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**FORMER NAVAL AIR STATION MOFFETT FIELD  
RESTORATION ADVISORY BOARD MEETING  
MOUNTAIN VIEW SENIOR CENTER  
MOUNTIAN VIEW, CALIFORNIA  
NOVEMBER 29, 2012**

*NOTE: An acronym list is provided on the last page of these minutes.*

**Subject: RAB MEETING MINUTES**

The Restoration Advisory Board (RAB) meeting for former Naval Air Station (NAS) Moffett Field was held on Thursday, November 29, 2012, at the Senior Center in Mountain View, California.

**Community RAB Members in attendance:**

Bill Berry, Gabriel Diaconescu, Linda Ellis, Rebecca Feind, Libby Lucas, Diane Minasian, Arthur Schwartz, Lenny Siegel, Steve Sprugasci, Peter Strauss, Greg Unangst, Dan Wallace, and Steve Williams.

**Regulatory Agency and Navy RAB Members in attendance:**

Scott Anderson (Navy), Yvonne Fong (U.S. Environmental Protection Agency [EPA]), Alana Lee (EPA), Penny Reddy (EPA), and Elizabeth Wells (San Francisco Bay Regional Water Quality Control Board [Water Board])

**Other Navy, Regulatory Agency, National Aeronautics and Space Administration (NASA), City, and Consultant Representatives in attendance:**

Bryce Bartelma (Navy), Don Chuck (NASA), Carolyn Hunter (Tetra Tech EMI [Tetra Tech]), Lynn Kilpatrick (City of Sunnyvale), Keith Suida (NASA), George Sloup (NASA), Tommie Jean Valmassy (Tetra Tech), Jim Whitcomb (Navy), Kevin Woodhouse (City of Mountain View)

**Other Community Members and Agency Representatives in attendance:**

Heather Bourbeau (California Department of Public Health [CDPH]), Laura Caballero (Army Reserve), Truman B. Cross (Oakland Cloud Dusters), Kristina Curley (Army), Melissa Darnell, Larry Ellis (Earth, Air and Space West Foundation for Education), Rana Fakhouri, Gaelle Glickfield (Army Reserve), Cynthia Hanson, Jane Horton, Don Kensil, Jackie Lanzon, Brian Leen (Los Gatos Research), Amanda Michels (Army), Kevin Morris, Vera Nelson, Jack Nadeau, Elena Pacheco, Perry Palmer (Keenan Lovewell), Patricia Ponzini, Marty Rawson, Ed Schlosser, Mike Schulz (AMEC), Jeff Segall, Kurt Snipes (CDPH), Garrett Turner, Tammy Skoog, Terry Terman, and Bill Wissel

**WELCOME**

Bill Berry (RAB Community Co-Chair) and Scott Anderson (RAB Navy Co-Chair) opened the meeting at 7:00 p.m. and welcomed everyone in attendance. Mr. Berry added two items to the agenda: a memorandum from Peter Strauss (RAB member) regarding the Army's Supplemental Site Investigation for the Orion Park Housing area, and the proposed letter from the RAB to the Army, EPA, and Water Board.

**APPROVAL OF MEETING MINUTES**

Mr. Anderson asked for corrections to or comments on the minutes for the August 9, 2012, RAB meeting. On page 6, the fourth bullet will be changed to "Mr. Siegel said that NASA's administration does not believe there is a need for the hangar..." The RAB voted to finalize the minutes for the August 9, 2012, meeting with the correction.

<u>#</u>	<u>DOCUMENT</u>	<u>APPROXIMATE SUBMITTAL DATE</u>
1.	Final 2010 Sites 1 and 2 Landfill Annual Report	January 2013
2.	Final Sites 1, 2, and 22 Landfill Annual Report	January 2013
3.	Final Site 28 Vapor Intrusion (VI) Monitoring Summary Report	February 2013
4.	Draft Final Site 29 Long-Term Management Plan (LTMP) and response to comments (RTC)	December 2012
5.	Final Site 29 LTMP and RTC	January 2013
6.	Draft Site 29 After Action Report	January 2013

## HANGAR 1 UPDATE

Bryce Bartelma (Navy) provided an update on the work at Hangar 1. A community member asked when the removal action was completed and whether there is a concern about health and safety for the daycare center near Hangar 1. Mr. Bartelma said the scaffolding was removed in October 2012, and a few tasks remain, including collecting confirmation samples before the workers demobilize. He said the Navy and NASA have been conducting air monitoring 24 hours a day, 7 days a week, and the results have been good.

- Lenny Siegel (RAB member) congratulated the Navy and its contractors on the success of the removal action. Mr. Siegel said the Hangar 1 After Action Report does not provide a clear outline of who is responsible for the site and structure. Mr. Anderson said responsibility for the site and structure going forward will be worked out between the Navy and NASA at the headquarters level.
- Mr. Strauss asked if the Navy and NASA are currently working together on the details of the site, or if they will wait until the Record of Decision to work out details of responsibility in the future. Mr. Bartelma said the Navy is preparing the RTCs for the Draft Long-Term Management Plan for Hangar 1. Don Chuck (NASA) said NASA has not yet worked out the details of the path forward for this site with the Navy.
- Mr. Berry said he would like to make sure the RAB is briefed on future plans for Hangar 1 at upcoming RAB meetings. Mr. Anderson noted the RAB's purpose is to discuss cleanup rather than reuse, but said he would take note that the RAB would like future status updates about the Hangar 1 site.
- Mr. Strauss asked about the procedure for providing comments on the Draft Long Term Management Plan for the Hangar 1 site. Mr. Bartelma said comments may be submitted to him or to Mr. Anderson.
- Community member Terry Terman said he read in the newspaper that Google had made an offer on Hangar 1 and asked for more information about the status of that offer. Mr. Siegel said H211, LLC, made an offer to NASA to lease and reskin Hangar 1. Mr. Siegel said NASA headquarters has not yet responded. He added that NASA headquarters is conducting a review with General Services Administration (GSA) to evaluate the feasibility to excess property at former NAS Moffett Field. His understanding is that local NASA Ames officials no longer have the authority to make decisions that

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will affect the structure, and the offer from H211 and any other reuse issues are being addressed at NASA headquarters.

#### **SITE 25 UPDATE**

Mr. Bartelma provided an update on the field work the Navy is conducting at Site 25. Mr. Bartelma said the project was delayed by about 1 year from the original schedule to deal with excess water at the site.

- Mr. Siegel asked how much of the site will be revegetated. Mr. Bartelma said about 10 acres will be revegetated but would need to confirm an exact amount. Mr. Anderson said the mudflat areas will not be revegetated.
- Mr. Bartelma said rain may delay the hydroseeding because it cannot be done during rain. Mr. Siegel asked when the Navy will stop diverting water at Site 25. Mr. Bartelma said the Navy ceased diverting water to Site 25 around November 20, 2012.
- RAB member Linda Ellis asked if the seed blend is indigenous. Mr. Bartelma said the seeds are native to the Bay Area. Mr. Strauss asked if the Navy will post a fence before the edge of the site, and added that he does not want to see vegetation removed once it is redone.

#### **GREATER BAY AREA CANCER REGISTRY MOUNTAIN VIEW CANCER INCIDENCE REPORT**

Dr. Kurt Snipes (CDPH, Chief of Cancer Surveillance and Research Branch) presented an update on CDPH's cancer incidences study. He said that in California, all cases of cancer are reported to the California Cancer Registry (CCR), and CCR monitors trends for the state and compares them with nationwide trends. One of CCR's responsibilities is to conduct community assessments, which it has done for the Moffett Field area.

CCR specifically assessed data for the community south of the trichloroethylene (TCE) plume. Because TCE is the contaminant of concern, CCR looked at data for cancers specifically related to TCE exposure. There are three types of cancers shown to be related to TCE exposure: liver, kidney, and a group of cancers known as Non-Hodgkin Lymphoma, which are blood cancers. Dr. Snipes said CCR reviewed cancer data in the specified area for the time frame of 1988 through 2010. He explained cancer data take a year and a half to be collected, which is the reason the most recent data reviewed are from 2010. That data were broken into three time periods: 1988 to 1995, 1996 to 2005, and 2006 to 2010. There were no excess occurrences of liver or kidney cancers for all three time periods. For the middle time period, 1996 to 2005, however, there were excess Non-Hodgkin Lymphoma cases. The question that CCR then tries to answer is whether these excess occurrences are a "cancer cluster."

Dr. Snipes said that, according to Centers for Disease Control (CDC) criteria, the excess occurrences of Non-Hodgkin Lymphoma cases from 1996 to 2005 would not be classified as a cluster. He said that, given the small population, it is mathematically difficult to establish significance of the additional cases. Dr. Snipes said the results of the assessment do not indicate any elevated risk for Non-Hodgkin Lymphoma or other TCE-related cancers in the area. He said CCR will continue to monitor cases in the area to look for trends or clusters.

- Mr. Strauss asked what specific number of cases CCR would have been expected in that 1) time frame and 2) how many there actually were. Dr. Snipes said 31 cases were reported.
- Mr. Strauss asked if CCR had made any attempts to contact former residents and gather cancer data on them. Dr. Snipes said CCR does not have the resources for such outreach.
- Mr. Siegel said he believes the TCE has nothing to do with the excess non-Hodgkins Lymphoma cases reported from 1996 to 2005. There is no evidence the drinking water is contaminated, and the Navy and regulators have been diligent about making sure people are not exposed to TCE in indoor air.

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- RAB member Steve Williams asked who initiated the study. Dr. Snipes said a local resident contacted his agency and asked that the study be done, which is the standard procedure for these studies to be conducted. He added that CCR receives about 100 such calls per year for various communities.
- Mr. Williams asked if CCR had investigated whether a work-related cause is possible for residents affected by these cancers. Dr. Snipes said it is not possible to contact everyone to determine their exposure at work or other locations.
- A community member said pump and treat technologies were used in the area during that time period, (1996 to 2005) and asked if that could be the cause of the excess number of Non-Hodgkin Lymphoma cases. Mr. Siegel stated that even if people had been exposed in that manner, he does not believe it would have been a big enough release to cause a health impact. He added the CCR study does not look at air flow patterns.
- A community member noted the exposure pathways Dr. Snipes mentioned do not include breathing TCE and asked if there is a study about that exposure pathway. Dr. Snipes said there is not conclusive information to indicate what might contribute to a disease such as lung cancer, so only the three types of cancers mentioned — which are shown to be related to TCE exposure — were included in the CCR study. Mr. Siegel said there have been inhalation studies, and more is being learned over time.

## REGULATORY AGENCY UPDATE

Penny Reddy (EPA) said EPA received regional groundwater contamination comments on the groundwater feasibility study (FS) for the Middlefield-Ellis-Whisman (MEW) plume. Ms. Reddy noted the community recommended that modeling be used to better define the plume area. Mr. Siegel said he is pleased that EPA is looking at residential issues in that area.

- RAB member Greg Unangst thanked EPA for making the Orion Park data available and requested that Orion Park updates are included on future RAB agendas.
- Mr. Unangst said the Stevens Creek watershed could be affected by the contamination at Orion Park and asked who is responsible for monitoring that watershed. Mr. Chuck said the Santa Clara Valley Water District is responsible for the Stevens Creek watershed. He added that the groundwater flows from Steven's Creek out, not into the creek.
- RAB member Arthur Schwartz made a motion to approve the proposed letter from the RAB to the Army, EPA, and Water Board on Orion Park. The motion was approved by the RAB; members will sign the letter and it will be delivered.
- Mr. Anderson provided an update on the Navy's use of Fumitoxin to manage burrowing rodents at the Site 1 landfill. He stated that the California Department of Fish and Game (CDFG) had raised concerns in comments on the Annual Report. RAB member Libby Lucas asked if there are concerns that the rodents killed by the use of Fumitoxin as a rodenticide could then be eaten by raptors. Mr. Anderson said that the technique utilized in the application of the Fumitoxin is only a concern for burrowing animals. The rodenticide kills them in their burrows, so raptors are not generally exposed to them. Mr. Anderson said Navy and NASA biologists regularly inspect the site. The draft 2011 Annual Report did not sufficiently illustrate the steps that are utilized in the application process (including biological inspections, etc.), so this information will be included in the next version of the report. Ms. Lucas asked who is responsible for the raptor perches at the site. Mr. Anderson said the Navy is responsible, and he is aware that one is in disrepair, as noted by the CDFG during a site visit.

The Navy is responding to agency comments on the draft 2011 Annual Report and will issue RTCs. Elizabeth Wells (Water Board) said CDFG visited the site with the Navy to see the application of Fumitoxin.

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Ms. Wells also said the Water Board has issued its regional monitoring update. She provided copies of the 2012 Regional Monitoring Program Update, and said it can also be found on line at [www.sfei.org](http://www.sfei.org).

### **LASER-BASED SPECTROMETER FOR VOLATILE ORGANIC COMPOUNDS (VOC) MONITORING – BUILDING 10 CASE STUDY**

Mr. Anderson introduced Brian Leen with Los Gatos Research (LGR) to give the results of the case study his agency conducted using Incoherent Cavity Ring-Down Spectroscopy (iCRDS) at Building 10. During his presentation, a community member asked about the concentrations of TCE beneath Building 10. Alana Lee (EPA) said groundwater TCE concentrations are approximately 1000 parts per billion (ppb) beneath Building 10. Mr. Chuck said in general TCE fumes are coming from groundwater, not from the building itself. Mr. Anderson said there is a tunnel that runs from Building 10 to Hangar 1 and houses steam lines that were used for heating and other types of piping. According to NASA, the steam lines are no longer used. Mr. Anderson said the Navy is preparing a work plan to further evaluate the tunnel.

- Mr. Siegel asked Mr. Leen about the cost comparison for the iCRDS versus GC/MS, gas chromatography/mass spectroscopy. Mr. Leen said LGR expects the price to reduce in the near future, when there is a bigger production. There is a cost savings using the iCRDS for a large amount of samples.
- Mr. Strauss asked if the iCRDS technology will be able to get to the lower detection limits needed for these types of contaminants. Mr. Leen said LGR is in the initial phase of assessing this process. Based on initial indications, the detection limits should be reduced in the future.
- A community member asked if benzene is being detected. Mr. Leen said that his company is working with the iCRD technology for benzene, but they have not yet conducted any studies.

### **PUBLIC COMMENT / QUESTION PERIOD**

Mr. Anderson opened the meeting for questions or comments from the public.

- A community member said there was an article in the *San Francisco Chronicle* that drone manufacturers are interested in housing equipment at former NAS Moffett Field.

### **Future RAB Meetings**

Mr. Anderson asked for future RAB topics. Mr. Berry said the RAB is interested in updates on the LTMP for Hangar 1, the status of the GSA surplus of property at former NAS Moffett Field, and an Army update on Orion Park.

- Mr. Siegel said that any discussions on potential transfer of property at former NAS Moffett Field should be presented at the RAB because it is a Comprehensive Environmental Response, Compensation, and Liability act site.
- Mr. Williams suggested the RAB look at its charter to see if there is language about re-use/redevelopment.

Mr. Anderson went over the proposed 2013 RAB dates to see if there were any conflicts. The tentative 2013 RAB schedule is:

- Thursday, February 7, 2013
- Thursday, May 9, 2013
- Thursday, August 8, 2013
- Thursday, November 14, 2013

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## Adjourn

The meeting was adjourned, and Mr. Anderson thanked all present for attending.

The Navy can be contacted with any comments or questions:

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## ACRONYM LIST

BRAC – Base Realignment and Closure  
CCR – California Cancer Registry  
CD – Compact disc  
CDC – Centers for Disease Control  
CDFG – California Department of Fish and Game  
CDPH – California Department of Public Health  
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act  
EPA – U.S. Environmental Protection Agency  
FS – Feasibility Study  
GSA – General Services Administration  
LGR — Los Gatos Research  
LTMP – Long-Term Monitoring Plan  
MEW – Middlefield Ellis Whisman  
NAS – Naval Air Station  
NASA – National Aeronautics and Space Administration  
ppb — Part per billion  
RAB – Restoration Advisory Board  
RTC – Response to Comments  
TCE – Trichloroethene  
VI – Vapor Intrusion  
VOC – Volatile organic compound  
WB - Water Board

RAB meeting minutes are posted on the Navy's environmental website at:

<http://www.bracpmo.navy.mil/basepage.aspx?baseid=52&state=California&name=moffett>

Respectfully submitted,

Scott Anderson  
Navy Co-Chair,  
Former NAS Moffett Field RAB