



Linda S. Adams
Secretary for
Environmental Protection



Department of Toxic Substances Control

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TREASURE ISLAND
SSIC NO. 5090.3.A



Arnold Schwarzenegger
Governor

June 13, 2007

Mr. James B. Sullivan
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Department of the Navy
Base Realignment and Closure
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SAMPLING AND ANALYSIS PLAN (FIELD SAMPLING PLAN/QUALITY ASSURANCE PROJECT PLAN) FOR THE FIELD INVESTIGATION OF LEAD SHOT AT INSTALLATION RESTORATION SITE 27 CLIPPER COVE SKEET RANGE, NAVAL STATION TREASURE ISLAND, SAN FRANCISCO, CALIFORNIA

Dear Mr. Sullivan:

The Department of Toxic Substances Control (DTSC) has received and reviewed the May 2007 *"Sampling and Analysis Plan (Field Sampling Plan/Quality Assurance Project Plan) for the Field Investigation of Lead Shot at Installation Restoration Site 27 Clipper Cove Skeet Range"* (SAP) for the Naval Station Treasure Island. The SAP's primary objective is to characterize the extent of lead shot in the upper two feet of near shore sediments (i.e., within 150 feet of the shoreline). The secondary objective is to investigate the upper two feet of near shore sediments for residual lead, as well as to determine the grain size, total organic carbon, and benthic biomass in the upper three inches. The Navy may use these data to support remedial alternatives in a feasibility study. DTSC provides the following comments on the SAP:

1. Section 1.6.5: The SAP states that "...the FS will be *finalized*" when the Navy has obtained sufficient data to meet the data quality objectives. Please replace the phase with "... the FS will be *prepared for BCT review*." Following the Base Realignment and Closure Cleanup Team (BCT) review and adequate revision on the feasibility study report, DTSC will approve the feasibility study report.
2. Section 3.2: As stated in the SAP's objective, the Navy will gather sediment data for identifying Site 27 remedial alternatives. Hence, the SAP is essentially a remedial investigation workplan. Upon implementation of the SAP, the Navy

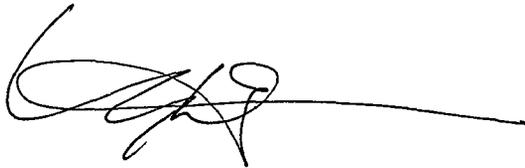
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should prepare a remedial investigation report to document the results. Please revise Section 3.2 to describe that the Navy will prepare a report for BCT review. DTSC intends to issue a letter concluding that the Navy has gathered sufficient data and is ready to commence the feasibility study.

3. Additional Comments: DTSC comments include the enclosed (a) comment entitled "*GSU Review of the Draft Sampling and Analysis Plan for the Field Investigation of Lead Shot at Installation Restoration Site 27, Clipper Cove Skeet Range*" and (b) DTSC, Human and Ecological Risk Division's June 13, 2007 memorandum.

Please prepare a Response to Comment and revise the SAP accordingly for BCT review. If you have any question, please contact me at (510) 540-3770.

Sincerely,



Henry Wong
Remedial Project Manager
Office of Military Facilities

Enclosures

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GSU Review of the Draft Sampling and Analysis Plan for the Field Investigation
of Lead Shot at Installation Restoration Site 27, Clipper Cove Skeet Range
Naval Station Treasure Island, San Francisco, California
dated May 2007

1. Section 1.3.1 – Data Quality Objectives. GSU questions the decision rule (Step 5) that states that a grid that is found to contain more than one lead shot will be addressed in the feasibility study (FS). The grid is an arbitrary mechanism that is used to facilitate sampling design. A majority of the proposed samples are placed at the corners of a grid and do not necessarily represent the entire grid in which they are located. GSU requests that the Navy consider revising the decision rule to indicate that the data will be evaluated spatially to determine the areas that appear to contain greater quantities of lead shot for inclusion in the FS.
2. Section 1.6.5 – Reports Generated. This section states that data gathered from this sediment investigation will be summarized and the FS will be finalized if sufficient data is obtained to meet the data quality objectives (DQOs). The objective of the sampling (as stated in the DQOs, Step 2) is to determine whether lead shot is present in sufficient quantities to pose a risk to diving ducks within 150 feet of the shoreline. Please clarify the decision logic that will be used to determine whether sufficient data has been obtained to meet this objective.
3. Section 2.7.1 – Calibration of Field Equipment. Please identify the types of field equipment, in addition to the analytical balance, that will require calibration. Please explain the difference between the Daily Equipment Calibration Log and the Field Equipment Calibration Log that are included in Appendix C.



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MEMORANDUM

TO: Henry Wong, DTSC Project Manager
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FROM: James M. Polisini, Ph.D
Staff Toxicologist
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DATE: June 13, 2007

SUBJECT: DRAFT SAMPLING AND ANALYSIS PLAN FOR LEAD SHOT
INVESTIGATION, CLIPPER COVE FORMER SKEET RANGE,
NAVAL STATION TREASURE ISLAND
[SITE 201210-18 PCA 18040 H:16]

BACKGROUND

HERD reviewed the document titled *Draft Sampling and Analysis Plan (Field Sampling Plan/Quality Assurance Project Plan) for the Field Investigation of Lead Shot at Installation Restoration Site 27, Clipper Cove Skeet Range, Naval Station Treasure Island, San Francisco, California*, dated May, 2007. This document was provided for review as an Adobe PDF attachment to a May 16, 2007 electronic mail, from Henry Wong, with the file name *Site 27 SAP [MAY 2007].pdf*.

Naval Station Treasure Island (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. Treasure Island (TI) is an island constructed of dredged fill on top of a sand shoal extending from the northwest point of YBI. Treasure Island is approximately 403 acres. Clipper Cove is located between YBI and TI.

HERD participated in multiple discussions with the Navy and other departments, boards and agencies in development of this sampling plan including a discussion

of the Response to Comments (RTC) on the Draft Installation Restoration (IR) Site R 27 Draft Feasibility Study (FS) in a May 3, 2005 meeting. Most recently, HERD participated in an October 2, 2006 discussion regarding the required lead shot quantitation limits for IR 27 sediment sampling.

GENERAL COMMENTS

The Draft Sampling and Analysis Plan appears to fulfill the interagency discussions regarding collection of lead shot and lead sediment concentration sufficient to allow the evaluation of the potential ecological hazard for diving ducks utilizing the nearshore environment of IR Site 27, the Former Skeet Range.

SPECIFIC COMMENTS

1. The Data Quality Objectives (DQO) table (Table 3, Step 1) states that the Navy is conducting a Feasibility Study (FS) to study remedial alternatives for reducing potential risk to diving ducks. The document outlines, and is titled, a Sampling and Analysis Plan (SAP). While the results of the activities outlined in the SAP may support a referenced FS Report (Section 2.1.5, page 32), the methodology outlined in this document will not produce a FS. Please correct or expand the reference to the FS in the DQO table.
2. Weighing each sediment core sample 'to the nearest 0.5 kilogram' (Section 2.1.1, page 31, third bulleted item) will not provide sufficient accuracy. Please record the sample weight to the nearest gram, if practical, prior to adding site water for sieving.
3. Please more completely describe the method by which sediment core samples 'with the exception of the 0-3 and 3-6 inch sample' (i.e., 6-12, 12-18, and 18-24 inch samples) will be 'homogenized in the Ziploc® bag' (Section 2.1.1, page 31, fourth bulleted item).
4. The detailed description of sediment core sampling (Section 2.2.1, page 32) states that 'As discussed in Section 2.1.1, the sediment core will be extruded'. The referenced section (Section 2.1.1) does not specifically mention extrusion of the sediment core. Please include this step as a bulleted item in Section 2.1.1.
5. HERD recommends that core tube liners be used to maintain any vertical differences in sediment cores (i.e., limit sediment adherence to the coring tube) and aid in extrusion of the core once collected (Section 2.1.1, page 31).
6. Photographs of each core, once extruded, are indicated earlier in the document (DQO Table 3, page 9, step 7; Section 1.6.1, page 22), but should

be clearly indicated in the description of sediment core handling (2.1.1, page 31).

7. In addition to recording the horizontal location of the sampling (Section 2.2.1, page 33) the depth to the sediment water interface should be recorded for both the sediment core samples and the surface grab samples (Section 2.2.2, page 33). The depths for each core sample should be reported to some commonly-corrected depth (e.g., surveyed shore location or feet below Mean Sea Level).
8. A description of the quantity of sediment collected with the coring device (i.e., 24 ounces) is placed in the text section discussing sediment grab sample collection (Section 2.2.2, page 33). Please either transfer this sediment core discussion to Section 2.2.1 or indicate that 24 ounces of the grab sample will also be submitted for grain size and Total Organic Carbon (TOC) analysis.

CONCLUSIONS

Once the specific comments listed above are included in the Sampling and Analysis Plan (SAP), the SAP should provide lead shot and lead sediment concentration data sufficient to evaluate the ecological hazard to diving ducks utilizing the nearshore sediments at IR Site 27, the Former Skeet Range.

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June 13, 2007
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