

**FORMER NAVAL AIR STATION MOFFETT FIELD
RESTORATION ADVISORY BOARD MEETING
MOUNTAIN VIEW SENIOR CENTER
MOUNTAIN VIEW, CALIFORNIA
FEBRUARY 12, 2015**

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 12, 2015, at the Senior Center in Mountain View, California.

Community RAB Members in attendance:

Bill Berry, Gabriel Diaconescu, Rebecca Kohn, Libby Lucas, Diane Minasian, Bob Moss, 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]) 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 [AEC]), Jim Davis (City of Sunnyvale), Wilson Doctor (Navy) Yashekia Evans (Tetra Tech Inc. [Tetra Tech]), Kimberly Finch (NASA), Gaelle Glickfield (U.S. Army 63rd Reserve), Rusty Harris-Bishop (EPA), Carolyn Hunter (Tetra Tech), Lynne Kilpatrick (City of Sunnyvale), Jackie Lane (EPA), Lisa Lockyer (NASA), John Inks (City of Mountain View), Terry Seward (Water Board), and George Sloup (NASA),

Other Community Members and Agency Representatives in attendance:

Mark Becker (Stantec), Beth Bunnenberg, Lt. Col. Steve Kuaal, Renell Kuaal, Rodger Miller, C.K. Shah, M.C. Shah, and Bill Wissel

WELCOME

Bill Berry (RAB Community Co-chair) opened the meeting at 7:00 p.m. and welcomed everyone in attendance. Mr. Berry reviewed the RAB agenda and asked for any additional topics. No additional items were suggested.

Mr. Berry said he recently reviewed the RAB Charter which states that NASA is a participant in the board and now that Planetary Ventures (PV) will be leasing property on former NAS Moffett Field that requires land use restrictions (LUC), the RAB should continue to be updated. Mr. Berry said the RAB requests that NASA and PV provide updates at future meetings on the progress of the lease and long term environmental responsibilities of the sites.

APPROVAL OF MEETING MINUTES

Scott Anderson (Navy RAB Co-chair) asked for corrections to or comments on the minutes for the draft November 20, 2014 RAB meeting. RAB member Lenny Siegel provided minor verbal comments on the November 20, 2014 RAB meeting minutes. Mr. Siegel asked for clarification on Alec Naugle's (Water Board) statement at the November 20, 2014 RAB regarding financial responsibility of sites that do not have a

potentially responsible party (PRP). Elizabeth Wells (Water Board) said she will clarify the statement with Mr. Naugle and provide the Navy with any clarifications to the text. The RAB voted to finalize the November 20, 2014 meeting minutes with the corrections incorporated.

NAVY ANNOUNCEMENTS

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 Base-wide Five-Year Review Report	March 2015
2.	Draft Sites 1, 2, and 22 Landfills Annual Report	April 2015
3.	Site 28 Long Term Monitoring Annual Report	April 2015
4.	Draft Treatability Study Work Plan for Site 28	April 2015
5.	Draft Building 10 Vapor Intrusion (VI) Remedial Design	May 2015

NAVY’S BASE-WIDE FIVE-YEAR REVIEW UPDATE

Wilson Doctor (Navy Remedial Project Manager [RPM]) provided an update on the Navy’s Base-wide Five-Year Review. Mr. Doctor said the Base-wide Five-Year Review will be conducted to review the remedies for Installation Restoration (IR) Sites 1, 22, 26, and 28. The Navy is required by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) to conduct five-year reviews to ensure the protectiveness of the remedies are met for Sites 1, 22, 26, and 28. The five-year review schedule is triggered by the first, post-Record of Decision (ROD) remedial action that leaves contaminants in place at the sites which will not allow for unrestricted use. Mr. Doctor said this is the third five-year review for IR Sites 22, 26, and 28, and the fourth for IR Site 1. Once this five-year review is approved by the regulatory agencies and finalized, it will trigger the five-year review process for the next phase.

Mr. Doctor said the ROD for IR Site 1 was completed in 1997. The remedy was to consolidate waste from Site 2 into Site 1 and install a multilayer cap on the landfill. The Navy is currently conducting semi-annual groundwater and landfill gas monitoring at these sites. There are institutional controls (ICs) and Engineering Controls (ECs) in place at Sites 1 and 2.

Mr. Doctor said the ROD for IR Site 22 was completed in 2002 and the remedy was a landfill cover. IC’s are in place in the form of a Memorandum of Agreement with NASA and the Navy is currently monitoring groundwater and landfill gas at IR Site 22. The Navy and Santa Clara Department of Environmental Health conduct quarterly landfill site inspections at Site 1 and 22.

Mr. Doctor said the Site 26 East-Side Aquifer Treatment System (EATS) ROD was completed in 1996 and the amendment was finalized in September 2014. The Site 26 selected remedy was groundwater monitoring, extraction and ex-situ treatment and ICs. In September 2014, a ROD Amendment was completed to implement [biostimulation/bioaugmentation, monitored natural attenuation, and ICs](#) as the remedy.

- Mr. Doctor said the Site 28 West-Side Aquifers Treatment System (WATS) ROD was completed in 1989 and the VI ROD Amendment was completed in 2010. The Site 28 WATS remedy is extraction and ex-situ treatment and VI. There have been multiple investigations at Site 28 including 2010 Supplemental Investigation – Former Building 88 and Traffic Island Area
- 2010-2011 In-situ Bioremediation Pilot Study
- 2012-2014 VI evaluation
- 2013-2014 Groundwater investigation of deep aquifer

Mr. Doctor said the current status is that WATS is operating and there are groundwater monitoring events in March and October annually. There is a VI assessment and mitigation ongoing at Site 28.

Mr. Doctor said the draft five-year review states that all sites are functioning as intended by their ROD and exposure assumptions, cleanup levels, and remedial action objectives (RAO's) used at the time of the ROD are still valid. The five-year review also determines if there is other information that has come to light that may question the protectiveness of the remedies. The Navy issued the Draft Five-Year Review of regulatory agency comment. Once the Navy receive regulatory agency comments and they are responded to, the Five-Year Review will be finalized,

- Mr. Berry asked what the process is for restricting access to the Site 22 Landfill material below the golf course. Mr. Doctor said the Site 22 Record of Decision has specific language for institutional controls that states the groundwater or the material below the cap on the Site 22 Landfill cannot be disturbed.
- Mr. Siegel asked how squirrels burrowing into the golf course cap at Site 22 are being addressed to ensure they are not disturbing the contaminants below. Mr. Doctor said the Navy, NASA, and the golf course staff monitor burrowing squirrel activity, and squirrel control is being conducted as part of golf course maintenance.
- Mr. Siegel said there is a saw horse type structure located at Site 1 that local raptors have used as a perch. It is in disrepair and needs to be fixed. Mr. Doctor said that the California Department of Fish and Wildlife (CDFW) was concerned with potential bird strikes and suggested the Navy dispose of the raptor perches. The Navy is in the process of disposing of the perches.
- Mr. Siegel asked if all land use controls (LUCs) that are currently in place will be managed by the future tenants of the sites. Mr. Doctor said the Navy is working with NASA to ensure all LUCs will be carried out. The memorandum of agreement (MOA) between the Navy and NASA outlines all LUCs.
- Mr. Siegel asked if the regulatory agencies have any issues with the protectiveness statements in the Draft Five-Year Review. Ms. Wells said the regulatory agencies are currently reviewing the Navy's Draft Five-Year Review.
- RAB member Libby Lucas asked how the Navy is addressing Burrowing Owls that may use the squirrel holes on landfills. Mr. Doctor said NASA has a biologist on staff who conducts annual burrowing owl

surveys at former NAS Moffett Field. In addition, the Navy's contractor conducts surveys for burrowing owls and other species as part of their squirrel abatement activities. The surveys have shown that the landfills are not burrowing owl habitat areas.

- RAB member Bob Moss asked if groundwater monitoring of the landfills is conducted when the Navy conducts sampling at Site 26 (EATS) and Site 28 (WATS). Mr. Doctor said the landfills are not part of the regional groundwater monitoring program like Sites 26 and 28. The landfills have their own groundwater monitoring program, and that groundwater monitoring at the landfills is conducted annually during the wet and dry season.

Mr. Anderson said the Navy will be working with the regulatory agencies on their comments on the Five-Year Review prior to finalizing it.

NASA UPDATE

Deborah Feng (NASA) gave an overview on the Moffett Federal Airfield (MFA) Lease. NASA wants to rehabilitate and maintain the historic integrity of Hangar 1 and the Shenandoah Plaza Historic District, while also eliminating NASA's operating and maintenance costs at former NAS Moffett Field. In order to do so, NASA has issued a MFA lease to PV. The MFA lease is consistent with NASA Ames mission, and provides best value for the government through open public competition. Ms. Feng said the lease area is for approximately 1,000 acres consisting of Hangars 1, 2 and 3, Building 158, the airfield, and the golf course. The MFA lease initial term is 60 years but PV cannot terminate the lease prior to Hangar 1 being reskinned. Ms. Feng said the request for proposal was advertised on FedBizOpps and local business journals and NASA conducted tours of the property during May and June 2013. There were two qualified proposals received and presented to NASA in January 2014. NASA selected PV as the best offer and terms for the government in February 2014. The MFA lease will commence between NASA and PV 10 business days after the Bona Fide Prospective Lessee letters are received from EPA and the Water Board. As the MFA lease moves forward, NASA will have information available to the public via their website.

- Jim Davis (City of Sunnyvale) asked if PV plans to run more flights from the airfield and create additional air traffic in the area. Ms. Feng said based on discussions NASA has had with PV, they are not planning a significant number of flights from the airfield.
- Mr. Strauss asked for a status update on the Environmental Issues Management Plan (EIMP). Ms. Feng said NASA is reviewing the EIMP and currently working with the regulatory agencies on the last appendix which includes the status of the existing environmental conditions. The goal is to have the EIMP issued for regulatory agency review by the end of February 2015.
- Mr. Strauss asked for a schedule update on the transition of responsibility from the Navy to NASA/PV for the areas the Navy is still responsible for. Mr. Strauss said he is specifically interested in the transition schedule for Hangar 1. Ms. Feng said PV is currently working on their analysis of re-siding Hangar 1. No decisions have been made at this point on the path forward for re-siding Hangar 1. The details are still being worked out between NASA and PV. Once more information is available, NASA will update the Navy on the path forward for operation and maintenance at Hangar 1.
- Mr. Strauss asked if the regulatory agencies are comfortable with how the process is going with the MFA lease between NASA and PV. Alana Lee (EPA) said the regulatory agencies have not been involved with the MFA lease negotiations. The regulatory agencies and the Navy have been reviewing and providing comments to NASA and PV on the EIMP to ensure all environmental procedures and

responsibilities are correctly addressed for the MFA lease. Mr. Anderson said the Navy had an opportunity to review the EIMP prior to it being released as a draft and provided NASA their initial comments. Mr. Siegel asked if the Navy's comments on the EIMP are available for public review. Mr. Anderson said he will have to check if the preliminary Navy comments on the EIMP are available for public review. Ms. Wells said the EIMP that is being issued as a draft will address the Navy's initial comments and be available for public review. Ms. Wells said the regulatory agencies will continue working with all parties associated with the lease area so that PV's activities do not impact LUCs or environmental restrictions the Navy has put in place.

- Mr. Berry asked if NASA and PV will be providing future updates on their sites to the RAB once the Navy transfers their responsibility. Ms. Feng said she will take the RAB's request for future information on the MFA to NASA management and PV for their consideration.
- Mr. Berry asked if NASA calculated inflation into the agreement costs for the MFA lease. Ms. Feng said NASA calculated inflation into the agreement and best real estate market value into the MFA lease. The market value was determined based on the current use of the property. If the reuse of the sites change, there will be a reassessment of the market value.
- Mr. Siegel congratulated NASA on the success of negotiating a MFA lease with PV. Mr. Siegel said he wants to make sure the regulatory agencies keep a close watch on the process of re-siding Hangar 1 and all of the environmental regulations are followed by PV. Mr. Siegel said the RAB wants to make sure human health and the environment are protected throughout the lease of property by PV.
- Mr. Siegel said the increased traffic and use of the area through the MFA lease should be assessed in an Environmental Impact Statement (EIS) report. Ms. Feng said she will communicate the RAB's concerns and request that they conduct an EIS on the MFA lease area to PV. Mr. Siegel suggested the RAB consider writing their requests in a letter and issue it directly to PV in addition to NASA requesting an EIS.
- Mr. Berry asked the Navy and NASA to request a presentation from PV on the MFA lease and re-siding of the hangar at the May 14, 2015 RAB meeting.
- Ms. Lucas said since the Northern Channel and wetlands are included in the MFA lease, PV needs to be informed of the western pond turtle inhabiting this area. Ms. Feng said none of the current use of the Northern Channel and wetlands will change with PV taking over the lease of the area. They have the historical documentation and NASA's Wildlife Management Plan they are required to follow. Ms. Lucas asked for a copy of NASA's Wildlife Management Plan. Ms. Feng said the Wildlife Management Plan is located on NASA's website in the public reading room located at the following address:
http://www.nasa.gov/centers/ames/business/foia/planetary_ventures2.html.

EPA TRICHLOROETHENE SOURCE INVESTIGATION FINDINGS

Alana Lee (EPA) provided an update on EPA's trichloroethene (TCE) source investigation findings and PRP search efforts. Ms. Lee summarized the past TCE sampling that NASA, the Navy, the Army, EPA, MEW, and other parties, have conducted from 1999 through 2014 in the former Orion Park area on Moffett Field, Highway 101 & Moffett Blvd area, and the Leong Drive and Evandale Avenue areas within and in the vicinity of the Middlefield-Ellis-Whisman (MEW) Superfund Study Area. The sampling results over the years identified TCE hot spot areas and extensive shallow groundwater contamination outside of the MEW regional TCE groundwater contamination plume area. In addition to the subsurface investigations, Ms. Lee said for over 10 years EPA has been conducting an extensive PRP investigation search in the surrounding areas. EPA reviewed

the historical facility operations and TCE use in the area, reviewed aerial photos, and researched city, county, and state agency records. EPA has been working closely with the City of Mountain View on obtaining the historical and current infrastructure of the sewer lines. EPA's research efforts has determined that the four TCE hot spot areas are from the historical discharge of TCE to the sanitary sewer line prior to 1966 when sewer flowed from Whisman Road and Fairchild Drive along the Evandale Trunk and TCE was subsequently released at the locations of the four TCE hotspot areas because of sags, cracks in the sewer line.

- Mr. Siegel asked if the four TCE hot spots EPA has found are directly related to the MEW group. Ms. Lee said the four TCE hot spots found were from historic pre-1966 releases of TCE to the sanitary sewer line. Three of the MEW parties (Fairchild Semiconductor, Raytheon, and Union Carbide) used TCE in its operations and released TCE to the sanitary sewer prior to 1966. EPA's PRP investigation continues and additional parties may be identified.
- Mr. Siegel asked what recent TCE work has EPA done on Devonshire Avenue. Ms. Lee said three groundwater monitoring wells are being installed on Devonshire Avenue and Evandale Avenue to monitor the shallow A and lower B1 groundwater aquifers for TCE.
- Mr. Strauss suggested EPA review the historic isotopic studies the Navy did in the area to determine if there are any issues to correlate the TCE hot spots. Ms. Lee said EPA is assessing all historic documentation for the area.
- Mr. Moss asked if any of the homeowners EPA has been working with have refused indoor air sampling. Ms. Lee said EPA has not come across anyone who has refused indoor air sampling. EPA has sampled all the homes in the immediate vicinity of the TCE hot spot areas. Currently EPA is sampling indoor air of homes in the residential air sampling area for residents who request it. If anyone wants to request indoor air sampling in the study area, they can contact EPA.

Ms. Lee said EPA's highest priority is addressing potential VI concerns and working with the responsible parties to implement the vapor intrusion remedy where needed. EPA will be working with the responsible parties to determine the extent of the contamination from the TCE hot spot source areas, continuing TCE hot spot characterization, and evaluating and implementing the appropriate cleanup actions. EPA continues to evaluate all the data and will conduct a data gap evaluation to determine the next steps. EPA's PRP investigation is ongoing. As more information is collected on the TCE source investigation work, EPA will provide updates to the RAB. In the meantime, if anyone is interested in more information on the MEW Superfund Study Area they can go to the following EPA websites:

- www.epa.gov/region9/mew
- www.epa.gov/region9/moffettfield

More information can also be obtained by contacting Alana Lee, EPA Project Manager, at lee.alana@epa.gov or (415) 972-3141.

PUBLIC COMMENT / QUESTION PERIOD

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

- A community member asked if EPA is conducting VI evaluations for residents on former NAS Moffett Field in the Wescoat Housing. Mr. Anderson said VI indoor air evaluations can be requested to EPA for any resident that lives within the MEW groundwater plume study area which would include Wescoat Housing on former NAS Moffett Field.
- A community member asked how long it will take to get the VI results once the indoor air sampling is performed. Ms. Lee said that the new Wescoat Village homes were built with sub-slab vapor intrusion control systems and each residential building was sampled for TCE by the Army prior to residents

moving in 2006. In 2012-2013, EPA has sampled indoor air in six Wescoat Village homes above the groundwater plume.

- A community member asked if the groundwater beneath their home is impacted by contaminants, whether their drinking water source is also contaminated. Ms. Lee said that the drinking water in the area comes from Hetch Hetchy and meets federal and state safe drinking water standards. The groundwater contamination in the area is not used for drinking or other household uses. TCE shallow groundwater contamination is beneath a portion of the residential area.
- A community member asked what a VI mitigation system is. Ms. Lee said that in buildings where there is a VI issue, a sub-slab vapor intrusion control system is installed that removes TCE soil vapors from beneath the slab foundation or crawlspace, which reduces or eliminates the potential for TCE in soil vapor to enter the living space or workspace of the overlying building. A community member asked if the VI system requires regular monitoring and service. Ms. Lee said the VI systems do require regular monitoring and maintenance to ensure the systems are working properly.
- A community member asked about the buildings (in the former Orion Park area) for the Army Reserve and whether the indoor air had been tested in that area. Gaelle Glickfield (U.S. Army 63rd Reserve) said vapor intrusion control systems were installed as part of the new construction of the buildings and the Army has conducted quarterly indoor air sampling and there have not been any TCE exceedances.
- A community member asked if they live in the Wescoat Housing Area how they get their property sampled for VI. Ms. Lee said that she or Ms. Lane can be contacted during or after the RAB meeting to set up air sampling in their home.
- Mr. Siegel said there was a community meeting about two years ago for the residents at Wescoat Housing hosted by EPA where there were a lot of concerns expressed over VI. EPA set up and conducted VI sampling for concerned residents after the meeting.
- A community member asked if people with a compromised immune system should be more concerned about the impact of VI. Mr. Siegel said the VI screening levels are protective of the most sensitive receptors.

FUTURE RAB MEETINGS

Mr. Anderson asked for future RAB topics. Mr. Anderson said he can be contacted for future RAB topic suggestions via e-mail or phone. The next RAB meeting is tentatively scheduled for Thursday, May 14, 2015.

*The May 14, 2015 RAB meeting was cancelled prior to the draft February 12, 2015 meeting minutes being issued.

Tentative 2015 RAB Meeting Schedule

- Thursday, August 13, 2015
- Thursday, November 12, 2015

ADJOURN

Mr. Anderson thanked all present for attending. The meeting was adjourned at 9:00 p.m.

DRAFT FINAL

The Navy can be contacted with any comments or questions:

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ACRONYM LIST

BRAC – Base Realignment and Closure
CDFW – California Department of Fish and Wildlife
CERCLA – Comprehensive Environmental Response, Compensation and Liability Act
EATS – Eastside Aquifer Treatment System
EC – Engineering Controls
EPA – U.S. Environmental Protection Agency
EIMP – Environmental Issues Management Plan
EIS – Environmental Impact Statement
IC – Institutional Controls
IR – Installation Restoration
LUC – Land Use Controls
MEW – Middlefield-Ellis-Whisman
MFA – Moffett Federal Airfield
MOA – Memorandum of Agreement
NAS – Naval Air Station
NASA – National Aeronautics and Space Administration
PRP – Potentially Responsible Party
PV – Planetary Ventures
RAB – Restoration Advisory Board
RAO – Remedial Action Objective
ROD – Record of Decision
RPM – Remedial Project Manager
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,
Scott Anderson
Navy Co-Chair
Former NAS Moffett Field RAB