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

*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, May 12, 2011, at the Senior Center in Mountain View, California.

**Community RAB Members in attendance:**

Bill Berry, Gabriel Diaconescu, Linda Ellis, Libby Lucas, Diane Minasian, Bob Moss, Arthur Schwartz, Lenny Siegel, Steve Sprugasci, Peter Strauss, Dan Wallace, and Steve Williams

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

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

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

Bryce Bartelma (Navy), Lauren Cason (Sealaska Environmental), Don Chuck (NASA), Dr. Ann Clarke (NASA), Deb Feng (NASA), Valerie Harris (Navy), Neil Hey (Shaw Environmental), Mark T. Hightower (NASA), Andy Hocker (NASA), Carolyn Hunter (Tetra Tech EM Inc.), John Inks (City of Mountain View), Lynne Kilpatrick (City of Sunnyvale), Dan Leigh (Shaw Environmental), Mike Schulz (AMEC Earth and Environmental [AMEC]), Keith Siuda (NASA), George Sloup (NASA), Jim Whitcomb (Navy), and Adam Zwiebel (Navy)

**Other Community Members in attendance:**

Roderick Bersamina (representative from Congresswoman Anna Eshoo's Office), Truman Cross (Oakland Cloud Dusters Free Flight Club), Peter Cuneo, Daniel DeBolt (Mountain View Voice), Larry Ellis (Air and Space West Foundation for Education), Rebecca Feind, Georgina Hymes, Shani Kleinhaus (Santa Clara Valley Audubon Society), Rose Lesslie, George Maul, Mike Moeller (Army-Fort Hunter Liggett), J. Morris, Jack Nadeau (Save Hangar 1), Marty Rawson, Larry Singer, Willie Solis (Sheet Metal Workers Local #104), Terry Terman (League of Women Voters), Greg Unangst and Jim Van Pernis

**WELCOME**

Bill Berry (RAB community co-chair) and Scott Anderson (Navy Base Realignment and Closure [BRAC] Environmental Coordinator) opened the meeting at 7:00 p.m. and welcomed everyone in attendance. Mr. Berry announced that he has recently retired from NASA and the University of California and his contact information has changed. Mr. Berry said that he can be reached via e-mail at [wmeberry@comcast.net](mailto:wmeberry@comcast.net). Mr. Berry reviewed the agenda and said that he would like to add a brief presentation from Larry Ellis (Air and Space West Education Foundation) on the future reuse of Hangar 1 at the end of the meeting. The RAB agreed that Mr. Ellis could be added to the end of the agenda as time permits.

**APPROVAL OF MEETING MINUTES**

Mr. Anderson asked for corrections to or comments on the minutes for the March 10, 2011 RAB meeting. Lenny Siegel (RAB member) asked that on page 2 that the word "senators" should be changed to

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“congressional offices.” The RAB voted to finalize the minutes for the March 10, 2011, meeting with Mr. Siegel’s comment incorporated. Final RAB meeting minutes are posted to the former NAS Moffett Field project website at: <http://www.bracpmo.navy.mil/basepage.aspx?baseid=52&state=California&name=moffett>.

## DOCUMENTS FOR REVIEW

Documents are available in CD-ROM format. Sign-up sheets for the documents listed below were circulated during the meeting to the RAB members.

<u>#</u>	<u>DOCUMENT</u>	<u>APPROXIMATE SUBMITTAL DATE</u>
1.	Petroleum Site 14 Draft Monitoring Report for 2010	May 2011
2.	2010 Annual Report of Landfill Sites 1 and 22	June 2011
3.	2010 Annual Groundwater Report for Sites 26 and 28	June 2011
4.	Site 27 Revised Draft Remedial Action Completion Report	June 2011
5.	Final Petroleum Sites Closure Report	June 2011

## ANNOUNCEMENTS

Mr. Anderson said that the BRAC office has made some changes to the Navy management. The Base Closure Manager (BCM) for former NAS Moffett Field is now Alan Lee and the Deputy BCM is Thomas Macchiarella. Mr. Anderson introduced Jim Whitcomb as the new Lead Remedial Project Manager (RPM) for former NAS Moffett Field. Mr. Whitcomb is a former Lead RPM for Treasure Island and Hunters Point Naval Shipyard. Mr. Whitcomb has 25 years of experience as a professional geologist. Mr. Anderson welcomed Mr. Whitcomb to the former NAS Moffett Field team. Contact information for Mr. Whitcomb is on the points of contact sheet provided at the RAB meeting.

## HANGAR 1 UPDATE

Mr. Anderson said that the Navy and NASA have been investigating ways to save the corrugated windows on the hangar. Since the RAB meeting on March 10, 2011, NASA conducted a thorough evaluation of the corrugated windows and determined that they are not in a condition to save. Deborah Feng (NASA) said that NASA is disappointed that the corrugated windows cannot be saved. Ms. Feng stated that during the assessment, NASA found the windows were broken, leaking, and had rusted frames. There are about 25 corrugated windows that are in good enough shape to salvage and will be saved and stored for future display in a museum. Ms. Feng thanked the Navy and its senior management for their efforts to save the corrugated windows. NASA and the Navy will continue to work together to keep the removal action and reuse of the hangar on track.

- RAB member Arthur Schwartz asked if an epoxy laminate can be applied to the corrugated windows to restore their strength to save them. Mr. Anderson said the Navy will save some corrugated windows that are intact but most of them had significant damage, were beyond repair, and not suitable for future reuse.

- RAB member Bob Moss said that he is concerned at the limited number of corrugated windows that can be salvaged. There are a large number of corrugated windows on the hangar and there should be more than 25 that are salvageable. Mr. Moss said that all of the corrugated windows on the hangar were probably not assessed. Mr. Moss said that he heard there were bird strike issues that made NASA conclude that it was not necessary to save the corrugated windows. Ms. Feng said that NASA will be in charge of future operations and maintenance and will manage the bird air strike hazard (BASH) of the hangar once the Navy completes its removal action. Ms. Feng said that NASA did a thorough assessment of the hangar windows and there were only about 25 to 30 corrugated windows that are in good enough condition to save. NASA and the Navy consulted with a historic expert on the corrugated windows during the assessment. At the request of NASA, the Navy will save up to 25 windows during the removal action. NASA will keep the corrugated windows that are viable for future use at a museum. Mr. Anderson said the Navy prepared a BASH plan for Hangar 1. The Navy will send the pictures of the corrugated windows to the RAB.

Mr. Anderson introduced the Navy's RPM for Hangar 1, Bryce Bartelma, who will provide an update to the RAB on the progress of the removal action. Mr. Bartelma said that the Navy is controlling the potential release of polychlorinated biphenyls (PCBs) from Hangar 1 during removal activities, which includes demolition of interior structures, removal of siding, and application of a weather-resistant coating to the frame. Mr. Bartelma said the Navy is continuing its biological monitoring, which includes weekly observation of burrowing owls and inspection of biological activity on the inside and outside of the hangar. The Navy provides weekly biological monitoring reports to the regulatory agencies and NASA. To date, there have been no observed impacts to the protected species. The Navy continues storm water protection, including removing sediment from the storm water trench and placing silt barriers around the storm drains. The Navy vacuumes the paved areas to remove sediment before storms. Mr. Bartelma said the Navy has been conducting continuous air monitoring during removal action activities. Air monitoring is conducted in three levels including workers, work areas, and the perimeter of the site. The Navy coordinates its monitoring with NASA, and weekly air monitoring reports are provided to the regulatory agencies and available to the public. The air monitoring data shows that the Navy is controlling air emissions. In addition, NASA is conducting air monitoring at buildings near Hangar 1. Mr. Bartelma said the turnover of the historic artifacts to NASA is almost complete. The Navy and NASA will continue to work together to make sure the transfer and storage of items are completed. Mr. Bartelma said the Navy and NASA are preparing an interactive CD that will provide interviews and a narrated history of Hangar 1. Copies of the interactive CD will be available to the RAB, local schools, and the Mountain View library. Copies of the interactive CD will be available for the public to purchase in the Moffett Field Museum.

- RAB member Steve Williams asked if the source codes for the interactive CD will be available to the public. CDs will become an obsolete technology and the public should be able to convert it to a future format. Mr. Anderson said he would talk to the team that is developing the CD and let Mr. Williams know what can be provided for future use.

Mr. Bartelma said the Navy is conducting structural steel repairs and is replacing five steel members in the hangar. The Navy has been taking precautions to ensure this work is done safely and that contaminants are contained during the removal action. Mr. Bartelma said that the Navy is removing the mansard roof panels, redwood decking, and the silver siding, which will be disposed of off site. Items that can be recycled will be recycled throughout the removal action.

- Mr. Siegel asked if the redwood decking will go to a landfill. Mike Schulz (AMEC) said that redwood decking that is viable will be salvaged.

Mr. Bartelma said the Navy has initiated washing and coating the frame in Zone 1 with a single application of Carbomastic 15, which will provide a better service life and encapsulation of the hangar.

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- Mr. Williams asked how long the Carbomastic 15 will last. Mr. Schulz said that the warranty for the Carbomastic 15 is 12 years. At other locations where Carbomastic 15 has been applied, it has lasted up to 30 years.

Mr. Bartelma said the Navy will continue biological and air monitoring, removal of the siding, and coating the hangar frame. The Navy will continue community outreach throughout the removal action. The Navy plans to complete the field work and confirmation sampling in early 2012 and submit the after action completion report by summer 2012.

Ms. Feng said that NASA is working on a budget to produce new corrugated windows for the hangar. NASA understands that keeping the hangar looking as similar to the original as possible is important to the community.

- Mr. Siegel thanked the regulatory agencies, NASA, and the Navy for continuing to work closely with the Hangar 1 RAB Subcommittee. The community appreciates everyone's effort to address their concerns with the hangar.
- Mr. Berry asked about the status of NASA's request for information (RFI) issued for the re-siding of the hangar. Ms. Feng said NASA is looking for contractors to re-side the hangar and will issue the RFI soon.
- Mr. Williams said that he was on a conference call with NASA and there is no future use determined for the hangar. Mr. Williams said he is seeking input from the community on reuse capabilities for the hangar.
- Mr. Berry prepared a draft letter to send to the NASA administrator to show the RAB's support for the reuse of the hangar. Mr. Berry asked if the RAB members agree with his letter and if he could submit it to the NASA administrator on behalf of the RAB and the community. Mr. Williams said that NASA is aware there are community groups that are interested in the reuse of the hangar. Mr. Schwartz suggested that a list of community organizations can be added to the letter to show interest and support of the reuse of the hangar. Mr. Berry said that his experience with letters like this one is that they should be kept to 1 page so that they are read. The RAB agreed to sign and submit the letter to the NASA administrator to show community support of the reuse of the hangar.
- RAB member Linda Ellis asked that NASA consider frosting the new corrugated windows that will be installed in the hangar. Ms. Ellis requested that the redwood that can be salvaged be saved for reuse in the hangar. Ms. Ellis also requested that NASA provide the RAB with the expected issue date of the RFI for re-siding the hangar. Mr. Schulz said that he can provide the salvage value of the redwood to the RAB. Mr. Williams said he is concerned that the Navy is not saving as much of the historical material in the hangar as possible. Mr. Williams asked if the State Historic Preservation Office (SHPO) has been consulted on the items that are being disposed of as part of the Navy's removal action. Mr. Anderson said that the Navy has been consulting with SHPO and NASA on the historical portions of the hangar. Mr. Anderson said the Navy and NASA will discuss salvaging and possibly reusing the redwood. Mr. Schwartz suggested that redwood can be used to make souvenirs for sale to the public similar to how pieces of the Golden Gate Bridge were made into mementos. Mr. Schulz said that the redwood that is salvageable can be purchased and stored on site until a future use is identified.

## REGULATORY AGENCY UPDATE

### EPA GROUNDWATER UPDATE

Penny Reddy (EPA) introduced herself as the EPA Groundwater RPM for the Middlefield-Ellis-Whisman (MEW) Site where a Site-wide Groundwater Feasibility Study (FS) is underway. Ms. Reddy said the purpose

of the Site-wide Groundwater FS is to evaluate alternative technologies to accelerate the cleanup of the volatile organic compounds (VOCs) groundwater plume at the MEW Site, which includes portions of Moffett Field. The current groundwater extraction and treatment system is decreasing in efficiency. EPA is also looking at alternate technologies to accelerate groundwater cleanup to minimize the need for a vapor intrusion remedy in the future.. The overall FS strategy is focusing on areas with high contaminant mass, areas that continue to act as sources, and areas that are located near residential neighborhoods, schools, and other sensitive receptors. Ms. Reddy said that EPA assessed the various technologies and retained groundwater extraction and treatment, in situ treatment, permeable reactive barriers, and monitored natural attenuation for evaluation in the FS. The challenges for cleanup of this plume of VOCs in groundwater include the size of the plume, the difficulty to implement the in situ technologies in the areas that are developed, the feasibility of accelerating the cleanup with the selected technologies, and the potential for recontamination in other areas of the plume. EPA is trying to focus on what can be done with to address the VOC groundwater plume considering these challenges. Ms. Reddy said that the draft FS report will be issued later this year in 2011. EPA's National Remedy Review Board will review the proposed alternatives, and the final FS report and proposed plan (PP) will be issued for public review in 2012. EPA will continue to conduct community involvement activities throughout the cleanup process, including providing updates on the MEW Site-wide Groundwater FS at the RAB meetings, Community Advisory Board (CAB) meetings, and property owner meetings. Ms. Reddy said that if the community members are interested in more information, they can visit EPA's website: [www.epa.gov/region9/mew](http://www.epa.gov/region9/mew) and [www.epa.gov/region9/moffettfield](http://www.epa.gov/region9/moffettfield). Ms. Reddy can be contacted with any questions at (415) 972-3108 or [reddy.penny@epa.gov](mailto:reddy.penny@epa.gov).

- Mr. Siegel said that the CAB is interested in participating in the VOC cleanup of the MEW groundwater plume. The CAB is interested in future updates from EPA. Mr. Siegel said that the remedy for the MEW groundwater plume will be used as a regional model.
- Mr. Moss said it had taken a long time to issue this FS report and asked if there will be restrictions in some of the areas. Ms. Reddy said that EPA will be determining based on indoor air sampling and other data where vapor intrusion mitigation is needed. Ms. Wells indicated that future building construction in areas overlying the shallow groundwater contamination would require vapor intrusion mitigation..

## **SITE 28 TREATABILITY STUDY UPDATE**

Mr. Anderson introduced Valerie Harris, Navy RPM for Site 28, and Dan Leigh (Shaw Environmental), who will be giving the presentation on the treatability study (TS). Mr. Leigh showed the boundary for the Site 28 TS and the locations of the injection and observation wells. Mr. Leigh discussed biotic and abiotic degradation of chlorinated solvents in groundwater at Site 28. Mr. Leigh said the purpose of the TS is to determine if in situ biodegradation (through anaerobic biotic or combined abiotic/biotic mechanisms) can treat the groundwater contamination. The Navy conducted the pilot tests in three separate areas: the former Building 88 Area, the Traffic Island Area, and the Well W9-18 Area. The Navy characterized the hot spots and then injected the substrates at the three areas. Mr. Leigh said the Navy has installed the observation well network, conducted the baseline groundwater monitoring, injected the substrate, and completed all but one of the post-injection performance monitoring events. The final monitoring event is scheduled for June 2011. Mr. Leigh discussed the injection layout and initial pilot test results for the three sites. Mr. Leigh said that the Navy will provide the RAB updates on the Site 28 TS when the data are available.

- Mr. Strauss asked if it is within the scope of work to determine the cost of a full-scale treatment system for Site 28. Mr. Leigh responded that an estimate of the costs to treat all of Site 28 was not in the scope of the pilot test. Ms. Harris said that EPA has estimated costs for in situ bioremediation for the high concentration areas for the Regional Groundwater FS that Mr. Strauss can review.

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- Mr. Strauss asked if the Navy analyzed different microbial strains before selecting the one used for the pilot test. Mr. Leigh said the Navy used the microbial strain that has been successful at other sites in the Bay Area.
- Mr. Siegel said that this treatment for Site 28 will use less water and energy than past remedial alternatives proposed.

## **A WORLD-CLASS WESTERN SMITHSONIAN EARTH, AIR, AND SPACE STEM EDUCATION CENTER**

Mr. Ellis said that his foundation has a proposal for the reuse of Hangar 1 that he would like to share with the RAB. The Air and Space West Educational Foundation's mission is to promote meaningful hands-on education and inspire through the Smithsonian's scientific goals. Mr. Ellis said Hangar 1 could be used as an educational facility to sustain the ability for the next generation and future ones to change the world. Mr. Ellis said that a portion of Hangar 1 can be used as science, technology, engineering, and math (STEM) laboratory classrooms that will give students an opportunity for hands-on learning. A West Coast Smithsonian Distribution and Exhibit Center and a Conference and Event Center could also be housed in Hangar 1. Mr. Ellis said the STEM laboratory classrooms will be high-quality learning environments to provide students the ability to be in real settings to develop solutions to the world's pressing problems and get students excited for careers in science, engineering, and math. The reuse of Hangar 1 will also provide the opportunity for facility events and be open to the public for group rentals. Mr. Ellis said that the community needs to support NASA in the reuse of Hangar 1.

- Mr. Strauss asked who would be teaching in the STEM laboratory classrooms. Mr. Ellis said that he envisions retired teachers and others in the technology industries. Mr. Ellis also wants the STEM laboratory classrooms to be available for teacher education on how to teach the sciences to students.

## **PUBLIC COMMENT PERIOD**

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

- Truman Cross (Oakland Cloud Dusters Free Flight Club) said that the RAB is a good outlet for local universities and the public to obtain information on cleanup of former NAS Moffett Field and the surrounding areas.
- Shani Kleinhaus (Santa Clara Valley Audubon Society) said that there are 40 burrowing owls in Santa Clara County and 10 pairs of burrowing owls are located at former NAS Moffett Field. The Santa Clara Valley Audubon Society wants to ensure that the burrowing owls are protected.
- A community member said he read in the newspaper that the demolition expenses to remove the windows from the hangar are extremely high. The windows should be saved to cut down the removal costs. Mr. Anderson said that NASA evaluated the possibility of reusing the Hangar 1 windows that were in disrepair and determined it was not economically feasible to keep them in-place. Dr. Ann Clarke (NASA) said that NASA is working on funding to save approximately 25 windows from the hangar, assuming they are not contaminated. NASA is looking at manufacturing similar-looking windows for the hangar. Mr. Strauss said that the costs for the windows mentioned in the newspaper are for the replacement of the windows and not for removal and disposal.
- RAB member Libby Lucas asked if the redwood on the hangar was painted. Mr. Schulz said that the inside of the redwood and hangar are painted.

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- Mr. Siegel asked if the redwood was part of the original construction of the hangar. Mr. Schulz said that the redwood was installed after the original construction of the hangar.
- Community member Georgina Hymes said that the Navy should restore the hangar and ensure that there is an active military presence in California. Funds should be allocated to reopening bases in the Bay Area before the funds are sent overseas.

### Written Comments Received at the Meeting

The Navy received the following written comments at the conclusion of the May 12, 2011 RAB meeting:

- Community member Rebecca Feind: As a resident of Mountain View, I am concerned about the future of the bird population at Moffett Field. Regarding the burrowing owls at Moffett Field, they are part of an important breeding colony in Santa Clara County. These owls have a significant influence on the future of this species in the Bay Area. The Audubon Society is very interested in seeing plans for the preservation and conservation of this and other bird species at Moffett Field.
- Santa Clara Valley Audubon Society member Shani Kleinhaus: About 1/4<sup>th</sup> of the remnant Burrowing Owl population of Santa Clara County breeds at Moffett Field. We request a discussion of the efforts to preserve the nesting owls, habitat, and how plans for the site may impact the owls on the site and in the county. This could be a topic for a future meeting agenda. The 2020 Fair and its impacts are of special interest to us.
- Community member Jim Van Pernis: Questions for Ms. Feng and NASA (1) Is there any realistic prospect of NASA Ames or NASA Headquarters (HQ) continuing to include the Hangar 1 residing request in subsequent year NASA budget requests if the current \$34.8M request fails to mature (either due to Inspector General (IG) staff opposition/or the congressional political process). (2) Can NASA Ames or NASA HQ sufficiently justify the Hangar's residing based upon the current Ames mission or near-term envisioned future missions? (3) Can an exception to or modification to the existing congress set rules/laws regarding NASA facilities be entertained as a way to help make possible the reuse of Hangar 1. (4) What can we do to help assist NASA Ames in its effort to reside and reuse Hangar 1. Questions for the Navy (1) What is the anticipated useful life of the coatings to be applied to the Hangar 1 structure? This could help provide us an estimate as to how long we have before residing must commence in order to preserve its structural integrity. (2) Is the Navy standing by its previous indication that it will provide for mitigation of birds nesting, by using sound to keep them at bay from the open structure.

### Future RAB Meetings

Mr. Anderson announced the next RAB meeting is tentatively scheduled for July 14, 2011.

Tentatively scheduled RAB meetings for 2011 are:

- July 14, 2011
- September 8, 2011
- November 10, 2011

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## Adjourn

The meeting was adjourned at 9:20 p.m., and Mr. Anderson thanked all present for attending. Mr. Anderson can be contacted with any comments or questions:

- Mr. Scott Anderson  
BRAC Environmental Coordinator, Former NAS Moffett Field, BRAC Project Management Office West;  
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## ACRONYM LIST

AMEC – AMEC Earth and Environmental  
BASH – Bird Airstrike Hazard  
BCM – Base Closure Manager  
BRAC – Base Realignment and Closure  
CAB – Community Advisory Board  
EPA – U.S. Environmental Protection Agency  
FS – Feasibility Study  
HQ - Headquarters  
MEW – Middlefield-Ellis-Whisman  
NAS – Naval Air Station  
NASA – National Aeronautics and Space Administration  
PCB – Polychlorinated biphenyl  
PP – Proposed Plan  
RAB – Restoration Advisory Board  
RFI – Request for Information  
RPM – Remedial Project Manager  
SHPO – State Historic Preservation Office  
STEM – Science, technology, engineering, and math  
TS – Treatability Study  
VOC – Volatile organic compounds

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