

**MCAS El Toro
Restoration Advisory Board**

*Irvine City Hall
Conference and Training Center
One Civic Center Plaza, Irvine*

**March 26, 2003
6:30 - 9:00 p.m.
62nd RAB Meeting**

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

AGENDA

RAB members that are unable to attend please call either Andy Piszkin, Marine Corps/Navy RAB Co-Chair at (949) 726-5398 or (619) 532-0784 -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 (6:30-6:40)

Andy Piszkin
Marine Corps/Navy RAB Co-Chair

Old Business (6:40-7:05)

Approval of 1/29/03 Minutes (6:40-6:45)

Bob Woodings
RAB Community Co-Chair

Announcements/Review of Action Items (6:45-6:55)

Andy Piszkin & Bob Woodings

Subcommittee Meeting Report (6:55-7:05)

Marcia Rudolph
RAB Subcommittee Chair

New Business (7:05-8:55)

Regulatory Agency Comment Update (7:05-7:20)

Nicole Moutoux U.S. EPA	Triss Chesney Cal-EPA DTSC	John Broderick RWQCB
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- Groundwater Monitoring – Latest Results (7:20-7:30)

Marc Smits
SWDIV

- Groundwater Remediation: Modeling & Design Update,
Irvine Desalter Project and VOC Source Area (7:30-8:05)

Karnig Ohannessian
SWDIV

BREAK – 5 minutes

- Environmental Baseline Survey Briefing and
Update on Status of Property Transfer (8:10-8:45)

Kyle Olewnik
SWDIV

Open Q&A (Environmental Topics) (8:45-8:55)

Andy Piszkin

Meeting Summary & Closing (8:55-9:00)

Andy Piszkin & Bob Woodings

Meeting Evaluation & Topic Suggestions for Future Meetings

P U B L I C N O T I C E

MARINE CORPS AIR STATION EL TORO

Restoration Advisory Board Meeting



62nd Meeting
Wednesday, March 26, 2003
6:30 - 9:00 p.m.

Irvine City Hall
Conference and Training Center
One Civic Center Plaza, Irvine

The Restoration Advisory Board (RAB) is composed of concerned citizens and government representatives involved in the environmental cleanup program at MCAS El Toro since 1994. Community participation and input is important and appreciated. This meeting will feature the following activities and presentations specific to MCAS El Toro:

- Groundwater Monitoring – Latest Results
- Groundwater Remediation – Modeling & Design Update - Irvine Desalter Project and Volatile Organic Compound (VOC) Source Area
- Environmental Baseline Survey Briefing and Status Update of Property Transfer



For more information about this meeting and the Installation Restoration Program at MCAS El Toro, please contact:

Base Realignment and Closure
Mr. Andy Piszkin
BRAC Environmental Coordinator
P.O. Box 51718, Irvine, CA 92619-1718
(949) 726-5398 or (619) 532-0784

MARINE CORPS AIR STATION EL TORO
RESTORATION ADVISORY BOARD MEETING

January 29, 2003 – 61st Meeting

MEETING MINUTES

The 61st Restoration Advisory Board (RAB) meeting for Marine Corps Air Station (MCAS) El Toro was held Wednesday, January 29, 2003 at the Irvine City Hall. The meeting began at 6:38 p.m. These minutes summarize the discussions and presentations from the RAB meeting.

WELCOME, INTRODUCTIONS, AGENDA REVIEW

Mr. Andy Piszkin, BRAC Environmental Coordinator (BEC) for MCAS El Toro and Marine Corps RAB Co-Chair, asked for introductions and reviewed the agenda. He announced that Community Co-Chair elections would take place this evening.

OLD BUSINESS

Review and Approval of the December 4, 2002 RAB Meeting Minutes

Mr. Jerry Werner, RAB Community Co-Chair, asked if there were any changes or comments prior to the approval of the December 4, 2002 RAB meeting minutes. The RAB meeting minutes were approved without amendment.

Announcements

- Mr. Piszkin stated that there is wealth of information available on the information table this evening. There are a few new handouts, including a new listing of all the Navy and regulatory agency representatives as well as location and contact information for the on-Station Administrative Record (AR) and the Information Repository (IR) located at Heritage Park Regional Library in Irvine. Ms. Marge Flesch, of the MCAS El Toro BRAC Office, is the person to contact to arrange a time to review documents in the AR.
- Mr. Piszkin stated that RAB members should contact either of the RAB Co-Chairs in case they are unable to attend the RAB meeting. He stated that the Navy has reevaluated its stance on sending out dismissal letters to RAB members who have not attended for a while. The letters will not be sent because this would conflict with the Navy's desire to support and maintain RAB member attendance as well as encouraging new people to become meeting attendees. He added that Mr. Peter Hersh, RAB member, has provided some information on RAB members who have retired.
- The next RAB meeting will be held on Wednesday, March 26, 2003, (6:30 to 9:00 p.m.) with the RAB Subcommittee meeting (5:00 to 6:00 p.m.) prior to the full RAB meeting. Mr. Piszkin said that a handout is available on the information table with the dates of the RAB meetings through July 30, 2003. Mr. Piszkin stated that there has been some RAB interest in a site tour at MCAS El Toro. At this time, however, there is not much going on in the field.

In the near future, the Site 2 aquifer test will be taking place, and at Site 24, a separate aquifer test may be scheduled. He said he would check with the Remedial Project Managers (RPMs) to determine when would be the best time for a site tour. The Navy may arrange for both weekday and weekend tours. The Navy is encouraging other interested people to participate in the tour along with RAB members. Ms. Rudolph confirmed that there is a definite need for a weekend site tour.

- The RAB Subcommittee had some comments on the following issues: land transfers, Alton Parkway Extension, state budget and impacts on funding for MCAS El Toro cleanup, a site tour, and perchlorate. Mr. Piszkin stated that this evening the regulatory agency representatives would discuss the state budget impacts. Perchlorate and the process for dealing with contamination if it is found after land transfers are both presentation topics that would be covered tonight.

RAB Subcommittee Meeting Report, Ms. Marcia Rudolph, RAB Subcommittee Chair

Ms. Rudolph led the RAB in the Pledge of Allegiance and then reviewed the key points discussed in the RAB Subcommittee meeting. She stated that everyone is welcome at the RAB Subcommittee meeting and can come in at any time during the meeting

- Radionuclides – Ms. Rudolph stated the Subcommittee has always had concerns about how the background levels were used. There was an assumption that once data was collected, background levels would be subtracted off the top and then the Navy would determine if the remaining level posed a problem. After clarification, the current understanding is that background would be considered as existing and the levels are considered as cumulative for determining risk to human health and the environment. The Subcommittee is much more comfortable with the understanding that the levels are considered cumulatively.
- Radiological release levels – There is concern about how the State's Department of Health Services (DHS) is handling determination of acceptable radiological release levels. Ms. Rudolph explained that once the Draft Radiological Release Report is distributed, the Subcommittee would like to request that a DHS representative be present at the RAB meeting to answer any questions during discussion of the report results.
- Perchlorate issue – Ms. Rudolph stated that the perchlorate is an ongoing Subcommittee concern and they look forward to the presentation this evening.
- JP-4, JP-5 and JP-8 – Ms. Rudolph stated that there is some information about JP-4, JP-5 and JP-8 that was distributed through the CPEO (Center for Public Environmental Oversight). The RAB Subcommittee would like to know if this is an issue at MCAS El Toro.
- Land Transfers and FOSTs – The Subcommittee discussed land transfers and the Finding of Suitability to Transfer or FOST coming out in June 2003. The Subcommittee would like to see a timeline on some potential dates for land transfers.
- Site 2 Landfill – Ms. Rudolph stated that the Subcommittee has concerns that 4-foot thickness of the cap may not be enough to eliminate potential exposure.
- Fuel Distribution Pipeline – Dr. Michael Brown, RAB member and consultant with the City of Irvine, stated that the RAB Subcommittee is interested in the status of the on-Station fuel

distribution pipeline (not the Norwalk pipeline). There has been discussion of it being rendered inert and they would like to know the current status of the pipeline.

- Ms. Rudolph provided Mr. Bob Coleman, Bechtel Community Relations, with the meeting minutes from the December 4, 2002 RAB Subcommittee meeting, for distribution in the next RAB meeting mailer.

Discussion

Mr. Don Zwiefel, RAB member, stated that in conjunction with the MCAS Tustin RAB, he distributed a letter regarding the radiological release levels that are an issue for both stations. He said the letter caused some reverberations and went all the way to the Undersecretary of Defense for Environmental Security and to Mr. John Scandura, DTSC Branch Chief and Mr. Stan Phillipe, DTSC Deputy Director. The letter asked the regulatory agencies to resolve the issue of acceptable radiological release levels. The good news is that there is going to be a conference call in February 2003 with the federal and state regulatory agencies and the Navy's Radiological Affairs Support Office (RASO) to resolve the differences on acceptable radiological release levels. Mr. Jerry Dunaway, the BEC at MCAS Tustin, said that this letter was instrumental in getting action on this issue and shows that Restoration Advisory Boards can be powerful. Ms. Rudolph stated that the MCAS El Toro RAB would like an update on progress on this issue at the next RAB meeting, as well as more details when the Draft Radiological Release Report is issued.

NEW BUSINESS

◆ Regulatory Agency Comment Update

Nicole Moutoux, Project Manager, U.S. Environmental Protection Agency (EPA) Region IX

Ms. Moutoux said that the U.S. EPA does not have any letters available on the information table this evening. She explained that she has completed review of the Site 16 Draft Record of Decision (ROD). A U.S. EPA hydrogeologist, a toxicologist, and the legal department also reviewed the draft ROD. The comments on the Site 16 ROD were sent out yesterday, so those will be available at the next RAB meeting. She stated that she is also in the process of reviewing a draft fact sheet that includes a community survey that will be used to update the Community Relations Plan. The specification sheets for several potential release locations (PRLs) identified during the latest Environmental Baseline Survey (EBS) are also currently being reviewed. These sites were initially identified and included in the GeoSyntec Report and have been rolled into the latest EBS.

Triss Chesney, Project Manager, Cal/EPA Dept. of Toxic Substances Control (DTSC)

Ms. Chesney stated that DTSC does not have any letters on the information table this evening. She said that she is in the process of reviewing a draft fact sheet that will lead into the updated Community Relations Plan. She has also been reviewing the specification sheets on the PRLs. The Draft Site 16 ROD is currently under review and she just received comments from their legal counsel today. The DTSC comments on the Site 16 ROD should be going out to the Navy on Monday, February 3, 2003. DTSC just received the Groundwater Modeling Report for Sites 18 and 24 that will be reviewed by a staff geologist.

Ms. Chesney stated that DTSC is currently in a hiring freeze. However, she is slated to continue work on El Toro and there has been no word yet about any layoffs. As far as MCAS El Toro, there should not be any problems with staffing.

Discussion:

Mr. Zweifel stated that the Draft Radiological Release Report that includes Sites 2 and 17 has not been submitted for review by the BCT and DHS. As a result, DTSC is not able to verify the consistency of the summaries. Ms. Moutoux responded that although the BCT does not have the Draft Radiological Release Report, the Navy is working on providing that information specifically for Site 2 and 17. With that information, the BCT can move forward with review of the remedial design and progress to the remedial action phase for these sites. Mr. Crispin Wanyoike, Project Manager of Earth Tech, Inc., stated that the review of the remedial design is expected to be completed by the end of February 2003.

Dr. Brown stated that it is his understanding that Draft RODs are not sent out for RAB review and asked at what point the MCAS El Toro RAB would get a chance to review the Site 16 ROD. Mr. Piszkin said that the ROD is different than the Proposed Plan that goes out to the public. A Responsiveness Summary is submitted addressing all the comment associated with the proposed Remedial Action Plan. Since the ROD is a legal document that binds the Navy into whatever decision is made on remedial action, it is held back from the public until all the legal language is worked out between the regulatory agencies and the Navy. It is not a document that the public is officially or legally required to review. Mr. Brown stated that it is his understanding that the RAB would get to see at least the Draft Final ROD, because the public should get a chance to provide comments before the document is finalized. He said that Ms. Rudolph had informed him that the RAB Community Co-Chair and RAB Subcommittee Chair have been receiving copies of the Draft Final RODs. Ms. Moutoux confirmed that the RAB did receive copies of the Draft Final Sites 18 and 24 ROD. Mr. Piszkin proposed that the RAB Community Co-Chair and RAB Subcommittee Chair would receive a copy of the Draft Final Site 16 ROD for review when it goes out to the FFA signatories, unless Navy legal counsel expresses any reservations.

Mr. Zweifel stated that he understands that DTSC is funded under the Defense State Memorandum of Agreement (DSMOA). Ms. Chesney said that funding for environmental projects comes from federal grants, the State General Fund and DSMOA. She stated that DSMOA is an agreement between the Department of Defense, Army Corps of Engineers and the State of California. However in regard to the budgeting and the cutting of positions, the state as a whole, considers a much larger picture than just DSMOA funded efforts. DTSC has recently lost 8 positions that were currently vacant. Therefore, even with funding by federal grants and DSMOA there may still be funding shortfall impacts, just not as large as those for state agencies that are fully funded by the state's general fund. Mr. Zweifel asked what percentage of DTSC is funded by DSMOA. Ms. Chesney stated that she does not know the percentage, but the Office of Military Facilities, a division within DTSC, is funded by DSMOA.

◆ **RAB Community Co-Chair Election, Mr. Andy Piszkin, MCAS El Toro BRAC Environmental Coordinator**

Mr. Piszkin reviewed the process to elect the RAB Community Co-Chair and the Co-Chair responsibilities. At the last meeting, the RAB discussed holding Co-Chair elections at the January 2003 RAB meeting. In the RAB Mission Statement and Operating Procedures it lists the Community Co-Chair responsibilities. The Community Co-Chair responsibilities include:

- Assure that community issues and concerns related to the environmental restoration cleanup process are brought to the table.
- Assist the Marine Corps in ensuring that technical information is communicated in understandable terms.
- Coordinate with the BRAC Environmental Coordinator (BEC) to prepare and distribute an agenda prior to each meeting and coordinate review and distribution of the RAB meeting minutes.
- Assist the RAB Subcommittee in establishing meeting times and locations.

In addition, the Community Co-Chair may be replaced by a majority vote of the RAB members present at the meeting that a vote is on the table.

Mr. Piszkin asked for nominations of candidates. Mr. Zweifel nominated Mr. Bob Woodings. Ms. Rudolph seconded the nomination and recommended a unanimous acceptance of Mr. Woodings as Community Co-Chair. Mr. Woodings stated that he is a founding member of the RAB and received a plaque at the 50th RAB meeting. He hopes to do as good a job as Mr. Jerry Werner. The RAB members unanimously elected Mr. Woodings as the new Community Co-Chair.

◆ **U.S. EPA Update on Perchlorate, Mr. Kevin Mayer, U.S. EPA**

Mr. Piszkin introduced Mr. Kevin Mayer from U.S. EPA who will be providing the RAB with an update on perchlorate. A presentation handout as well as several supporting handouts were made available to meeting attendees and were placed out on the information table.

Mr. Mayer stated that in 1999 it was his duty at U.S. EPA headquarters to help determine the federal position on perchlorate. Perchlorate has become a large issue in the State of California as well. He stated that MCAS El Toro is one of the founding sites for determining the focus on dealing with perchlorate. This evening's presentation will provide information on what perchlorate is, discuss its toxicity and what levels pose a human health risk, and explain why perchlorate has become an environmental concern. He will also present information on what levels the various state and federal agencies are working towards to regulate perchlorate found in drinking water.

Chemistry

Mr. Mayer described the perchlorate molecule as a chlorine atom surrounded by oxygen atoms. Perchlorate has the properties of a salt, with both negative and positive charges. Perchlorate is actually the negatively charged part of this molecule. When introduced into water the positively and negatively charged parts of the molecule separate or disassociate. Perchlorate is very soluble in water and stays dissolved; it does not attach to soil particles like some groundwater contaminants.

He explained that what is surprising about the perchlorate molecule is that it is highly oxidized but very stable, so it does not break apart readily in most natural environmental conditions. When it does break apart, it gives off a lot of energy. Properties of perchlorate make it a challenge to detect and a challenge to treat using normal groundwater cleanup approaches. He added that it was not until 1997 that development in analytical methods allowed for detection limits into the single digits for parts per billion (ppb).

Mr. Mayer provided a figure of a perchlorate molecule showing a chlorine atom surrounded in a tetrahedron by four oxygen atoms. The oxygen atoms block reactions from occurring with the chlorine atom, so energy has to be added to break down the molecule. This molecule is very well balanced; with no parts more highly charged either positively or negatively. This balance becomes important when examining how this molecule reacts with certain parts of the human body.

Mr. Mayer stated that perchlorate is largely manufactured, it does not commonly occur naturally in the environment, although there is a desert in Chile where perchlorate molecules are naturally occurring. It is mostly used as a solid rocket fuel oxidizer, and in the production of flares and fireworks, and in munitions. The booster rockets on the space shuttle contain over a million pounds of solid rocket fuel. Approximately 70% of that rocket fuel is perchlorate. These same missiles as those used to launch the space shuttle are fairly common throughout the U.S. defense arsenal as well.

One component of the solid rocket fuel is a rubber compound that holds all the chemicals together. Mr. Mayer explained that as that rubber compound gets older and loses its ability to hold together all the components, those missiles are washed out and the rocket fuel replaced. That washout is one of the reasons perchlorate is showing up in the environment. Many of these washouts currently take place in Utah and used to take place near Sacramento, in Rancho Cordova at the Aerojet Facility, which is currently one of the largest federal perchlorate sites.

History

Mr. Mayer stated U.S. EPA has been aware of perchlorate in California and Nevada since the mid-1980s. In 1985-86, testing started at a San Gabriel Valley Superfund site. However, when examining the quality control data, even some of the sample blanks were coming up positive for perchlorate. This suggested that there was a serious problem with the analytical method. It wasn't until the early 1990s, at the Rancho Cordova Aerojet Facility, that EPA began seeing perchlorate detections in the thousands of ppm in groundwater. He stated that this spurred a number of preliminary assessments of perchlorate toxicity. In 1992, this led to the setting of a provisional reference dose, the dose at which a human health should be protected from the chemical. This was revised in 1995. In 1997, there was a breakthrough in establishing an analytical method, which provided detections at much lower limits, led to renewed concerns about perchlorate because it was showing up in all kinds of unexpected places.

In 1985, U.S. EPA approached the Agency for Toxic Substances and Disease Registry (ATSDR), then a part of the Centers for Disease Control, to help in determining the toxicity of perchlorate. ATSDR responded that there was not enough data to determine an acute or a long-term health advisory for perchlorate in drinking water.

Toxicology

When perchlorate is introduced into the human body it is known to block the transfer of iodide to the thyroid. This is important because iodide is the most essential part of the thyroid hormone, which regulates human metabolism. Therefore, if the thyroid is operating at a low rate due to lack of iodide, metabolism slows down, which leads to chills, lethargy and weight gain.

Mr. Mayer stated that in the 1950s perchlorate was used as a drug to treat people for overactive thyroid disorders. Large amounts of perchlorate were administered to shut down the thyroid, and then artificial thyroid hormones were provided. The drug tests from the 1950s were the basis for determining the original provisional reference dose for perchlorate established in 1992. However, those drug tests did not look at long-term effects, or at effects on children or people with diseased thyroids, but did provide the best human data available at that time. In addition, the drug tests were based on perchlorate dosages that were extremely high compared to those found in environmental samples. He explained that due to these uncertainties, the provisions reference dose for perchlorate was adjusted by an order of magnitude for sensitive sub-populations, for long-term versus short-term effects, and for how little data was available, so that the provisional reference dosage set in 1992 dropped a thousand fold.

In 1997, the defense industry was arguing that the provisional reference dose was ultra conservative based on adjustments for uncertainty factors. U.S. EPA set about determining what was needed to fill in the data gaps. Mr. Mayer explained that since 1999, \$20 million has been spent on animal and human perchlorate studies, and U.S. EPA has been putting the data produced from these studies through the risk assessment process. The model being used takes into account the iodide the thyroid needs and how perchlorate blocks this iodide, and also how pituitary hormones act to stimulate the thyroid.

Mr. Mayer explained that the most important aspect of the thyroid hormone is that it is really important in developing organisms. Every newborn in the U.S. has a heel stick to draw blood for testing for the thyroid T3 and T4 hormone and for the Thyroid Stimulating Hormone (TSH) that is provided by the pituitary gland. If the thyroid gland is not working properly, neurological development does not proceed properly. If a hypothyroid condition (thyroid is not producing enough hormones) is identified in a newborn and artificial thyroid hormone is provided, the brain will develop properly. One aspect of the perchlorate animal studies was aimed at gathering developmental data.

Mr. Mayer said that in 1999, the peer reviewers asked U.S. EPA to take a closer look at the developmental issues in the animal studies because changes in the thyroid are not necessarily indications of disease, but may be indications that the thyroid is under stress. Last year, U.S. EPA issued a rat toxicity assessment that suggested a reference dose as 0.00003 mg/kg per day. This translates into a reference dose of 1 ppb for a 70 kg (150 pound) human drinking approximately 2 liters of water a day. This is based to a large extent on the studies effects on rat pups after the mothers were dosed, so it is actually an adult exposure level. In addition, a reference dose is not a regulation dose; it is a science-based reference of what is considered a safe level.

Mr. Mayer stated that in setting the reference dose, the animal studies are performed to determine how low of a dose has no effect at all on the animals. In this case, the studies could not determine a

low enough dose that produced no effects, so that became part of the uncertainty factors. The uncertainty factors, which were 300-fold for the draft January 2002 EPA toxicology report, also include uncertainty for sensitive subpopulations, duration (lifetime exposure), data deficiencies and interspecies uncertainties. He explained that a 300-fold uncertainty factor is not a large uncertainty factor for a chemical; there are some chemicals where the reference dose was adjusted for a 1,000 to 10,000-fold uncertainty factor. Still, it was disappointing after all this hard work to have this uncertainty factor that drops the reference dose or drinking water equivalent by 300 fold.

Mr. Mayer explained that since perchlorate was not yet an issue when the Safe Drinking Water Act, Resource Conservation and Recovery Act, CERCLA and Superfund were setup, it was not listed as a hazardous chemical. Perchlorate is now on the contaminant candidate list under the Safe Drinking Water Act, which is the first step in a long process towards setting a federal drinking water standard. What U.S. EPA is committed to doing in the interim is providing a health advisory, which is an interpretation of toxicology data in terms of drinking water. A health advisory is not an enforceable regulatory standard. In addition, eight states have set their own action levels ranging from 8 to 18 ppb.

The State of California is moving toward an enforceable drinking water standard for perchlorate. Mr. Mayer explained that legislation passed that required the State of California to have a public health goal for perchlorate by January 1, 2003. However, a pending lawsuit delayed setting that public health goal. At present, DHS is required to have a permanent drinking water standard by January 1, 2004, but various issues are expected to delay the setting of that standard. Just last Thursday, January 23, 2003, one of the top managers at U.S. EPA signed a memorandum guiding U.S. EPA project managers to keep using the 4 to 18 ppb provisional dosage range until the draft toxicity report is finalized.

Mr. Mayer explained that getting human data to determine anything with certainty is difficult. So U.S. EPA has had to analyze dosages that for healthy adults don't seem to be cause any health issues. Therefore, the standard approach is to perform the tests using rats, then the data are extrapolated to humans and that data is used to determine the reference dose. There has been some pretty sophisticated toxicology testing for perchlorate thanks to Department of Defense funding. Mr. Mayer further explained that the protein that is effected by perchlorate in the human body is the same as found throughout many animal species.

Mr. Mayer stated that in the Superfund program, U.S. EPA can ask manufacturers what chemicals were used and who their main customers were. There have been perchlorate releases reported in 22 states in the U.S. In California, the two main perchlorate manufacturers are in U.S. EPA Region 9. He explained that perchlorate drinking water testing has been fairly thorough in California where over 5,000 water supply wells have been tested and perchlorate has been detected in 290 of those wells. There are approximately 4,000 wells in California that still need to be tested for perchlorate.

Discussion

Mr. Rudolph asked what is the provisional reference dose for perchlorate. Mr. Mayer explained that for drinking water it ranges from 4 to 18 ppb.

Mr. Zweifel stated that at one time there was a big problem with perchlorate in the imported water supply from the Colorado River. Mr. Mayer responded that there are huge amounts of perchlorate in

Nevada that are getting into Lake Mead and Lake Havasu where the Metropolitan Water District obtains a little more than half of their imported water. The perchlorate levels in the imported water are in the single digits, but it is still a big issue that the U.S. EPA is trying to get under control.

Mr. Zweifel asked when the uncertainties are going to be resolved as there should not be any uncertainties with perchlorate. Mr. Mayer responded that on the regulatory side, U.S. EPA hopes to have a regulatory level set within a couple of months. The State of California is working on its own independent assessment and hopes to have a regulatory level set by summer 2003.

Mr. Werner stated that U.S. EPA indicated that there are very high levels of perchlorate in groundwater in Sacramento. Are those the levels that people are drinking? Mr. Mayer replied that the water people are drinking is several miles from these sites so the perchlorate levels are much lower.

Mr. Zweifel stated that the Orange County Water District (OCWD) has been testing for perchlorate since 1997. Ms. Mary Aileen Mathias, RAB member representing the Irvine Ranch Water District (IRWD), said that she is not sure if IRWD is testing for perchlorate. Mr. Mayer responded that the State of California has been testing for perchlorate as a non-regulated contaminant since 1997. Mr. Werner asked if testing has shown if the perchlorate levels are increasing, decreasing, or remaining the same. Mr. Mayer responded that most of the sources of contamination are old sources so perchlorate has diluted. Most of the current manufacturers have a raised consciousness about perchlorate contamination. The perchlorate plume in Redlands, California is from a Lockheed facility that closed in the late 1970s and that plume extends out 9 miles away from that former rocket facility. Lockheed operations started in the 1950s and so it took 50 years for that groundwater plume to cover 9 miles.

Dr. Brown asked, in regard to the map showing states where there have been environmental releases of perchlorate, are those mostly sites where there was rocket testing and development, or use of explosives? Mr. Mayer replied that those sites were mostly used for rocket testing, research and manufacturing. However, there are munitions and propellant disposal areas, as well as, a number of explosives manufacturers and quite a few pyrotechnic, flares and fireworks manufacturers. Generally, the major perchlorate users are Lockheed, Rocketdyne, and Aerojet, and those users are few in number, but large in volume of perchlorate produced per year.

Mr. Zweifel asked what is the U.S. EPA advisory level for drinking water. Mr. Mayer replied that the reference dose does not directly translate into a drinking water level. U.S. EPA needs to determine whether to use an adult or child model and determine whether to use short- or long-term exposure. There are other aspects as well, such as looking at environmental media other than drinking water like fertilizer. Currently, U.S. EPA does not have data on media other than groundwater.

Mr. Werner asked if there is going to be a meeting sometime in 2003 to set a national standard for perchlorate. Mr. Mayer said that at this stage U.S. EPA is only considering the science aspect. They are not considering the ability to cost-effectively treat perchlorate in groundwater. Typically, scientific tests are performed, the draft results go through a peer review process, and the results are finalized once all peer review comments have been addressed. There are now suggestions that the

draft results go through a third peer review process that would be conducted by the National Academy of Sciences or the Science Advisory Board to give a blue ribbon approval to the results.

Ms. Mathais stated that it sounds like the only drinking water standard right now is the State of California range between 2 and 6 ppb. Mr. Mayer said that the State of California range is only a public health goal for drinking water, and that that is still a draft range. Ms. Mathais asked if any reclaimed water standards had been analyzed. Mr. Mayer stated that drinking water standards, what is coming out of your tap, are the only standards that are currently being addressed. Mr. Mayer added that the science is not black and white, so these ranges are only estimates or probabilities. In addition, the science suggests an order of magnitude around these reference dose estimates. As reference dose limits are set based on science, eventually legal limits will also be set beyond a certain reference dose limit which essentially is a public policy decision.

Ms. Mathais said that it is her understanding that there was a lot of perchlorate found in Los Angeles. Mr. Mayer responded that there are a number of perchlorate sources in Los Angeles County. The San Gabriel Valley is contaminated by the old Aero Jet plant. Specifically, there are lower levels showing up in the San Fernando Valley, and the Chino Basin in San Bernardino Valley. The problem is there was a flare factory, then a rocket factory, then a fireworks factory, then hazardous waste recycling facility, then a landfill, so there are a lot of suspects in determining who is responsible for the perchlorate contamination.

Dr. Brown asked if the perchlorate detection limit has changed, and are the low ppb ranges due to being able to detect perchlorate at that lower level? Mr. Mayer replied that the official detection limit, or the reporting limit, is still 4 ppb. Different labs can do better than that, especially if they have cleaner water. If you have too many salts in the water, it blocks how good a resolution you get in the chromatography that determines the level of perchlorate. There are even more expensive methods being researched that may be able to detect perchlorate at even lower levels.

Mr. Zweifel stated that U.S. EPA is presenting an adult level, but he has concerns about the child receptor. Mr. Mayer explained that the in-utero effect is the most critical effect, so the dose is to mother or adult receptor. While in utero, the mother's hormones are what are supporting the fetus. Once the baby is born the thyroid has to kick in, and if the thyroid has been stressed in utero there can be effects. Mr. Zweifel stated that de-ionizing should take care of perchlorate. Mr. Mayer responded that perchlorate is unusual and does not send out a strong signal to de-ionizing resins, so he is not sure de-ionizing resins would work to remove perchlorate. He added that de-ionizing has not been tested for perchlorate.

◆ **Update on Site 11, Transformer Storage Area, Mr. Karnig Ohannessian, Remedial Project Manager, Naval Facilities, SWDIV and Mr. Crispin Wanyoike, Earth Tech**

Mr. Piszkin introduced Mr. Karnig Ohannessian, who is a new remedial project manager (RPM) working on MCAS El Toro. He mentioned that Ms. Content Arnold, Lead RPM, will be having a baby soon and so she will be on maternity leave for the next three or four months and that Mr. Ohannessian has been brought onto the project. Mr. Ohannessian has a degree in Chemical Engineering and has worked in the environmental arena for the last 13 years.

Mr. Ohannessian stated that Site 11 is located in the southwest quadrant of MCAS El Toro. Site 11 was used as a storage yard for transformers from 1968 to 1983. The site is divided into 3 units: Unit 1 is a concrete pad with a 3-foot-wide strip of ground adjacent to it, Unit 2 is an asphalt-lined drainage ditch along the building, and Unit 3 is the remainder of the fenced, unpaved storage yard. Polychlorinated biphenyls (PCBs) and low levels of pesticides were reported in the soil in Units 1 and 2 during the Remedial Investigation. The contamination is confined to the top 4.5 feet of soil and is fairly immobile. Groundwater is found at 100 feet, so there is no threat of groundwater contamination.

Following a human health risk assessment, Unit 3 was recommended for no further action. Mr. Ohannessian explained that Units 1 and 2 were recommended for removal of the PCB-contaminated soil. The soil removal would involve approximately 133 cubic yards of soil at Unit 1 and 100 cubic yards at Unit 2.

Mr. Ohannessian explained that a Proposed Plan was issued to the public in May 1999 and a Draft Final ROD was issued in September 1999. The ROD documented the selected remedy for soil removal. As the Navy geared up for the soil removal, the Remedial Action Strategy document issued in December 1999 stated that it was realized that the risk-based cleanup goals for PCBs for Site 11 could not be achieved. The problem was that cleanup levels were lower than laboratory detection limits, so it would be impossible to determine when the cleanup level had been achieved. The document recommended using the U.S. EPA Region 9 Preliminary Remediation Goals (PRGs) for the cleanup level. He explained that in most cases, risk-based cleanup goals are higher than PRGs, but in this case they were lower.

The regulatory agencies stated that if the cleanup goals were going to be changed, an Explanation of Significant Differences (ESD) must be submitted. Mr. Ohannessian explained that the ESD is a document that is necessary if you have a significant, but not a fundamental, change to the ROD. For a significant change, like changing the cleanup goals, an ESD is required. A fundamental change would be a change in the cleanup approach that would require an amendment to the ROD. In this case, the cleanup goals have changed, but the risk reduction for regulatory compliance, the cleanup approach and the primary constituents of concern have not changed.

Mr. Ohannessian said that during this reevaluation of the cleanup goals, U.S. EPA scientists came up with new exposure factors and toxicity indices for PCBs. With this new information, there was a need to reevaluate the risk and new soil samples were collected. The Navy incorporated the new U.S. EPA scientific data on the exposure factors and toxicity indices, the new soil data, and all the old data to reevaluate the risk. For the risk reevaluation, the new EPA exposure factors and indices were used, and the contaminant concentrations changed based on the new sampling data. What did not change for the risk evaluation were the risk reduction, the exposure scenarios, the chemicals analyzed, the methodology and the formulas.

The reevaluated risk was generally lower for Site 11, with risk higher in only one place. Based on these results, the calculated risk based concentration is generally higher, with a higher contaminant concentration still providing the same level of risk reduction. Following discussions with the regulatory agencies, it was decided to continue to implement the removal of the soil remedial action. However, the new concentrations will be used for evaluating when cleanup goals have been reached.

The ESD is currently being developed and is scheduled for distribution to the BCT in February 2003. The BCT will review the ESD and provide comments, which the Navy will then address before finalizing the ESD. A public notice announcing the ESD is scheduled for July 2003. The Remedial Action Work Plan will be developed in parallel with the ESD, and fieldwork is scheduled to take place in the last quarter of 2003 with the final Remedial Action Report in March 2004.

Discussion

Dr. Brown asked with the risk target of 1×10^{-6} , and the site slated for unrestricted use, what does that translate into for PCB concentrations present in the soil? Mr. Wanyoike stated that the PRG is 220 ppb and the risk-based cleanup level will be slightly above that, probably around 240 ppb. Mr. Ohannessian added that the changes from the previous risk-based calculations to the new calculations will be compared side-by-side in the ESD.

Mr. Zweifel asked for a brief description of PCBs. Mr. Ohannessian explained that PCBs are substances that were used in transformer oil. At Site 11, the transformer oil leaked into the soil. He explained that fortunately PCBs are not mobile, so removing the contaminated soil will remove the PCBs. Mr. Zweifel asked, what was Site 11 used for? Mr. Ohannessian replied that it was a maintenance facility and that the transformers were stored at the site.

Mr. Werner asked, what are the Site 11 dimensions? Mr. Wanyoike responded that the entire yard is roughly 200 feet by 100 feet. He added that this was not a Defense Reutilization Marketing Office or DRMO area. Mr. Coleman stated that the Proposed Plan for Site 11 is available in the information repository for review, and the only aspect that has changed is the risk assessment.

Mr. Zweifel stated that PCBs are carcinogenic. Mr. Ohannessian responded that at this site the cancer risk is at a level that requires contaminated soil removal.

◆ What if New Contamination is Found After Property Transfer? Mr. Andy Piszkin, MCAS El Toro BRAC Environmental Coordinator

Mr. Piszkin stated that this issue first came up in 1998. In fact, the July 1998 RAB meeting minutes, which are available on the Navy's environmental website, documented the discussion on what happens if contamination is found after land transfer. That presentation provided a lot of good legal information. In addition, there are several handouts available tonight on the information table covering this issue

Mr. Piszkin stated that there is a handout, an article from the *San Diego Union-Tribune*, covering a recent occurrence at San Diego's former Naval Training Center (NTC). This is a situation where a developer was clearing land and encountered burn ash. The developer had purchased insurance to cover this type of situation and is handling the environmental issues in a protective manner.

Mr. Piszkin explained that the Navy has obtained funding to "come back" out to NTC for an additional investigation if it is needed and cleanup because the Navy is ultimately responsible for the cleanup. According the newspaper article, the developer is handling the situation with oversight

from the County of San Diego. The insurance company will cover the cost of the investigation and cleanup. It will then be the responsibility of the insurance company to claim reimbursement from the Navy for cleanup expenses incurred. This scenario represents a possible resolution if such an occurrence happened at MCAS El Toro at some point in the future.

There is also a handout "Responsibility for Additional Environmental Cleanup After Transfer of Real Property" dated July 25, 1997. On the second to last page of the handout, there are two paragraphs: (1) Circumstances Under Which DoD Would Return to do Additional Cleanup, and (2) Circumstances Which DoD Would Not Return to do Additional Cleanup. The DoD will not come out and remediate a site where the intended reuse has been changed in a way that violates a deed restriction or institutional control.

Mr. Piszkin stated that section 120(h) in CERCLA requires that all necessary remedial actions to protect human health and the environment be taken prior to transfer. Under this scenario, the Navy is responsible for the investigation or cleanup after transfer. In addition, under Section 330 of 1993 Defense Authorization Act, the DoD indemnifies the land recipient from claims that results from the contamination on that property, which provides more protection. He added that all federal deeds and transfers have a clause granting the government access to the property in any case in which an investigation or cleanup is found to be necessary after the date of such transfer. He explained that with a large property like MCAS El Toro, there is always some uncertainty with the remedial program, and there may be something that has been missed. That is one reason the Navy starts out using cost plus contracts when investigating bases because there is a need to be flexible for what might be found on the property.

Discussion

Dr. Brown stated that he understands this NTC article to say that the Navy is willing to let a recipient of a land transfer go ahead with investigation and cleanup without Navy oversight. Mr. Piszkin responded that the Navy has been meeting with the developer over the last few months, but he does not know the details of those meetings. In addition, the Navy is conducting its own investigation of this site at NTC. He added that he is also not aware of the details of the agreement between the developer, the City and the DoD, nor of any negotiations that have taken place. He added that the Navy would ultimately be responsible for the cleanup under CERCLA Section 120(h). He stated that what happens from this point forward is still being determined.

Ms. Mathais asked if there have been concerns about whether the County of Orange would be left holding the bag if there is anything found in the future at MCAS El Toro. She asked if the Navy has discussed this issue with the County. Mr. Piszkin responded that he is sure the Navy and County have discussed this issue. He added there are situations where the Navy would not take care of future environmental issues. For instance, if a remedy for a landfill is in place and has been deemed operating properly and successfully, and the land has been designated for reuse as a park. If someone wants to go out there and plant trees, where the roots might disrupt the cap, that would not be something the Navy would be responsible to remediate. The intended reuse of the land was changed, and that would be a disruption of the remedy and a violation of institutional controls. Those issues have likely been part of the discussions between the Navy, the County and the City.

◆ Open Q & A -- Environmental Topics

Ms. Mathais said that the Mayor of Irvine has announced that the runways would be demolished by the end of 2003. Mr. Piszkin stated that he does not know what control the mayor would have over federal property. That property is under lease, but is still owned by the federal government.

Mr. Zweifel stated that there has been an expose on private laboratories that SWDIV and U.S. EPA have used which have had skewed results to what the contractor wants. Mr. Piszkin responded that there is a lot of quality control and quality assurance that the Navy and the regulatory agencies provide so that this would not happen. The laboratory data is computer generated, and it goes through validation and intense scrutiny.

MEETING EVALUATION AND FUTURE TOPICS

Meeting evaluation by RAB members:

RAB members did not provide any input pertaining to this meeting.

Suggestions for future presentation topics include:

- Irvine Desalter Project Update (standing agenda item)
- Transfers – Fed-to-Fed Status
- Lab Audit Processes
- On-Station Fuel Distribution Lines/Tank Farm 555
- EBS Briefing/Update
- Site 2 Update/Alton Parkway Update
- Site Tour Plans

CLOSING ANNOUNCEMENTS/FUTURE MEETING DATES

Upcoming Public Meeting, RAB Meeting, and Subcommittee Meeting

The next RAB meeting will be held from 6:30 to 9 p.m., March 26, 2003 in the regular meeting location, Irvine City Hall, Conference and Training Center (CTC), One Civic Center Plaza, Irvine. A RAB Subcommittee meeting will be held from 5 to 6 p.m., the same evening in Room L-104 at Irvine City Hall.

Recent RAB Subcommittee Meetings

The most recent RAB Subcommittee meeting was held Wednesday, January 29, 2003, in Room L-104, Irvine City Hall, before tonight's RAB meeting.

RAB Meeting Adjournment – January 29, 2003 Meeting

The 61st meeting of the MCAS El Toro Restoration Advisory Board was adjourned at 9:18 p.m.

Materials/Handouts Include:

- *RAB Meeting Agenda/Public Notice – 1/29/02 RAB meeting.
- *Meeting Minutes from the September 25, 2002 RAB Meeting – 59th RAB.
- MCAS El Toro RAB Meeting Schedule, Full RAB and RAB Subcommittee (Sept. 2002 – July 2003).
- MCAS El Toro RAB Mission Statement and Operating Procedures.
- RAB Membership Application – MCAS El Toro RAB.
- MCAS El Toro Installation Restoration Program – Mailing List Coupon.
- MCAS El Toro Restoration Advisory Board – Membership Roster (revised December 2002).
- MCAS El Toro Administrative Record File - Information Sheet (for on-Station access).
- MCAS El Toro Information Repository - Information Sheet.
- Internet Access – Environmental Web Sites.
- MCAS El Toro Marine Corps/Navy RAB Co-Chair (address, telephone, fax, e-mail).
- MCAS El Toro Marine Corps/Navy Team (address, telephone, fax, e-mail).
- MCAS El Toro Project Contacts – Where to Get More Information.
- One-Page Glossary of Technical Terms.
- MCAS El Toro Base Realignment and Closure Business Plan, Introduction Section, March 2002.
- Department of Navy – Policy for Conducting Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Statutory Five-Year Reviews, November 2001.
- Department of Defense – Institutional Controls, spring 1997.
- Department of Defense – A Guide to Establishing Institutional Controls at Closing Military Installations, February 1998.
- Department of Defense – Memorandum - Responsibility for Additional Environmental Cleanup after Transfer of Real Property, 1997.
- Department of Defense – Management Guidance for the Defense Environmental Restoration Program, September 2001 & DoD Guidance on Improving Public Involvement in Environmental Cleanup at Closing Bases, December 1997.
- U.S. EPA Fact Sheet – A Citizen’s Guide to Natural Attenuation, October 1996.
- Brochure – Commonly Asked questions Regarding the Use of Natural Attenuation for Chlorinated Solvent Spills at Federal Facilities (Brochure developed through a partnership of U.S. EPA, Air Force, Army, Navy, and Coast Guard).
- U.S. EPA Fact Sheet – Checking Up on Superfund Sites: The Five-Year Review, June 2001.
- Map – Former MCAS El Toro, IRP Site Locations and Proposed Future Land Use, RAB Meeting, September 25, 2002.
- *Presentation* – MCAS El Toro, Installation Restoration Program, Status Update for 60th RAB Meeting, December 4, 2002, presented by Andy Piszkin, BRAC Environmental Coordinator, MCAS El Toro.
- *Presentation* – MCAS El Toro RAB Meeting, Installation Restoration Program Sites 2 and 17, Remedial Design and Aquifer Test Update, December 4, 2002, presented by Gordon Brown, SWDIV Remedial Project Manager and Crispin Wanyoike, Earth Tech, Inc.
- *Presentation* – MCAS El Toro RAB Meeting, Installation Restoration Program Site 3 and 5, Pre-Design Investigation, December 4, 2002, presented by Kyle Olewnik, SWDIV Remedial Project Manager and Crispin Wanyoike, Earth Tech, Inc.

* Mailed to all RAB meeting mailer recipients on 11/22/02.

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

- U.S. EPA, Reevaluation of Risk at IRP Sites 8, 11 and 12, MCAS El Toro, letter dated November 18, 2002 - To: Ms. Laura Duchnak, BRAC Operations; From: Nicole G. Moutoux, Remedial Project Manager, U.S. EPA.
- U.S. EPA, FFA Schedule Extension Request for Sites 3 and 5, MCAS El Toro, letter dated November 26, 2002 - To: Dean Gould, BEC, MCAS El Toro; From: Nicole G. Moutoux, Remedial Project Manager, U.S. EPA.

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

- No Items Submitted

Agency Comments and Letters – California Regional Water Quality Control Board (RWQCB), Santa Ana Region

- No Items Submitted

RAB Subcommittee Handouts and Letters

- No Items Submitted

Additional Information Submitted

- 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) 551-7151. Library hours are Monday through Thursday, 10 am to 9 p.m.; Friday and Saturday, 10 am to 5 p.m.; Sunday 12 p.m. to 5 p.m.

Internet Sites

Navy and Marine Corps Internet Access

*Naval Facilities Engineering Command, Southwest Division, Environmental Web Sites
(includes RAB meeting minutes):*

www.efdsww.navfac.navy.mil/environmental/envhome.htm

www.efdsww.navfac.navy.mil/environmental/ElToro.htm

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/index.html (site for Superfund)

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

www.epagov/fedrgstr (site for Federal Register Environmental Documents)

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)

Meeting Minutes 1/29/03 MCAS El Toro RAB Meeting

**MCAS EL TORO
RESTORATION ADVISORY BOARD MEETING
January 29, 2003**

RAB MEMBER SIGN-IN SHEET

Name	Signature	Name	Signature
Bell, Richard		Marquis, Suzanne	
Britton, George		Matheis, Mary Aileen	<i>Mary Aileen Matheis</i>
Broderick, John		Mathews, Thomas	
Chesney, Triss	<i>Triss M. Chesney</i>	Meier, Fred J.	<i>Fred J. Meier</i>
Crompton, Chris		Olquin, Richard	
Herndon, Roy	<i>Adam H. Johnson for Roy Herndon</i>	Piszkin, Andy - Co-Chair	<i>F. A. Pizkin</i>
Hersh, Peter	<i>Peter Hersh</i>	Reavis, Gail	
Hurley, Greg		Rudolph, Marcia	<i>Marcia Rudolph</i>
Jung, Dan		Sharp, Steven	<i>Steven Sharp</i>
Moutoux, Nicole	<i>Nicole Moutoux</i>	Werner, Jerry - Co-Chair	<i>Jerry Werner</i>
Marquis, Roland		Woodings, Bob	<i>Bob Woodings</i>
		Zweifel, Donald E.	<i>D. Zweifel</i>

New Attendees
will be added
to the MCAS
El Toro
Mailing List.

MCAS EL TORO
RESTORATION ADVISORY BOARD MEETING
January 29, 2003

NON-RAB MEMBER SIGN-IN SHEET
Other Attendees, Guests

NAME <u>PLEASE PRINT CLEARLY</u>	AFFILIATION	COMPLETE MAILING ADDRESS [STREET NUMBER, STREET NAME, CITY, STATE, ZIP CODE]	PHONE FAX	INTERESTED IN RAB MEMBERSHIP?
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Karnig Ohannessian	SW DIV	1230 Columbia St. #870 San Diego, CA	(619) 532-0796	No
Roy Ouellette	Resident of Mission Viejo	28792 Tomelloso Mission Viejo, CA 92692	(949) 261-1577	NO
TIM CHAVEZ	DTSC	5796 CORPORATE AVE CYPRESS, CA 90630	714-484-5482	—
CRISPIN WANYORKE	EARTH TECH	100 W BROADWAY LONG BEACH CA 90802 90802 90802	949 451 3710 562 951 2057	~
SCOTT KEHE	U.S. NAVY ROICC LA	MCAS EL TORO	949 726-2506	—

New Attendees
will be added
to the MCAS
El Toro
Mailing List.

MCAS EL TORO
RESTORATION ADVISORY BOARD MEETING
January 29, 2003

NON-RAB MEMBER SIGN-IN SHEET
Other Attendees, Guests

NAME <u>PLEASE PRINT CLEARLY</u>	AFFILIATION	<u>COMPLETE MAILING ADDRESS</u> [STREET NUMBER, STREET NAME, CITY, STATE, ZIP CODE]	PHONE FAX	INTERESTED IN RAB MEMBERSHIP?
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MICHAEL BROWN	IRVINE			

New Attendees
will be added
to the MCAS
El Toro
Mailing List.

**MCAS EL TORO
RESTORATION ADVISORY BOARD MEETING
January 29, 2003**

**NON-RAB MEMBER SIGN-IN SHEET
Other Attendees, Guests**

<u>NAME</u> <u>PLEASE PRINT CLEARLY</u>	<u>AFFILIATION</u>	<u>COMPLETE MAILING ADDRESS</u> <u>[STREET NUMBER, STREET NAME, CITY,</u> <u>STATE, ZIP CODE]</u>	<u>PHONE</u> <u>FAX</u>	<u>INTERESTED</u> <u>IN RAB</u> <u>MEMBERSHIP?</u>
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Minutes of the El Toro Technical Review Committee
December 4, 2002

The meeting was called to order by Marcia Rudolph. All attendees introduced themselves. (List Appended). There was no meeting held in July. The September meeting did not have a recording secretary so Minutes for that meeting were not prepared.

Marcia reviewed the status of various documents received during the period since the September meeting. In addition, Jerry Werner brought a number of documents that he had received during his tenure as RAB Co-Chair. Jerry indicated that because of his election to the local El Toro Water District Board, he would no longer be able to serve as RAB Co-Chair. Any documents that were not distributed to members would be brought to the RAB for recycling.

The committee discussed the following items with Triss Chesney with the DTSC, Nicole Moutoux and Viola Cooper with the U.S. EPA:

- Transfer and Liability Issues
- The Alton Parkway Extension
- The US Budget and impacts on EPA/DTSC/BRAC funding

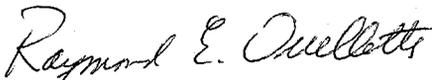
A list of subjects was developed for discussion at the RAB meeting. They consisted of the following items:

- Transfer and Liability Issues associated with Land Use and Deed Transfers
- Breach of Institutional Controls after Land Transfer
- Interface with the Alton Parkway Extension Project
- Request update on budget issues – Federal and California
- Recommend another tour within the next 6 to 9 months
- Status of Perchlorate contamination on base.

The next Technical Review Committee meeting will take place at 5:00 p.m. in the Irvine City Hall before the next RAB Meeting that is scheduled for January 29, 2003.

There being no further business, the meeting was adjourned.

Respectfully Submitted,



Raymond E. Ouellette
Secretary

**TECHNICAL REVIEW COMMITTEE
EL TORO RAB**

ATTENDEES

DATE: December 4, 2002

	Present	e-mail	Telephone	Fax
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Contract No. N-68711-95-D-7526

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TO: Contracting Officer
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Southwest Division
Ms. Karen Rooney, Code 02R1.KR
1220 Pacific Highway
San Diego, CA 92132-5190

DATE: March 18, 2003
CTO #: 038 (EL3)
LOCATION: MCAS El Toro

FROM: Thurman L. Heironimus, Project Manager

DESCRIPTION: Restoration Advisory Board Meeting Mailer - RAB Meeting Agenda and Public Notice for
3/26/03 RAB Meeting and RAB Meeting Minutes and Attachments from the 1/29/03
Meeting - Dated - March 2003

TYPE: Contract Deliverable (Cost) X CTO Deliverable (Technical) Other

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