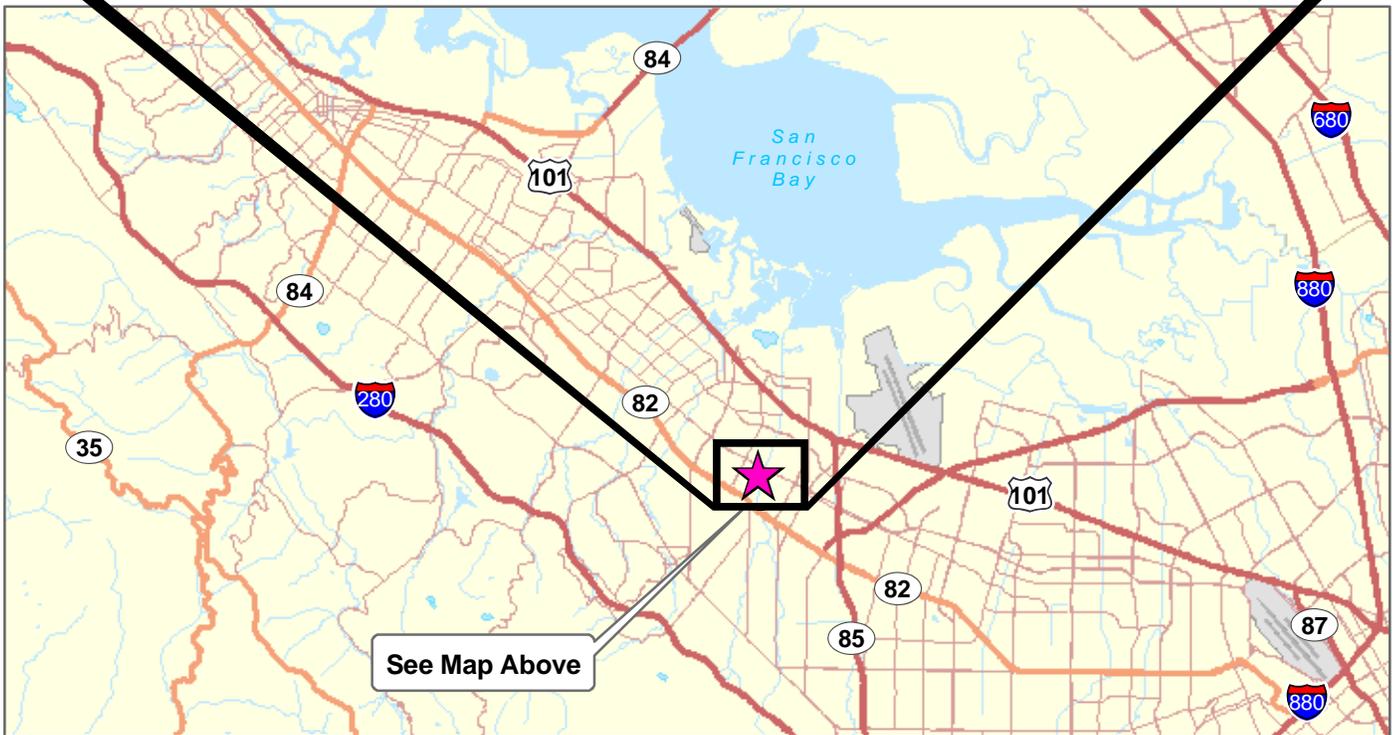
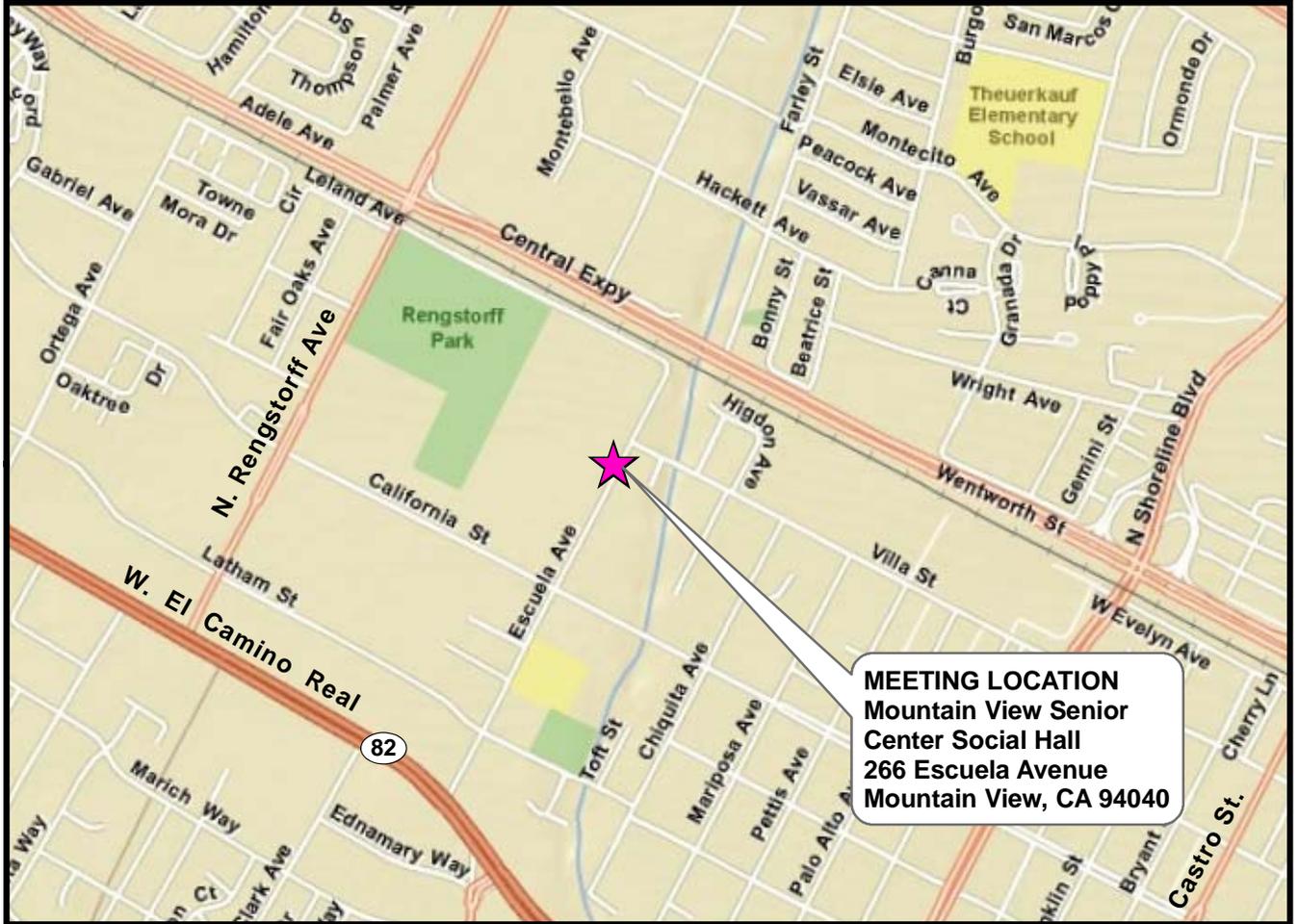


MOFFETT RAB MEETING

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, May 11, 2017, 7:00 to 9:15 p.m.

Location: Mountain View Senior Center
266 Escuela Avenue
Mountain View, CA 94040-1813

7:00 to 7:10

Welcome and Introductions

- Review Agenda
- Circulate Document Sign-up Sheet to RAB Members
- Approval of 11/10/16 Minutes
- Navy Announcements

7:10 to 7:25

RAB Community Co-Chair Update

Greg Unangst

7:25 to 8:15

Navy Update on Ongoing Environmental Responsibilities

7:25 – 8:05 Presenters – Navy Staff and Consultants

- Site 26 Remedial Design/Remedial Action and Hangars 2 & 3 Investigation
- Site 28 Building 88/Traffic Island Pilot Study
- Site 28 2017 Air Sampling and Vapor Intrusion Tier Response Evaluation
- Site 28 Vapor Intrusion Mitigation for Six Buildings

8:05 – 8:15 Presentation #1 Questions – RAB Members

8:15 to 8:25

NASA Update on Ongoing Environmental Responsibilities

8:15 – 8:20 Presenter – Kim Finch (NASA Environmental Manager)

8:20 – 8:25 Presentation #2 Questions – RAB Members

8:25 to 8:35

Regulatory Agency Update

8:25 – 8:30 Presenter – U.S. EPA

8:30 – 8:35 Presentation #3 Questions – RAB Members

8:35 to 8:50

Moffett Phytoremediation Project Update

8:35 – 8:45 Presenter – John Freeman (Intrinsyx)

8:45 – 8:50 Presentation #4 Questions – RAB Members

8:50 to 9:00

Planetary Ventures Project Update

8:50 – 8:55 Presenter – Nihal Oztek and Anthony LaMarca (PV)

8:55 – 9:00 Presentation #5 Questions – RAB Members

9:00 to 9:10

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.

9:10 to 9:15

Future Meetings

Discuss Future RAB Schedule and Topics

Next RAB meeting tentatively scheduled for November 9, 2017

9:15

End of RAB Meeting

** 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

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**FORMER NAVAL AIR STATION MOFFETT FIELD
RESTORATION ADVISORY BOARD MEETING
NOVEMBER 10, 2016**

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, November 10, 2016, at the Senior Center in Mountain View, California.

Community RAB Members in attendance:

Bill Berry, Gabriel Diaconescu, Libby Lucas, Bob Moss, Lenny Siegel, Peter Strauss, Greg Unangst, and Dan Wallace

Regulatory Agency and Navy RAB Members in attendance:

Alana Lee (U.S. Environmental Protection Agency [EPA]), Jim Sullivan (Navy), and Elizabeth Wells (San Francisco Bay Regional Water Quality Control Board [Water Board])

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

Genika Brown (63rd Regional Support Command, Army Reserve), Don Chuck (NASA), Wendy Greene (63rd Regional Support Command, Army Reserve), Jim Davis (City of Sunnyvale), Anthony LaMarca (PV), Carolyn Hunter (Tetra Tech), Beth Kercher (Helios), Lynne Kilpatrick (City of Sunnyvale), Jackie Lane (EPA), John Inks (City of Mountain View), George Sloup (NASA), and Stevan Spremo (NASA)

Other Community Members and Agency Representatives in attendance:

Youngboon Hicks (Moffett Field Commissary), Bill McClenahan (Extech), and Jim Van Pernis (Save Hangar One)

WELCOME

Jim Sullivan (Navy) opened the meeting at 7:00 p.m. and welcomed everyone in attendance. Mr. Sullivan reviewed the RAB agenda and asked for any additional topics. It was proposed and approved by the RAB members that Greg Unangst's (Community RAB Co-chair) presentation would be moved earlier in the RAB agenda to take place after the Navy update.

APPROVAL OF MEETING MINUTES

Mr. Sullivan asked for corrections to or comments on the draft minutes for the May 12, 2016, RAB meeting. Gabriel Diaconescu noted that he didn't speak during the last meeting as stated in the minutes which need to be revised. With Mr. Diaconescu's revision the Draft May 12, 2016 RAB meeting minutes can be finalized.

NAVY ANNOUNCEMENTS

Mr. Sullivan distributed a document sign-up sheet for RAB members to request copies of upcoming deliverables; see table below.

Document Sign-Up Table

	<u>DOCUMENT</u>	<u>APPROXIMATE SUBMITTAL DATE</u>
1.	Vapor Intrusion (VI) Final Remedial Design Remedial Action Work Plan	November 2016 (revised June 2017)
2.	Final Site 1 Landfill Groundwater Monitoring Plan Addendum	November 2016 (actual 12/1/2016)
3.	Final Sites 1 and 22 landfills 2015 Annual Report	December 2016 (actual 4/12/2017)
4.	Site 26 Eastside Aquifer Treatment System (EATS) Final Technical Memorandum for Pre-Design Investigation	March 2017 (revised July 2017)
5.	Site 26 Draft Final Remedial Design Remedial Action Work Plan (RD/RAWP)	April 2017 (revised August 2017)

NAVY UPDATE

Mr. Sullivan provided an update on the Navy's current projects at former NAS Moffett Field:

5-Year Review (Sites 1, 22, 26 and 28): The Navy is currently incorporating regulatory agency comments in the Draft Final 5-Year Review. Once the regulatory agencies concur with the Navy's revisions, the 5-Year Review will be finalized.

Sites 1 and 22 Landfills: Mr. Sullivan stated effective October 1, 2016, NASA assumed responsibility from the Navy as the Lead Agency for the Sites 1 and 22 Landfills. The landfills are both currently in the long-term monitoring phase. The Navy will be issuing the Final Site 1 Landfill Groundwater Monitoring Plan Addendum and Final Sites 1 and 22 Landfills 2015 Annual Report to the regulatory agencies.

Site 26 East Side Aquifer Treatment System (EATS): The Navy installed and sampled 10 new monitoring wells in August and September 2016 to complete the pre-remedial design/remedial action at Site 26. The Navy is in the process of preparing a remedial action work plan for the biostimulation/bioaugmentation of groundwater at Site 26. The Navy is also preparing a work plan for the removal of EATS, which is planned to occur in March 2017 following the regulatory agencies' concurrence with the work plan.

Site 28 West Side Aquifers Treatment System (WATS): Mr. Sullivan stated that effective October 1, 2016, NASA has accepted responsibility from the Navy for operation, maintenance, monitoring and reporting for the WATS groundwater system. The Navy remains the Lead Agency at this time for WATS.

Mr. Sullivan said the final sampling of wells for the Enhanced Anaerobic Bioremediation/In Situ Chemical Reduction Treatability Study was conducted in October 2016 after the last round of injections occurred in May 2016 at the Building 88/Traffic Island Area. The Navy will prepare an evaluation of the treatability study data and tentative conclusions to discuss with the regulatory agencies.

Vapor Intrusion (VI): The last indoor air monitoring event for buildings within the Navy's vapor intrusion area of responsibility was conducted over the Martin Luther King Day weekend, January 18, 2016. The next air sampling event is planned for January 2017. Building 10 is sampled quarterly. Mr. Sullivan said the Navy has prepared a Draft Remedial Design for Vapor Intrusion mitigation at Building 10.

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- Mr. Unangst asked which buildings are included in the VI indoor monitoring and if the employees in those buildings are being notified. Mr. Sullivan responded that there is a list of specific buildings and all information is being coordinated with NASA and the building managers.
- RAB member Lenny Siegel suggested reaching out to the local college students to assist in the VI indoor studies at former NAS Moffett Field as a learning tool.

Elizabeth Wells (Water Board) asked about how the transition is going between the Navy and NASA for Sites 1, 22 and 28. Mr. Sullivan said that the Navy and NASA teams have been meeting since last spring to exchange information and documents in order to make sure it was a smooth transition. Ms. Wells asked if it was a successful transition for all of the sites. Mr. Sullivan stated that the Site 28 WATS has had equipment problems and NASA is currently working to address the issues. Don Chuck (NASA) said the Site 28 groundwater extraction and treatment system was not in good shape when it was transferred from the Navy to NASA. The WATS operator has completely disappeared so NASA is trying to fix the ongoing problems with the treatment system. NASA has been replacing a lot of parts that were not in good condition. Mr. Chuck said NASA is working with the regulatory agencies and the Navy to figure out how functional the system was when it was transferred to NASA on October 1, 2016.

Alana Lee (EPA) provided the update that the regulatory agencies were not notified of the in operation of WATS until late October 2016 after NASA took over operations and maintenance responsibility for Site 28. There is a requirement to notify EPA within 24 hours if the treatment system or an extraction well is shut down for more than 72 hours. Ms. Lee said the regulatory agencies are conducting an investigation at Site 28 to see how the shutdown of WATS occurred. Mr. Sullivan said getting WATS operating is a priority for the Navy and NASA.

Ms. Wells said information about Site 7 (Hangars 2 and 3) is in GeoTracker. The regulatory agencies have concerns about contamination beneath and around Hangars 2 and 3 and have been working with the Navy to have Site 7 assessed. Mr. Chuck said NASA will not accept full responsibility for the Hangars 2 and 3 site from the Navy until the requests from the regulatory agencies are met.

- RAB member Bill Berry said there are community concerns about Hangars 2 and 3 regarding the potential exposure to contamination and asked what the plan is to address it. Mr. Chuck said the Navy is assessing the site and is developing a plan for Hangars 2 and 3.

RAB COMMUNITY CO-CHAIR UPDATE

Mr. Unangst said that he has been talking to various people about the RAB and its functionality and wanted to provide an update to the group and begin a discussion on how to move forward to continue outreach on all of the various programs of interest to the surrounding community. Everyone he spoke with confirmed the importance of the RAB as a venue to provide information to the public. Mr. Unangst said the former NAS Moffett Field RAB has been meeting since October 1994 with the Navy as the lead agency. Initially the RAB meetings were held on a monthly basis. In 2006 the RAB began meeting every other month and in 2012 the schedule moved to quarterly. Since 2016 the RAB meetings have been held twice a year. Mr. Unangst said the Navy is now going into a monitoring and maintenance phase at former NAS Moffett Field since a majority of the sites have been transferred to NASA for the long term monitoring and maintenance.

Mr. Unangst said the Navy's RAB charter has not been amended since its development in 1995. Mr. Unangst provided the highlights of the RAB charter:

- To give timely advice to the Navy authorities responsible for the Moffett cleanup.
- To consider all issues and concerns introduced by the RAB and the general public which are current, future or potential threats to human health and the environment, and their impact on the realignment, the community and or any potential reuse plan for Moffett.

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- To review and evaluate pertinent documents related to cleanup, realignment and/or reuse of Moffett.
- To identify and recommend proposed cleanup project requirements.
- To identify and recommend appropriate standards consistent with realignment and/or reuse and environmental protection.
- To recommend cleanup project priorities consistent with realignment and/or reuse and environmental protection.
- Conduct regular meetings, open to the public, at convenient times and locations.
- Publish minutes of meetings and make them available to the public.
- Develop, maintain, and use a mailing list of interested persons, organizations, associations, key local government agencies, and interest groups who have expressed an interest to receive information on the Moffett cleanup process, and to provide the information in a timely manner.
- To comment on proposed remediation activities and the adequacy of plans and procedures in a timely manner.

Mr. Unangst reviewed items for RAB consideration as a forum for the community now that the Navy's participation is winding down.

- Combine the Middlefield Ellis Whisman (MEW) Community Advisory Committee (CAC) and the Moffett RAB?
 - There should be more updates on the MEW cleanup to the community.
- Expand responsible authorities beyond the Navy to include NASA, the Army, Department of Defense, etc.
- Expand the "Community" to include NASA employees, PV/Google, Wescoat Housing Area residents, Commissary employees, etc.
- Constitute an Organizational and Rules Committee to amend & revise the RAB Charter
 - Report back at next RAB meeting
- Continue to conduct outreach to tenant organizations and responsible parties

Mr. Unangst said since there is turnover at the base, it is necessary to continually maintain communication with the community. Mr. Unangst said RAB member Steve William's website that posts RAB updates is a great way for the community to gain access to information about the environmental restoration program. Mr. William's website <http://www.nuqu.org/> is very well organized and informative. It is important to keep providing information on the various cleanups in the area since there are always new people moving into the community. Mr. Unangst suggested outreach to Orion Park, Wescoat Housing Area, MEW, the Moffett Field Commissary, PV/Google, the Air National Guard, the NASA employees and the surrounding community to get information out regarding all of the environmental work being conducted in the former NAS Moffett Field area.

- Mr. Siegel said information has been provided in the Mountain View Voice on trichloroethene (TCE) being designated a carcinogen by the National Toxicology Center, which EPA had determined was a health concern four years ago.

Mr. Unangst is planning to get a RAB rules/organization subcommittee together to determine the path forward for community outreach. EPA Community Involvement Coordinator, Jackie Lane, said she can coordinate with Mr. Unangst because there may be funding available through the work EPA is doing with the MEW cleanup.

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Mr. Unangst said he will meet with more individuals and coordinate a subcommittee prior to the next RAB meeting in May 2017.

- Technical Assistant Grant consultant Peter Strauss said the MEW group that meets is not a formal CAC. Mr. Siegel said that the Center for Public Environmental Oversight (CPEO) provides information on the MEW cleanup to an interested parties email distribution list and hosts informal meetings. Mr. Siegel asked if the Navy and NASA can look into funding and administrative support options for CPEO to host joint meetings for the community to receive information on all of the cleanup sites in the area. Mr. Sullivan said he will look into what the Navy can provide and update Mr. Unangst and Mr. Siegel. Mr. Sullivan said the Navy could provide updates on the Navy program at future community meetings that are hosted by other organizations. Mr. Strauss said in Tucson, Arizona there is a joint agency meeting, hosted to provide their community updates on various programs that may be able to provide some funding suggestions to Mr. Unangst.

Mr. Sullivan thanked Mr. Unangst for his efforts in researching various options to continue to provide venues for community outreach. Mr. Sullivan said he plans to update the rest of the Moffett Field Navy/Regulatory team on the discussions at this RAB meeting and the RAB members' interest in continued outreach to all of the stakeholders.

NASA UPDATE

Mr. Chuck provided an update for NASA activities. Mr. Chuck said NASA completed all of the VI sampling for the buildings. There was a location with an elevated vapor concentration detected in Building 144; the location was resampled and no chemicals of concern (COC) were detected. Mr. Chuck said NASA is conducting extensive sampling at Building N241 to see what is present. The results show low levels of VI but NASA is still continuing to monitor Building N241 closely.

Ms. Lee said all occupied buildings have been sampled in the MEW and Moffett Field Vapor Intrusion Study Areas to comply with EPA's Record of Decision Amendment for Vapor Intrusion. Ms. Lee said some of the buildings outside of the MEW Superfund area have been sampled for potential vapor intrusion with oversight by EPA.

- Mr. Unangst asked if there are some homes in Wescoat Housing Area over the TCE groundwater plume that have detected contaminants of concern concentrations in vapor that should require information being provided to the residents. Ms. Lee said EPA hosted a public meeting in 2013 for the residents of Wescoat Housing Area to review information on the TCE regional groundwater plume and potential for vapor intrusion in the residential development. Ms. Lee said EPA is always looking for ways to improve the communication process to get information out to residents.
- Mr. Siegel said the Mountain View City Council recently required that the owner of a planned new hotel being built over a TCE groundwater plume be notified that the property is subject to an environmental response. Mr. Siegel suggested that EPA follow up with the Army to see what type of notifications they provide to the tenants at Wescoat Housing Area.
- Mr. Berry asked about what NASA is doing to address the concerns of staff on their potential exposure to contamination working at the NASA Ames Research Center. Mr. Chuck said NASA recently hosted a town hall meeting for the employees and the Director of the Ames Research Center is working on how to address the concerns. The Agency for Toxic Substances and Disease Registry and the National Institute of Occupational Safety and Health have been engaged by NASA to help determine a path forward for addressing the concerns of the employees. Mr. Chuck said NASA has also spoken with the Center for Disease Control and Prevention about the concerns about the chemical exposure and the health impacts.

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- A community member asked if NASA has studied the potable water used onsite since the piping onsite is probably old. Ms. Wells said it is her understanding that the water used at the NASA Ames Research Center is municipally supplied. If anyone is concerned about the water source they can ask NASA and often testing information is available on the municipal water supplier's website.

REGULATORY AGENCY UPDATE

Water Board Update: Ms. Wells said the Water Board is working with the Navy and NASA on the transitions and with PV for the sites within its lease area. The Water Board continues to work on the petroleum site closures at the base.

EPA Update: Ms. Lee said EPA is working on oversight of the groundwater plume investigations at and surrounding former NAS Moffett Field. Ms. Wells said there are three EPA Remedial Project Managers overseeing work at former NAS Moffett Field. In addition to Ms. Lee, Yvonne Fong and Lucrina Jones share the work load of the various projects at former NAS Moffett Field that include the Navy, NASA and PV sites.

- Mr. Siegel asked if EPA ever received questions from tenants at the Wescoat Housing Area after they hosted the public meeting in 2013. Ms. Lee said EPA has received a few questions over the years from renters and home buyers at the Wescoat Housing Area and in the neighborhoods that are over the MEW groundwater plume.

PUBLIC COMMENT / QUESTION PERIOD

Mr. Sullivan opened the RAB meeting for questions or comments from the public.

- Mr. Chuck said that Defense Logistics Agency will begin removing tanks and pipelines onsite. Anything that cannot be removed will be plugged with cement. Santa Clara County is conducting oversight of the Defense Logistics Agency removal action.
- Bill McClenahan (Extech) asked if there is any update from the Army on their remedial investigation work at the Orion Park Housing Area. Ms. Lee said there are subslab depressurization systems in some of the buildings at Orion Park.
- Mr. Unangst said there was a good presentation on technology from the Oak Ridge National Laboratories that was presented at a RAB meeting in 2014. There was a lot of useful information about the contamination at Orion Park that Mr. McClenahan can access from Mr. William's RAB website.
- Ms. Lee said EPA will host another neighborhood meeting on EPA's TCE source investigation and vapor intrusion work in the residential area in January 2017 that is open to the public if anyone on the RAB is interested in attending. More information on EPA's public meeting will be sent out via email closer to January 2017.
- NASA employee Stevan Spremo said he is not convinced that winter is the best time for sampling buildings for VI. The Navy, NASA, and EPA should be using real time data to determine VI levels in buildings. Mr. Spremo said using summa canisters to sample indoor air does not reach all of the areas of a building.
- Mr. Siegel said that using an electron transmission detector may be a way to collect information on VI. Years ago a NASA contractor was doing 8-hour sampling for polycyclic aromatic hydrocarbons (PAHs) in buildings at the NASA Ames Research Center, which brought new information.

FUTURE RAB MEETINGS

Mr. Sullivan asked for future RAB topics. Suggested future RAB topics included an update on the NASA workplace exposure concerns, a PV update including Hangar 1 and subslab soil gas data, and a Navy update on Site 7. Mr. Sullivan said he can be contacted for future RAB topic suggestions via e-mail or phone prior to the next RAB meeting.

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Tentative Next RAB Meeting

Thursday, May 11, 2017

ADJOURN

Mr. Sullivan thanked all present for attending. The meeting was adjourned at 8:45 p.m.
The Navy can be contacted with any comments or questions:

Mr. Jim Sullivan
Base Realignment and Closure (BRAC) Environmental Coordinator, Former NAS Moffett Field
BRAC Project Management Office West
Navy BRAC PMO West
33000 Nixie Way, Building 50 Room 207
San Diego, CA 92147
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ACRONYM LIST

ATSDR – Agency for Toxic Substances and Disease Registry
BEC – Base Environmental Coordinator
BRAC – Base Realignment and Closure
CAC – Community Advisory Committee
CDC – Center for Disease Control and Prevention
CPEO - Center for Public Environmental Oversight
EATS – Eastside Aquifer Treatment System
EPA – U.S. Environmental Protection Agency
MEW – Middlefield Ellis Whisman
NAS – Naval Air Station
NASA – National Aeronautics and Space Administration
NIOSH – National Institute of Occupational Safety and Health
PV – Planetary Ventures
RAB – Restoration Advisory Board
RD/RAWP – Remedial Design/Remedial Action Work Plan
TCE – Trichloroethene
VI – Vapor Intrusion
WATS – Westside Aquifers Treatment System
Water Board – San Francisco Bay Regional Water Quality Control Board
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,
James Sullivan
Navy Co-Chair
Former NAS Moffett Field RAB