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LETTER AND U S NAVY RESPONSE TO VIRGINIA DEPARTMENT OF ENVIRONMENTAL
QUALITY COMMENTS REGARDING DRAFT BENTHIC INVERTEBRATE SAMPLING WORK
PLAN AND SAMPLING AND ANALYSIS PLAN SOLID WASTE MANAGEMENT UNITS 3 AND
7B JEB LITTLE CREEK VA
10/19/2010
CH2M HILL



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October 19, 2010

Mr. Paul E. Herman, P.E.
Remedial Project Manager
Virginia Department of Environmental Quality
629 East Main Street, 4th Floor
Richmond, VA 23219

Subject: Response to Comments, *Draft SWMU 3 and 7b Benthic Invertebrate Sampling Work Plan and Sampling and Analysis Plan* at Joint Expeditionary Base Little Creek-Fort Story, Naval Amphibious Base Little Creek, Virginia Beach, Virginia.

Dear Mr. Herman:

On behalf of the Navy, CH2M HILL has prepared the following responses to comments received from VDEQ on the *Draft SWMU 3 and 7b Benthic Invertebrate Sampling Work Plan and Sampling and Analysis Plan* at Joint Expeditionary Base Little Creek-Fort Story, Naval Amphibious Base Little Creek, Virginia Beach, Virginia.

1. Executive Summary: Mercury is identified as a secondary COC at SWMU 3 and a primary COC at SWMU 7b. The CERCLA release at each site was tied to former sandblasting activities. Mercury was used in marine paint as an anti-fouling agent. While we were unable to correlate the mercury concentrations with the ABM in the SWMU 3 RI, it's presence in the sediment around the harbor could be associated with the CERCLA release. And, since we are associating the mercury found at SWMU 7b with a CERCLA release it should be considered CERCLA related at SWMU 3 and should be considered a primary COC. Appropriate language could be developed via a conference call or during the next partnering meeting.

The 2 paragraphs at the end of the Executive Summary should be placed under appropriate headings such as "Objectives" and "Content".

Response: The SWMU 3 descriptions contained in the Executive Summary and Worksheet 10-1 have been updated to reflect mercury as potentially being related to marina paints and historic sandblasting activities. Reference to "primary" and "secondary" COCs at SWMU 3 has been removed.

"Project Objectives" and "Report Contents" headers were added prior to the 3rd to last and last paragraphs in the Executive Summary.

2. Worksheet 9-1, Overview: In the 4th sentence, please add an "h" to "tropic".

Response: An additional scoping session was added as Worksheet 9-1 and the original Worksheet 9-1 was subsequently renamed Worksheet 9-2 (see response to comment #3 below). Revision was made as requested and is located on Worksheet 9-2.

3. Worksheet 9-2, Overview: In the 2nd paragraph, please consider revising the opening of the 3rd sentence as follows: "*If necessary, AVS/SEM samples will be collected...*". Also, please correct the headings on subsequent Worksheet 9-2's as they currently read 9-1. The "Date of Session" provided for Worksheet 9-1 and 9-2 is the same, is this correct? Also, is a Worksheet 9-3 needed to account for the April 2010 conference call project scoping session discussed in Worksheet 10-1, Project Objectives?

Response: Third sentence of the 2nd paragraph was revised as requested. The dates of the scoping sessions documented in draft Worksheets 9-1 and 9-2 are correct, separate scoping sessions for each site were conducted. Worksheets 9-1 and 9-2 were incorrectly referenced in Worksheet 10-1, Project Objectives. A new scoping session Worksheet (new Worksheet 9-1) was added to document the April 2010 conference call. Subsequent scoping sessions were re-numbered (new Worksheets 9-2 and 9-3) and Worksheet headers were revised accordingly. Subsequent Partnering Team calls conducted August 17, 24, and 30, 2010 were added as Worksheets 9-4, Worksheets 9-5, and Worksheets 9-6, respectively.

4. Worksheet 10-1, Site Description and History: In the 2nd paragraph, please revise the 4th sentence as follows: "In 1993, a catch basin *connected to a VPDES-permitted* outfall was constructed." In the 4th sentence please delete the word "water" and replace the word "at" with the word "via". In the 6th paragraph, please delete the parenthetical expression "(which are likely to have other contributing sources)" found in the 3rd sentence. Regarding the 3rd environmental question answered by this project, was the action item in Worksheet 9-2 resolved? What was the resolution? Should be discussed in the response to this question?

Response: The 4th sentence of the 2nd paragraph was revised as requested. The 5th sentence of the 2nd paragraph was revised as requested. The 3rd sentence of the 6th paragraph was revised as requested.

During the 2002 RI sampling within Little Creek, ABM was observed in 3 of 10 samples collected. Additionally, sandblasting activities and were observed within the private marina located adjacent to the base, with ABM visible on the ground surface. Therefore, with regards to the action item in Worksheet 9-2 (new Worksheet 9-3), it was determined that Little Creek would not be a suitable reference sample location. Per subsequent Team discussion, reference area sampling was removed from the sampling design (Worksheet 9-5 and 9-6). A reference to these worksheets was added to the action item in Worksheet 9-2 (new Worksheet 9-3). Additionally, Figure 5 and discussion regarding reference area sampling (Worksheets 10-1, 10-2, 11, 12-2, 15-3, 17, 18, and 20) was removed from the UFP-SAP. All subsequent figures were re-numbered accordingly.

5. Worksheet 10-2, Site Description and History: Please add labels for CB-318 and Building 3869 to Figure 7. In the 2nd paragraph, 2nd sentence, please insert the word "stormwater" prior to the word "outfalls". Are these outfalls permitted and sampled? If so or if not, please state this here. In the 3rd paragraph, please add the phrase "between the knee wall and the sheet pile" to the end of the 4th sentence. The end of the 4th paragraph needs more

text providing the basis to risk manage the identified contaminants. Regarding the 3rd environmental question answered by this project, was the action item in Worksheet 9-2 resolved? What was the resolution? Should be discussed in the response to this question?

Response: Figure 7 was updated as requested. The 2nd sentence of the 2nd paragraph was revised as requested. Outfall 007 is permitted and sampled. The 2nd sentence of the 2nd paragraph was revised to read: "Precipitation runs off to Desert Cove and the Connector Channel or is discharged through one VPDES-permitted (Outfall 007) and eighteen non-permitted stormwater outfalls, with very little infiltration to groundwater". Additionally, the 5th sentence was moved to follow the 2nd sentence and revised to read: "All drainage to the cove and channel is from on-base areas, consisting mainly of buildings and asphalt parking areas." The 4th sentence of the 3rd paragraph was revised as requested. Risk management rationale was added to the end of the 4th paragraph. See the response to Comment 4 in regards to the action item on Worksheet 9-2.

6. Worksheet 11-1: In the response to Question 1, please insert the term "indicator parameters" following the term "surface water quality" in the SWMU 3 and 7b responses. In the 1st sentence of the response to Question 3, it appears there are 2 sentences merged into 1. Please edit.

Response: First suggested revision was made as requested. Additionally, a check of the entire document was completed to ensure consistent use of "indicator parameter" throughout. Second suggested revision was intended for Question 5. The first paragraph was revised to read: "Metals data will be used, in conjunction with benthic invertebrate and ABM data, to evaluate ecological risk at the sites and make further investigation and/or action decisions. Therefore, metals data will be distributed to a third-party validator for data quality evaluation purposes and benthic invertebrate data will be evaluated by the Senior Ecological Risk Assessor for usability. An USEPA Contract Laboratory Program (CLP) Level IV equivalent package and QC samples are required for all metals data. TOC, pH, and grain size data will be evaluated by the project chemist for usability. QC data requirements are detailed in Worksheet #20. Data that meet these requirements will be considered of sufficient quality for environmental decision-making."

7. Worksheets 15-1, 15-2, and 15-3: Why are the PQLs listed in 15-2 and 15-3 different than those listed in 15-1 for the same chemicals?

Response: PQLs on Worksheet 5-1 were incidentally rounded to the nearest whole digit. PQLs have been revised to be equal to ½ the PALs.

If you have any questions concerning these responses to comments, please feel free to contact me at (757) 671-6266.

Sincerely,



Cecilia Landin,
Project Manager

cc: Mr. Bryan Peed/ NAVFAC Mid Atlantic
Mr. Jeffrey Boylan/ USEPA
Administrative Record File