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MOFFETT FIELD
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James G. McClure
Moffett Field RAB, THE Committee
c/o Harding Lawson Associates
P.O. Box 6107
Novato, California 94948

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Mr. Stephen Chao
Engineering Field Activity - West
Naval Facilities Engineering Command
900 Commodore Drive - Building 101
San Bruno, California 94066-2402

THE Committee Comment Topics
Feasibility Study and Proposed Plan - OU5
Eastside Groundwater
Moffett Federal Airfield, California

Dear Mr. Chao:

I am writing this letter at the request of Paul Lesti, Community Co-Chair of the Moffett Federal Airfield (Moffett Field) Restoration Advisory Board (RAB). As you know, the Technical, Historical, and Educational Committee (THE Committee) of the RAB is currently reviewing the Feasibility Study (FS) and Proposed Plan for Moffett Field Operable Unit 5 (OU5), also known as the eastside groundwater operable unit. It is now clear that the THE Committee will have a number of questions and comments that the Navy will have to adequately address before the FS and Proposed Plan will meet with THE Committee members' approval.

In this letter, I have outlined topics on which the THE Committee has identified important questions or concerns with respect to the OU5 FS and Proposed Plan. I hope that this will help the Navy and the Navy's consultants prepare to address these issues so that the process of reviewing and modifying the OU5 documents can proceed efficiently. The THE Committee may identify additional topics of concern in its ongoing review, and the THE Committee may develop more detailed questions and concerns about topics than I can identify for you now. Nevertheless, I believe that it is in the Community's and the Navy's interest that we begin the dialogue on OU5 issues early, and I hope that this letter will promote that goal.

Topics on which the THE Committee has identified important questions and concerns with respect to the OU5 FS and Proposed Plan include:

- Will any planned or potential Moffett Field land use be foreclosed by selecting and implementing the preferred alternative described in the Proposed Plan?

- What is the relationship of the OU5 preferred alternative to the current and future operation and maintenance of the Moffett Field drain system and Building 191 pump station?

- Where will the Navy memorialize its financial responsibilities if Moffett Field goes into municipal or other local government hands (e.g. to a redevelopment agency), or into private hands?

- The Navy's characterization of OU5 chemical distributions is based on a relatively sparse data set. The Navy interpretation of these limited data to conclude that there are two separate plumes in OU5, separated by a narrow curving band of comparatively clean aquifer, is unrealistic and is conceptually inconsistent with the Navy's historical insistence that Moffett Field groundwater chemical distributions in westside aquifers are continuous over thousands of feet.

- The Navy's stratigraphic interpretation of OU5 is unrealistic with respect to the accuracy of delineation of preferential flow paths interpreted to be buried stream channels in shallow aquifer zones.

- Members of the THE Committee are concerned because the Navy's numerical groundwater flow and transport simulation model for OU5 is so unrealistic in several key areas that it does not appear to have been a cost-effective use of Navy resources. Committee members do not believe that the model's predictions constitute a reliable basis for design of OU5 remedial actions. Concern is heightened by the fact that the Navy has reported that it is currently developing a similar model for westside aquifers. In light of eastside groundwater flow model problems identified by the THE Committee, Committee members have serious concerns about the cost-effectiveness of developing a presumably similar model for a new area.

  Problems with the model include, but are not limited to, inconsistency of the Navy's overall stratigraphic model for OU5 with the stratigraphic model used in the numerical model and with field data, inconsistency of hydraulic parameters in the central portion of the model compared to the edges of the model, and apparent lack of any checks to determine whether the model is capable of recreating the known chemical distribution history of OU5. The THE Committee also notes that the documentation presented in the OU5 FS is insufficient to allow a complete review of the model.

- The THE Committee notes that any remedial action plan adopted for OU5 must explicitly acknowledge and account for:

  1) The probable existence of more preferential flow paths than are accounted for in the Navy's current stratigraphic interpretation and numerical model;

  2) The demonstrated existence of downward groundwater potentiometric gradients from time to time in parts of OU5, including the fact that no mechanism has ever been demonstrated to reliably explain the measured head reductions and downward gradients in aquifers too deep to contain known Navy drains;

  3) Any requirement for continued operation and maintenance of the Navy's buried drain system and the Building 191 pump station.

I hope that this preview of topics where the THE Committee has questions and concerns will be helpful. If you or your consultants would like to pursue any of these issues further before the Committee begins to produce more detailed written comments, please call me or any of the Committee members. I would also be happy to discuss these topics in more detail during or after the regularly scheduled Navy/MEW/NASA technical coordination meeting this Thursday.

Very truly yours,

James G. McClure
Moffett Field RAB, THE Committee Chair

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cc: Michael Young
Michael Bessette
Joseph Chou
Michael Gill
Elizabeth Adams
Sandy Olliges
Peter Strauss
Paul Lesti
Eric Madera
Vincent T. Jones
Gordon Atkinson
Thomas Trapp
Dennis Curran
Jim Boarer
Richard Andrachek
Tom Iwamura
Leslie Byster
David Glick
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