

FORMER MARINE CORPS AIR STATION EL TORO

RESTORATION ADVISORY BOARD MEETING

April 23, 2008

MEETING MINUTES

The 91st Restoration Advisory Board (RAB) meeting for former Marine Corps Air Station (MCAS) El Toro was held Wednesday, April 23, 2008 at Irvine City Hall. The meeting began at 6:40 p.m. These minutes summarize the RAB meeting discussions and presentations.

WELCOME, INTRODUCTIONS, AGENDA REVIEW

Ms. Debra Theroux, Deputy Base Closure Manager for former MCAS El Toro, welcomed everyone to the meeting. Ms. Marcia Rudolph, RAB Subcommittee Chair, led the Pledge of Allegiance. Ms. Theroux introduced herself as the Interim Base Realignment and Closure (BRAC) Environmental Coordinator (BEC) and Interim Navy RAB Co-Chair. Mr. Rick Weissenborn, the previous BEC and Navy RAB Co-Chair, left the Navy for a position with the Bureau of Reclamation. The Navy is seeking a new BEC and hopes to have the position filled prior to the next RAB meeting. Ms. Theroux said she came to the BRAC office in September 2007. She also spent 12 years as an environmental planner with Naval Facilities Engineering Command working on both Navy and Marine Corps projects. Ms. Theroux asked for self-introductions from those in attendance.

The RAB meeting agenda was reviewed by Ms. Theroux. Meeting topics included the approval of the January 30, 2008 RAB meeting minutes, follow-up to Action Items from the last RAB meeting, regulatory agency update, and two presentations. The first presentation was titled, "Installation Restoration Program (IRP) Sites 2 and 17 – Remedial Action Update." The second presentation was titled, "IRP Site 1 – Groundwater Monitoring Update."

Review and Approval of the January 30, 2008 RAB Meeting Minutes

Mr. Bob Woodings, RAB Community Co-Chair, asked if there were any comments on or amendments to the January 30, 2008 RAB meeting minutes. No comments or changes were noted and the minutes were approved without amendment.

Mr. Woodings noted that Mr. Steve Malloy, Irvine Ranch Water District (IRWD), informed him that he will not be attending the RAB meeting; therefore, the record shows he has an excused absence. Mr. John Hills, IRWD, said he is sitting in for Mr. Malloy and from now on will represent IRWD as a RAB member.

Announcements/Review of Action Items

RAB Meeting Dates

Ms. Theroux noted at the January 30, 2008 RAB meeting that the RAB approved the quarterly meeting schedule for meetings in January, April, August, and November. There was an agreement at the last RAB meeting to move the August RAB meeting from August 27th (original date) to August 20th, but there is a conflict with room availability. Also, Mr. Quang Than, RAB member representing the California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC), requested that the RAB meeting be scheduled for August 20th due to a conflict in his schedule. Ms. Theroux said the date of the next RAB meeting will be resolved when Mr. Than returns from his climb of Mt. Everest in early June 2008.

Regarding the November 19, 2008 RAB meeting date, it falls a week after the RAB meeting for former MCAS Tustin. Therefore, the Navy proposed to hold the meeting on December 3, 2008 following

Thanksgiving, as has been done in the past. The meeting location will be determined based on meeting room availability.

Navy Response to RAB Subcommittee Questions

Ms. Theroux said there were three key questions raised by the RAB Subcommittee at the January 30, 2008 RAB meeting.

The first question pertained to the RAB Subcommittee's interest in the Navy's response to DTSC's letter dated January 24, 2008, related to the environmental Finding of Suitability to Transfer (FOST) regarding the pipeline under Agua Chinon Wash. As stated in the Navy's draft FOST, the entire pipeline area is environmentally suitable for transfer at this time. However, the Navy is working with DTSC to address its concerns regarding the 100-foot section of the pipeline that remains under Agua Chinon Wash. DTSC will also complete the Resource Conservation and Recovery Act (RCRA) Corrective Action Complete Determination that states all necessary cleanup work has been completed. DTSC's RCRA Corrective Action Complete Determination will be issued along with the Navy's FOST and both documents will be available for public comment. Discussions between the Navy and DTSC are ongoing and as soon as an agreement is reached and timelines are worked out, the draft final FOST and the Navy's response to regulatory agency comments will be issued. Ms. Theroux noted that Mr. Peddada will discuss this further during the DTSC regulatory agency update.

The second question pertains to the Alton Parkway Extension project, and who is the lead agency. Ms. Theroux said that Orange County is the lead agency and the point of contact is Ms. Tina Taverner, who will be available at the break or after the meeting if the RAB has any questions. Ms. Taverner's phone number is 714-834-4766 and her email address is tina.taverner@rdmd.ocgov.com.

Ms. Theroux noted that the Navy requires agencies that are proposing reuse projects to submit a Project Environmental Review Form (PERF). The PERF describes the project and identifies how that project could potentially impact the Navy's environmental remediation program and proposes any mitigation measures necessary to protect human health and the environment. The PERF undergoes Navy and regulatory agency review in order to make a determination of the effects on the environment. The Navy then works with the sponsoring agency to fully identify impacts and determine how to work these out before the project is initiated.

The third question is related to IRP Site 1; specifically, cleanup goals and the proposed property transfer to the Federal Aviation Administration (FAA) for use by the Federal Bureau of Investigation. The environmental summary document prepared for IRP Site 1 summarizes the environmental condition of the property to support a Federal agency-to-agency transfer for like use. The Draft Feasibility Study (FS) that is underway will consider alternatives to address contamination under various reuse scenarios including like use. The transferee will be responsible for complying with all appropriate federal and state regulations necessary for conducting its proposed ongoing activities. At this point there are no other different uses proposed for IRP Site 1; therefore, the environmental cleanup goals have not changed.

Project Contacts and Where to Get Information

Ms. Theroux showed a series of slides with contact information for the key cleanup team members and information on the Administrative Record (AR) File and the Information Repository. Regulatory agency representatives include: Mr. Rich Muza, United States Environmental Protection Agency (U.S. EPA); Mr. Quang Than, DTSC; and Mr. John Broderick, Regional Water Quality Control Board (Water Board). She noted that Mr. Ram Peddada, DTSC Project Manager for former MCAS Tustin, is sitting in for Mr. Than. If anyone has questions, any of these people can help. If RAB members or meeting attendees have any questions or need information, they may contact her or Ms. Content Arnold, the Lead Remedial Project Manager (RPM). Contact information for Ms. Theroux, Ms. Arnold, the RAB Community Co-Chair, and the RAB Subcommittee Chair was provided. All contact information was presented in various handouts on the information table.

Ms. Theroux said that the AR File is located at former MCAS El Toro in Building 307. Ms. Marge Flesch is available to help with information requests at the AR File. For more information on viewing documents at this location, she may be contacted at 949-726-5398. The Information Repository is located at the Heritage Park Regional Library in Irvine and contains key reports and correspondence.

A variety of website addresses were provided, including the BRAC Program Management Office (PMO) website and other Department of Defense websites. Regulatory agency website addresses for U.S. EPA, DTSC, and the Water Board were also provided. These website addresses were presented in a handout.

MCAS El Toro RAB Subcommittee Report – Ms. Marcia Rudolph, RAB Subcommittee Chair

Ms. Rudolph said the RAB Subcommittee met earlier this evening. She thanked the regulatory agency representatives for participating. Key points raised by the RAB Subcommittee are listed below.

- Ms. Rudolph noted she was copied on a letter from DTSC containing comments on the Temporary Accumulation Area 155B Report. DTSC's letter expressed concern and questioned whether there was an adequate number of sampling locations for this site. She requested that the Navy's response to this letter be presented at the next RAB meeting.
- Ms. Rudolph offered to loan out her copy of the Final Radiological Release Report, dated March 2008, that covered a number of sites. She noted that Building 297 is not listed in the report, and her understanding is that the report on this building is forthcoming. This building housed the radium paint room that was connected to the former sewage treatment plant at the base.
- Ms. Arnold clarified that Building 296 included the former radium paint room. The Navy anticipates issuing the Radiological Release Report for Building 297 in the next couple of months.
- Perchlorate is a key concern for the RAB Subcommittee, and there is interest in reviewing the documents directed at groundwater for IRP Sites 1 and 2.
- The RAB Subcommittee is interested in participating in another tour of former MCAS El Toro. She suggested if there is difficulty with obtaining a meeting room, the Navy could hold the next RAB meeting at the base followed by a site tour. The RAB is particularly interested in visiting IRP Site 1. She added that wherever the RAB holds its next meeting, the RAB Subcommittee also plans on holding its regular meeting an hour before the RAB meeting.

◆ Regulatory Agency Comment Update

Mr. Muza, U.S. EPA, discussed two issues in his update. First, the Record of Decision (ROD) for IRP Sites 3 and 5, two inactive landfills, was signed during the February/March 2008 timeframe by the Federal Facility Agreement (FFA) signatories, composed of the Navy, U.S. EPA, DTSC, and the Water Board. A schedule for remedial design and remedial action has been developed by the Navy and presented to the agencies.

Second, Mr. Muza noted incredible progress has been achieved in the landfill capping remedy at IRP Site 2. Progress is quite visible each time he visits the site every 2 to 3 months. At today's site visit, tremendous growth of the planted vegetation was observed. Mr. Muza noted that he inspected IRP Site 17 in November 2007 just weeks after the Santiago Canyon fire burned through the area. Since then, there has been phenomenal progress made in regard to pre-construction activities and construction of the landfill cap.

Mr. Don Zweifel, RAB member, asked what types of plants besides coastal sage scrub have been planted at IRP Site 2. Mr. Muza said there is a "pallet" of plants that fit with the native vegetation that has been

planted. The revegetation process has been very well thought out. A revegetation plan specific to IRP Site 2 was developed. Today at the site, Mr. Muza observed workers planting replacement plants where some plants died. During the early phase of the establishment period it is not uncommon that a limited number of plants require replacement. A temporary irrigation system was installed to make sure the plants get established. He noted both sites are “night-and-day” as compared to the last RAB site tour nearly two years ago.

Mr. Peddada, DTSC, has stepped in temporarily while Mr. Than is on his second expedition to climb Mt. Everest. DTSC recently reviewed and provided comments on the following documents: Temporary Accumulation Area Site 155B Report; the Draft Sampling Plan for IRP Sites 8 and 12 Remedial Design/Remedial Action; a Draft Site Inspection Work Plan; and a closure report for no further action.

Mr. Peddada pointed out that one of most important documents being worked on is the Finding of Suitability for Transfer (FOST) #3. FOST #3 also involves a RCRA Corrective Action Complete Determination. It also includes a 100-foot section of the former Defense Fuels Pipeline that is underneath Agua Chinon Wash. Sampling was not completed in this area of the wash. Therefore, DTSC will not complete the RCRA Corrective Action Complete Determination for this portion of the pipeline. The remainder of the pipeline has been removed and all confirmation sampling has been completed. Results show that no release of petroleum hydrocarbons from the pipeline occurred during its operational years or during the removal procedures.

Mr. Zweifel asked why this area of the pipeline has not been sampled. Mr. Peddada stated that to sample within Agua Chinon Wash requires special permission from the U.S. Army Corps of Engineers because the wash is designated as waters of the United States.

DTSC is working with the Navy to compile the FOST #3 and RCRA documents as well as the public notice that complies with the California Environmental Quality Act requirements. It is estimated this process will take 1 to 2 months to complete.

A representative from the Water Board was not present at the RAB meeting.

◆ Presentation – IRP Sites 2 and 17 Remedial Action Update, presented by Mr. Richard Pribyl, Navy Remedial Project Manager

Mr. Pribyl’s presentation addressed the remedial action progress achieved at both sites. He used a variety of before-and-after photos and maps to show the work that has been conducted. The presentation also covered the Operation and Maintenance (O&M) Plan Overview for the sites, and the next steps in the process. The presentation focused on IRP 17 since work on the remedial action at IRP Site 2, the larger of the two landfills, is substantially complete. Both landfills are located on an approximate 900-acre parcel of land that was transferred to the FAA in 2001.

To provide perspective, a chronology of remedial action at the sites was presented. Key steps included: the Interim ROD issued in July 2000; Remedial Design (90-percent) issued in June 2002; Test Fill Construction and Borrow Source Evaluation conducted from January to September in 2005; the Final Remedial Design issued in November 2005; and remedial action construction that has been underway since completion of the final design.

IRP Site 17 is considerably smaller than IRP Site 2. The waste area is surrounded by higher elevation features similar to a canyon. These physical characteristics have presented challenges with respect to grading the site, establishing foundation layers for the landfill cap, and protecting against erosion. A series of photos were shown of IRP Site 17 prior to construction. Photos of areas of vegetation were shown prior to clearing and grubbing (tree and stump removal). Some of these same areas were then used to stockpile the imported cover material. The cover material for the evapotranspiration cover, referred to as an ET cover, is a blend of clay and sand that was procured locally for the project. The ET cover is designed to allow a certain amount of rainfall moisture to penetrate the cap without going all

the way through to the landfill and the waste materials. The plants on the vegetation layer of the landfill cover help draw moisture out of the cap.

Mr. Pribyl also showed a photo of IRP Site 17 from October 23, 2007 just after the Santiago Canyon Fire swept through the site. The fire destroyed a lot of existing vegetation that was to be cleared. At IRP Site 2, the landfill cover acted like natural a fire break and the new plants survived the fire. At IRP Site 17, only 3 to 4 days of field work time were lost due to the fire.

Photos showed the clearing and grubbing of the burned vegetation at IRP Site 17 and surrounding areas. These materials were hauled away and disposed of off-site. The first part of construction also included implementing erosion control measures to help keep soil and sediment on site so it is not carried off into local waterways when it rains. The perimeter of the site was surrounded with “straw waddle” a material that is staked into the ground to prevent erosion. It also provided a clear boundary line for site operations.

At IRP Site 17, waste material, mostly debris was consolidated into the main landfill footprint. Photos showed heavy equipment used to excavate and consolidate these waste materials. Dust control using water trucks was conducted and is an integral part of the consolidation and construction process. A photo showed the site after all removal and consolidation activities were completed.

Photos of the subgrade preparation were shown. Heavy equipment was used to shape the landfill and compact the soil and prepare the site for placement of the 1-foot-thick foundation layer. Approximately 15,000 cubic yards of material was screened to remove rocks with a diameter greater than 3 inches. Screening provided the necessary uniformity for effective compaction. The 1-foot-thick foundation layer was put into place in 6-inch lifts (layers) and compacted.

A unique feature of the project involves topsoil harvesting. A lot of the hillsides within the construction area required grading for erosion control. Topsoil was removed and is being used in the landfill cap. The harvested topsoil has the characteristics and properties that will help in the revegetation of the landfill cap.

Construction of drainage channels to control stormwater, specifically trapezoidal channels and V-ditches, was conducted using specialized machinery to cut the channels and remove the soil. Shotcrete, a form of concrete, is blown into place through a hose to finish the channels. Shotcrete is used in vertical placement situations and is similar to gunite used to make swimming pool walls. These channels will control and redirect stormwater away from the landfill.

Currently, a 4-foot-thick monolithic ET cover is being constructed over the foundation layer using push-pull scrapers and compactors. The ET cover is placed in 6-inch lifts and compacted to 90-percent compaction. Pre-final surveys are being conducted to make sure the ET cover is 4 feet thick. Some areas do not have 4 feet of cover soil in place and others have more. These surveys are performed to identify areas where adjustments are needed. Mr. Pribyl reiterated that the ET cover material is composed of sand and clay with a specific hydraulic conductivity, so it will allow enough water to penetrate the cap to sustain vegetation and not allow water to get through the cap to the waste material. The ET cover is designed to be compatible with typical rainfall in the region. At IRP Site 2, the vegetation on the cap is being irrigated to establish the plants. Irrigation will cease when the plants are established enough for the natural rain cycle to take over.

Photos of the new fence line at IRP Site 17 were also shown. Originally, the fence line was designed to enclose the landfill along its perimeter. However, to restore the landfill area to a more natural state, the existing fence line was expanded outward along the FAA property line by the tree line and strawberry fields near Irvine Boulevard. The fence is designed to keep people out so the plants and the landfill cap will not be disturbed.

Lessons learned from construction at IRP Site 2 have been applied at IRP Site 17. The cap construction process at IRP Site 17 has taken about four months thus far and is nearly complete. Planned activities to complete the project include: completion of cap construction through spring 2008; placement of topsoil and temporary erosion control material; construction of access roads; installation of gas monitoring wells; and revegetation that will begin in winter 2008. The Navy will also develop and complete the Remedial Action Completion Report (RACR) for IRP Site 17.

Mr. Pribyl provided a brief update on progress at IRP Site 2. Photos showed the initial planting of vegetation in September 2007 and during the establishment period in early April 2008. The revegetation effort included the placing of approximately 14,000 plants and hydroseeding. During the establishment period the goal is for 100-percent survival of the plants. Only 300 to 350 plants, about 2 to 3 percent, required replacing and this is being done now. Coastal sage scrub has been established and is thriving. Planned activities to complete the project include finishing plant replacement, ongoing weeding and maintenance, and development of the RACR for IRP Site 2 by the end of 2008.

After all remedial action activities are completed at the IRP Sites 2 and 17 landfills, long-term O&M will be conducted. The purpose of O&M is to monitor the effectiveness, maintain the landfill caps, and verify that the constructed remedial systems perform as designed to protect human health and the environment.

The major elements of O&M include: cover inspections and maintenance; monitoring of groundwater, soil moisture and landfill-gas systems; implementing land-use controls and institutional controls; performing compliance reporting and notifications to the regulatory agencies; and periodic inspections and monitoring for documenting compliance with institutional controls. O&M also includes reporting monitoring results to the regulatory agencies. Semi-annual reports presenting results on landfill gas, groundwater monitoring, and landfill inspections will be provided to the agencies. Annual Reports will be provided that present detailed evaluation of monitoring results and recommendations for optimizing monitoring locations and frequency. Every five years, a Five-Year Review will be done according to Comprehensive Environmental Response Compensation and Liability Act (CERCLA) requirements to reevaluate the remedy. Five-Year reviews determine if the remedy is still effective, if the remedy can be optimized, or if something else needs to be done.

There are no landfill gas issues at IRP Sites 2 and 17 and landfill gas control systems are not needed. However, under the O&M plan monitoring will be conducted to make sure any potential generation of landfill gas is monitored. Monitoring using landfill gas probes will assess whether methane is present, and if concentrations exceed thresholds for methane at the site boundary.

Mr. Pribyl summarized the next steps for IRP Sites 2 and 17. Restoration work at IRP Site 2 will continue. Construction of IRP Site 17 is anticipated for completion in September 2008. The Draft Final O&M Plan for both sites is expected to be issued in May 2008. It is anticipated the Final O&M Plan would be issued in July 2008, followed by the initiation of routine monitoring and maintenance after construction is completed in September 2008. O&M work at both sites would be on the same schedule.

Discussion

Mr. Zweifel stated that the RAB originally was in favor of removal and off-site disposal of all landfill wastes and not leaving wastes in place. Mr. Pribyl said the decision to leave wastes in place and cap the landfills is a standard practice for landfills throughout the United States. It is cost effective and typically safer compared to removing the wastes.

Mr. Zweifel said another concern the RAB expressed in the past in regard to leaving landfill wastes in place is the possibility of vertical migration of wastes from the landfills into the groundwater. Mr. Pribyl said the data collected and analyzed over the last decade do not indicate the main portions of the

landfills have contributed to groundwater contamination. When the military stopped using the landfills they were closed and covered. The steps taken then have been effective at controlling migration of wastes. The new caps provide much more protection than the original caps.

Mr. Peter Hersh, RAB member, asked when ET cover placement will be completed at IRP Site 17. Mr. Pribyl said this work is expected to be completed during June 2008 and demobilizing of heavy equipment is expected by the end of July 2008. In the last month, the Navy completed a contracting effort for a separate contractor that will handle the restoration work at IRP Site 17 involving revegetation and irrigation. This same contractor will also perform all follow-up work at both sites which will provide for continuity and efficiency.

Mr. Hersh asked if the fencing shown is temporary or permanent and if barbed wire will be attached. Mr. Pribyl explained the new fence ties into some existing fence forming a perimeter down to the strawberry fields. The new fence is a typical 6-foot-high chain link fence and there is no need to attach barbed wire.

Mr. Zweifel asked if small animals would be able to get through the fence. The fence is approximately 3 inches off the ground and small animals will be able to get through. The fence is a straight-line fence and does not dip down. Some areas along the fence will have openings of up to 6 inches from the bottom of the fence to the ground.

◆ Presentation – IRP Sites 1 Groundwater Monitoring Update, presented by Mr. Jim Callian, Navy Remedial Project Manager

Mr. Callian showed a map of former MCAS El Toro and the location of IRP Site 1. This presentation focused on the results of groundwater monitoring conducted in November and December 2007. These data will be incorporated into two FS Reports: 1) the FS Report for soil at IRP Site 1; and 2) the FS Report for groundwater at IRP Sites 1 and 2. The Navy separated out soil and groundwater for greater efficiency.

Mr. Callian showed a slide that illustrated the steps in the CERCLA process and pointed out that IRP Site 1 is in the FS stage. The first two steps in the CERCLA process are: Site Discovery, which includes the preliminary assessment; followed by the National Priorities List (NPL) ranking by U.S. EPA of former MCAS El Toro in 1990. Associated with the NPL step was the signing of the FFA which provides the framework for cleanup by the Navy and its regulatory partners. The next step is the Remedial Investigation (RI) that investigates and determines the nature and extent of contamination. The FS involves compiling and evaluating remedial alternatives for cleaning up soil and groundwater such that they are protective of human health and the environment and consider future use of the sites. The next step is the Proposed Plan stage where the Navy and its regulatory agency partners propose a preferred cleanup remedy. The Proposed Plan is made available for a 30-day public comment period. After the public meeting and public comment period, the selection of a remedy is documented in the ROD that is signed by the FFA signatories. The next step is the Remedial Design where the remedy is designed. This is followed by the Remedial Action step where the remedy is implemented.

There were two purposes for the groundwater monitoring conducted at the end of 2007. The first purpose was to further evaluate groundwater for the soil FS. This monitoring was conducted to answer a question raised by the Water Board – is a response action necessary for groundwater based on petroleum-impacted soil at the central portion of IRP Site 1? The second purpose was to conduct groundwater monitoring for perchlorate. This was done as part of the on-going monitoring effort to support the development and evaluation of remedial alternatives in the FS for groundwater at IRP Sites 1 and 2. Mr. Callian noted that perchlorate contamination originates at IRP Site 1 and it impacts groundwater at IRP Sites 1 and 2.

Monitoring in the central portion of IRP Site 1 at the Northern Explosives Ordnance (EOD) Training Range focused on the following petroleum constituents: total petroleum hydrocarbons (TPH); and benzene, toluene, ethyl benzene and xylene (BTEX). Results of both soil and groundwater sampling were included on a map that was also included in the presentation handout. Soil results are presented by weight in milligrams per kilogram (mg/kg). Groundwater results are presented by volume in micrograms per liter ($\mu\text{g/L}$). Five groundwater wells were sampled for TPH and BTEX and no detections were reported in any of the samples. These results are consistent with the RI results obtained in 2002. Results show that there is no impact on the groundwater from the soil. These results will be folded into the FS Report to determine if remedial action is necessary for groundwater. Mr. Callian noted that a second round of monitoring was recently conducted and was completed on April 1, 2008, but only preliminary results are available. These results are consistent with November/December 2007 results.

Mr. Zwiefel noted that at soil sample B-1, at a depth of 20 feet below ground surface, results show 19,000 mg/kg for TPH-diesel and that this looks like a lot of contamination. Mr. Callian confirmed his observation, but noted that so far contaminants in the soil have had no impact on the groundwater.

At IRP Sites 1 and 2, groundwater samples were collected from 25 wells and were analyzed for perchlorate, the primary contaminant of concern. Selected wells were also sampled for volatile organic compounds, TPH-gas, TPH-diesel, dissolved metals, and general chemistry parameters. Reported perchlorate concentrations ranged from nondetect to 596 $\mu\text{g/L}$. TPH results were reported as nondetects. Concentrations reported as nondetect are lower than the laboratory equipment is capable of measuring such contaminants. Results are consistent with RI results obtained in 2002. Perchlorate results from November/December 2007 were also presented on a map that showed the sampling locations. Mr. Callian pointed out the wells with the highest concentrations of perchlorate at IRP Site 1 located in the central portion of the Northern EOD Training Range. The highest reported concentration was 596 $\mu\text{g/L}$ while other wells in this area had reported perchlorate ranging from 100 to 280 $\mu\text{g/L}$. Lower concentrations of perchlorate were reported along a path from IRP Site 1 south to IRP Site 2.

The next steps for soil at IRP Site 1 include issuing the following documents for regulatory agency review: the Draft Final FS Report for Soil in June 2008, Draft Proposed Plan for Soil in August 2008, and the Draft ROD for Soil in January 2009. For groundwater, the Navy anticipates issuing the Draft Pilot Study Work Plan for IRP Sites 1 and 2 during spring 2008.

Discussion

Mr. Hills, IRWD, asked when the Navy expects to issue the Draft ROD for groundwater. Ms. Arnold said at this point, this depends upon progress made during the pilot study. The current schedule anticipates release of a Draft ROD at the end of 2009.

Mr. Callian explained that the pilot study will test specific technologies and injection methods to deliver substrate to the groundwater to enhance bioremediation. One option is to install injection wells and apply high pressure that creates hydrofracturing in the subsurface to aid in the application of substrate to enhance bioremediation of the contaminants. A substrate, such as molasses, could be applied to the groundwater as a food source for the microorganisms in the groundwater. The pilot study will test injecting the substrate under different pressures. The pilot study will provide data to evaluate these cleanup methods and to provide a baseline of what is required. The data obtained will be further evaluated in the FS Report under the criteria established by the National Oil and Hazardous Substances Pollution Contingency Plan.

Mr. Hills noted that the contamination present in the Irvine Groundwater Subbasin comes from a variety of sources. These include agricultural operations at the former station, other agricultural fields, and the plume of contaminants that has migrated from the former base. As such, most of the water in the basin

cannot just be directly used in a public water system. Practically speaking, water extracted from any wells in the Irvine Subbasin will require some form of treatment.

Mr. Hills further explained that during the scoping process for the Irvine Desalter Project, IRWD customers informed the district that water extracted from near the former base, even after treatment, would not be acceptable for use in the IRWD potable system. This water is extracted, treated, and used in the district's non-potable system as reclaimed water for watering of green belts. Mr. Callian pointed out that groundwater in this area is naturally high in total dissolved solids that come from the bedrock.

OPEN Q&A/DISCUSSION -- ENVIRONMENTAL TOPICS

No other topics were discussed.

MEETING EVALUATION AND FUTURE TOPICS

Meeting Evaluation

Mr. Zweifel said he appreciated that the presenters answered questions during their presentations. Mr. Woodings said that the presentations were very informative.

Upcoming RAB Meetings and Subcommittee Meetings

Proposed future meeting dates for 2008:

- Wednesday, August 20 or August 27, 2008. The RAB expressed that the next meeting he held at former MCAS El Toro followed by a RAB site tour and the preferred date is August 27 with the time to be determined.
- Wednesday, December 3, 2008

Future RAB Meeting Presentation Topics

Suggestions included:

- Irvine Desalter Project update
- Summary of Radiological Release Report for Building 297

Recent RAB Subcommittee Meetings

The most recent RAB Subcommittee meeting was held April 23, 2008, 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 issues discussed.

RAB Meeting Adjournment – April 23, 2008 Meeting

The 91st meeting of the MCAS El Toro RAB was adjourned at 8:30 p.m.

4/23/08 RAB Meeting Attendance

<u>TOTAL ATTENDANCE AT MEETING</u>	<u>TOTAL PEOPLE ON SIGN-IN SHEET</u>	<u>RAB MEMBERS PRESENT</u>	<u>AGENCY MEMBERS PRESENT</u>	<u>COMMUNITY MEMBERS PRESENT</u>	<u>EXCUSED ABSENCES RAB MEMBERS</u>	<u>EXCUSED ABSENCES – AGENCY RAB/ COMMUNITY RAB</u>
25	22	10	6	4	1	1/0

Materials/Handouts Available at the 4/23/08 RAB Meeting Include:

- *RAB Meeting Agenda/Public Notice – 4/23/08 RAB Meeting – 91st Meeting.
- *Meeting Minutes from the 1/30/08 RAB Meeting – 90th Meeting.
- 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 – Environmental Websites.
- Alton Parkway Extension Project - Point of Contact.
- One-Page Glossary of Technical Terms.
- Former MCAS El Toro- IRP Sites 18 and 24 (Timelines 1985-1999 and 2000-2006), Activities Pertaining to Soil and Groundwater Investigations and Cleanup.
- Buildings/Structures/Facilities Within Leasable Parcels Finding of Suitability to Lease, August 2005.
- Environmental Condition of Property (with Carve-Out Boundaries), August 2005.
- 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 (CERCLA) Statutory Five-Year Reviews, November 2001.
- Department of the Navy – Policy for Optimizing Remedial and Removal Actions under the Environmental Restoration Program, April 2004.
- Environmental Data Quality
- U.S. Environmental Protection Agency - Perchlorate Fact Sheet.
- California Environmental Protection Agency – Perchlorate Fact Sheet
- U.S. Environmental Protection Agency – Five-Year Review Process in the Superfund Program, April 2003.
- Department of Defense – Institutional Controls, Spring 1997.
- U.S. Environmental Protection Agency Fact Sheet – A Citizen’s Guide to Natural Attenuation, October 1996.
- Environmental Data Quality.
- Commonly Asked Questions Regarding the Use of Natural Attenuation for Chlorinated Solvent Spills at Federal Facilities.
- *Presentation* – Sites 2 and 17 remedial Action Update, Richard Pribyl, April 23, 2008 RAB Meeting.
- *Presentation* – Site 1 Groundwater Monitoring Update, Jim Callian, April 23, 2008 RAB Meeting.

* Mailed to all RAB meeting mailer recipients on 4/16/08.

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/>

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.waterboards.ca.gov/santaana (site for Santa Ana Regional Water Quality Control Board)