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

www.bracpmo.navy.mil
Building 1, Suite 140, Community Conference Center
Alameda Point
Alameda, California

May 1, 2008

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
George Humphreys	Restoration Advisory Board (RAB) Community Co-chair
Attendees:	
Jim Barse	Community member
Andrew Bullard	Battelle
Anna-Marie Cook	U.S. Environmental Protection Agency (EPA)
Tommie Jean Damrel	Tetra Tech EM Inc. (Tetra Tech)
Doug Delong	BRAC PMO West, Compliance Manager
Michelle Ellsan	Community member
Fred Hoffman	RAB
John Kaiser	San Francisco Bay Regional Water Quality Control Board (Water Board)
Joan Konrad	RAB
James Leach	RAB
Gretchen Lipow	Community member
Dot Lofstrom	California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC)
Patrick Lynch	Community Member
John McMillan	Shaw Environmental
Curtis Moss	BRAC PMO West Remedial Project Manager (RPM)

Peter Russell	Russell Resources/Alameda Reuse and Redevelopment Authority (ARRA)
Carolyn Scala	Battelle
Jean Sweeney	RAB
Jim Sweeney	RAB
Michael John Torrey	RAB
John West	Water Board
Jessica Woloshun	Sullivan International Group, Inc. (Sullivan)

The meeting agenda is provided in Attachment A.

MEETING SUMMARY

I. Approval of Previous RAB Meeting Minutes

Mr. Humphreys called the meeting to order at 6:32 p.m.

Mr. Humphreys provided the following comments:

- Page 4 of 7, third paragraph, last sentence, "...he walked around the lagoon...," will be revised to, "...he walked around the Harbor Bay lagoon...."
- Page 5 of 7, second paragraph, second sentence, "...IR Site 17 and Seaplane Lagoon," will be revised to, "...IR Site 17 Seaplane Lagoon."
- Page 5 of 7, last paragraph, last sentence, "She said a risk evaluation was scheduled to be conducted where the debris piles were after the removal," will be revised to, "She said confirmation sampling was scheduled to be conducted after the removal."

Ms. Sweeney provided the following comment:

- Page 2 of 7, first comment, "John Berry" will be revised to "John Beery."

The minutes were approved as modified.

II. Co-Chair Announcements

Mr. Humphreys distributed his list of reports and correspondences received during April 2008 (Attachment B-2). He said two items on the list of documents received relate to the basewide annual groundwater report. Item 1 was the final version of the spring 2007 report, which

consisted of a new front cover and final text to insert in the original document. He said Item 5 consisted of the fall 2007 basewide semi-annual groundwater report, which was in a compact disk (CD) format. Other noteworthy documents included the draft remedial design/remedial action work plan (RD/RAWP) for groundwater at Operable Unit (OU) 5 and Fleet Industrial Supply Center Oakland, Alameda Facility/Alameda Annex (FISCA) Site IR02 (the groundwater plume under the Coast Guard housing) and the feasibility study (FS) report for Alameda Point Installation Restoration (IR) Site 2, West Beach Landfill and Wetlands. He noted that IR Site 2 would be visited during the RAB tour scheduled on May 31, 2008. He also noted correspondence Item 2, the 2008 draft final amendment to the site management plan for FISCA.

Mr. Humphreys encouraged the RAB and community members to sign up for the Alameda Point site tour on Saturday, May 31, 2008. Mr. Humphreys thanked the Navy for providing the RAB and community members with the opportunity to tour Alameda Point. Mr. Humphreys also thanked the Navy for including a presentation of the OU-2A and OU-2B groundwater on the May 1 RAB agenda.

Mr. Brooks introduced himself as the incoming BEC and Navy co-chair. Mr. Brooks also introduced Curtis Moss, an incoming Navy RPM in attendance. Mr. Brooks announced another new Navy RPM, Heather Wochnick (not in attendance).

Mr. Brooks announced opportunities for Alameda Point to take part in two Environmental Security Technological Certification Program (ESTCP) government-funded projects. He said two groups, one from Geosyntec Consultants (Geosyntec) and the other from Arizona State University, each submitted proposals to the government for a grant to test an innovative technology for the environmental industry. He said one innovative technology proposed by Geosyntec involved collection of air samples using an absorbent material at Buildings 163 and 163A. He said the other proposal involved monitoring the natural attenuation of a dense non-aqueous phase liquid (DNAPL) source area, but the Navy was still having discussions with the grant recipient. Mr. Hoffman asked if the proposals were previously funded and the Navy would only provide the site for study. Mr. Brooks concurred that the Navy would only provide a site for study. Mr. Hoffman asked about funding for the projects, and Mr. Brooks responded that they were federally funded. Mr. Hoffman asked which federal government agency funded the projects, and Mr. Brooks responded that he believed the ESTCP projects were funded by the U.S. Department of Defense. He said it was an opportunity to provide additional funding to the BRAC program and to make an impact on the understanding of different and innovative technologies for environmental cleanup and sampling. He said the BRAC program had the opportunity to host two ESTCP projects.

III. RAB Site Tour Presentation

Mr. Brooks announced the RAB site tour presentation (Attachment B-2). He noted the tour is scheduled for 9:30 a.m. to 12:00 p.m. on Saturday, May 31, 2008. Tour participants are to meet at the Building 1 Community Conference Center parking lot. He listed the sites planned to tour (Slide 2): California least tern colony, IR Site 1, IR Site 2, and Seaplane Lagoon. Mr. Humphreys added that the RAB also wanted to tour the Runway Wetlands.

Mr. Brooks described the least tern colony (Slide 3) and showed a picture of two least terns (Slide 4). He said the California least tern colony has grown over the years from approximately 4 acres to 10 acres and is currently managed by the U.S. Fish and Wildlife Service (USFWS). He said the USFWS tracks the arrival of the least tern, marks the least tern nesting areas, and controls weeds and predators. Mr. Brooks described the least tern colony (Slide 5); the least tern has been listed as an endangered species since 1970. Mr. Torrey asked about the least tern predators, and Mr. Brooks responded the local predators included feral cats and hawks. Mr. Brooks showed a picture of two least terns, one male with a fish clutched in its beak as a part of mating behavior (Slide 6). He showed another picture of a least tern feeding its young (Slide 7).

Mr. Brooks described IR Site 1 (Slide 8), which was used as a disposal area, and for aircraft parts storage and as a pistol range. He said the draft final record of decision (ROD) was in preparation, which would describe the remediation decision, and he described the remedial alternatives in Slide 10. He also indicated the location of IR Site 1 on Slide 9. Ms. Sweeney said the RAB was interested in viewing the trenching, and Mr. Brooks responded that the trenching was completed. Mr. Humphreys added that he would like to tour the Area 1B burn area, and Mr. Brooks said that Area 1B was scheduled for remediation and the VOC plume would be treated by chemical oxidation. Mr. Humphreys said that, in the trenching presentation, seven waste cells were described, and one cell appeared to overlap the boundary on the shoreline. He expressed concern that contamination was exposed to the San Francisco Bay. Mr. Brooks said that it was known that the waste material was in contact with groundwater and that the groundwater was at an elevation similar to the bay, but he did not recall "daylighting" into the bay. Mr. Humphreys said there were plans to build a seismic stability wall along the shoreline, and Mr. Brooks responded that seismic stability was a requirement when a cover is built on a landfill and is included in the design. Mr. Hoffman asked about the remedial design and whether removal was planned in only selected locations. Mr. Brooks responded that removal of the landfill was planned at selected locations. Mr. Brooks said that the complete removal of a landfill is rare. Ms. Konrad said that she believes the City of Alameda requested complete removal at IR Site 1 and Mr. Russell concurred. Ms. Konrad asked about the response to the city from the Navy, and Mr. Russell responded that the response to the city was the ROD and the trenching operation should have been completed before the response to the ROD. Mr. Humphreys said the trenching operation showed approximately 25 percent of the material sampled in the waste cells was contaminated with radioactivity, and he concluded that the radium was spread around geographically on the site. Mr. Brooks said the sample results for radium were being evaluated and offered to present the results to the RAB in the future. Mr. Humphreys said that there were areas at IR Site 1 and 2 with hazardous and toxic materials, not just garbage, that need to be addressed immediately to examine issues such as global warming and liquefaction. Mr. Brooks said that liquefaction was addressed in the design and site inspections would be scheduled, including long-term monitoring and monitoring after a seismic event. He said predicting concerns from rising sea levels caused by global warming was difficult and unnecessary for an FS. Mr. Humphreys said that the half-life of radium is approximately 1,600 years, which is a concern. Mr. Brooks said he appreciated the concerns and believed that IR Site 1 and 2 would generate interest, as with most landfills.

Mr. Brooks discussed IR Site 2, the West Beach Landfill and Wetlands (Slide 11). He said the Navy was working in the early stages of the remediation process and the FS was revised to

address review comments. He said various alternatives are evaluated during the FS and compared against screening criteria, including the alternative costs, groundwater monitoring, and land use restrictions. He described the remedial alternatives for soil at IR Site 2 (Slide 12). Mr. Hoffman asked about the bottom liner, which was included in the engineered soil cover alternative, and Mr. Brooks responded that it is like a plastic sheet made of high-density polyethylene. Mr. Brooks said the soil cover would be placed above the liner to prevent infiltration of precipitation into the landfill. Mr. Brooks discussed the remedial alternatives for groundwater at IR Site 2 (Slide 12). Mr. Humphreys asked whether the Navy considered in situ chemical oxidation, which was a remedial alternative for IR Site 1, for groundwater at IR Site 2. Mr. Brooks replied that in situ chemical oxidation was not considered for IR Site 2 because the level of contamination was lower than at IR Site 1.

Mr. Brooks showed the location of the proposed soil cover (Slide 15). Mr. Brooks described the cross-section on Slide 16. Ms. Sweeney asked whether the proposed alternatives included a detour for run-off into the ponds at IR Site 2. Mr. Brooks responded that he did not recall which side of the road is associated with the proposed soil cover. He responded that the run-off would most likely be channeled to maintain recharging of the ponds, but groundwater recharge would be reduced by the soil cover. Mr. Humphreys said culverts were constructed for the North Pond. Mr. Brooks said shallow groundwater at Alameda eventually flows to the bay. Mr. Hoffman asked if the ponds were proposed to be covered, and Mr. Brooks said that the ponds are not proposed to be covered. Mr. Brooks continued to describe and explain how to read the cross-section on Slide 16. He showed where the first water bearing zone (FWBZ) and second water bearing zone (SWBZ) were characterized on the cross-section. He showed where Bay Mud is located, which has low permeability and would impede the flow of groundwater. He noted that screens for the wells characterized on the cross-section were placed in areas with high permeability. Mr. Brooks described ways to understand the direction of groundwater flow as characterized on the cross-section. He said that, for example, the water level elevation in the FWBZ is about 4.2 feet and the water level in the SWBZ is about 5.2 feet; therefore, the groundwater moves in a downward direction from the FWBZ to the SWBZ. Mr. Humphreys asked why the cross-section depicted a zigzag shape in the middle, and Mr. Brooks responded that the cross-section characterized the zones of different soil types. Mr. Hoffman asked if the hydraulic barrier would be located in the Bay Mud, and Mr. Brooks responded that he expected the hydraulic barrier would probably not be located in that area since the Bay Mud is deep there.

Mr. Brooks showed the location of the proposed hydraulic barrier and soil cover on the map (Slide 17). Ms. Sweeney asked whether excavation was an alternative, and Mr. Brooks showed the area that was already excavated on the map (Slide 17) and the former location of the now radioactive waste storage shack (demolished). Ms. Sweeney said that the area proposed to be covered was large and asked whether he had covered an area of that size in the past. Mr. Brooks said that a previous project at Hunters Point Shipyard covered a 20-acre landfill.

Ms. Sweeney asked about the duration of the FS stage. Mr. Brooks responded that the Navy needed comments on the draft-final FS report before the final FS was to be distributed; the next steps included a proposed plan, a public meeting, Record of Decision and a remedial action plan. Ms. Sweeney asked if the 3-foot soil cover would be built on site, and Mr. Brooks responded that clean soil for the cover would be imported.

Mr. Brooks said the draft-final FS report was in review. Mr. Humphreys said the RAB had submitted many comments in the past, but that comments on the remedial investigation were largely glossed over in the Navy responses, including a comment about penetration of the cover by burrowing animals such as skunks, raccoons, and ground squirrels. He said, for example, the Navy responded that the ground squirrel did not burrow deeper than 2 feet bgs and could not reach the extent of the 3-foot bgs soil cover. Mr. Brooks responded that the multi-layer soil cover included a coarse gravel layer, impenetrable by burrowing animals. Ms. Lofstrom also added that the soil cover was originally 2 feet bgs, but the Navy decided to increase the size of the soil cover to 3 feet bgs because of concerns regarding the risk to burrowing animals.

Mr. Hoffman asked about the status of the FS report. Mr. Brooks responded the regulatory agencies and RAB were reviewing the draft-final FS report.

Mr. Humphreys said he was concerned that the berm located along the side of the landfill and delineated by the roads was constructed of sand blasting grit. He said samples detected tributyl tin, and Mr. Brooks responded that responses to comments would be provided.

Mr. Brooks described IR Site 17 Seaplane Lagoon, another destination for the tour (Slide 18), and showed a photograph of the Seaplane Lagoon (Slide 19). Mr. Brooks pointed out an outfall in the northwestern corner of the Seaplane Lagoon that the Navy believed was one of the sources of contamination (Slide 20). He said the outfall depicted on the slide had high concentrations of contamination nearest and lower concentrations progressively farther from the storm drain outfall

IV. Alameda Groundwater OU-2A and OU-2B

Mr. Brooks introduced the presentation on groundwater at OU-2A and OU-2B. He said that since the understanding of the science of groundwater differs widely, he would explain the information necessary to understand the groundwater issues encountered in Alameda Point groundwater reports (Slide 2), including horizontal and vertical groundwater flow direction, groundwater gradient, and contaminant transport. He said the shallow groundwater eventually flows to the bay. Because of tidal influence, mixing occurs near the shore. Mr. Brooks showed a cross-section (Slide 3) and explained how the geology affects the water flow. He said groundwater flows faster in sandier sediments (coarser-grained soil) and slower in muds (finer-grained soil) because the finer-grained sediments are less permeable. He said the horizontal and vertical movements of groundwater are greater through sands than through muds. Ms. Sweeney asked about liquefaction. Mr. Brooks responded that the soil particles become suspended in water and that liquefaction potential is greater in loose sands than clays when an earthquake occurs. Ms. Konrad asked whether groundwater in the second permeable layer flowed to the bay. Mr. Brooks explained that the groundwater flow in deeper soils was influenced by a variety of factors, including the distribution of less-permeable and permeable soil layers. He said that groundwater moves from high pressure to low pressure. Mr. Humphreys explained that the density of water was also a factor in groundwater flow; sea water is denser than fresh water and cold water is denser than warm water. Ms. Sweeney asked how a landfill affected groundwater

flow, and Mr. Brooks responded that the groundwater would flow faster if the material was loose, and the groundwater would flow slower if the material was fine.

Mr. Brooks showed and described a groundwater gradient map on Slide 4. He explained that groundwater moves perpendicular to the groundwater elevation contour lines. Ms. Sweeney asked what the closed circle (contour) represented, and Mr. Humphreys responded that a groundwater gradient map was like a topographic map and explained that the elevation was the same at each point on the closed circle (contour). Mr. Brooks added that the map represents the top of groundwater, just as the topographic contours represent the land surface in a topographic map. Mr. Brooks said, in general, the flow of contamination is indicated by the flow of groundwater.

Mr. Lynch asked if Mr. Brooks had intended to say that the present slurry wall adjacent to the landfill was not acting as a hydraulic barrier for contamination into the bay. Mr. Brooks said a small slurry wall was already constructed and groundwater would tend to back up against the slurry wall, but also would flow around the edges of the slurry wall. Mr. Lynch said he had attended the RAB meetings for the past 15 years and that this site had been discussed repeatedly. Mr. Brooks said that he wanted to give everyone the opportunity to learn this information.

Mr. Humphreys asked about the difference between the blue and the black lines. Mr. Hoffman responded that the blue and black lines represented the FWBZ and SWBZ, respectively.

Mr. Hoffman asked why ponds were on the site. Ms. Lofstrom explained that soil was removed from the area and the excavations were not refilled, which left a depression. Over time, ponding developed. Ms. Cook said the connection to the culverts influenced development of the northern pond. In addition, runoff and rainfall influenced development of the ponds. Mr. Humphreys said that, originally, the entire area was underwater. The land was progressively filled in by the Navy to expand the space for runways and other utilities. He said the lagoons and wetlands were areas that were never filled in and remained underwater. Mr. Russell said the groundwater contour lines misrepresented the location of the ponds. The groundwater contour lines were intended to represent the elevation of the groundwater table; the water table includes the elevation of water bodies, such as the ponds, which represent where the groundwater table meets the surface.

Mr. Brooks described the OU-2B data gaps investigation (Slide 5). Mr. Torrey asked about daughter products. Mr. Brooks responded that when the primary solvent (trichloroethylene) looses a chlorine atom, which is replaced by a hydrogen atom, it degrades to its daughter product (dichloroethylene). Mr. Brooks said that, in some cases, nutrients can be added to speed this process.

Mr. Brooks described the potential contaminant source (Slide 6), the oil/water separator (OWS)-163. He said OWS-163 was likely the source of contamination in both the FWBZ and SWBZ, which will be verified with additional sampling. Mr. Hoffman asked why VOCs were present in an oil/water separator. Mr. Brooks responded that it may have been the site for a wash down area.

Mr. Hoffman asked if the muds are continuous between the FWBZ and SWBZ at OU-2B. Mr. Brooks said that the contamination had moved through the muds and that movement depended on the type of contamination; for example, this particular type of contamination is denser than fresh water. Ms. Cook responded that the muds are not continuous between the FWBZ and SWBZ because the Bay Mud in this area was sporadic, allowing contamination to travel deeper. Mr. Hoffman asked if there is any separation between the FWBZ and SWBZ. Ms. Cook replied that OU-2B covers a broad area with multiple sites. In some sites, the bay sediment was present, and in others the bay sediments are not present, which complicates the geology in OU-2B.

Mr. Brooks discussed the additional groundwater sampling (Slide 8). Mr. Torrey asked about the newly installed "nested" wells. Mr. Brooks responded that wells were drilled at different depths at the same locations, and that the wells on the cross-section showed the "nested" wells.

Mr. Humphreys asked where Building 163 is located in respect to Seaplane Lagoon. Mr. Russell showed the location of Building 163 on a map of Alameda Point. Mr. Brooks showed the location of the OWS-163 next to Building 163 on the map.

Mr. Brooks described the source area of contamination between 5 and 10 feet bgs and said the direction of groundwater flow is indicated by the direction of the arrow (Slide 9). Mr. Hoffman asked when the sample indicated on the map on Slide 9 was collected. Mr. Brooks said most of the data depicted were collected within the past year. Mr. Hoffman asked if samples had been analyzed for products such as dense nonaqueous phase liquid (DNAPL), and Mr. Brooks said a full suite of analytes was tested.

Mr. Brooks described the contaminant plume from a depth interval of 15 to 20 feet bgs (Slide 10). He showed the location of Building 360, the location of the six-phase heating remediation, and, as depicted on the figure, contamination was cleaned up. Mr. Humphreys asked if more remediation was necessary. Mr. Brooks responded that the concentrations of contaminants had not risen, but that the Navy was still monitoring the effects of the six-phase heating, which appears to be successful. Mr. Humphreys asked how the contamination could be cleaned up so quickly. Ms. Cook explained that the plume was much smaller than the other plumes on the site and therefore was easier to clean up. Mr. Hoffman asked about the heating vapor extraction. Ms. Cook responded that the groundwater contamination was reduced from approximately 100,000 parts per billion (ppb) to approximately 100 ppb.

Mr. Brooks described the contaminant plume from a depth interval of 20 to 30 feet (Slide 11). Ms. Sweeney asked why the plume appeared different from the shallower depths. Mr. Brooks said it was a result of the different levels of sampling. The results showed the varying levels of contamination of the plume. Ms. Sweeney asked how OWS-163 caused the plume. Mr. Brooks said that OWS-163 may have received waste products that caused contamination to leach. Mr. Hoffman said the contamination also was linked to cleaning airplanes.

Mr. Brooks showed the locations of the new wells where current sampling occurred (Slide 13). Mr. Hoffman asked about the duration of the sampling depicted in the maps shown on Slides 9 through 12. Mr. Brooks said most of the sampling occurred over a few weeks because there

were 67 wells to sample; he also noted that groundwater level measurements were collected on the same day. Mr. Hoffman said he examined the trends in the highest-concentrated wells; the trend seemed to be increasing in contamination over time. He asked if the Navy was actively searching for the source of contamination. Mr. Brooks said locating the source of contamination was always the first goal for the Navy. He showed Slide 11 and said the goal was to clean up the source area and then clean up the groundwater plume. Mr. Hoffman said certain methods use extraction wells to stop the movement of contaminant area source plumes. Mr. Brooks responded that extraction wells had been used for this purpose at Alameda Point, and that chemical oxidation also had been used at Alameda Point. Mr. Hoffman asked about the possibility of pumping and treating the groundwater. Mr. Brooks said that this method was not as cost effective as other methods. Mr. Hoffman asked if the six-phase heating was still under way, and Mr. Brooks responded that the six-phase heating was completed and vapor was not being extracted. Mr. Hoffman reiterated that the trend appeared to depict increasing contamination in the wells with the highest detections. Mr. Brooks responded that he would examine the trends. Mr. Hoffman said he believed that only one source was cleaned up with the six-phase heating. Mr. Brooks concurred and noted that only one source area was identified in the six-phase heating operation. Mr. Humphreys asked about the time period examined for the trend of increasing concentration. Mr. Hoffman responded that he has reviewed groundwater monitoring reports from 2002 to the present. Mr. Brooks said he would review the reports and report back to the RAB in the future.

Mr. Lynch asked if 1,4-dioxane was analyzed and Mr. Brooks said a full suite of analytes was tested. Mr. Lynch said he raised the concern about 1,4-dioxane at IR Site 25 Estuary Park in the past and hoped it was analyzed. Mr. Lynch said he received a letter from Utilities Service Alliance (USA) and the Bay Area Air Quality Management District explaining that 1,4-dioxane emitted from a Navy facility was toxic, and it was only after the letter was sent that the Navy facility stopped emitting 1,4-dioxane. He said the contaminant was on the base and he was concerned about the site along the fence line and requested information regarding 1,4-dioxane. Mr. Brooks said he would address the issue at a future RAB meeting. He mentioned that the analysis for 1,4-dioxane was included in the standard suite of analytes. Mr. Hoffman asked if 1,4-dioxane was an air or water contaminant. Mr. Brooks said 1,4-dioxane was on the edge between a volatile and semi-volatile and could contaminate air or water. Ms. Lofstrom reiterated that the information in this presentation was based on recent data collected. Mr. Russell asked if the wells described by Mr. Hoffman with higher concentrations were located at the edge of the location for the six-phase heating. Mr. Hoffman responded that the wells in question were downgradient of a source area. Mr. Russell said the area may not have been identified in the six-phase heating operation. Mr. Russell said that the six-phase heating operation recently occurred and sampling results had not yet been presented; therefore, current data for the wells had not yet been presented.

V. BCT Update

Ms. Lofstrom said the BCT had discussed the Alameda Point groundwater update during the April BCT meeting. She said the BCT also discussed the IR Site 34 remedial investigation report and additional questions were resolved; therefore, the Navy would proceed with a final remedial investigation report. She said the BCT members reviewed many reports and reviewed

the remedial design for Seaplane Lagoon. She said the IR Site 2 FS report is under review by DTSC, EPA, the Water Board, and the California Department of Health Services. Ms. Lofstrom said an extensive meeting in January 2008 was held because the regulatory agencies had many comments on the draft final version. During the meeting, the Navy had addressed all comments and issued a memorandum to the regulatory agencies, which combined all the regulatory agency comments. She said the Navy had completed an extensive revision of the FS report in response to all regulatory agency comments. The BCT was reviewing the remedial design for the land use covenants for the U.S. Coast Guard housing area. She said the BCT was to review the IR Site 35 Proposed Plan, which included sites spread throughout Alameda Point, and the RAB would be presented with the information in the future.

Ms. Sweeney asked if the memorandum provided by the Navy, which included the combined response to comments, would be available in the administrative record. Ms. Lofstrom responded that all regulatory comments are included in an appendix.

VI. Community and RAB Comment Period

Mr. Lynch read the transcript of the public meeting regarding the Alameda Landing project, and a community member commented that "those were the answers that (he) had wanted to hear." He said one of the items presented was that DTSC would oversee the development and monitor the developer. Mr. Lynch continued that DTSC did not visit the site during the remediation at East Housing. He was concerned that the community member was misled. Mr. Lynch said the remediation at East Housing was basically a "clean up through investigation," which did not include a remedial action for the chlordane-contaminated soil and provided no legal basis for the cleanup under the health and safety plan. Ms. Lofstrom said she could not correct past issues but could ensure proper actions in the future. She said she scheduled inspections and planned for DTSC oversight of the development. Ms. Lofstrom said an engineer was committed to provide oversight and work with the developer. Mr. Lynch said air quality at East Housing was tested, and the difference between the upwind and downwind monitors was 150 percent above the ambient air quality standard. He was therefore concerned with the health of the surrounding community, including a preschool.

Mr. Humphreys mentioned an article in the *San Francisco Chronicle* on April 30, 2008, which stated the EPA was stymied by the White House; the Government Accountability Office reported that the White House budget office, Pentagon, and other government agencies delayed or blocked efforts by EPA to list chemicals as carcinogens. He said Senator Barbara Boxer was investigating the issue and had warned that Congress would step in and ban substances that threaten public health. He said the article stated that the EPA started a risk assessment of naphthalene, a chemical used in jet fuel in 2002. The agency has been moving toward listing it as a likely human carcinogen, but many military sites are contaminated with naphthalene, which could lead to major cleanup costs for the Pentagon. He said 6 years later, the document was at the draft stage. Mr. Humphreys said that naphthalene was one of the chemicals of concern at Alameda Point and contaminant plumes were located under the Coast Guard housing area, under Alameda Annex, and possibly under some newer East Housing areas. Mr. Humphreys said there were cleanup goals for benzene and asked if the cleanup plan would take into account

remediating naphthalene. Ms. Lofstrom said that remedial goals were in place for both benzene and naphthalene in the State of California. Ms. Cook said that even though groundwater is not used in that area, the ROD was written so that the benzene, which was collocated with naphthalene, was assigned an extremely low remediation goal of 1 ppb. She said it was expected that the remedy would remediate the benzene as well as the naphthalene. Mr. Humphreys asked if EPA, at the local level, had felt any of the pressure from federal agencies. Ms. Cook indicated that funding, staffing, and support were lower than previous years. She said the public always had the recourse to write to Congress and voice concerns with matters regulated by the EPA. Mr. Humphreys said the public was largely unaware of the events described in the newspaper article, and Ms. Cook said this kind of article brought to light the types of difficulties federal agencies can experience. She said support and requests from the public help allow federal agencies, like the EPA, to accomplish its mission.

VII. Meeting Adjournment

The meeting was adjourned at 8:35 p.m.

ATTACHMENT A

NAVAL AIR STATION ALAMEDA
RESTORATION ADVISORY BOARD MEETING AGENDA
May 1, 2008

(1 page)

RESTORATION ADVISORY BOARD

NAVAL AIR STATION, ALAMEDA

AGENDA

MAY 1, 2008, 6:30 PM

ALAMEDA POINT – BUILDING 1 – SUITE 140
COMMUNITY CONFERENCE ROOM
(FROM PARKING LOT ON W MIDWAY AVE, ENTER THROUGH MIDDLE WING)

TIME	SUBJECT	PRESENTER
6:30 - 6:45	Approval of Minutes	Mr. George Humphreys
6:45 - 7:00	Co-Chair Announcements	Co-Chairs
7:00 – 7:30	RAB Site Tour Preview	Pat Brooks
7:30 – 8:00	Alameda Point Groundwater (OU-2A/2B)	Pat Brooks
8:00 – 8:15	BCT Update	Dot Lofstrom
8:15 – 8:30	Community & RAB Comment Period	Community & RAB
8:30	RAB Meeting Adjournment	

ATTACHMENT B

NAVAL AIR STATION ALAMEDA
RESTORATION ADVISORY BOARD MEETING HANDOUT MATERIALS

B-1 List of Reports and Correspondence Received During April 2008. Distributed by Mr. George Humphreys, RAB Community Co-Chair (2 pages)

B-2 RAB Site Tour Presentation, presented by Mr. Patrick Brooks (10 pages)

B-3 Alameda Point Groundwater for OU-2A and 2B, presented by Mr. Patrick Brooks (7 pages)

ATTACHMENT B-1

LIST OF REPORTS AND CORRESPONDENCE RECEIVED DURING APRIL 2008

(2 pages)

Restoration Advisory Board
Documents and Correspondence
Received during April 2008

Documents

1. April 11, 2008, "Volumes 1 and 2, Spring 2007 Alameda Basewide Annual Groundwater Report Alameda Point, Alameda, CA, Final April 2008", package contained new front cover page, and final text (unchanged from Draft Final Version) separated by sections for insertion into original document, prepared by Innovative Technical Solutions, Inc. for BRAC Program Management Office West.
2. April 14, 2008, "Draft Remedial Design/Remedial Action Work Plan, Operable Unit 5/IR-02, Groundwater", prepared by Tetra Tech EC, INC. for BRAC Program Management Office West.
3. April 14, 2008, "Draft Final Feasibility Study Report for Installation Restoration Site 2, West Beach Landfill and Wetlands, Alameda Point, California", prepared by Battelle, Columbus and BBL, Inc. for BRAC Program Management Office West.
4. April 22, 2008, "Draft, Remedial Investigation Report for Operable Unit 2C-Revision 1, Alameda Point, Alameda, California", three volumes, prepared by Bechtel Environmental, Inc. for BRAC Program Management Office West.
5. April 23, 2008, "Fall 2007, Alameda Basewide Semi-Annual Groundwater Monitoring Report, Alameda Point Alameda, CA, April 2008", CD only prepared by Innovative Technical Solutions Inc. for BRAC Program Management Office West.
6. April 25, 2008 (received April 29, 2008), "Draft Final Remedial Design/Remedial Action Work Plan for IR 14, Alameda Point, Alameda, California", prepared by Battelle, Columbus and Innovative Technical Solutions, Inc. for BRAC Program Management Office West.
7. April 28, 2008, Draft Final Remedial Design/Remedial Action Work Plan IR 14, Alameda Point, Alameda, California", corrected figure -Pilot Test Injection Schematic", prepared by Battelle, Columbus for BRAC Program Management Office West.

Correspondence

1. March 28, 2008 (received April 2, 2008), "Review of Preliminary Remedial Design/Draft Remedial Action Work Plan, Volume 1 & Volume 2 (Late Submittal)- IR Site 17, Seaplane Lagoon, Alameda Point, Alameda CA", letter from Mr. John R. West, San Francisco Bay Regional Water Quality Control Board to Mr. Thomas Macchiarella, BRAC Program Management Office West.
2. April 1, 2008 (received April 6, 2006), "2008 Draft Final Amendment to the Site Management Plan for Fleet and Industrial Supply Center, Oakland Alameda Facility/Alameda Annex, Alameda, California", letter from Mr. George Patrick Brooks, BRAC Program Management Office West to Ms. Dot Lofstrom,

Department of Toxic Substances Control, attached draft SMP schedule of Navy's remaining requirements under the FFSRA

3. April 2, 2008, "Review of Preliminary Remedial Design/Draft Remedial Action Work Plan Volume 2-Draft Remedial Action for IR Site 17, Seaplane Lagoon, Alameda Point, Alameda, California", letter from Ms. Dot Lofstrom, P. G. to Mr. Thomas L. Macchiarella, BRAC Program Management Office West.
4. April 7, 2008 (received April 11, 2008), "Request for extension for review of the Draft Final Remedial Design/Remedial Action Work Plan for IR Site 17, Seaplane Lagoon, Alameda Point, Alameda, California, February 2008", letter from Ms. Xuan-Mai Tran, U. S. EPA, Region IX, to Mr. George Brooks, BRAC Program Management Office West.
5. April 18, 2008, Review of Draft Action Memorandum and Draft Work Plan, Time Critical Removal Action, Installation (sic) Site 17, Construction Debris Piles, Alameda Point, Alameda, California", letter from Ms. Dot Lofstrom, P. G., Department of Toxic Substances Control to Mr. George Patrick Brooks, BRAC Program Management Office West.
6. April 18, 2008, "Review of the Draft Final Remedial Investigation Report for Installation Restoration Site 34, Alameda Point, Alameda, California, dated March 6, 2008", letter from Ms. Dot Lofstrom, P. G. Department of Toxic Substances Control to Mr. George Patrick Brooks, BRAC Program Management Office West.
7. April 10, 2008 (received April 19, 2008), "Review of the Draft Action Memorandum for Time-Critical Removal Action for IR Site 17 Construction Debris Piles, Alameda Point, Alameda, California, March 2008", letter from Ms. Xuan-Mai Tran, U. S. Environmental Protection Agency Region IX to Mr. George Brooks, BRAC Program Management Office West.

ATTACHMENT B-2

RAB SITE TOUR PRESENTATION

(10 pages)

RAB Site Tour Preview

RAB Site Tour
May 31, 2008 9:30 – 12:00

Alameda Point RAB Meeting
May 1, 2008

1

RAB Site Tour Highlights

- California Least Tern Colony
- Site 1
- Site 2
- Seaplane Lagoon

2

California Least Tern Colony

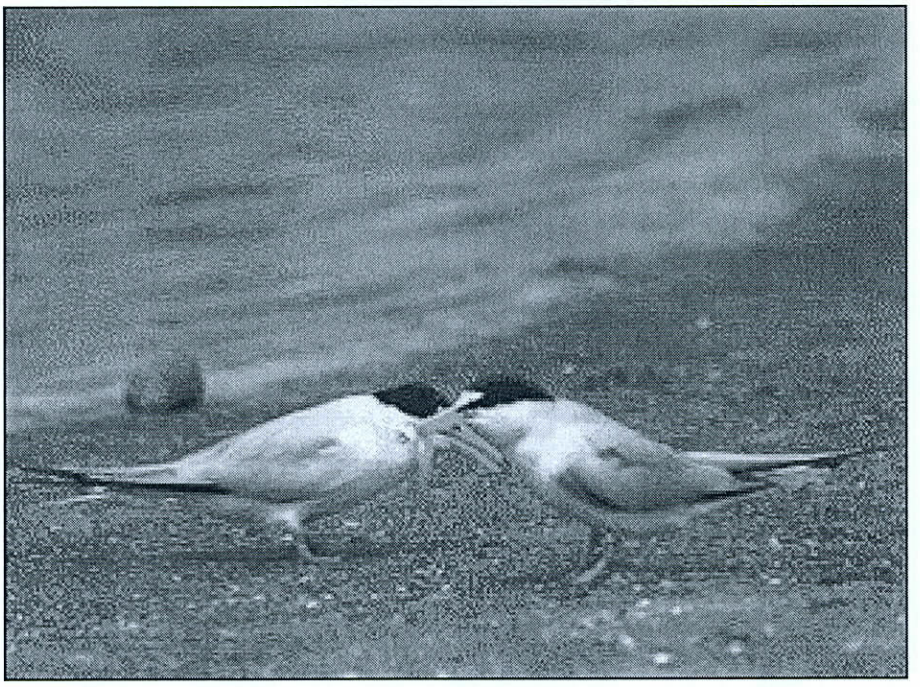
- Approximately 10 acres
- Currently managed by US Fish and Wildlife Service
- Weed control
- Predator control

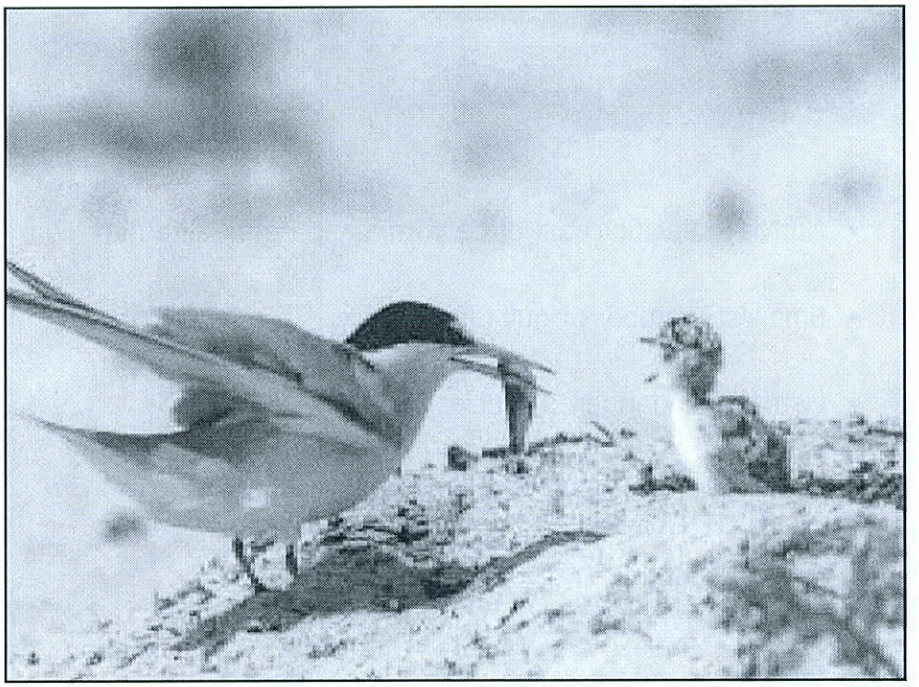
3

Least Tern Colony

- Native to Pacific coast of California and Baja California
- Smallest member of gull family
- Listed as endangered species in 1970
- Approximately 400 breeding pairs at Alameda
- Predator control

5

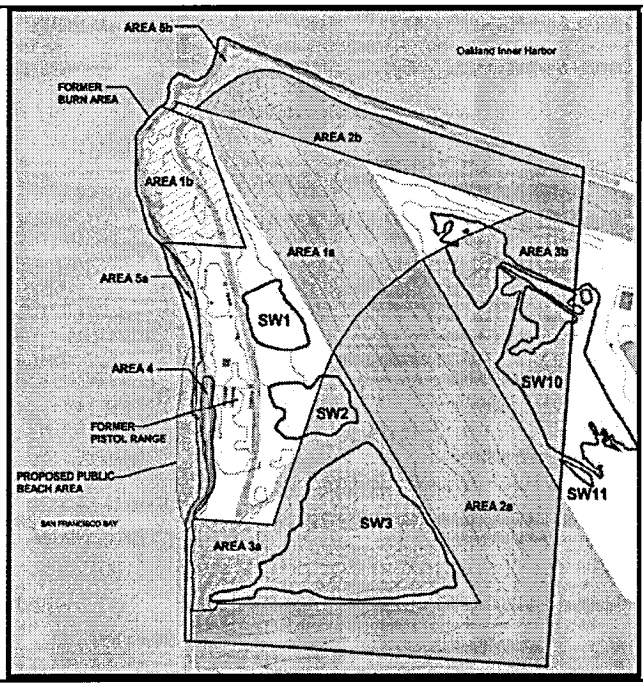




Site 1

- 78 acre disposal area used from 1943 – 1956
- Aircraft parts storage
- Pistol range
- Draft Final Record of Decision in preparation

8



Site 1 Remedial Alternatives

- Waste removal from Area 1b and firing range berm
- Maintain paved cover in Area 2
- Evaluate TCRA results and assess alternatives for Area 3
- Chemical oxidation for VOC plume
- Groundwater monitoring
- Land use restrictions

10

Site 2

- West Beach Landfill and Wetlands – 110 acres
- Feasibility Study revised to address review comments
- Various cover materials, focused removal
- Groundwater monitoring
- Land use restrictions

11

Site 2 Remedial Alternatives

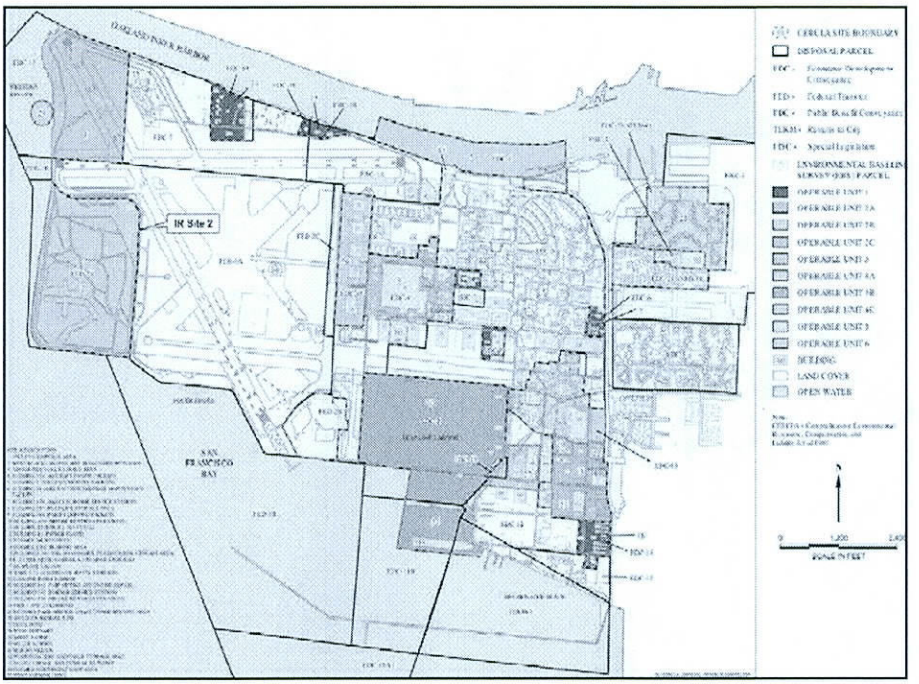
- Soil
  - Multi layer soil cover
  - Engineered soil cover with bottom liner
  - Focused waste removal
  - Land use restrictions

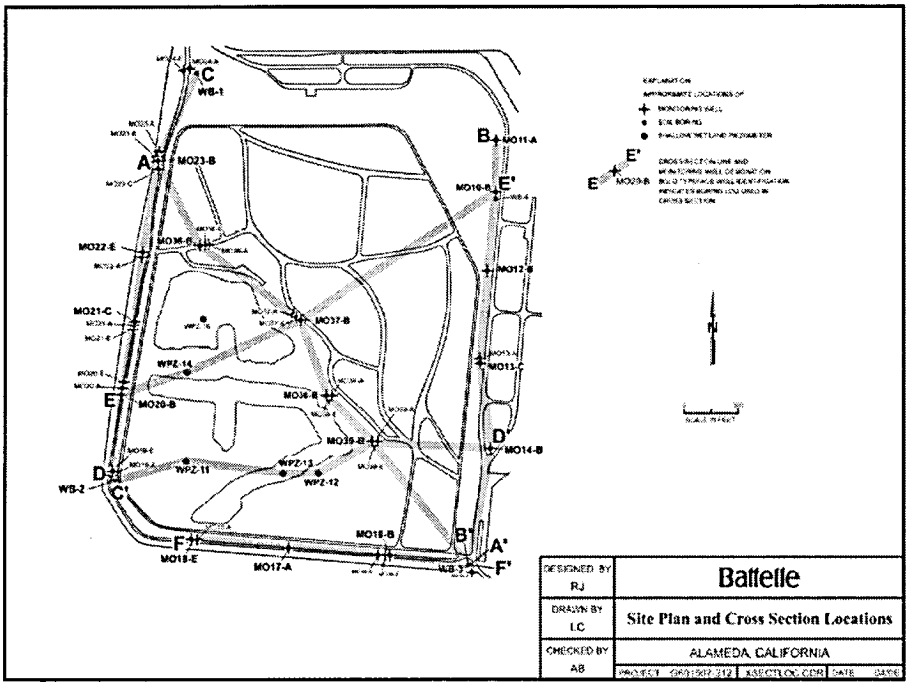
12

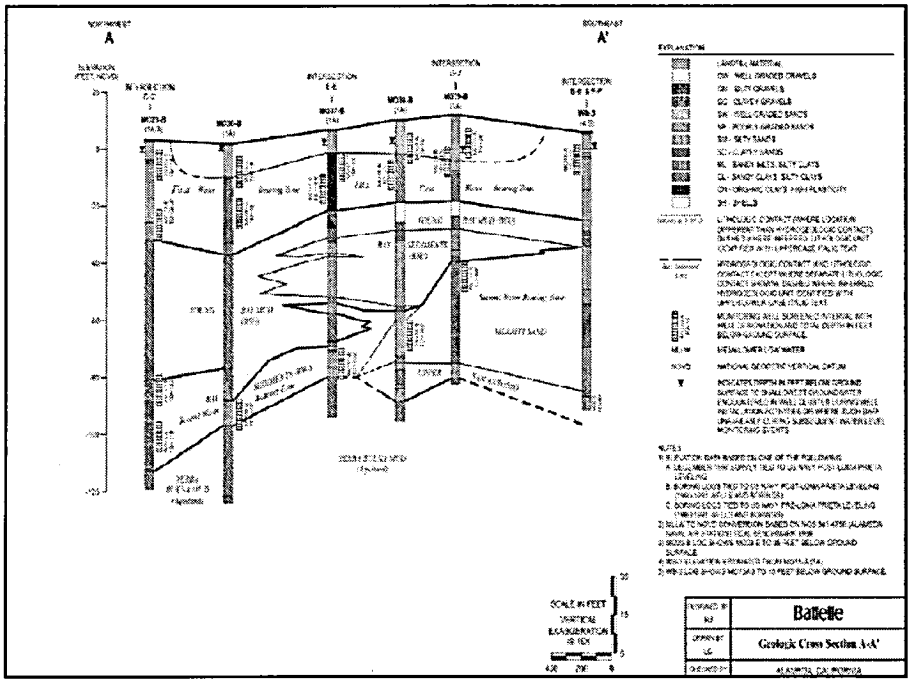
Site 2 Remedial Alternatives

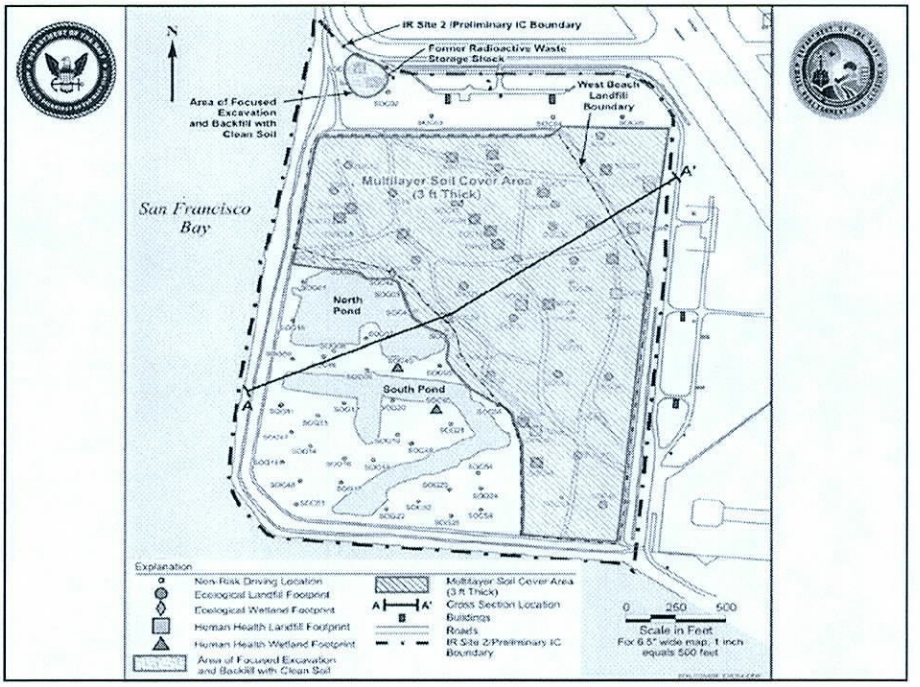
- Groundwater
  - Monitored natural attenuation
  - Hydraulic barrier
  - Land use restrictions

13




A
A'
B
B'
C
C'
D
D'
E
E'
F
F'
WB-1
WB-2
MO23-B
MO11-A
MO16-B
MO22-E
MO36-B
MO12-B
MO21-C
MO37-B
WPZ-14
MO11-C
MO20-B
MO38-B
MO39-B
MO14-B
WPZ-11
WPZ-13
WPZ-12
MO18-B
MO18-E
MO17-A
N
Battelle
Site Plan and Cross Section Locations
ALAMEDA, CALIFORNIA
DESIGNED BY
RJ
DRAWN BY
LC
CHECKED BY
AB

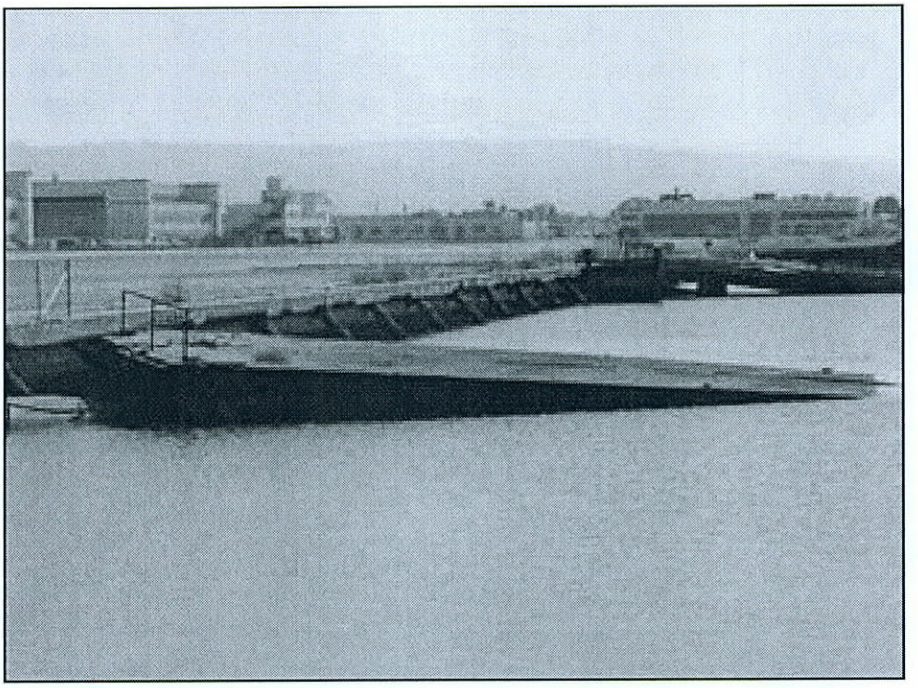

A
A'
Battelle
Geologic Cross Section A-A'

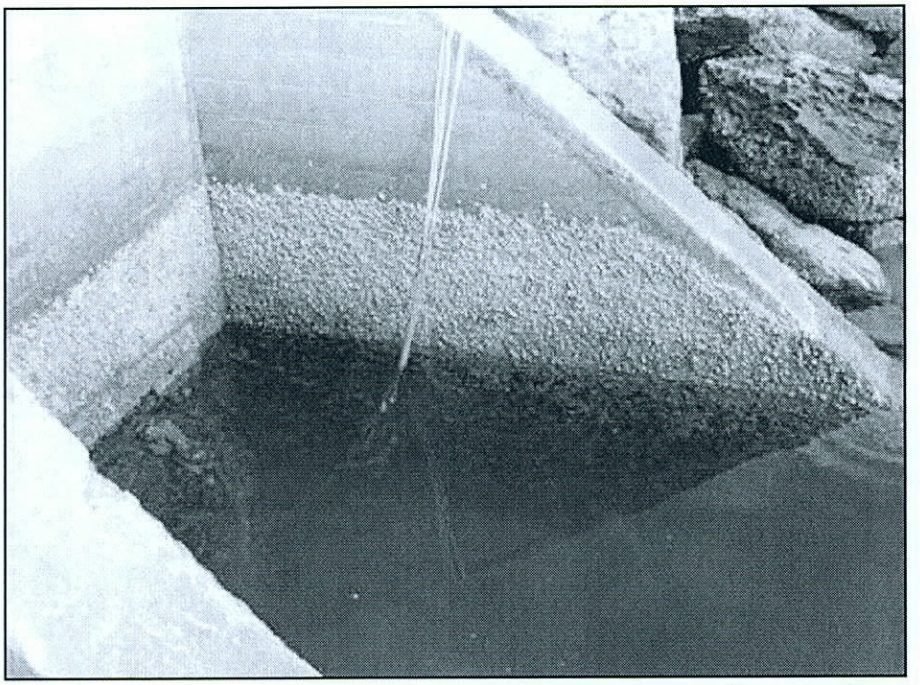


Seaplane Lagoon – Site 17

- Remedial Action Work Plan in review
- Confirmed extent of contamination before dredging
- Dredge about 63,000 cubic yard of sediment
- Dewater sediment
- Dispose of sediment at appropriate landfill
- Confirm contamination is removed

18





ATTACHMENT B-3

ALAMEDA POINT GROUNDWATER (OU-2A AND 2B)

(7 pages)

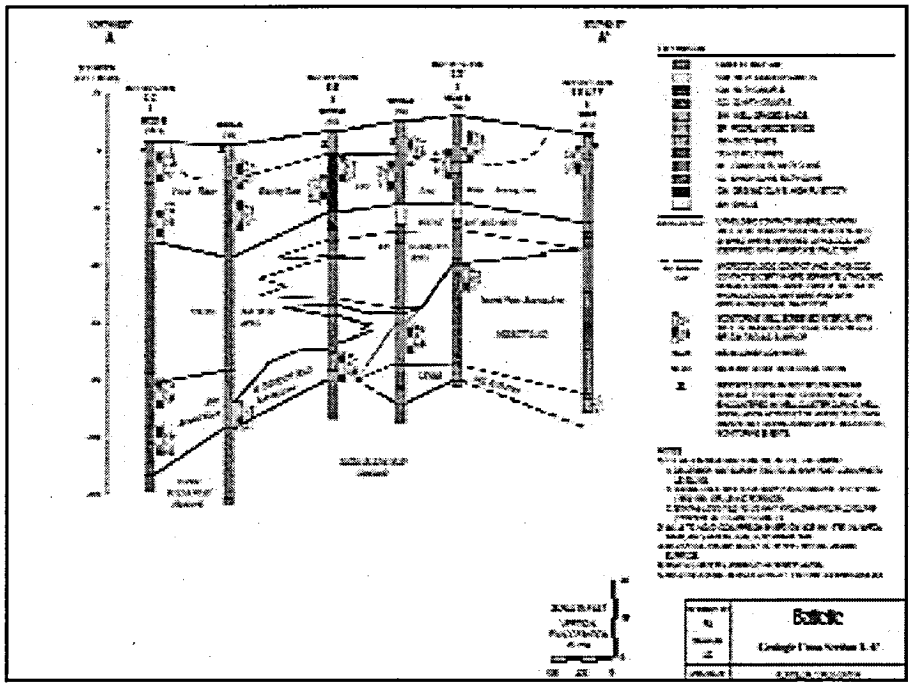
Alameda Point Groundwater

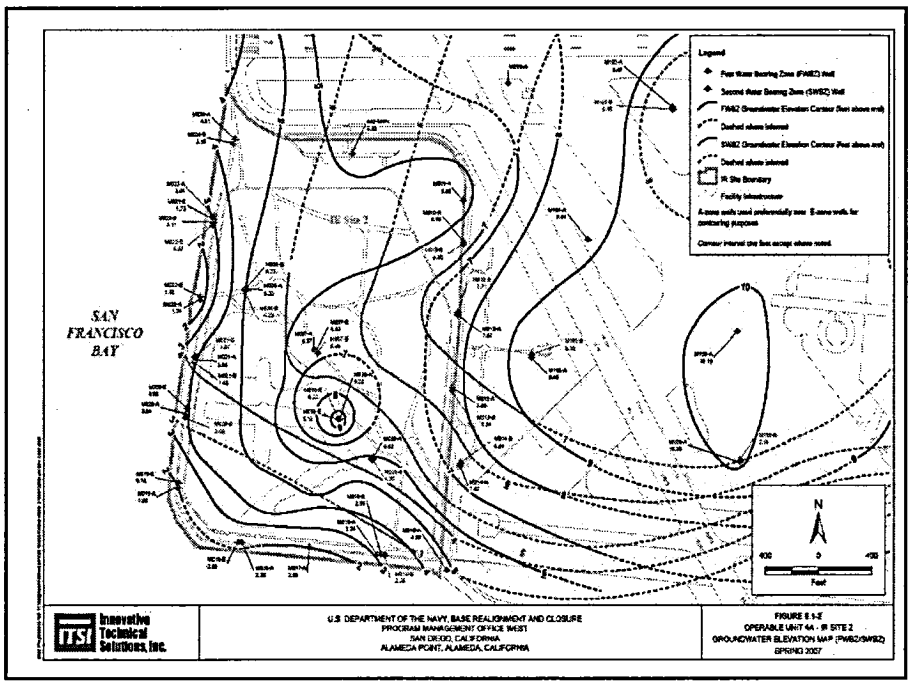
RAB Meeting
Alameda Point
May 1, 2008

Presentation Outline

- General groundwater information
- Groundwater flow direction
  - Horizontal
  - Vertical
- Groundwater gradient
- Contaminant Transport

2




SAN
FRANCISCO
BAY
Legend
N
Innovative Technical Solutions, Inc.
U.S. DEPARTMENT OF THE NAVY, BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
ALAMEDA POINT, ALAMEDA, CALIFORNIA
FIGURE 8.1-2
OPERABLE UNIT 4A - IR SITE 2
GROUNDWATER ELEVATION MAP (FWBZ/SWBZ)
SPRING 2007

OU-2B

- OU-2B Data Gaps Investigation Overview
  - Groundwater conditions
  - Source area
  - Groundwater Sampling

5

OU-2B Data Gaps Investigation

- Contamination extends from Building 163 to Seaplane Lagoon
- VOCs in 1st and 2nd water bearing zones
- Maximum TCE concentration in groundwater: 220,000 µg/L
- Daughter products present: cis 1,2-DCE and vinyl chloride

6

Potential Source Area

- VOC source area for FWBZ appears to be oil/water separator (OWS) 163
- OWS 163 may also be source for SWBZ (to be verified with additional sampling)

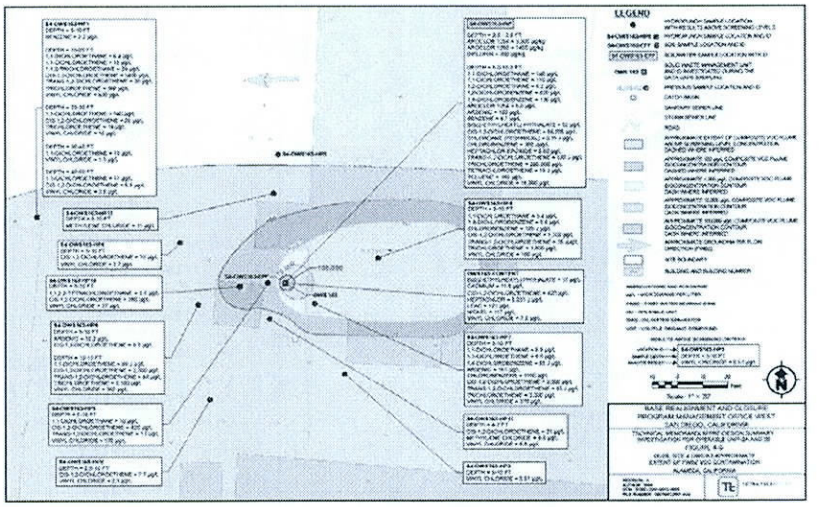
7

Additional Groundwater Sampling

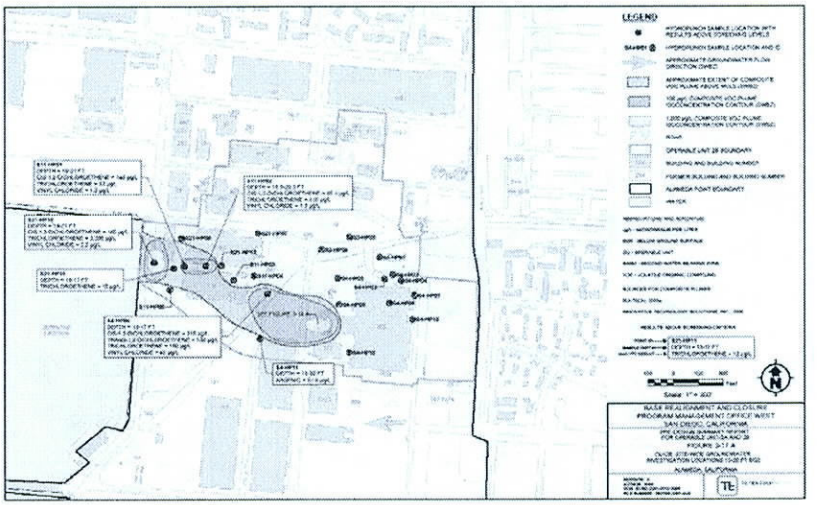
- 67 newly installed nested wells
- Existing wells sampled, as necessary
- Groundwater sampling starts this month

8

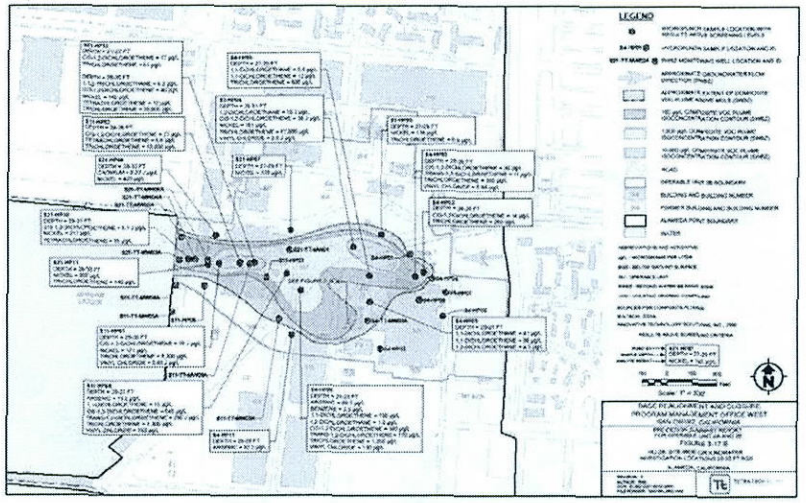
OU-2B Groundwater (5 – 10 feet)



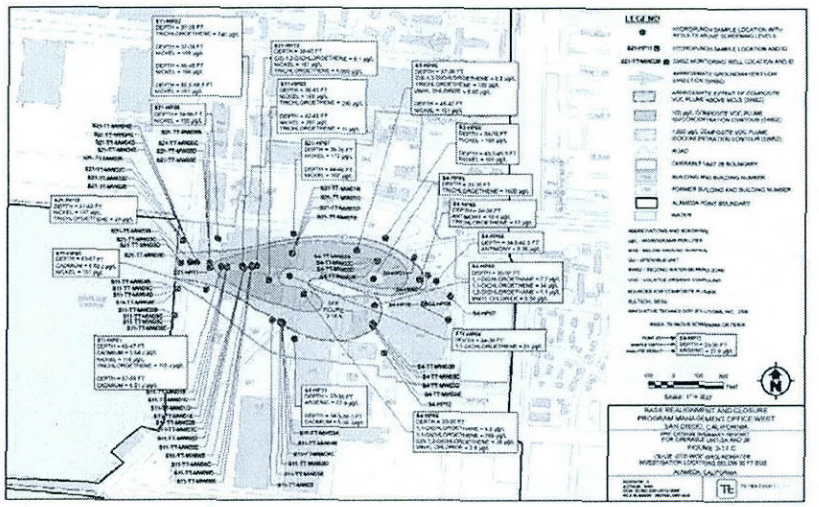
OU-2B Groundwater (15-20 feet)



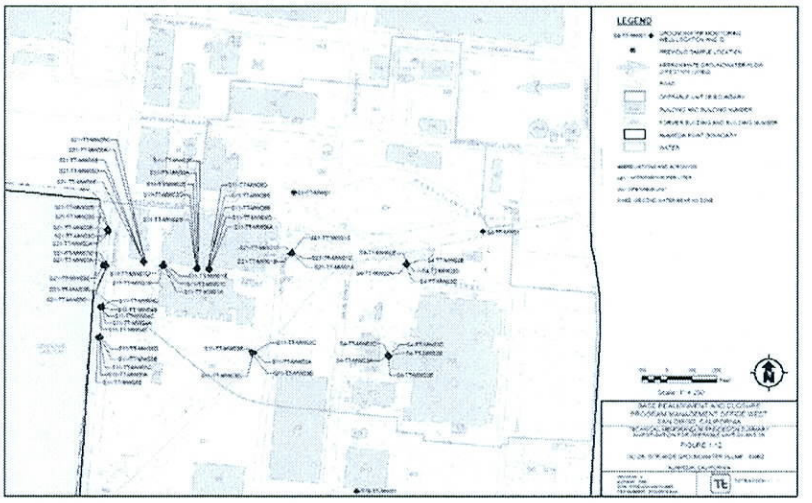
OU-2B Groundwater (20 – 30 feet)



OU-2B Groundwater (below 30 feet)



Additional Groundwater Sampling



Questions

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Contract No. N68711-03-D-5104 Document Control No. SULT.5104.0130.0071

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Leanora Sili, Code 02RE.LS
Naval Facilities Engineering Command
Southwest Division
1220 Pacific Highway, Bldg 127
San Diego, CA 92132-5190

DATE: 06/18/08
CTO: 0130
LOCATION: Alameda Point, Alameda, California

FROM:

Steven Bradley, Contract Manager

DOCUMENT TITLE AND DATE:

Final Restoration Advisory Board Monthly Meeting Minutes

May 1, 2008

TYPE: ☐ Contractual Deliverable ☐ Technical Deliverable (DS) ☒ Other (TC)

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ADMIN RECORD: Yes ☒ No ☐ CATEGORY: Confidential ☐

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June 23, 2008

Patrick Brooks
BRAC Environmental Coordinator
BRAC Program Management Office-West
1455 Frazee Road, Suite 900
San Diego, California 92108

Subject: **Final RAB Monthly Meeting Summary Reports**
Alameda Point, Alameda, California
Contract Number N68711-03-D-5104, Delivery Order 130

Mr. Brooks,

Please find enclosed the Restoration Advisory Board (RAB) final meeting summary reports for April and May 2008. Your copy of each report has been submitted on compact disc.

If you have any questions, please call me at (916) 853-4557.

Sincerely,

Lona Pearson

Lona Pearson
Project Administrator

cc: Diane Silva (3 hard copies and 1 CD of each)
Joyce Howell-Payne
Nars Ancog
SD File (1 CD)
File

April – SULT.5104.0130.0068
May – SULT.5104.0130.0071