much more than just Site 2; it will happen all around the San Francisco Bay. Mr. Bangert asked if sea level rise and its impacts will be mitigated by the Navy in perpetuity. Mr. Lord said that the Site 2 remedy will be monitored and protected in perpetuity. This issue will be addressed in the (future) Land Use Control (LUC)-RD document. Jack Powell (public) noted that the seawater pond with a tidal conduit will continue to expand if sea level rises. Mr. Lord agreed. Pete Everds (contractor) added that the idea of the wetlands mitigation for Site 2 is to expand the higher-quality wetlands in the southern part of the site. Ms. Smith asked about the strength of the perimeter embankment to support additional material. Mr. Lord said this was addressed in the Site 2 geotechnical report, adding that the embankment is similar to what is around Oakland International Airport.

Mr. McGinnis said waste left in place will be monitored and evaluated in future Five-Year Review reports. Remedy effectiveness is evaluated every 5 years, including sea-level rise as it may affect the remedy and require mitigation. Mr. Bangert asked if the remedy goes with the land and Mr. Lord replied that yes, it is expected that the Veterans' Administration (the property recipient) will be maintaining the remedy. Kurt Peterson (RAB member) asked if the Navy knows where the remaining waste is and wondered if excavating down to 1 foot might cause problems by exposing waste. Mr. Lord replied that radiological scans to date show "hot spots" that are small and easily excavated with a backhoe. A lot of work has been done at Site 2 and much information has been collected.

Dr. Gottstein noted that the Site 2 reports tend to run to thousands of pages and wondered how big the RD report is. Mr. Lord explained the contents of the RD and its 13 attachments, which together comprise a 4-inch binder. Two copies of the Draft RD have been placed in the information repository upstairs in the building, in Rooms 240/241, for the public to review.

Mr. Humphreys noted that Foster-Wheeler did a seismic study/stability analysis of Site 2 that showed a possible 20-foot displacement. Mr. Lord said modeling for seismic displacement was done, and the edge of the landfill needs to be preserved. He showed the proposed changes in landfill slope between the 60-percent and 90-percent design. Mr. Leach asked if the government has always owned the land, and Mr. Lord replied yes, the area of Site 2 was constructed from dredged material for Navy use.

During review of Slide 12, Ms. Smith asked if the Navy has received clearance by the U.S. Fish and Wildlife Service (FWS) for hauling in barged soil onto Site 2 by truck. Mr. Lord said the FWS and the California Department of Fish and Game are reviewing that proposal now. Mr. Bangert asked whether the stockpiled soil from Site 17, now located at Site 2, is usable as sub-grade fill. Mr. Lord replied yes, the Site 17 soil is suitable for sub-grade fill and that clean fill for the top 2 feet of soil cover will be barged in and not trucked through Alameda city streets. Mr. Bangert expressed concern about plastic in the stockpiled soil and asked if the Navy plans to sift the soil. Mr. Lord replied that the contractor would likely pull out large pieces of plastic or debris from the soil, but not all, and suggested that Mr. Bangert make that comment during review of the Draft 90-Percent RD Report.

Mr. Humphreys noted that mounds of material between the two ponds on Site 2 might not have been monitored for radioactivity. Mr. Lord said the entire area was sampled during the RI, and two radiological hot spots were found. Mr. Lord indicated on a different slide the area covered by the RI sampling. Ms. Smith asked the distance between the groundwater monitoring points; Mr. Lord replied they are about 180 to 200 feet apart. Mr. Bangert asked whether the ponds have been sampled recently for groundwater. Mr. Lord said the ponds were sampled during the RI and FS, and no measurable impacts were reported. Ms. Smith requested a hard copy of the Draft 90-Percent RD Report; Mr. Robinson said he would provide a copy to her.

Mr. Lord added that the RAB has 60 days to review the document and that he hoped a committee will also be formed to help advise on the revegetation. The hydroseeding will be done several months out from now.

IV. BCT Update

Mr. Robinson introduced John West (Water Board) who gave an update on BCT meetings held since the last RAB meeting.

Mr. West thanked Mr. Lord for his presentation. He said the Water Board will also work with the RAB committee on the Site 2 revegetation process.

Two major items have been discussed at the most recent BCT meetings:

1. Operating Properly and Successfully (OPS) certification. This EPA certification is in process for six AP sites (6, 14, 16, 26, 27, and 28) so they can be transferred to the City. There have been lots of discussions about sites receiving OPS certification.

2. Groundwater Use Exception for the southeastern corner of AP, where OUs 2A and 2B are located. The Navy has requested an exception for groundwater use for municipal purposes. The request is based largely on the fact that groundwater in this area is reported to be high in total dissolved solids and is unsuitable as a municipal water source. If the groundwater will not be used for drinking water, then there is no reason to clean up groundwater to drinking-water standards. The Water Board proposed that the Navy conduct an additional six samples to confirm the results. Ms. Smith asked if the Water Board knew what is causing the turbidity. Mr. West explained that the area is underlain by fill and is close to San Francisco Bay, which is saltwater.

Mr. West said he had mailed out copies of *The Pulse of the Estuary* to several RAB members, and he could send out more if requested. These annual documents explain the technical nature of the shoreline hydrology.

Mr. Leach asked about the Water Board's operating budget. Mr. West said the governor is reducing state budgets by 10 percent. Mr. McGinnis noted that the Navy reimburses the regulatory agencies that work on AP.

V. Approval of March 8, 2012 RAB Meeting Minutes/Review Action Items

Mr. Torrey made the following comments:

- Page 2 of 10, under Co-Chair Announcements: His name is misspelled.
- Page 5 of 10, last paragraph: There should be some introduction to his question about keeping liquid and vapor streams separate, since there is no discussion of Mr. Moss' presentation. It was agreed to add, "*During review of Slide [X]*, Mr. Torrey asked how the liquid and vapor streams are kept separate."
- The numbering of each subheading needs to be corrected.

Ms. Smith made the following comment:

- Page 4 of 10, fourth paragraph: Change "Ms. Smith said she saw concrete barriers covered with soil on Site 17. . ." to "Ms. Smith said she saw concrete barriers *used as fencing for* Site 17. . ."

Mr. Humphreys provided the following comments:

- Page 6 of 10, sixth paragraph, fifth line: Rewrite "Mr. Moss replied that the original study question was can this technology be used under saline conditions" as "Mr. Moss replied that the original study question was, "*Can this technology be used under saline conditions?*"
- Page 7 of 10, first line: Rewrite ". . . the power system's safety backups currently in place . . ." as ". . . explained the power systems safety backups *are* currently in place . . ."
- Page 8 of 10, after the third full paragraph: Add, "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."
- Page 8 of 10, last paragraph, sixth line: Remove "Mr. Humphreys felt that since sampling was done in a "Swiss cheese" manner, it would be hard to impose digging

restrictions everywhere.” Add the italicized phrase to the following sentence: “Mr. Humphreys said that at a 2-foot depth in the Site 25 area, *as well as in the Collaborative Area*, orange mesh was placed to indicate contaminated soil beneath it.”

- Page 9 of 10, first full paragraph: Change “Mr. Humphrey’s” to “Mr. Humphreys”
- Action Items: Add two action items: 7) Check availability of toxic vapor monitoring for commercial and residential occupied spaces at OU-2B; and 8) Investigate whether prohibitions exist on excavating greater than 2-feet deep in the housing area and the Collaborative Area.

Dr. Russell provided the following comment:

- Page 8 of 10, third paragraph, last sentence: Change “Dr. Russell said he is part of the BCT discussions, reviews documents, and sends letters to the Navy, all on behalf of the City” to “Dr. Russell said he is part of the BCT discussion, reviews documents, and *prepares draft* letters to the Navy, all on behalf of the City.”

Mr. Torrey moved that the March 8, 2012, meeting minutes be approved with the noted changes and Mr. Bangert seconded. The motion carried.

The status of previous action items was reviewed and is provided in the updated table below. New action items from this meeting are included. Ms. Smith requested that document review lists be included with the meeting minutes ([Attachment B-3](#)).

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 Postponed Presentations (pending further action or information prior to scheduling the presentation): b. Site 1 Radiological RD/RA work plan	a./Pending/2011	RAB	Mr. Robinson
1. 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.	Complete	Mr. Bangert	Ms. Parker
2. Availability of toxic vapor monitors for commercial and residential occupied spaces atOU-2B	New Added to draft March minutes at May meeting	Mr. Humphreys	Navy
3. Investigate whether prohibitions exist on excavating to greater than 2-feet deep in the Housing and Collaborative Areas	New Added to draft March minutes at May meeting	Mr. Humphreys	Navy
4. RAB Co-Chair (D. Smith) to coordinate among RAB members a preferred date for the RAB Site Tour and convey to Navy (June 23 or June 30)	Complete	RAB	Ms. Smith
5. RAB to form committee to work with Navy (J. Lord) on a revegetation plan for Site 2	Complete	Navy	RAB
6. Navy (D. Robinson) to provide a hard copy of the Site 2 90-Percent RD Report to D. Smith	Complete	D. Smith	D. Robinson

The meeting was adjourned at 8:40 PM.

ATTACHMENTS

NAVAL AIR STATION ALAMEDA RESTORATION ADVISORY BOARD MEETING

- A. Naval Air Station Alameda Restoration Advisory Board Meeting Agenda, May 10, 2012 and 2012 Calendar (2 pages)
- B-1. RAB Fieldwork Update (1 page)
- B-2. Documents Received: September 2011 – December 2011 and January 2012 – March 2012 (2 pages)
- B-3. 90-Percent Remedial Design, IR Site 2 (7 pages)

RESTORATION ADVISORY BOARD

NAVAL AIR STATION, ALAMEDA

AGENDA

MAY 10, 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 – 7:30	RAB Meeting Frequency	
7:30 – 8:30	Site 2 Remedial Design	Jacques Lord
8:30 – 8:40	BCT Update	BCT
8:40 – 9:00	Approval of Minutes Review Action Items	Dale Smith
9:00	RAB Meeting Adjournment	

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

January	Feb Feb 6 – Draft OU2B FS Addendum	Mar Thursday, March 8 – RAB Meeting: 6:30-8:30 pm, Building 1, Alameda Point
April April 27 – Site 32 Revised Draft Remedial Investigation/ Feasibility Study	May Thursday, May 10 – RAB Meeting: 6:30-9:00 pm, Building 1, Alameda Point	June
July Thursday, July 12 – RAB Meeting: 6:30-9:00 pm, Building 1, Alameda Point RAB Site Tour – date/time TBD July 9 –OU2C Proposed Plan *Proposed Plan Meeting for OU-2C: August 2012 (Date TBD)*	August August 1 – OU2B Proposed Plan August 20 – OU-2A Record of Decision *Proposed Plan Meeting for OU-2B: September 2012 (Date TBD)*	September Thursday, September 13 – RAB Meeting: 6:30-9:00 pm, Building 1, Alameda Point
October	November Thursday, November 8 – RAB Meeting: 6:30-9:00 pm, Building 1, Alameda Point	December

RAB Fieldwork Update

May 10, 2012

Site 17 – The Navy coordinated with the regulatory agencies regarding Site 17 confirmation sample results received in late March 2012, and the Team decided that additional focused dredging should be conducted prior to arrival of the least terns in the areas with exceedances of the remedial goal (RG). Locations near the outfall (Outfall F) and one location on the northeastern boundary of the northwest remediation area were dredged in early April 2012 an additional 1.5 feet to approximately 4 additional feet in depth based on the previous sampling results. This work was monitored by an on-site biologist.

Dredging was completed on April 11, 2012. Over 4,100 cubic yards were dredged. Confirmation sampling was completed on April 12, 2012.

Of note: Due to late-season rains, some dredge sediment is stored in barges until there is room in the dewatering pad. At that time, a biologist will verify that there are no least terns in the area. If least terns are identified, in-water work will not be conducted until they leave the area. The biologist will be on-site and provide monitoring throughout the soil and, if a least tern is observed, work will be halted.

Site 1 Soil – Currently conducting a pre-design investigation and focused feasibility study in the Area 1b burn area to assess the current selected remedy with an alternative remedy. As a result of these changes the ROD will require amendment. The focused feasibility study will perform a risk assessment that considers the exposure pathway of dissolved COCs migrating from the groundwater in and around the burn residue to San Francisco Bay. Additional data is required to complete a detailed assessment of the groundwater flow at the shoreline boundary.

Site 1 Groundwater – Injection, extraction, and monitoring wells were installed in February 2012. Baseline sampling for pre-ISCO treatment was conducted in April and un-validated laboratory results indicate:

- Target VOCs are found in approximately the same locations as during the 2010 design investigation and are consistent with or lower than observed in 2010 (2010 data are point samples whereas 2012 data are vertically averaged over well screen length).
- Target non-chlorinated VOC (benzene) concentrations are locally slightly higher than observed in 2010.
- Highest target VOC concentrations are for vinyl chloride (approximately 30,000 ppb).

Schedule

Groundwater Remedial Design/Remedial Action Work Plan	January 2012
Begin Groundwater In Situ Chemical Oxidation	February 2013
Soil Cover Minor ESD	July 2012
Focused Feasibility Study/Proposed Plan	November 2012
ROD Amendment	April 2013
Soil Remedial Design/Remedial Action Work Plan	November 2013
Begin Soil Remedial Action	November 2013

Documents Received
September 2011 – December 2011

Navy Communication

1. *Final Five-Year Review, Alameda Point and Fleet Industrial Supply Center Annex Oakland, Ch2MHill-Kleinfelder, September 28, 2011*
2. *Final Alameda Point Basewide Groundwater Monitoring Program Work Plan, SES-Tech, September 30, 2011, never received draft*
3. *Final 2010 Annual Groundwater Monitoring Report for Sites 12 and 6, replacement pages. Trevet, October 3, 2011, never received document*
4. *Groundwater Remedial Design and Remedial Action Work Plan, IR Site 1, AMEC Earth and Environmental, October 18, 2011*
5. *Draft Final Remedial Design and Remedial Action Work Plan for IR Site 24, TetraTech, October 20, 2011.*
6. *2011 Final Status Survey Report, Building 66, ChaduxTt, October 21, 2011*
7. *Final Status Survey Report, Building 66, ChaduxTt, October 21, 2011*
8. *Draft Final Feasibility Study Report, OU 2B, Sites 3, 4, 11 and 21, Oneida Total Integrated Enterprises, October 31, 2011*
9. *Draft Final Addendum 1 OU 2C Feasibility Study Report, IR Sites 5 and 10, TetraTech, December 6, 2011*
10. *Draft Scoping Survey Report, Former Smelter Area, ChaduxTt, December 19, 2011*
11. *Final Feasibility Study Report, OU 2B, Sites 3, 4, 11 and 21, ChaduxTt, December 22, 2011*
12. *Draft Final Status Survey Report, Building 44, Chadux Tt, December 23, 2011*

Documents Received
January 2012 – March 2012

Navy Communication

1. *Draft Final Status Survey Report, Building 113, Alameda Point, ChaduxTt , December 30, 2011*
2. *Final Addendum 1 OU 2C Feasibility Study Report, IR Sites 5 and 10, Tetra Tech, January 13, 2012*
3. *Draft Feasibility Study Report Addendum, OU 2B, Site 3, 4, 11 and 21, Oneida Total Integrated Enterprises, February 8, 2012*
4. *Remedial Action Update, IR Site 1, AMEC Earth and Environmental, February 17, 2012*

 **90 % Remedial Design (RD)** 

**Installation Restoration Site 2
Alameda Point, California**
Presentation to the Restoration Advisory Board
May 10, 2012
Jacques Lord, CEG



 **The Record Of Decision** 

- Signed in October 2010
- Provided Remedy Requirements for the RD/RA

SOIL	GROUNDWATER	SOIL VAPOR
-Isolate waste with a cover	-Monitored natural attenuation	-Monitor landfill gas
-Biobarrier	-Stable or decreasing trend	-ICs
-Wetlands mitigation		
-Scan before and after		
-Institutional Controls (ICs)		



The 90% RD "Document"



- **Submitted for review May 4, 2012**
- **Main Text is the Remedial Action Work Plan (RAWP).** Attachments are:
 1. 90% Design Drawings/ Specifications/Geotechnical Report
 2. Radiological Work Plan
 3. Radiation Protection Plan
 4. Sampling and Analysis Plan
 5. Project Contractor Quality Control Plan



The 90% "Document" Con't



- Attachments Continued:
6. Environmental Protection Plan
 7. Wetlands Mitigation Plan
 8. Storm Water Pollution Prevention Plan
 9. Dust Control and Air Monitoring Plan
 10. Waste Management Plan
 11. Post-Closure Operations, Maintenance, and Monitoring Plan
 12. Land Use Controls Remedial Design
 13. Response to Comments on the 60% RD



IR SITE 2 90% Design Highlights



- Site 2 Boundary
- Open Water
- Seasonal Wetlands
- Tidal Wetlands
- Proposed Landfill Cover

Attachments 1, 6, 7



Proposed Soil Cover



Attachment 1



90% RD/RAWP ADVANTAGES



Waste Consolidation Eliminated

- Improved sustainability
- Improved ALARA (as low as reasonably achievable)
- Scan of entire area to be covered and the removal/disposal of observed anomalies to 1 feet in depth

Attachment 2

7



90% RD/RAWP ADVANTAGES



Cover Thickness & Material

- 2.0 feet thick
- Biotic Barrier to be geonet (See example)
- Improved sustainability
- Scan after cover placement to document cover is protecting Human Health & the Environment as designed.

Attachment 1

8



90% RD/RAWP ADVANTAGES



Cover Slope

- From 3.0% to 1.5% minimum
- Improves cover performance including erosion prevention
- Improves sustainability and stability
- Improves profile

Attachment 1

9



Proposed Groundwater Monitoring



Attachment 11



Proposed Groundwater Monitoring



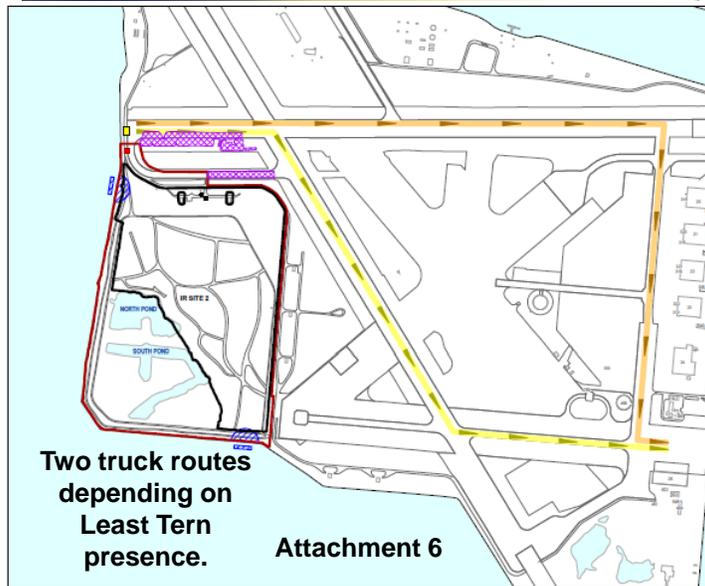
Monitored Natural Attenuation Progress Since 2005

- According to the Annual Basewide Groundwater Reports, the Contaminants of Concern (COCs) have trended to non-detect
- Plumes reported in the IR Site 2 Remedial Investigation are currently not observed

Draft Annual Basewide GW
Report for 2011 due out 5/25



Environmental Protection Plan



Two truck routes
depending on
Least Tern
presence.

Attachment 6



Schedule



- 90% RD/RAWP draft issued– May 4, 2012
- Comments due to BRAC – July 9, 2012 (60 days)
- Draft Final – August 24, 2012 (45 days)
- BCT Concurrence – 30 days
- Remedial Action Mobilization – Oct 29, 2012
- RA Completion – June 2013? Weather-dependent

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Questions?

