

**Former MCAS El Toro
Restoration Advisory Board**

*Irvine City Hall
One Civic Center Plaza, Irvine*

**January 31, 2007
7:45 – 9:00 p.m.
85th RAB Meeting
Conference and Training Center**

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**RAB Subcommittee Meeting
5:00-6:00 p.m., Room L-104**

AGENDA

RAB members that are unable to attend please call either Darren Newton, Marine Corps/Navy RAB Co-Chair at (949) 726-5398 or (619) 532-0963 -or- Bob Woodings, RAB Community Co-Chair at (949) 461-3481.

Question and Answer (Q&A) Ground Rules

- **Q&A follows individual presentations; time designated for presentations includes Q&A time.**
- **“Open Q&A” session (environmental topics) is at the end of the New Business segment.**
- **After adjournment, Marine Corps/Navy representatives are available to answer more questions.**

Welcome/Introductions/Agenda Review/Pledge (7:45-8:00)

Darren Newton
Navy RAB Co-Chair

Old Business (8:00-8:15)

Announcements/Review of Action Items (8:00-8:05)

- Community Co-Chair Election
- Decision on Possible Switch to Quarterly RAB Meetings

Darren Newton
&
Bob Woodings
RAB Community Co-Chair

Approval of 11/29/06 Minutes (8:05-8:10)

Bob Woodings

Subcommittee Meeting Report (8:10-8:15)

Marcia Rudolph
RAB Subcommittee Chair

New Business (8:15-8:50)

Regulatory Agency Comment Update (8:15-8:30)
*Federal and State Regulatory Oversight of Environmental
Restoration and Cleanup at Former MCAS El Toro.*

Federal Rep
Richard Muza
U.S. EPA

State Rep
Quang Than
Cal/EPA
DTSC

State Rep
John Broderick
Cal/EPA
RWQCB

- ◆ **State of the Station – Annual Status Update of Environmental Activities for the Installation Restoration Program (IRP) and Compliance Program at Former MCAS El Toro (8:30-8:50)**

Darren Newton

Meeting Summary & Closing (8:50-9:00)

Meeting Evaluation & Topic Suggestions for Future Meetings

Darren Newton & Bob Woodings

- PUBLIC NOTICE -
FORMER MARINE CORPS AIR STATION EL TORO
INSTALLATION RESTORATION PROGRAM (IRP)

Navy Proposes Capping, Institutional Controls, and
Land use Restrictions for Inactive Landfills at IRP Sites 3 and 5

The U.S. Navy Base Realignment and Closure (BRAC) Program Management Office West (PMOW), , invites the public to comment on a revised Proposed Plan to address inactive landfills at IRP Site 3, Original Landfill, and IRP Site 5, Perimeter Road Landfill. The preferred remedy calls for capping the landfills with a cover that meets the substantive provisions of *California Code of Regulations* Title 27 requirements for landfills, implementing institutional controls in the form of land use restrictions to limit access or activities at the sites to further protect human health and the environment, and conducting long-term environmental monitoring for up to 30 years.

The Proposed Plan summarizes the environmental investigations and human-health risk assessments conducted at these sites. Cleanup alternatives and an evaluation of these alternatives are also presented in the Proposed Plan. The environmental investigations identified low concentrations of volatile organic compounds in landfill gas near the ground surface of the central portions of the landfills, in addition to semivolatile organic compounds, petroleum hydrocarbons, and metals in soil at the sites. Site 3, Original Landfill, operated as a trench-and-fill disposal facility for wastes from 1943 to 1955. Wastes may have included metals, incinerator ash, solvents, paint residues, hydraulic fluids, engine coolants, construction debris, oily wastes, municipal solid waste, and/or various inert solid wastes. Site 5, Perimeter Road Landfill, was operated as a trench-and-fill disposal facility from approximately 1955 until the late 1960s. Wastes were often placed in a trench at the site, burned to reduce volume, and then covered with soil. Wastes may have included burnable trash, municipal solid waste, cleaning fluids, scrap metals, paint residues, unspecified fuels, oils, and/or solvents.

The preferred remedy presented in the Proposed Plan, Alternative 4d, calls for capping the landfills with a soil cap that includes a single-barrier synthetic flexible membrane liner. Five other alternatives were evaluated: no action; institutional controls and monitoring; a single-layer soil cap with institutional controls and monitoring; a pavement cap with institutional controls and monitoring; and a pavement cap with a flexible membrane liner barrier with institutional controls and monitoring. The preferred remedy, Alternative 4d, calls for capping the landfills with a cover that meets substantive provisions of *California Code of Regulations* Title 27 requirements for landfills, implementing institutional controls in the form of land-use restrictions to limit access or activities at the sites to further protect human health and the environment, and conducting long-term environmental monitoring for up to 30 years to ensure the landfills continue to contain waste materials within the landfill boundaries and do not impact groundwater or release landfill gas into the air at concentrations greater than regulatory thresholds. Installation of the landfill caps would reduce infiltration of surface water into the landfills to protect the groundwater beneath the landfills. The landfill closure remedy requires monitoring of groundwater to assess the effectiveness of the remedy.

The soil covers with single-barrier synthetic flexible membranes would include vegetation and be designed to meet the specific characteristics of each landfill site to control erosion and slope instability. Landfill gas systems would be installed at each site to collect and dispose of gas that may be created after the landfills are capped. Identified waste areas at Site 3 would be consolidated into one area followed by installation of the landfill cap to contain these materials. Site 5 wastes are contained in a single area, so waste consolidation would not be necessary. The MCAS El Toro Base Realignment and Closure Cleanup Team, composed of U.S. EPA, Cal/EPA's Department of Toxic Substances Control, and the California Regional Water Quality Control Board, have reviewed and provided input into the development of these cleanup alternatives, and concur with the Navy's preferred remedy.

30-DAY PUBLIC REVIEW AND COMMENT PERIOD

January 22 through February 21, 2007

The public is encouraged to comment on the Proposed Plan for Sites 3 and 5 during the 30-day public comment period. Comments may be submitted orally at the January 31, 2007 public meeting (see below), or by regular mail, e-mail, or fax. **Written comments should be postmarked no later than February 21, 2007 and mailed to:**

**Mr. Darren Newton
BRAC Environmental Coordinator
MCAS El Toro, 7040 Trabuco Road, Irvine, CA 92618**

**Comments may also be faxed to Mr. Newton at (949) 726-6586 or (619) 532-0780
or sent via e-mail to *darren.newton@navy.mil* no later than February 21, 2007.**

The Proposed Plan and associated documents are available for public review and comment at the MCAS El Toro Administrative Record located at the former base and at the MCAS El Toro Information Repository. To obtain a copy of the Proposed Plan or arrange a time to review documents at Former MCAS El Toro, contact Ms. Marge Flesch at (949) 726-5398. The Information Repository is located at Heritage Park Regional Library, 14361 Yale Avenue, Irvine, California, (949) 551-7151 (call for current hours).

PUBLIC MEETINGS

**Wednesday, January 31, 2007
Irvine City Hall
One Civic Center Plaza, Harvard at Alton Parkway
Conference and Training Center**

***Sites 3 and 5 Proposed Plan for Capping Inactive Landfills
6:30 - 7:30 p.m.***

This meeting provides the public with the opportunity to learn more about the Navy's Proposed Plan for addressing the Sites 3 and 5 landfills and to provide oral or written comments on the plan.

**6:30 – 6:45 *Meet Navy and Regulatory Agency Representatives*
6:45 – 7:15 *Formal Presentation*
7:15 – 7:30 *Public Comments and Questions***

***MCAS El Toro Restoration Advisory Board (RAB) - 85th Meeting
7:45 - 9:00 p.m.***

The RAB is composed of concerned citizens and government representatives involved in the environmental cleanup program at MCAS El Toro and have been meeting regularly since 1994. All RAB meetings are open to the public. The State of the Station, an annual briefing of environmental activities and accomplishments, will be the featured presentation at the RAB meeting.

For further information about these meetings, please contact Mr. Darren Newton, BRAC Environmental Coordinator, at (619) 532-0963, or Ms. Jill Votaw BRAC PMO Public Affairs Officer at (619) 532-0941.

FORMER MARINE CORPS AIR STATION EL TORO

RESTORATION ADVISORY BOARD MEETING

November 29, 2006

MEETING MINUTES

The 84th Restoration Advisory Board (RAB) meeting for Marine Corps Air Station (MCAS) El Toro was held Wednesday, November 29, 2006 at Irvine City Hall. The meeting began at 6:35 p.m. These minutes summarize the RAB meeting discussions and presentations.

WELCOME, INTRODUCTIONS, AGENDA REVIEW

Mr. Darren Newton, Base Realignment and Closure (BRAC) Environmental Coordinator (BEC) for Former MCAS El Toro and Navy RAB Co-Chair, welcomed everyone to the meeting and asked for introductions of all meeting attendees. He asked Ms. Marcia Rudolph, RAB Subcommittee Co-Chair to lead the Pledge of Allegiance. Afterwards, he reviewed the RAB meeting agenda. The key presentation is the update on the Remedial Investigation/Feasibility Study at IRP Site 1, Former Explosives Ordnance Training Range.

Announcements

Mr. Newton said if RAB members cannot attend RAB meetings to please contact him or Mr. Bob Woodings, RAB Community Co-Chair. It is important for RAB members to inform either of the co-chairs if they will be absent. The excused absences for the meeting included Mr. Bob Woodings; Mr. Roy Herndon, RAB member representing the Orange County Water District; Mr. John Broderick, Project Manager, Regional Water Quality Control Board (RWQCB); and Mr. Quang Than, Project Manager, California Environmental Protection Agency Department of Toxic Substances Control (DTSC). Also, a clerical correction was brought to the attention of the RAB members: Mr. Quang Than has replaced Ms. Sue Hakim, and would now be listed as the DTSC representative.

Mr. Newton reviewed the handouts available on the information table, including fact sheets, Navy project contacts, regulatory agency contact information, useful website listings including the BRAC site, and location information for the Administrative Record file and Information Repository for Former MCAS El Toro. The next El Toro RAB meeting is scheduled for January 31, 2007.

Mr. Newton introduced Ms. Stephanie Pacheco with the Environmental Coalition for the Orange County Great Park and Great Park Community, and said that she had brought some information regarding the Sierra Club News of Orange County. Mr. Newton read from the RAB mission statement to provide understanding of the purpose of the RAB. *"The mission of the RAB is to promote community awareness and obtain timely constructive community review and comment on proposed environmental restoration actions to accelerate the cleanup and property transfer of MCAS El Toro. The RAB serves as a forum for the presentation of comments and recommendations to United States Marine Corp [Navy BRAC PMO], Remedial Project Managers of the U.S. Environmental Protection Agency and the California Department of Toxic Substances Control."* Mr. Newton added that Ms. Pacheco's handouts would not be placed on the Navy's regular information table due to a conflict with the mission of the El Toro environmental program; interested persons were directed to Ms. Pacheco.

Mr. Newton reviewed the MCAS El Toro RAB meeting schedule, and said that the January 31, 2007, meeting agenda items would include annual nominations and voting for the RAB Community Co-Chair and voting by RAB members on the option to move from bimonthly to quarterly RAB meetings. A majority vote of the RAB members present is needed in order for a vote to be finalized.

Review and Approval of the September 27, 2006 RAB Meeting Minutes

Mr. Newton asked if anyone had any changes or input to the September 27, 2006, RAB meeting minutes. No objections were noted, and the minutes were approved.

In the September 27, 2006, RAB meeting minutes, a question was brought up by Ms. Rudolph regarding the perchlorate plume and the possibility of earthquake faults. Mr. Newton said that the Navy would provide some feedback in response to the inquiry. He noted that the perchlorate plume has been studied and adequately defined by the Navy as it relates to this geological fault. While the fault is not currently active, the Navy is addressing the perchlorate plume and the proposed cleanup level for perchlorate. The Navy is keeping in mind that there is a geologic fault present as it develops a suitable remedy.

RAB Subcommittee Meeting Report

Ms. Rudolph stated the RAB Subcommittee met with Mr. Rich Muza, U.S. EPA Project Manager. The Final Groundwater Monitoring Report Round 23 was discussed. She stated that an odd detection had occurred on one of the wells that had previously shown concentrations of contaminants to be low or non-detect. The Navy retested that particular site in order to investigate what had initially caused the detection, and subsequently determined the occurrence had been an anomaly. As a result, the Navy will be conducting close monitoring of the particular well in question to determine whether the detection had indeed been an anomaly.

Ms. Rudolph said they also discussed the Total Maximum Daily Load (TMDL) and the city of Lake Forest. City residents have invested \$4 million into remediation of storm water runoff and public education on this issue. She stated that Mr. Muza had informed her that the Navy is currently involved in the storm water runoff issues. She requested that the Navy provide more information on this topic.

The RAB Subcommittee suggested that a presentation on Alton Parkway and progression of the Site 2 landfill construction be provided at the next RAB meeting. Ms. Rudolph stated that she is aware that the demolition of the runways at the former station has been approved. She asked whether any environmental testing would be done once the concrete is lifted up and removed. In addition, the issue of parcels as they are transferred was discussed in reference to the building currently being used by Second Harvest. She wanted to know if there were restrictions or information available on each parcel, and if that information is transferred with the deed. Her concern focused on whether the purchaser or lease holder of the land has been informed of past activities associated with parcels. Ms. Rudolph said the focus of her question was in regard to whether the Navy would be responsible for cleanup of asbestos in a building that they had previously owned.

Mr. Newton stated that, traditionally, the Navy has evaluated the RAB Subcommittee's questions before answering them at a later RAB meeting. However, he could answer all of the RAB Subcommittee's questions at this time.

- In regard to the issue raised pertaining to the Final Groundwater Monitoring Report Round 23, there was a low-level detection of 32 micrograms per liter ($\mu\text{g/L}$) of trichloroethylene (TCE) detected at the Site 2 landfill. The Navy re-sampled the monitoring well and test results indicated no detections. Questions arose as to whether the initial reading had been a laboratory

error or sampling error. The Navy has concurred that the reading was an anomalous, and therefore a non-repeatable error.

- With regard to the TMDL storm water runoff, Mr. Newton stated that there is a TMDL program currently in place for the city of Tustin. Ms. Content Arnold, Navy Lead RPM, stated that generally for El Toro, the Navy addresses TMDLs for any site-specific actions and that Best Management Practices (BMPs) are addressed during the Remedial Design (RD) process. As for other events or activities that occur on base that are not related to the Navy, other parties would be responsible for TMDLs. The medium for addressing these questions is through the Record of Decision (ROD), and the document enables the Navy to answer questions regarding certain laws and regulations. Ms. Rudolph inquired about Site 2 and noted her understanding that BMPs were currently in place at the site. Ms. Arnold confirmed that BMPs are in use at Site 2. She explained that the BMPs are in place in case of a storm event and precautions are taken to preclude extensive sedimentation.
- Mr. Newton addressed the RAB Subcommittee's question regarding the redevelopment issue with Alton Parkway. Currently, there is a buffer zone between IRP Site 2 and IRP Site 17 that is required until the landfill is determined to be Operating Properly and Successfully. The Navy has not been approached by Alton Parkway Group regarding redevelopment issues. Mr. Newton stated that the purpose of the RAB is to discuss the environmental program at El Toro, and redevelopment issues are not discussed unless they impact the environmental program. Mr. Newton directed the RAB to the handouts available on the information table including useful listings germane to redevelopment.
- With regard to the RAB Subcommittee's fourth question, the majority of the runways are not within the Navy retained Lease In Furtherance of Conveyance (LIFO) property. For the most part, the majority of the property has been transferred with small areas still having LIFO property surrounding them. Lennar and the Great Park are the main owners of the runways and currently are demolishing them. The property has been transferred as documented in a Finding of Suitability to Transfer (FOST). The developer submitted a Project Environmental Review Form (PERF) for Navy and regulatory agency review for demolition of the runways still within the Navy property. Subsequently, the Navy, DTSC, and the U.S. EPA approved the request. This environmental review form is the last document that requires approval in order to remove the runway from the ground surface. Through the Environmental Baseline Survey (EBS), risk assessments, and investigation results, the Navy concluded that there is no indication of the presence of contamination underneath the runways and no further action is required. Mr. Newton stated that if contamination due to Navy activity is found at a later date, the Navy will follow the Department of Defense Comeback Policy and clean up the property. The policy states that if contaminants are found that the Navy was previously unaware of and this contamination is a result of military activities, the Navy has an obligation to come back to clean up the area.
- Lastly, with regard to asbestos, Mr. Newton noted that the Navy is required to provide notification of the potential presence of asbestos, but removal is not required. He stated that if a property owner wanted to remove or abate asbestos, they would need to follow local and state building codes. In summary, the Navy has conducted all environmental action under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), conducted a FOST, and transferred the property with property notifications. These notifications are in the FOST, which is available for public review in the information repository, and in the property transfer deeds.

Discussion

Mr. Don Zweifel, RAB member, stated that if the reuse changes, the cleanup standards for the property would change as well. For instance, if rezoning occurs, a certain area could potentially be used for building a school or residential neighborhood. He emphasized the point that the RAB needs to discuss the end use of the property, including redevelopment topics. Mr. Newton replied that if the owners

want to change the reuse plan, they will need to get approval from the Navy. The purpose of the RAB is to discuss environmental issues and the restoration of the former facility. The Navy will discuss reuse for residential, industrial, or recreational purposes as it pertains to environmental cleanup; however, the appropriate forum to discuss redevelopment and reuse is at local planning board meetings. Mr. Newton directed the RAB to the handouts available on the information table including useful listings germane to redevelopment.

Ms. Rudolph held her previous point that people in the community are suspicious of the fact that there is not a way to determine what is under the runways. She asked if the Navy would be monitoring the soil to establish if there are any soil stains or visible contamination. Mr. Newton replied that if in the course of redevelopment the developer discovers contamination, the developers have an obligation to discuss their findings with the regulatory agencies and the Navy. However, once the property has been found suitable for transfer without restrictions, there is no requirement to conduct additional testing.

Mr. Peter Hersh, RAB member, commented that the Navy has done a great job with the program. The runways were built in the 1940s and the land could have been used for alternative means prior to the concrete being laid. He stated that he was not content with the Navy's reply that they are not obligated to do anything at this time, and strongly emphasized that the Navy should at least consider looking into the RAB members' concerns. In addition, he said that there should be some analysis shown to prove why the Navy is content with leaving the runways as is. Mr. Newton replied that he would share RAB member comments with the developers, and will discuss this in the future if anything is found through redevelopment. Ms. Arnold emphasized that the runways were considered a Potential Release Locations (PRL) per the Environmental Baseline Survey (EBS) process. This process included review of all historical documentation, interviews, and subsequent trenching through the runways as part of the evaluation. Findings revealed no indication of release activity, and all documents were reviewed by the regulatory agencies. These findings were included in the EBS, and the FOST, and were presented and documented to the public.

Glenn Worthington, Orange County Great Park, stated his opinion that the city of Irvine shares a similar concern as the RAB members, and requested that the Navy invite the city to discuss the steps they have taken to monitor the developers. In particular, Mr. Worthington requested that the Navy contact Tina Christensen, the city of Irvine's Redevelopment Coordinator, to inquire as to what the city's process entails if something is found during redevelopment. Mr. Newton stated that he would take Mr. Worthington's request as an action item and contact Ms. Christensen to schedule a discussion in order to give RAB members a comfort level regarding the topic. However, the Navy's position is that the property has been transferred through a FOST, and the Navy has gone through the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process and determined that the Navy and the regulatory agencies concur that the property requires no further action. Additionally, the PRL program found no environmental indicators that require further action. The Navy therefore transferred the property as unrestricted for reuse. Further, Mr. Newton stated that the Comeback Policy handout is available on the information table.

Ms. Rudolph said portions of the runways that are in a Finding of Suitability to Lease (FOSL) are still owned by the Navy. Mr. Newton said that these portions of land still retained by the Navy are in the CERCLA process for reasons not related to potential environmental concerns associated with the runways. The Navy retained LIFOC property, with regard to the runways, requires no further action. Ms. Rudolph said she feels as if the Navy is "passing the buck," and she requested that the soil be sampled to ensure that no contaminants are present. Mr. Zwiefel made a formal request that the Navy seriously consider multiple sampling in areas that are still under the Department of the Navy. Mr. Newton noted the request. Mr. Hersh added that if the presentation could not be given in the January 2007 meeting, RAB members would understand and expect it to be made at the March 2007 meeting.

NEW BUSINESS

◆ Regulatory Agency Comment Update

Mr. Richard Muza, Project Manager, U.S. Environmental Protection Agency Region IX

Mr. Muza said he has been reviewing the PERF, in addition to approving the work plan for Building 319. There are two monitoring wells in the Building 319 vicinity, and initial concerns about the protection of the remedial action systems in place were dispelled. Mr. Muza noted that the Navy needs to routinely inspect and sample the monitoring wells, particularly areas near IRP Site 16, the former fire training pit and an associated groundwater plume of volatile organic compounds (VOCs). In addition, he mentioned that the Navy should continually oversee the IRP Site 24 shallow groundwater system.

U.S. EPA also reviewed a Sampling and Analysis Plan (SAP) that updates the groundwater monitoring program, primarily for Anomaly Area 3. The SAP adds some of the requirements that the RWQCB requested. U.S. EPA had no comments on the SAP. The document is still under review by the DTSC.

In addition, a Performance Monitoring Sampling and Analysis Plan for the IRP Sites 18 and 24 VOC plume is currently under review by U.S. EPA, DTSC, and RWQCB. Comments are due next week, and so far U.S. EPA had only minimal comments. The U.S. EPA is currently reviewing the Draft Final ROD for IRP Sites 8 and 12. A Proposed Plan was presented in March 2006 to the community, and the Navy and the regulatory agencies are optimizing to finish the Final ROD before 2007.

Mr. Muza said U.S. EPA coordinated with the Navy to resolve some risk assessment issues that arose with Site 1, and formulated a path forward that both parties agreed with. The Feasibility Study (FS) Report is scheduled for submittal in January 2007 for regulatory agency review.

Questions arose concerning the IRP Sites 2 and 17 landfills, and additional data was gathered to formulate a path forward for the Final FS Addendum and groundwater Proposed Plan that addresses groundwater issues. The landfills are currently being covered by an evapotranspiration (ET) soil cap that was selected in the Interim ROD. The caps will be considered the final remedies in the Final ROD.

◆ Environmental Status Update

Mr. Newton provided a brief review of the key project activities. The Draft Final ROD for IRP Sites 8 and 12 is currently undergoing review prior to developing the final document. He commented that the ROD document is a binding decision document between the Navy and the regulatory agencies (federal and state) that selects the remedy so remedial action can proceed.

A Groundwater Sampling Plan has been submitted for Anomaly Area 3, and the Navy is currently awaiting regulatory agency comments. A Proposed Plan for IRP Sites 3 and 5 is scheduled for public release in January 2007 providing the community with an opportunity to comment on the Navy's preferred remedy.

A site inspection for IRP Site 2 was conducted today, November 29, 2006, and work is proceeding. The Navy has been importing soil for the cover which should be complete in early 2007.

Mr. Newton explained that PRLs are grouped into four groups. Groups 1 and 2 have been completed, the regulatory agencies concurred that no further investigation is required for 10 of the 14 PRLs in Group 3, and Group 4 has 30 PRLs left to investigate.

The groundwater treatment remedy at IRP Sites 18 and 24 is up and running. To date, the project has extracted and processed approximately 9 million gallons of groundwater. The Navy will hold a recognition

ceremony to dedicate the project's commencement on January 25, 2007, from 10:30 a.m. to 12 p.m., at the Site 24 treatment site. The public is invited to attend.

Presentations

◆ Update on Remedial Investigation/Feasibility Study at IRP Site 1, Former Explosives Ordnance Training Range, presented by Mr. Art Tamayo, Navy RPM

IRP Site 1 is located on the northeast boundary of former MCAS El Toro. Approximately 74 acres comprise the center portion of the site that was used for explosive ordnance demolition training. Explosives Ordnance and Disposal (EOD) training was performed at the site for more than 45 years. Munitions used in training activities (detonation and disposal) included cartridge actuated devices and ammunition, FS Smoke (sulfur trioxide chlorosulfonic acid) hand grenades, and land mines. The training range is no longer used and is now secured by a fence and locked.

Mr. Tamayo provided a chronology of investigations performed at Site 1.

| | |
|-----------|--|
| 1985 | Initial Assessment Survey |
| 1993 | Phase I Remedial Investigation (RI) |
| 1998 | Verification of Perchlorate (groundwater) |
| 1998 | Munitions and Explosives of Concern (MEC) Range Identification and Assessment |
| 1999 | Perchlorate Verification Investigation (soil) |
| 2000-2006 | Radiological Assessment (included Historical Radiological Assessment, Radiological Survey Work Plan, and Radiological Survey Report) |
| 2001 | Site-Specific EBS and FOST-Like Summary Document |
| 2002-2005 | Phase II RI <ul style="list-style-type: none">-Soil Sampling-MEC Range Evaluation-Groundwater Sampling-Human Health and Ecological Risk Assessments |
| 2005-2006 | Aquifer Tests |

Aquifer Test and Microcosm Study

Mr. Dan Herlihy, of ECS a Navy contractor, discussed the aquifer tests and the Microcosm Study. He explained that aquifer testing basically involves pumping groundwater water and measuring water levels to determine flow directions of the water. The objectives of such tests are to acquire quantitative information on hydrologic characteristics and potential flow boundaries, provide information on the movement of groundwater, and to identify hydrologic considerations for perchlorate source area remedial alternatives.

The investigation consisted of many steps and involved installation of 15, extraction testing, and observation wells. In total, four aquifer tests were conducted from November 2005 to May 2006 at IRP Site 1, lasting from 72 hours to 122 days. He added that groundwater recovered during aquifer testing was treated. To estimate depth of competent bedrock in the central/southern portion of IRP Site 1, a total of 22 direct-push borings were employed. Periodic groundwater level and quality monitoring was conducted, and an assessment of groundwater movement and distribution, and a bench-scale microcosm laboratory experiments were performed as well.

Photos were shown of the well installation, the direct-push borings, and the above-ground treatment system. Mr. Tamayo showed the location of previous EOD training area, and where the movement of perchlorate occurs through the valley at IRP Site 1.

The microcosm study involved conducting a number of experiments. It was explained that perchlorate is an inorganic (C104) molecule and it may serve as a terminal electron acceptor (TEA) for microorganism respiration when other carbon-based molecules are available as a food source. A 14-week bench-scale microcosm study was performed to determine if perchlorate could serve as a TEA for naturally occurring anaerobic bacteria in groundwater beneath IRP Site 1. For the study, four soil and groundwater samples collected from IRP Site 1 wells were combined in one composite groundwater-soil slurry. The first portion of the slurry was set aside for total heterotrophic bacteria population count (HPC), and as a control to simulate monitored natural attenuation of perchlorate under anaerobic conditions without “food” source supplements. The remaining three portions were added with food sources composed of sodium lactate, molasses, and CytoSol to assess the rate and extent of perchlorate degradation in the presence of three different carbon-based food sources.

Summary of Findings – Aquifer Test and Microcosm Study

Aquifer Test

- The bedrock was found to have a very low natural permeability (10^{-5} to 10^{-6} centimeters per second [cm/s]). A narrow paleochannel that is downgradient from Zone 1 at Site 1 causes accumulation and rise of upgradient groundwater during wet seasons.
- Chemical weathering from movement of accumulated groundwater into adjacent bedrock resulted in local secondary permeability (10^{-4} cm/s).

Microcosm Study

- Sufficient anaerobic bacteria are available in the groundwater at IRP Site 1 to degrade the perchlorate. The Microcosm Study findings indicate that *in-situ* (in place) perchlorate degradation in groundwater would be rapid and complete in anaerobic conditions.
- The Final Aquifer Characterization and Bench-Scale Treatability Testing Report were issued on November 21, 2006.
- Microcosm Study results were summarized in the RI Report and will be incorporated into the FS Report.

Mr. Zweifel inquired as to how the naturally occurring bacteria will degrade the perchlorate, thereby lowering the oxygen levels. Mr. Herlihy replied that the Navy can purge nitrogen gas or add organic compounds to create a “swamp-like” effect.

Remedial Investigation

Mr. Hsien Chen, of Earth Tech, a Navy contractor, showed the soil sample locations and discussed the Phase II RI that was conducted at IRP Site 1, including the MEC portion of the investigation, and results of the RI. This first involved incorporating data collected for various investigations beginning in 1999. Sample collection consisted of 231 soil samples, 19 sediment samples, and 192 groundwater samples were collected and analyzed. Five surface water samples were collected when available from the ephemeral pond and surface runoff exits at IRP Site 1. Protocol sampling was conducted to identify Riverside fairy shrimp in the ephemeral pond. A radiological survey was also conducted in 2001.

The MEC portion of the RI at IRP Site 1 was performed in 2002. A geophysical survey was conducted to detect buried MEC and scrap. A thorough follow-up geophysical survey was also conducted in the Northern and Southern EOD Training Ranges. The Navy investigated and disposed of recovered surface and subsurface metallic objects including MEC, munitions debris and scrap.

Remedial Investigation Results

- The Navy recovered four safe-to-move potential MEC items and about 5,000 lbs of munitions debris, which were disposed of as part of the RI investigation activities from the site in 2002 and 2005, respectively.
- Surface water and sediment sample results indicated that the concentrations of chemicals were below levels that would likely cause adverse effects to the ephemeral aquatic and benthic community.
- A protocol survey conducted revealed Riverside fairy shrimp in the ephemeral pond.
- The Radiological Survey yielded protruding ceramic pieces with metallic stubs, screws, wires, and one small metal object containing trace amounts of radionuclides. It was explained that radionuclides are not a chemical of concern at the site because they are below background levels.

Site 1 is considered to be adequately characterized and results for soil and groundwater were discussed.

Soil

- The low frequency of detections for constituents in the central portion of the site is within the risk management range.
- Physical hazards due to potential presence of MEC in the Northern EOD Training Range have been determined and there are less than two energized MEC items per acre anticipated at IRP Site 1.

Groundwater

- Perchlorate concentrations in groundwater present a non-cancer hazard that exceeds the State of California proposed Maximum Contaminant Level (MCL) of 6 µg/L.
- The area of greatest perchlorate concentrations at IRP Site 1 is located primarily in the central portion of the site.
- Lower perchlorate concentrations are found downgradient between IRP Site 1 and IRP Site 2, and downgradient from IRP Site 2.
- The perchlorate detected in IRP Site 2 groundwater appears to originate from IRP Site 1.

IRP Site 1 RI Report Timeline

The Draft RI Report was submitted for regulatory agency review on June 3, 2005. The Draft Final RI Report was submitted to regulatory agencies July 3, 2006. Comments on Draft Final RI Report were received from all the regulatory agencies by September 29, 2006.

Next Steps for Site 1

The Navy will complete preparation of IRP Site 1 RI Report in December 2006. The Environmental Summary Document to support property transfer to the Federal Aviation Administration (FAA) for like use will be prepared and completed. The Navy will continue evaluations to support potential response action alternatives and complete the evaluation with the submittal of the Draft IRP Site 1 FS Report for regulatory review in January 2007.

Discussion

Mr. Newton stated that his action item for the meeting would be to send out a sign-up sheet in January to the RAB members regarding a RAB Subcommittee meeting for the IRP Site 1 Feasibility Study. The Navy tentatively plans to have the meeting sometime in February 2007.

Mr. Hersh asked how the Federal Bureau of Investigation (FBI) can ensure that they will not continue to contaminate the site. Ms. Arnold said the FOST-like summary document anticipates restrictions until the cleanup is completed. "Like use" does not mean they can use the property immediately, rather, the FBI needs to ensure that there will no longer be any contamination. The FBI can not

interfere with the Remedial Action Objectives. Mr. Worthington asked if the property was being transferred for like use, and if so, does that mean that the FBI would be able to reuse the site as an EOD training range without National Environmental Policy Act documentation. Ms. Arnold replied that the FBI would need to comply with state and federal requirements. Ms. Pacheco asked if the property was outside of the wildlife refuge. Mr. Newton confirmed that it is outside of the wildlife refuge within the FAA property.

Further, Mr. Zweifel asked about the presence of jet-assisted take off equipment at IRP Site 1. Ms. Arnold answered that the Navy has conducted geophysical work, soil sampling, trenching, and hydropunching and the site has been fully delineated, therefore, the Navy feels confident moving forward with the identification of remedial alternatives and the ultimate restoration of IRP Site 1.

◆ Open Q & A -- Environmental Topics

Mr. Newton asked if there were any other environmental questions. No questions were raised.

MEETING EVALUATION AND FUTURE TOPICS

Upcoming RAB Meeting and Subcommittee Meeting

The next RAB meeting will be held from 7:45 to 9:00 p.m., Wednesday, January 31, 2007, at Irvine City Hall, One Civic Center Plaza, Irvine in the Conference and Training Center. The meeting will be preceded at 6:30 by the IRP Sites 3 and 5 Public Meeting to present the Proposed Plan. The next RAB Subcommittee meeting will also be held on January 31, 2007, from 5:00 to 6:00, in Room L-104, at Irvine City Hall.

Mr. Newton suggested that future topics include:

- Discussion of Alton Parkway Redevelopment
- State of the Station (January 2007)

Recent RAB Subcommittee Meetings

The most recent RAB Subcommittee meeting was held November 29, 2006, in Room L-104, Irvine City Hall, before the RAB meeting. The RAB Subcommittee Meeting report presented in these meeting minutes provides an update on the latest concerns expressed.

RAB Meeting Adjournment – November 29, 2006 Meeting

The 84th meeting of the MCAS El Toro Restoration Advisory Board was adjourned at 8:55 p.m.

9/27/06 RAB Meeting Attendance:

| <u>TOTAL PEOPLE IN ATTENDANCE</u> | <u>TOTAL PEOPLE ON SIGN-IN SHEET</u> | <u>TOTAL RAB MEMBERS PRESENT</u> | <u>TOTAL RAB AGENCY MEMBERS PRESENT</u> | <u>TOTAL RAB COMMUNITY MEMBERS PRESENT</u> | <u>TOTAL EXCUSED ABSENCES RAB MEMBERS</u> | <u>EXCUSED ABSENCES – AGENCY RAB/ COMMUNITY RAB</u> |
|-----------------------------------|--------------------------------------|----------------------------------|---|--|---|---|
| 23 | 21 | 8 | 4 | 4 | 4 | 1/3 |

RAB and Subcommittee Meeting and Public Meeting Dates (November 2006-July 2007)

RAB Members - The list below indicates which dates are currently reserved for RAB and RAB Subcommittee meetings at Irvine City Hall, Conference and Training Center, Room L-102, and Room L-104, respectively. Please note that dates on this list may also serve as combined RAB/public meetings.

| <u>RAB and Subcommittee Meeting Dates (meeting space confirmed)</u> | <u>RAB Meeting Conference and Training Center (CTC) or Room L-102 6:30 – 9:00 p.m.</u> | <u>Subcommittee Meeting Room L-104 5:00 – 6:00 p.m.</u> |
|---|--|---|
| Wed - Jan. 31, 2007 | CTC | Room L-104 |
| Wed - March 28, 2007 | CTC | Room L-104 |
| Wed - May 30, 2007 | CTC | Room L-104 |
| Wed - July 25, 2007 | CTC | Room L-104 |

Materials/Handouts Available at the 11/29/06 RAB Meeting Include:

- *RAB Meeting Agenda/Public Notice – 11/29/06 RAB Meeting – 84th Meeting.
- *Meeting Minutes from the 9/27/06 RAB Meeting – 83rd Meeting.
- MCAS El Toro Environmental Status- November 29, 2006.
- MCAS El Toro RAB Mission Statement and Operating Procedures.
- MCAS El Toro – Navy Team contact information.
- MCAS El Toro – BRAC Cleanup Team Members and Key Project Representatives and Administrative Record File and Information Repository Locations and Contacts.
- MCAS El Toro RAB – Membership Application.
- MCAS El Toro RAB – Membership Roster
- MCAS El Toro RAB – Mailing List Coupon.
- MCAS El Toro RAB – Meeting Schedule
- MCAS El Toro RAB – Environmental Websites
- Reuse – Redevelopment Information.
- One-Page Glossary of Technical Terms.
- Department of Defense – Responsibility for Additional Environmental Cleanup after Transfer of Real Property, July 1997.
- Department of Defense – A Guide to Establishing Institutional Controls at Closing Military Installations, February 1998.
- Department of the Navy – Policy for Conducting Comprehensive environmental Response, Compensation, and Liability Act (CERCLIS) Statutory Five- Year Reviews, November 2001.
- Department of the Navy – Policy for Optimizing Remedial and Removal Actions under the Environmental Restoration Programs, April 2004.
- Department of Defense – Perchlorate Work Group Packet.
- Department of Defense – Institutional Controls, Spring 1997.
- U.S. EPA Fact Sheet – A Citizen’s Guide to Natural Attenuation, October 1996.
- U.S. EPA Fact Sheet – Perchlorate Update, March 2002.

- U.S. EPA Fact Sheet – Superfund Sites: Five-year Review, June 2001.
- MCAS El Toro RAB Inquiry – Environmental Data Quality, September 2003.
- Commonly Asked Questions Regarding The Use of Natural Attenuation for Chlorinated Solvent Spills at Federal Facilities.
- IRP Sites 18 and 24- Activities Pertaining to Soil and Groundwater Investigations and Cleanup.
- *Presentation* – IRP Site 1 Remedial Investigation Update.

* Mailed to all RAB meeting mailer recipients on 11/22/06.

Agency Comments and Letters - U.S. Environmental Protection Agency (U.S. EPA)

- No Items Submitted

Agency Comments and Letters – California Environmental Protection Agency (Cal-EPA)

- No Items Submitted

Department of Toxic Substances Control (DTSC)

- No Items Submitted

California Regional Water Quality Control Board (RWQCB), Santa Ana Region

- No Items Submitted

Copies of all past RAB meeting minutes and handouts are available at the MCAS El Toro Information Repository, located at the Heritage Park Regional Library in Irvine. The address is 14361 Yale Avenue, Irvine; the telephone number is (949) 936-4040. Library hours are Monday through Thursday, 10 a.m. to 9 p.m.; Friday and Saturday, 10 a.m. to 5 p.m.; Sunday 12 p.m. to 5 p.m.

Internet Sites

Navy and Marine Corps Internet Access

BRAC PMO Web Site (includes RAB meeting minutes):

Navy web site: <http://www.bracpmo.navy.mil/>

For El Toro RAB information: http://www.bracpmo.navy.mil/bracbases/california/eltoro/rab_information.aspx

Department of Defense – Environmental Cleanup Home Page Web Site:

<http://www.dtic.mil/envirodod/>

U.S. EPA:

www.epa.gov (this is the homepage)

www.epa.gov/superfund (site for Superfund)

www.epa.gov/ncea (site for National Center for Environmental Assessment)

www.epa.gov/federalregister (site for Federal Register Environmental Documents)

www.epa.gov/fedrgstr/EPA-IMPACT/2004/April/Day-27/i9203.htm (site for Endangered and Threatened Wildlife and Plants; Proposed Designation of Critical Habitat for the Riverside fairy shrimp)

Cal/EPA:

www.calepa.ca.gov (this is the homepage)

www.dtsc.ca.gov (site for Department of Toxic Substances Control)

www.swrcb.ca.gov/ (site for Santa Ana Regional Water Quality Control Board)



**MULTI-MEDIA ENVIRONMENTAL COMPLIANCE CONTRACT
TRANSMITTAL MEMORANDUM**

Contract No. N-68711-00-D-0004

File Code: 126463/003/2.14

TO: Contracting Officer
Dept. of the Navy
Base Realignment and Closure
Program Management Office West
1455 Frazee Road, Suite 900
San Diego, CA 92108-4310

DATE: 1/29/07
D.O. # 0069
LOCATION: MCAS El Toro

Attention: Gracy Tinker

FROM: Bob Coleman


Project Manager

DESCRIPTION: MCAS El Toro Restoration Advisory Board Meeting Mailer – RAB Meeting Agenda and Public Notice for 1/31/07 RAB Public Meeting and Minutes from the 11/29/06 RAB Meeting

TYPE: Deliverable (Cost) Deliverable (Technical) Other

VERSION: N/A REVISION #: 0
(Scroll down - e.g., Draft, Draft Final, Final)

ADMIN RECORD (PM to Identify): Yes No Category Confidential

DELIVERY DATE: 1/29/07

NUMBER OF COPIES SUBMITTED: 14C/15E

COPIES TO (include Name, Navy Mail Code, and No. of Copies):

SWDIV:

- G. Tinker (O/1E)
- D. Newton, BPMOW.DN (1C/1E)
- C. Arnold, BPMOW.CPA (1C/1E)
- J. Callian, BPMOW.CPA (1C/1E)
- L. Hornecker, BPMOW.LMH (1C/1E)
- R. Callaway, 09C.RC (1C/1E)
- M. Smits, BPMOW.MPS (1C/1E)
- J. Sheetz, BPMOW.JRS (1C/1E)
- K. Asante-Duah, BPMOW.KXA(1C/1E)
- D. Silva, 05G.DS (3C/3E) - 2 for AR w/ mailing list; 1 for IR)
- G. Christensen, BPMOW.GC (1C/1E)
- A. Tamayo, BPMOW. AT (1C/1E)
- R. Pribyl, BPMOW.RP (1C/1E)

Brown and Caldwell/CDM:

- Bob Coleman, BC (1C/1E) w/ mailing list
- Matt Brookshire, CDM (1C/1E) w/ mailing list
- BC Project File, (1C/1E) w/ mailing list

OTHER (Distribution done by BC):

- V. Cooper, U.S. EPA (1C)*
- R. Muza, U.S. EPA (1C)*
- Q. Than, DTSC (1C/1E)*
- T. Chauvel, DTSC (1C) *
- J. Broderick, RWQCB (1C) *
- R. Woodings, RAB Co-Chair (1C) *
- W. Lee, Miramar (1C) *
- J. Votaw, BRAC PAO (1C) *
- M. Flesch, El Toro (1C) *
- RAB Mailing List (353) mailed on 1/25/07

*Previously mailed enclosure 1/25/07

O = "Original" transmittal and letter

C = "Copy" of transmittal and letter

E = "Enclosure" one enclosure