Department of Toxic Substances Control

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Arnold Schwarzenegger
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Mr. Jerry Dunaway
Base Closure Manager
BRAC Program Management Office West
1455 Frazee Road, Suite 900
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Dear Mr. Dunaway:

DRAFT CONCEPTUAL SITE MODEL AND GEOPHYSICAL INVESTIGATION WORK PLAN SOUTH SHORE AREA AND PRODUCTIN MANUFACTURING AREA, FORMER MARE ISLAND SHIPYARD, SOLANO COUNTY

Thank you for providing the Department of Toxic Substances Control (DTSC) the opportunity to review the *"Draft Conceptual Site Model and Geophysical Investigation Work Plan (Work Plan) South Shore Area and Production Manufacturing Area, Former Mare Island Naval Shipyard (MINS)"* dated September 2005. The Work Plan was prepared by Weston Solutions, Inc. on behalf of the South West Division, Naval Facilities Engineering Command. Our comments on the subject document are provided below.

DTSC also understands that the Navy is in the process of negotiating the transfer of the parcels covered within the scope of this Work Plan and the eventual cleanup of the parcels to the Lennar Corporation. The Navy has requested that DTSC identify any issues beyond the scope of this Work Plan. Comments regarding the transfer are provided. However, these comments are not inclusive and DTSC may have additional comments at a later date.

General Comments:

1. Licensed Geophysicist: The Work Plan and the Geophysical Prove-out must be signed a California licensed geophysicist.

2. Land Use Controls: Following the completion of munitions response actions, it is possible that some Munitions and Explosives of Concern (MEC) items may

remain on the South Shore Area (SSA) and Production Manufacturing Area (PMA) parcels. MEC items may still be found within the cleared areas (due to detection capabilities of instruments) and/or areas below the depth of detection of the instruments. DTSC cannot certify that all MEC has been cleared and thus will be requiring a land use covenant.

3. Hazardous, Toxic, and Radioactive Waste: This Work Plan does not address HTRW related remediation of the SSA and PMA that may be required. Any additional activities for the SSA and PMA must be identified before the parcels are transferred.

Specific Comments:

1. Section 5.2.1, Data Sources, Page 5-4: The text states the Digital Geophysical Mapping (DGM) will be integrated into the Graphical Information System (GIS) database. DTSC requests that the DGM information be provided for review.

2. Section 5.4.1, Geophysical Investigation Process, Page 5-6: The text states that a DGM survey is planned for three buildings that are constructed above grade on pilings with an accessible crawl space. However, the Work Plan does not identify if any other buildings with above grade construction or on grade construction will be investigated. The Work Plan should identify all buildings within the PMA/SSA including historical (existing/non-existing), construction type, location of buildings, subsurface material (fill/native soils), year of construction, year of demolishing, and purpose of building (include all activities). The Work Plan should discuss the type of investigation that will be conducted for each building, if any.

3. Section 5.4.2.1, Instrumentation – GeoVizor System, Page 5-9: The GeoVizor System magnetometer is proposed for use in surveying areas underneath buildings. This system is a new technology and has not been previously vetted out in the industry. DTSC recommends that system be thoroughly tested out during the prove-out portion of the investigation. All anomalies detected should be investigated including the use of seeding to test out the instrument capabilities.

4. Section 5.4.3, Quality Control (QC) Plan, Page 5-13: Blind Seeding. The Work Plan puts in place a process for determining the positional accuracy of instruments by placing QC seed items in different areas (how many is unknown). The positional accuracy is determined daily by measuring the offset of the instruments relative to the seed items. The QC process outlined for determining

the positional accuracy of the instruments is sound and provides much needed checks on how the instruments are performing. In addition, DTSC believes that the QC program should be expanded, as discussed in our previous comment letters, to include blind seeding by the contractor to determine the geophysicist's ability to distinguish and select the anomaly based on the anomaly selection and decision criteria. This will also provide an indication if the personnel operating geophysical instruments (analog or digital) in the field are utilizing the instruments as prescribed.

5. Section 5.4.5, Anomaly Selection and Decision Criteria, Page 5-16: DTSC accepts the approach outlined for the anomaly selection as it provides a qualitative approach based on several criteria. DTSC is not clear though on how the values for the matrices in table 5-1 are derived. For example, the metrics assigns a "Peak" value of 25 or greater for an anomaly to obtain "true" value or a score of one versus zero. The Work Plan should provide an explanation of how these values were derived. The text also should discuss the how negative values are obtained.

6. Table 2-3, Data Quality Objectives and Metrics: Page B-2-11: Under "Accuracy" as a Data quality Indicator, the criterion is- "Percent false positives not to exceed 15 percent of all identified anomalies." It is not clear where this 15 percent came from. While digging false positives is not desired, punitive measures for digging false positives may lead to greater uncertainties during the subsequent investigation of the PMA /SSA. I suggest the punitive nature of digging false positives be eliminated. One suggestion is to have the accuracy of the data set defined as the percent of seeds detected versus anticipated detection. That is, DTSC would expect the accuracy of the data set to be at a level where 100 percent of the 37mm at one foot below the surface are detected. In this way, the threshold values for selecting anomalies would not be raised in fear of selecting too many false positives.

7. Table 2-3, Data Quality Objectives and Metrics: Page B-2-12: Under "Robustness" as a data quality indicator, the criteria includes- "Total acreage of data gaps not to exceed 0.5 acres of accessible area." Like comment above, the rationale for this value is not provided. I suggest the threshold for data gaps be established based on the electronic signature of the munitions of concern. (The GPO should be able to provide this). The data gap should not be greater than the electronic influence on the surface that is measured for a particular MEC. Hence a data gap should have no greater electronic signature (on the ground surface) of the smallest MEC item being investigated. (Using Tourtelot as an

example, it was noted that a 37mm projectile at one foot below the surface has an electronic influence on the surface that measures roughly two foot diameter. The data gap standard that resulted was that no gap greater than an area measuring two feet by two feet could occur.)

If you have questions regarding these comments/recommendations, please feel free to contact me at (916) 255-3610 or via email at RGhazi@dtsc.ca.gov.

Sincerely,

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