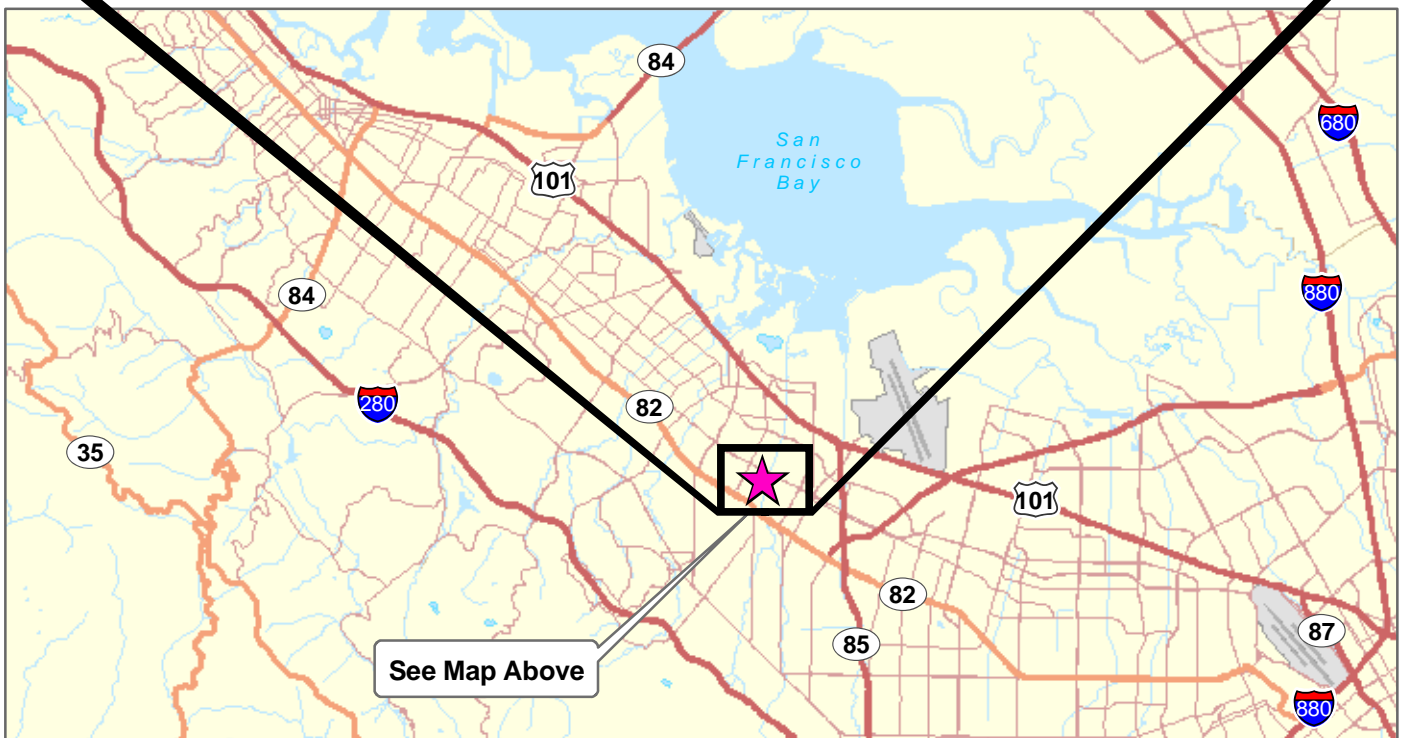
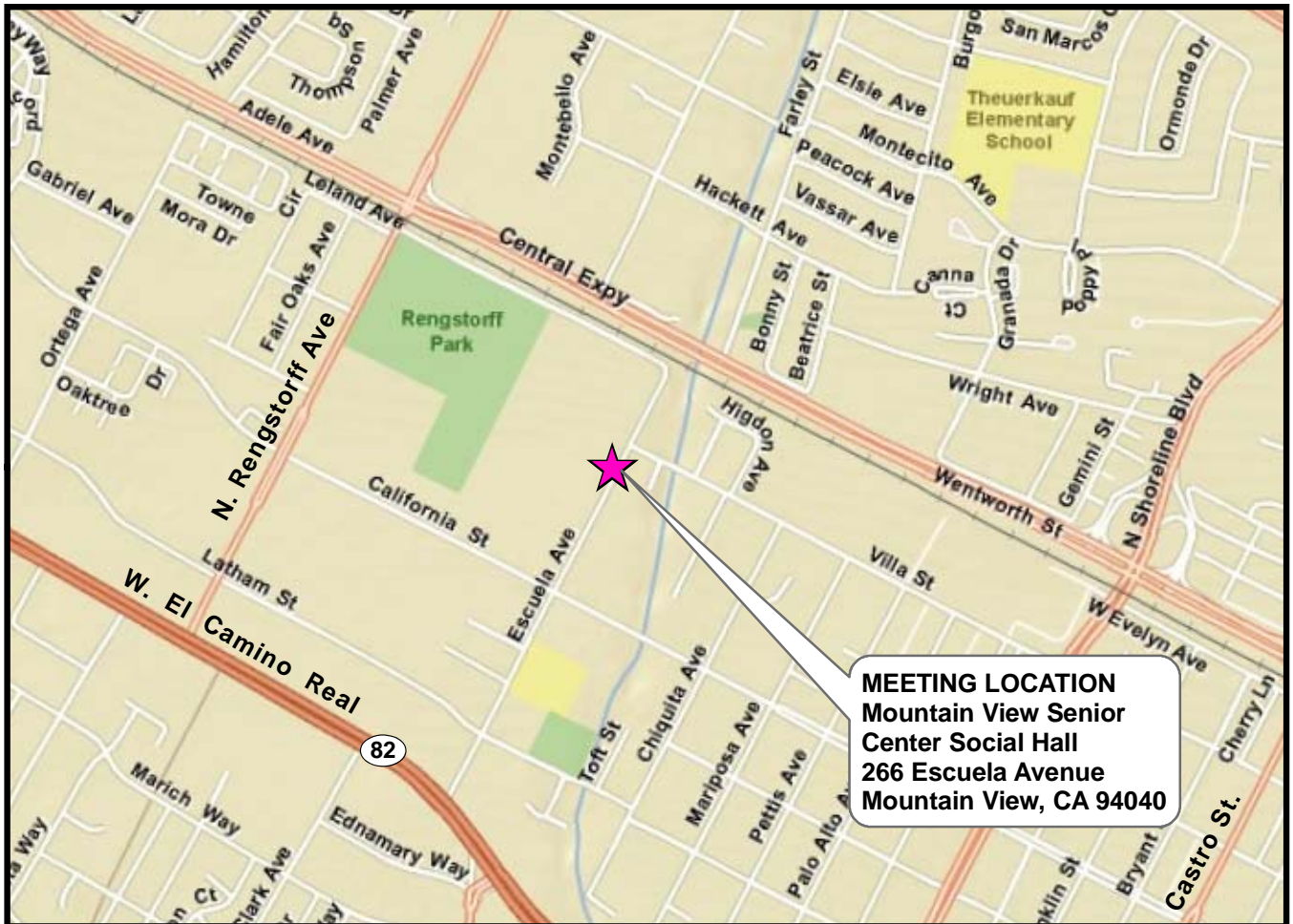


MOFFETT RAB MEETING

Mountain View Senior Center Social Hall
266 Escuela Avenue
Mountain View, CA 94040





AGENDA

FORMER NAVAL AIR STATION (NAS) MOFFETT FIELD RESTORATION ADVISORY BOARD MEETING

Date/Time: Thursday, August 7, 2014, 7:00 to 9:00 p.m.
Location: Mountain View Senior Center
266 Escuela Avenue
Mountain View, CA 94040-1813

7:00 to 7:30

Welcome and Introductions

- Review Agenda
- Circulate Document Sign-up Sheet to RAB Members
- Approval of 2/13/14 Minutes
- Navy Announcements
- RAB Community Co-chair Elections

7:30 to 8:00

EPA Vapor Intrusion Update

7:30 – 7:50 Presenter – Alana Lee (EPA RPM)

7:50 – 8:00 Presentation #1 Questions – RAB Members

8:00 to 8:30

EPA Five Year Review Update

8:00 – 8:20 Presenter – Alana Lee (EPA RPM)

8:20 – 8:30 Presentation #2 Questions – RAB Members

8:30 to 8:50

Public Comment/Questions Period

This is a time for community members to ask questions or make comments. Please wait until the person with the microphone reaches you.

8:50 to 9:00

Future Meetings

Discuss Future RAB Schedule and Topics

9:00

End of RAB Meeting

Tentative 2014 RAB Meeting Schedule

- **Thursday, November 13, 2014**

** There are comment sheets at the sign-in table. You may fill one out instead of or in addition to making a comment during the public comment period**

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

http://www.bracpmo.navy.mil/brac_bases/california/former_nas_moffett_field/meeting_material.html

**FORMER NAVAL AIR STATION MOFFETT FIELD
RESTORATION ADVISORY BOARD MEETING
MOUNTAIN VIEW SENIOR CENTER
MOUNTAIN VIEW, CALIFORNIA
FEBRUARY 13, 2014**

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

Subject: RESTORATION ADVISORY BOARD MEETING MINUTES

The Restoration Advisory Board (RAB) meeting for Former Naval Air Station (NAS) Moffett Field was held on Thursday, February 13, 2014, at the Senior Center in Mountain View, California.

Community RAB Members in attendance:

Gabriel Diaconescu, Rebecca Kohn, Libby Lucas, Diane Minasian, Bob Moss, 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), Alana Lee (U.S. Environmental Protection Agency [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:

Don Chuck (NASA), George Cook (Santa Clara Valley Water District), Kristina Curley (Army Environmental Command), Yashekia Evans (Tetra Tech Inc. [Tetra Tech]), Kimberly Finch (NASA), Beth Flynn (AMEC), Steve Hall (Accord Environmental), Andrew Hocker (NASA), Carolyn Hunter (Tetra Tech), John Inks (City of Mountain View), Lynne Kilpatrick (City of Sunnyvale), George Sloup (NASA) and David Yogi (EPA)

Other Community Members and Agency Representatives in attendance:

Beth Bunnberg, Felipe Escamilla (National Broadcast Center), Stephen Stock and David Paredes (NBC Bay Area), Peter Kasparrow, Jack Nadeau, Marty Rawson, Tammy Skoog, Jim Van Pernis (Save Hangar 1), and Peter Watten

WELCOME

Bob Moss (RAB Community Co-chair Alternate) opened the meeting at 7:00 p.m. and welcomed everyone in attendance. Mr. Moss said that Bill Berry (RAB Community Co-chair) was unable to attend the meeting because of a family illness. Mr. Moss asked for additions to the RAB agenda. Mr. Moss requested an update on Orion Park from the U.S. Army (Army) and also more information on the intent to lease Site 29 (Hangar 1) and the Moffett Federal Airfield press release issued on February 10, 2014. NASA and General Services Administration (GSA) will be entering lease negotiations with Planetary Ventures, a Google-owned company. Scott Anderson (RAB Navy Co-chair) said that there was a schedule conflict for the Army to present at this RAB meeting and the Army plans to provide an update on Orion Park at the meeting on May 8, 2014.

- RAB member Greg Unangst suggested that an invitation to Google be made to begin participating in future RAB meetings. The RAB agreed that Google should be invited to participate in future meetings once the lease negotiations begin.

APPROVAL OF MEETING MINUTES

Mr. Anderson asked for corrections to or comments on the minutes for the draft November 14, 2013, RAB meeting. No comments were provided on the draft RAB meeting minutes. The RAB voted to finalize the November 14, 2013, meeting minutes.

Mr. Anderson reviewed and handed out a document sign-up sheet, allowing RAB members to request copies of upcoming deliverables; see table below.

Document Sign-Up Table

	<u>DOCUMENT</u>	<u>APPROXIMATE SUBMITTAL DATE</u>
1.	Final Groundwater and Soil Gas Report for Vapor Intrusion (VI) Sites	March 2014
2.	2013 Annual Groundwater Monitoring Report for Sites 26 & 28	April 2014
3.	Draft 2013 Annual Report for the Landfill Sites	April 2014
4.	Draft Technical Memorandum for Supplemental Investigation at Site 28	May 2014
5.	Site 26 Eastside Aquifer Treatment System (EATS) Final Record of Decision (ROD) Amendment	May 2014

NAVY ANNOUNCEMENTS

Mr. Anderson introduced Kristina Curley from the Army Environmental Command (AEC). Ms. Curley said the Army plans to provide a presentation on its work at Orion Park to the RAB in May 2014.

Mr. Anderson said that there are no additional statements available besides what has been issued from NASA and GSA on the leasing agreement for Hangar 1 and the Moffett Federal Airfield. As more information is available on the progress of the leasing agreement, the RAB will be kept informed.

- RAB member Lenny Siegel said there is concern on who will be responsible for long-term maintenance of the hangar now that the Navy has completed its removal action. Mr. Siegel said the RAB would like an update on what is outlined in the ROD for Hangar 1. Mr. Anderson said that once the Navy, NASA, the regulatory agencies have decided on the long-term maintenance plan for Hangar 1 the RAB will be updated.
- RAB member Peter Strauss asked for clarification as to if the Navy or NASA will extend an invitation to Google (Planetary Ventures) to participate in future RAB meetings. Mr. Anderson said that reuse of Moffett Field is the responsibility of NASA; therefore, updates between NASA and Planetary Ventures would be a NASA responsibility.

NAVY VAPOR INTRUSION UPDATE

Mr. Anderson introduced Steve Hall (Accord Engineering), who will be giving a presentation on the Navy’s VI program at former NAS Moffett Field. Mr. Hall went over the Navy’s past VI activities at former NAS Moffett Field. The Navy conducted indoor air sampling and an interim response action for the Building 10 utility corridor in May and June 2012. In May 2013, the Navy conducted investigations on VI pathways and soil gas

and groundwater. The Navy will be conducting the next round of indoor air sampling for VI in February 2014 during the three-day President's Day weekend.

In May 2012, the Navy sampled the indoor air in 23 commercial buildings at former NAS Moffett Field to identify whether there were contaminants of concern (COCs) that exceed the indoor air cleanup levels outlined in the VI ROD Amendment. In addition to the sampling, the Navy visually inspected all of the buildings and interviewed the building managers about the former use and operation. The Navy collected information on the heating, ventilation, and air conditioning (HVAC) system and chemicals used in the buildings to determine the potential for VI. The Navy conducted indoor air sampling with the HVAC system on and also off during the sampling events to measure the COCs levels in the buildings. Mr. Hall said COCs were present above the outdoor air levels but below indoor air cleanup levels. The Navy found COCs above indoor air cleanup levels in Buildings 10 and 126.

During the groundwater investigation that was conducted in 2012 and 2013, a tetrachloroethene (PCE) source was found along the sanitary sewer line in the Traffic Island area near Building 126, where the West-side Aquifers Treatment System (WATS) is operating. The Navy found the COCs in Building 10 above the indoor air cleanup levels identified in the VI ROD amendment for the site. Mr. Hall said the primary VI pathway to Building 10 was from the utility corridor that connected to Hangar 1. Once the Navy determined there was an issue at Building 10, a blower was installed in the utility corridor as an interim measure to reduce trichloroethene (TCE) VI migration into the building. In February 2013, the Navy assessed whether the blower was working in Building 10 and collected air samples. The samples indicated that TCE was approaching the indoor air cleanup levels near the corridor entrance to Building 10 but the indoor air work areas were below indoor air cleanup levels. The Navy modified the blower system to address the VI by installing a barrier wall at the corridor entrance and installed a second blower in the Building 10 floor trench in May 2013. The Navy collected follow-up samples within Building 10 and the utility corridor in June and November 2013. Based on the VI sampling results, the blower systems are successfully reducing the indoor air concentrations and will remain in place as an interim mitigation measure until long-term plans are implemented. The Navy is evaluating options on closing and sealing the utility corridors.

Follow-up indoor air samples were collected in May and June 2013 to evaluate floor conduit vapor pathways in Buildings 2, 3, 12 and N239A. The utility conduits were sealed in Buildings 2, 3, and 12 as an interim measure where TCE was detected during the sampling efforts in May 2013. Once the conduits were sealed, additional indoor air samples collected several weeks after to evaluate whether the interim measure was successful. The sealing was effective in Building 2, where there is no HVAC system in place. The sealing had limited effectiveness in Buildings 3 and 12, where HVAC systems are in use.

In June 2013, the Navy collected 56 soil gas and groundwater samples around the perimeter of the buildings and along the Building 10 utility corridor to investigate shallow groundwater as a vapor source. There were some isolated areas in the vicinities of Buildings 2, 14, N210, and 239A where TCE was found in soil vapor. PCE was detected above the maximum contaminant level (MCL) in the shallow groundwater at Building 126. TCE and other COCs were found near Buildings 10, 29, 76, 126, and N210.

The Navy will conduct another round of indoor and outdoor air sampling on February 11 through the 18, 2014. The Navy will look at the data to determine if there are seasonal differences for VI levels. The February 2014 data will be compared with the late-spring data from May and June 2012. The Navy will collect indoor and outdoor air samples with the HVAC both off and on and evaluate all of the data collected from 2012, 2013, and 2014 to determine if the results meet the requirements in the VI ROD Amendment. If additional VI mitigation measures are determined necessary, the Navy will develop a response action for each building to include engineering controls, institutional controls (ICs), and monitoring. The Navy will issue the recommendations for the buildings in a VI report in late June 2014 for regulatory agency input.

- Mr. Strauss said he read the initial draft VI report, which showed there were concerns for groundwater contamination even if the VI did not exceed the cleanup levels. Mr. Hall said that the Navy is addressing groundwater contamination within the WATS area as part of the regional groundwater remedy.
- Mr. Siegel said that once Hangar 1 is reskinned, there will be concern for VI coming through the utility corridors and steam lines. Mr. Anderson said that the Navy is currently evaluating the steam tunnel, and evaluating possible remedial alternatives. The Navy is talking with NASA on the future reuse of Hangar 1 and the leasing requirements to determine the path forward for managing VI.

NAVY PLANNED WORK IN 2014

Mr. Anderson summarized the work the Navy has planned for 2014. Mr. Anderson said the Navy currently has work planned at Installation Restoration Sites 26 - EATS, 25, 28 - WATS, 29 - Hangar 1, VI, and Petroleum Program Site 14 South. Mr. Anderson said that the Navy plans to finalize the ROD Amendment for Site 26 in the summer 2014. The Navy plans to actively treat the groundwater at Site 26 by injecting material to degrade the COCs. The Navy is working on the ICs and land use controls (LUCs) for Site 26. The Navy plans to conduct a pre-design investigation to assist in the remedial design and new monitoring well placement at Site 26 in 2014. The work at Site 26 will be assessed in a five-year review to ensure the proposed remedy is protective of human health and the environment. Mr. Anderson said that the Navy has continued the operation and maintenance of WATS at Site 28 in 2014. The Navy will complete the technical memorandum (TM) for the Building 88/Traffic Island source area investigation. The Navy will work with the regulatory agencies to determine the path forward for Site 28 for WATS and the Building 88/Traffic Island. Mr. Anderson said that the Navy is continuing to monitor the re-growth of pickleweed at Site 25. Mr. Anderson said that the Navy is finalizing the ROD and LUC remedial design for Hangar 1. The Navy is also completing the annual sediment sampling from the storm water system at Hangar 1, which was outlined in the long-term management plan. The Navy is working with NASA on the long-term management plan requirements for Hangar 1 now that there is a leasing agreement process started with Planetary Ventures. Mr. Anderson said the Navy is remediating petroleum hydrocarbons in the groundwater at Site 14 South. Additional sampling at Site 14 South has determined that the contamination has spread farther in the groundwater than previously anticipated. The Navy determined that using biosparging along with the recently installed soil vapor extraction system will mitigate the petroleum over the larger area more successfully at Site 14 South. Mr. Anderson said the Navy is still collecting samples for the VI program and will draft a remedial design for the buildings requiring VI mitigation to be issued in the summer of 2015.

- A community member reported reading in the local newspaper that there is contamination moving under Highway 101 between the former Naval Air Station and the industrial areas. Mr. Anderson said groundwater contamination is moving under Highway 101 and is being addressed by the Navy and the other private company responsible parties. The U.S. Environmental Protection Agency (EPA) is overseeing the effort.
- Community member Beth Bunnenberg asked if the lack of rain has affected any of the Navy's projects. Mr. Anderson said that the dry weather hasn't adversely affected any of current Navy projects. The Navy is evaluating how the dry weather is affecting the pickleweed growth at Site 25. However, pickleweed generally goes dormant in the winter so the dry weather isn't anticipated to cause any concerns.
- Ms. Bunnenberg asked if the lack of rain has any impact on work at Hangar 1. Mr. Anderson said that the Navy's removal action work is complete at Hangar 1 so the only impact of the lack of rain is on sediment sampling. Nothing has been delayed or accelerated at Hangar 1 by weather.

- Mr. Moss asked if the Navy's future monitoring requirements for Hangar 1 will be passed along to the new tenant. Mr. Anderson said that the long-term monitoring requirements for Hangar 1 are outlined in the Long-Term Monitoring Plan, which is anticipated to be discussed with NASA, GSA, and Planetary Ventures during the future lease negotiations.

EPA VAPOR INTRUSION UPDATE

Alana Lee (EPA) provided an update on EPA's work in the VI study area. Ms. Lee said EPA is overseeing the VI work conducted by the Middlefield-Ellis-Whisman (MEW) parties, NASA, and the Navy to monitor, evaluate and mitigate, where necessary, the potential and existing VI pathway. EPA's maps, reports and additional information on VI and the VI work at the MEW and NAS Moffett Field Superfund sites can be found at EPA's websites: www.epa.gov/region9/mew; www.epa.gov/region9/moffettfield; and www.epa.gov/oswer/vaporintrusion.

Ms. Lee said more than 66 commercial/non-residential buildings were sampled south of Highway 101 in the MEW area. Interim mitigation measures have been taken to protect the building occupants where TCE indoor air concentrations were above the indoor air cleanup level (5 micrograms per cubic meter). The newly constructed commercial office buildings in the VI study area have been built with VI control systems. In addition, in 2013 EPA sampled approximately 90 residences in the residential air sampling area.

- A community member asked how old the commercial buildings were that EPA tested. Ms. Lee said that some are new buildings, but many are the original buildings built in the 1960s and 70s.
- City of Sunnyvale representative Jim Davis asked what could cause four hot spots with TCE and PCE in the groundwater beneath Moffett Boulevard, Leong Drive, and Evandale Avenue. Ms. Lee said EPA is currently investigating the potential source of the four hot spot areas the highest TCE hot spot areas are on Evandale and the parking lot of the motel on Leong Drive. The maximum TCE groundwater concentration is 110,000 ug/L. There is some PCE groundwater contamination in the vicinity of a former dry cleaner site on Leong Drive. Mr. Davis said he thought EPA found TCE during sampling of indoor air and installed mitigation measures last year at a residential building in the area of the four hot spots. Ms. Lee said TCE indoor air concentrations exceeding indoor air cleanup levels were found in indoor air and crawlspaces of two residential buildings in January 2013 and vapor intrusion mitigation systems were installed. The homes were resampled once the mitigation systems were installed and operating to confirm that TCE levels were reduced to below indoor air cleanup levels.

Ms. Lee said EPA is planning to conduct additional subsurface investigations in the areas where there were high detections of TCE to ensure that human health is protected. EPA is investigating the potential source of the TCE hot spots. Ms. Lee said that EPA will host an open house for the public to obtain more information about EPA's ongoing investigation, sampling results, and cleanup activities in the residential area. Ms. Lee said that EPA has expended significant resources to ensure the public is protected from VI in this study area. For information throughout the project, the community can contact Ms. Lee or go to EPA's website.

- Mr. Strauss asked when EPA plans to prepare a Five-Year Review for the MEW study area. Ms. Lee said that EPA is kicking off the five-year review process for MEW Superfund site, which includes the VI study area. Ms. Lee indicated that EPA is conducting a streamlined, focused Five-Year Review and will integrate the recent sampling results and findings as they become available. Mr. Strauss said that the last time EPA issued a five-year review for the MEW Site there was no public comment period. Ms. Lee said she would keep the RAB up-to-date and will make available a draft of the Five-Year Review report for public input prior to EPA finalizing the Five-Year Review in September 2014.
- Mr. Siegel asked if anyone is assessing the eastern portion of the sewer line. Mr. Siegel said that the contamination at Orion Park may have resulted from the MEW contamination based on the contamination of the groundwater and the direction of the groundwater flow. Ms. Lee said that EPA is

looking at historical and current groundwater flow to identify areas that may have been affected by the MEW regional groundwater plume.

- Mr. Siegel said the entire Whisman neighborhood is concerned about high levels of TCE and whether more hot spots will be found as sampling continues. Mr. Siegel suggested that EPA prepare a conceptual site model for the area to determine the level of contamination in the community from the groundwater plume. Ms. Lee said as part of EPA's upcoming investigation, EPA is still working on obtaining permission to collect samples from the in the residential area to fill some data gaps. Mr. Siegel said residents who live along Whisman near the TCE hot spot areas have expressed concern that their properties are affected and requested that VI mitigation be installed at their houses. Ms. Lee said any residents concerned about VI in the VI study area should contact EPA and their homes will be re-sampled.
- Ms. Lee said EPA is preparing to conduct another round of sampling with equipment that will capture real-time results so that EPA can further evaluate TCE detections found in indoor air below the cleanup levels and to talk to residents one-on-one about their concerns. Ms. Bunnenberg asked when the Hetch Hetchy water system was built. Ms. Lee said that Hetch Hetchy water system was completed in the 1930s.
- Mr. Moss said, based on EPA's TCE groundwater sampling result map, low levels of TCE were detected in buildings. Mr. Moss asked if EPA has seen any noticeable clusters of TCE or if the results are scattered. Ms. Lee clarified that TCE has not been detected in indoor air of many commercial and residential buildings. EPA continues to evaluate all of the data and there have not been any noticeable clusters of TCE hits in indoor air. Whenever there are exceedances above the indoor air cleanup levels due to subsurface vapor intrusion, response actions are taken to mitigate the levels to below cleanup levels.
- Mr. Moss asked if EPA plans direct remediation to areas that have TCE hot spots. Penny Reddy (EPA) said that EPA is considering injecting potassium permanganate into the groundwater at the TCE hot spots as a cleanup option but is trying to determine the best remediation approach once all of the data have been assessed.

PUBLIC COMMENT / QUESTION PERIOD

Mr. Anderson opened the meeting for questions or comments from the public. No public comments were provided at this time.

FUTURE RAB MEETINGS

Mr. Anderson asked for future RAB topics. The next RAB meeting is scheduled for Thursday, May 8, 2014.

Mr. Anderson said that he is working with the Army to get an Orion Park update for the next RAB meeting.

- Mr. Siegel said the RAB will need to conduct community co-chair elections at the May 8, 2014 meeting. Mr. Anderson said he will add the RAB Community Co-chair elections to the agenda.

DRAFT

ADJOURN

The meeting was adjourned at 8:50 p.m., and Mr. Anderson thanked all present for attending.

The Navy can be contacted with any comments or questions:

Mr. Scott Anderson

Base Realignment and Closure (BRAC) Environmental Coordinator, Former NAS Moffett Field

BRAC Project Management Office West

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San Diego, CA 92108

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ACRONYM LIST

Army - U.S. Army

AEC – Army Environmental Command

BRAC – Base Realignment and Closure

COC– Contaminants of concern

EATS – Eastside Aquifer Treatment System

EPA – U.S. Environmental Protection Agency

GSA – General Services Administration

HVAC – Heating, ventilation, and air conditioning

IC – Institutional Controls

LUC – Land Use Controls

MCL – Maximum contaminant level

MEW – Middlefield-Ellis-Whisman

NAS – Naval Air Station

NASA – National Aeronautics and Space Administration

PCE – Tetrachloroethene

PMO – Project Management Office

RAB – Restoration Advisory Board

RD – Remedial Design

ROD –Record of Decision

TCE – Trichloroethene

TM – Technical Memorandum

VI – Vapor Intrusion

VOC – Volatile organic compound

WATS – Westside Aquifers Treatment System

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

http://www.bracpmo.navy.mil/brac_bases/california/former_nas_moffett_field.html

Respectfully submitted,

Scott Anderson

Navy Co-Chair,

Former NAS Moffett Field RAB