DRAFT

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

FEBRUARY 7, 2013

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 7, 2013, at the Senior Center in Mountain View, California.

Community RAB Members in attendance:

Bill Berry, Joseph Chou, Gabriel Diaconescu, Larry Ellis, Rebecca Feind, Libby Lucas, Diane Minasian, Boss Moss, Lenny Siegel, Steve Sprugasci, Peter Strauss, 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:

Don Chuck (NASA), Ann Clarke (NASA), Neil Hey (Shaw E&I, Inc.), Carolyn Hunter (Tetra Tech Inc. [Tetra Tech]), George Sloup (NASA), Tommie Jean Valmassy (Tetra Tech), Kevin Woodhouse (City of Mountain View)

Other Community Members and Agency Representatives in attendance:

Gaelle Glickfield (Army Reserve), Georganna Hymes, Michelle King (EKI), Amanda Michels (Army), Eric Suchomel (Geosyntec), and Terry Terman

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 said Larry Ellis (Earth, Air, and Space Foundation) has applied for membership to the RAB. The RAB voted and Mr. Ellis was added as an official member.

APPROVAL OF MEETING MINUTES

Mr. Anderson asked for corrections to or comments on the minutes for the November 29, 2012, RAB meeting. Alana Lee (EPA) said she had some comments, and provided a hard copy mark-up to the Navy. Lenny Siegel (RAB member) noted that on page 2, the first bullet should include the statement that NASA is empowered to take over responsibility for the Hangar 1 site and structure. The RAB voted to finalize the minutes pending incorporation of comments from Mr. Siegel and Ms. Lee. Mr. Anderson handed out a document sign-up sheet, allowing RAB members to request copies of upcoming deliverables; see table below.

Document Sign-Up Table

ORDER #	DOCUMENT	APPROXIMATE SUBMITTAL DATE
1.	Draft Remedial Action Completion Report (RACR) for Site 25, Eastern Diked Marsh and Stormwater Retention Ponds	February 2013
2.	Draft Work Plan for Follow-Up Air Sampling for Site 28 West-Side Aquifers Treatment System (WATS)	February 2013
3.	Final 2011 Annual Monitoring Report for Sites 1 and 22 Landfills	February 2013
4.	Draft After Action Report for Hangar 1	April 2013
5.	Draft 2012 Annual Monitoring Report for Sites 26 and 28	April 2013
6.	Draft 2012 Annual Monitoring Report for Sites 1 and 22 Landfills	April 2013
7.	Draft Final Focused Feasibility Study (FFS) for Hangar 1	May 2013

NAVY ANNOUNCEMENTS

Mr. Anderson said that the Department of Defense (DOD) has issued travel restrictions due to continuing resolution and the sequester, and only "mission critical" travel is being approved. RAB meetings are currently approved, but only one Navy staff member can attend. He said there will be fewer in-person meetings and more conference calls with the regulatory agencies.

Mr. Anderson also announced that the interactive CD for Hangar 1 is complete and was distributed to the RAB. He brought extra copies for those who did not receive a copy.

Mr. Anderson noted the Draft FFS for Hangar 1 is currently out for review. Those who wish to comment should provide comments to Mr. Anderson and/or Bryce Bartelma (Navy Contracted Support Project Manager). Peter Strauss (RAB member) asked how the FFS relates to the long-term management of Hangar 1. Mr. Anderson said the FFS will serve as an Institutional Control (IC) evaluation because ICs were not addressed in the Engineering Evaluation/Cost Analysis (EE/CA) for Hangar 1. ICs and long-term management requirements must be met to satisfy the requirements for possible transfer of the property. Mr. Strauss said he noticed the Draft FFS has two alternatives listed, but no evaluation of either of those alternatives. Mr. Anderson said the FFS will not go into that depth. Alternatives and their evaluations will happen in the Proposed Plan and Record of Decision steps for Hangar 1. Mr. Siegel asked if the regulatory agencies are in agreement with the FFS for Hangar 1. The regulatory agency members in attendance said they are in concurrence with the Navy's FFS. Dr. Ann Clarke (NASA) said NASA has received the document, and plans to review and comment, but has not yet done so.

Bob Moss (RAB member) said he heard a news story that the San Jose airport is overloaded by the high usage by Google, and that Google needs its own airport. He noted that Google had previously offered to re-skin Hangar 1, and asked if there could still be a possibility for that. Mr. Siegel said he reviewed the news article and it sounds like there are already plans to build additional infrastructure for Google in the western portion of the San Jose airport.

SITE 28/ BUILDING 88 AREA UPDATE

Mr. Anderson introduced Neil Hey (Shaw E&I, Inc.) to provide an update of the ongoing field work being conducted at Site 28. Mr. Hey presented the objectives, technical approach, and preliminary results of a supplemental investigation being performed to further characterize the lateral and vertical extent of tetrachloroethene (PCE) and its daughter products (trichloroethene [TCE], dichlorethene [DCE], and vinyl chloride [VC]), and soil stratigraphy, in the saturated zone at the former Building 88 and Traffic Island source areas. Mr. Hey indicated the investigation is being conducted in two phases. Phase 1 is a semi-quantitative screening survey to further assess the distribution of chlorinated ethenes and soil lithology in the areas of interest. Phase 2 involves the installation and sampling of new groundwater monitoring wells. The data generated by the Phase 1 effort along with existing data will be used to identify the location(s) and proper design of new monitoring wells that will be installed during Phase 2. Mr. Hey briefly described the Navy's Site Characterization and Analysis Penetrometer System (SCAPS) rig which is being used to collect the data for Phase 1. Fourteen (Tier 1) SCAPS tests have been completed thus far at the former Building 88 area with 8 step-out tests (Tier 2) still to be completed. Following completion of the step-out tests at the former Building 88 area, fourteen (Tier 1) SCAPS tests will be completed at the Traffic Island Area followed by potential step-out tests. Mr. Hey presented preliminary results by showing contour maps of PCE response at various depths of investigation. Mr. Hey summarized the preliminary findings: (1) the SCAPS test results generally correlate well with historical data, (2) PCE was primarily detected in fine-grained sediments, (3) the highest detections of TCE and DCE were primarily in fine-grained sediments, (4) VC was not detected in any of the approximately 320 samples, (5) the fine-grained sediments are acting as a continuing source of chemicals to the groundwater. Mr. Hey wrapped up his presentation with describing potential monitoring well locations for both areas and the schedule for the next project steps, including additional SCAPS tests in spring 2013, monitoring well installations in summer 2013, and groundwater sampling in summer/fall 2013.

- Mr. Strauss asked how long the sanitary sewer was out of service when it collapsed and what was the approximate date when it collapsed. Mr. Hey responded that he was not certain but that he could get the information. Mr. Strauss also asked if the leak was a sudden release or a release over time. Mr. Hey responded that based on his understanding it was a release over time and was not sure that the base was immediately aware that the sewer line had collapsed. Don Chuck (NASA) stated that eventually the Navy knew it was collapsed because they built a bypass around the collapsed line.
- Mr. Strauss asked how long PCE has been in the ground and when it was initially released. Mr. Hey indicated that he is aware of information indicating when the release(s) occurred and that the site was used as a dry cleaner from 1945 through the 1980s, during time which PCE could have been released.
- Mr. Strauss asked if the existing extraction system at Moffett Field has impacted the source areas in any way. Mr. Hey said the nearest extraction wells are a couple hundred feet downgradient and a couple hundred feet cross-gradient from the source areas and likely capture any contaminants that emanate from these source areas. Mr. Anderson stated that the information collected by the investigation may be used in the future to evaluate ways to optimize the existing West-Side Aquifers Treatment System (WATS) system by determining whether there are better locations for the extraction well.
- Mr. Siegel asked whether the locations identified with the highest response for TCE (separate from the area with elevated PCE responses) are from another source. Mr. Hey stated that additional data will be collected that will provide more information about this area. Mr. Anderson stated that several of the step-outs are planned in the general area and this data will be used in future evaluations.
- Mr. Siegel asked if there was any information as to why the breakdown process has not continued in any significant way in the areas investigated, based on DCE being detected but not VC. Mr. Hey said it is

possible that it has and it may be due to the sensitivity of the tool which may not detect low levels of VC. Mr. Siegel asked whether it may be possible that the VC has degraded, Mr. Hey agreed that is a possibility too.

- Mr. Siegel asked what the relationship is between the gas station plume and the chlorinated ethene plume. Mr. Chuck said the gas station plume is immediately upgradient of the "traffic triangle" and travels pretty much along the same line.
- Mr. Chuck asked whether cross-sections will be prepared that show the relationship of the contaminants and the sediments. Mr. Hey said cross-sections will be included in the final report of the investigation

EPA REGIONAL GROUNDWATER AND VAPOR INTRUSION UPDATE

Penny Reddy (EPA) and Ms. Lee gave an update on the regional groundwater plume and vapor intrusion. Ms. Reddy provided a summary of the 2012 CPT and grab groundwater results collected to help better delineate the regional TCE shallow groundwater contamination plume boundary in five specific areas and to help locate where groundwater monitoring wells should be installed. The results confirmed the general extent of the TCE contamination boundaries in these areas, with the exception of one area south of U.S. Highway 101 along Evandale Avenue, where two TCE "hot spot" areas were identified.

Ms. Lee said EPA sent notices to residents and homeowners in the vicinity of the two TCE groundwater hot spot areas and identified those homes as high priority for indoor air sampling. Over 30 homes were sampled in January, and in most homes, EPA did not find TCE. TCE was found at elevated levels exceeding EPA's TCE indoor air cleanup level of 1 microgram per cubic meter at two residences. A vapor intrusion control system was installed in one residence and a second vapor intrusion control system is being designed for the second residence. Additional investigations are ongoing to determine the nature and extent of the hot spot areas and a design to clean up the hot spot areas will be prepared this spring. Ms. Reddy said the preliminary findings from the sampling will be available this spring.

Ms. Reddy said EPA received numerous stakeholder comments on EPA's draft Site-wide Groundwater Feasibility Study (FS) for the Middlefield-Ellis-Whisman (MEW) Site, which includes the regional groundwater contamination on Moffett Field. EPA is developing a path forward in response to comments received and she is looking forward to working directly with stakeholders to ensure concerns are addressed.

- Mr. Siegel asked how many homes were sampled for indoor air. Ms. Lee said approximately 30 residences were sampled. Mr. Strauss asked EPA to keep track of residences, where the owners did not allow access, so in the future, if there is a different owner, access can be requested again.
- Mr. Chuck said NASA has been reviewing the capture zones. The capture zones have been estimated on the assumption that the aquifer is homogenous, which is not the case. NASA is not seeing any evidence that the capture zones are accurate and it appears that some of the contamination is not being captured. He asked what the agencies are considering in regard to contaminant source control. Ms. Reddy said EPA is developing a conceptual site model, and will look at various remediation techniques.
- Mr. Chuck said federal budgets are tight, and NASA may have to shut down the air sparge system, which may mean the Orion Park contamination could spread more quickly. Ms. Lee said EPA is working with the Water Board to address the situation, and there will be additional investigation for future cleanup of the TCE groundwater contamination plume. Ms. Wells said the Water Board is looking at Orion Park and other possible upgradient sources, and they will need to be thoughtful about how to deal with the issue. Mr. Strauss asked that the regulatory agencies take Mr. Chuck's comments seriously. Ms. Lee said EPA is concerned about the shallow TCE groundwater plume migration, and EPA wants to ensure building occupants are protected.

- Dr. Clarke said she hopes responsible parties for the Orion Park contamination can be found so funding is not taken away from other NASA efforts in order to deal with the contamination that has migrated onto NASA's property.
- Mr. Siegel said he thought EPA's Groundwater FS document was in good shape and just needs a small amount of fine tuning. Ms. Reddy said she is compiling groundwater remediation technologies information used at many of the South Bay sites and would like to meet with stakeholders to discuss the path forward.

PUBLIC COMMENT / QUESTION PERIOD

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

- Georganna Hymes (community member) said she thinks it is time for the Navy to reopen Moffett Field and Alameda Point. There is no military presence in Northern California, and the Army or Air Force should be able to use these bases.
- Mr. Moss said he is concerned about the travel restrictions that the Navy has in place. It is important that the Navy continue to meet in person with the public. Mr. Anderson said the Navy recognizes the importance of meeting in-person with the public, which is why they are allowing him to travel to RAB meetings. However, at the present time he will not be able to bring additional staff members.

FUTURE RAB MEETINGS

Mr. Anderson asked for future RAB topics. The next meeting is scheduled for Thursday, May 9, 2013. He said the Army will provide an update on work conducted at the former Orion Park area at the next meeting.

- Mr. Siegel said RAB officers need to be elected. Mr. Anderson agreed that will occur at the next meeting in May.

ADJOURN

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

The Navy can be contacted with any comments or questions:

Mr. Scott Anderson
BRAC Environmental Coordinator, Former NAS Moffett Field
BRAC Project Management Office West
1455 Frazee Road, Suite 900, San Diego, CA 92108
Phone: (619) 532-0938
E-mail: scott.d.anderson@navy.mil

ACRONYM LIST

BRAC – Base Realignment and Closure
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
DCE – dichloroethene
EE/CA – Engineering Evaluation/Cost Analysis
EPA – U.S. Environmental Protection Agency
FFS – Focused Feasibility Study
FS – Feasibility Study
IC - Institutional Control
MEW – Middlefield-Ellis-Whisman
MIP – Membrane Interface Probe

NAS – Naval Air Station
NASA – National Aeronautics and Space Administration
PCE – tetrachloroethene
ppm — Part per million
RAB – Restoration Advisory Board
RACR – Remedial Action Completion Report
RTC – Response to Comments
SCAPS – Site Characterization and Analysis Penetrometer System
TCE – Trichloroethene
VC – Vinyl chloride
VOC – Volatile organic compound
WATS – West-Side Aquifers Treatment System
WB - 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/basepage.aspx?baseid=52&state=California&name=moffett

Respectfully submitted,

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