FORMER MARINE CORPS AIR STATION
TUSTIN RESTORATION ADVISORY BOARD MEETING
August 16, 2006
MEETING MINUTES

The 74th Restoration Advisory Board (RAB) for the Marine Corps Air Station (MCAS) Tustin held its regular meeting on Wednesday, August 16, 2006, at the Clifton Miller Community Center in Tustin from 7:10 to 8:42 p.m. These minutes summarize the discussions and presentations from the RAB meeting.

WELCOME/INTRODUCTIONS/AGENDA REVIEW

Mr. Darren Newton, Base Realignment and Closure (BRAC) Environmental Coordinator (BEC) and Navy RAB Co-Chair, welcomed everyone to the meeting and said a variety of handout materials pertaining to Former MCAS Tustin are available on the information table. He reviewed the RAB meeting agenda and the key topics for tonight's meeting are: the Environmental Restoration Program Summary, and the Overview of the Comprehensive Environmental Response, Compensative and Liability Act (CERCLA) Five-Year Review process. Mr. Newton then asked for self-introductions of attendees. He acknowledged that regulatory agency representatives Mr. James Ricks, U.S. EPA and Ms. Patricia Hannon, Regional Water Quality Control Board (RWQCB), could not be in attendance tonight. Mr. Dana Ogdon, RAB member representing the City of Tustin who serves as the Assistant Director of Community Development, introduced Mr. Matt West, Project Manager for the City of Tustin Redevelopment Agency, recently appointed to this position. Mr. West will be attending future RAB meetings as the City of Tustin representative.

Mr. Newton referred to the MCAS Tustin RAB Mission Statement emphasizing the purpose of the RAB. He highlighted that the RAB is here to promote effective and efficient cleanup that results in the protection of human health and the environment, and to increase community awareness of the dissemination of information by serving as the conduit between the community and the regulatory agencies. Mr. Newton also emphasized that the Navy is not in charge of redeveloping property, and to contact Mr. Ogdon regarding property reuse issues.

Mr. Newton said any correspondence sent to the Navy needs to be addressed to the BEC and mailed to the BRAC Office at Former MCAS El Toro. The complete address is:

Base Realignment and Closure
Former MCAS El Toro
Attn: Mr. Darren Newton, BRAC Environmental Coordinator
RE: Former MCAS Tustin
7040 Trabuco Road
Irvine, CA 92618

He also reminded everyone that the Administrative Record is located at Former MCAS El Toro at the BRAC Office in Building 307. The Information Repository is located at the Main Library at University of California, Irvine. A handout on the information table provides specific location information. For additional information, the Navy BRAC PMO website is available. The extension on the website address has changed to ".mil" and is no longer ".org."

Mr. Newton went over the "Comeback Policy" which is formally known as the "Department of Defense (DoD) Policy on Responsibility for Additional Environmental Cleanup After Transfer of Real Property," which was also presented at the last RAB meetings for both former MCAS Tustin and former MCAS El Toro. He said that the handout outlines circumstances in which the Navy would conduct additional cleanup. As detailed in the DoD Policy, if contamination is discovered after property transfer and it is determined to be the result of military activities or if the remedial actions failed, the Navy will come back to rectify the situation. However, if the required action is only to facilitate a use restricted by a deed or prohibition, then the Navy will not perform such cleanup. For example, if someone wants to turn a landfill site into a daycare center, the Navy will not come back to change the remedy for such a use that is restricted by a deed or institutional control. Mr. Newton added that the Navy is not prohibiting anyone from making such a business decision.

OLD BUSINESS

Approval of 5/17/06 RAB Meeting Minutes – Don Zweifel (MCAS Tustin RAB Community Co-Chair)

Mr. Zweifel, RAB Co-Chair, asked meeting participants to review the May 17, 2006 RAB Meeting Minutes in order to see if any changes need apply. He asked for approval of the meeting minutes and Mr. Harry Moore, RAB meeting attendee, made the motion to approve. No one opposed the motion. Mr. Zweifel stated that the meeting minutes stand approved as prepared with no objections.

NEW BUSINESS

Environmental Program Status and the Installation Restoration Program (IRP) Status Update – Darren Newton

- **Operable Unit (OU) 1A IRP-13 South – 1,2,3-trichloropropane [TCP] Groundwater Plume and OU-1B (IRP-3 and IRP-12 – trichloroethylene [TCE] Groundwater Plumes)** – Mr. Newton explained that items that are bolded on the Environmental Program Status handout are new, and items that are not bolded have been listed in the past. At the last RAB meeting, the 2005 Annual Time Critical Removal Action (TCRA) Performance Report for OU-1A was discussed, and now the Navy has progressed to the Draft Final Remedial Design (RD) for Groundwater at OU-1A and OU-1B. In the Record of Decision (ROD), the Navy and the regulatory agencies concurred that the remedial design for OU-1A and OU-1B should be a treatment system for the groundwater plumes. The main delay involved determining where treated effluent will be discharged. The RWQCB issued the Navy a National Pollutant Discharge Elimination System (NPDES) permit, which eliminates the ability to discharge treated groundwater down the storm sewer system that leads to Peters Canyon Channel. The Navy has been working with the City of Tustin and the Orange County Sanitation District (OCSD) to discharge the treated groundwater to the OCSD treatment facilities for final treatment. Constituents that require final treatment are selenium, nitrogen and sulfates. Nitrates occur naturally in the Tustin groundwater; therefore, OCSD has the specific ability to treat the groundwater.

The designs for both OU-1A and OU-1B require a determination for discharge of treated groundwater.

The Navy met with OCSD and the City of Tustin to discuss the situation; subsequently the plan is for the Navy to submit a permit application for a special permit to discharge to OCSD. The Navy's objective is to obtain a contingent draft permit from OCSD that allows them to discharge to OCSD's sewer system.

Mr. Zweifel asked Mr. Newton if he had any conception of the cost that OCSD will be charging the Navy for discharge of treated groundwater. Mr. Newton replied that the price is very reasonable, around a tenth of a penny per gallon. The Navy plans on discharging around 50,000 gallons a day, for a total estimated cost of $75,000 to $80,000 dollars per year. Mr. Newton added that the Navy's groundwater is only a fraction of the total groundwater that will be going to OCSD from the surrounding areas on a daily basis. Additionally, the Navy's groundwater treatment process has long-term ramifications for the Petroleum Corrective Action Program (PCAP) and Time Critical Removal Action (TCRA).

Mr. Zweifel asked if the TCRA was involved in this process as well. Mr. Newton clarified that the TCRA system as well as all of the groundwater treatment operations require discharge of treated groundwater somewhere. Whereas in the past, the Navy had discharged the treated groundwater into storm drains, that procedure is no longer a viable option. Due to the naturally occurring selenium, nitrates and total dissolved solids (TDS) that are loading into Newport Bay, the RWQCB has issued this order to the Navy. Similar orders have been issued by the RWQCB throughout Southern California.

Mr. Zweifel then questioned Mr. Newton to clarify whether putrefaction (decomposition of animal proteins by anaerobic microorganisms) or algal bloom (relatively rapid increase in the population of algae in an aquatic system) is or has been a problem in this situation. Ms. Content Arnold, Navy Lead Remedial Project Manager (RPM), replied that this has not been a problem and it depends on the ecosystem. Mr. Zweifel asked why the Navy has to pay to treat naturally occurring nitrates and selenium in the groundwater. Mr. Newton replied that other options would encumber redevelopment, and so the chosen solution is best for all parties involved.

- **OU-4 (IRP-6, IRP-5S(a), IRP-11 [Areas B and C], IRP-13W, MMS-04 [Area B]**

Mr. Newton said that OU-4B is in the Feasibility Study (FS) Report stage, and is the last decision document for these six sites: IRP-5S(a), IRP-6, IRP-11, IRP-13-W, and Site MMS-04. After submitting the Draft FS Report in August 2005 for regulatory agency review, the Navy was informed that the document was insufficient, and thereby has been revising the report during the past year. On June 30, 2006, the Draft Workplan for the Aquifer Test was completed. The Navy is scheduled to conduct field work within the next month to conduct the Aquifer Test at IRP-5S(a) and collect additional samples at IRP-6 and the Mingled Plumes Area. Results from the samples gathered will be incorporated into the Revised Draft FS Report, scheduled for completion in winter 2006. The Final Feasibility Study Report is scheduled for 2007 and the Proposed Plan is scheduled to be issued in 2008.

Mr. Zweifel asked what particular chemicals were involved, and if they were carcinogenic. Mr. Jim Callian, Navy RPM, replied that the contaminant in the concerned area was trichloroethene (TCE), a carcinogen. In the Mingled Plumes Area, trichloroethene occurs in fairly low concentrations at around 20 to 50 micrograms per liter (µg/L). Ms. Arnold told Mr. Zweifel that OU-4B was one of the main presentations at the last RAB meeting, and to refer to the previous RAB meeting handouts for further clarification to his questions.

- **MTBE (methyl tert-butyl ether) Groundwater Plume (Underground Storage Tank [UST] Site 222)** – Mr. Newton explained that the Navy switched from a HiPox unit to a granular activated carbon (GAC) system to remove MTBE from groundwater. Mr. Zweifel asked why the Navy had decided to make the change now, and not previously. Mr. Dhananjay Rawal of ECS, a Navy contractor, responded that there were high concentrations of MTBE before, and the HiPox system was able to lower concentrations to around 10,000 to 15,000 µg/L. Currently the concentrations are around 500 µg/L. The GAC system is almost three times less expensive than the HiPox unit, and is equipped to specifically treat lower concentrations. Mr. Newton added that the HiPox system was originally used to treat the high concentrations because it was the best available technology (BAT) for the process.

  Mr. Zweifel asked how often sampling occurs. Mr. Rawal answered that currently sampling is conducted every two days but the sampling frequency will soon go to weekly sampling in the near future. Mr. Zweifel then asked how often the Navy changes out the GAC canisters. Mr. Rawal replied that the canisters are changed out every four weeks. Ms. Arnold further explained that the Navy makes sure that the discharge does not exceed the limit set by the RWQCB.

  Mr. Newton went on the say that the next step in this process is to evaluate the downgradient portion of the plume. The Workplan Addendum is scheduled for completion on August 21, 2006, and the Navy optimizes to have the Final Petroleum Corrective Active Plan completed in December 2006. Currently, there are only four active programs that remain for Former MCAS Tustin: OU-1A, OU-1B, OU-4B, and the MTBE plume.

Regulatory Agency Update

Mr. Ram Peddada, Department of Toxic Substances Control (DTSC), briefly discussed his review of current documents. The initial work plan for IRP-6 is scheduled for completion by the week of August 21, 2006, and will be issued to the regulatory agencies for review within the next two weeks. Work is being conducted on a Finding of Suitability for Early Transfer (FOSET), in which a request was issued to the Navy for a transfer of 4.8 acres at IRP-13-S and IRP-13-W. The Navy is preparing the FOSET and the two covenants for these sites. Comments on the three documents will be issued to the Navy following a review by DTSC. Once the Navy responds to the comments, there may be a six to seven month period before the government is able to authorize the property transfer of IRP-13-S and IRP 13-W.

Groundwater contamination was found in the Vestar area, and DTSC is currently reviewing the construction process. Comments will be completed within the next week in order for construction to continue. Mr. Peddada also said that Tustin Legacy wants to build an intersection for the City of Tustin. DTSC wants to forge an agreement that would require Tustin legacy to clean up contaminated soil if any is detected. Such an agreement would free the Navy for such cleanup at the proposed intersection.

Mr. Newton referred RAB members to page 3 of the RAB meeting minutes from May 17, 2006 (previous meeting) for more information on the NPDES permit that was issued to the Navy by the RWQCB. Mr. Zweifel also encouraged people to visit the RWQCB website.

Overview of Five-Year Review Process – Checkup on IRP Sites After Cleanup

Mr. Newton referred meeting attendees to the "Overview of the Five-Year Review Process" handout stating that Mr. Glenn Christensen, Navy RPM, would be making this presentation focusing on how it applies to the OU-3 Moffet Trenches. Mr. Newton then briefly went over the CERCLA flow chart to illustrate how the Five-Year Review Process comes into effect after a remedial action is completed. Mr. Zweifel added that previously the community was very concerned that the City of Tustin built a roadway on top of the Moffet Trenches landfill without conducting a site survey. Ms. Arnold responded to Mr. Zweifel's comment by saying that the U.S. EPA has established presumptive remedies that are recognized as being acceptable remedies, of which capping of landfills as constructed at OU-3, has long been considered an effective and very common method for protecting public health and the environment.

Mr. Christensen gave an overview of the Five-Year Review Process. According to the Navy and Marine Corps, a Five-Year Review is the evaluation of an in-place remedy that verifies that the remedy is protective of human health and the environment. This process is a CERCLA requirement and the Navy and Marine Corps policy is consistent with U.S. EPA guidance. The Five-Year Review report includes a protectiveness determination, which determines if the remedy is protective of human health and the environment, as well as achieving remedial action objectives previously stated; the documenting of any deficiencies identified during the review; and the recommendation of specific actions to ensure that a remedy will be or continue to be protective.

A Five-Year Review process integrates decision document information, operational data (sampling results from groundwater, soil, and landfill gas) and experience of those responsible for and affected by actions conducted at the site. Six components to the Five-Year Review that are part of U.S. EPA Guidance are: community involvement and notification, document review, data review and analysis, site inspection, interviews of site personnel, and protectiveness determination. A Five-Year Review is required when upon completion of remedial action, hazardous substances, pollutants or contaminants remain above levels that allow for unlimited use and unrestricted exposure. The review is also required when the ROD is signed on or after October 17, 1986 (effective date of Superfund Amendments and Reauthorization Act [SARA]).

Mr. Christensen referred to the presentation handout given, as he went over the two "triggers" that could instigate a Five-Year Review. First, initiation of the selected remedial action (commencement of remedial action construction phase) that will result in hazardous substances, pollutants or contaminants remaining at the site above levels

that allow for unlimited use and unrestricted exposure after the remedial action is complete is the Five-Year review trigger that starts the Five-Year review clock. Second, where the selected remedy will result in hazardous substances, pollutants or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure but will not require a remedial action construction phase, the remedy start date is the ROD or Decision Document signature date and is also a trigger for the Five-Year Review.

Upcoming Five-Year Review Process For Operable Unit 3

OU-3 or IRP Site 1 is located in the northeast corner of Former MCAS Tustin, and consists of approximately 9 acres within Carve Out Area 10 (Moffet Trenches and Crash Crew Burn Pits). The ROD was signed in December 2001, and the remedy consists of hydraulic containment with institutional controls. There is a non-permeable containment wall along the western boundary of Peters Canyon Channel, which restricts groundwater migration. Major components of the remedy include: institutional controls, groundwater and surface water monitoring, landfill gas monitoring, as well as inspection and maintenance. Under the institutional controls, the Navy evaluates what the land is going to be used for (building a school, residential, or other uses) within the site. The Navy also examines any unauthorized excavations within the particular area, to ensure that they meet with the Navy and regulatory agency approval. Mr. Christensen referred to two different maps in order to illustrate how Jamboree Road serves as the cap for the former landfill and that it now catches any rainwater or precipitation, preventing it from infiltrating into the landfill. There is a containment barrier along the western boundary of Peters Canyon Channel, as well as groundwater monitoring wells that are used to collect samples for evaluation on a semi-annual basis. There are also three landfill gas wells, that are designed to detect for any landfill gas generation, and no detections have occurred for this site. Landfill gas detection activities are no longer conducted as of 2003 due to exemption that determined this was no longer necessary since landfill gas was never detected.

Mr. Newton asked if any leaching had occurred. Mr. Christensen replied that no leaching had occurred, but some sumps had arisen that were connected to the French drain system and some sampling had been conducted. The containment wall that underlies the 1st Water Bearing Zone (WBZ) restricts any groundwater from getting into Peters Canyon Channel, thereby proving to be very effective.

Remedial action objectives for the Five-Year Review at OU- 3 are to control or eliminate the discharge of contaminated groundwater into Peters Canyon Channel that potentially impacts human health and the environment; prevent the downward migration of contamination into deeper groundwater zones to preserve existing high-quality groundwater; prevent exposures to on-site groundwater, buried wastes, and subsurface soils that have contamination above health-based levels; and implement appropriate remedial actions as necessary to facilitate rapid transfer and reuse of the OU-3 property.

Overall, the Five-Year Review Summary for OU-3 is that the Navy finds the remedy continues to be effective and protective of human health and the environment. This decision was reached through data evaluation, groundwater monitoring data, previous landfill gas monitoring, site inspection logs and visual inspections, as well as groundwater and surface water sampling.

The Draft First Five-Year Review of Remedial Actions Implemented at Operable Unit OU- 3 Report is scheduled to be submitted on August 18, 2006 for a 30-day review period for regulatory agency and community comments. There is a 30-day review period for regulatory agencies and the community and will be available for review at:

University of California at Irvine
Main Library, Government Publications Department
(949) 824-7362 or (949) 824-6836

MCAS El Toro Base Realignment and Closure
Attention: Marge Flesch
Building 307
7040 Trabuco Road
Irvine, CA 92618
(949) 726-5398

The Navy composes a response to comments (RTCs) which is included in the appendix of the Five-Year Review Report. The Final First Five-Year Report is scheduled to be issued on October 31, 2006.

Mr. Ogdon emphasized that the bottom line is that the remedial action is effective. Mr. Christensen concurred that the remedial action is effective and that is what the Navy is reporting. Mr. Zweifel asked what the Navy would do if there was contamination present at the site that the Navy was unaware of. Mr. Newton responded that the Navy would refer to the "comeback policy" in order to evaluate the situation, and he referred everyone to the handout labeled, "Responsibility for Additional Environmental Cleanup after the Initial Review Process."

Mr. Newton further clarified the "comeback policy" that is based on the CERCLA policy that states if contamination is the responsibility of the Navy, as outlined in the "comeback policy", the Navy would clean it up. CERCLA requires that a deed for government property transferred outside the government contain a covenant that all necessary actions have been taken. A covenant is a binding agreement, a promise that the necessary remedial actions have been taken. Mr. Newton used the example that if new oil drums were found on a site that were attributable to Navy activities, the Navy would come back to fix the situation. However, if someone wanted to build an Olympic swimming pool over a landfill, for example, the Navy would not come back. Therefore, they Navy will only come back if the selected remedy is no longer protective; if the selected remedy failed to provide protection; or if there is a discovery of additional contamination attributable to Navy activities. If the Navy comes back, then, consistent with the original remedy, the Navy would perform additional cleanup of the Navy contamination as necessary to remedy the problem and adhere to applicable regulatory agencies. The Navy would not come back when the action is only to facilitate a use prohibited by deed restriction, or where the action is only to facilitate a use prohibited by deed or institutional control. In these circumstances it is the Navy's position that additional remedial action is not necessary within the meaning of the CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

Future Topics/Schedule Next RAB and Subcommittee Meetings/Meeting Evaluation and Closing

Mr. Newton discussed the possibility of a future site tour for Former MCAS Tustin. Best available times were discussed with everyone present at the RAB meeting. Mr. Ogdon asked the RAB committee to give Mr. West an application to become a RAB member, and to have his membership onto the RAB be on the agenda for the next meeting.

The RAB Meeting was adjourned at 8:42 p.m.

List of Handouts Provided at the Meeting

- RAB Meeting Agenda/Public Notice – August 16, 2006 (74th) RAB Meeting.
- Meeting minutes from the May 17, 2006 (73rd) RAB Meeting.
- MCAS Tustin Environmental Program Status.
- Map – MCAS Tustin Operable Units, Major AOCs, and MTBE Plume - First Quarter 2006.
- Restoration Advisory Board Fact Sheet/Membership Application.
- MCAS Tustin - Where to Get More Information.
- MCAS Tustin Marine Corps/Navy Team Contact Information.
- Darren Newton Navy BEC for MCAS Tustin and MCAS El Toro Contact Information.
- DTSC Public Participation Specialist Tim Chauvel Contact Information.
- For More Information: Administrative Record and Information Repository Locations.
- MCAS Tustin Installation Restoration Program - Mailing List Coupon.
- MCAS Tustin Installation Restoration Program Advisory Board Mission Statement.
- 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 Conducting Five-Year Reviews Under the Installation Restoration Program," May 2004.
- The Under Secretary of Defense, "DoD Policy On Responsibility for Additional Environmental Cleanup after Transfer of Real Property."
- Department of Defense, "A Guide to Establishing Institutional Controls at Closing Military Installations," February 1998.
- Department of Defense, "Institutional Controls: What Are They and How are They Used," Spring 1997.
- U.S. EPA, "Checking Up On Superfund Sites: The Five-Year Review," June 2001.
- U.S. EPA, "Five-Year Review Process in the Superfund Program," April 2003.
- *Presentation* - Overview of Five-Year Review Process; Checkup On IRP Sites After Cleanup for OU-3, Former MCAS Tustin," August 16, 2006.

Copies of the meeting minutes and handouts provided at the August 16, 2006 RAB meeting are available at the MCAS Tustin Information Repository located at the University of California, Irvine, Main Library, and Government Publications Section. Library hours are 8:00 a.m. to 7:00 p.m. Monday through Thursday; 8:00 a.m. to 5:00 p.m. Friday and Saturday; and 1:00 p.m. to 5:00 p.m. on Sunday. It is recommended, however, that people call the library for confirmation of these hours

as they may be modified during exam and holiday periods. The Government Publications Section may be reached at (949) 824-7362.

Minutes from previous RAB meetings can be found on the internet on the Navy BRAC website: www.navybracpmo.mil.