

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

[www.bracpmo.navy.mil](http://www.bracpmo.navy.mil)

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

March 5, 2009

The following participants attended the meeting:

**Co-Chairs:**

Patrick Brooks	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

**Attendees:**

Steve Bachofer	Community member (St. Mary's College)
Doug Biggs	Alameda Point Collaborative
Anna-Marie Cook	U.S. Environmental Protection Agency (EPA)
Dave Cooper	EPA
Tommie Jean Damrel	Tetra Tech EM Inc.
Zach Edwards	Navy Radiological Affairs Support Office (RASO)
Fred Hoffman	RAB
George Humphreys	RAB
John Kaiser	San Francisco Regional Water Quality Control Board (Water Board)
Joan Konrad	RAB
James Leach	RAB
Gretchen Lipow	Community member
Dot Lofstrom	Department of Toxic Substances Control (DTSC)
Laurie Lowman	RASO
Frank Matarrese	Alameda City Council
John McMillan	Shaw Environmental, Inc.
Kurt Peterson	RAB

Peter Russell	Russell Resources/Alameda Reuse and Redevelopment Authority (ARRA)
Matthew Slack	RASO
Bill Smith	Community member
Radhika Sreenivasan	St. George Chadux Corp.
Jean Sweeney	RAB
Jim Sweeney	RAB
Michael John Torrey	RAB
Xuan-Mai Tran	EPA
John West	Water Board
June Wheaton	Navy Project Manager

The meeting agenda is provided in Attachment A.

## MEETING SUMMARY

### I. Approval of January RAB Meeting Minutes

Mr. Brooks called the meeting to order at 6:35 p.m. Mr. Brooks asked for comments on the January 2009 RAB meeting minutes.

The following comments were provided by Jean Sweeney (RAB):

- Page 9 of 14, fourth paragraph, first sentence, “Ms. Sweeney said that lead has been an issue at well M25-05, on Slide 5” will be revised to, “Ms. Sweeney said that benzene has been an issue at well M25-05, on Slide 5.” Ms. Sweeney said that sufficient explanation has not been provided to the RAB on the benzene plume.
- Page 9 of 14, last paragraph, regarding second sentence about Site 3, Ms. Sweeney suggested that the “Oval” not be referred to as “plane on a stick,” as it is disrespectful of Naval Aviation.

The following comments were provided by George Humphreys (RAB):

- Page 5 of 14, second paragraph, first sentence, “Mr. Humphreys commented that a figure in the work plan shows what appears to be a hot spot outside of the plume boundary” will be revised to, “Mr. Humphreys commented that a figure on soil gas concentration in the work plan shows the plume but the plume boundary is cut off.”
- Page 5 of 14, last paragraph, first sentence, “Mr. Hoffman noted the schematic shows the air flow extending outside of the wells and asked if data confirm vapor is not running out

alongside the well pipe” will be revised to “Mr. Hoffman asked whether bubbles of air could be passing up along the well.”

- Page 7 of 14, second paragraph, insert after first sentence, “Mr. Leach also noted that pressure swing oxygen generators are cost efficient.”
- Page 7 of 14, fourth paragraph, insert at the end of the second sentence, “to migrate out of the area.”
- Page 9 of 14, last paragraph, seventh sentence, “...hot enough to meld these items” should be corrected to, “...hot enough to melt these items.”
- Page 13 of 14, second paragraph, second sentence, “Some of the samples in...” should be changed to, “Some of the trenches in...”

The January minutes were approved as modified.

Ms. Smith asked for comments on the February 2009 RAB meeting minutes.

The following comments were provided by Joan Konrad (RAB):

- Page 5 of 12, first paragraph, delete the sixth sentence and insert, “Ms. Konrad suggested a map that shows contaminated areas and measures being applied to clean up the contamination.”

The following comments were provided by Mr. Humphreys:

- Page 2 of 12, under co-chair announcements, first sentence should be revised to “Patrick Brooks (Navy co-chair)...”

The following comments were provided by Anna-Marie Cook (EPA):

- Page 10 of 12, last paragraph, first sentence, delete “...which is a Water Board (Mr. John West) led site and Ms. Xuan-Mai Tran (EPA) is the project manager.”

The February minutes were approved as modified.

## **II. Co-Chair Announcements**

Patrick Brooks (Navy co-chair) reviewed the action items:

**Action Item 1:** Completed.

**Action Item 2:** Operable Unit (OU)-2C presentation is pending.

**Action Item 3:** Pending; Mr. Humphreys and Mr. Peterson did not receive the OU-2B plume figures on compact disks (CDs).

**Action Item 4:** Completed.

**Action Item 5:** Completed; Mr. Brooks provided the RAB with the Department of Defense RAB Rules Handbook to review (Attachment B-1). The RAB decided to review the handbook and discuss changes that need to be made to the Alameda Point RAB's Rules of Operation during the March RAB technical subcommittee meeting scheduled for 6.30 p.m. on March 19, 2009. Ms. Lofstrom said that Marcus Simpson (DTSC) could be a representative for the regulators at this meeting.

**Action Item 6:** Pending; Mr. Brooks noted that the Navy is working on a document tracking sheet for Alameda and should provide the first one in the spring quarter.

**Action Item 7:** Completed. Mr. Brooks said that excavations at Treasure Island Site 32 have extended down to 9 feet below water surface near the bay and noted that the contaminants were polychlorinated biphenyls (PCBs). Ms. Smith said the situation at Site 2 plume is similar to Treasure Island: in that instance, the Navy was directed by the Water Board to excavate 9 feet below the water surface to remove contamination. John West (Water Board) said that the situation at Treasure Island was different than at Alameda Point Site 2. At Treasure Island, the plume was in one hot spot area, whereas at Alameda Point, the contamination is dispersed. Mr. Humphreys said the hot spot is an area where the Navy said it had punctured drums and allowed them to drain into the soil. Ms. Smith said there is a well-defined plume at Site 2 that is also a hot spot. Mr. West said that the plume concentrations at Site 2 are much lower than at Treasure Island. Mr. Hoffman commented that dense nonaqueous phase liquid (DNAPL) in the northern Site 1 plume are migrating toward the bay and the Navy is not acting to clean it up. Mr. Brooks said that the Navy is conducting monitoring and drafting a work plan to address the volatile organic compound (VOC) plume. Mr. Torrey asked if the low concentrations can rise. Mr. West said 'no', and added that the concentrations are low.

**Action Item 8:** Completed; Mr. Brooks confirmed that saltwater organisms and estuarine organisms were used in the toxicity tests.

Mr. Brooks distributed the Community Relations Plan (CRP) handout (Attachment B-2) and requested the RAB provide its input on categories of interviewees and said that any RAB members who also wished to participate in an interview should sign up with Tommie Jean Damrel (Tetra Tech). He noted that Ms. Damrel would follow up with an e-mail to the RAB members. Mr. Peterson requested to be added as an interviewee. Mr. Humphreys suggested adding former base employees on the list. Mr. West said that the Air Museum and the USS HORNET could be places to locate former employees. Mr. Peterson suggested posting an announcement in the local newspaper. Mr. Brooks said that the Navy would consider the suggestions.

Ms. Smith said that she received only a few documents in February and, hence, will combine February and March documents into one list to provide during the April RAB meeting. Ms. Smith said that she brought a copy of the Sites 2, 4, 34 and 35 Data Gap Technical Memorandum on CD if the RAB wished to review it.

Ms. Lofstrom requested a presentation on the Bayport sewer systems and a description of the change in the plumes over time. Mr. Brooks agreed.

### **III. Site 26 Chemical Oxidation Update**

Mr. Brooks began the presentation on chemical oxidation at Site 26 (Attachment B-3). On Slide 1, Mr. Brooks explained that the red contours are the trichloroethylene (TCE) and the blue are the dichloroethylene (DCE). Mr. Torrey asked what compound was being injected. Mr. Brooks said that the initial injection was hydrogen peroxide. Mr. Brooks compared Slides 3 and 4 and noted that the 50 micrograms/liter ( $\mu\text{g/L}$ ) contour was reduced after the first injection. Mr. Hoffman asked whether the contour was reduced or if it moved toward the southwest side. Mr. Brooks noted that there is reduction in the contaminant concentration as well as some movement.

Mr. Brooks reviewed Slides 9 and 10. Mr. Torrey asked what kind of gas was being trapped underneath the pavement. Mr. Brooks said that the injected hydrogen peroxide breaks down into oxygen and water. He said that the hydrogen peroxide also oxidizes organic contaminants and releases carbon dioxide.

Mr. Peterson asked if the plume extended under the building. Mr. Brooks referred back to Slide 5 and noted that the plume did not extend under the building. Mr. Hoffman asked about the shaded area on the figure. Mr. Brooks replied that the shaded area is a driveway. Mr. Brooks noted that sodium persulfate is an alternate oxidant to hydrogen peroxide. Mr. Hoffman asked how the hydrocarbons in the subsurface were confirmed. Mr. Brooks said that the laboratory testing for confirmation is currently under way and the result is scheduled in a few weeks but that the contractors observed petroleum odor and sheen while samples were collected. Mr. Hoffman asked if the petroleum sheen was seen at the water surface or in the groundwater sample container. Mr. Brooks said that he was not sure.

Mr. Humphreys commented that, on Slide 9, the second performance issue, the Navy had also discussed testing to evaluate whether the oxidant injected reacted with the groundwater. Mr. Brooks said that oxygen demand could be tested; one of the problems noted was that dissolved oxygen (DO) in the groundwater was used up quickly. Hence, the solution to the problem was to use a longer-lasting and more stable oxidant. Ms. Sweeney asked about the Navy's experience with sodium persulfate at other sites. Mr. Brooks said that the Navy has experience using sodium persulfate in San Diego at North Island Naval Air Station, and Alameda Point Site 14. Mr. Brooks said that once sodium persulfate comes into contact with the contaminants, it proves to be effective.

During review of Slide 12, Ms. Sweeney asked why groundwater is gravitating toward the center of the plume. Mr. Brooks said that the middle of the plume is a low-pressure point in the circulation system and added that water moves from high pressure to low pressure. Ms. Smith asked if the slide shows injection wells toward the center and extraction wells on the outside. Mr. Brooks said that the green areas are the low pressure or extraction areas and the pink areas are the higher pressure due to injection.

Mr. Brooks noted that, on Slide 13, the concentration units are incorrect and should be in milligrams per liter (mg/L) rather than  $\mu\text{g/L}$ . Mr. Brooks said that one of the recommendations received from the technical subcommittee was to consider direct measurement of groundwater instead of relying on DO. As a result, the Navy is using field test kits to measure the persulfate.

During review of Slide 14, Mr. Brooks said that the contaminants are below detection levels and there is adequate residence time in the mixing tank. Mr. Brooks noted that the remedial goals for in situ chemical oxidation (ISCO) are 5 micrograms per liter ( $\mu\text{g/L}$ ) for TCE and 30  $\mu\text{g/L}$  for DCE.

Mr. Humphreys asked if there was a suggestion to inject from the outside of the plume and extract from the plume center. Mr. Brooks acknowledged the suggestion and noted Navy contractors believed it would be beneficial to extract from the outside and inject into the middle.

Ms. Sweeney asked if the site was covered by concrete. Mr. Brooks said that the site was paved with both concrete and asphalt. Mr. Hoffman asked if any sampling was being conducted. Mr. Brooks said no sampling was currently being conducted and that the system was shut down. Mr. Hoffman asked how long the circulation lasted. Mr. Brooks said it lasted 1 week. He added that persulfate concentrations were measured in the monitoring wells. Mr. Hoffman asked whether sodium persulfate was observed in the monitoring wells at the plume perimeter and if the system was shut down at breakthrough. Mr. Brooks agreed that persulfate was noted in the treatment zone monitoring wells including those at the perimeter, and about one pore volume was circulated. Mr. Hoffman suggested testing toward the southwest of the original plume because that area does not appear to have enough coverage.

Mr. Humphreys asked about the meaning of pore volume and how it was estimated. Mr. Brooks said that pore volume refers to the groundwater treatment zone and is the volume of the treatment zone multiplied by its porosity. This is the volume of water that is circulated. Mr. Humphreys noted that as water is pulled from the outside, groundwater is drawn in from the outside of the plume area; hence, the pore volume becomes diluted. Mr. Brooks agreed but added that sodium persulfate was measured in the monitoring wells and it is contact of persulfate with the contaminants that is important. He said that samples will be collected and analyzed to evaluate contaminant reduction. Sampling is scheduled for the week of March 23. Mr. Hoffman suggested collecting weekly samples, which would show the trend more clearly than monthly samples.

Ms. Sweeney said the results for TCE in groundwater from September 2008 indicated that the TCE concentrations are increasing in some areas. Mr. Brooks agreed and said that some wells

increased in concentration because contaminants had migrated. Mr. Peterson asked if the injection points are in the saturated areas of the plume. Mr. Brooks said they are. Mr. Peterson asked what would stop the plume from dispersing into other areas, if the extraction wells do not capture the contamination. Mr. Brooks said that the extraction wells are effectively capturing the plume. Mr. Peterson asked if samples were collected outside the extraction well network to evaluate the extent of the plume. Mr. Brooks explained the extraction wells on Slide 11. Mr. Hoffman asked if all the monitoring wells were included on the map (Slide 11). Mr. Brooks confirmed that they were included.

#### **IV. Site 17 Update**

Mr. Brooks introduced Ms. Wheaton (Navy Project Manager) to start the presentation on Site 17 (Attachment B-4). Ms. Wheaton said that the presentation is an update on the time-critical removal action (TCRA) for the debris piles on the northern edge of the Seaplane Lagoon. Ms. Wheaton noted that the project is nearing completion.

Ms. Wheaton explained the debris pile map on Slides 3 and 4. During review of Slide 7, Ms. Sweeney asked if the Navy performed sampling during sediment and debris removal. Ms. Wheaton said that the Navy did not test the debris while it was in place during the removal action because it was all planned to be removed. Once the debris piles were removed, sampling was completed to characterize the underlying sediment that remained and to profile the excavated material for disposal/recycling. In addition, overexcavation to 2-feet was performed around select grid nodes based on review of laboratory analytical results or visual observation of staining. Ms. Sweeney asked if radiological (RAD) testing was done. Ms. Wheaton said the debris piles have not been identified as radiologically impacted. Ms. Smith asked how the Navy knew that there was no RAD material. Ms. Wheaton said that no RAD material was indicated based on historical records and studies done on the northern apron of the area. Ms. Sweeney said that the Building 5 effluent drainage flowed into the lagoon; therefore, RAD material is expected.

Ms. Brooks showed that the radium paint shop drain line and Outfall F on Slide 3 were not in the area where debris was removed. Mr. Peterson asked if the slope at Outfall F extends deeper into the lagoon, and Mr. Brooks said that it does not. Mr. Peterson suggested addressing Outfall F before the debris pile removal to avoid radium contamination into the lagoon. Mr. Brooks said that the Navy is first excavating the drain lines from the radium paint shop, which is the source of radium in the Seaplane Lagoon sediment. Currently, the drain line removal is about 50 percent finished. Sediment near Outfall F will be dredged after the drain line is completely removed. The debris pile removal could be done simultaneously with the drain line removal. Ms. Wheaton said that the drain line removal and the debris pile removal are two different projects in different locations. She said that the sediment dredge project will address sediment in the northwestern corner of the lagoon near Outfall F.

Ms. Sweeney asked how the turbidity curtain was monitored. Ms. Wheaton said that monitoring equipment outside the turbidity curtain continuously fed real-time data to the site and downloaded the recorded output every 30 minutes. In general, turbidity readings have been low,

mostly less than 10 nephelometric turbidity units (NTU). She noted the turbidity curtain is effective. Mr. Humphreys pointed out that there is not much effect of the tide in shallow water; the debris pile is exposed in low tide and is barely covered at high tide. Mr. Humphreys noted the test would be to assess the effectiveness of the turbidity curtain in the corner where there is 7 feet of water.

Ms. Sweeney asked if the Navy recovered recyclable debris. Ms. Wheaton said the Navy recovered a lot of concrete. Ms. Smith noted that concrete might contain RAD contamination and so the debris must be tested before recycling. Ms. Wheaton said that the Navy does not believe that the concrete is RAD contaminated. Ms. Smith said that this belief cannot be confirmed unless the material is sampled for analysis of RAD. Mr. Brooks said that RAD is tested at landfills through radiation monitors and the debris sent to the landfill did not contain any RAD contamination. Mr. Humphreys asked if the recycling unit also measures for RAD. Mr. Brooks said he does not believe it measures for RAD.

Ms. Wheaton said that an oversize object was found. Mr. Peterson asked about the object. Ms. Wheaton said that the Navy did not know what it was and it cannot be seen even in the lowest tides. Mr. Humphreys asked if concrete was included in the nonhazardous category. Ms. Wheaton said that concrete was analyzed for the same analytes as the debris and was suitable for recycling; total concrete was estimated at 2,000 cubic yards or roughly 4,000 tons. Ms. Smith asked if the Navy planned to remove the oversize object. Ms. Wheaton said that the Navy would note the request, but is not planning to remove it at this time. Mr. Humphreys asked if samples proceeded 2 feet below the contamination. Ms. Wheaton indicated that samples were collected after the debris piles were removed from the sediment surface and 2 feet below the sediment surface.

Ms. Wheaton reviewed Slides 12 and 13. Mr. Peterson asked about the green area shown on Slide 13. Ms. Wheaton said that the green shaded area was rip-rap and noted the Navy did not plan to remove rip-rap at the time of project initiation. However, when removing Debris Pile 2, it was observed that the debris continued west underneath the riprap and the Navy is planning to remove it. Mr. Peterson asked if anything was found in the rip-rap. Ms. Wheaton said that debris was observed under the concrete riprap, which is pending removal.

Ms. Wheaton discussed Slides 16 and 17. Ms. Sweeney asked if the picture was taken at low tide, and Ms. Wheaton agreed. Mr. Peterson commented that the additional debris area appears to be lengthy and asked why only 1,500 cubic yards of debris was found. Ms. Wheaton replied that the area is about 7 feet in height and tapers off about 25 to 45 feet south of the seawall. Mr. Peterson asked about the appearance of the area before excavation and if the area is shallow. Mr. Brooks and Ms. Wheaton explained the area on Slide 17. Mr. Peterson noted a concern that the area appears longer than the combined area of Debris Areas 1 and 2, and only 1,500 cubic yard of debris is being excavated. Ms. Wheaton said that 1,500 cubic yards is only an estimate; if the debris extends farther, then the excavations will continue. She added that the Navy's goal was to fully excavate the debris materials based on visual evidence in the field. Mr. Humphreys asked if the three ramps would remain. Ms. Wheaton said that they would.

Ms. Sweeney asked about the schedule for the additional debris to be removed. Ms. Wheaton said that it would take a month to several months, depending on contracting. Mr. Matarrese noted his concern on the oversize object and asked if it would be left in place uncharacterized or if it would be removed. Mr. Brooks said that the Navy does not have plans to remove it. Mr. Matarrese said that he would bring this issue to the next ARRA meeting in April. He also asked Mr. Russell if he could delay project completion and provide ARRA details on the issue so the city can evaluate it. Mr. Russell said that he has already been working on providing the information to the ARRA. Mr. Russell also noted that there is a sunken barge not far from the site that needs to be addressed. Mr. Russell said that it is unknown whether the object is hollow or a tank. Ms. Smith asked Mr. Matarrese if he could copy the RAB on any information sent to the ARRA. Mr. Matarrese agreed.

## **V. Navy's Radiological Program**

Mr. Brooks introduced Ms. Laurie Lowman and Mr. Matthew Slack from RASO. Ms. Lowman and Mr. Slack greeted the RAB and started the presentation (Attachment B-5). Ms. Lowman said that RASO handles general radioactive material. Mr. Slack detailed RASO work on Slide 3.

During review of Slide 6, Mr. Slack said that RASO wanted to examine the Outfall F headwall, which is where the drain line discharges to Seaplane Lagoon. He added that they did not find any RAD anomaly in the outfall during the field visit. He said that elevated readings were noted significantly above the background level 35 feet south from the outfall. Mr. Slack showed the anomaly location on Slide 7. Mr. Torrey asked if the anomaly location was a high-risk area. Mr. Slack said that the anomaly level was similar to RAD levels at Sites 1 and 2 and that the area needs to be remediated. Samples were collected and based on radio-isotope analysis; the anomaly was identified as radium 226. Mr. Peterson asked if the RAD contamination was deposited by the drain lines. Mr. Slack said the radium was not deposited from the drain but it may be related. He added that radiological control of the area has been taken and it has been fenced.

During review of Slide 11, Mr. Torrey asked if the Navy plans to collect samples under the rip-rap. Mr. Slack said that the Navy could sample to a depth of 3 to 4 feet, without allowing water to enter the excavation. Mr. Humphreys commented that there could also be a possibility of disposal of radium paint near the debris piles. Mr. Slack said that it could be possible.

Mr. Peterson asked about the extent of the area that would be evaluated from the anomaly. Mr. Slack said that the entire line of rip-rap on the western bank of Seaplane Lagoon was scanned and no RAD contamination of immediate concern was found. Ms. Smith commented that no testing has been done in the wildlife refuge and that there is a possibility of RAD contamination. She added that there should be an investigation for the whole base based on similar findings. Mr. Peterson asked about the extent of the investigation in the lagoon rip-rap. Mr. Slack said that the RAD meters did not show elevation over what is expected from the rip-rap rock along the western bank. Mr. Peterson asked how long it will take to characterize the material. Mr. Slack said that RASO is fairly confident that the material is radium paint and the laboratory results show that it was radium 226. Mr. Hoffman asked if the Navy could use an airborne

detector that would have detected the anomaly. Mr. Slack said the Navy does not use airborne detectors.

Mr. Humphreys said that the trench log for T-6 in Site 1 indicated that the soil was all RAD contaminated. He explained that this terminology was used in the trenching report logs. Mr. Slack said that instead of screening and characterizing the relatively small amount of soil generated during trenching, the Navy took a conservative approach and disposed of soil above the field-screening. Mr. Humphreys said that the trench was 100 feet away from the shoreline, where there is rip-rap, and asked if there would be RAD contamination on the beach. Mr. Slack said that he would not be able to answer that question based on the trenching study. Mr. Brooks said that the beach is planned to be scanned. Mr. Humphreys said that scanning would not measure to a level needing scanning would not measure to a level needing removal and samples should be collected at the beach and under the rip-rap.

Mr. Hoffman asked Mr. Slack whether he would want to scan more area at the base. Mr. Slack said that RASO would like to discuss this issue more with the Navy, the BRAC team, and the regulators. Mr. Hoffman said that half of the base contains radium and thus there should be a survey of the entire base. Ms. Smith agreed. Mr. Brooks said that as soon as the anomaly was found, the Navy informed the agencies and the RAB. The information is new and the Navy needs to evaluate options and decide on the next step. He said that the RAB comments will be considered.

Ms. Lowman said that the Navy is investigating to find the extent of the contamination and will be evaluating further characterization and investigation. Mr. Torrey asked how the radium contamination entered the subsurface soil. Ms. Lowman said that it is unknown and may be explained in a conceptual site model. She added that further excavation and characterization will be done and the result will be shared with the RAB.

Ms. Smith asked if radium 226 and 228 are included in the background level of radiation. Ms. Lowman said that background level could be measured by a survey instrument as well as by collecting a sample and processing it through gamma spectroscopy. There are 18 different RAD contaminants analyzed. Ms. Lowman said that the field survey will not identify the isotope. Ms. Smith said that the Navy is lumping both the isotopes in the background level while 228 is the naturally occurring isotope. Ms. Lowman clarified that radium 226 and 228 both are naturally occurring. Mr. Slack said that the Navy compared the material with uranium 238 at the level it would not be naturally occurring, noting the Navy always looks for naturally occurring versus other radium.

Mrs. Sweeney noted that SunCal has plans to build housing along the area and asked if it would be cleaned up to residential levels. Ms. Lowman explained that there is either restricted or unrestricted release of property. Restricted release implies that there is a remedy only on the top (example is 4 feet of soil cap) and needs to be approved by the State of California. Restricted release has institutional controls associated with it. She added that the area would be cleaned to residential standards in the top 1-foot. She said that the dose will be estimated to residential standards during dose and risk modeling.

## **VI. BCT Update**

Mr. Brooks requested that Mr. West provide the BRAC Closure Team (BCT) update. Mr. West provided a list of BCT meetings that occurred in February (Attachment B-6). Considering the time, Mr. West provided the list and requested the RAB members to review it. Ms. Sweeney asked what information Ms. Heather Wochnick (Navy) provided about RAD contamination at Site 1 during the BCT meeting. Mr. Brooks said that the work plan was discussed at the BCT meeting. Ms. Cook said that the main purpose was to have the California Department of Public (DPH) Health attend the meeting, noting the DPH deals with radiological issues in California and the associated risk assessment. She said that it was an opportunity for the BCT to meet with DPH.

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

Mr. Bill Smith introduced himself. He said that the U.S. Fish and Wildlife Service (USFWS) was encountering difficulty in negotiating transfer with the Navy because the Navy wanted to transfer responsibility for contamination; therefore, the Navy is transferring the property to the Veterans Administration (VA). Mr. Smith said that the VA is less experienced in handling a large piece of property with wildlife. He asked about the city's opinion on the Navy plans to transfer responsibility for additional cleanup to the city. Mr. Brooks said that under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) law, the Navy will be responsible for cleanup if additional contamination is found. Ms. Cook said that the 5-year review will be completed on the remedy, to ensure the remedy is still effective, and is an ongoing process. Ms. Cook said the Navy would retain ultimate liability because USFWS and VA do not have the funding or technical expertise.

Mr. Brooks noted the next RAB meeting will be held on April 2, 2009. .

## **VIII. Meeting Adjournment**

The meeting was adjourned at 9:30 p.m.

## Action Items

Action Items:	Action Item Update:
1. Request for Presentations: <ol style="list-style-type: none"> <li>a. OU-5/FISCA IR02 groundwater cleanup</li> <li>b. Data gap sampling results of OU- 2A and OU- 2B</li> <li>c. Site 2 FS</li> <li>d. OU-2C</li> <li>e. Summary on Site 26</li> <li>f. Bay Port Sewer systems and change in the plumes.</li> </ol>	1. Requests a, b, c and e are completed; d and f are pending.
2. Mr. Moss will copy the OU-2B plume figures to CDs and mail them to Mr. Humphreys and Mr. Peterson.	2. Pending
3. Mr. Brooks will provide the government rules of operation document	3. Completed
4. The Navy will provide a document tracking sheet for Alameda every quarter.	4. Pending
5. Mr. Brooks will provide information regarding Site 32 at Treasure Island and its applicability to Site 2.	5. Completed
6. Mr. Brooks and Mr. Williamson to confirm whether or not saltwater organisms were used in the toxicity tests for the wetlands.	6. Completed
7. RAB Technical Subcommittee meeting to discuss the government rules of operation document.	7. New

**ATTACHMENT A**

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

**March 5, 2009**

**(1 page)**

# ***RESTORATION ADVISORY BOARD***

***NAVAL AIR STATION, ALAMEDA***

## ***AGENDA***

**MARCH 5, 2009, 6:30 PM**

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

**COMMUNITY CONFERENCE ROOM**

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

<b><u>TIME</u></b>	<b><u>SUBJECT</u></b>	<b><u>PRESENTER</u></b>
<b>6:30 - 6:45</b>	<b>Approval of Minutes</b>	<b>Ms. Dale Smith</b>
<b>6:45 - 7:00</b>	<b>Co-Chair Announcements</b>	<b>Co-Chairs</b>
<b>7:00 – 7:30</b>	<b>Site 26 Chemical Oxidation Update</b>	<b>Pat Brooks</b>
<b>7:30 – 8:00</b>	<b>Navy’s Radiological Program and Site 17 Update</b>	<b>Laurie Lowman &amp; June Wheaton</b>
<b>8:00 – 8:15</b>	<b>BCT Update</b>	<b>John West</b>
<b>8:15 – 8:30</b>	<b>Community &amp; RAB Comment Period</b>	<b>Community &amp; RAB</b>
<b>8:30</b>	<b>RAB Meeting Adjournment</b>	

Note: Ms. Laurie Lowman is the Lead Environmental Protection Manager from the Navy’s Radiological Affairs Service Office in Yorktown, VA.

## **ATTACHMENT B**

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

- B-1 Government Rules of Operation Handbook. Distributed by Pat Brooks, RAB Navy Co-Chair (27 pages)
- B-2 Community Relation Plan handout. Distributed by Tommie Jean Damrel, Tetra Tech EMI (1 page)
- B-3 Site 26 Chemical Oxidation presentation handout. Distributed by Pat Brooks, RAB Navy Co-Chair (8 pages)
- B-4 Site 17 Update presentation handout. Distributed by June Wheaton, Navy (9 pages)
- B-5 Navy's Radiological Program presentation handout. Distributed by Laurie Lowman, RASO (6 pages)
- B-6 List and Summary of February 2009 BCT Meetings, Distributed by John West, Water Board (1 page)

**ATTACHMENT B-1**  
**GOVERNMENT RULES OF OPERATION HANDBOOK**  
**(27 pages)**



# Restoration Advisory Board Rule Handbook

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Office of the Secretary of Defense

February 2007

## Executive Summary

The Department of Defense (DoD) encourages community involvement in the environmental restoration process through Restoration Advisory Boards (RABs). Since 1994, RABs have been established at over 300 installations and properties in the United States and its territories to encourage communities and installations to identify and discuss potential environmental restoration issues. By facilitating open communication and understanding, RABs serve as the anchor to relationships among the parties involved in the Defense Environmental Restoration Program (DERP) at environmentally impacted sites and installations. RABs provide a collaborative forum for the community, government agencies, tribes, and installation decision makers to discuss and identify the most efficient and productive means to restore the environment.

DoD developed this handbook as an accompaniment to the RAB Rule, which was issued on May 12, 2006 (71 *Federal Register* 27610). The handbook is intended to supplement the rule. It is written to be flexible enough to guide individual RABs in addressing their own unique concerns and to offer suggestions to the communities and members involved in the RAB.

This handbook follows the structure of the RAB Rule using a question and answer format designed to serve as a quick reference manual for major topics that may be discussed by RABs and local communities. The RAB Handbook is composed of the following nine chapters:

1. What is a RAB?
2. How is a RAB established?
3. Who can participate in a RAB?
4. What are the roles and responsibilities of RAB participants?
5. How does a RAB operate?
6. How does a community or installation know when a RAB has completed its work and is no longer needed?
7. What happens if a RAB becomes ineffective?
8. Can an adjourned or dissolved RAB be reestablished?
9. What happens to RABs at installations that are closing or have been closed under BRAC?

Please refer to the RAB Rule for specific requirements of RABs. The rule may be found at: <https://www.denix.osd.mil/denix/Public/News/OSD/RAB/rabrule.html>.

DENIX RAB Rule Web site



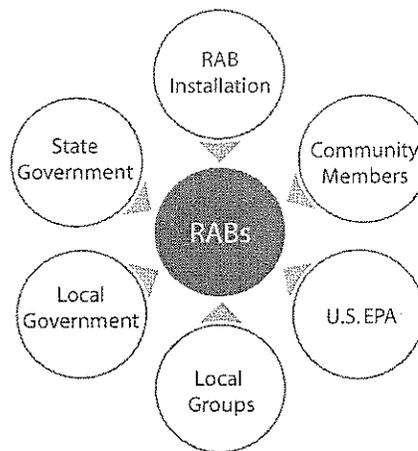
# What is a Restoration Advisory Board?

Each military installation is part of a community, and actions the installation undertakes in environmental restoration may impact its neighbors. Environmental restoration on DoD installations requires local community input and exchange of information. A RAB provides a forum for this input and exchange at operating and closing installations. Additionally, having a RAB at an operational installation often helps to ease the concern that neighbors might feel when an installation is undergoing environmental restoration.

## What is a RAB?

A RAB is a stakeholder group that meets on a regular basis to discuss environmental restoration at a specific property that is either currently or was formerly owned by DoD, but where DoD oversees the environmental restoration process. RABs enable people interested in the environmental cleanup at a specific installation to exchange information with representatives of regulatory agencies, the installation, and the community. While the general public can comment on DoD's environmental restoration program, RABs offer a focused and interactive opportunity to participate in the environmental restoration process.

In most cases, a RAB addresses cleanup activities at one particular installation; however, there is no prohibition on convening a RAB to address cleanup activities at multiple installations, especially when the same community members are involved. A decision to have a RAB address multiple installations should include input from the communities involved as well as the installations and regulators.



## What is the purpose of a RAB?

A RAB provides the community with the opportunity to become involved in the environmental restoration process at DoD installations either as a RAB member or through attendance at RAB meetings. RABs offer members the opportunity to influence cleanup decisions through discussion and to provide input to the installation decision makers. Because representatives of the environmental agencies overseeing cleanup participate in the RAB, the RAB offers members and the public the opportunity to share their questions, concerns, and ideas with agencies involved in the cleanup.

# What is a Restoration Advisory Board?

## Can a RAB's mission statement and goals be amended?

Establishing a RAB's mission statement and goals should be one of the first undertakings of a RAB. A mission statement and goals help to focus the RAB and give it direction. Since the RAB members generate the mission statement and goals, they have the ability to change them. The process for changing the mission statement and goals should be one of the items addressed by the operating procedures of the RAB. In all cases, the decision to change these items should be joint. If, after consultation, the installation and community co-chairs determine there is a valid need to alter the mission and goals, then these items may be amended using the process outlined in the operating procedures.

## What issues do RABs address?

RABs may only address issues associated with environmental restoration activities. Funding for RABs is received from the Service's Environmental Restoration accounts; therefore, RABs may only discuss environmental restoration topics. If another issue of community interest arises in the course of a RAB's discussions, then the RAB installation co-chair should refer the issue to the appropriate offices or individuals at the installation. Limiting the RABs to discussions of environmental restoration helps to ensure that RABs remain focused and provides maximum opportunity to discuss issues related to environmental restoration activities.

## What if I want to discuss other issues?

Individuals hoping to discuss activities other than environmental restoration, such as noise or water quality concerns, should contact the RAB installation co-chair. The co-chair will identify the point of contact (POC) or office responsible for handling the issues of interest and pass along the names of inquirers to the appropriate offices for resolution.

## What activities can RABs undertake?

Examples of activities a RAB may undertake are:

- Reviewing and commenting on environmental restoration documents and activities, preliminary assessments, site inspections, remedial investigations and other documents;
- Providing information to the community;
- Receiving input from the community; and
- Obtaining information regarding the schedule, type, and status of environmental restoration activities.

## How can I find out about a RAB's activities?



The RAB directory is located on DENIX at <https://www.denix.osd.mil/denix/Public/Library/Cleanup/CleanupOfc/stakeholder/rabdirectory.html>

DoD maintains records of RAB activities, procedures, and meeting minutes in an information repository (IR). This repository is publicly available and can be found in a local library or other community location. The location of the information repository should be based on information provided by the community. It should be accessible and convenient for the community. To find out where the RAB maintains its IR, contact the POC or co-chairs by browsing the RAB directory online.

# What is a Restoration Advisory Board?

In some cases, RAB activities are documented in meeting minutes posted on project web sites on the World Wide Web. The POC or RAB co-chairs can provide those Web sites to interested parties.

## Are RABs required?

RABs fulfill a statutory requirement for DoD to establish, whenever possible and practical, a committee to review and comment on DoD actions and proposed actions regarding environmental restoration. DoD strongly encourages RABs at installations where environmental restoration activities occur and where there is community interest in establishing a RAB. Technical Review Committees (TRCs) satisfy the same statutory requirements as a RAB, but RABs are the preferred forum. If the community is not interested in establishing a RAB at the installation, then a RAB is not required; however, DoD must make the opportunity to establish a RAB available if the community becomes interested and must assess community interest every 24 months while environmental restoration activities are still ongoing.

## Are RABs decision making bodies?

RABs provide valuable input to the installation and environmental agencies on environmental restoration decisions, but the installation retains ultimate decision making authority.

## Is consensus necessary for a RAB?

No, consensus is not necessary. The Department of Defense is trying to make decisions based on input from as many constituencies as possible and appreciates advice from individuals.

## Must an installation follow RAB recommendations?

The installation decision makers will listen closely to and consider the input RAB members provide, including any recommendations they may have regarding environmental restoration activities; however, the installation retains ultimate decision making authority. A RAB is a community stakeholder group that meets on a regular basis to discuss environmental restoration at a specific property that is either currently or was formerly owned by DoD, but where DoD oversees the environmental restoration process. RABs enable persons interested in the environmental cleanup at a specific installation to exchange information with representatives of regulatory agencies, the installation, and the community. While the general public can comment on DoD's environmental restoration program, RABs offer a focused and interactive opportunity to participate in the environmental restoration process.

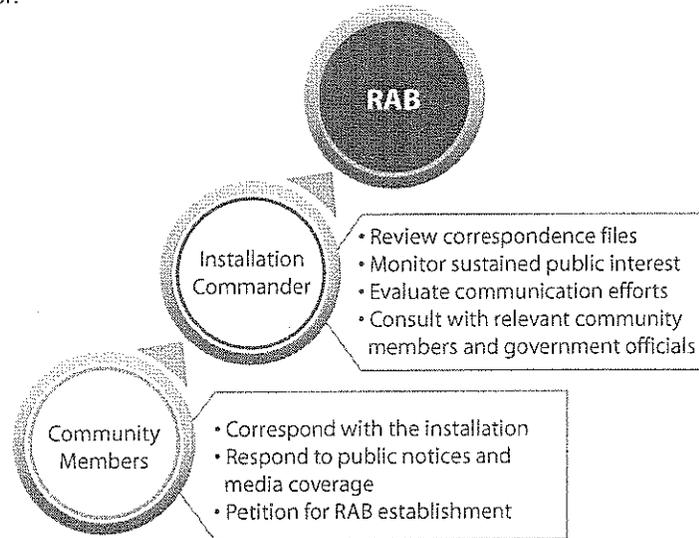
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## How is a RAB established?

The Department of Defense defined a process for establishing RABs to ensure consistency and fairness among communities and installations. This process defines authority to determine the need to establish a RAB, the criteria by which the need for a RAB is determined, and the actions necessary to form a RAB. A RAB ensures interested individuals and groups from the community have an opportunity to thoughtfully participate in the decision making process of environmental restoration activities in a timely manner.

### Who determines the need to establish a RAB?

Two parties determine the need to establish a RAB: the public and the Installation Commander. The public plays a vital role in determining whether a RAB should be established by following the steps to establish a RAB. The Installation Commander reviews and considers input and sustained interest from the public when evaluating whether the criteria for establishing a RAB are met.



### If I live near an installation without a RAB, how can I help establish one?

When environmental restoration activities, at installations where there is no RAB, are of interest to members of the public they should follow the steps for establishing a RAB by contacting the installation POC or Public Affairs (PA) Office. The Installation Commander will review community interest to establish a RAB at least every 24 months.

### What can I do if I am only one of a few people interested in environmental restoration at the installation?

Individuals interested in environmental restoration at the installation should contact the installation POC or PA Office to express their interest in obtaining more information. Interested persons may also consider requesting a copy of the Community Relations Plan (CRP). Each installation is responsible for developing a CRP to outline cleanup actions and ways the community can participate. Through this plan, the public and community may become active participants in the environmental restoration process.

Interested individuals may also become involved by asking the installation whether a RAB or TRC is currently operating at an installation. If neither exist at an installation, an individual may contact the installation and ask about opportunities for involvement.

# How is a RAB established?

## What are the criteria for establishing a RAB?

The installation will form a RAB when there is sufficient and sustained community interest and one of the following criteria is met:

- The installation is closing and transferring property to the community;
- At least 50 local citizens have petitioned for a RAB;
- Federal, tribal, state, or local government representatives have requested a RAB; or
- The installation has determined the need for a RAB.

## What if I live in a small community and less than 50 people are interested in establishing a RAB?

The installation will examine whether sufficient and sustained community interest to form a RAB has been demonstrated by individuals who represent various interests, diverse viewpoints, and different backgrounds within the community. The installation will determine whether any of the criteria for establishing a RAB are met by reviewing media files, reviewing correspondence with the installation, and consulting with potential stakeholders and government officials.

If an individual lives in a less populated area but sustained interest exists to establish a RAB, the community may still petition for the creation of a RAB. Those who are interested may contact the installation POC or PA Office expressing the desire to establish a RAB and ask about alternative opportunities for involvement. They may also contact EPA, the tribe with jurisdiction over the property (if any), or the state environmental regulatory agency.

## Can circumstances require reevaluating the decision against establishing a RAB?

If an event occurs (e.g., a feature on the local news) to suddenly increase community interest at an installation where the decision has already been made not to establish a RAB, then the Installation Commander will determine whether to reevaluate the criteria. The Installation Commander will also examine the totality of evidence for diverse interests to determine whether the sudden increase in community interest is likely to be sustained or temporary.

## Will evaluation depend on quantity, quality or both?

Both the number and content of correspondences will be evaluated against the establishment criteria. Sustained interest shows commitment from the community and is an important factor when deciding if a community is prepared to maintain a RAB during an installation's environmental restoration activities.

## How often does the installation review community interest when a determination has been made not to establish a RAB?

An Installation Commander is required by the RAB Rule to evaluate criteria to establish a RAB at least once every 24 months while environmental restoration activities are still ongoing. However, there may be a need to review this criteria on a shorter schedule if the installation's cleanup status changes or if a new contaminant is found. The public can submit a petition for establishment at any time. Regulatory agencies may also recommend the installation review public interest or convene a RAB at any time.

# How is a RAB established?

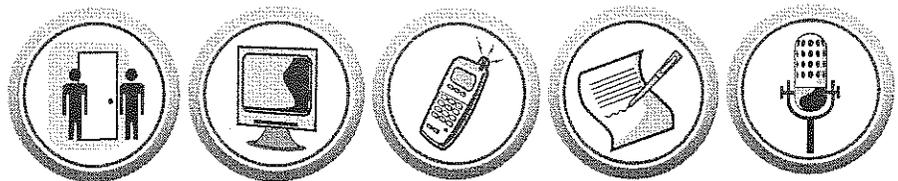
When establishing a RAB how will the base know which local community members to consult?

When an installation is preparing to establish a RAB, it will consult with individuals who were interviewed during the development of the CRP, as well as others who were identified within the community. The installation should also consult with individuals who served on the RAB selection panel. Former CRP participants and proposed panel members should represent a cross-section of organizations and professions. Examples of organizations and professions these individuals belong to may include:

Organizations	Professions
Local Redevelopment Committees	Teachers
Technical Review Committees	Architects
Environmental Groups	Social Service Counselors
Civic Interest Organizations	Fire Fighters
Local Government	Game Wardens
Special Interest Groups	Engineers

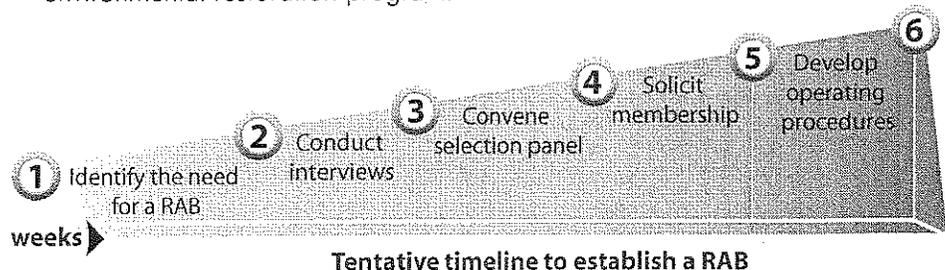
How will the installation contact community members for consultation?

The installation will consult with community members through personal face-to-face meetings whenever possible. If geographic barriers limit personal interaction, it may be necessary to conduct consultation through electronic mail or phone interviews. An installation may post a notice in a local newspaper informing the community of its intent to contact community members for consultation purposes. The installation may also benefit from contacting the media prior to conducting interviews to give notice to the local community. This notice can provide the community with an overview of RAB establishment procedures and the goals the installation hopes to achieve with its RAB.



What is the timeline for establishing a RAB — e.g., how long does an installation have to assess sufficient and sustained community interest, as measured from the triggering event?

There is no timeline for RAB establishment. Typically, it may take the installation four to six weeks to notify the community, approve membership, and create operating procedures, but each installation may take a different amount of time to complete these steps. DoD recommends an installation begin the steps to establish a RAB as soon as possible following the discovery that the installation will be conducting cleanups under the environmental restoration program.



# How is a RAB established?

## How will the installation prepare for establishing a RAB?

To prepare for establishing a RAB, the installation will use fact sheets, press releases, public notices, public service announcements and newspaper ads to:

- Educate the community on a RAB's purpose;
- Inform the community of membership opportunities; and
- Discuss how the RAB relates to the installation's community involvement program.

In addition, the installation will solicit community input, interview affected community members, and consult with government agencies in the planning phase of the RAB. Regardless of whether or not the installation has a RAB, the installation should have a proactive, long term, and comprehensive community involvement program in place. The community involvement program details the activities the installation intends to undertake with help from the community and may also suggest community involvement methods. The installation will also sponsor an initial meeting to introduce RAB concepts to the community and begin the process of soliciting members.

## Who will establish the RAB?

Once the evaluation is complete, the Installation Commander is responsible for establishing a RAB.

## How does a RAB acquire members?

Once RAB establishment has been announced, the installation begins soliciting community members for participation. The installation will provide a person to fill the role of the RAB installation co-chair and begin the process of convening the selection panel to nominate individuals for membership on the RAB. EPA and tribal, state and local governments are also encouraged to participate in convening the selection panel as well as nominating representatives to the RAB.

## How does a RAB solicit members at establishment?

The Installation Commander will consult with the DoD regulatory community and key local government officials to form a selection panel to identify community leaders and representatives for RAB membership. These potential members should represent the community based on diverse interests. The selection panel will review the Community Relations Plan, correspondence and media files to identify potential members. The panel will also evaluate interest forms from the community to determine the level of interest and diversity among the candidates. It is recommended that members of the selection panel not be selected as RAB members.

## How does a potential new member indicate interest in belonging to a previously established RAB?

A potential new member to an established RAB may contact the remedial project manager (RPM), installation co-chair, PA Office, or other member of the RAB to inquire about membership. The RAB should discuss the mechanism for adding new members early in the process and outline the mechanism in the RAB's operating procedures.

# How is a RAB established?

**If I live near an installation with a RAB, how can I become involved?**

RAB meetings are open to public participation and RABs welcome suggestions, concerns, or questions. If an individual lives and/or works in an area affected by the installation he/she may be eligible for membership. Individuals should contact the RAB or the installation co-Chair or PA office to inquire about the possibility of becoming a member.

**What might be appropriate circumstances for a RAB to solicit new members?**

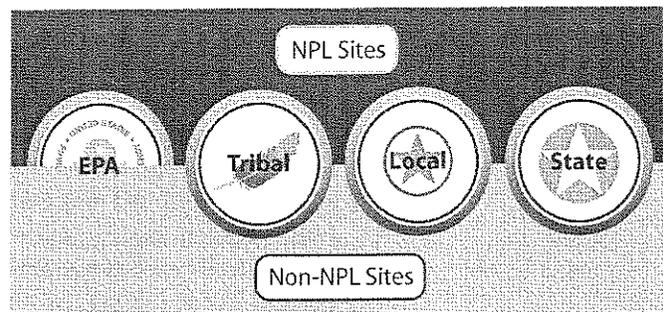
A RAB may need to solicit new members when major changes affect the installation or the environmental restoration activities at the installation, or when changes in the community result in a new constituency. Examples might include the addition of Military Munitions Response Program sites, the installation's placement on the National Priorities List (NPL) or a base realignment and closure (BRAC) list, new residential or commercial development, or the need to replace members who have moved away. In these cases, new members may be needed to ensure that diversity on the RAB is maintained. DoD should limit its representation to one member, who should be the DoD co-chair. Other DoD experts or specialists may attend meetings as necessary.

**How will the RAB solicit new members?**

During an update the RAB will solicit new members in accordance with its operating procedures. To maintain RAB diversity, replacement members will generally be sought from the same constituency as the former member.

**How are regulatory members selected?**

The regulatory agency with environmental restoration oversight responsibility at the installation will provide one representative to participate in the RAB. At NPL sites, EPA and tribal, state, and local governments each will have one representative. At non-NPL sites, EPA will generally not be represented, although representatives may participate if they desire.



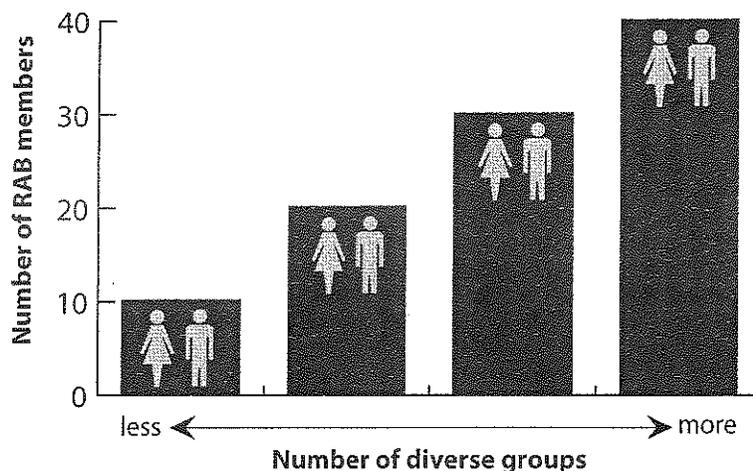
## Who can participate in a RAB?

RABs are comprised of individuals from the community who are affected by the installation's environmental restoration activities because they live and/or work in close proximity to the installation. Anyone interested in restoration activities and willing to dedicate their time may participate in RAB meetings, although they may not actually be a RAB member. RABs also include representatives from the installation and regulatory agencies that oversee cleanup at the installation.

### How big can a RAB be?

RAB size is an installation-specific issue and should be determined in the operating procedures unique to each RAB. Factors influencing the number of members are a reflection of diverse interests, issues affecting the surrounding communities, community interests, and population of the surrounding community.

To maintain a constructive dialogue, the Department suggests the RAB be no larger than 30 individuals, but not so small that diverse interests are not adequately represented. A RAB member may represent more than one group or interest.



### How does the installation ensure that diverse interests are represented and that members fairly represent the local community?

The selection panel, which is made up of community members with varying backgrounds and interests, evaluates the candidates. The selection panel seeks out members using methods intended to reach a diverse audience. For example, the panel may post newspaper ads, distribute fliers in locations throughout the community, and have announcements made on the radio, in churches, schools, and community centers. Diversity determination is based on a candidate's responses to the evaluation forms, involvement in outside community groups and organizations, occupation, interests, and dedication to cleanup progress at the installation. The Commanding Officer of the installation will make the final judgment on the diversity of the candidates. He or she may reject the entire slate recommended by the selection panel based on the lack of diversity, but cannot reject individuals.

## Who can participate in a RAB?

### How are community interest forms distributed to the community?

Interest forms may be announced and distributed through several fora to ensure as many people as possible in the community are provided with the opportunity to respond. Installations can publish the evaluation forms in local newspapers and community newsletters; post them on the installation Web site, provide copies at local libraries and recreation centers; provide copies to local schools for children to take home to parents; make announcements at city hall meetings and during church services; or provide an information phone line at the installation.



### Can I provide input into the selection criteria of new members if I am already a RAB member?

RAB members may provide input into the selection criteria of new RAB members to replace members who are leaving. This process is defined in the RAB's operating procedures. Each RAB's unique operating procedures should specify the nomination and selection process for replacement members.

The selection panel generally exists only once—during the creation of a new RAB or in some cases when an adjourned or dissolved RAB is reinstated. In these cases, former RAB members will generally not be involved in the creation of the new RAB.

### Do I need to have environmental restoration experience to serve as a co-chair or community RAB member?

No. Environmental restoration experience may be beneficial, but is not required of either community co-chairs or community RAB members. Training is provided to RAB members to help explain environmental restoration processes and site-specific issues. A potential co-chair or member's interest in the community and environment, and commitment to dedicate time to the process are important factors. The selection panel will place greater emphasis on the diversity an individual would bring to the RAB, and the individual's expressed commitment toward achieving the RAB's goals, than to experience.

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## What are the roles and responsibilities of RAB participants?

The following chapter outlines the roles and responsibilities of each RAB participant.

### RAB Participant

#### Installation Commander

- Establish a RAB when appropriate and periodically reevaluate community interest.
- Approve RAB operating procedures, based on recommendation of co-chairs.
- Periodically monitor RAB meetings.
- Arbitrate disputes, if necessary.
- Determine when and if the RAB should be adjourned, dissolved, or reestablished.

#### Installation co-chair

- Coordinate with the community co-chair to prepare and distribute agendas for meetings.
- Ensure that DoD participates in an open, honest, constructive manner.
- Discuss environmental matters in a manner that will ensure that lay members of the RAB can understand.
- Attend all RAB meetings.
- Ensure RAB members have the opportunity to provide input.
- Ensure community issues and concerns related to restoration are addressed when raised.
- Ensure documents distributed to the RAB are written in layman's terms when possible.
- Ensure documents distributed to the RAB are made available to the general public.
- Ensure an accurate list of interested parties is developed and maintained.
- Provide relevant policies and guidance documents to the RAB.
- Ensure that adequate administrative support is provided to the RAB.
- Refer issues not related to restoration to the appropriate officials.
- Report back to the commanding officer of the installation.
- Ensure that RAB members receive necessary training.

#### Community co-chair

- Coordinate with installation co-chair and community members to prepare agendas.
- Ensure that all RAB community members have the opportunity to participate in an open, honest, and constructive manner.
- Ensure that community issues and concerns related to restoration are raised.
- Coordinate with installation co-chair to ensure that periodic training assessments are conducted and training needs are met.
- Assist with dissemination of information to the general public.
- Report back to the community, and coordinate with other RAB members to ensure that they are adequately representing segments of the community at RAB meetings.
- Serve without compensation on the RAB.

# What are the roles and responsibilities of RAB participants?

## RAB Participant

### Community members

- Attend meetings.
- Provide individual input in an open, honest, and constructive manner.
- Represent and communicate community concerns to the RAB.
- Act as a conduit for exchange of information.
- Review, evaluate and comment on documents and other materials related to restoration.
- Represent and communicate RAB issues to the community.
- Serve without compensation on the RAB.

### Local and State government members

- Attend meetings.
- Serve as a referral and resource on restoration.
- Review documents and other materials related to restoration.
- Ensure that state and local environmental standards and regulations are identified and addressed by the installation.
- Facilitate flexible and innovative resolutions of environmental issues and concerns.
- Assist in education and training for RAB members.

### Tribal government members

- Attend meetings.
- Serve as a referral and resource on restoration.
- Review documents and other materials related to restoration.
- Ensure that tribal environmental standards and regulations are identified and addressed by the installation.
- Facilitate flexible and innovative resolutions of environmental issues and concerns.
- Educate RAB members regarding tribal sovereignty, tribal laws and their application to the property.
- Participate in the RAB without replacing the government-to-government relationship with the Federal government.
- Assist in education and training for RAB members.

### EPA member

- Attend meetings.
- Serve as a referral and resource on restoration.
- Facilitate flexible and innovative resolutions of environmental issues and concerns.
- Ensure that federal environmental standards and regulations are identified and addressed by the installation.
- Assist in education and training for RAB members.

### Public

- Participate in community RAB meetings.
- Observe rules and operating procedures when participating at RAB meetings or interacting with RAB members.
- Ask questions to ensure understanding of RAB activities and impact on the community.

# What are the roles and responsibilities of RAB participants?

■ ----- ■  
**How will the RAB handle a co-chair or other RAB member who is not committed to the RAB's goals and objectives, or is not meeting their responsibilities?**

Each RAB's operating procedures should provide guidelines for how to handle situations that hinder open participation and communication. The RAB's objective is to create a forum for discussion that facilitates completing environmental restoration activities at an installation in an open and cooperative environment. In cases where communication becomes tangled and members doubt the sincerity of one another, the best solution is to discuss these concerns within the RAB, in accordance with the operating procedures.

■ ----- ■  
**How can a RAB resolve disputes if an impasse cannot be broken within the operating procedures?**

An independent facilitator may be brought to the RAB to explore disputes within the group. A meeting facilitator can be a useful tool to help RAB members focus on their goals for the installation.

# 5 How does a RAB operate?

Each RAB develops its own unique set of operating procedures based on the needs of the RAB and the installation. However, the RAB Rule does provide certain requirements. These requirements include, but are not limited to, developing a mission statement, providing training to members, and updating RAB information in the administrative record.

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**What is a RAB's mission statement?**

A RAB's mission statement details the RAB's goals and describes its purpose. It also provides a focus for environmental restoration discussions to help the RAB stay on track during meetings.

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**Why should a RAB develop operating procedures?**

RABs are encouraged to develop operating procedures to guide the RAB members during operation and make the RAB an effective and functioning advisory board. Operating procedures establish rules and guidelines for issues the RAB may address relating to membership, participation, restoration, training, roles and responsibilities, and reporting requirements.

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**Is there a standard outline for developing operating procedures?**

The RAB Rule outlines standard operating procedures that could apply to all RABs regardless of geographic location or environmental restoration activities. Individual RABs are encouraged to develop their own unique and installation-specific operating procedures.

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**When should a RAB develop operating procedures?**

A RAB should develop operating procedures as soon as it is officially formed. Official formation is complete when co-chairs and members have been selected from the community and appropriate government agencies.

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**How often should a RAB meet?**

A RAB should meet as often as necessary. RAB members should decide on a schedule when they establish the RAB's operating procedures, and then add or delete meetings from the schedule as necessary. There are times when a flurry of activity occurs in planning or conducting environmental restoration and RABs may want to meet more often to review and provide input on relevant documents and ensure that they stay abreast of the activities. There are other times when the RAB may determine that infrequent meetings are adequate.

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**How does my RAB receive funding to operate?**

Installations use their Environmental Restoration (ER) accounts to support RAB activities. The RAB itself will not receive funding for its activities.

Funded Activities	Non-Funded Activities
RAB establishment	Transportation costs
Membership selection	Compensation for volunteer time
Site-specific and relevant training	Meals and beverages at meetings
Meeting announcements, facilities, and facilitators	RAB member business cards
Mailing list maintenance and distribution	Computers, offices and other office/business materials
Meeting agenda materials	Member stationary

# How does a RAB operate?

**Are Web sites eligible administrative expenses?**

RABs may include information on an installation or Service-sponsored Web site, but may not claim Web sites or their maintenance as eligible administrative expenses.

**How often can my RAB receive training?**

RABs and community members can receive training whenever necessary. Installations should provide training during RAB orientation to provide information on what is expected of a RAB and to assist RAB members in gaining an understanding of installation-specific environmental and health issues. Other training should be tailored to site-specific issues and provided as necessary.

**What are examples of training my RAB could receive?**

RABs may receive training specific to environmental restoration activities at the installation.

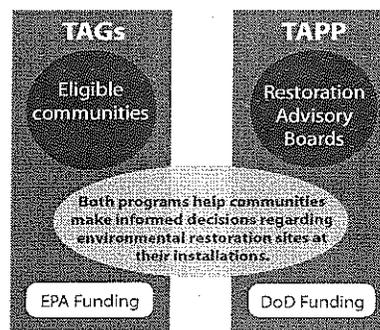
RAB Training Locations	Types of RAB Training
Meetings	Processes and vocabulary
Workshops	Prioritization
Briefings	Technology
Tours	Environmental restoration issues

**Is there a training budget?**

There is no dedicated funding source specific to RAB training. Any training that RABs receive from the installation is based on the availability of funds received from the Service's ER account. RABs seeking additional support could potentially qualify for a Technical Assistance Grant (TAG) or Technical Assistance for Public Participation (TAPP) or technical advice from EPA's Technical Outreach Services for Communities.

**What are the purposes of TAGs and TAPP?**

TAGs and TAPP are two separate programs that can provide communities with independent technical assistance to interpret scientific or engineering issues related to an installation's environmental restoration.



**Why is it important to receive independent technical advice?**

Independent technical advice can help the RAB community members understand environmental restoration activities at an installation including specific remedies and actions, therefore contributing to completing an environmental remedy at a site and closeout of environmental restoration projects at an installation.

# How does a RAB operate?

## Are TAGs and TAPP available to all RABs?

TAGs are provided by the EPA and are only available at NPL sites. TAPP is provided by DoD and is available to community members of the RAB at installations participating in the DERP. TAPP must be requested by a majority of community members of the RAB.

## How do RABs receive TAGs and TAPP?



Visit the EPA Web site for more information on TAGs at <http://www.epa.gov/superfund/tools/tag/>

DoD's TAPP information is available on the DENIX Web site at [https://www.denix.osd.mil/denix/Public/Library/Cleanup/CleanupOfc/Documents/RAB/tapp\\_brochure.html](https://www.denix.osd.mil/denix/Public/Library/Cleanup/CleanupOfc/Documents/RAB/tapp_brochure.html)

A RAB must follow an application process to apply for either a TAG or TAPP before either one can be obtained.

Before applying for a TAG, a group must first confirm its eligibility to receive funding from EPA. The following table highlights the groups who are eligible and not eligible to receive TAGs. If a group is eligible they must submit a letter of intent to EPA.

Eligible Groups for TAGs	Non-Eligible Groups for TAGs
Groups living near an NPL site	Potentially responsible parties
Groups affected by a release or threatened release of contaminants	Academic Institutions
Groups whose economic well-being, health, or enjoyment of the environment are threatened	City or county governments
All groups must be non-profit or working toward non-profit status	Groups established or supported by the government

Each group of TAG applicants must acknowledge dedication of time, resources, and management of its future TAG. Additionally, groups applying for TAGs must justify how the funds will be used once the TAG is awarded and establish an accounting system for reporting costs to EPA.

TAPP applicants should notify the installation of their intent to apply for TAPP. The RAB community members must demonstrate that the technical expertise gained through TAPP is not available through another government agency and that it will benefit the community's understanding of environmental restoration activities. The RAB must agree and certify by majority to apply for TAPP before the application can be considered. Once the request has been formally submitted to the Installation Commander, the TAPP project must be reviewed to ensure it meets eligibility requirements. The following table highlights eligible and non-eligible TAPP activities.

Eligible Activities for TAPP	Non-Eligible Activities for TAPP
Interpreting technical documents	Lawsuits or other legal activities
Assessing technologies	Political activities or lobbying
Participating in relative risk site evaluations	Collecting new data samples
Reviewing health risks	Epidemiological testing
Training	Community outreach efforts

# How does a RAB operate?

**Are there funding ceilings on TAG and TAPP monies?**

Yes, there are funding ceilings on TAG and TAPP monies. Each RAB is eligible for funding up to \$100,000 or 1% of estimated restoration costs with a maximum of \$25,000 allowed per year. EPA should be contacted for more specific information regarding TAGs.

**Why do RABs keep records of their activities?**

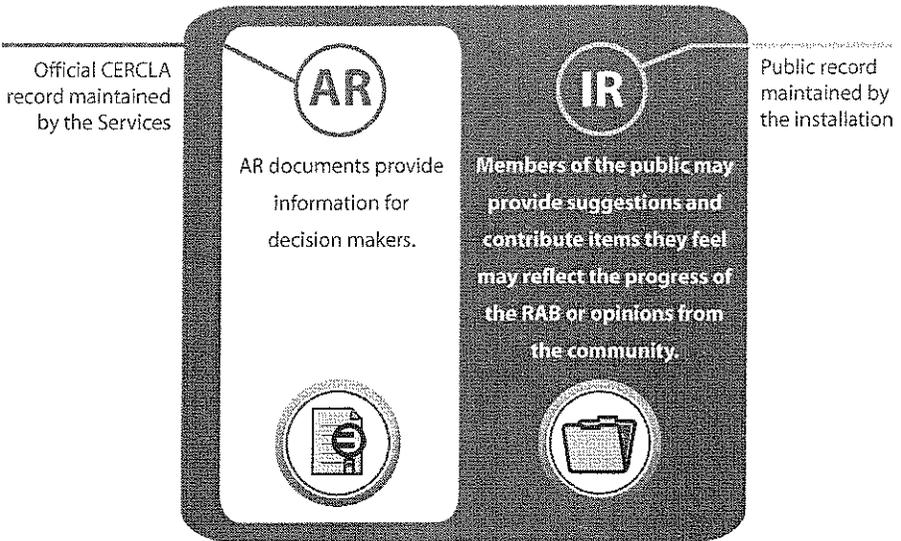
RABs keep records of their activities for historical purposes and to keep the community informed of their progress at the installation. Each year, the Office of the Secretary of Defense reports to Congress activities performed by RABs, advice they have provided, how much each RAB received for TAPP, and funds used by RABs for administrative support, which are all recorded in the administrative record and the information repository.

**What is the difference between the administrative record and the information repository?**

The administrative record (AR) is the official record of documents that form the basis for selecting a response action required under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

The information repository (IR) is the public record maintained by the installation that includes information beyond what is included in the AR. Members of the public may contribute comments, newspaper articles, or other items.

The IR and a copy (or copies) of the AR are generally made available at publicly accessible locations, such as libraries.



**How often are the AR and IR updated?**

The AR and IR are updated with relevant information as such information becomes available.

**Who updates and reviews the AR and IR?**

The AR is reviewed and maintained by the Component responsible for environmental restoration. Frequently the RPM is responsible for the AR. The IR is also maintained by the Component responsible official.

## How does a community or installation know when a RAB has completed its work and is no longer needed?

A RAB's work is complete when there are no longer any environmental restoration activities at an installation because the installation has either reached a remedy in place or response complete, or when the community is no longer interested. At that time the RAB should complete the documentation of its activities and begin the process of adjournment.

### What is an example that may lead a RAB to adjourn?

An example of a situation that may lead a RAB to adjourn may include, but is not limited to, the completion of environmental restoration activities at the installation.

### How long can a RAB be adjourned?

A RAB is considered permanently adjourned unless new conditions are discovered, which could lead a RAB to reestablish itself. Examples of these conditions are a change in the environmental restoration remedy or renewed community interest. For more information on reestablishment, please see Chapter 8: *Can an adjourned or dissolved RAB be reestablished?*

### Does a RAB have to adjourn when land is transferred to a non-DoD entity?

If DoD relinquishes control of the cleanup and property, such as through property transfer to a non-DoD entity, then DoD will also relinquish support of the RAB. If the community wishes to continue its involvement, an independent group may be formed to continue the functions of the RAB or the community may work with EPA or the state environmental regulatory agency to establish a group equivalent to a RAB. DoD will not provide representatives to serve on these groups, nor the resources to support them when the Department is no longer involved in environmental restoration at the installation.

### Can a RAB continue operating after environmental restoration activities are complete?

Under certain circumstances, it may be appropriate for a RAB to continue operating after environmental restoration activities are complete at an installation. For example, the RAB may meet to review the outcome of a CERCLA five-year review, or meet to discuss long-term management of land use controls implemented in connection with the environmental restoration activities at the installation.

### What do community and installation members do if a RAB has to be adjourned because there is no sustained interest, but environmental restoration activities are ongoing?

Persons interested in ongoing environmental restoration activities should contact the installation POC to express their interest and seek information on any other community involvement programs available at the installation. Continued stakeholder feedback is important to the progress of restoration activities at installations, especially when they are ongoing. Following the decision to adjourn, the Installation Commander will also continue to evaluate community interest at least every 24 months while environmental restoration activities are still ongoing.

### Does a RAB have to be formally adjourned?

No. A RAB may stop meeting without any formal adjournment if a community loses interest. However, the Department recommends that the RAB formally adjourn to provide community members an opportunity to participate in the decision to adjourn. Formally adjourning a RAB provides all parties with a sense of closure.

# How does a community or installation know when a RAB has completed its work and is no longer needed?

**RAB adjournment table**

Adjournment	
<b>Adjourn a RAB if...</b>	<ul style="list-style-type: none"> <li>• Lack of community interest,</li> <li>• Record of Decision is signed,</li> <li>• Response complete at all sites,</li> <li>• All remedies in place,</li> <li>• Achieved RAB goals</li> <li>• Land transferred to a non-DoD entity, and</li> <li>• No longer sufficient and sustained community interest.</li> </ul>
<b>And the Installation Commander...</b>	<p>Consults with, and considers all comments provided by:</p> <ul style="list-style-type: none"> <li>• Community,</li> <li>• EPA,</li> <li>• States,</li> <li>• Tribes, and</li> <li>• RAB members.</li> </ul>
<b>Then the Installation Commander may...</b>	Adjourn the RAB.
<b>And the Installation Commander shall...</b>	<ul style="list-style-type: none"> <li>• Notify RAB members and the public of the decision through writing and publication in a local newspaper.</li> <li>• Describe other ongoing public involvement opportunities.</li> <li>• Document the rationale for adjournment in a memorandum for inclusion in the administrative record.</li> </ul>

## 7 What happens if a RAB becomes ineffective?

A RAB can stop its activities in one of two ways—either by adjourning or dissolving. Dissolution is appropriate when the RAB has become ineffective and is no longer fulfilling the intended purposes of advising and providing community input to the installation and decision makers on environmental restoration projects.

### What could lead a RAB to dissolve?

RABs dissolve when members are no longer able to offer input because the RAB has developed irreconcilable issues and cannot provide input in a constructive manner as intended. Dissolution may be necessary if RAB meetings are spent discussing unrelated issues or if members are unable to collectively discuss the environmental restoration activities affecting the installation and community.

### Is dissolution permanent?

Dissolution of a RAB may be, but is not necessarily, permanent. A RAB may be reestablished if community interest increases or if environmental restoration activities are ongoing or reoccur. If a RAB was dissolved because of irreconcilable issues, it may be reestablished if the cause for dissolution has been resolved.

### What does the community and installation do if a RAB is dissolved, but environmental restoration activities are ongoing?

Persons interested in ongoing environmental restoration activities should contact the installation POC to express their interest and seek information on other community involvement programs available at the installation. Continued stakeholder feedback is important to the restoration progress at installations, especially when restoration activities are ongoing. The Installation Commander will continue to evaluate community interest at least every 24 months following a RAB's dissolution. If the community interest in a RAB is reignited and sustainable, it is possible for a RAB to be reestablished. (See Chapter 8 for more details on reestablishing a RAB.)

### Can a RAB receive conflict resolution support before deciding to dissolve?

Yes. Dissolution should be a last resort to resolve a RAB's ineffectiveness. The Installation Commander should explore all possible means to resolve the conflict by hiring a professional mediator, directly addressing membership issues, or involving the installation's PA Officer.

### Is professional conflict resolution available and funded by DoD?

Yes. An installation may provide a professional facilitator to facilitate its RAB. Facilitators are paid with environmental restoration funding.

# What happens if a RAB becomes ineffective?

## RAB dissolution table

At Installation May	
<b>Dissolve a RAB if...</b>	RAB no longer fulfills purpose and responsibility.
<b>And the Installation Commander...</b>	<ul style="list-style-type: none"> <li>• Notifies co-chairs, Deputy Assistant Secretary (DAS), and ODUSD(I&amp;E) in writing.</li> <li>• Provides 30 day public comment period for RAB members and the public.</li> <li>• Consults with:                             <ul style="list-style-type: none"> <li>• Community,</li> <li>• EPA,</li> <li>• States,</li> <li>• Tribes, and</li> <li>• RAB members.</li> </ul> </li> <li>• Reviews comments,</li> <li>• Provides supporting documents and recommends dissolution to the DAS.</li> </ul>
<b>And the DAS...</b>	Notifies ODUSD(I&E) of the decision and rationale to approve or disapprove the dissolution request.
<b>Then the DAS may...</b>	Dissolve the RAB.

# 8

## Can an adjourned or dissolved RAB be reestablished?

RABs may be reestablished if they have been adjourned or dissolved. Reestablishment reflects community interest in an installation's environmental restoration activities and provides continued interaction between DoD and communities.

### Can inactivity lead a RAB to never be reestablished?

No. It is always possible for an adjourned or dissolved RAB to be reestablished no matter how long it remained inactive. As long as there is sustained community interest and DoD continues to have control of the cleanup and/or property a RAB may always be reestablished.

### How is membership determined when a RAB is reestablished?

The length of time the RAB has been adjourned or dissolved may affect how membership terms will be decided at reestablishment.

### How are operating procedures affected when an adjourned or dissolved RAB is reestablished?

If a RAB is being reestablished following a short-term hiatus, the installation, community, and RAB may benefit from contacting former members and gauging their interest in resuming their positions with the RAB.

If there are members who choose not to return to the RAB following a short- or long-term break, or if the Installation Commander is no longer able to identify or contact former co-chairs and members, then the Installation Commander should follow the operating procedures and RAB Rule to establish new members and/or co-chairs. This process will follow membership procedures as if a new RAB were being established.

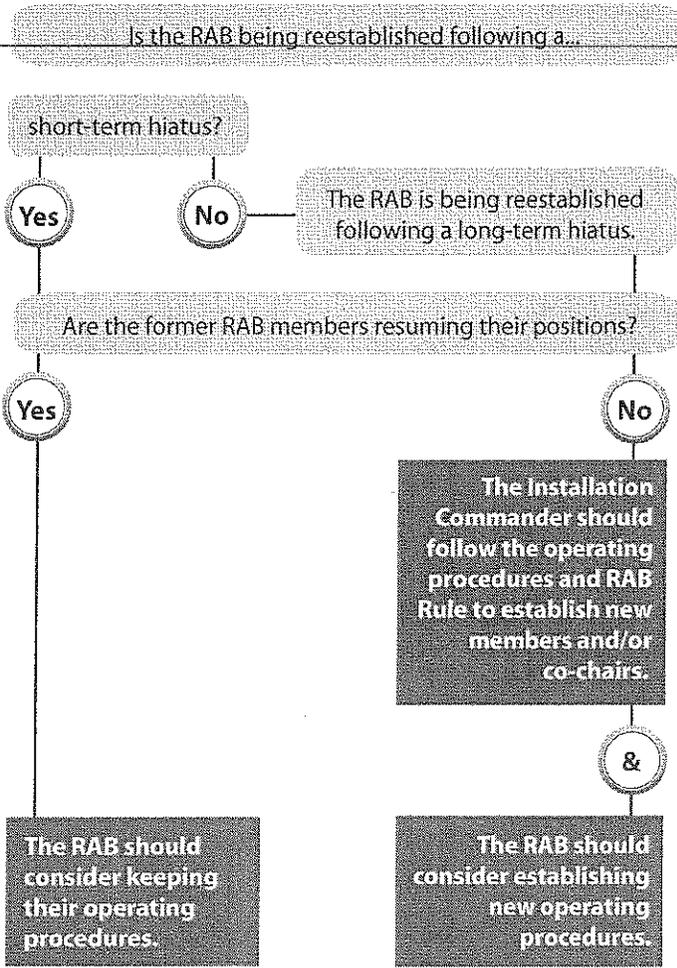
If a RAB is being reestablished following a short-term adjournment and the former RAB members will resume their positions, then the RAB should consider keeping their prior operating procedures. This will allow the RAB to resume responsibilities in the same capacity as when the RAB adjourned. If former RAB members are not interested in resuming their positions and new members are recruited into the RAB, then the new RAB members should develop new operating procedures.

If a RAB is being reestablished following a long-term adjournment with either new or former members, the RAB may want to consider if it is necessary to establish new operating procedures based on the length of time the RAB was adjourned.

If a RAB is reestablished following either a short- or long-term dissolution, it may be necessary for the RAB to develop new operating procedures once membership is determined. The RAB may want to consider inserting language into the operating procedures that will help prevent the issues that caused dissolution to occur within the original RAB.

The following flow chart provides a summary of these determinations:

# Can an adjourned or dissolved RAB be reestablished?



Should a RAB be reestablished if dissolution conditions still exist?

How will the community know if there are activities that may require reestablishment at a formerly dissolved or adjourned RAB?

No, a RAB should not be reestablished if the dissolution conditions still exist. Reestablishing a dissolved RAB requires approval from the Component's Environmental DAS. (Please refer to Chapter 7 for conflict resolution support and availability.)

The community should be informed of new activities or requirements through the community relations process. In addition, the Installation Commander will continue to evaluate community interest at least every 24 months following the decision to dissolve or adjourn a RAB. The installation will also provide status reports through mailings or local information repositories on issues that may interest the community and prompt reestablishment.

# 9

## What happens to RABs at installations that are closing or have been closed under base realignment and closure (BRAC)?

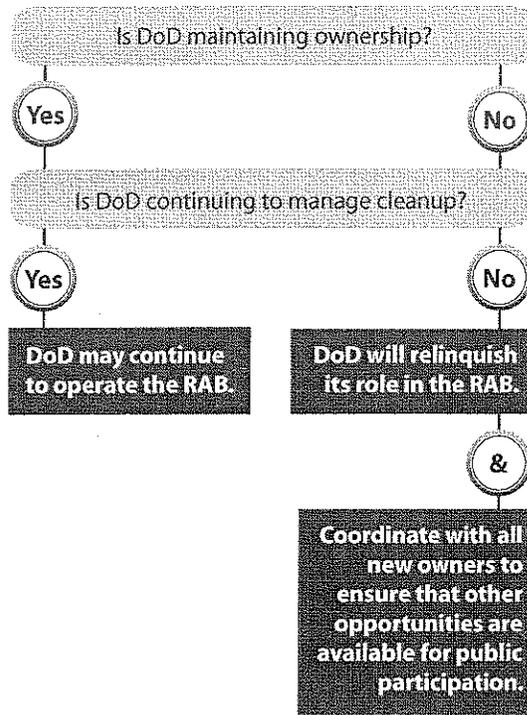
An installation may be closed or slated for closure under BRAC. When chosen for closure, DoD generally will transfer ownership of the installation to another person or entity at some point in the future. Because RABs are funded and supported by DoD, the transfer of the installation to a non-DoD entity will affect the continued existence and operation of the RAB.

**Will the RAB on a closing installation continue to operate?**

If a RAB exists at an installation that is closing under BRAC, DoD may continue to operate the RAB as long as DoD maintains ownership of the property and continues managing cleanup activities. Once the installation is transferred out of DoD control and DoD is no longer responsible for cleanup activities, DoD will relinquish its role in the RAB. DoD will work with the new owner, EPA, the tribe with jurisdiction over the property (if any), and the state environmental regulatory agency to encourage the availability of opportunities for members of the community if the community desires to continue to participate in the process.

**Can the RAB on a closed installation continue to operate if DoD transfers the installation to a new owner under early transfer and continues to conduct the cleanup?**

If DoD transfers the property but continues to manage the cleanup, DoD will continue to support the RAB. Community members should contact the new owner, EPA, the tribe with jurisdiction over the property (if any), and the state environmental regulatory agency for opportunities to provide input.



# What happens to RABs at installations that are closing or have been closed under BRAC?

-----  
**How can I provide input on environmental restoration activities after DoD has transferred ownership and cleanup responsibility?**

Once DoD has transferred ownership and environmental restoration responsibility of the installation, community members who are interested in any ongoing environmental restoration activities at the former installation should contact the installation's new owner, EPA, the tribe with jurisdiction over the property (if any), and the state environmental regulatory agency to find out about opportunities to provide input and participate in the cleanup process. For example, the new owner may agree to meet with community members on a regular basis for their input or the EPA, tribe with jurisdiction over the property (if any), or the state environmental regulatory agency may decide to continue a forum similar to the RAB.

-----  
**Can I form a group to provide input if DoD is no longer involved?**

The Department will neither sanction nor support community groups interested in providing input for environmental restoration activities once it has withdrawn from active involvement at an installation. However, there may be other venues that interested community members can use.

-----  
**Can I reestablish a RAB on a closed installation?**

A RAB that has adjourned or dissolved may not be reestablished at a closed installation if it is no longer owned by or being actively cleaned up by DoD. However, if the installation is closing and DoD still owns the property and is carrying out environmental restoration activities at the installation, then a RAB may be reestablished.

See Chapter 8: *Can an adjourned or dissolved RAB be reestablished?* for membership and operating procedure questions regarding reestablishment of a RAB.

-----  
**Can RABs be reestablished at installations that have been transferred out of DoD control?**

A RAB may be reestablished at installations that have been transferred out of DoD control only if DoD reacquires the installation or continues to perform day-to-day environmental restoration response activities.

**ATTACHMENT B-2**  
**COMMUNITY RELATIONS PLAN HANDOUT**  
**(1 page)**

Alameda Point Community Relations Plan Interviews  
Request for Restoration Advisory Board Input  
March 5, 2009

The Navy is in the process of updating the 2003 Alameda Point Community Relations Plan (CRP). This will include conducting interviews with various stakeholders. Please provide your input on who should be asked to interview. Below are the general categories of interviewees to give you an idea of who is typically included. We hope to interview at least one person from each group, and plan to conduct a total of about 20-25 interviews.

Specifically, we would appreciate your input on any organizations, groups, or individuals that we should invite to interview. If you have a particular name and contact information, please provide that. Otherwise, you may just provide the name of a group or organization. As a RAB member, if you would like to be interviewed, please let us know that as well. Your input is requested by Thursday, March 19, 2009.

Please provide your suggestions directly to Mr. Pat Brooks:  
BRAC PMO West  
1455 Frazee Road, Suite 900  
San Diego, CA 92108-4310  
619-532-0907  
george.brooks@navy.mil

Categories for Interviewees

- Businesses (on or near Alameda Point property, or a local business group, such as a business bureau)
- Community Organizations
- Elected Officials (city, county)
- Environmental Groups
- Local Advocacy Groups (environmental, health, religion, etc.)
- Residents (on or near Alameda Point property)
- Schools and Daycare Facilities (local and district staff)
- Senior Centers
- Stakeholders and Interested Parties not covered above

**ATTACHMENT B-3**

**SITE 26 CHEMICAL OXIDATION PRESENTATION HANDOUT**

**(8 pages)**



# Site 26 Update



## Alameda Point Restoration Advisory Board Meeting

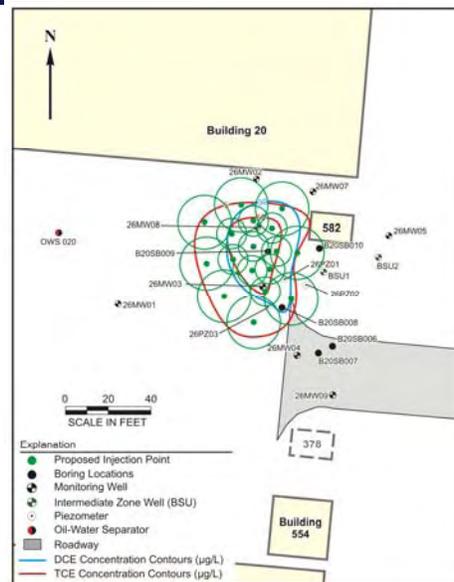
March 5, 2009



5 March 2009

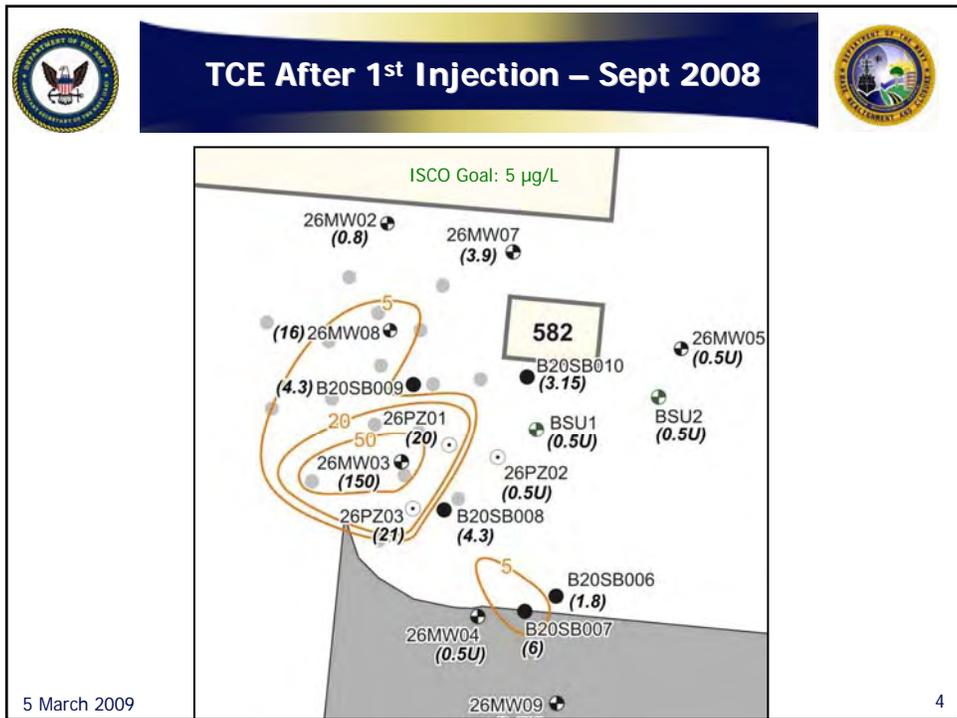
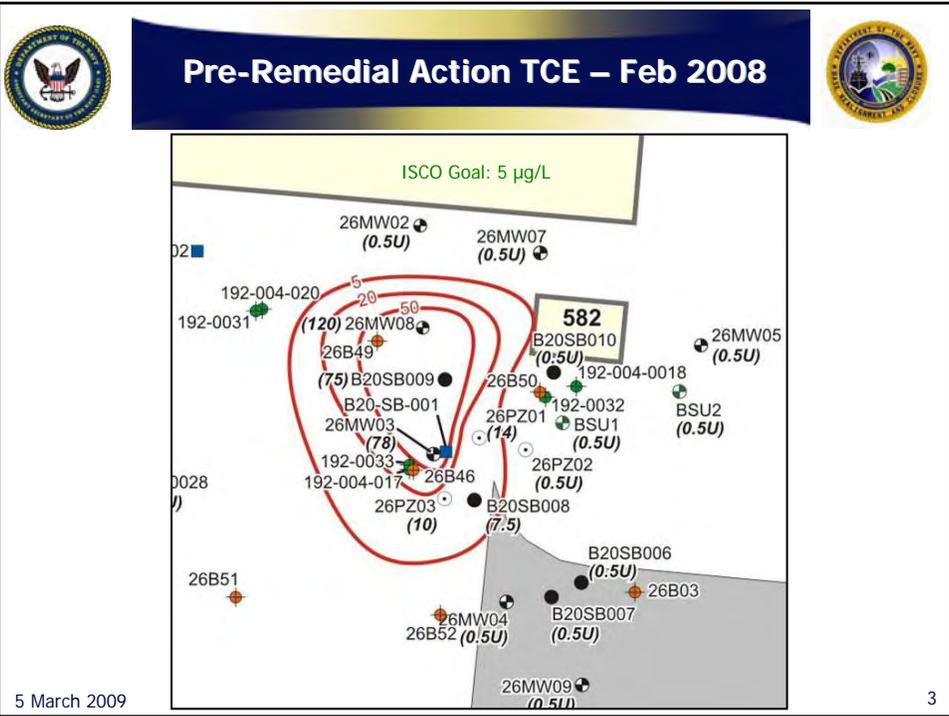


# IR Site 26 Phase 1 Injection Map



5 March 2009

2









## Lessons Learned From First Injection



Performance Issue	Solution
Concrete and asphalt trapped off gasses, which in turn mounded the groundwater table and caused surfacing of groundwater and reagents	<ul style="list-style-type: none"> <li>Use a reagent that produces less vapor ✓</li> </ul>
Possible channeling and redistribution of contaminants to the south and the west	<ul style="list-style-type: none"> <li>Inject using lower flow rates ✓</li> <li>Use a recirculation system and test injected water for contaminants</li> <li>Inject an alternate oxidant that does not produce a large volume of vapor.</li> <li>Analyze flow field during injection</li> </ul>
Several injection points compromised during injection	<ul style="list-style-type: none"> <li>Inject at lower pressures ✓</li> <li>Use alternate oxidant that does not generate as much gas ✓</li> </ul>
Hydrocarbons detected in subsurface during application	<ul style="list-style-type: none"> <li>Use a more stable, long lasting oxidant ✓</li> </ul>

5 March 2009

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## Lessons Learned From First Injection



Performance Issue	Solution
Groundwater at site rapidly returned to anaerobic conditions within two weeks of completing injection of oxidant	<ul style="list-style-type: none"> <li>Use a more stable, long lasting oxidant ✓</li> </ul>
Oxidant (hydrogen peroxide) short lived	<ul style="list-style-type: none"> <li>Use an alternative oxidant ✓</li> </ul>
Did not achieve remedial goals for ISCO after Phase 1 application	<ul style="list-style-type: none"> <li>Use a recirculation system to establish better contact with the contamination that is in the aqueous phase ✓</li> <li>Monitor oxidant in treatment zone</li> </ul>

5 March 2009

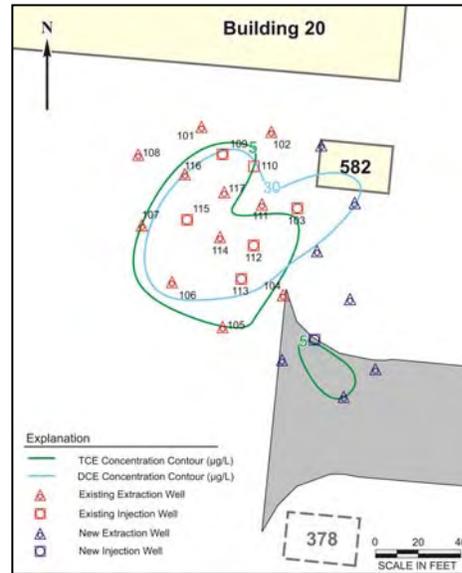
10



## Site 26 Revised Design



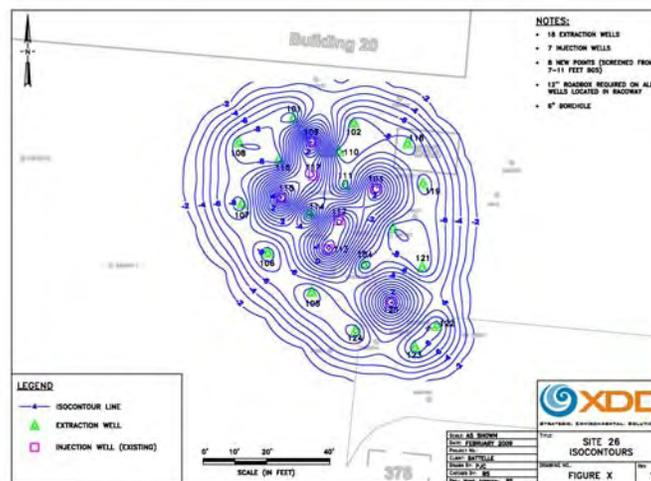
- Circulation system using sodium persulfate  $\text{Na}_2\text{S}_2\text{O}_8$
- 18 extraction wells
- 7 injection wells
- 15,400 lbs sodium persulfate
  - 50 g/L injection concentration
- Circulate one full pore volume (~35,000 gallons)



5 March 2009

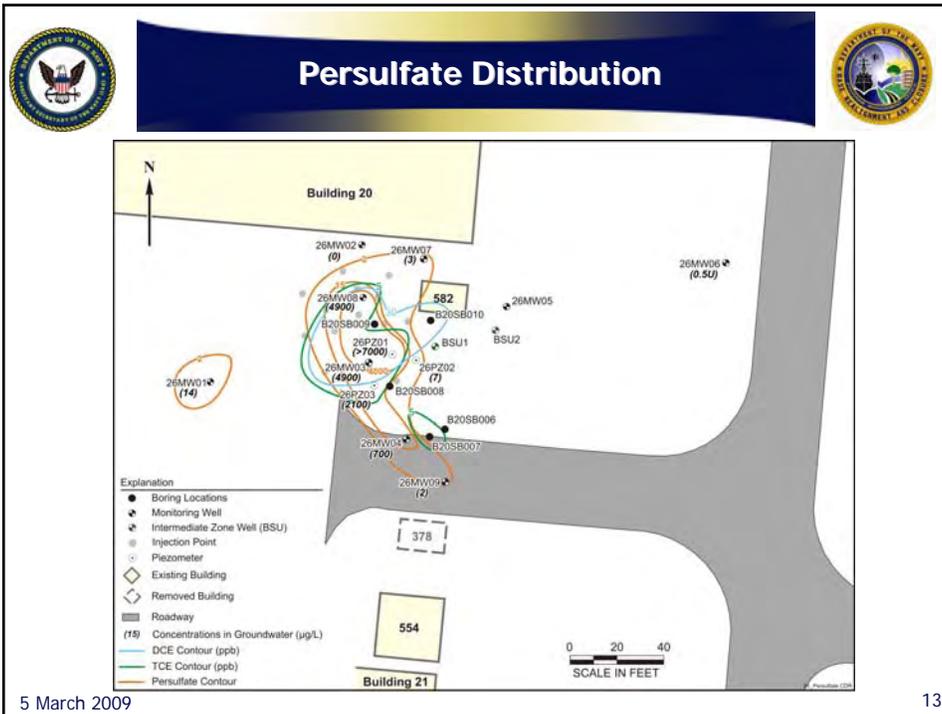


## Flow Analysis



5 March 2009

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## VOCs in Extracted Groundwater

Compound	Extraction Solution (µg/L)	Injection Solution (µg/L)
TCE	5.5	<0.6
DCE (total)	22.2	<0.6 <sup>a</sup>
VC	0.8	<0.6

(a) cis and trans 1,2-DCE were each below 0.6 µg/L

5 March 2009 14



## Future Work



- Groundwater sampling scheduled for week of March 23
- Evaluate results and finalize design for in-situ bioremediation

5 March 2009

15



5 March 2009

**ATTACHMENT B-4**

**SITE 17 UPDATE PRESENTATION HANDOUT**

**(9 pages)**



Time Critical Removal Action  
Construction Debris Piles  
IR Site 17  
Alameda Point, Alameda, California

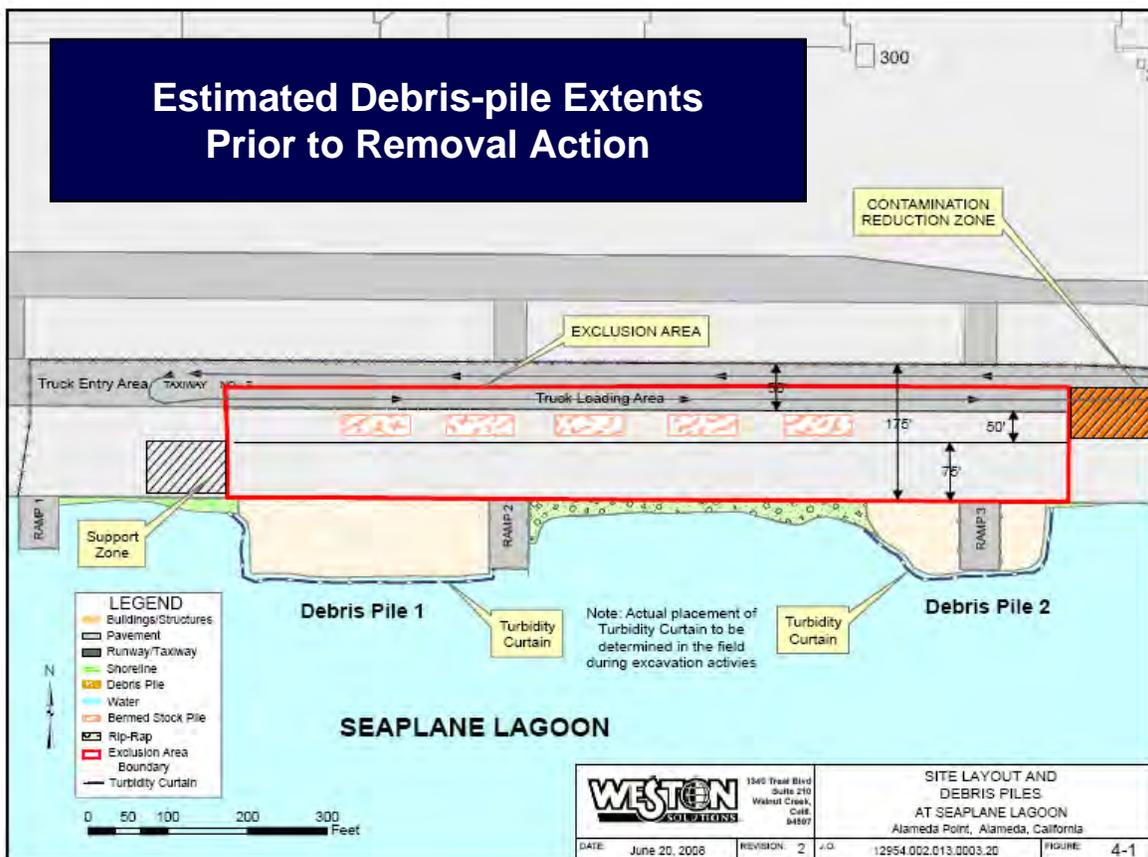
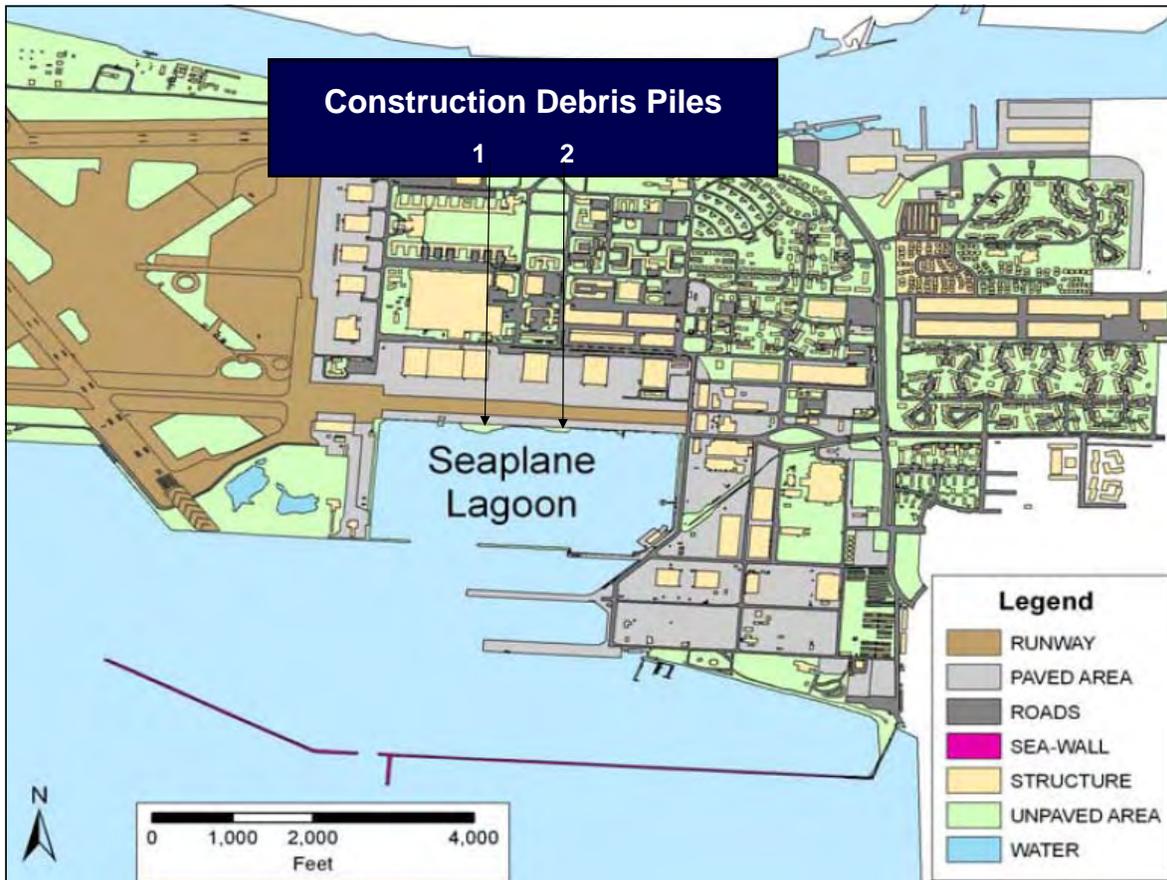
**Restoration Advisory Board Meeting  
March 5, 2009**

**June Wheaton  
Navy Project Manager**



## **Presentation Topics**

- **Location of Debris Piles**
- **Selected Alternative**
- **Time-critical Removal Action**
- **Debris Pile 1 Summary**
- **Debris Pile 2 Summary**
- **Additional Debris**
- **Next Steps**





## Selected Alternative



- **Excavation, Reuse/Recycling, and Off-site Disposal**
  - **Chosen because alternative is:**
    - A permanent solution
    - Implementable
    - Cost effective

5



## Time-critical Removal Action



- **Removed full extent of Debris Piles 1 and 2**
- **Collected characterization samples at surface and 2 feet below surface following removal**
- **Compared analytical results to screening criteria and performed overexcavation in select areas**
- **Will evaluate remaining characterization results in Time-critical Removal Action report**

6

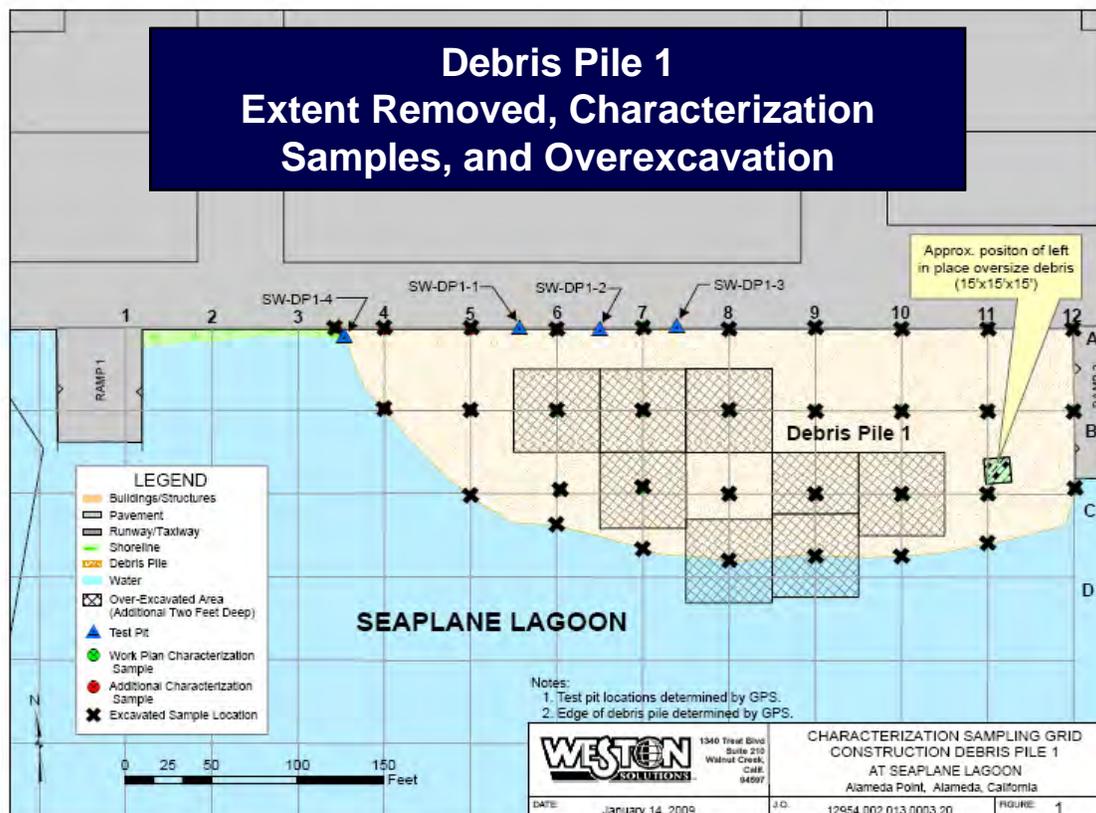


# Debris Pile 1 Summary



- Removed and stockpiled 24,500 cys debris material
- Overexcavated eight grid nodes based on petroleum-like staining and PCBs
- Encountered oversized object (approx 15'x15'x15'); left in place
- Soil and small debris transported for off-site disposal
  - RCRA hazardous; 781 tons (33 trucks)
  - California hazardous; 32,354 tons (1,358 trucks)
  - non-hazardous; 1,414 tons (60 trucks)
- Oversize debris pending recycling/disposal (concrete tested suitable for recycling); ~2,000 cys or 4,000 tons

7





# Debris Pile 1 – Pre-Removal



# Debris Pile 1 – Post-Removal





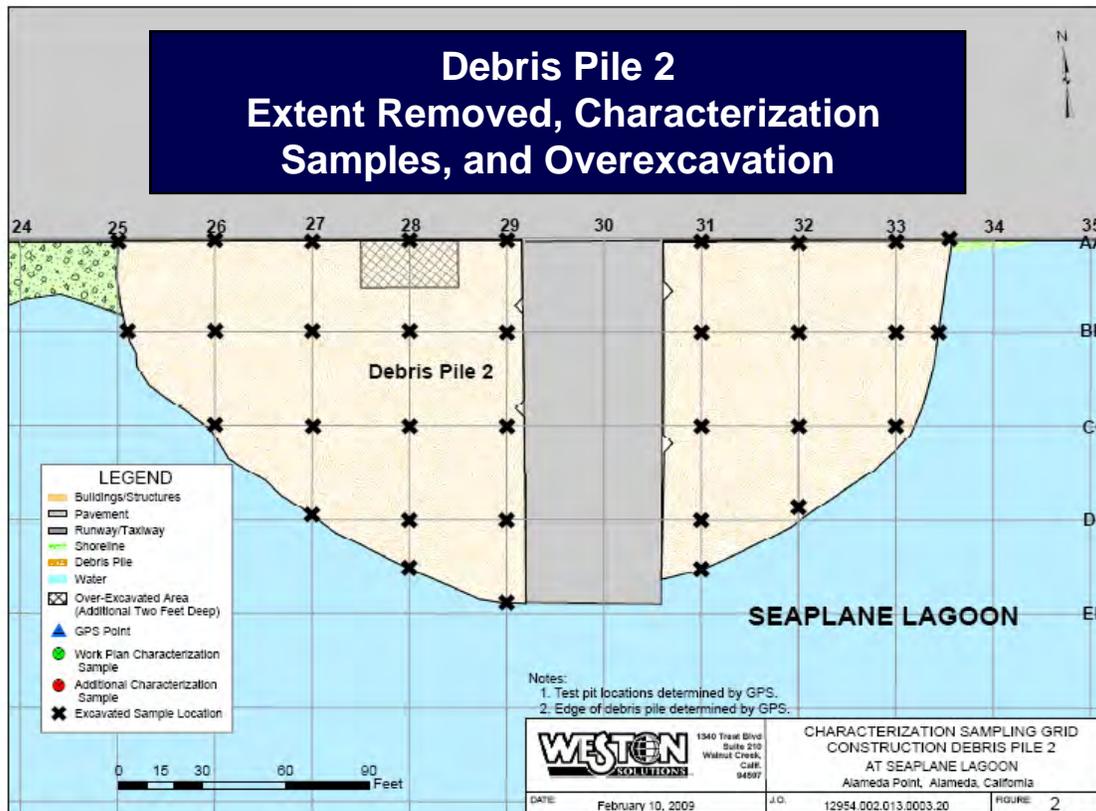
## Oversize Debris



## Debris Pile 2 Summary



- **Removed and stockpiled 5,250 cys debris material**
- **Overexcavated one grid node based on cadmium**
- **Soil and small debris pending transportation and disposal**
  - California hazardous; ~6,500 tons
  - non-hazardous; ~1,500 tons
- **Oversize debris pending recycling/off-site disposal (concrete tested suitable for recycling); minimal additional volume**



## Debris Pile 2 – Pre-Removal





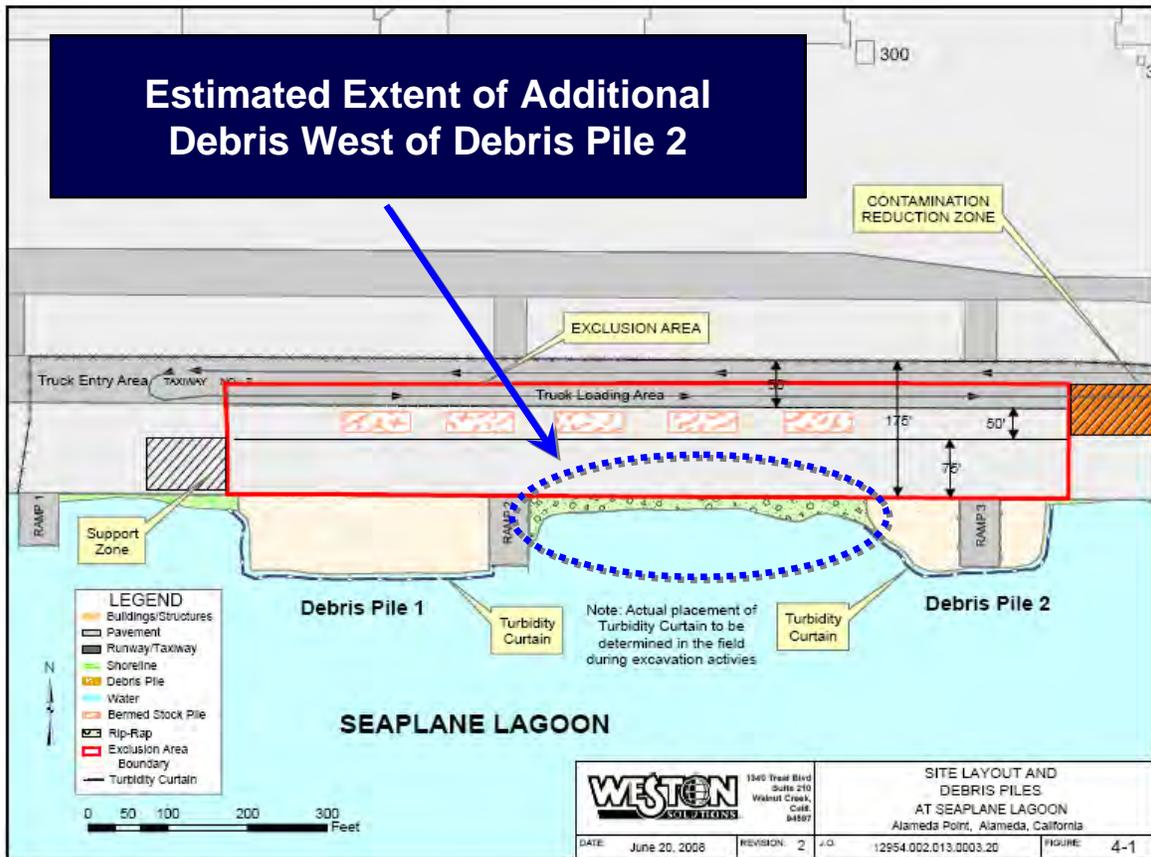
## Debris Pile 2 – Post-Removal



## Additional Debris



- **Additional debris encountered west of Debris Pile 2 under concrete riprap**
- **Estimated to extend to Ramp 2; approx 420' long and extending 25' to 45' south of the seawall**
- **Planned for removal**



## Next Steps



- Remove additional debris between Debris Pile 2 and Ramp 2
- Prepare Time-critical Removal Action report and recommend no further action, additional evaluation, or remediation

**ATTACHMENT B-5**

**NAVY'S RADIOLOGICAL PROGRAM PRESENTATION HANDOUT**

**(6 pages)**



## **Restoration Advisory Board Meeting March 5, 2009**

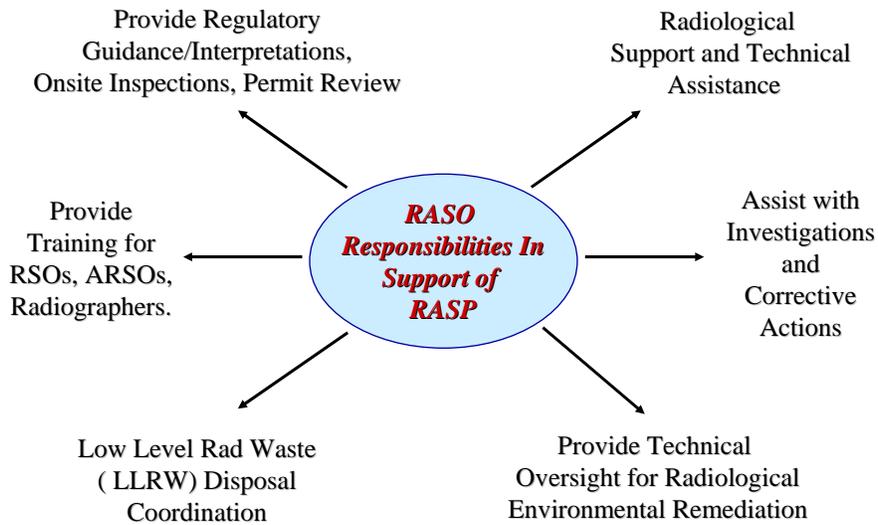
**Naval Sea Systems Detachment (NAVSEADET)**

**Radiological Affairs Support Office (RASO)**

## **Discussion Topics**

- Who is RASO and What Do They Do
- Riprap Anomaly

## NAVSEADET RASO As a Technical Support Center Supports the Radiological Affairs Support Program (RASP)



## Environmental Radiological Programs

- RASO provides Technical Support for Environmental Radiological Programs for:
  - Navy/Marine Corps Environmental Restorations (ER)
  - Base Closure and Realignment Commission (BRAC)
  - NRC/NRSC Decommissioning
- Expert guidance – Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)
- Regulatory Interface
  - Federal, State, Local Agencies
- Document Review
  - Historical Radiological Assessments (HRA), Survey Plan
  - Final Reports

## Active Environmental Sites

- **Active Environmental Restoration (ER) Sites**
  - NAS Jacksonville
  - NAS North Island
  - NSWC Indian Head Div.
  - NTC Great Lakes
  - NSY Puget Sound
- **Active BRAC Sites**
  - NSY Hunters Point
  - NSY Mare Island
  - MCAS El Toro
  - NAS Alameda
  - NAS Brunswick
  - NS Long Beach
  - NS Treasure Island
  - NWS Concord
- **Decommissioning & Decontamination (DD) Sites**
  - NAMRL Pensacola
  - NAES Lakehurst
  - NAWC Weapons Div. China Lake
  - NB Ventura County Point Mugu
  - NMRC Bethesda
  - NRL Chesapeake Beach Detachment
  - NRL Washington DC
  - NSWC Dahlgren Division

## Riprap Anomaly

- Found by RASO/TtEC 2/10/09
- 35' south of Outfall F on land side of riprap
- Area of elevated radiological readings covers 5'x10' area going into edge of riprap
- Samples taken in area identified chalk like materials with elevated radiological readings
- Confirmed to be Radium-226

## Riprap Anomaly Location



## Riprap Anomaly Location



## Riprap Anomaly



## Riprap Anomaly Close-up



## **Planned Action**

- Current plan is to remove anomaly and contamination stopping above the water level
- Remove riprap in vicinity of elevated readings
- Characterize area to determine extent of contamination
- Perform health and safety scans of riprap on western shore of Seaplane Lagoon

**ATTACHMENT B-6**

**LIST AND SUMMARY OF FEBRUARY 2009 BCT MEETINGS**

**(1 page)**

## List & Summary of February 2009 Alameda Point BCT Meetings

### February 4, 2009

Community Relations Plan Update Scoping Call (Tommie Jean Damrel)

Issues discussed:

- Purpose of the CRP update
- Review of key Table of Contents items Capacity building – training, education,
- Discussion of interview questions, potential interviewees, and agency involvement in interviews
- Review of schedule for interviews and document preparation

### February 5, 2009

Site 1 RAD Concerns (Heather Wochnick).

### February 11, 2009

FISCA BCT Teleconference (Tommie Jean Damrel)

Issues discussed:

- FISCA LUC RD
- PAH Feasibility Study

### February 19, 2009

OU-2C FS Shared Vision (Mary Parker)

Issues discussed:

- FISCA LUC RD
- PAH Feasibility Study

### February 24, 2009 (Monthly BCT Meeting). All Day Meeting.

Issues discussed:

- Site 28 Pilot Test and Remedial Action Update (Francis Fadullon)
- OU-1 Remedial Design (Curtis Moss)
- “Look Ahead” SMP Milestones and Fieldwork for Next Two Months (Pat Brooks)
- OU-2b Revised Draft FS. Presentation covered risk assessment approach & methodology to address the comments on the draft FS (All)
- Sites 14, 26, and 27 Remedial Design Discussion (All)

### Yesterday (March 4) Site 35 -AOC 23 Groundwater Update (Frances Fadullon)

Issues discussed:

- Review of Agency Comments Regarding the Selected Response Action in the Draft ROD for AOC 23.
- Review Sampling Results and Health Risk Results. Something does not add up...incorrect assumptions or information in the risk model?
- Discussion to be continued Wednesday March 11.