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Ser 1843.1/6317  
July 29, 1996

Dear RAB Member:

On behalf of the Moffett Federal Airfield (MFA) Base Closure Team and the Community Co-Chair, you are invited to our next Restoration Advisory Board (RAB) meeting.

Please note that the **next meeting** will be in **August**. Our last RAB meeting was held on July 11, 1996 at the City of Mountain View Police/Fire Administration Building in Mountain View, CA. The meeting summary is provided as enclosure (1).

Our next RAB meeting will again be held on the second Thursday of the month, **August 8, 1996**, at the City of Mountain View Police/Fire Administration Building. The meeting will begin at 7:00 p.m. The agenda for the meeting is as follows:

7:00-7:02 PM	Meeting Overview
7:02-7:04 PM	Minutes Approval
7:04-7:20 PM	Remedial Project Managers Meeting Report
7:20-7:30 PM	Subcommittee Reports
7:30-8:00 PM	North of 101 Presentation (Navy, MEW & NASA)
8:00-8:10 PM	Break
8:10-8:40 PM	North of 101 Discussion
8:40-8:55 PM	RAB Quiz
8:55-9:00 PM	Agenda/Schedule for the Next RAB Meeting

If you have any questions or comments, please contact me at (415) 244-2563, Mr. Hubert Chan of this office at (415) 244-2562, or Mr. Robert Moss, Moffett's Community Co-Chair, at (415) 852-6018.

Sincerely,

**ORIGINAL SIGNED BY:**  
**STEPHEN CHAO**  
BRAC Environmental Coordinator  
Moffett Federal Airfield

Distribution:

Moffett Federal Airfield RAB Members  
Karen Huggins, ARC Ecology/ARMS Control Research Center  
Gay Howard, Onizuka Air Station  
Maurice Bundy, Potential RAB Member

Distribution:

Elizabeth	Adams	Jack	Walker
Bernie	Album	John	Young
Maurice	Ancher		
John	Beck		
Charles	Berrey		
Anne	Blakeslee		
Dena	Bonnell		
Jim	Burgard		
Steve	Chin		
Diane	Cho		
Joseph	Chou		
Bob	Climo		
Ann	Coombs		
Robert	Davis		
Russ	Frazer		
Michael	Gill		
David	Glick		
John	Gurley		
Jim	Haas		
Thomas	Harney		
Bob	Holston		
Thomas	Iwamura		
Susan	Jun		
Byron	Leigh		
Paul	Lesti		
Michael	Martin		
James	McClure		
Stewart	McGee		
Bob	Moss		
Sandra	Olliges		
Edwin	Pabst		
Michael	Rochette		
Richard	Schuster		
Christina	Scott		
Lenny	Siegel		
Cynthia	Sievers		
Ted	Smith		
Steve	Sprugasci		
Peter	Strauss		
Robert	Strena		
Mary	Vrable		

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PRC Environmental Management Inc. (Attn: Michael Young)

Montgomery Watson (Attn: Chris Peterson)

NFESC (Attn: Maureen Little)

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**MOFFETT FEDERAL AIRFIELD  
RESTORATION ADVISORY BOARD MEETING**

**MEETING MINUTES**

**CITY OF MOUNTAIN VIEW POLICE/FIRE ADMINISTRATION BUILDING  
1000 Villa Street  
Mountain View, California 94041**

**THURSDAY, JULY 11, 1996**

**I. INTRODUCTIONS AND MEETING OVERVIEW**

Mr. Stephen Chao, Navy co-chair, opened the meeting of the Moffett Federal Airfield (Moffett Field) restoration advisory board (RAB) at 7:10 p.m. Mr. Chao announced the recent death of RAB member Ms. Christina Scott. Mr. Bob Moss, community co-chair, will coordinate preparation of a RAB resolution and a certificate of recognition for Ms. Scott's family. Mr. Chao reviewed the following agenda items for this meeting:

- Minutes approval
- Remedial project managers' (RPM) meeting report
- Committee reports
- Review and approval of RAB funding letter
- Presentation: "Phase II Ecological Assessment"
- Discussion of Phase II Ecological Assessment
- RAB quiz
- Agenda and schedule for next RAB meeting

**II. MINUTES APPROVAL**

Mr. Chao solicited comments on the minutes of the June 13, 1996 RAB meeting. There were no comments and the minutes were approved without correction.

### III. RPM MEETING REPORT

Mr. Michael Rochette, San Francisco Bay Regional Water Quality Control Board (RWQCB), provided a report of the July 10, 1996 RPM meeting held at the RWQCB offices in Oakland.

Mr. Rochette stated that the Navy will provide a letter summarizing procedures used to request and obtain funding, to set funding priorities, and to distribute funds. Mr. Moss noted that the RAB will still send a letter to Congress regarding the inadequacy of current funding levels.

Mr. Rochette stated that the Navy's Site 9 source control measure treatment systems were operating continuously during the past month. He reported that final record of decision (ROD) for operable unit 5 (OU5) was approved on June 28, 1996. Mr. Rochette noted that the Navy design for construction of a cap for the Site 2 landfill was being reviewed by the regulatory agencies. Mr. Rochette said that the preliminary results from groundwater samples collected at the Iron Curtain pilot test site were encouraging. Mr. Chao summarized the results which indicated destruction of volatile organic compounds (VOCs) was occurring. He added that complete results from these samples were expected near the end of July 1996.

Mr. Rochette stated that the OU1 ROD was being reviewed by the regulatory agencies and that comments were due before July 19, 1996. He added that the Navy met with Pacific Gas and Electric Company (PG&E) staff on July 11, 1996 to obtain additional information on the 36-inch diameter gas pipeline that extends beneath the Site 2 landfill. Mr. Chao noted that the pipeline was built about 1967. He stated that Navy subcontractors had excavated small areas (potholes) and found the pipeline exists at 4 to 8 feet below surface at the landfill. Mr. Chao reported that PG&E inspectors found the line in good condition and that its impressed current cathodic protection was operating adequately. He added that PG&E considers the line to be relatively new and expects an indefinite service life. Ms. Cynthia Sievers asked whether debris was encountered during the excavation activities. Mr. Chao replied that very little debris was found. He added that PG&E did not expect equipment loads from earthmoving equipment used during cap construction to cause any undue stresses on the pipeline as long as 3 feet of material covered the pipe. Mr. Chao noted that the Navy planned to excavate the landfill refuse above the pipeline and replace it with sand and a perforated pipe to allow future gas leak detection monitoring.

Mr. Lenny Siegel, Pacific Studies Center, asked whether costs related to the pipeline would be shared between the Navy and PG&E. Mr. Chao responded that costs should be minimal. Mr. Siegel asked whether operation and maintenance (O&M) costs also would be shared. Mr. Chao said that the Navy would include cap repair costs as an item for the long-term O&M subcontractor. Ms. Leslie Byster, Silicon Valley Toxics Coalition (SVTC), asked how liner materials removed from the cap would be disposed after future repair activities. Mr. Chao replied that the materials would likely be disposed in another landfill. Ms. Sievers added that she had expected PG&E to relocate the pipeline rather than address issues related to cap construction above the pipeline. Mr. Michael Young, PRC Environmental Management (PRC), responded that the cost of relocation was an issue. Ms. Sievers asked whether the pipeline was placed on landfill material. Mr. Chao replied that the pipeline is placed on clay fill materials, but not on landfill refuse. Ms. Mary Vrabel asked whether risers from the monitoring pipeline would penetrate the proposed cap. Mr. Chao said that this was correct, but that such installations were common and easily implemented. Ms. Sievers asked whether the California Integrated Waste Management Board (CIWMB) was reviewing the cap design. Mr. Chao responded that CIWMB staff had attended the RPM meeting on July 10, 1996 and that the agency would provide comments on the design.

Mr. Rochette reported on National Aeronautics and Space Administration (NASA) activities. NASA expected the new fuel pipeline beneath the runways to begin operation during the week of July 29, 1996. NASA is preparing a report summarizing the investigation of fuel-related contamination near underground storage tanks (USTs) at area of interest (AOI) 3. Additional samples were collected at AOI 5 to verify the extent of petroleum hydrocarbon contamination. A report is scheduled to be submitted on September 16, 1996. Final excavation activities at the AOI 6 storm drain channel were completed. However, a groundwater sample collected at a depth of 12 feet below ground surface from within the excavation indicated presence of polychlorinated biphenyls (PCBs) at 30 micrograms per liter. NASA plans to install two additional groundwater monitoring wells at AOI 6 to further evaluate PCBs in groundwater. NASA continues to negotiate with the Middlefield-Ellis-Whisman (MEW) companies concerning the regional remediation system design. NASA is also evaluating future actions related to petroleum contamination and will use the Navy's recent reevaluation of the Site 9 area as a guide.

Mr. Peter Strauss, MHB Technical Associates and consultant to SVTC, asked for information concerning the OU5 ROD hearing at RWQCB and the final language included in the OU5 ROD. Mr. Rochette responded that the final text of the OU5 ROD involved the cooperation of many individuals. He added that the ROD states that future changes in the remedy (including the operation of Building 191) must be coordinated with the Navy and the U.S. Environmental Protection Agency (EPA) and that these changes would follow requirements contained in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Ms. Sievers asked how the cities of Mountain View and Sunnyvale would be involved. Mr. Chao responded that the cities could petition the Navy as a third party to change the remedy. Mr. Paul Lesti asked whether the petition process was independent of EPA's 5-year review. Mr. Chao replied that this was correct.

Mr. Moss asked what agency would determine the future land use. Ms. Elizabeth Adams, EPA, replied that only development activities that would change the operation of the Building 191 lift station and affect the remedy would be of concern. Otherwise, the agencies would have no role in determining future land uses. Mr. Strauss asked whether the OU5 ROD states that operation of Building 191 must be maintained. Mr. Chao responded that this was correct. Mr. Rochette stated that Dr. Jim McClure, Harding Lawson Associates and consultant to the MEW companies, presented the RAB's concerns at the RWQCB hearing for the OU5 ROD and was involved in the final modifications to the ROD.

Mr. Strauss stated that he interpreted comments made by Mr. Michael Gill, EPA, on the OU1 ROD to indicate that language related to the operation of Building 191 included in the OU5 ROD would not be suitable for the OU1 ROD. He added that EPA's comments seem to indicate that there is no alternative to continuing the operation of Building 191 as part of the OU1 remedy. Mr. Chao replied that a third party could petition to surround or cover the OU1 landfills with riprap to prevent cap erosion and then cease operations at Building 191. Ms. Sievers asked whether the OU1 remedy includes continued operations at Building 191. Mr. Chao responded that this was correct. Ms. Adams added that any change to the remedy would require public comment. Ms. Sievers commented that the local city governments should be kept aware of activities at the landfills. Mr. Chao replied that the City of Sunnyvale has been represented on the RAB, as well as on its predecessor — the technical review committee (TRC) — by Mr. Stewart McGee.

#### **IV. COMMITTEE REPORTS**

Mr. Chao asked the committee chairs to deliver their reports. Mr. David Glick, community vice co-chair, reported that the technical, historical, and educational (THE) committee met on July 10, 1996. He stated that the committee distributed the preliminary (75 percent) design for the Site 2 landfill cap and regulatory agency comments on SWEA reports for review. Mr. Strauss noted that the revised final design for the regional remediation system north of U.S. Highway 101 was published by the MEW companies in June 1996. He asked whether the committee was reviewing this document. Mr. Glick responded that the committee was not currently reviewing the report, but that Dr. McClure would be receiving a copy from the MEW companies. Mr. Strauss added that consideration of the effects of the regional plume on the entire Moffett Field site was important. He stated that updates on the regional plume cleanup could be a monthly RAB topic. Mr. Moss replied that the MEW companies appeared unenthusiastic about being involved with the RAB. He added that Dr. McClure already provides input from the MEW perspective. Mr. Strauss commented that information about MEW activities occurring on both sides of U.S. Highway 101 would be useful for the RAB. He proposed that the MEW companies present their activities, including the integration of their work with the Navy's and related schedules, to the RAB. Ms. Adams volunteered to ask the MEW companies to prepare a presentation. Mr. Moss added that basic data such as types and locations of activities, schedules, and impacts on Moffett Field activities would be useful. Mr. Strauss noted that the regional remediation system designs were in their final stages. Ms. Adams stated that she expected to approve the revised final design for the area south of U.S. Highway 101 on July 12, 1996. Mr. Chao said that he would coordinate with Ms. Adams regarding adding a presentation by the MEW companies to the agenda of the next RAB meeting.

There were no reports from the cost, organizational, or communications, media, and outreach committees.

#### **V. RAB FUNDING LETTER**

Mr. Moss circulated a letter he prepared regarding the inadequacy of funding levels for cleanup activities at Moffett Field. He stated that this letter was more strongly worded than a similar letter sent by the City of Mountain View. Ms. Sievers asked why the letter was addressed to the Navy instead of

to Congress. Mr. Moss replied that he had followed the City of Mountain View's letter in that regard but that he had added many additional individuals, organizations, and newspapers to the letter's distribution list. Mr. Siegel stated that Congress appropriates funds only to Navy Base Realignment and Closure (BRAC) phase II sites as a whole, and not to Moffett Field, or any facility, individually. He added that Moffett Field, therefore, must compete with other BRAC II bases for funds and that the letter does not address this item. Mr. Siegel stated that the fundamental issue is that appropriations need to be adequate for all facilities, and that the RAB should not suggest funds be taken from other installations to be used for Moffett Field. Ms. Sievers asked why the cities of Mountain View and Sunnyvale were not included on the distribution list. Mr. Moss responded that he believed that the language in the RAB letter was strong and might not meet with the cities' approval. Mr. Lesti suggested that copies of the letter intended for newspapers be sent individually addressed to each newspaper. He added that publishers often disregard correspondence that is not directly addressed.

## **VI. PHASE II ECOLOGICAL ASSESSMENT PRESENTATION AND DISCUSSION**

Mr. Chao introduced Mr. Chris Petersen, Montgomery Watson, who presented introductory information about the site-wide ecological assessment (SWEA) at Moffett Field. Mr. Petersen discussed the various phases of the SWEA process, the associated reports, and the SWEA project team. He introduced Dr. Bruce Narloch, Montgomery Watson, who presented details concerning the phase II SWEA report submitted in May 1996. Dr. Narloch described the objectives and goals of the SWEA including quantifying and characterizing risk to allow protection and growth of plants and animals inhabiting Moffett Field. He described the study methods which included contaminant chemistry, bioassays, tissue analyses, invertebrate surveys, and food chain modeling. Dr. Narloch described each method and the results obtained from each. He explained that the results were used to develop exposure parameters for organisms. Toxicity reference values (TRVs) also were estimated through cooperation with experts from the regulatory agencies. The exposure parameters and TRVs were used to estimate risk to organisms.

Dr. Narloch summarized the conclusions of the phase II SWEA report. Compounds including PCBs, pesticides, and metals accounted for the majority of risk to ecological receptors. Areas of potential effects to receptors included the outfall areas at the Northern Channel, eastern diked marsh, and stormwater retention pond.

Various RAB members asked questions during and following Dr. Narloch's presentation. Ms. Sievers asked what criteria were used to select appropriate studies from the scientific literature. Dr. Narloch responded that factors such as use of appropriate scientific methods, relevance of exposure pathways studied to those at Moffett Field, and survey population size were considered in judging the overall quality of a study and evaluating whether to consider the study's findings. Mr. Lesti asked whether effects on hormonal disruption were incorporated. Dr. Narloch replied that one of the assessment endpoints was protection of reproduction and growth rates. He added that hormonal effects were considered, but that effects to reproduction and growth rates usually resulted in lower, more conservative TRVs.

Ms. Byster asked whether a source of selenium had been identified and whether selenium content was the result of petroleum refining operations. Ms. Sievers added that selenium in soils in the Central Valley occurs as a result of agricultural activities. Dr. Narloch responded that selenium is not present in high concentrations and that the observed concentrations may represent ambient levels. Ms. Vrabel asked whether synergistic effects were considered. Dr. Narloch replied that individual chemical effects are added in estimating risk in the SWEA. However, chemicals affect different target organs and, therefore, adding the effects may produce an overestimate of risk. He added that synergistic effects were considered only on an overall, qualitative basis. Mr. Strauss noted that maps illustrating only two of the four calculated hazard quotients (HQs) were presented in the SWEA report. He asked why maps representing the two remaining HQs were not presented. Mr. Petersen explained that the two maps presented in the SWEA report (for each receptor) illustrate the maximum range of HQ values and that maps of the remaining values would not show additional information.

Mr. Chao noted that the same areas identified in the SWEA report as presenting risk to ecological receptors are considered for remediation in the station-wide feasibility study (FS) report. Mr. Siegel asked whether the SWEA report recommends changing the operation of Building 191 or whether surface flooding that would occur without lift station operation would spread contamination. Mr. Chao responded that the SWEA report does not make any recommendations relative to the operation of the Building 191 lift station. Mr. Strauss asked whether dredging sediments from the Northern Channel would be considered among the remedial alternatives in the station-wide FS report. Mr. Chao replied that dredging was one alternative and that lining the channel was another alternative being considered.

Mr. Siegel asked whether the SWEA report results would preclude restoring wetlands to the northern portion of Moffett Field. Mr. Chao responded that remediation activities to address potential risks identified in the SWEA report would not preclude this future possibility.

Mr. Moss noted that EPA comments on the draft SWEA report appeared to be serious and asked whether the issues raised in these comments had been addressed. Mr. Chao replied that the Navy has been in close contact with the regulatory agencies and that comments had been addressed through conference calls and preparation of internal drafts for review by the agencies. He added that the draft final SWEA report contained the revisions necessary to address the regulatory agencies' comments. Mr. Moss asked for additional information about the availability of the SWEA report in electronic form. Mr. Chao responded that the Navy had investigated providing reports in electronic form, but that hardware and software availability limit the usefulness of this deliverable format. Mr. Moss added that making the Navy's data and reports available on the Internet could provide information to a much greater audience. Mr. Chao replied that the Navy will continue to investigate this communication avenue, but that the Navy did not currently have the ability to post information on the Internet.

## **VII. RAB QUIZ**

The RAB quiz was postponed due to lack of time.

## **VIII. AGENDA AND SCHEDULE FOR NEXT RAB MEETING**

Mr. Chao stated that the next RAB meeting was scheduled for August 8, 1996. Ms. Byster suggested that the RAB cancel the August meeting and meet again in September 1996. Mr. Moss asked what documents were scheduled to be submitted in the coming weeks and whether representatives from the MEW companies would be available to present remediation plans at the August meeting. Mr. Chao responded that the station-wide FS report was scheduled to be submitted on August 1, 1996, but that a 60-day comment period would follow so that an August meeting was not critical. Members expressed interest in hearing a presentation by the MEW companies. Mr. Chao agreed to coordinate with Ms. Adams to schedule a presentation by the MEW companies. The timing of the next RAB meeting will depend on the availability of the MEW companies. Mr. Chao closed the meeting at 9:25 p.m.