



Linda S. Adams  
Secretary for  
Environmental Protection



## Department of Toxic Substances Control

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Maureen F. Gorsen, Director  
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TREASURE ISLAND  
SSIC NO. 5090.3.A



Arnold Schwarzenegger  
Governor

April 5, 2007

Mr. James B. Sullivan  
BRAC Environmental Coordinator  
Department of the Navy  
Base Realignment and Closure  
Program Management Office West  
1455 Frazee Road, Suite 900  
San Diego, California 92108-4310

SCREENING-LEVEL ECOLOGICAL RISK ASSESSMENT FOR SITES 6, 12, 21, 24,  
30, 31, 32, AND 33, NAVAL STATION TREASURE ISLAND, SAN FRANCISCO,  
CALIFORNIA

Dear Mr. Sullivan:

The Department of Toxic Substances Control (DTSC) has received the *Screening-Level Ecological Risk Assessment for Sites 6, 12, 21, 24, 30, 31, 32, and 33* (SLERA) dated March 23, 2007 for the former Naval Station Treasure Island, San Francisco, California. The SLERA presents Tier 1 screening for terrestrial receptors exposed to soil at eight identified Installation Restoration Sites. This letter transmits the enclosed DTSC Human and Ecological Risk Division's comment memorandum dated March 21, 2007.

DTSC has been working with the Navy and its consultant in finalizing the SLERA. Upon receipt of the March 23, 2007 SLERA, DTSC finds that the Navy has revised the SLERA pursuant to DTSC's March 21, 2007 memorandum. DTSC hereby concurs with the subject SLERA.

Mr. James B. Sullivan  
April 5, 2007  
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Please contact me at (510) 540-3770 for questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Henry Wong', with a long horizontal flourish extending to the right.

Henry Wong  
Remedial Project Manager  
Office of Military Facilities

Enclosure

cc: Mr. Charles Perry  
Lead Remedial Project Manager  
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Mr. James B. Sullivan  
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## Department of Toxic Substances Control



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### MEMORANDUM

**TO:** Henry Wong  
Remedial Project Manager  
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700 Heinz, Suite 200  
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**FROM:** James M. Polisini, Ph.D.  
Staff Toxicologist  
Human and Ecological Risk Division (HERD)  
1101 North Grandview Avenue  
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**DATE:** March 21, 2007

**SUBJECT:** SCREENING-LEVEL ECOLOGICAL RISK ASSESSMENT  
SITES 6, 12, 21, 24, 30, 31, 32, AND 33 FOR TREASURE  
ISLAND AND YERBA BUENA ISLAND AT NAVAL  
STATION TREASURE ISLAND  
[SITE 201210-18 PCA 18040 H:26]



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### BACKGROUND

HERD reviewed the document titled *Internal Final Screening-level Ecological Risk Assessment for Sites 6, 12, 21, 24, 30, 31, 32, and 33, Treasure Island, California*, dated January 19, 2007. This material was submitted as an attachment to an electronic mail message from Cindi Rose of Tetra Tech EM, Inc. of San Francisco, California received on February 26, 2007. The files transferred for HERD review were: Appendix C SLERA\_DTSC\_RTC preliminary response\_01.30.07 to agencies.doc; Int\_Draft\_Final\_SLERA\_to\_Polisini.pdf; Tables 4-11 Statistics Summary.xls; Table 15\_Shrew HQs 12-13\_EJ\_RmF.xls; Table 14\_Robin 12-13\_EJ\_RmF; Figure 12 CSM 1 (Rev) Converted Dec 12 Converted copy.pdf; and, Figure 13 CSM 2.pdf

HERD entered into discussions with the Navy to formalize the informal discussions and conclusions, among representatives of HERD, the U.S. EPA, Region 9 and the U.S. Navy, regarding the necessity for a terrestrial Ecological Risk Assessment (ERA) for the Treasure Island (TI) portion of Naval Station Treasure Island (NAVSTA TI). HERD participated in a meeting at NAVSTA TI, on September 21, 2005, to clarify the original discussion, referenced as having occurred on June 3, 1994. Dr. James Polisini was the member of HERD who participated in the June 3, 1994 site visit along with Dr. Clarence Callahan of the U.S. EPA, Region 9. Prior to the September 21, 2005 meeting HERD contacted Dr. Clarence Callahan, currently of the State of Hawaii Department of Health. The intent of the comments made by HERD and U.S. EPA Region 9 after the 1994 site visit to NAVSTA TI, as recently confirmed with Dr. Callahan, was that an extensive ERA need not be prepared for the more mobile terrestrial receptors (i.e., more mobile mammals and birds) which would preferentially utilize habitats at Yerba Buena Island rather than the 'developed' areas of Treasure Island.

The habitat survey summarized in this document is one component necessary for the evaluation of potential ecological hazard for terrestrial receptors at NAVSTA TI.

NAVSTA TI is situated midway between San Francisco and Oakland, California and consists of two contiguous islands. Yerba Buena Island (YBI) is a natural island. TI is an island constructed of dredged fill on top of a sand shoal extending from the northwest point of YBI. TI is approximately 403 acres. Clipper Cove is located between YBI and TI.

### **GENERAL COMMENTS**

HERD requires minor changes to the Hazard Quotient (HQ) tables to include the 'ambient' HQ and presentation of the actual HQ for HQs less than one. These requirements were transmitted to Cindi Rose of Tetra Tech EM, Inc. of San Francisco, California on March 12, 2007 in an effort to expedite preparation of the final document.

### **SPECIFIC COMMENTS**

1. Hazard Quotients (HQs) less than one must be presented to the same number of decimal places as the HQs greater than one rather than indicated as '<1' (e.g., Hazard Quotients for Plants at Site 6; Section 3.2.1.1, page 30).

2. A stepwise presentation of HQs is presented based on whether the HQ based on the maximum soil concentration exceeds one. A HQ based on the San Francisco Bay sediment 'ambient' concentration (SFRWQCB, 1997) is also considered when the HQ based on the 95 percent upper confidence limit on the mean (95UCL) exceeds one. This San Francisco Bay sediment 'ambient' HQ must be presented in the appropriate tables (e.g., Hazard Quotients for the American robin at Site 6; Section 3.2.1.2, page 31) as a bridge to the following tables with a reduced set of Contaminants of Potential Ecological Concern (COPECs).
3. A subset of the HQs presented (Section 3.2, page 28 through page 77) were checked against the Excel worksheets supplied for the American robin and the ornate shrew and the text accurately reflects the HQs presented in the Excel workbooks. This comment is meant for the DTSC Project Manager and no response is required from the Navy or the Navy consultants.

## **CONCLUSIONS**

The presentation of ecological hazard for plants, invertebrates and vertebrate species has been modified, as outlined in the HERD memorandum dated September 22, 2006, to provide a comparison of ecological hazard relative to probably 'ambient' concentrations, a LOAEL-based Hazard Quotient for vertebrate species, and additional discussion of site history, sample statistics and applicable site-specific risk management decisions.

HERD agrees with the recommendation (Section 5.0, page 86) that, based on the current overall poor quality of the habitat on TI, further evaluation of the ecological hazard for Site 6, 12, 21, 24, 30, 31, 32, and 33 is not required. This agreement for no further TI ERA activity for these sites is contingent on incorporation of the additional 'ambient' column and presentation of the HQ values less than 1 outlined in the Specific Comments above.

Should use of any of these sites change in the future such that significant ecological habitat develops at the site, several sites, with elevated HQs, will require further evaluation of ecological hazard.

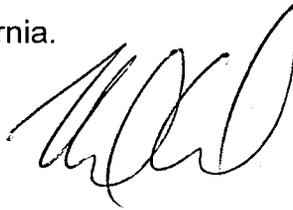
## **REFERENCES**

San Francisco Regional Water Quality Control Board. 1997. Ambient Concentrations of Toxic Chemicals in San Francisco Bay Sediments.

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Tom Gandesbery and Fred Hetzel. Oakland, California.  
<http://www.sfei.org/rmp/1997/c0405.htm>

HERD Internal Reviewer: Michael Anderson, Ph.D.  
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