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To: [Naito, Janet@DTSC](mailto:Naito_Janet@DTSC)
Subject: HERO Comments for Dredge Pond 3E
Date: Thursday, August 23, 2012 11:58:54

Hi Janet,

I have finished my review of the Draft Work Plan for Dredge Pond 3E, I will include my comments here as an email, If you would prefer a formal memo, please let me know and I can write one up. Let me know if you have comments or questions.

Thanks!

Eric

"HERO has reviewed the Draft Work Plan Remedial Investigation at UXO 3 – Dredge Pond 3E and Northern Marine Corps Firing Range at Former Mare Island Naval Shipyard as it pertains to human health risk assessment. HERO finds the Report acceptable but has the following Comments:

1: Conceptual Site Model (CSM). The Vapor Intrusion (VI) exposure pathway should be added to the CSM as a potentially complete exposure pathway. If volatile organic chemicals (VOCs) are detected in soil or groundwater at the Site in concentrations exceeding applicable screening levels, a VI investigation would then be necessary. Even though there are no current buildings or planned future buildings at the Site, unrestricted closure requires the evaluation of a potential future building for VI from VOCs in the subsurface. If VOCs are not detected at significant concentrations, this pathway can be changed to incomplete. Also, Figure 7 is somewhat unclear. There are three categories of media under the heading "Exposure Pathway": Groundwater, Surface Water, and Air/Wind. Surface soil and subsurface soil should be included under this heading as well. It is assumed that the third cluster of Exposure Routes (Ingestion, Inhalation, and Dermal Contact) reflect soil exposure but this is not indicated in the Figure. Surface soil and subsurface soil should be separate exposure pathways because specific receptors may not exhibit a complete pathway based on soil depth. For example, there is a complete exposure pathway for the recreational user and surface soil, but not for subsurface soil. However, a complete exposure pathway exists for the hypothetical resident and construction worker receptors for both surface and subsurface soil.

2: Groundwater Investigation. Perchlorate should be added to the list of investigated analytes for groundwater at the Site. Perchlorate is present in a number of munitions, propellants, and fuzes. As a result, perchlorate may potentially have been released to groundwater and should be investigated accordingly. Also hexavalent chromium should be added to Table 15-5, the California Public Health Goal for hexavalent chromium is 0.02 ppb. In the event that chromium is detected in groundwater, HERO recommends analyzing for hexavalent chromium in groundwater.

3: Worksheet 15 presents Project Action Limits (PALs) for analytes in water and soil. Footnote 2 indicates that for water PALs listed are the lowest of Environmental Screening Levels, Federal and California (CA) Maximum Contaminant Levels (MCLs), California Public Health Goals, and California Notification Levels. Similarly for soil PALs listed are the lowest of USEPA Region 9 Regional Screening Levels (RSLs), California Human Health Screening Levels, and ecological screening levels. HERO

recommends that the above-mentioned levels be consulted for their most recent updated versions to ensure that PALs reflect the most current methodologies. For example, the PAL presented for benzene in water is listed at 46 ppb when the CA MCL for benzene is 1 ppb. The PAL for methyl-tert-butyl-ether in water is presented as 13 ppb when the CA MCL is 5. The PAL for trichloroethene in soil is listed at 2.8 mg/kg while the RSL is 0.9 mg/kg. The PAL for trichlorofluoromethane in soil is listed at 43,000 mg/kg while the RSL is 790 mg/kg. HERO recommends updating the lists in order to accurately reflect the statement(s) in Footnote 2 of the Worksheet.”