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April 11, 2007

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 Master Project Plans Volume I and II*, Naval Amphibious Base Little Creek, Virginia Beach, Virginia

Dear Mr. Herman:

On behalf of the Navy, CH2M HILL has prepared the following response to comments received from VDEQ on the, *Draft Master Project Plans Volume I and II*, Naval Amphibious Base Little Creek, Virginia Beach, Virginia:

Volume I

1. Signature page: Please include a signature line for EPA

Response: The signature page was amended as requested.

2. Section 2.2.1: The 2nd paragraph states Little Creek Reservoir/Lake Smith are located north of the base. The Chesapeake Bay is north of the base.

Response: The 4th sentence of the 2nd paragraph was amended to read: "Little Creek Reservoir/Lake Smith, located south of the base, serves as a secondary drinking-water supply for parts of the City of Norfolk." In addition, Figures 2-3 and 2-4 were amended to reflect the location of Lake Smith.

3. Section 2.2.4: Please indicate the direction of groundwater flow in this section using a statement similar to, "Flow in the Columbia Aquifer is expected to be controlled by nearby surface water features while the flow in the Upper Yorktown Aquifer may be more northerly toward the bay."

Response: A sentence was added to the end of the 4th paragraph that reads: "Local groundwater flow in the Columbia Aquifer is expected to be controlled by nearby surface water features while flow in the upper Yorktown Aquifer may be more northerly towards the Chesapeake Bay."

4. Section 2.3: Please rewrite the 2nd to the last sentence of the last paragraph as follows, "Upon VDEQ concurrence with the selected remedy for the site the Navy and EPA jointly sign the ROD."

Response: The sentence was amended as requested.

5. Section 2.3.1: Refrain from specifying the SMP in the last sentence of the opening paragraph as the document is updated annually which may make this statement obsolete next year. Rather, replace the year specific reference with the "annually updated SMP."

Response: The last sentence of the 1st paragraph was amended to read: "A summary of this information is presented in the annually updated Site Management Plan (SMP)."

6. Section 2.4.4: Please include a subsection for "Site Investigations" as they are referenced in the opening paragraph. To the end of the opening sentence of the "Remedial Investigation" subsection please add "sediment and surface water"

Response: A Site Investigation subsection was added that reads: "If it is unclear as to whether a site should be included in the CERCLA RI/FS process, a site investigation (SI) may be conducted to make a general determination if activities at the site have impacted environmental media. The SI may include the installation of monitoring wells, completion of bore logs, collection of soil, groundwater, sediment and/or surface water samples, laboratory analysis, and generation of site maps in order to determine if a CERCLA release has occurred. The data collected in the SI will be used to determine future response actions."

In addition, the 1st sentence of the remedial investigation discussion was amended to read: "RI reports will include, as appropriate, site maps with sampling locations, boring logs, cross sections, validated analytical data, and figures that depict the extent of soil, groundwater, sediment and/or surface water contamination."

7. Section 3.2.11: When conducting surveys for tidal wetland mitigation/replacement/reestablishment, the local wetland mitigation body should be consulted concerning the proper datum to be used. Typically, wetland designers use the Nation Ocean Survey (NOS) tidal datum rather than the National Geodetic Vertical Datum.

Response: Comment noted. Wetland surveying is site specific, thus the local wetland mitigation governing body will be contacted prior to surveying and site specific datum will be used as directed.

8. General Comment: The term "Navy/regulators" is used a number of times in the document. Please replace "regulators" with "EPA and VDEQ" or define "regulators" as an abbreviation or in a glossary.

Response: The term "regulators" has been replaced with "EPA and VDEQ" throughout the document.

9. Section 3.2.12, Liquid IDW, Step 3: Please replace the language in this step with a copy of the 2nd paragraph of this subsection.

Response: Step 3 was amended as requested.

10. Section 3.2.13: Please specify heavy equipment includes backhoes, dump trucks, graders etc.

Response: The 1st sentence of 3rd paragraph of Section 3.2.13 was amended to read:
"All heavy equipment, including backhoes, dump trucks, graders, drilling rigs, rods and augers, and other downhole equipment used during site investigation activities will be decontaminated before use and between locations using a high-pressure steam wash at a decontamination pad located on or near the site."

11. Appendix B, Table B-1: Please provide the meaning of the asterisk used in the table.

Response: Table B-1 was amended to note that the asterisk denotes "Revised UTL (Background Groundwater Addendum Summer 2002)."

12. Appendix C, Tables C-2 and C-4: Please add the Virginia Water Quality Management Planning Regulation (9 VAC 25-720) as it is a location specific and chemical specific ARAR.

Response: The Virginia Water Quality Management Planning Regulation (9 VAC 25-720) was added to Tables C-2 and C-4.

Volume II

13. SOPs- Decontamination. IV.F: The section specifies decontamination upon arrival. Please add "prior to departure from the site the heavy equipment will be decontaminated to ensure contaminants are not transported off site."

Response: The 1st sentence of the 1st paragraph of Section F was amended to read: "All heavy equipment, including backhoes, dump trucks, graders, drilling rigs, rods and augers, and other downhole equipment will be decontaminated upon arrival at the site, between locations, and prior to departure to ensure contaminants are not transported off site."

14. SOPs- Ecology, VI: Attachment I could not be located. Please correct.

Response: Attachment I was added to SOP.

15. SOPs- Geophysical V.A.: No figures were provided. Please correct.

Response: Figures were added to Geophysical SOPs.

16. SOPs- Hydrogeology, III.B: Is the upper Patapsco Unit an appropriate hydrogeologic feature for the Tidewater Virginia? Please explain. Also, please define Talbot. It

appears to be a specific type of Piezometer but that does not become clear until after the term is used.

Response: This SOP was removed from MPPs as it is not relevant to work being conducted at NAB Little Creek. If cone penetrometer testing is used in the future the SOP will be amended and provided in the project specific work plan.

17. SOPs -Other- Streamflow Measurements: There are 2 B's under part III and no figures provided. Please correct. For Part B. Taking Measurements, the gradations on the special rod mentioned in the opening paragraph are not in centimeters but in tenths of a foot. Headphones are typically connected to the wading rod which connects to the meter and each rotation of the cups generates a click in the headphones that are counted by the operator. In the third paragraph note the tape or marked cable is set perpendicular to the direction of flow. When pointing the meter upstream, the cups should point upstream and the fins downstream.

Response: The subsection lettering was amended and all figures were added to the SOP. The 3rd and 4th sentences of the 1st paragraph of Section B were amended to read: "The meter is attached to a graduated rod and the depth at which the meter is placed in the stream is noted. The rate at which the impeller rotates is counted over a specified period of time, either by monitoring the number of audible clicks produced in a headphone unit attached to the meter or noting the number of rotations recorded by an electronic counter." The 1st sentence of the 3rd paragraph of Section B was amended to read: "The tape or marked cable is stretched perpendicular to the direction of flow across the stream channel and anchored securely at each end." In addition, the 1st and 2nd sentences of the 4th paragraph of Section B were amended to read: "Set the rod firmly on the stream bottom with the cups pointing upstream, and hold it vertically at the desired mark on the tape. When taking measurements stand to the side so the flow around your legs does not affect the meter."

If you have any questions concerning these responses to comments, please feel free to contact me at (757) 671-8311 x426.

Sincerely,



Cecilia White,
Project Manager

cc: Mr. Jeffrey Boylan/ USEPA
Mr. Scott Park/ NAVFAC Mid Atlantic
Ms. Jamie Butler/ CH2M HILL