

FINAL
NAVAL AIR STATION ALAMEDA RESTORATION ADVISORY BOARD
MEETING SUMMARY

<http://www.efdsww.navy.mil/environmental/AlamedaPoint.htm>

Building 1, Suite 140, Community Conference Room

Alameda Point

Alameda, California

September 9, 2003

ATTENDEES

See attached list.

MEETING SUMMARY

I. Approval of Minutes

George Humphreys, Community co-chair, called the meeting to order at 6:40 p.m.

Mr. Humphreys asked for comments on the August 5, 2003, Restoration Advisory Board (RAB) meeting minutes. The minutes were approved, with the following corrections:

Mr. Humphreys, made the following comments:

- On page 4 of 7, last paragraph, first sentence "...meeting notices to exclude East Housing from the RCRA..." should be revised to "...meeting notices to exclude East Housing (EDC-4) from the RCRA..."
- On page 4 of 7, last paragraph, fourth sentence "Mr. Humphreys then asked if there is a groundwater use restriction because of a groundwater plume at East Housing." Should be revised to "Mr. Humphreys then asked whether the naphthalene benzene plume under the Coast Guard Housing Area Site 25 might be encroaching under the East Housing Area."
- On page 5 of 7, first paragraph, first line, "...that he received a letter identifying where..." should be revised to "...that he received a public notice of permit modification identifying where..."
- On page 6 of 7, second paragraph, fourth sentence, "...prevent liquefaction and the cement wall will provide proportional strength." should be revised to "...prevent liquefaction and the soil-cement wall will provide additional strength."

II. Co-chair Announcements

Mr. Humphreys made the following announcements.

RAB members Bert Morgan, Neil Coe, and Ardella Daily are excused from the meeting this evening due to prior commitments.

Kathleen Straight was introduced as potential new RAB member and newly returned resident; she was a resident of Alameda 35 years ago.

The following documents are available for review in the Repository:

- Draft Work Plan – Site 4 In-Situ Chemical Oxidation Pilot Testing Plume 4-1
- Draft Work Plan – Full Scale In-Situ Chemical Oxidation Installation Restoration (IR) Sites 9 and 16
- Draft Work Plan Addendum In-Situ Chemical Oxidation Pilot Testing – IR Site 9
- Draft Dense Nonaqueous-phase Liquid (DNAPL) Removal Action Project Plan Addendum IR Site 5
- Draft Soil Feasibility Study (FS) Report – Operable Unit (OU) 5

Mike McClelland, Navy Co-chair, made the following announcements.

- The October 7, 2003, RAB meeting will be held in the Mural Room of Building 677 at the Alameda Point Collaborative (APC). The RAB meeting is being held in Building 1 this month, because there were some acoustic problems that interfered with the recording of the meeting last month. Tetra Tech EM Inc. (Tetra Tech) has been working with Jeffery Thomas of the APC to resolve the acoustical problems; rearranging the tables should result in a better recording.
- The polycyclic aromatic hydrocarbons (PAH) poster board session previously planned for September 10, 2003, has been postponed until October 15, 2003, as indicated in a notice that was included in the September RAB meeting announcement. The poster board session probably will be scheduled for the early afternoon in the Mural Room; however, a specific time has not been set. More information will be available at the next RAB meeting.

Mr. McClelland stated that comment due dates for the documents announced by Mr. Humphreys are as follows:

- Draft Soil FS Report – OU 5, comments are due by October 14, 2003.
- Draft DNAPL Removal Action Project Plan Addendum IR Site 5, comments are due by September 15, 2003.
- Draft Work Plan – Full Scale In-Situ Chemical Oxidation IR Sites 9 and 16, comments are due by October 8, 2003.
- Draft Work Plan Addendum In-Situ Chemical Oxidation Pilot Testing – IR Site 9, comments were due on September 8, 2003.

III. Community Relations Focus Group Status

Lea Loizos, RAB member and ARC Ecology representative (ARC), stated that a community relations focus group (focus group) has not been formed yet. She stated that the idea for the focus group was brought up during the July Base Realignment and Closure (BRAC) Cleanup Team

(BCT) meeting. However, she was unable to attend the August RAB meeting, so the focus group was not assembled. Because the Navy put together the community relations plan (CRP) with comments and suggestions provided by the RAB, and because the BRAC Cleanup Plan (BCP) is usually given to new RAB members as an introduction to the base, the BCT wanted the RAB to comment on the revised BCP. Ms. Loizos stated that her goal is to ensure community input into the BCP before the Navy finalizes it at the end of September 2003.

Ms. Loizos also discussed forming a focus group for newsletter formulation. In July, the Navy distributed a technical fact sheet with information on each of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) sites at Alameda Point. Ms. Loizos stated that upcoming newsletters would be submitted on a more regular basis and would provide highlights of current cleanup activities or community concerns. Tracy Craig, Tetra Tech, asked if anyone is interested in working on the focus group for the newsletter or fact sheet. Ms. Craig stated that focus group members would not be required to write anything, but they would need to provide ideas or comments on the content of the newsletters. Focus group members also would be expected to encourage other community members to provide comments or suggestions on the newsletter content. After several RAB members indicated interest in joining the focus group, Ms. Loizos stated that the newsletter focus group will be formed, and the people interested should contact her after the RAB meeting.

Dale Smith, RAB, asked if she could get a copy of the July newsletter. Mr. Humphreys stated that there are some on the table in front of the meeting room, and Mr. McClelland stated that he could also provide her with a copy.

Mr. Humphreys asked if the CRP focus group would be reviewing the BCP rather than the CRP. Ms. Loizos stated that there probably is not enough time to review either document, since the Navy is planning to finalize each document by the end of the month. Unless someone has already reviewed the documents and can provide comments within the week, the documents are going final. Ms. Loizos asked Mr. Humphreys if he or Mr. Morgan had reviewed the documents, and if they have any written comments. Mr. Humphreys stated that he and Mr. Morgan have copies of the BCP, and that six copies of the BCP were distributed during the August RAB meeting. Ms. Smith asked if the document is available electronically. Mr. McClelland responded that he does not have the document in electronic format. Beth Kelly stated that the BCP could be converted into portable document format (pdf). Mr. Humphreys stated that he would be willing to review the document and discuss comments, if there were a desire to schedule a meeting. Ms. Smith asked Mr. McClelland how much time is left to review the document. Mr. McClelland replied that the Navy has been working on the BCP for over a year, and that he had asked Tetra Tech to finalize the document this month, since he had not received any comments. He stated that the BCP is a tool the RAB members can use and that the current version is out of date.

Mr. McClelland then proposed to issue the document so that RAB members can review it and provide their comments, which will be incorporated into next year's revision. Ms. Loizos stated that she understands Mr. McClelland's point, but that she wants to make sure the document is functional for the RAB members. Ms. Loizos requested a delay in publishing the BCP by another couple of weeks, so the content can be reviewed and the BCP can be issued as an actual effective tool. Mr. McClelland agreed to delay the BCP publication if there is a real interest in reviewing the BCP document. Ms. Smith stated that she would be happy to review the document and discuss it if she received it in pdf format. Mr. Humphreys stated that he, Mr. Morgan, Mr. Coe, and Luann Tetrick (RAB), all have copies of the BCP. Ms. Loizos stated that she would pass around a sign up sheet for the people interested in being part of the BCP focus group and that the focus group would meet sometime before the end of September 2003. Mr. McClelland agreed to

hold off on publishing the BCP until next month, October 2003, and requested the comments be in by September 30, 2003. Mr. McClelland asked Ms. Kelly if the document is currently available in pdf format. Ms. Kelly stated that it would have to be converted. Mr. McClelland asked Ms. Smith if she could review a hard copy. Ms. Smith stated that she could if one is available. Ms. Kelly stated that six extra copies were brought to the August RAB meeting. Mr. McClelland stated that extra copies of the BCP are probably available in the repository.

Ms. Loizos stated that she would also like to form a focus group to work with the Technical Assistance for Public Participation (TAPP) Grant contractor, Kenneth Conner, on the Coast Guard Housing Area soil FS. Mr. Conner's review would be enhanced if the focus group could meet with him at the beginning of his review period to explain the RAB's expectations. Mr. McClelland added that Mr. Conner should have received the FS on September 8, 2003. Ms. Loizos stated that she would like to schedule a TAPP Grant focus group meeting tonight and that anyone interested should meet with her at the end of the RAB meeting.

IV. Golf Course and Bay Trail Conceptual Design

Tom Stewart of Inform Public Relations for the City of Alameda (City) provided an update on the public process that has been ongoing for the last three years in regards to the City's proposed reuse projects. Mr. Stewart stated that two aspects of the former base are relevant to the discussion tonight: the Former landfill, also known as Site 1 or Northwest Territories, and the Seaplane Lagoon (SPL). Mr. Stewart stated that Anna-Marie Cook, U.S. Environmental Protection Agency (EPA), supported a \$100,000 grant from the EPA to provide the RAB and people in the community with an opportunity to look at certain aspects of the base in greater detail.

Mr. Stewart stated that his role at the meeting tonight is to introduce the speakers that would be presenting. Each speaker will provide a summary of their respective topic and then the RAB meeting attendees will be provided an opportunity to ask questions or voice concerns or ideas regarding the topics discussed. Bill Smith, RAB, inquired about the institutional affiliations of the speakers. Mr. Stewart stated that he is here specifically as a facilitator in the public process and with him is Elizabeth Johnson, City of Alameda; who is responsible for the City's reuse planning. Other speakers include, Dr. Ted Splitter of Northgate Environmental, who will be addressing the remediation portion of the presentation, and Mark Thawley of Kyle Philips Golf Course Design, who would be discussing the proposed golf course development.

Kurt Peterson, RAB, inquired about other public meetings on the public involvement in this process, and asked whether this presentation has ever been delivered to other people. Mr. Stewart stated that the last public meeting was a public workshop in September 2001, which was held after the grant from the EPA was awarded. Mr. Stewart stated that the focus of the presentation tonight is to provide new or updated information to supplement the information that was presented in the previous meeting. Mr. Peterson asked if the previous meeting was open to the general public. Mr. Stewart stated that it was. Michael John Torrey, RAB, stated that he had attended the previous meeting. Mr. Stewart stated that this presentation is being held because the grant is reaching term and the EPA requires a second workshop as part of the grant requirements. Mr. Stewart also stated that fact sheets produced over a year ago, are available at the back of the room, and that a new fact sheet incorporating tonight's public process will be produced as a final deliverable of the grant. Mr. Stewart requested that the people interested in receiving the fact sheet should sign up on the mailing list located on the table at the entrance to the meeting room.

Ms. Johnson provided a brief overview of her involvement with Alameda Point. Ms. Johnson stated that she is currently employed by the City Of Alameda's Development Services Department, and that she is a former employee of the Alameda Reuse and Redevelopment Authority (ARRA). The ARRA is an existing board that determines the reuse of the former naval air station. She has been working with the Navy on the Alameda Point project for about five years. Tonight's meeting is the culmination of the EPA Superfund Redevelopment Pilot Program (SRPP) and EPA selected Alameda Point to participate in the SRPP, which is a separate process from the Navy cleanup program.

Ms. Johnson provided some background on the proposed reuse projects. The base closed in 1997, and prior to base closure, the community worked on developing the community reuse plan (reuse plan). The community knew about some of the environmental conditions of the base at the time of closure. For example, it was known that the SPL was contaminated and that there was a landfill at the northwest portion (Northwest Territories) of the base. The reuse plan recognized these conditions and identified appropriate uses for land. The Navy has worked with the City since that time to develop a cleanup program that meets the ultimate reuse. The reuse plan indicated that the SPL could be reused as a marina for pleasure craft, and that the Northwest Territories could be reused as a golf course. There were competing ideas for the Northwest Territories use, but there are additional constraints with the property. In addition to being contaminated by the landfill, it is bordered on the south by a proposed wildlife refuge, which precludes development for residential use and strictly limits the types and sizes of commercial use. The proposed wildlife refuge is the home of the California least tern, an endangered species. Another limitation of redevelopment is the Port of Oakland (Port) and the Oakland estuary (estuary), which are immediately to the north. Since the reuse plan has been developed, the City has been working on the concept of developing a golf course, which has been the subject of numerous studies since 1997. Currently the City is in the process of establishing a conceptual design including grading and drainage. The City has presented the designs at meetings and to the San Francisco Bay Conservation and Development Commission (BCDC) Design and Review Board to get their approval of the quantity and quality of public access that would be provided by the golf course design. The City is promoting the golf course as a way to open up the Northwest Territories redevelopment for public access and recreation.

Ms. Johnson stated that the proposed golf course area is topographically flat and is covered with the remains of the old airfield. Golf course construction materials could include dredged materials from the estuary after Port expansion and dredge material from subsequent Port maintenance. These materials could be placed directly on the site for use in contouring of the golf course. The City has identified the approximate amount of material needed to develop the golf course design and is optimistic that the material could come from the Port. Other sources of dredge materials also have been identified around the bay. Using these sources would benefit the environment by preventing disposal of dredge material in the deep ocean or an upland disposal site. By choosing to use the dredge material from the Port, the timing of the golf course development is linked to the Port's timing on dredging. The Port material can be made available for the golf course site only if it is permitted by next spring to accept dredge spoils. An environmental impact report (EIR) is in progress and permits are being obtained by the Army Corps of Engineers, BCDC, and the Regional Water Quality Control Board (RWQCB); those permits will allow the placement and dewatering of dredge materials onsite.

As the grant process progressed, there were many questions on how to address the landfill. The City did not have the technical expertise to evaluate the landfill issues; therefore, they approached the SRPP for a grant to obtain the technical expertise needed to decide whether or not to proceed

with the project. During this period of time, it was suggested that dredged material from the SPL, which was identified in the reuse plan as being contaminated or partially contaminated, could be used as part of a cover for the landfill. Therefore, the study questions for the grant became: 1) what are the design constraints of building a golf course on top of a landfill, and 2) would it be possible to use dredged material from the SPL in the landfill cover, assuming that dredging would be part of a cleanup remedy for the SPL. If the SPL dredge spoils were used in the landfill cover, trucking and off-site disposal costs could be eliminated from the cleanup of the SPL and the costs of clean fill could be eliminated from the construction of the landfill cap and golf course. The Navy has been working on a FS for the landfill, and the SPL has not advanced to the FS stage; therefore, the remediation alternatives are undecided. The grant allowed the City to create the conceptual designs and to also discuss the designs with the regulators and the Navy.

Mr. Stewart inquired if tonight is the last opportunity for public input on the process. Ms. Johnson stated that both cleanup projects are part of the Navy cleanup process under CERCLA and are subject to public review. In addition, the golf course proposal will be undergoing public review through the EIR review process. The golf course will require a change in property zoning, which involves a City permit and City Council approval. Over the next year there will be a number of meetings held in City Hall regarding the golf course. After the EIR is certified by the City Council, the City must request a BCDC permit to construct the project, which requires a public meeting. In addition, the City will continue negotiating with the master developer, and the community will be involved in the process when the concept plan is discussed, which includes the marina.

Jeffery Thomas (APC), inquired about the projected timeline of the project, and whether the cancelled negotiations for early transfer has caused any delays with the project. Ms. Johnson replied that construction of the dredge material dewatering containment structure can commence after the issuance of the BCDC permit. The City still anticipates receipt of the dredge material from the Port within the next year. Although the City's schedule is ahead of the Navy's schedule, early transfer has not affected the project. A revised FS for OU-1 (Site 14) would be coming out in early 2004. Since the site will not be ready for transfer until after the time construction would begin, which is around 2006, the City and Navy will work together to accept the dredge material and possibly start contouring the soil on the site under a lease arrangement through the Navy's environmental review process. The City is hoping to move along on a slow schedule with the golf course opening in 2009.

Ms. Johnson introduced Mr. Thawley, and stated that he would be discussing the design of the golf course.

Mr. Thawley presented the proposed golf course design and used a poster board map as a visual aid. Mr. Thawley stated that he expects most of the RAB meeting participants have seen a rendition of the plan, and that the process has involved a number of interest groups, including the BCDC, the City, the Navy, the Port, hotel developers, the golf people, private interest groups, and other public interest groups. He stated that this plan has pleased most of the groups. The design includes a hotel that is centrally located and offers maximized views of the golf course, water, and the City of San Francisco. Mr. Thawley stated that the golf course would include a full-length practice facility and a short game practice area. The short game practice area would be a par 3 course, which could be used by junior players, as clinics, and by golf academies. Mr. Thawley then identified the bay trail on the poster board, and stated that Ms. Johnson has indicated that the BCDC design review board has tentatively approved of the bay trail design. The BCDC has jurisdiction of the first 100 feet of all the shoreline; they broke precedent in

approving this design by allowing for some golf holes right on the shoreline. In exchange, the City guaranteed that the trail in that area would be elevated and include turns, which could provide a better experience than being directly on the water. The entire west coast portion of the trail is along the water. There also is an approximate 6-acre public access park connected to the public access beach at the south end, and an approximate 1-acre public access park on the northern end of the project, and there is vehicular access to the park.

Mr. Stewart suggested that Mr. Thawley explain the reasoning for choosing a links-type course. Mr. Thawley stated that the main reason is the presence of the least tern and the wildlife refuge; because of the wildlife refuge, tree planting is not allowed. Part of the links feature is the wide-open vistas and the effects of the wind on the golf ball. The Scottish links land is open, windy, no trees, and all sand. This is very similar to the conditions at Alameda Point, so the style is believed to fit in well at Alameda.

Ms. Smith, RAB, asked if native plants would be used or if golf course turf would be used exclusively. Mr. Thawley stated that a minimum 43 acres would be dedicated to native grasses, which would not be irrigated. Ms. Smith asked what the green areas on the poster board illustrate. The green areas indicate irrigated turf and that the type of turf is undecided at this time. Ms. Smith asked if conventional pesticides and herbicides would be used for maintaining the course. Mr. Thawley replied that chemical usage would be minimal, which is also in tune with the links design. Ms. Smith stated that other golf courses around the San Francisco Bay area are being constructed to incorporate environmental concerns, and asked whether this golf course will be constructed as an environmentally sensitive course. Ms. Johnson replied that the construction of the golf course will have to incorporate a number of terms and conditions to protect the wildlife refuge; those terms and conditions will be incorporated in the biological opinion from the U.S. Fish and Wildlife Service (FWS), which is needed to allow the Navy to transfer the land to City. The FWS will have to approve the drainage and pesticide plan.

Jean Sweeney, RAB, asked how the water in the drainage pond for the golf course would be cleaned. Mr. Thawley replied the plan for the drainage system, which has not been approved, is to channel most of the surface and subsurface drainage to a creek, which will function as a Scottish Bern (Bern). He stated that the idea of the Bern is to recirculate the water, which will eventually enter the drainage pond, which will serve as an irrigation pond. Mr. Stewart added that there would be more discussion of the drainage pond later when Dr. Splitter gives his portion of the presentation.

Ms. Sweeney asked if there is a smaller version of the poster board map available. Mr. Thawley stated that there is an 11- by 17-inch version of the map, and that he would seek permission from the City to make the map available to the public.

Mr. Torrey, RAB, asked if the pesticide use on the golf course is going to be minimal, specifically, what would be used to control mosquitoes. Mr. Thawley stated that the maintenance personnel would decide which pesticides to use on the golf course.

Mr. Peterson noted that the poster board map indicates 300 hotel rooms and asked how many floors will there be in the facility. Mr. Thawley explained that building specifics are not completely determined yet; there are some FWS requirements on the maximum building height because of the wildlife refuge and least tern. Three stories have been discussed, however, this is not a final hotel design. Mr. Peterson asked for the maximum elevation of the golf course; it will be approximately 12 feet. Ms. Sweeney asked if the brown areas of the map are higher than the

green areas on the map. Mr. Thawley responded that the poster board shows contour lines, but does not show elevations in a 3-dimensional format.

Mr. Humphreys inquired about a list of suggested grass types to be planted at the course that Ms. Johnson was going to prepare last month. Ms. Johnson stated that the list is upstairs on her desk. Neither she nor Mr. Thawley could remember the five suggested grasses. Ms. Johnson stated that nothing has been decided on the list of suggested grass types, and that the EIR might provide a better idea of the grasses that will be used. Ms. Smith asked Ms. Johnson to provide the list by the next RAB meeting.

A community member inquired about a 16-foot, pre-stressed concrete bunker on the site that was used for missile storage; she asked if it was just going to be covered with soil. Ms. Johnson stated that there are a number of bunkers out there and that most of them will be removed.

A community member inquired if there was a study conducted to determine the composition of the material that is located in the SPL. Ms. Johnson stated that the Navy is working on the characterization, and it will be discussed in Mr. Russell's portion of the presentation.

A community member commented that, after the golf course is farther along in the design phase, it would be helpful if an interactive digital terrain model were created so a virtual flyover could be done and the different contours, elevations, and features could be viewed from a birds-eye view.

A community member asked how the walkers and joggers would be protected on the trail. Mr. Thawley stated there are a few places where the golf cart path and the trail intersect. The trail would be bridged over the golf cart path so the walkers and joggers may maintain their view and the carts would be unobstructed by people on the trail.

A community member commented that Kyle Philips Golf Course Design also designed Kingsbarns course in Scotland, which is a very famous golf course. He stated that the Alameda Point runways reminded the representatives from Kyle Philips of Kingsbarns, which also was a military preparation site for World War II. In addition, issues similar to those with the SPL probably have been addressed at Kingsbarns. Kingsbarns is known as one of the most environmentally friendly golf courses in the world. The greatest difference between the two areas is that Alameda Point is flat with runways, in contrast to Kingsbarns, which had some elevation changes.

Mr. Peterson commented that this project is similar to a golf course project at Monarch Bay where there have been numerous problems, including water seeping upward; the Monarch Bay course also is located over a landfill. He inquired if the City considered Monarch Bay's problems, because they continue to experience difficulties, even after spending millions of dollars.

A community member asked for the designed width of the bay trail, and the amount of space between the trail and the golf course. Mr. Thawley stated that the trail is 16 feet wide, including a 12- to 14-foot path with gravel on both sides for walkers to pass. There are safety setbacks at all turn points on the golf course. There will be a distance of 200 feet from the bay trail to the golf course, which will decrease closer to the tee; a lot of courses are designed at 150 feet.

James Leach, RAB, stated that the initial plan was not to remove the runways because it was

expensive, but that concrete and concrete rubble has since become a valuable commodity in Contra Costa or Alameda Counties. Mr. Splitter replied that it is his understanding that a recycler will be brought in to remove the runways within the proposed golf course area, and if the runways were underlain by sand, then the sand would also be used in the golf course design.

A community member inquired about the maximum height for a building that can be constructed to allow protection from liquefaction in a seismic event; he noted that the land is mostly fill and is only about 14 feet above sea level. Mr. Stewart stated that this is a good question for Dr. Splitter since it involves compaction.

Ms. Sweeney inquired about the little yellow areas on the golf course illustrations. Mr. Thawley replied that they are sand bunkers also known as hazards or sand traps.

Mr. Stewart stated that the meeting would now move on to Dr. Splitter's presentation. Dr. Splitter explained that he is from Northgate Environmental, and has been a consultant for the City for about 3.5 years. He has been working on Site 1, the landfill site, and on other portions of the base. Everyone might be more familiar with his associate Peter Russell, who is also with Northgate Environmental and working on Site 1. Dr. Splitter has been working with the EPA map project, primarily because of his knowledge of the landfill and his degrees in civil and geotechnical engineering. The following environmental issues were presented: the physical profile of the site, the site conditions, the quality and volume of the dredge material to be removed from the SPL, the conditioning of the dredge material into fill material, the potential uses of the dredge material, the Site 1 cap, and the agency acceptance of plan to reuse the SPL dredge materials as part of the cap for the landfill.

The SPL was dredged in the 1940s, and its depths range between 10 and 20 feet, which are not very different than the original dredged depths. Some sedimentation has occurred on the site at a rate of about one centimeter per year. The northeast and northwest corners of the site have silted in and at low tide are exposed to the air. The sediment thickness in the SPL is typically 0 to 4 feet. The sediment is soft and a somewhat mushy material called San Francisco Bay Mud; there have been a lot of studies done by the Navy on the material. Underneath the Bay Mud is Merritt Sand. Merritt Sand is a native material that is fine clayey sand, very dense, and is an excellent construction material found throughout the East Bay, Oakland, Port, and some other dredging projects. Mr. Torrey asked Dr. Splitter when he last measured the SPL. Dr. Splitter replied that he has not personally measured the SPL but that he is reporting on studies conducted by the Navy. Sediment in some areas of the SPL is carried away with the tidal fluctuation but in other areas is depositing slowly.

Mr. Peterson inquired if research on the SPL has been conducted by anyone other than the Navy and if there are other sources of information besides the Navy. Dr. Splitter stated that the Navy has conducted all the research, which has involved studies from approximately 1993 through 1998. Mr. Peterson asked if anyone has recommended research on the SPL by an independent company. Dr. Splitter stated that there appears to be a consensus among the BCT members and the agencies that a lot of work has been done on the SPL, including studies, borings, and analytical testing. The BCT has agreed that there has been enough work to support the remedial investigation (RI) on the SPL. The Navy prepared the RI with the assistance of Battelle, Entrix, and Neptune, in January of 2003.

A community member stated that in 1967 the EPA decided to cleanup the bay because a plating shop on the base was dumping material into the Bay. She stated that contamination from the

plating shop is probably still in the sediments. She inquired whether further contamination could result from the placement of contaminated dredge material on the golf course. Dr. Splitter stated that the Navy investigations determined that the surface layer of sediments is probably not very contaminated, because the surface layers are the most recently deposited sediment. From the 1940s and extending to 1975, the Navy used this area as an outfall area for the storm-drain systems on the base. There were five storm-drain outfalls that came out into the SPL and were located at the northeast corner, the northwest corner, and the other three were located on the sides of the SPL. The materials that came out of the storm drain outfalls were basically wastewater that was generated on the former base by the Navy shops including the plating shop. Mr. Humphreys asked about chromium. Dr. Splitter stated that chromium has been found, however, the chemicals that have been identified as a concern in the RI are cadmium, lead, polychlorinated biphenyls (PCBs), and dichlorodiphenyltrichloroethane (DDT) compounds. These chemicals were identified in the ecological risk assessment as a concern to fish and other organisms in the SPL. The Navy concluded that cadmium, lead, PCBs, and the family of DDT compounds were chemicals of concern to the environment. Dr. Splitter stated that the Navy identified arsenic, chromium, and PCBs as chemicals of concern from a human health perspective. Ms. Sweeney asked if cyanide was mentioned. Dr. Splitter stated that it was not.

Dr. Splitter stated that the northeast and northwest corners of the SPL were identified as the areas most likely to be remediated since they appear to contain the highest concentrations of metals, PCBs, and DDT compounds. Kevin Reilly, RAB, asked if those dredge spoils would be excluded from use on the golf course and transported off site. Dr. Splitter stated that in an ecological environment, where animals are in contact with sediment and water, the risk to the animals from the chemicals is magnified. Dr. Splitter continued that the concentrations that are unacceptable in the aquatic environment are lower than the concentrations that would be unacceptable on land, where people do not have that much contact with sediment. Water organisms are much more sensitive to chemicals particularly PCBs and metals; therefore, the clean up concentrations for protection of ecological receptors in water are typically much lower than those for protection of humans on land.

Mr. Peterson asked why the SPL dredge materials are even being considered for use on the golf course since we have been told for numerous years that this area is contaminated. Mr. Peterson also asked if it is because there will not be enough dredge material from the estuary to contour the golf course. Dr. Splitter replied that trucking the SPL dredge material off site for landfill disposal in Utah, Nevada, or Kettleman Hills, is not very environmentally friendly. Moving materials causes other pollution and other environmental issues, and it makes sense to reuse the materials in a way where they will not impact the environment again in an area of close proximity from where it was originally removed. If the Navy has to do a lot of dredging, and if they cannot place the dredged material at the Site 1 landfill, they will have to condition the material before they can place it in a truck or a barge, and they will have to haul the material off site, which is a very expensive process. Therefore, the best solution for the Navy would be to find an opportunity to use the material on site in a manner that would protect the environment. Ms. Sweeney stated that mustard could be grown on the dredge spoils to absorb lead. Dr. Splitter stated that he has heard that those methods can be effective; however, they require management of the chemicals that are absorbed by the plants. Mr. Humphreys stated that the Navy initially said they would treat the material, and that there are some treatment methods, such as mixing with lime or organo-phylic clays, that would immobilize and reduce the toxicities of some of these materials, thus allowing their use as fill. Dr. Splitter replied that there are a number of methods for treating the materials prior to landfilling, and that some landfills also have operations that perform those treatments, even on materials with high concentrations of chemicals. These treatments are required to

prevent certain chemicals in the materials from leaching into the environment.

Dr. Splitter stated that the dredge material could be placed underneath an impervious cover or cap that will prevent water from ever flowing through it. The dredge material would be placed in a landfill that may have more significant issues than this material. When covered with an impervious cap, humans cannot come in contact with the material again and chemicals would not leach out.

Mr. Stewart asked if the concept of a cap is clear to the community members, because it is going to lead to another discussion that was brought up earlier. Mr. Smith stated that he believes that a cap is supposed to keep the water out; however, the proposed cap will be constructed in the water table with tidal motion moving groundwater up and down. Dr. Splitter replied that at this site the water table is between 4 and 8 feet below the ground surface (bgs), the site is very sandy, and there is no surface water. If the SPL dredge material were placed as the first layer or foundation layer on top of the landfill, then the impervious cap would be placed over the foundation layer. The impervious cap would have a geomembrane consisting of 60 mil thick high-density polyethylene (HDPE) plastic with welded seams. Because the SPL dredge materials are clay, if you put a cap on top of that, surface water should not penetrate it. The existing landfill is covered by about 2 feet of sandy soil; when it rains surface water seeps into the landfill and eventually makes its way to the Bay. Mr. Smith asked about the difference between the rainwater infiltration and tidal infiltration and whether there are advantages to keeping the rain out, besides preventing the water from migrating to the surface. Dr. Splitter responded that if the Navy decides to use the SPL material, then the rainwater or surface water would not penetrate the clay materials and chemicals in the landfill would not leach into the groundwater. Mr. Humphreys inquired if clay was going to be placed on top of the geomembrane. Dr. Splitter replied the geomembrane would have a gravelly layer on top of it that would allow any water that seeps through the ground on top of the membrane to flow over the membrane and be collected. The clay will be under the membrane.

A community member asked the following three questions: 1) what if global warming causes the sea level to rise 8 to 10 feet higher, 2) how fail-safe is this design in the event of an earthquake, and 3) would the community have demanded testing by an independent agency if a private company had caused the pollution at the site.

Dr. Splitter responded to the question regarding global warming. The site elevation is about 10 feet above sea level; therefore, a substantial rise of sea level would be necessary before groundwater would be at the level of the existing ground surface. The cap on the site will be approximately 4 feet thick and will be placed on the dredge material, which would put the cap well above sea level. In addition, RWQCB has stated previously that the sediment in the SPL has been in the water for a long time and most everything that would leach out has done so already. Removing the sediment from the SPL would prevent further leaching. The community member stated that he is mainly concerned about what is already in the landfill and the affect from the rising water table. Dr. Splitter stated that these issues are being addressed in the FS, not by the City's grant. The Navy has received a number of comments on the draft FS, some of which are similar to those being raised in this meeting; therefore, the Navy will be reissuing the draft FS. Dr. Splitter stated that his recollection of historical documents and historical studies of tidal influence indicated that on the western shoreline the tidal influence was not very significant, and did not go back very far into the site.

Mr. Smith indicated that Dr. Splitter's statement regarding the sediment being present for a very

long time and posing little danger of leaching is untrue for metals especially chromium, which was said to be a problem in the SPL. The mobility of chromium depends on its valence state, which is determined by the chemical nature of the surrounding environment. Dr. Splitter stated that he does not disagree with Mr. Smith. Mr. Smith advised Dr. Splitter to be careful with his statements.

Mr. Stewart interjected that there will not be time to do a facilitated question and answer session after the presentations because time is running out. He asked for questions from people who did not ask a question earlier. The community members told Mr. Stewart to let Dr. Splitter finish answering the previous questions. Mr. Stewart apologized for the interruption.

Dr. Splitter continued by responding to the second question regarding earthquakes. When the Navy studied the western shoreline of the landfill they concluded that during a large earthquake the western shoreline could potentially liquefy. Therefore, the Navy has proposed a program to stabilize and protect the shoreline. If liquefaction were to occur in the interior of the site there might be a small amount of settlement in the landfill. A geotechnical engineer conducted a study to estimate how much movement or liquefaction would occur during an earthquake at this site; the amount was determined to be about 2 or 3 inches of settlement.

Dr. Splitter responded to the third question regarding independent agency review. When the Navy plans to do an investigation they follow the same basic protocol as private companies. Field sampling plans (FSP) and quality assurance project plans (QAPP) are prepared and reviewed by the agencies, and drillers are hired. Samples are collected and sent to an independent laboratory that does their own quality control procedures. The Navy does not do all the work actually themselves; they hire independent contractors to do it. The Navy has to follow strict guidelines agreed to by the BCT and regulatory agencies. Mr. McClelland added that Alameda Point is a national priority list site and the Navy has entered into a Federal Facilities Agreement with the EPA, so the EPA has to approve anything the Navy proposes to do. If EPA disputes a Navy proposal, the dispute would go to a dispute resolution committee and the ultimate decision maker is the head of the EPA. The EPA would not allow the Navy to avoid the level of cleanup that would be imposed on a private company.

A community member inquired if Dr. Splitter reported the groundwater at 8 feet below the sediment. Dr. Splitter stated that groundwater is 4 to 8 feet below the current ground surface at Alameda Point including the landfill area. The community member then stated that toxic chemicals could leach through as the groundwater rises and falls. The bottom of the landfill is not being protected from groundwater fluctuations, and she has personally seen groundwater seep up and flood the ground surface. Dr. Splitter stated that he has not seen the flood events, but that most of the time flooding is caused from rainfall. The community member stated that when there is a lot of rainfall the groundwater levels change and cause the flooding.

Mr. Torrey asked if the site was checked since the earthquake last week. Dr. Splitter stated that he did not think so, and the earthquake's magnitude was very small and is not believed to have affected the site.

Dr. Splitter continued with his presentation. The impacted materials in the SPL are somewhere between 4 inches and 3 feet bgs in the bay mud or sediment. The sediment below 5 feet bgs and at the surface is clean. Currently the plan is to dredge the SPL for the marina in two phases. In Phase I, approximately 42,000 cubic yards of sediment would be dredged, mostly around the periphery of the SPL, including the previously described corners that contain elevated

concentrations of chemicals. Phase II would enlarge the marina, removing about 59,000 cubic yards of sediment, which is primarily bay mud or soft silty clays. When this sediment is in the water it is light and very fluffy with a density of about 30 pounds per cubic foot. When the sediment is dried and used as fill, it has a density of about 100 pounds per cubic foot, so the sediment will shrink on land by about two-thirds of its original volume. Approximately 2 feet of sediment is expected to be placed on the landfill, but the actual thickness depends on how much sediment will be removed from the SPL.

Mr. Peterson inquired if the source of the sediment for the landfill will be the SPL only or the SPL and the estuary combined. Dr. Splitter replied that a 2-foot layer of sediment could come from just the SPL.

RWQCB requires a 2-foot foundation layer for most landfill caps; the purpose of the foundation layer is to allow for construction of a high quality cap on top of a firm layer. If the sediment is found to be ineffective as the landfill foundation, then it could be used for contouring the golf course if it is clean enough.

Dr. Splitter discussed the landfill cap design. The Navy is currently proposing a 4-foot cap for the landfill. The landfill is approximately 15 acres of land and was identified through historical aerial photograph review. As part of the Navy's remedial design, the actual landfill boundaries will be redefined.

Regarding agency acceptance of the concept of reuse of the SPL sediment, the RWQCB originally brought up the concept to reuse the sediment dredged from the SPL. During meetings with both the RWQCB and EPA, tentative approval has been received for the remediation of the SPL and reuse of the sediment as a foundation layer for the landfill.

Mr. Stewart inquired if there were any final questions on the presentation since they were out of time.

A community member inquired about type of monitoring that would be in place during the dewatering process to protect human health from any dust produced. Dr. Splitter replied that the sediment would be conditioned in stages. The sediment is very soupy when it comes out of the water and will most likely be placed on a bermed asphalt or concrete surface so the water in the sediment does not seep into the ground or run off. Next, the sediment will be mixed to speed up drying, and placed on the site as fill before it dries to the point of dust formation. The sediment needs to retain fairly high moisture such that it forms a firm, uncracked foundation upon placement and compaction.

A community member stated that in 1995 the Port dredged the estuary and had some problems because the dredge materials were so toxic that they could not place the material in the Pacific Ocean, so they placed the material on Galbraith golf course. It was about 7 years before the golf course could be reopened. He inquired if Dr. Splitter was familiar with what was done there. Dr. Splitter responded that he is aware of the Galbraith troubles, and that he works on City projects with one of the consultants involved with Galbraith. Dr. Splitter stated that he personally did not work on Galbraith but he believes that they will have learned all they can from Galbraith before this project starts.

Ms. Smith asked how water on the uncapped portion of the golf course could be prevented from migrating under the cap and through the landfill. Dr. Splitter stated that the Navy is currently

evaluating that issue. The groundwater on the site generally runs towards the Bay in all directions, so the groundwater currently is moving through the landfill and into the Bay both to the west and to the north. The Navy has evaluated the groundwater through a series of monitoring wells along the shoreline and the data has shown that there are no chemicals in groundwater moving through the landfill, as it currently exists.

Ms. Johnson proposed that since the golf course presentation was placed in the middle of the RAB agenda that the RAB agenda be allowed to continue and finish up, she stated that the presenters would be available for further comments, questions, or discussion after the RAB agenda finishes.

V. BRAC Cleanup Team Activities

Marcia Liao, Department of Toxic Substance Control (DTSC), provided a brief update on the BCT meeting that was held on August 19, 2003. Ms. Liao stated that there were discussions of the overviews for some of the sites that were included in the recently received basewide groundwater-monitoring reports. The groundwater data were compiled quarterly and reported from the summer to the winter of 2002.

Ms. Smith inquired why groundwater-monitoring reporting has only been submitted twice in one year. Mr. McClelland responded that the report only contains two quarters of data; basewide monitoring was conducted on a quarterly basis. Eventually there will be several years of quarterly groundwater monitoring data. Ms. Smith asked if quarterly groundwater monitoring was conducted prior to 2002. Mr. McClelland replied that such monitoring was not conducted basewide prior to 2002.

Ms. Liao stated that the BCT also discussed the progress of the polycyclic aromatic hydrocarbons (PAH) removals at West Housing Area. The PAH removals are scheduled to be completed at the end of this month. The BCT discussed the PAH poster board session on human health risks and child exposures. The PAH poster board session has been rescheduled for October 15, 2003. Also discussed were Site 13 and the tarry refinery waste that has been found there. Ms. Liao stated that a refinery used to be located at Site 13, and the Navy wants to determine the extent of the tarry refinery waste material. Originally, the Navy planned to use a non-intrusive method called terrain conductivity mapping to determine the extent of the tarry waste material; however, the method did not work on the tarry refinery waste. The Navy has decided to use old boring data, trenching, and sampling to determine the extent of and characterize the tarry refinery waste.

Mr. Peterson asked if the tarry refinery waste is seeping to the surface. Ms. Huang responded that periodically you can see the material seep up from cracks or seams in the soil. If the groundwater table is high, you could walk along Site 13 and see the tar balls.

Ms. Liao stated that the OU-3, Site 1 landfill was also discussed. The Navy has decided to completely scrap the FS and to reissue the report.

The BCT also met in August to discuss agency comments on the site inspection report findings to determine which parcels should go into the CERCLA program for further investigation and clean up. Also a RCRA meeting is scheduled for tomorrow with the BCT and the Navy.

Ms. Loizos inquired why a different methodology was used to determine the area of contamination at Site 13, and why the existing data was considered sufficient to use, even after

the new methodology did not work. Mr. McClelland stated that the Navy is not just using the existing data, there will be trenching also.

VI. Community and RAB Comment Period

Patrick Lynch commented that the EPA is under a lot of scrutiny now for misrepresenting health risks in downtown New York after the 9/11 attacks.

Mr. Lynch stated that a building that used to contain nuclear missiles is located in the Northwest Territories; it is adjacent to a runway, and can probably withstand the impact of a very large military airplane.

Mr. Lynch stated that there are two water tanks located within the boundaries of the proposed golf course, and that the final commanding officer of the base stated in a letter to Mr. Lynch that he disposed of soil from underground storage tank removals in those two empty water tanks to keep people from falling into the tanks. The water tanks are 20 feet high and are to be contoured into the surface of the golf course. According to Mr. Lynch, people are misrepresenting health risks in New York and we certainly have a similar situation here with the Navy. The Navy is making conclusions about the safety of Coast Guard Housing without adequate data, and not making recommendations on how people should protect their health. Mr. Lynch stated that the issue here is public health and the environment, and there are no other issues. He is sorry the Coast Guard Housing is contaminated but that does not mean that people should be moved in anyway. Some precautions are necessary to avoid human health risks in Coast Guard Housing or in the West Housing Area. At Site 13, there is a layer of tar that is consistent with the marsh crust, and it appears to migrate toward the ground surface. People with radio control cars are playing with their children in the dirt, with no signs or fences to reduce their exposures. He stated that the priority 30 years ago was to address contamination at areas without asphalt or concrete. Site 13 does not have asphalt or concrete, and the remediation conducted there to remove acidic lead waste in the drains was never completed. He asked why we are waiting to conduct further actions at this site, why all previous actions at this site were flawed, and why cleanup of this site is requiring so much time.

Mr. Smith concurred with Mr. Lynch's comments on EPA's politics. Mr. Smith stated that a landfill cover is a presumptive remedy that is assumed to be good whenever it is proposed to the EPA, regardless of the site. In this case, where the landfill is above the ground surface, placing sediments from the SPL may be acceptable. However, the landfill contents beneath the ground surface are still a concern, and it does not do much good to keep the rainfall out since groundwater will still be in contact with the material in the landfill. The contents of the landfill will be subjected to leaching processes. Mr. Smith stated that the safety of the present landfill contents should be addressed. Mr. Smith also commented on the use of sediments from the SPL. He inquired if the sediments that are going to be left in place at the SPL are safe. Dr. Splitter responded that is something the Navy has addressed in the RI, which is a very detailed document discussing the ecological and human health risks associated with the sediments of the SPL. There are also over 125 pages of comments and responses from the Navy on the RI. He does not believe the document has been finalized yet, so those issues have not been resolved and are currently under discussion. Some of the Navy responses to comments indicated the intent to dredge the northwest and northeast corners of the SPL so that people would not come in contact with the sediments. Mr. Smith stated that his understanding after reading the draft RI is that the SPL sediments are unsafe. Mr. Ripperda stated that the EPA disagrees strongly with the Navy on the extent of the contamination. Mr. Ripperda stated that the Navy is planning to cleanup the two

corners and EPA, RWQCB, and DTSC, all want to see a more extensive cleanup. The Navy believes that the SPL is safe, but there are difficulties involved in trying to model contaminants in sediments through sea worms and bi-valves up to birds and seals; also, the EPA disagrees with the Navy's methodology.

Ms. Sweeney inquired about how the cap is actually constructed. Dr. Splitter stated that the cap the Navy had proposed in the FS was a 2-foot monolithic cap, since then the Navy has proposed a 4-foot monolithic cap. Neither of the two monolithic caps meets the requirements that we are discussing with the regulatory agencies for an impervious cap, which would be needed to use the SPL material. The impervious cap would include a 60-mil HDPE geomembrane with double welded seams that would be tested with smoke or other methods to verify that there are no leakages.

Mr. Peterson inquired about the area to be covered by the cap. Dr. Splitter replied it is about 15 acres.

Mr. Humphreys asked whether the Navy was still proposing an impervious slurry cutoff wall, which was included in a previous presentation made by Dr. Splitter. Dr. Splitter replied that it was proposed in the FS for the landfill and that it was the subject of comments on the FS. He stated that the Navy will consider all of the comments and revise the FS. Mr. Humphreys stated that there would be no further questions about tidal action, if the slurry cutoff wall approach were taken; however questions would remain on how to treat the water contained in the landfill.

Ms. Johnson stated that the Navy cleanup process, which is guided by the regulators, is ongoing. The grant process is coming to a close. Since the beginning of the grant process, the City believed that the final proposed remedy for the landfill would be identified; however, the remedy is still under discussion. Since the grant program is out of money, the City will complete the process and submit a report to the EPA. The product of the grant will be a recommendation to the Navy summarizing some of the material discussed tonight. In addition, a final fact sheet will be emailed to the community.

In response to a question about Navy cleanup funding, Mr. McClelland stated that the Navy has received all of their allotted funding for the year. Additional funding would also be received from the sale of the Tustin property in southern California.

Mr. Peterson stated that there appeared to be a better public turn out than usual at the RAB meeting, and he inquired how many other people in the general public would like to know about the project and have input. Ms. Johnson stated that the first workshop on these reuse projects was conducted on Saturday morning, September 15, 2001. The meeting notice was mailed out to 800 homeowners who live in Alameda west of Webster Street, and the newspaper was notified. Since it was a couple days after 9/11 there was not a very good turn out. For this meeting, about 400 mailings were sent to all west side residents, not just homeowners, and there were also a couple of public notices run in local papers.

The meeting was adjourned at 9:15 p.m.

ATTACHMENT A

**NAVAL AIR STATION ALAMEDA
RESTORATION ADVISORY BOARD MEETING AGENDA
September 9, 2003**

(One Page)

RESTORATION ADVISORY BOARD

NAVAL AIR STATION, ALAMEDA

AGENDA

SEPTEMBER 9, 2003 6:30 PM

ALAMEDA POINT – BUILDING 1 – SUITE 140

COMMUNITY CONFERENCE ROOM

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

<u>TIME</u>	<u>SUBJECT</u>	<u>PRESENTER</u>
6:30 - 6:40	Approval of Minutes	Bert Morgan
6:40 - 6:55	Co-Chair Announcements	Co-Chairs
6:55 - 7:05	Community Relations Focus Group Status Report	Lea Loizos
7:05- 8:15	Golf Course and Bay Trail Conceptual Design	Elizabeth Johnson City of Alameda
8:15 - 8:25	BCT Activities	Marcia Liao
8:25 - 8:35	Community & RAB Comment Period	Community & RAB
	RAB Meeting Adjournment	
8:35- 9:00	Informal Discussions with the BCT	

ATTACHMENT B

**NAVAL AIR STATION ALAMEDA
RESTORATION ADVISORY BOARD MEETING SIGN-IN SHEETS**

(Four Pages)

**ALAMEDA POINT
RESTORATION ADVISORY BOARD
Monthly Attendance Roster for 2003**

Date: September 9, 2003

Please initial by your name

RAB MEMBERS	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Ingrid Baur					X							
Ardella Dailey			*		X	X		*	*			
Neil Coe		X	X	X	X	X	X	X	*			
Nick DeBenedittis												
Douglas deHaan	X		X		X	X		X				
Tony Dover		X		X		X			X			
George Humphreys	X	X	X	X	X	X	X	X	X			
James D. Leach	X	X	X	X	X	X		X	X			
Jo-Lynne Lee												
Lea Loizos	X	X	X	X	X	X	X		X			
Bert Morgan	X	X	X	X	X	X	X	X	*			
Ken O' Donoghue												
Kurt Peterson			X	X	X	X			X			
Kevin Reilly	X	X	X	X	X	X	X	X	X			
Bill Smith		X			X				X			
Dale Smith	X	X	X	**	X	X	X		X			
Lyn Stirewalt												
Jean Sweeney	X	X		X	X	X	X		X			
Jim Sweeney	X	X	X	X	X	X	X		X			
Luann Tetrick	X			X		X		X	X			
Michael John Torrey	X	X	X	X		X	X	X	X			

* Denotes excused absense

COMMUNITY MEMBERS	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Debbie Collins	X		X			X	X		X			
Golden Gate Audubon Society												
Betsy P. Elgar												
Dana Kokubaun												
David Rheinheimer												
REGULATORY AND OTHER AGENCIES	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Susan Boyle (USCG)					X	X						
Cassie Cioci (USCG)									X			
Anna-Marie Cook (EPA)	X											
David Cooper (EPA)		X	X		X							
Jesus Cruz (DTSC)					X	X	X					
Merry Goodenough (USCG)					X	X	X	X	X			
Judy Huang (RWQCB)	X	X	X	X		X	X	X	X			
Elizabeth Johnson (City of Alameda)	X	X	*	*	X	X	X	*	X			
Marcia Liao (DTSC)	X	X	X	X		X	X	X	X			
Laurent Meillier (RWQCB)					X							
Jaines Pruett (USCG)									X			
Mark Ripperda (EPA)		X		X	X		X	X	X			
Patricia Ryan (DTSC)	X	X										
Sophia Serda (EPA)												
Michael Shields (USCG)	X	X	X	X								

* Denotes excused absense

U.S. NAVY	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Glenna Clark												
Andrew Dick	X	X	X									
Steve Edde		X	X	X	X		X					
Greg Lorton												
Mike McClelland	X	X	X	X	X	X	X	X	X			
Lou Ocampo					X							
Tom Pinard	X	X	X	X								
Lee H. Saunders					X							
Rick Weissenborn	X			X			X					
TETRA TECH EMI	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Courtney Colvin	X	X	X	X								
Tracy Craig				X			X	X	X			
Corinne Crawley												
Beth Kelly				**		X	X	X	X			
Jim Helge												
Craig Hunter												
Heather Imgrund			X	X	X	X	X	X				
Lona Pearson							X	X	X			
Leah Waller												

* Denotes excused absense

OTHER	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Janet Argyres-Bechtel					X							
Aidan Barry - APCP												
Bart Draper-Bechtel												
Lee Dodge - LFR												
Bill Howell - 3-D Environmental												
Rezsing Jaulus-Alameda Point Coll.	X											
Jeffrey Thomas-Alameda Point Coll.			**		X	X	X	X	X			
Eric Johansen - Bechtel					X							
Bruce Marvin - IT, Aquifer Solutions												
Stephen Quayle-Bechtel												
Ron Rinehart, Pacific States												
Kent Udell	X											
Charlene Washington-EBCRC									X			
Abid Loan-Foster Wheeler			X									
Jim Barse			X			X		X	X			
Carol Yamane - Bechtel					X							

* Excused absence

** Attended but did not sign roster

* Denotes excused absence

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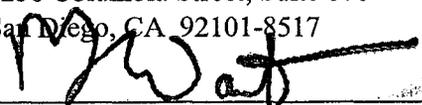
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Contract No. N68711-03-D-5104

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TO: Contracting Officer
Karen Rooney, Code 02RE
Naval Facilities Engineering Command
Southwest Division
1230 Columbia Street, Suite 870
San Diego, CA 92101-8517

DATE: 04/09/04
CTO: 010
LOCATION:
Alameda Point, Alameda, California

FROM: 
Michael Wanta, Contract Manager

DOCUMENT TITLE AND DATE:

RAB Meeting Minutes July - Dec 2003

April 9, 2004

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Diane Silva *(05GIH.DS)

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