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September 24, 2010

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

Subject: Naval Amphibious Base (NAB) Little Creek
Draft Site Management Plan Fiscal Years 2011 through 2015
NAB 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 Site Management Plan Fiscal Years 2011 through 2015,* NAB Little Creek, Virginia Beach, Virginia:

1. Section 2.4.1 New SWMU 3: Somewhere in the 6th or 7th paragraphs please add some text discussing the decision to not carry the ecological risk assessment past Step 3A? The last paragraphs need to include some discussion of the removal action to be conducted as part of the MILCON dredge.

   Response: The 7th paragraph was revised to state the following, "Surface and subsurface sediment samples were collected in Little Creek Harbor along transects using ponar and vibracore technologies to delineate the extent of ABM in sediment. Samples were visually examined for ABM content and analyzed for ecological COCs (copper, lead, mercury, nickel, tin, and zinc) identified in the 2002 ERA. With the exception of the northern boundary and the marina to the south, the lateral and vertical extent of ABM in sediment was defined. As a part of SRI activities, additional surface sediment samples were collected in July 2007 from Little Creek Cove for use as urban background values. Results of the ERA concluded ABM was significantly correlated with the metals COCs in surface sediments and is a good indicator of site influence for defining the spatial extent of contamination, and of unacceptable ecological risks. The Tier I Partnering Team agreed toxilogical testing was not warranted at the site and sediment preliminary remediation goals (PRGs) would be developed using risk-based standards, taking percent ABM and urban background values into account."

   Dredging of SWMU 3 is no longer scheduled to be completed in conjunction with the MILCON dredging action. The last paragraph and Table 2-9 was revised to reflect recent team decisions to proceed with benthic invertebrate evaluation, EE/CA, NTCRA, and FS. Additionally, the last paragraph in Section 2.4.1, New SWMU 7, and Table 2-10 were revised to reflect the completion of the benthic invertebrate evaluation.

2. Section 2.4.3, Site 11, page 2-23: In 4th paragraph, please revise the 2nd sentence by inserting the phrase "detected in groundwater" after the acronym "VOCs".

Response: The text was revised to state the following, "There were two chlorinated VOCs detected in groundwater that exceeded USEPA Region III tap water RBCs: 1,1-DCE and TCE."

3. Section 2.4.3, Site 11, page 2-24: In the 4th paragraph please add some text discussing the importance of the positive pressure condition measured inside Building 3602. In the last paragraph, please move the term "enhanced reductive dechlorination (ERD)" to the previous sentence and use the acronym afterward. Please include re-evaluation of the vapor intrusion pathway in the list of activities planned for Site 11 over the next 5 years.

   Response: Following the 3rd sentence, the 4th paragraph was revised to state the following, "Additionally, a building inspection and pressure testing was completed within Building 3602. Based on this effort, it was concluded Building 3606 was positively pressurized, reducing the potential for a driving force for vapor intrusion, and there were limited pathways for vapor intrusion into the building. Additionally, there were no VOCs detected in six of the eight shallow groundwater samples."

   The definition of the acronym ERD was added to the 3rd sentence and removed from the 4th sentence of the 5th paragraph as recommended. Re-evaluation of vapor intrusion pathway was included in the planned activities for Site 11.

4. Section 2.4.3, Site 12, page 2-26: The opening paragraph refers the reader to Figure 2-8. The paragraphs that follow use a landmark references such as "3rd Street" and "4th Street" which are not shown on the figure. Please correct.

   Response: As stated in the 1st sentence of the 1st paragraph, Former 3rd Street is the current Amphibious Drive referenced on Figure 2-8. The figure was updated to include all street names. Additionally, the last sentence of 3rd paragraph was updated to reference the "former" intersection of 4th and B Streets.

5. Section 2.4.3, Site 12, page 2-28: Please revise the 3rd paragraph to include the date the final IRACR was signed.

   Response: The text was revised to indicate the date the final IRACR was signed.

6. Section 2.4.3, Site 13, page 2-31: In the 3rd paragraph please include a brief description of the type of vapor intrusion assessment conducted in the buildings at Site 13.Please add the re-evaluation of vapor intrusion to the 5 year schedule for the site.

   Response: The vapor intrusion discussion was revised to state the following, "To investigate potential vapor intrusion of VOCs from groundwater into Buildings 3165, 3165B, 3165D, 3165E, and Former Building 3660, groundwater samples from the top of the water table aquifer were collected in September–October 2006 for VOC analysis. Additionally, building inspections and pressure testing was completed. Based on this effort, it was concluded there is only limited potential for vapor intrusion to Building 3165; however the occupied portion of the building is neutral to positively pressurized, reducing the potential for a driving force for vapor intrusion. VOCs were detected in three of five shallow groundwater samples; however concentrations were below risk screening levels. The vapor intrusion assessment indicated that even if conditions promote vapor intrusion, concentrations of VOCs in groundwater would not represent unacceptable human health risks from vapor intrusion inside Building 3165 (CH2M HILL, 2007a)." Re-evaluation of vapor intrusion pathway was included in the planned activities for Site 13.

7. Section 2.4.4, Response Complete-Site Screening and Investigation Process: Figure 2-10 does not show AOC D. Please correct.

   Response: The figure was revised to show AOC D.

8. Section 2.4.4, SWMU 8: Please consider revising 4th, 5th, and 6th sentences of the opening paragraph as follows, "As boats were *sandblasted in the area, sandblast* residue accumulated on the ground. Between 1949 and 1954, spent sandblasting residue was *removed from the area and* stored in *separate* areas north of Midway Road, south of Guadalcanal Road, and east of Amphibious Drive. An estimated 5,125 yd3 of residue was generated and stored in *these areas* between 1949 and 1954, and an additional 3,525 yd3 were generated between 1954 and 1971."

   Response: The text was revised as recommended.

9. Table 2-1: For Site 11a, please note in comment column the ISCO was done as a pilot/treatability study. For the SWMU 7 entry, please correct the format/size of the comment column as the last line is not legible.

   Response: The table was revised as recommended.

10. Table 2-2: Please change the site closeout entry for Site 12 to Final IRACR.

    Response: The table was revised to reflect the final IRACR date of May 2010.

If you have any questions concerning any of these comments, please call me at (757) 671-6213.

Sincerely,

for

Adina Carver
Project Manager

cc: Mr. Bryan Peed/NAVFAC Mid Atlantic
Mr. Jeffrey Boylan/USEPA Region III
Ms. Cecilia Landin/CH2M HILL
Ms. Bonnie Capito/NAVFAC Mid-Atlantic