California Regional Water Quality Control Board
San Francisco Bay Region

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MARE ISLAND
SSIC NO. 5090.3.A

Date: March 2, 2010
File No. 2129.2011 (EKW)
GeoTracker No. T0609560708

Department of the Navy
BRAC Program Management Office
Attn: Mr. Michael Bloom
1455 Frazee Road, Suite 900
San Diego, CA 92108-4301
Via E-mail: michael.s.bloom@navy.mil

SUBJECT: **Comments on the Draft Sampling and Analysis Plan (Field Sampling Plan/Quality Assurance Project Plan) for the J-Line Section Exterior of Installation Restoration Site 14, Former Mare Island Naval Shipyard, Vallejo, California**

Dear Mr. Bloom:

I reviewed the December 15, 2009, Draft Sampling and Analysis Plan (Draft SAP) for the J-Line Section Exterior of Installation Restoration Site 14. The Navy will be conducting additional soil sampling at points along the J-line to assess whether the line leaked and to evaluate whether the source of elevated chromium concentrations in historical samples are due to the presence of greensand. The Draft SAP outlines proposed field activities, sampling methods, field quality control procedures, and analytical requirements for collecting the soil samples. Water Board staff comments are presented below.

1. Executive Summary: Please state why groundwater is not being evaluated as part of the sampling program.
2. Worksheets #3 and #5: Revise the table to show my correct telephone number, which is (510) 622-2440.
3. Worksheet #10:
   a. Section 10.2: Revise the discussion to clarify how the closure and removal of pipeline segments and the former pump station caused settlement.
   b. Section 10.5.2: Clarify if the greensand layer is 0.2 feet "wide" or thick. If this is the width of the greensand layer, explain how the width of it was determined from the borings drilled.
   c. Section 10.6.5: This paragraph indicates that a Navy technical memorandum concluded that groundwater at Mare Island is not suitable for domestic, industrial, and agricultural

purposes. Either this paragraph should be revised to reference the letter where the regulatory agencies provided concurrence with the beneficial use findings of this technical memorandum or this paragraph should be revised to specifically address IR14/IR04 groundwater. Additionally, a potential beneficial use for groundwater would be for surface water replenishment.

d. Sections 10.7.1 and 10.7.2 and Figure 3: Show the referenced boring locations on a Figure 3. The text lists sample locations with the highest chromium concentrations; however, it is unknown where they are located relative to the J-line and proposed sampling locations.

e. Section 10.7.2: Note that construction and/or maintenance workers could be exposed to chemicals in groundwater. Provide justification for why this risk pathway is not being evaluated. Further, explain why only chromium in groundwater is being evaluated as a chemical of concern when other chemicals, if present, could present to a risk to human health.

f. Section 10.7.2: Revise the text so that the result for sample IR14GB154 is shown as a numerical value (i.e., <#) rather than "not detected."

4. Worksheet #11:

   a. Step 1: Add total petroleum hydrocarbons (TPH) to the list of primary contaminants carried in the J-Line. TPH is included in the list on page 26 of the Draft SAP but is not listed in this portion of the text. Include a discussion of why TPH was eliminated as a chemical of concern in soil and groundwater.

   b. Step 2: Provide justification for why exposure to groundwater by construction and maintenance workers is not included as a goal of the study.

5. Worksheet #15: Change the project action limit for lead to the September 2009 California Human Health Screening Level (CHHSL). The California Office of Environmental Health Hazard Assessment recalculated the cleanup number based on a level of lead in soil that could result in up to a 1 microgram per deciliter (µg/dL) increase in blood lead level.[1] The re-calculation reduced the CHHSL for lead to 320 milligrams per kilogram for commercial/industrial exposure. If the Navy elects not to make this recommended change, provide justification for the decision. Please review the CHHSLs for the other chemicals of concern to determine if these are more conservative (i.e., lower) than the RSLs[2]; use the lower of the two values as the project action limit.

6. Worksheet #16: Revise project schedule to correctly reflect agency review of the Draft SAP to be completed on March 3, 2010. Revise the subsequent completion dates as appropriate.

7. Figure 2: Label the J-line and Pump Station 8.

8. Figure 3: Label the borings that were previously drilled along the J-line.

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[1] California Environmental Protection Agency, Integrated Risk Management Branch, Office of Environmental Health Hazard Assessment, 2009, Revised California Human Health Screening Levels for Lead, September.
[2] RSL=Regional Screening Levels; http://www.epa.gov/region09/superfund/prg/, updated December 2009.

If you have any questions, you can contact me via phone at (510) 622-2440 or e-mail at ewells@waterboards.ca.gov.

Sincerely,

Elizabeth Wells, PE
Water Resource Control Engineer

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