

Responses to Comments
Draft Final (Red-lined) Feasibility Study Report for Site 2
St. Juliens Creek Annex
Chesapeake, Virginia

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**Comments from EPA, provided 19 March 09.
RPM Comments**

1. *Section 2-1, 1st Paragraph.* Additional waste delineation activities may be necessary to reduce the boundary.
Comment: We should revise this to reduce or extend the boundary since extent is unknown at this point.

Response: The requested revision has been made.

2. Section 2.3 Human Health Risk Assessment. The HHRA was conducted to evaluate the potential human health risks associated with current receptors (adult and adolescent trespasser and adult landscaper) and hypothetical future receptors (construction worker, industrial worker, adult resident, child resident, lifetime resident) and exposure scenarios (ingestion, dermal contact, inhalation [showering], inhalation [indoor air]) if no remedial action is implemented for soil, groundwater, sediment, and surface water. A summary of the reasonable maximum exposure (RME)...

Comment: This is not accurate. Inhalation was not evaluated. Additionally please state that inhalation was not evaluated in Section 3.2.1 as evaluation of this pathway could result increased risk.

Response: Inhalation was evaluated in Expanded Remedial Investigation Human Health Risk Assessment, so the referenced statement is not inaccurate. To address the EPA concern, the text has been clarified as follows: *Due to the uncertainties associated with quantifying the risks associated with the inhalation [indoor air] future pathway; such as uncertainties with future building size, air exchange systems, and foundations; risks associated with this pathway were not quantitatively evaluated in the risk assessment. Based on the elevated contaminant concentrations detected in the shallow groundwater, it is assumed that vapor intrusion from the shallow*

groundwater into indoor air would pose unacceptable risks to future receptors. A summary of the reasonable maximum exposure (RME) and central tendency exposure (CTE) risk estimates from the quantitative risk assessment is provided in Tables 2-2 and 2-3, respectively.

3. Section 3.2. The waste area is estimated to cover approximately 3.9 acres (Figure 3-1); however, additional waste delineation activities to refine the area may be performed in association with the remedial design. 4 And Section.2.1. Cover Over Waste, Soil, and Sediment. The proposed cover would extend over the waste area with the exception of the portion that is currently covered by the existing asphalt parking lot. The area of the cover is estimated at 3.4 acres, as shown on Figure 4-2, and may be refined as described in Section 3.2.2.

Comment: Since every alternative evaluated results in a soil cover at site 2 I'm curious to why we would use the word may here. Since the extent has not been fully defined during the RI activities, it seems that it would be necessary (use the word will maybe) to determine the extent of the waste prior to adding to soil cover (since we are adding the soil cover to address the waste).

Response: The current waste boundary extends beyond disposal areas identified during the review of historic aerial photographs and is therefore believed to be conservative. Potential delineation was added to the FS as a possibility to reduce the boundary and to allow for flexibility in the upcoming decision document (e.g., not provide a "fixed" Remedial Action area extent that would potentially lead to a future Record of Decision [ROD] explanation of significant difference or amendment if actual conditions encountered during the Remedial Action implementation vary). The word "may" was selected to leave the option open based on whether or not it would be more cost-effective to conduct additional investigation or to extend the cover to the conservative boundary. If the Navy determines that it is more cost effective to extend the soil cover to the current waste boundary rather than conducting additional investigation, additional delineation may not be required. The Navy recognizes the EPA's concern that that placing additional fill over the current ground surface could potentially result in inadequate cover if the waste extends beyond the current waste boundary. However, the installation of drainage features (e.g., drainage ditches) would most likely require excavation and would identify waste beyond the boundary without necessarily conducting additional investigation. For example, this situation was encountered on the eastern side of Site 4 and the cover was extended to address the additional area of waste; however, because the ROD indicated a specific cover extent, the team determined that a technical memorandum was required to document the variance from the ROD. Use of the word "may" is therefore preferred to leave flexibility for how the team proceeds toward site closure, and no additional revisions have been made at this time.

4. Page 4-5. Additionally, three deep groundwater monitoring wells outside of the remediation area should be abandoned because the deep groundwater investigation is complete and no further action is required (CH2M HILL, 2008).

Comment: Can we insert depending on the remedy selection? EPA would not be comfortable with not monitoring the deep groundwater if a containment remedy is selected.

Response: Comment noted. The text has been revised as follows: Additionally, *abandonment of three deep groundwater monitoring wells outside of the remediation area are assumed* because the deep groundwater investigation is complete and no further action is required (CH2M HILL, 2008). It is assumed that seven replacement shallow groundwater monitoring wells would be installed after the cover is completed. The *actual number of wells to be abandoned and actual locations and depths of replacement monitoring wells* would be selected based on the monitoring plan that would be developed in association with the remedial design.

5. Page 4-7 Redline words. (*cis-1,2-DCE, VC, ethane, and ethane*)

Comment: Please change one to ethane.

Response: The requested revision has been made.