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Ser6225EG/L8066  
3 Dec 1997

From: Commanding Officer, Engineering Field Activity, West, Naval Facilities  
Engineering Command

Subj: REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) FOR  
NAVAL STATION TREASURE ISLAND (NAVSTA TI)

Encl: (1) Conference Call Meeting Minutes - 4 November 1997  
(2) Validation Study for Sites 11, 28, and 29 Draft Work Plan/Field Sampling Plan  
dtd 3 December 1997

1. Enclosure (1) is provided for your information while enclosure (2) is provided for your review. Please submit your comments on the work plan on or before 19 December 1997.
2. The work plan (1) describes the nature and extent of contamination and ecological characteristics of each site; (2) discusses the data quality objectives for the field work to be conducted to reduce uncertainty in the risk to the peregrine falcon from each site; (3) identifies the methods to be used for sampling and sample analysis; (4) identifies the methods to be used to analyze and interpret the collected data.
3. Thank you for your guidance and involvement in this project. For further information, please call me at (650) 244-2560.

Originated by

ERNESTO M. GALANG  
By direction of  
the Commanding Officer

Distribution:

California Department of Toxic Substances Control (Attn: Mr. David Rist)  
California Department of Toxic Substances Control (Attn: Mr. Jim Polisini)  
California Regional Water Quality Control Board (Attn: Mr. David Leland)  
California Department of Fish and Games (Attn: Ms. Susan Ellis)  
U.S. Environmental Protection Agency, Region IX (Attn: Mr. James Ricks Jr.)  
U.S. Environmental Protection Agency, Region IX (Attn: Mr. Clarence Callahan)  
U.S. Fish and Wildlife (Attn: Mr. Jim Haas)  
San Francisco Department of Public Health (Attn: Ms. Martha Walters)  
Tetra Tech EM Inc. (Attn: Mr. Richard Knapp)(w/o encl)

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Distribution: (cont)

Community RAB Members:

Mr. Joseph Alcedo(w/o encl)	Ms. Karen Mendelow(w/o encl)
Mr. James Aldrich(w/o encl)	Mr. Rick Nedell(w/o encl)
Mr. John Allman	Ms. Patricia Nelson (Co-Chair)
ARC Ecology (Mr. Saul Bloom)	Mr. Henry Ongerth(w/o encl)
Mr. Richard Hansen(w/o encl)	Ms. Dale Smith
Mr. Paul Hehn (Alt Co-Chair)	Mr. Thomas Thompson(w/o encl)
Mr. Gary Jensen(w/o encl)	TI Museum (Ms. Laurie Glass) (w/o encl)
Ms. Alice LaPierre(w/o encl)	TI Yacht Club (Mr. Harlan Van Wye) (w/o encl)
Mr. Clinton Loftman(w/o encl)	Ms. Usha Vedagiri
Mr. Daniel McDonald(w/o encl)	Mr. Brad Wong(w/o encl)

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**CONFERENCE CALL MEETING MINUTES  
RESPONSE TO COMMENTS REVIEW MEETING  
ONSHORE VALIDATION STUDY, NAVAL STATION TREASURE ISLAND  
NOVEMBER 4, 1997**

These minutes summarize the discussion at the response to comments review meeting for the onshore validation study at Naval Station Treasure Island (NAVSTA TI). The conference call was made from the San Francisco office of Tetra Tech EMI, (TtEMI) at 10:00 a.m. on November 4, 1997. The purpose of the conference call was to discuss the General Overview of Proposed Ecological Validation Study for Yerba Buena Island Sites (included as Attachment 1) and the Navy's responses to overall comments on the ERA included therein. The following people attended the conference call meeting:

Clarence Callahan	U.S. Environmental Protection Agency (EPA) (on speakerphone)
Gerald Chernoff	California Department of Fish and Game (on speakerphone)
Susan Ellis	California Department of Fish and Game (on speakerphone)
Jim Polisini	Department of Toxic Substances Control (DTSC) (on speakerphone)
Kristin Gade	Tetra Tech EMI
Cooper Heins	Tetra Tech EMI
Richard Knapp	Tetra Tech EMI
Joanna Canepa	Tetra Tech EMI

**RESPONSE TO COMMENTS**

Ms. Gade opened the discussion by asking what the reactions were to the General Overview of Proposed Ecological Validation Study for Yerba Buena Island Sites document that each of the attendees were sent on November 3, 1997 (Attachment A). Mr. Polisini stated that he will send a letter to Kris Gade regarding his review of the Response to Comments. Mr. Callahan and Ms. Ellis requested to be sent a package of each of the 4 site sections. Mr. Knapp stated that he would send them.

**Small Mammals**

Mr. Polisini expressed concern that there is not sufficient evidence presented in the document to state that there is not population effect on small mammals. He suggested that more information is needed about the site use factor of non-endangered mammals. He also mentioned that there is no density or age class structure information demonstrated, especially at Sites 11, 28, and 29. He suggested that Site 8 will buy off if it is commercial or residential.

Mr. Callahan stated that a better justification for why the Navy does not intend to collect plant or small mammal tissue bioassay data is needed. Ms. Gade explained that the Navy does not believe that there are impacts to these populations. Ms. Gade agreed that the Navy's decision does need more justification.

Mr. Callahan questioned if the information would be refined to reduce uncertainty. Ms. Gade replied that the model is not going to be adjusted. She does not believe that changing the model would reduce uncertainty to a level where everybody is satisfied. She claimed that more information is needed on small mammal populations and whether there is recruitment from non-site mammals. Mr. Polisini suggested the finding age class may be more expensive than

invertebrate bioassays. Ms. Gade replied that she had not decided on the issue yet. Mr. Polisini recommended that when a decision was made, the group should be contacted to discuss it.

#### **Site 11**

Ms. Ellis brought up the issue of whether or not there will be site re-use at site 11. Mr. Knapp suggested that there will probably be a cap, and maybe a slurry wall around the edge unless CALTRANS needs the area for retrofitting. Ms. Ellis expressed concern that there is a potential for a slurry wall to affect aquatic resources. Ms. Gade stated that that issue will be addressed in the Treasure Island Offshore Ecological Risk Assessment (ERA).

Ms. Ellis asked if the landfill was a historic wetland. Ms. Gade replied that she did not know but agreed to look into the issue. Ms. Gade stated that the Navy is not proposing soil bioassays in the area because it is probably going to be capped. Ms. Ellis agreed with the Navy's proposal, but suggested that the option to conduct soil bioassays should be left open if the area is not remediated.

#### **Bioassays**

Mr. Callahan referred to page 1 of the General Overview of Proposed Ecological Validation Study for Yerba Buena Island Sites (Attachment A) where it states that there are no bioassays because the sites will be capped or material removed. He recommended that the Navy should make a more comprehensive statement about not doing anything due to potential remediation. Mr. Callahan also questioned that if the risk assessment is not done, then how can a remedial investigation be done. Ms. Gade replied that there will be a remedial investigation based on human health risk.

#### **GENERAL VALIDATION STUDY DESIGN**

Mr. Polisini requested more information for the Kestrel and commented that the peregrine falcon proposal is good. Mr. Callahan asked if there are any records of nesting success for the peregrine falcon. Ms. Gade replied that she has records of both nesting pairs. She has consulted with Brian Walton from the Santa Cruz Predatory Bird Reserve Group, and he claims that DDT is the main concern based on collected eggshells. Mr. Walton also has stated that one pair is not having success fledging, but the east pair is doing fine. Ms. Gade stated that at Sites 28 and 29, where metals are a problem, Mr. Walton did not think that they are of concern. Mr. Walton thinks that organochlorines are the main problem. Mr. Callahan recommended that Mr. Walton be included in the design of the collection plan. Ms. Gade affirmed that Mr. Walton will review the plan.

Ms. Ellis asked what other species are prey of the peregrine falcon. Ms. Gade replied that the killdeer, American robin, Brewers blackbird, European starling, and rock dove have been identified as prey based on prey remains collected at the nest site. According to a conversation Ms. Gade had with Mr. Walton, he does not recommend sampling rock doves.

Ms. Gade stated that from what she had heard from Mr. Polisini, the peregrine plan was fine. Mr. Callahan concurred, but he requested a better justification of what is being done.

### **Schedule**

The group looked at the schedule. According to the schedule, the Draft is due November 24, 1997. That gives everyone one month to review it. Ms. Gade asked everyone if that schedule was acceptable. Everyone agreed that the schedule was fine.

### **Fish and Wildlife Service**

Mr. Callahan asked if the Fish and Wildlife Service had been contacted regarding the proposed ecological validation. Ms. Gade stated that she had not considered them. Mr. Callahan suggested that Jim Haas may be a good person to contact. Ms. Ellis said that she would get name of who would need to be called for a scientific collecting permit.

**ATTACHMENT 1**  
**GENERAL OVERVIEW OF PROPOSED ECOLOGICAL VALIDATION**  
**STUDY FOR YERBA BUENA ISLAND SITES**

**General Overview of Proposed Ecological Validation Study for Yerba Buena Island Sites  
NAVSTA Treasure Island Remedial Investigation  
November 3, 1997**

Based on the results of the modeling performed for the ecological risk assessment (ERA) portion of the Remedial Investigation (RI) report (PRC 1997) and comments received from the regulatory agencies, the Navy is proposing to conduct an ecological validation study for Sites 11, 28, and 29 at NAVSTA TI. This summary presents an overview of the Navy's responses to overall comments on the ERA and a general outline of the proposed validation study, including a schedule.

**Responses to Comments**

- The Navy proposes no further action for Site 8 based on the low levels of contamination present at the site and the likelihood of the contaminant pathway being removed under the reuse plans for the site (construction of commercial and residential buildings).
- The Navy believes that the results of the modeling performed in the RI report were sufficient to determine that no significant impacts are likely to occur to populations of small mammals, as represented by the deer mouse in the model, based on the possibility of recruitment from unaffected populations. The Navy recognizes that the model predicted the possibility of unknown impacts from the levels of chemicals at the sites, but these levels will not affect small mammal populations as a whole.
- The Navy believes that the results of the modeling were also sufficient to determine that no significant impacts are likely to occur to populations of raptors, as represented by the American kestrel in the model, based on the small fraction of home range that the sites represent for the raptors. The Navy recognizes that the model predicted the possibility of unknown impacts to individual birds, but these impacts would not affect the raptor populations as a whole.
- The Navy will perform a validation study to evaluate the potential impacts of contaminants at Sites 11, 28, and 29 on individual peregrine falcons. The peregrine falcon is required to be protected at the individual, rather than the population, level because of its status as an endangered species. The Navy intends to collect samples of tissue from resident bird species that the American peregrine falcon is likely to feed on in order to develop a more realistic dose for comparison to the toxicity reference values (TRV) previously developed for the peregrine. The preferred species and timing of sample collection will be decided with input from the regulatory agencies and the Santa Cruz Predatory Bird Research Group, which studies the peregrine in the Bay Area.
- The Navy does not intend to collect samples of plant, insect, or small mammal tissue, or perform bioassays on samples from the sites. As stated above, the Navy believes that the modeling results were sufficient to determine that there will not be population level effects on small mammals or raptors other than the peregrine falcon, so additional food chain information related to doses to these groups is not necessary. Furthermore, all of the sites are characterized by thriving plant communities.

## General Validation Study Design

- A bird expert will make observations at Sites 11, 28, and 29 to determine whether there are resident birds commonly preyed on by peregrine falcons that forage primarily within Sites 11, 28, and 29.
- If resident birds that primarily utilize each of the sites can be located, three bird tissue samples will be collected at each of the three sites. Based on the research performed so far, rock doves, mourning doves, feral pigeons, European starlings, and red-winged and Brewer's blackbirds are the most likely candidates for collection.
- If resident birds are identified, but they do not primarily utilize the particular IR sites, an attempt will be made to collect tissue samples from birds that tend to feed in Sites 11, 28, and 29 more often than in other locations.
- The optimal time for collecting bird tissue samples is assumed to be in the spring, prior to egg-laying. Egg-laying begins in mid-April for the red-winged blackbird, one of the species of interest (Orians 1961). This is the time of year when the diet of omnivorous birds tends to consist of the highest percentage of invertebrates and birds have the highest levels of lipids. Collection of tissue in this time frame should capture the time of year when the highest levels of contaminants will be present. This is also during the breeding season for the peregrine (early March to late August [Zeiner and others 1990]); if the pairs on the Bay Bridge are breeding, this is the time of year when they will tend to feed closest to their nests.
- The tissue samples will be analyzed in a manner consistent with the way peregrine falcons feed (large bones, bill, and feathers removed prior to processing [Ratcliffe 1993]). The samples will be analyzed for the COPCs for each site.
- The results of the tissue samples will be used to calculate doses to the peregrine falcon. The doses will be compared the low and high TRVs for each analyte to determine whether contamination at any of the sites is likely to have a negative impact on an individual peregrine falcon.
- The information obtained from this study will be incorporated into the feasibility study for Sites 11, 28, and 29.

## References

- Orians, G.H. 1961. The Ecology of Blackbird (*Agelaius*) Social Systems. Ecological Monographs 31(3):285-312.
- PRC Environmental Management, Inc. (PRC). 1997. Draft Final Remedial Investigation Report, Naval Station Treasure Island, San Francisco, California. Prepared for Engineering Field Activity West, Naval Facilities Engineering Command, San Bruno, CA. September.
- Ratcliffe, D. 1993. The Peregrine Falcon, Second Edition. Academic Press, Inc. San Diego, CA.
- Zeiner, D.C. and others. 1990. California's Wildlife, Volume II: Birds. California Statewide Wildlife Habitat Relationships System. California Department of Fish and Game. Sacramento, CA.

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ENCLOSURE 2

VALIDATION STUDY  
DRAFT WORK PLAN/FIELD SAMPLING PLAN  
SITES 11, 28 AND 29

DATED 03 DECEMBER 1997

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