

MEETING MINUTES

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| Meeting Subject: RI/FS Monthly Progress Meeting | Meeting Date: February 24, 1994 Meeting Time: 1:00PM - 4:45PM | |
| Attendees: (* Part Time) | | |
| <u>Navy</u> | <u>Bechtel</u> | <u>Other</u> |
| Alan Lee Duane Rollefson Bill Fisher Chris Leadon | Krish Kapur Bong Kown David Liu Ed Morelan Zoltan Mester* Walter Remsen | Jenny Au, LARWQCB Hugh Marley, LARWQCB Allen Winans, DTSC Alvaro Gutierrez, DTSC John Christopher, DTSC Clarence Callahan, U.S. EPA Sheryl Lauth, U.S.EPA |
| Additional Distribution (In Addition to Attendees) | | |

Description of Discussion/Action Items (Page 4):

Background:

This meeting served as the monthly progress meeting for CTOs 015, 016, and 026 regarding the RI/FS activities currently being performed at the Naval Station Long Beach (NAVSTA), as well as for the Facilitywide Investigation being performed at the Long Beach Naval Complex.

Discussion items to note included:

- Walter Remsen and David Liu presented EPA Region IX comments and responses to CLEAN I RI/FS Workplan and Sampling and Analysis Plan (Attached). Items discussed are summarized below:

COMMENT 2A RESOLUTION - Screening of vadose zone soil samples will be performed. An errata sheet with revisions agreed to in the meeting will be prepared (Attached).

COMMENT 4 RESOLUTION - Need to resolve by setting detection limit at or below Long and Morgan data through preliminary phase 1 Hazard Quotient, then evaluate the data. Site specific data is best to use, however if not available use the best fit data from other similar areas.

COMMENT 5 RESOLUTION - Surface water is defined as water in the top of the water column. The workplan calls for no water column sampling. Don Heinle (CH2MHill) proposed in CLEAN I meetings (as recalled by John Christopher) that water column sampling would be costly and time consuming. Instead Don recommended that an assumption be made that 100% of the chemicals in the top 1 meter of the sediment is dispersed throughout 12 meters of water (12:1 ratio). Don's recommendation was approved and became part of the final CLEAN I Workplan. Clarence Callahan suggested Bechtel get chemical background data and do a sample calculation to check the theory. Clarence further suggested that taking paired samples from the sediment and water column would be a better approach. Bong Kown also expressed the view that the 12:1 dilution factor was not appropriate.

COMMENT 8 RESOLUTION - Species that may be affected will be selected and the No Observable Effects Level (NOEL) will be used for the appropriate receptor.

COMMENT 9 RESOLUTION - A decision tree showing what samples will be taken and what each set of data will be used for will be developed. It will be Faxed to all interested parties for comment on or before March 4. If necessary existing plans will be revised.

COMMENT 10 RESOLUTION - The concerns raised by this comment will be resolved once the Decision Tree (Action Item Number 3) is completed.

COMMENT 11 RESOLUTION - Total lead will be analyzed.

COMMENT 12 RESOLUTION - Navy has data related to the movement of sediment within the harbor area. These data will be used during the development of the RI/FS report.

COMMENT 13 RESOLUTION - No bioaccumulation model will be used. Actual bioaccumulation tests will be conducted instead.

COMMENT 14 RESOLUTION - A literature search will be conducted during the report writing phase to find references for concentrations of contaminants that result in adverse ecological effects.

COMMENT 15 RESOLUTION - A statistical comparison of the Site 7 and reference station data will be conducted as part of the RI/FS report.

COMMENT 16 RESOLUTION - Same response as comment 5.

ALL OTHER COMMENTS WERE DISCUSSED AND RESOLVED AS INDICATED IN A TELEPHONE CONFERENCE CALL ON FEBRUARY 10, 1994 ATTENDED BY REPRESENTATIVES OF REGION IX EPA, CH₂M-HILL, NAVY, AND BECHTEL.

- Ed Morelan discussed project schedules showing current status
 - Geophysics and utility clearance have begun
 - Hydropunch groundwater sample collection operations have begun
 - Surface sampling has been initiated
 - Cone penetrometer testing has been initiated

- Walter Remsen presented proposed editorial and technical revisions to the final RI/FS Sampling and Analysis Plan. An errata sheet with revisions agreed to in the meeting will be prepared (Attached).

| MEETING MINUTES | | | |
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| Item No | Description of Discussion/ Actions Items | Responsible Individual | Due Date |
| 1 | The next monthly meeting is scheduled for Tuesday, March 22, 1994 at 0930 at the Bechtel Norwalk Office. | All Attendees | |
| 2 | Get background data for sediment contamination and do a sample calculation of the amount dispersed in the water column and the resultant toxic effects. | Walter Remsen David Liu | 3/4/94 |
| 3 | Prepare a decision tree showing the types of samples that will be collected, the logic behind taking the samples, and the use to which the data will be applied. | Walter Remsen David Liu | 3/4/94 |
| 4 | Fax the decision tree to all attendees for review and comment. Set up a conference call or workshop (depending on the complexity of the comments) to resolve issues. | Walter Remsen David Liu | 3/4/94 |
| 5 | Prepare an errata sheet to the RI/FS Sampling and Analysis Plan and Quality Assurance Project Plan showing revisions agreed to in the meeting. | Walter Remsen | 3/4/94 |
| 6 | Review meeting minutes and attachments for concurrence. "No Reply" within the specified due date will constitute concurrence. | All Attendees | 3/9/94 |

REVISIONS TO FINAL RI/FS SAMPLING AND ANALYSIS PLAN

The following revisions to the Final RI/FS Sampling and Analysis Plan were presented to the Navy, Region IX EPA, and Cal EPA, during the February RI/FS Monthly Progress Meeting and the rationale of each was discussed. All in attendance concurred.

MONITORING WELL INSTALLATION AND SUBSURFACE SOIL SAMPLING

- Section 4.5.3.2, Second para, fourth sentence, page 4-43
Section 4.6.4, Third para, fourth sentence, page 4-78
Section 4.7.2.1, Second para, fourth sentence, page 4-100
Section 4.8.2.1, First para, third sentence, page 4-116
Section 4.9.2.1, Second para, fourth sentence, page 4-138
Section 4.9.3.1, First para, fourth sentence, page 4-141
Section 4.10.1.1, First para, fourth sentence, page 4-148
Section 4.11.2.1, First para, fourth sentence, page 4-170
- READS "Soil samples collected for chemical analysis will be obtained from the vadose zone (approximately five feet bgs) and in the water bearing zone at the interval the well is to be screened."
- REVISED "Soil samples will be collected from the vadose zone at a depth of approximately 5 feet below ground surface (bgs) and above the groundwater surface. Based on field screening (PID readings and visual description) the sample with the greater potential for containing contaminants will be submitted for chemical analysis. Additionally, a soil sample will be collected and analyzed from the water-bearing zone at the interval in which the well will be screened."

SOIL SAMPLING

- TABLE 4-3 PROPOSED LABORATORY ANALYSIS FOR NAVAL STATION LONG BEACH, page 4-11
- READS 20 subsurface facilitywide samples will be analyzed for chloride, sulfate, carbonate and bicarbonate.
- REVISION ~~No~~ such analyses are required for soil samples.

SURFACE SEDIMENT SAMPLING

- Section 4.5.5.1 SURFACE SEDIMENT SAMPLES AT SITES 3, 4, AND 7, Second para, first sentence, page 4-46
- READS "For Sites 3 and 4, within defined statistical strata, five and four samples were selected, respectively, for collection and laboratory analysis."
- REVISION "For Sites 3 and 4, within defined statistical strata, five ~~samples were selected~~ ~~from each site~~ for collection and laboratory analysis."

- Section 4.5.5.1 SURFACE SEDIMENT SAMPLES AT SITES 3, 4, AND 7, Last para, last sentence, page 4-48
 - READS "A total of 29 sampling locations were selected within the defined strata."
 - REVISION "A total of 27 sampling locations were selected within the defined strata."
- Section 6.6.7.2 SURFACE SEDIMENT COLLECTION, Third para, second sentence, page 6-33
 - READS "Deep sediment samples will be collected from five randomly selected grid points within the general harbor area and one location within each of the depositional areas."
 - REVISION "Deep sediment samples will be collected from 600 randomly selected grid points within the general harbor area and one location within each of the depositional areas."

DEEP SEDIMENT SAMPLING

- Section 4.5.5.2 DEEP SEDIMENT SAMPLES AT SITES 3, 4, AND 7, Section title, page 4-49
 - READS "Deep Sediment Samples at Sites 3, 4, and 7"
 - REVISION "Deep Sediment Samples at Sites 4 and 7"
- Section 4.5.5.2 DEEP SEDIMENT SAMPLES AT SITES 3, 4, AND 7, First para, first sentence, page 4-49.
 - READS "For each of the areas where deep sediment sampling is recommended (i.e., Sites 3 and 7), the locations for sampling were selected in the following manner:"
 - REVISION "For each of the areas where deep sediment sampling is recommended (i.e., Sites 4 and 7), the locations for sampling were selected in the following manner:"
- Section 4.5.5.2 DEEP SEDIMENT SAMPLES AT SITES 3, 4, AND 7, Second para, first sentence, page 4-49
 - READS "1. For Site 3 and each of the depositional areas, surface sediment sampling locations were numbered from 1 to ..."
 - REVISION "1. For Site 4 and each of the depositional areas, surface sediment sampling locations were numbered from 1 to ..."
- Section 4.5.5.2 DEEP SEDIMENT SAMPLES AT SITES 3, 4, AND 7, Third para, first sentence, page 4-49
 - READS "2. For the General Harbor Area, five sampling locations were selected by randomly generating 5 whole numbers between 1 and 29."
 - REVISION "2. For the General Harbor Area, 600 sampling locations were selected by randomly generating 6 whole numbers between 1 and 29."

- Section 2.4 DEEP SEDIMENT SAMPLING, Second para, third sentence, page 4-186
 - READS "In the general harbor area, deep sediment samples will be collected by coring to a depth of 3 meters, but only compositing each of the first two 1 foot intervals (2 samples)."
 - REVISION "In the general harbor area, deep sediment samples will be collected by coring to a depth of 3 meters, but only compositing each of the first two 1 ~~foot~~ intervals (2 Samples)."
- Section 2.4 DEEP SEDIMENT SAMPLING, Second para, fourth sentence, page 4-186
 - READS "In the depositional areas, composites will be taken from each 1 foot interval (5 samples)."
 - REVISION "In the depositional areas, composites will be taken from each 1 ~~meter~~ interval (5 samples)."
- Section 2.4 DEEP SEDIMENT SAMPLING, Second para, fifth sentence, page 4-186
 - READS "Five of the surface sediment sampling locations within the general harbor area have been identified for deep sediment sampling."
 - REVISION "~~Five~~ of the surface sediment sampling locations within the general harbor area have been identified for deep sediment sampling."
- Section 6.6.7.2 DEEP SEDIMENT SAMPLE COLLECTION, Bullet 4, first sentence, page 6-38
 - READS "4. The corer will be driven into the sediment to the desired depth (3-meter depth in the general harbor area, 6-meter depth in the depositional area, if possible)."
 - REVISION "4. The corer will be driven into the sediment to the desired depth (3-meter depth in the general harbor area, ~~6~~-meter depth in the depositional area, if possible)."

REVISIONS TO FINAL QUALITY ASSURANCE PROJECT PLAN

The following revisions to the Final Quality Assurance Project Plan (September 93) were presented to the Navy, Region IX EPA, and Cal EPA during the February RI/FS Meeting and the rationale of each was discussed. All in attendance concurred. In addition, these revisions were discussed with members of the CLEAN I technical staff who were directly involved in the preparation of the final plans.

ANALYTICAL DETECTION LIMITS

- Section 2.2 COMPARABILITY, Table 2-1a DATA USES AND QUALITY, page A-7
 - READS "TDS, E. C. Applicable Detection Limits 5 mg/l."
 - REVISION "TDS Detection Limit should be listed as 20 mg/l."
- Section 2.2 COMPARABILITY, Table 2-2 QUALITY ASSURANCE OBJECTIVES FOR WATER ANALYSIS, page A-13
 - READS "TDS Target Detection Limit is listed as 3 mg/l."
 - REVISION "TDS Target Detection Limit should be listed as 20 mg/l."
- Section 2.2 COMPARABILITY, Table 2-3 QUALITY ASSURANCE OBJECTIVES FOR SOIL ANALYSIS, page A-15
 - READS "TOC Target Detection Limit is listed as 200 µg/kg."
 - REVISION "TOC Target Detection Limit should be listed as 200 mg/kg (200 ppm)."
- Section 2.2 COMPARABILITY, Second para, second sentence, page A-17
 - READS "The detection limits for chloride, sulfate, low level alkalinity, high level alkalinity, TOC, and CEC (1 µg/l, 5 µg/l, 2 µg/l, and 20 µg/l, 200 µg/l and 0.5 meq/100g, respectively) were selected to provide sufficient data for the evaluation of remedial alternatives."
 - REVISION "The detection limits for chloride, sulfate, low level alkalinity, high level alkalinity, TOC, and CEC (5 mg/l, 5 mg/l, 2 mg/l, and 20 mg/l, 200 mg/l, and 0.5 meq/100g, respectively) were selected to provide sufficient data for the evaluation of remedial alternatives."

DRAFT

**RESPONSE TO COMMENTS
NAVAL STATION LONG BEACH, CALIFORNIA
FINAL RI/FS WORK PLAN**

Comments by: U.S. Environmental Protection Agency
Response by: Walter Remsen, Ed Morelan, Susan Livenick, Bechtel; Kathy Brewer and Peter Torrey, CH2M-Hill

| Number | Comment | Response |
|-------------------------|---|---|
| General Comments | | |
| 1 | <p>We believe that there may be additional source areas at the Long Beach Naval Station that are not being addressed as part of the current RI/FS. These potential source areas were identified based on our review of historical chemical usage/waste disposal information provided in the Initial Site Assessment Report, RCRA Facility Assessment Report and the Environmental Baseline Survey prepared for the Naval Station. We recommend that these potential source areas be included in the current RI/FS to ensure that all potential environmental concerns under CERCLA have been addressed eliminating future environmental road blocks to property transfer at the Naval Station. The potential source areas include: Building B, Building 46 (laundry and dry cleaners), the area occupied by the Mole Tank Farm, the less than 90 day storage areas (Buildings 143 and 676) and the satellite storage areas (Buildings 144, 151, and 152). Building B and the satellite and less than 90 day storage areas were identified in the Environmental Baseline Survey (EBS) for the Naval Station as areas requiring further study. The navy should provide a proposed approach for addressing these potential source areas.</p> | <p>The RI/FS scope addresses the 13 sites identified by DTSC as requiring RCRA corrective action. The CERFA EBS has identified additional areas which may be of environmental concern. The Navy will address these areas of concern under separate Contract Task Orders (CTOs).</p> |

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| <p>2a</p> | <p>The conceptual model and proposed sampling programs as presented in the scoping documents must be adequately supported by the chemical use and/or waste disposal information to ensure that the data collected will address, sufficient for remedy selection: 1) all source areas, 2) all contaminants of concern, and 3) all exposure pathways. The navy should ensure that the sampling program will address the following specific concerns:</p> <p>a) The rationale for the sampling locations must be provided in conjunction with the chemical use/storage/disposal information to ensure that all potential source areas have been addressed. The rationale for the collection of subsurface soil samples from 5 feet bgs must be provided. the SAP states "Soil samples from the vadose zone (5 feet bgs) are intended to provide source characterization, as well as providing facilitate data on metals". However according to the IAS, one interviewee reported that one time, there were four trenches about 8-9 feet deep used for disposal of solid waste on Site 1. Soils close to the water table may have higher concentrations of contaminants. The sampling depth should correspond with the projected depth bgs of the trenches.</p> | <p>Where available, the rationale for selection of sampling locations was provided in Section 4 of the RI/FS Work Plan for individual sites located on NAVSTA LB. Detailed sampling strategies for individual sites are discussed in Section 4 of the RI/FS Sampling and Analysis Plan.</p> <p>The sampling approach to collection and analysis of vadose-zone soil samples will be modified as follows:</p> <ul style="list-style-type: none"> Field screening of soils cuttings and discrete samples (PID headspace readings and visual soils characteristics) collected from 5 feet bgs and above the groundwater surface will be performed. This information will be used to determine where maximum contaminant levels may occur. The soil sample submitted for analysis will be that which possesses the greatest potential for contaminant impact. |
| <p>2b</p> | <p>the rational for not collecting surface soil samples in areas where surface releases have occurred must be provided. (i.e. in the chemical storage areas within Sites 1 and 2 as identified in the IAS)</p> | <p>The IAS indicates that chemicals may have been stored anywhere on the surface of Sites 1 and 2 and, therefore, there is equal probability for release of chemicals at any point on the surface. Aerial photo review (see Aerial Photography Review and Geophysical Recommendations For Sites 1,2,3, and 6A: Technical Memorandum #3) shows a large stained area overlapping the current location of the ball field in Site 2. That area has been selected for surface sampling (see Figure 4-5 of the Sampling and Analysis Plan).</p> |
| <p>2c</p> | <p>Chemicals of concern for each site must include all potential contaminants. Table 4-4 of the SAP lists the chemicals of concern based on the chemicals that exceeded the screening criteria. However this list must address all the chemicals of concern identified based on the chemical use/waste disposal information.</p> | <p>Table 4-4, potential Chemicals of Concern, lists all chemicals of concern which are believed to be present at the IR sites. Chemicals which are believed to below screening criteria levels are listed in parentheses.</p> |
| <p>2d, para 1</p> | <p>All available information used to define sites on the mole should be presented in conjunction with the sampling rationale to ensure all potential source areas within Sites 1 through 4 have been addressed. For example, based on the current information, no sampling has occurred or is planned in the area southwest of Site 1. MW-4 defines the southwestern edge of Site 1 and yet Site 2 is still shown as extending southwest of MW-4 to Building 815. The Navy should provide the information used to define the extent of Site 2 and does this information suggest that additional sampling should occur in the area southwest of MW-4?</p> | <p>An additional Hydropunch location has been added to the northwest corner of Site 2 as a result of review of aerial photographs (see Aerial Photography Review and Geophysical Recommendations For Sites 1,2,3, and 6A: Technical Memorandum #3). A soil sample will also be analyzed from the vadose zone and analyzed for the same constituents as listed in Table 4-10 of the RI/FS Sampling and Analysis Plan for Planned Samples.</p> |

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| <p>2d, para 2</p> | <p>In addition it is unclear why Site 4 encompass an area where no site investigation is planned (i.e. the area on the tank farm)? Have subsurface investigations been conducted in the Tank Farm Area? Simply extending the boundaries of Site 4 to include the Tank Farm Area without proposing additional sampling is not appropriate.</p> | <p>DTSC staff has stated that pre-1988 sampling data exist which indicate the Mole Tank Farm area was assessed prior to construction of the present tank farm; at that time, no evidence of contamination was identified. The records will be sought in an effort to confirm this statement. It has been DTSC's position that the Tank Farm will be covered as an above-ground storage tank investigation as a part of closure. If, after discussion with DTSC, additional sampling is performed under the RI/FS, a boring will not be moved from Site 3 but an additional sample will be collected as a part of contingency sampling associated with Site 4.</p> |
| <p>2d, para 3</p> | <p>The navy should use available historical information along with the results of the aerial photographic review to ensure that all known disposal areas are addressed. In addition, as the historical information can not be relied on exclusively, we would strongly suggest collecting a small number of confirmation samples in areas on the mole that are not addressed through the current investigation. (i.e. the area beneath the tank farm, the area southwest of Site 1). The need for the confirmation sampling is supported by the Servmart Investigations conducted within Site 4 that identified contamination in areas that were expected to be uncontaminated based on historical information. This will provide an additional level of comfort that all potential areas on the mole have been characterized sufficient for remedy selection.</p> | <p>Addressed in Comment Responses 2b, 2d1, and 2d2 listed above.</p> |
| <p>3</p> | <p>Validation of the data collected during the SI is strongly recommended due to the presence of certain VOCs that are normally associated with laboratory contamination. EPA recommends that the results of the validation of the SI data be presented in the RI/FS Report if these data are to be used to meet data quality objectives of the RI/FS. As outlined in EPA's Guidance for conducting a RI/FS, "the analysis of existing data serves to provide a better understanding of the nature and extent of contamination and aids in the design of remedial investigation tasks. If quality assurance information on existing sampling data is available, it should be reviewed to assess the level of uncertainty associated with the data. This is important to establish whether sampling will be needed to verify or simply supplement existing data". The Navy should provide the validation results in the RI/FS Report.</p> | <p>SI data were collected at full CLP level and were fully validated. The validation is included in the SI appendices. Validation flags are identified in the RI/FS Work Plan tables, although the validation process is not described in the RI/FS Work Plan. The SI data validation will be discussed in the RI/FS report.</p> |

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| <p>4</p> | <p>Sediment screening using NOAA ER-L and ER-M values would be appropriate for screening of contaminants at Site 7 if the NOAA values are shown to originate from sites that are similar in sediment composition and characteristics. The NOAA data set is a retrospective compilation of observations from many locations that were used to rank sites with regard to the potential for adverse biological effects, assuming that the sites in which the average chemical concentrations exceeded the most ER-L and ER-M values would have the highest potential for effects." As such, these data may be appropriate for screening, but have limitations as can be seen from the limitation stated by the authors, the wide range of sources of the data and the wide range of response of various receptors. A better indication of toxicity will come from specific bioassay and bioaccumulation testing sediments collected from the Harbor.</p> <p>The Navy should provide the background information required to determine if the use of NOAA values at this site is appropriate.</p> | <p>Response deferred to risk assessor forum.</p> |
| <p>5</p> | <p>Surface water within Site 7 should be addressed as part of the RI/FS. Surface water samples should be collected to determine if the concentrations present in the water column within Site 7A exceed ambient water quality criteria.</p> | <p>Surface water sampling in the NCLB harbor (Site 7) will give no information on sediments in the harbor. Further response is deferred to risk assessor forum.</p> |
| <p>6</p> | <p>Groundwater screening criteria are based on the assumption that groundwater is non-potable (ie TDS > 10,000 mg/l). Although this assumption is most likely valid, it is based on limited water quality data collected at the site. If TDS concentrations detected during the RI/FS do not confirm this groundwater classification appropriate quantification limits should be obtained to adequately characterize risks at the Site based on potable groundwater criteria.</p> | <p>Groundwater screening criteria CORLs have been established based on Enclosed Bays and Estuaries standards which are lower for metals and for pesticides than are Drinking Water Standards. Screening criteria for volatile organics have been established at CORLs which meet or exceed standards for drinking water (see response to question 19, below.</p> |
| <p>7</p> | <p>Organotins were not analyzed for as a part of the SI and therefore should be included as contaminants of concern for Sites 1,2,3 and 4 to characterize possible constituents of the disposed waste.</p> | <p>Soil and groundwater samples collected from fill areas at Site 4 will be analyzed for total tin using method 1620 (draft, September 1989) by ICP-Atomic Emission Spectrometric method. If presence of tin is detected additional organic-tin analysis will be conducted on the sample(s).</p> |
| <p>8</p> | <p>Page 3-129; Table 3-13. The screening levels appear to be related only to human health, which is not appropriate for ecological evaluation. Further literature searches should be evaluated to develop concentrations that show insignificant impact to ecological receptors. We would suggest that the NAVY target the No Observable Effects Level (NOEL) for the appropriate list of receptors.</p> | <p>Response deferred to risk assessor forum.</p> |
| <p>9, para 1</p> | <p>Page 3-155 Table 3-20; For soils investigation, another objective should be included, obtaining estimates of bioavailable metals in soils and sediments at Level IV. These data would be used for evaluating potential ecological impact which related directly to the risk assessment.</p> | <p>Response deferred to risk assessor forum.</p> |
| <p>9, para 2</p> | <p>Also, under the data quality/analytical level for the characterization of soil parameters needed to perform fate and transport analyses and to evaluate remedial alternatives, the indicated Level II should be Level IV. These data are integral for the comparison of site characteristics to insure the compatibility of samples in the evaluation of responses to contaminants and other soil characteristics.</p> | <p>Sheryl Lauth checking to see if certain CLP procedures apply in order to meet Level IV DQOs. Further response is deferred to risk assessor forum.</p> |

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| 10 | The process (see the Framework document referenced earlier) for ecological assessment should include a discussion of assessment endpoints, measurement endpoints, potential receptors, potential chemicals of concern, and the site conceptual model. | Response deferred to risk assessor forum. |
| 11 | Page 9-9 Table 9-1; All future sampling should include pH and soluble lead because of the list of potential contaminants. | Response deferred to risk assessor forum. |
| 12 | Page 9-20-21; It appears that there may not be enough data to determine if there is a net loss or a net gain of sediment transport in the West Basin. We recommend that the NAVY collect more data to evaluate sediment transport. | Response deferred to risk assessor forum. |
| 13 | Page 10-27; First bullet; What is the bioaccumulation model suggested? The Navy should provide the proposed model. | Response deferred to risk assessor forum. |
| 14 | Page 10-28; We suggest performing an extensive literature search to find references for concentrations of contaminants that result in adverse ecological effects. | Response deferred to risk assessor forum. |
| 15 | Page 10-28; A statistical comparison of the results of Site 7 and reference location should be conducted. | Response deferred to risk assessor forum. |
| 16 | Page 10-29; We would recommend measuring the water column concentrations directly for comparison to water quality criteria. See comment 5. | Response deferred to risk assessor forum. |
| 17 | Page 10-30; The use of fish from dry dock operations should not be the only source of information for assessing the site wide impacts to predators of fish. | The Fish Sampling and Analysis Plan submitted by Bechtel specifies that fish will be caught around mole area with hook and line. |
| 18 | As a part of the proposed sampling effort for both the facility wide and site specific investigations, the collection of designated surface soil samples and the possible collection of additional surface soil samples is discussed in the SAP. The decision to collect additional samples will depend on whether "surface soil samples indicate that remediation may be necessary." It is recommended that the criteria that will be used to determine whether the collection of additional samples is necessary be provided. | No ARARs have been identified for soils. Screening criteria for soils are listed in Table 2-2 of the RI/FS Work Plan. Additional soil samples will be collected when soils concentrations exceed screening criteria. |
| 19 | The CRQLs specified in Table 4-6 of the SAP and in Section 1.18.3 of the OAPP for several volatile organic target analytes in water are somewhat optimistic and should be reevaluated. CRQLs of 1.0 µg/L are indicated for all volatile organic target analytes. Although the detection of most of these compounds at a concentration of 1.0 µg/L is reasonable, the detection of ketones including acetone, 2-butanone, 4-methyl-2-pentanone, and 2-hexanone, at this level will be difficult. It is recommended that the CRQLs for ketones be raised to 5 µg/L. If the quantification of ketones at a concentration of 1.0 µg/L is essential for the proposed investigation, it is recommended that an alternative analytical procedure be selected by which these limits can be achieved. | With DTSC approval, detection limits for ketones will be raised to 5µ/L. |

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| 20 | It is recommended that a nitric acid rinse be included as part of the equipment decontamination procedure outlined in Section 6.7.2 and 6.7.5. Regional guidance recommends rinsing sampling equipment with nitric acid when cross contamination of metals is a concern. | Nitric acid will be included in the decontamination procedures whenever sampling for metals is conducted. |
| 21 | Analysis of Carbonate, Bicarbonate, and Total Alkalinity in Water should be conducted by Standard Method 2320, rather than Method 403 as specified in the QAPP. Method 2320 is the updated version of Method 403 in "Standard Methods for the Examination of Water and Wastewater," 18th Edition. | The current Method, 2320, will be used. |

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