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TRANSMITTAL LETTER AND U S NAVY RESPONSES TO U S EPA REGION I AND RHODE  
ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT COMMENTS ON THE DRAFT  
FINAL FEASIBILITY STUDY FOR OPERABLE UNIT 5 (OU 5) SITE 19 FORMER DERECKTOR  
SHIPYARD MARINE SEDIMENT NS NEWPORT RI

4/7/2014

TETRA TECH



# TETRA TECH

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April 7, 2014

Project Number 112G02747

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Ms. Pamela Crump  
Office of Waste Management  
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Providence, Rhode Island 02908-5767

REFERENCE: CLEAN Contract No. N62470-08-D-1001  
Contract Task Order No. WE61

SUBJECT: Transmittal of Response to Comments Draft Final FS,  
Site 19: Former Derecktor Shipyard Marine Sediment (OU5)  
Naval Station Newport, Newport RI

Dear Ms. Keckler and Ms. Crump:

On behalf of Mr. Dominic O'Connor, US Navy NAVFAC, I am providing to the response to comments to the Draft Final FS for Site 19 – Former Derecktor Shipyard Marine Sediment at Naval Station Newport which is also known as Operable Unit (OU) 5 for the NETC Superfund Site, Newport Rhode Island. This response summary addresses comments received from U.S. EPA on February 18 2014 and March 24, 2014 and from RIDEM on February 14, 2014.

If you have any questions regarding this material, please do not hesitate to contact me at 978-474-8434.

Very truly yours,

Stephen S. Parker, LSP  
Project Manager

Enclosures

cc: D. Barclift, NAVFAC (1- w/encl.)  
S. Bird, NAVFAC (1- w/encl.)  
G. Glenn, Tetra Tech (w/o encl.)  
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D. O'Connor, NAVFAC (1- w/encl.)  
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D. Ward, NAVSTA (1- w/encl.)  
Administrative Record (c/o RDM Data Manager) (1- w/encl.)  
File 112G02747-8.0 (w/encl.), 3.1 (w/o encl.)

**NAVY RESPONSES TO COMMENTS  
DRAFT FINAL FEASIBILITY STUDY  
FOR SITE 19 – FORMER DERECKTOR SHIPYARD MARINE SEDIMENT  
NAVAL STATION NEWPORT, RHODE ISLAND  
COMMENTS DATED 2/18/14 (EPA) & 2/14/2014 (RIDEM)**

The U.S. Navy (Navy) is pleased to provide the US Environmental Protection Agency (EPA) and Rhode Island Department of Environmental Management (RIDEM) with responses to the February 18, 2014, and February 14, 2014 comments on the Draft Final Feasibility Study (FS) for Site 19 – Derecktor Shipyard Marine Sediment at Naval Station (NAVSTA) Newport in Newport, Rhode Island. Additionally, comments received by electronic mail March 24, 2014 are summarized as well. This response to comments (RTC's) document is organized by both general and specific technical review comments. Regulatory comments are presented first (*italics font*), followed by the Navy's responses.

**PART 1: EPA Comments 2/18/14**

**EPA General Comment 1:** *While the projected SWAC values for Alternative 5 shown in the table on page ES-8 are based on the calculations provided in Appendix D (page 799 of 843), the assumptions used in the calculations related to which grids were dredged do not match the description of Alternative 5 in the FS text. Two grids included in the dredging for Alternative 5 based on the text description are omitted from the calculations. Grids Y-25 and Y-28 are both dredged to two feet based on the FS text description but are not addressed in the calculations. Benzo(a)pyrene concentrations in the 1-2 foot intervals are three to four times greater than the PRG and HMW PAH concentrations in the 1-2 foot interval at both grids are more than double the PRG they were included in Alternative 5 during the October 2013 meeting. Please address this inconsistency in the FS.*

**Navy Response:** The inconsistency mentioned above was the result of an extended discussion during development of SD5. Cells Y-25 and Y-28 are included in the remedy simply due to regulatory request. These cells do not trigger the appropriate criteria to be included in the calculation. To clarify, cells are included in the SWAC calculation for benzo(a)pyrene, PAHs, PCBs, or lead under a couple different circumstances as follows:

- If the cell exceeds for that particular COC in the surface interval; under Alt. 5, where there is no backfill, the new concentration used in the calculation is the new surface concentration after dredging at that cell regardless of concentration (or zero if the new surface concentration is not known in instances where data was not collected).
- If a new surface interval (after dredging) not previously identified as exceeding a PRG now exceeds the PRG, that cell is added to the calculation; this is for instances where dredging occurs due to one COC, but after dredging a different COC exceeds in the new surface.

The reason Y-25 and Y-28 are not needed to achieve SWAC is because there is no original exceedance in the original surface (0 to 1 foot), and were they to be left not dredged, there would be no exceedance in the post-dredge surface as well (as modeled by the SWAC).

Based on the agreements reached on March 19, 2014, cells Y25 and Y28 will be included in Alternative 5, not to reduce SWAC, but at regulatory request.

**EPA General Comment 2:** *The calculations now show that the area-wide residual lead concentration for Alternative 5 will be 190 milligrams per kilogram (mg/kg), which exceeds the PRG of 168 mg/kg. A more favorable outcome can be achieved with less sediment removal by not dredging at BB26 where the benzo(a)pyrene concentrations barely exceed the PRG and not dredging at C29, but instead dredging the top one foot at both AD13 and C21. This change would reduce the area-wide residual lead concentration to 170 mg/kg while dredging 2,300 cubic yards less and without causing any area-wide PRG exceedances for other COCs. Please consider revising Alternative 5.*



**Navy Response:** The dredge pattern for alternative 5 in the Draft Final FS reflects the pattern discussed and agreed to at the meeting 10-23-14. After additional discussions March 5, 6, and 19, the Navy will revise Alternative 5 again to reflect the arrangement provided on revised Figure 4-4 attached. This includes dredging to achieve SWAC below PRGs for all COCs, and addition of Cells Y25, Y-28, and AD13 at regulatory request.

**EPA Specific Comment 1: ES-1**

*Please discuss the asbestos releases into the water from the steam pipes under the pier in the Background section.*

**Navy Response:** An additional paragraph will be added following the final paragraph of page ES-1 as follows: "In addition to the contaminant sources described above, asbestos covered steam lines once located beneath the piers deteriorated, and are known to have released asbestos to the sediment beneath Pier 1, and potentially the sediment beneath Pier 2. Released asbestos is deemed unrecoverable, and remaining asbestos has since been removed from beneath both piers."

**EPA Specific Comment 2: ES-2**

*Please discuss the asbestos releases from the pier in the Conclusions section.*

**Navy Response:** An additional paragraph will be added to the top of page ES-4 as follows: "Because asbestos insulation was found to have been lost to the seafloor from under pier 1, sediment samples collected from beneath Pier 1 during the SSI were analyzed for asbestos and results indicated that at one location (two depth intervals) asbestos is present at concentrations of 2 percent; results from the remaining samples indicated trace or non-detect. It has been determined that risk of exposure to this material in its current location is negligible, but there would be some potential for exposure if sediment containing asbestos is removed and dried, and allowed to become respirable."

**EPA Specific Comment 3: ES-5**

*In the bullets for Alternatives 4 and 5, include "LUCs, and Monitoring."*

**Navy Response:** The requested change will be made.

**EPA Specific Comment 4: ES-6**

*In the Summary of Alternatives, describe the LUCs and monitoring for Alternatives 4 and 5 (both for under the piers and open water areas for Alternative 4 and under the piers for Alternative 5). Also, for Alternatives 2-5 describe that there will be LUCs regarding O&M and any potential removal of pier structures where contamination will be left in place (including asbestos).*

**Navy Response:** LUCs and monitoring will be included for capped areas, including Pier 2. For asbestos, the Navy will prevent exposure to potential asbestos in dredged shipyard sediment through development of documented precautionary measures and safe work practices, and these work practices will be described in LUC documentation (refer to Part 3 of this Response Summary).

Additionally, per the agreement discussed on 2/19/14, a description of LUCs, monitoring, and confirmation sampling will be added to the description of Alternative 4 for backfill areas. These additions will be included "based on regulatory request".

**EPA Specific Comment 5: ES-8**

*Add a table presenting the estimated mass of each contaminant removed for each alternative.*



**Navy Response:** The mass of the sediment removed is provided on page ES-7. The mass of each COC removed under each alternative can be calculated and included in the ROD.

**EPA Specific Comment 6:** p. 1-39, ¶14

*In the asbestos paragraph, remove the fourth and fifth sentences since one of the RAOs is to prevent exposure to asbestos in sediments, which needs to be further discussed in the FS text.*

**Navy Response:** The fourth and fifth sentences of the above reference paragraph will be revised to state the following: "Due to the low concentrations of asbestos reported, the project team determined that there is an extremely low probability of asbestos to pose risk to receptors; further discussion on this determination is provided in Appendix D9, and options for management of this low potential risk are addressed in Section 4.1." Regarding the RAO for asbestos, please refer to the response to comment in Part 3 of this Response Summary.

**EPA Specific Comment 7:** p. 2-6, ¶15

*At the end of the last sentence there is a ")". Is there a missing section of this sentence or should the ")" be removed?*

**Navy Response:** The close parenthesis will be deleted.

**EPA Specific Comment 8:** p. 2-14, §2.4

*The discussion does not represent the conclusions of the team as to the extent of remediation required. The areas requiring remedial action were determined by the amount of contaminated sediment left in place for each alternative and therefore, excavation deeper than the 0-1 foot interval was considered appropriate to complete the list of potential alternatives that addressed the concerns of all team members. In particular, the conclusion of the October 2013 meeting was that Alternative 4 would require LUCs and monitoring for the backfilled areas in open water and therefore Alternative 5 was developed to avoid having to implement LUCs and monitoring in the open water areas. Please revise the FS to include this information that is documented in the October 2013 meeting minutes.*

**Navy Response:** The purpose of this section is to describe the amount of sediment that needs to be addressed to achieve the SWAC<PRGs and hence, the RAOs. The presentation of this information in the Draft Final FS was an attempt to provide some specific numbers while still allowing for different volumes presented in Section 4 of the FS. The Navy will revise this section for better clarification.

The decision to conduct LUCs and monitoring to open water areas under Alternative 4 has been made based on the request by the EPA and DEM. This will be added to the remedy description in section 4, and rationale will be included in section 2.4.

**EPA Specific Comment 9:** p. 2-14, §2.4, ¶14

*Please explain how the minimum area of 340,012 square feet was determined. For example, Alternative 4 addresses 275,229 square feet including the capped areas (less than the minimum) and the volume excavated is 7,098 cubic yards, not 12,593 cubic yards.*

**Navy Response:** Please see response to comment 8. The volumes and square footages will be checked and revised as appropriate.

**EPA Specific Comment 10a:** p. 3-7, §3.3.2.1

*In the second paragraph, change the last sentence to: "If the cove is no longer used by the Navy, enforceable use restrictions will be developed with federal/state authorities to prevent disturbance to areas with contaminated sediments left in place."*



**Navy Response:** The above referenced sentence will be changed to the following text: "In addition, if the Navy property is ever transferred out of federal control and restrictions for Coddington Cove are deemed necessary to the continued viability of the remedy at that time, the Navy will as part of the transfer process coordinate with federal and state authorities to determine what use restrictions can be imposed on the cove, which is state-owned, to prevent disturbance to areas with contaminated sediments managed under cover. Although the Navy may transfer the procedural LUC responsibilities to another party by contract, property transfer agreement, or through other means, the Navy will retain ultimate responsibility for remedy integrity. LUCs will be maintained until the concentrations of hazardous substances in the sediment are at such levels to allow for unlimited use and unrestricted exposure."

**Comment 10b** *In addition, this section should describe that there will be LUCs regarding O&M and for any potential removal of pier structures where contamination will be left in place (including asbestos).*

**Navy Response:** To address the potential for a future risk from exposure to asbestos in the marine sediments during the implementation of the proposed remedy and future dredging of Site 19, the Navy will prevent exposure to potential asbestos in dredged shipyard sediment through development of documented precautionary measures and safe work practices, which will be described in the LUC documentation. This approach will be reflected in the cited section.

**EPA Specific Comment 10c:** *p. 3-11, §3.3.3.1 Thin-layer cover is an Enhanced Natural Recovery technology, not Containment.*

**Navy Response:** Section 3 will be updated to include a "Section 3.3.3 Enhanced Natural Recovery" that will include a description of Thin Layer Cover. All other sections will be shifted backwards by one number to accommodate for the change.

**EPA Specific Comment 10d** *Regarding the last paragraph, it is unclear why the technology is retained since there are stated protectiveness issues with the alternative's ability to withstand storm events and protect deep burrowing aquatic creatures.*

**Navy Response:** As has been stated on multiple occasions, thin layer cover is retained because in the event that the Navy is able to show that Derecktor shipyard is a depositional environment, and that that deposition is occurring at a rate accelerated enough to provide protection to human health and the environment it would be acceptable. No changes will be made based on this comment, thin layer cover will remain in the FS.

**EPA Specific Comment 11:** *p. 3-12, §3.3.3.2*

*In the Implementability bullet, describe how the native subaquatic habitat will be restored on the new fill substrate, once established.*

**Navy Response:** A sentence will be added to this paragraph that states the following: "After cap placement, native subaquatic habitat restoration is expected to occur under natural processes."

**EPA Specific Comment 12:** *p. 3-22, 1<sup>st</sup> bullet*

*Describe implementability issues if the sediment needs to be disposed as asbestos contaminated material.*

**Navy Response:** A new fourth sentence will be inserted that states the following: "Although it is not anticipated, in the event that material to be disposed of is classified as asbestos-containing material, adjustments to the location for landfill disposal will be made as required."



**EPA Specific Comment 13:** p. 3-24, ¶2

*At the end of the last sentence, add: "or a POTW."*

**Navy Response:** Requested revision will be made.

**EPA Specific Comment 14:** p. 3-25, §3.3.6

*Is treatment needed to address potential asbestos in the sediment from under the piers before off-site disposal?*

**Navy Response:** If asbestos is detected in dredge spoils it will not require treatment in addition to the treatment performed for other COCs. No changes will be made based on this comment.

**EPA Specific Comment 15:** p. 3-26, §3.3.7

*In the Table, Thin-Layer Cover should be an Enhanced Natural Recovery technology, not Containment.*

**Navy Response:** The suggested change will be made. See response to Comment 10d.

**EPA Specific Comment 16:** p. 3-27, Table

*For the Representative Process Option text under Treatment, add at end of the text: "to surface waters or a POTW."*

**Navy Response:** Suggested revision will be made.

**EPA Specific Comment 17:** p. 3-29, 4<sup>th</sup> bullet

*The description of Alternative 4 is not consistent with the description agreed to in the October 2013 meeting. Alternative 4 requires LUCs and monitoring of the open water backfilled areas. In addition, confirmation sampling is required to document whether the remedial action has been effective and is consistent with EPA's and the Army Corps of Engineer's guidance for sediment remediation.*

**Navy Response:** Per the agreement discussed on 2/19/14, a description of LUCs, monitoring, and confirmation sampling will be added to the description of Alternative 4 for backfill areas. These additions will be included "based on regulatory request".

**EPA Specific Comment 18:** p. 3-29, 4<sup>th</sup> & 5<sup>th</sup> bul.

*In the last sentences of each bullet, replace "Pier 2 only" with "Piers 1 and 2" because of the restrictions required for asbestos.*

**Navy Response:** Alternative descriptions will be updated to include precautionary measures and safe work practices for asbestos per the response to comment 10b, above.

**EPA Specific Comment 19:** p. 4-1, §4.0

*Throughout this section, the descriptions of Alternatives 2-5 should state that there will be LUCs regarding O&M and any potential removal of pier structures where contamination will be left in place (including asbestos).*

**Navy Response:** Under pier areas (that are not capped) are addressed by the SWAC-based clean-up, and do not merit a LUC. Alternative descriptions will be updated to include precautionary measures and safe work practices for asbestos per the response to comment 10b, above.



*Throughout this section, the descriptions of Alternatives 2-5 should explain how the natural restoration of native subaquatic habitat will be monitored on the new cover substrate, once established, or where the existing sediment is excavated without installing a cover.*

**Navy Response:** Natural restoration of action areas is assumed and will not be monitored. This will be clarified where appropriate throughout sections 4.1.X with text similar to the following: "After [remedy implementation], native subaquatic habitat restoration is expected to occur under natural processes."

**EPA Specific Comment 20:** p. 4-1, §4.0, ¶15

*The description of Alternative 4 is not consistent with the description agreed to in the October 2013 meeting. Alternative 4 requires LUCs and monitoring of the open water backfilled areas. In addition, confirmation sampling is required to document whether the remedial action has been effective and is consistent with EPA's and the Army Corps if Engineer's guidance for sediment remediation.*

**Navy Response:** Per the agreement discussed on 2/19/14, a description of LUCs, monitoring, and confirmation sampling will be added to the description of Alternative 4 for backfill areas. These additions will be included "based on regulatory request".

*Upon removal of either Pier 1 or 2, or construction that disturbs any sediment, all areas under and around the piers would need samples to determine the magnitude and extent of recontamination to evaluate the need for further remedial action. Please edit accordingly.*

**Navy Response:** Under pier areas (that are not capped) are addressed by the SWAC-based clean-up, and do not merit a second LUC that would require additional sampling. One LUC will prevent damage to the cover area under pier 2. Alternative descriptions will be updated to include precautionary measures and safe work practices for asbestos per the response to comment 10b, above.

**EPA Specific Comment 21:** p. 4-2, ¶2

*In the fourth bullet, LUCs need to be applied under Pier 1 where asbestos may be present. In the sixth bullet, five-year reviews also have to include the area of Pier 1, where asbestos may be present and LUCs will be in place.*

**Navy Response:** Alternative descriptions will be updated to include precautionary measures and safe work practices for asbestos per the response to comment 10b, above.

**EPA Specific Comment 22:** p. 4-2, §4.2, ¶1

*Add at the end of the paragraph: "In addition, risk management measures are incorporated into Alternatives 2-5 to address asbestos that may be present in sediment and could pose a risk under circumstances where the sediment is allowed to dry (in particular under Piers 1 and 2)"*

**Navy Response:** The cited section is actually Section 4.1, page 4-2. The suggested revision will be made.

**EPA Specific Comment 23:** p. 4-7, ¶2

*Add at the end of the paragraph: "If the cove is no longer used by the Navy, enforceable use restrictions will be developed with federal/state authorities to prevent disturbance to areas with contaminated sediments left in place. There will be, at a minimum, annual compliance monitoring of the LUCs."*

**Navy Response:** See response to Comment 10. The text proposed in the response to Comment 10 will be included in this section.



**EPA Specific Comment 24:** p. 4-9, ¶2

*In the fourth sentence, change “Inspections” to “At least annual inspections” and change “also include ensuring” to “ensure.”*

**Navy Response:** “Inspections” will be changed to “At least annual inspections that would be summarized during the 5 year review would...” The phrase “also include ensuring” will be changed to “ensure”.

**EPA Specific Comment 25:** p. 4-11, ¶2

*Add at the end of the paragraph: “If the cove is no longer used by the Navy, enforceable use restrictions will be developed with federal/state authorities to prevent disturbance to areas with contaminated sediments left in place. There will be, at a minimum, annual compliance monitoring of the LUCs.”*

**Navy Response:** See response to Comment 10. The text proposed in the response to Comment 10 will be included in this section.

**EPA Specific Comment 26:** p. 4-12, ¶4

*In the third sentence, change “Inspections” to “At least annual inspections” and change “also include ensuring” to “ensure.”*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 27:** p. 4-13, §4.1.4

*The description of Alternative 4 is not consistent with the description agreed to at the October 2013 meeting. Alternative 4 requires LUCs and monitoring of the open water backfilled areas. In addition, confirmation sampling is required to document whether the remedial action has been effective and is consistent with EPA’s and the Army Corps of Engineer’s guidance for sediment remediation.*

**Navy Response:** Per the agreement discussed on 2/19/14, a description of LUCs, monitoring, and confirmation sampling will be added to the description of Alternative 4 for backfill areas. These additions will be included “based on regulatory request”.

*Upon removal of either Pier 1 or 2, or construction that disturbs any sediment, all areas under and around the piers would need to be sampled to determine the magnitude and extent of recontamination to evaluate the need for further remedial action. Please edit accordingly.*

**Navy Response:** Under pier areas (that are not capped) are addressed by the SWAC-based clean-up, and do not merit a second LUC that would require additional sampling. Alternative descriptions will be updated to include precautionary measures and safe work practices for asbestos per the response to comment 10b, above.

**EPA Specific Comment 28:** p. 4-14, ¶4

*Add at the end of the paragraph: “If the cove is no longer used by the Navy, enforceable use restrictions will be developed with federal/state authorities to prevent disturbance to areas with contaminated sediments left in place. There will be, at a minimum, annual compliance monitoring of the LUCs.”*

**Navy Response:** See response to Comment 10. The text proposed in the response to Comment 10 will be included in this section.



**EPA Specific Comment 29:** p. 4-15, ¶2

*Add a new last sentence: “Sediments will also be tested for asbestos before being transported for disposal.”*

**Navy Response:** This paragraph states that “samples will be collected to verify that the material meets applicable criteria before being transported for landfill disposal.” There is no need to specify that samples will also be analyzed for asbestos, without specifying other testing parameters that will be described in the design documents. Other changes throughout the FS that will be made in response to other comments make it clear to the reader that dredged sediments need to be tested for asbestos. No change will be made to the cited paragraph.

**EPA Specific Comment 30:** p. 4-16, §4.1.4, ¶4

*The first sentence that states that LTM would not extend to areas beyond the cap beneath Pier 2 is not correct and is not what was agreed to in October 2013. The concern with placing a one foot cap over areas with significant concentrations of COCs is that the contaminants could migrate to the surface. Edit the FS to require LTM and LUCs for all backfilled areas as well as for the cap under Pier 2.*

**Navy Response:** Per the agreement discussed on 2/19/14, a description of LUCs, monitoring, and confirmation sampling will be added to the description of Alternative 4 for backfill areas. These additions will be included “based on regulatory request”.

**EPA Specific Comment 31:** p. 4-17, §4.1.5

*LUCs also need to be applied to the area under Pier 1 where asbestos may be present. Five-year reviews shall include the area of Pier 1, where asbestos may be present and LUCs will be in place.*

**Navy Response:** Alternative descriptions will be updated to include precautionary measures and safe work practices for asbestos per the response to comment 10b, above.

**EPA Specific Comment 32:** p. 4-17, §4.1.5, ¶1

*The first sentence highlights an inconsistency between Alternatives 4 and 5. The text states that no LUCs in open water are required for Alternative 5, but the description of Alternative 4 does not state that LUCs are required in open water for that alternative owing to the reliance on backfill rather than dredging to achieve the RAOs. The backfill is susceptible to disturbance that could compromise the integrity of the remedy. Therefore, LUCs and LTM are necessary components of Alternative 4. Please revise the text accordingly.*

**Navy Response:** Per the agreement discussed on 2/19/14, a description of LUCs, monitoring, and confirmation sampling will be added to the description of Alternative 4 for backfill areas. These additions will be included “based on regulatory request” Such actions are not required for SD5.

**EPA Specific Comment 33:** p. 4-18, ¶1

*Regarding the last sentence, LUCs for asbestos would only be needed for the areas under the piers that are not dredged as part of the alternative.*

**Navy Response:** Alternative descriptions will be updated to include precautionary measures and safe work practices for asbestos per the response to comment 10b, above. Per the agreements reached, sediment removed from the site will be tested for asbestos to determine how it should be managed (handled/transported/disposed).



*Insert a new paragraph: "If the cove is no longer used by the Navy, enforceable use restrictions will be developed with federal/state authorities to prevent disturbance to areas with contaminated sediments left in place. There will be, at a minimum, annual compliance monitoring of the LUCs."*

**Navy Response:** See response to Comment 10. The text proposed in the response to Comment 10 will be included in this section.

**EPA Specific Comment 34** p. 4-18, ¶4

*Add a new last sentence: "Sediments will also be tested for asbestos before being transported for disposal."*

**Navy Response:** See response to comment 29. No change will be made to the cited paragraph.

**EPA Specific Comment 35:** p. 4-19, ¶1

*Add at the end of the first sentence: "or a POTW."*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 36:** p. 4-19, §4.1.4, ¶2

*The same rationale used here for confirmation sampling for Alternative 5 is applicable for Alternative 4 except the confirmation sampling would be required after completion of backfilling operations. The same protocol would also be applicable to confirm that the remedial goals have been achieved. Please revise the FS accordingly.*

**Navy Response:** Alternative 4 will be revised per previous comment responses. No revision appears needed for Alternative 5 based on this comment.

**EPA Specific Comment 37:** p. 4-21, ¶2

*In the second sentence, change "Inspections" to "At least annual inspections" and change "also include ensuring" to "ensure."*

**Navy Response:** The suggested revisions will be made.

**EPA Specific Comment 38:** p. 4-28, ¶3

*In the first sentence change "would" to "may" and add at the end of the sentence: "owing to uncertainty concerning the long-term effectiveness of the cover to prevent releases in the event of major disturbances, such as storm events."*

**Navy Response:** The suggested revisions will be made.

**EPA Specific Comment 39:** p. 4-28, ¶4

*Add a new last sentence: "Furthermore, LUCs will require proper management of sediments to prevent exposure to possible asbestos-contaminated sediments and meet RAO requirements."*

**Navy Response:** The suggested revision will be made.



**EPA Specific Comment 40:** p. 4-29, ¶12

*Change the second sentence to: “In the short-term, Alternative 2 will meet the sediment PRGs that are derived in part from federal and state water quality chemical-specific ARARs. However, over the long-term it is unclear if these standards can be maintained if the cover is disturbed by storm events or other factors.”*

**Navy Response:** The following change will be made: “Alternative 2 will initially meet the sediment PRGs that are derived in part from federal and state water quality chemical-specific ARARs. However, over the long-term it is unclear if these standards can be maintained if the cover is disturbed by storm events or other factors. Monitoring requirements specified under this alternative would serve to ensure that these standards are maintained.”

**EPA Specific Comment 41:** p. 4-29, ¶13

*Change the first sentence to: “In the short-term, Alternative 2 would meet all state and federal location-specific ARARs by conducting the activities in accordance with wetlands, coastal resource management, endangered species, fish and wildlife protection, and historic preservation regulations. However, over the long-term it is unclear if these standards can be maintained if the cover is disturbed by storm events or other factors.”*

**Navy Response:** The following change will be made: “Alternative 2 will initially meet all state and federal location-specific ARARs by conducting the activities in accordance with wetlands, coastal resource management, endangered species, fish and wildlife protection, and historic preservation regulations. However, over the long-term it is unclear if these standards can be maintained if the cover is disturbed by storm events or other factors. Monitoring requirements specified under this alternative would serve to ensure that these standards are maintained.”

**EPA Specific Comment 42:** p. 4-29, ¶14

*Change the first sentence to: “In the short-term, Alternative 2 would be conducted in accordance with all identified state and federal action-specific ARARs.*

*Add a third sentence: However, over the long-term it is unclear if these standards would be maintained if the cover is disturbed by storm events or other factors.”*

**Navy Response:** The suggested change would indicate that the action (ENR) may not be compliant later though it would be compliant when implemented. This is not correct since the action is the same later as it is at the outset. The point suggested is that the action may not be protective in the long term, which the Navy has conceded is an uncertainty, but this is not how the action – specific ARARs should be evaluated. No changes are proposed.

**EPA Specific Comment 43:** p. 4-29, ¶15

*Change the fourth sentence: The alternative will meet risk-based standards under TSCA as long as the cover can remain protective in the event of storms or other disturbance.*

**Navy Response:** The purpose of this sentence is to inform the reader that the sediment present is not regulated under TSCA, and therefore even if the remedy was disturbed due to storm activity, TSCA standards would not apply. No changes will be made based on this comment.

*Remove the sixth sentence.*

**Navy Response:** The suggested revision will be made.



**EPA Specific Comment 44:** p. 4-29, ¶6

*Add at the end of the first sentence: “and the cover is not disturbed by storms or other factors.”*

**Navy Response:** The purpose of the thin layer cover is to protect ecological receptors, as the sentence correctly states, human health is protected through access restriction and LUCs. Since the sentence is specific to human health, and not overall risk to receptors the edit suggested above does not seem appropriate.

**EPA Specific Comment 45:** p. 4-30, ¶1

*In the second sentence remove “a minor level of.”*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 46:** p. 4-31, ¶2

*Add at the end of the paragraph: “If the cove is no longer used by the Navy, enforceable use restrictions would need to be developed with federal/state authorities to prevent disturbance to areas with contaminated sediments left in place.”*

**Navy Response:** See response to Comment 10. The text proposed in the response to Comment 10 will be included in this section.

**EPA Specific Comment 47:** p. 4-33, ¶6

*Change the fourth sentence: The alternative will meet risk-based standards under TSCA as long as the cover can remain protective in the event of storms or other disturbance.*

**Navy Response:** See response to Comment 43.

*Remove the sixth sentence.*

**Navy Response:** See response to Comment 43.

**EPA Specific Comment 48:** p. 4-35, ¶3

*Add at the end of the paragraph: “If the cove is no longer used by the Navy, enforceable use restrictions would need to be developed with federal/state authorities to prevent disturbance to areas with contaminated sediments left in place.”*

**Navy Response:** See response to Comment 10. The text proposed in the response to Comment 10 will be included in this section.

**EPA Specific Comment 49:** p. 4-37, §4.3.4

*The description of Alternative 4 is not consistent with the description agreed to at the October 2013 meeting. Alternative 4 requires LUCs and monitoring of the open water backfilled areas. In addition, confirmation sampling is required to document whether the remedial action has been effective and is consistent with EPA’s and the Army Corps of Engineer’s guidance for sediment remediation.*

**Navy Response:** Per the agreement discussed on 2/19/14, a description of LUCs, monitoring, and confirmation sampling will be added to the description of Alternative 4 for backfill areas. These additions will be included “based on regulatory request”.



*Upon removal of either Pier 1 or 2, or construction that disturbs any sediment, all areas under and around the piers would need to be sampled to determine the magnitude and extent of recontamination to evaluate the need for further remedial action. Please edit accordingly.*

**Navy Response:** Under pier areas (that are not capped) are addressed by the SWAC-based clean-up, and do not merit a second LUC that would require additional sampling. Alternative descriptions will be updated to include precautionary measures and safe work practices for asbestos per the response to comment 10b, above.

**EPA Specific Comment 50:** p. 4-37, §4.3.4, ¶2

*Add at the end of the paragraph: "If the cove is no longer used by the Navy, enforceable use restrictions would need to be developed with federal/state authorities to prevent disturbance to areas with contaminated sediments left in place.*

**Navy Response:** See response to Comment 10. The text proposed in the response to Comment 10 will be included in this section.

**EPA Specific Comment 51:** p. 4-37, §4.3.4, ¶5

*See previous comments concerning the need for LTM to apply to excavated/backfilled areas, as well as covered areas.*

**Navy Response:** Per the agreement discussed on 2/19/14, a description of LUCs, monitoring, and confirmation sampling will be added to the description of Alternative 4 for backfill areas. These additions will be included "based on regulatory request".

**EPA Specific Comment 52:** p. 4-37, §4.3.4, ¶6

*Since the sediment throughout the site is silty, it will likely result in significant disturbance of the underlying contaminated sediment and mixing with the backfill. The resulting backfill cover will have less ecological benefit than predicted because of mixing. Therefore, the calculated SWACs overestimate the protectiveness of this alternative.*

**Navy Response:** Confirmation sampling under Alternatives 4 and 5 will determine if RAOs have been achieved. No changes will be made based on this comment.

**EPA Specific Comment 53:** p. 4-38, ¶2

*In the second sentence after "capping" add ", LUCs."*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 54:** p. 4-38, ¶5

*Change the fourth sentence to: The alternative will meet risk-based standards under TSCA as long as the cover and backfill can remain protective in the event of storms or other disturbance.*

**Navy Response:** See response to Comment 43.

*Remove the sixth sentence.*

**Navy Response:** See response to Comment 43.



**EPA Specific Comment 55:** p. 4-38, ¶6

*After “target sediment” add “and establishing LUCs and LTM.”*

**Navy Response:** The statement will be revised as follows: “...target sediment to achieve RAOs. Confirmation sampling, LUCs and monitoring are included at regulatory request to address uncertainty in the success of the remedy.”

**EPA Specific Comment 56:** p. 4-39, ¶3

*In the last sentence, insert “or to a POTW” after “Narragansett Bay.”*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 57:** p. 4-40, ¶4

*In the last sentence, change: “and would have to reach agreement with RIDEM on permitted times to conduct the work” to “and would coordinate with natural resource agencies to minimize disturbance to aquatic species.”*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 58:** p. 4-41, ¶1

*Change “at the capping area beneath Pier 2 would” to “beneath Piers 1 and 2 may.”*

**Navy Response:** With regard to asbestos, please refer to the response to comment dated 3/24/14 provided as Part 3 of this response summary. Given the approach to address asbestos through safe work practices, the LUC language will be reserved for the capped areas under Pier 2 (Alternatives 2, 3, 4, and 5). With regard to other COCs, a LUC reference to any area other than the capped area beneath Pier 2 is incorrect; see response to the second part of Comment 49.

**EPA Specific Comment 59:** p. 4-41, ¶4

*In the last sentence after “capped areas,” insert “and areas under Piers 1 and 2 where asbestos may be present in the sediment.”*

**Navy Response:** Please refer to the response to comment dated 3/24/14 provided as Part 3 of this response summary. Given the approach to address asbestos through safe work practices, the LUC language will be reserved for the capped areas under Pier 2 only.

**EPA Specific Comment 60:** p. 4-42, ¶2

*In the third sentence, add at the end: “except in the areas under Piers 1 and 2 where LUCs will be established and contamination left in place.”*

**Navy Response:** This sentence refers to VWAC in error and will be updated to reflect the current version of Alternative 5. With regard to asbestos, please refer to the response to comment dated 3/24/14 provided as Part 3 of this response summary. Given the approach to address asbestos through safe work practices, the LUC language will be reserved for the capped areas under Pier 2 (Alternatives 2, 3, 4, and 5). With regard to other COCs, a LUC reference to any area other than the capped area beneath Pier 2 is incorrect; see response to the second part of Comment 49.



**EPA Specific Comment 61:** p. 4-42, ¶3

*In the second sentence, change “Long-term maintenance, monitoring, and five-year reviews would be required for capped areas beneath Pier 2...” to “LUCs, long-term maintenance, monitoring and five-year reviews would be required for capped areas beneath Pier 2 and areas under Piers 1 and 2 where asbestos contaminated sediments may be located...”*

**Navy Response:** This sentence will be updated to the following: “LUCs, long-term maintenance, monitoring, and five year reviews would be required for capped areas beneath Pier 2; additionally, potential asbestos will be addressed through safe work practices as noted in the LUC documentation. Five year reviews, monitoring, maintenance, or LUCs would not be required for uncapped areas throughout the site with regards to the four main COCs (benzo(a)pyrene, PAHs, PCBs, and lead) since SWACs are projected to reach levels below PRGs.”

**EPA Specific Comment 62:** p. 4-42, ¶4

*After “permanent removal” add “, LUCs, LTM.”*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 63:** p. 4-43, ¶2

*Insert a new third sentence: “LUC will prevent disturbance of sediments that may contain asbestos located under Piers 1 and 2.”*

**Navy Response:** The first sentence will be updated with the addition of text similar to the following: “... (confirmed with confirmation sampling); additionally, potential asbestos will be addressed through safe work practices as noted in the LUC documentation.”

**EPA Specific Comment 64:** p. 4-43, ¶3

*In the last sentence, insert “or to a POTW” after “Narragansett Bay.”*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 65:** p. 4-44, ¶4

*In the last sentence, change: “and would have to reach agreement with RIDEM on permitted times to conduct the work” to “and would coordinate with natural resource agencies to minimize disturbance to aquatic species.”*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 66:** p. 4-45, ¶2

*Add at the end of the paragraph: “If the cove is no longer used by the Navy, enforceable use restrictions would need to be developed with federal/state authorities to prevent disturbance to areas with contaminated sediments left in place.”*

**Navy Response:** See response to Comment 10a. The text proposed in the response to Comment 10a will be included in this section.



**EPA Specific Comment 67:** p. 4-47, ¶12

*Replace the fifth sentence with: “Dredging and covering operations under Alternatives 2-5 will require consultation with natural resource agencies to minimize disturbance to aquatic species.”*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 68:** p. 4-47, ¶14

*In the first sentence, change “Alternative 3 because it was” to “Alternatives 3 and 4 because they were” and after “engineered cap” insert “/backfill.”*

**Navy Response:** As discussed during the 3/5/14 conference call, Alternative 4 will be updated to include LUCs, monitoring, and confirmation sampling in open water areas, based on regulatory request. However, these efforts are not necessary to meet RAOs which is the context of the cited sentence. No changes will be made based on this comment.

*In the last sentence, change “Alternative 3” to “Alternatives 1, 2, 3, 4, and 5.”*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 69:** p. 4-48, ¶1

*In the third sentence, insert “and potential asbestos-contaminated sediment under Piers 1 and 2” after “Pier 2.”*

**Navy Response:** Please refer to the response to comment dated 3/24/14 provided as Part 3 of this response summary. Given the approach to address asbestos through safe work practices, the LUC language will be reserved for the capped areas under Pier 2 only.

**EPA Specific Comment 70:** p. 4-48, ¶14

*In the third sentence, insert “1,” after “Alternatives.”*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 71:** Table ES-1

*Alternative 2 only partially meets ARARs.*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 72:** Table 1-5, p. 6

*There are duplicate entries for the DSY-SD-J24 0-1 foot sample. Please correct.*

**Navy Response:** The depths cited in the header of this column are incorrect. The correct depths are 1 and 2 feet. This will be corrected.

**EPA Specific Comment 73:** Table 2-1, p. 2

*Remove citations to MCL and MCLGs.*

**Navy Response:** The cited rows will be deleted, since groundwater is not a media of concern for this FS.



**EPA Specific Comment 74:** Table 2-2, p. 2

*For the CWA, Section 404, Consideration text, insert a new second sentence: “If shoreland staging, processing and stockpile areas are within protected resource areas, these standards will be met.”*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 75:** Table 2-2, p. 3

*For the Wetland and Floodplain, Synopsis insert in the first sentence “and Executive Order 11988 (Floodplain Management” after “Wetlands).” In the second sentence, insert “and floodplain” after “wetland” and “and floodplain” after “wetlands.”*

**Navy Response:** The suggested revision will be made.

*In the Consideration text in the second, third and fourth sentences, insert “and floodplain” after “wetlands.”*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 76:** Table 2-3, p. 1

*For the NPDES Synopsis text, add at the end: “Substantive requirements under NPDES are written such that state and federal NRWQC are met. Permits are required for offsite discharges. RI Standards apply to POTWs and includes stormwater requirements for construction projects that disturb over one acre.” In the Consideration text, add: “If over an acre of shoreland will be used for staging, processing and/or stockpiling stormwater requirements under these regulations will be met.*

**Navy Response:** The suggested revision for the synopsis will be made. The suggested revision for consideration will be revised as follows: “If over 1 acre of soil is disturbed, then the storm water regulations for small construction activities will be met.”

*Insert federal CWA pretreatment standards for potential discharge to a POTW (33 U.S.C. § 1251et seq., 40 CFR Part 403) – see Table E-12, p. 2 of the NUSC ROD.*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 77:** Table 2-3, p. 5

*For the State NPDES Synopsis text, add a second sentence: “These regulations also include stormwater standards applicable if shoreland staging, processing and stockpiling areas cover over one acre.” In the Consideration text, insert “or a POTW” after “surface water” and add: “If over an acre of shoreland will be used for staging, processing and/or stockpiling stormwater requirements under these regulations will be met.*

**Navy Response:** The suggested revision for the synopsis will be made. The suggested revision for consideration will be revised as follows: “If over 1 acre of soil is disturbed, then the storm water regulations for small construction activities will be met.”

*Insert State pretreatment regulations for potential discharge to a POTW (RIGL 46-12, 4217.1, 42-45) – see Table E-12, p. 3 of the NUSC ROD.*

**Navy Response:** The suggested revision will be made.



**EPA Specific Comment 78:** *Table 3-1, p. 2*

*Thin-Layer Cover is a Monitored Natural Recovery General Response Action.*

**Navy Response:** As stated in the response to Comment 11, Thin-Layer Cover will be included under an Enhanced Natural Recovery GRA; Table 3-1 will be updated accordingly.

**EPA Specific Comment 79:** *Table 4-6, p. 1*

*Sediment Guidance, Action to be Taken text add a new second sentence: "May not meet sediment standards in the long-term if there are releases of contaminated sediment during storm events or other disturbance of the cover."*

**Navy Response:** It is our understanding that the guidance doesn't set sediment standards. Overall it is recognized that Alternative 2 may not be highly protective, but the suggested revision does not seem consistent with the guidance. No revisions are proposed.

**EPA Specific Comment 80:** *Table 4-6*

*If this alternative will take over an acre of shoreland for stockpiling cover material/operations, federal and state NPDES stormwater standards should be cited (see comments to Table 2-3).*

**Navy Response:** NPDES will be added per the response to comments 77 and 76 above.

**EPA Specific Comment 81:** *Table 4-9*

*If this alternative will take over an acre of shoreland for stockpiling cover material/operations, federal and state NPDES stormwater standards should be cited (see comments to Table 2-3).*

**Navy Response:** NPDES will be added per the response to comments 77 and 76 above.

**EPA Specific Comment 82:** *Table 4-12*

*If there will be potential discharges to a POTW, add federal and state pretreatment standards (see comments to Table 2-3).*

**Navy Response:** See responses to comments 76 and 77 above.

*If this alternative will take over an acre of shoreland for stockpiling cover, managing dredged sediments, dewatering and other operations then federal and state NPDES stormwater standards should be cited (see comments to Table 2-3).*

**Navy Response:** See responses to comments 76 and 77 above.

**EPA Specific Comment 83:** *Table 4-13*

*For the Action to be Taken text for each alternative in the second sentence, insert "and capping under Pier 2" after "dredging."*

**Navy Response:** Suggested revision will be made.

**EPA Specific Comment 84:** *Tables 4-14 & 4-15*

*In the Action to be Taken text for all of the citations replace "backfill" when it occurs with "capping under Pier 2.)*



**Navy Response:** The requested revisions will be made.

**EPA Specific Comment 85:** *Table 4-15*

*If there will be potential discharges to a POTW, add federal and state pretreatment standards (see comments to Table 2-3).*

**Navy Response:** See responses to comments 76 and 77 above.

*If this alternative will take up over an acre of shoreland for stockpiling cover, managing dredged sediments, dewatering and other operations, federal and state NPDES stormwater standards should be cited (see comments to Table 2-3).*

**Navy Response:** See responses to comments 76 and 77 above.

**EPA Specific Comment 86:** *Table 4-15, p. 2*

*For the Coast Guard Anchorage standards Action to be Taken text, LUCs are required under both Pier 1 and 2 because of potential asbestos and the capped area under Pier 2.*

**Navy Response:** Please refer to the response to comment dated 3/24/14 provided as Part 3 of this response summary. Given the approach to address asbestos through safe work practices "as noted in the LUC documentation" other LUC language will be reserved for the capped areas under Pier 2 only.

**EPA Specific Comment 87:** *Table 4-16, p. 1*

*For Alternative 4, five-year review and LTM are required for both the backfilled areas and the areas under Pier 1 and 2. For Alternative 5 Five-Year Review and LTM are required under Piers 1 and 2 because of the asbestos restrictions.*

**Navy Response:** Please see the response to the comment dated 3/24/14 provided as Part 3 of this response summary. No change is proposed for the table headers.

**EPA Specific Comment 88:** *Figure 1-11B*

*Correct the colored symbols for N28, N30, and Q29, changing them from orange to yellow.*

**Navy Response:** The suggested revisions will be made.

**EPA Specific Comment 89:** *Figure 1-11C*

*Please change the colored symbol for N24 to red.*

**Navy Response:** The suggested revision will be made.

**EPA Specific Comment 90:** *App. D, p.787/843*

*Please correct the Visual of New SD5 to include backfill. Also, edit it to reflect the dredging revisions suggested in the general comments.*

**Navy Response:** The referenced page is a material previously submitted to the review parties. It is provided for completeness, although the Navy recognizes that it is not the current version of SD5, it was the understanding of SD5 at the time of submittal, following the October meeting. The whole thing can be removed if it is confusing. However, no changes are proposed based on this comment.



**EPA Specific Comment 91:** *App. D, p. 789/843*

*The post-meeting clarifications are not consistent with the October 23, 2013 meeting action items and they are not consistent with the descriptions of the alternatives in the Draft Final FS.*

**Navy Response:** The referenced page is a material previously submitted to the review parties. The Navy understands that there are differences between the alternative descriptions in the Draft Final FS and these earlier submittals. The whole thing can be removed if it is confusing. However, no changes are proposed based on this comment.

*Alternative 4 requires long-term monitoring and LUCs for the backfilled areas as agreed in October 2013.*

**Navy Response:** The referenced page is a material previously submitted to the review parties. The Navy understands that there are differences between the alternative descriptions in the Draft Final FS and these earlier submittals. The whole thing can be removed if it is confusing. However, no changes are proposed based on this comment.

*No confirmation sampling is indicated for both Alternative 4 and 5, but the text specifies confirmation sampling for Alternative 5 but not Alternative 4. Please edit the FS to require confirmation sampling following backfilling for Alternative 4.*

**Navy Response:** The referenced page is a material previously submitted to the review parties. The Navy understands that there are differences between the alternative descriptions in the Draft Final FS and these earlier submittals. The whole thing can be removed if it is confusing.

Per the agreement discussed on 2/19/14, a description of LUCs, monitoring, and confirmation sampling will be added to the description of Alternative 4 for backfill areas in the FS. These additions will be included “based on regulatory request” in the text. They will not be added to material previously submitted.

*The remedial goal for lead is still of 168 mg/Kg. Please delete that language.*

**Navy Response:** The referenced page is a material previously submitted to the review parties. The statement reflects the understanding of SD5 at the time of submittal, following the October meeting. The whole thing can be removed if it is confusing. However, no changes are proposed based on this comment.

**EPA Specific Comment 92:** *App. D, p. 792/843*

*The last sentence in the first paragraph is not correct. The grid cells with the greatest concentrations of each COC were not always remediated first and the final results for the alternatives presented leave some grid cells with COC concentrations greater than twice the PRG in place. Cells with PRGs less than twice the PRG are proposed for remediation. Please correct the text to reflect this.*

**Navy Response:** Based on recent discussions (3/5/14 conference call) the Navy is confident that the text as stated accurately describes development of remedial alternatives. The phrase “grid cells with the highest concentrations of each COC” is subjective. The Navy would consider “highest concentrations” those cells represented by red or purple dots, another interpretation may be that only the maximum concentration for each COC would be considered the “highest concentrations”. No changes will be made based on this comment.

**EPA Specific Comment 93:** *App. D, p. 801/843*

*Regarding Figure D8-A, the first sentence on page 792 states that the areas requiring remedial action to reduce the baseline SWACs to below PRGs are shown on Figure D8-A. This is not correct because there*



are multiple groupings of grids that could be remediated to achieve the PRGs. While Alternatives 2 and 3 remediate only those grids shown in Figure D8-A, Alternative 4 achieves the PRGs using fewer grids and Alternative 5 uses more. The basis and relevancy for Figure D8-A are not clear. Please include a figure depicting all the grid cells where a PRG was exceeded.

**Navy Response:** Figure D8-A will be deleted. Figures 1-11A, 1-11B, and 1-11C of the FS report depict cells where a PRG was exceeded.

**EPA Specific Comment 94:** Appendix E, Table E1-4.2

*The post-remediation monitoring costs assumed for Alternative 4 do not include the monitoring agreed to in the October 2013 meeting. Long-term monitoring will be required for Alternative 4 in the open water areas that were backfilled. Chemical monitoring and bathymetry are required to verify that the cover has been effectively placed over the contaminated material and that there is no migration of the contaminants (i.e., either through the cap or displaced by placement of the cap). Please edit the FS accordingly.*

**Navy Response:** Per the agreement discussed on 2/19/14, a description of LUCs, monitoring, and confirmation sampling will be added to the description of Alternative 4 for backfill areas. These additions will be included "based on regulatory request". Cost sheets will be updated accordingly.



## PART 2: RIDEM Comments 2/14/14

**RIDEM General Comment 1:** *The cover letter states. “This report was prepared based on our understanding from the October 23, 2013 meeting that Alternative SD4 would remain as previously presented, without addition of LUCs and long term monitoring at dredged/backfilled areas.” Please note that the team agreed on October 23, 2013 to include long-term monitoring (LTM) and LUCs for SD4. One of the action items from this meeting was “Add chemical monitoring to backfill areas under Alternative 4”, as stated in the meeting notes. However, it appears that following the meeting, the Navy discussed this issue further internally and has gone back to its original position regarding backfill for SD4, which is that the backfilled areas in SD4 should not be considered a cap that would require LTM and LUCs.*

*Please indicate, in all relevant sections of this FS, that RIDEM continues to believe that Alternative SD4 should require LTM and LUCs for the open water areas in addition to the capped areas under Pier 2, due to contamination that would be left in place underneath the backfill, which in some areas is 2-5 or 5-10 times greater than the PRG(s). The backfill would therefore serve as a cover to prevent exposure to contamination below 1 foot. The LTM and LUCs required for SD4 would limit the use of this Site and increase the total cost for this alternative. Please note that if Alternative SD4 is chosen as the preferred alternative in the Proposed Plan, this issue will need to be resolved prior to the Record of Decision.*

**Navy Response:** Per the agreement discussed on 2/19/14, a description of LUCs, monitoring, and confirmation sampling will be added to the description of Alternative 4 for backfill areas. These additions will be included “based on regulatory request”.

**RIDEM Specific Comment 1:** *p. ES-8, PRG Table*

*Please include a footnote regarding the projected SWAC value for lead, explaining the slight exceedance of the PRG for Alternative SD5. Please indicate in this FS that there is agency consensus on allowing this exceedance in this circumstance.*

**Navy Response:** The dredge pattern for alternative 5 in the Draft Final FS reflects the pattern discussed and agreed to at the meeting 10-23-14. After additional discussions March 5, 6, and 19, the Navy will revise Alternative 5 again to reflect the arrangement provided on revised Figure 4-4 attached. This includes dredging to achieve SWAC below PRGs for all COCs, and addition of Cells Y25, Y-28, and AD13 at regulatory request.

**RIDEM Specific Comment 2:** *p. 1-39, Asbestos*

*Please remove “and is therefore not further discussed in this FS.” Asbestos is further discussed in this FS since prevention of exposure to asbestos is a remedial action objective (RAO) for this Site, which is addressed with LUCs for every alternative presented in this document.*

**Navy Response:** The fourth and fifth sentences of the fourth paragraph p. 1-39 will be revised to state the following: “Due to the low concentrations of asbestos reported, the project team determined that there is an extremely low probability of asbestos to pose risk to receptors; further discussion on this determination is provided in Appendix D9, and options for management of this low potential risk are addressed in Section 4.1.”

**RIDEM Specific Comment 3:** *p. 2-5, Section 2.2.1, Identification of Media of Concern; 4<sup>th</sup> paragraph, 1<sup>st</sup> sentence*

*Please correct the location of DSY-29. According to Figure 1-6, it is located near the T-wharf, not Pier 1.*

**Navy Response:** The text will be updated to state that DSY-29 is located near the T-wharf.



**RIDEM Specific Comment 4:** p. 2-11, Section 2.2.2.3; last paragraph, last sentence

*“All these factors combine to agree that a PRG of 539 µg/kg for benzo(a)pyrene in depositional marine sediment is justifiably conservative to support a remedial action.”*

*RIDEM does not consider the PRG for benzo(a)pyrene to be conservative. Therefore, please change “justifiably conservative” to “acceptable” or “appropriate”.*

**Navy Response:** The phrase “justifiably conservative” will be changed to “appropriate”.

**RIDEM Specific Comment 5:** p. 3-29, Section 3.5, Alternative 4

*Please see general comment #1.*

**Navy Response:** See the response to General Comment 1.

**RIDEM Specific Comment 6:** p. 4-1, Section 4.0, Alternative 4

*Please see general comment #1.*

**Navy Response:** See the response to General Comment 1.

**RIDEM Specific Comment 7:** p. 4-13, Section 4.1.4, Alternative 4; whole section

*Please see general comment #1.*

**Navy Response:** See the response to General Comment 1.

**RIDEM Specific Comment 8:** p. 4-17, Section 4.1.5, Alternative 5; Table

*Please add a footnote to this table discussing the lead PRG. See specific comment #1.*

**Navy Response:** See the response to Specific Comment 1.

**RIDEM Specific Comment 9:** p. 4-36, Section 4.3.4; whole section

*Please see general comment #1.*

**Navy Response:** See the response to General Comment 1.

**RIDEM Specific Comment 10:** p. 4-36, Section 4.3.4; 2<sup>nd</sup> paragraph, 1<sup>st</sup> sentence

*Please note that this sentence discusses implementing LUCs for the backfilled areas.*

**Navy Response:** See the response to General Comment 1. While this statement may not be consistent in the Draft Final FS, updates to be made throughout the FS will justify this statement.

**RIDEM Specific Comment 11:** p. 4-42, Section 4.3.5, Alternative 5: Target Dredging and Backfill; 2<sup>nd</sup> paragraph; 3<sup>rd</sup> sentence

*Please discuss the SWAC instead of the VWAC, since it was suggested during the October 23, 2013 meeting that all discussion of the VWAC be removed from this FS.*

**Navy Response:** This paragraph will be updated to reflect SWAC values as described throughout the rest of the FS. See responses to EPA Comment 61.



**RIDEM Specific Comment 12:** p. 4-42, Section 4.3.5, Overall Protection of Human Health and the Environment; 2<sup>nd</sup> sentence

Please correct “caped” to “capped”.

**Navy Response:** The suggested revision will be made.

**RIDEM Specific Comment 13:** p. 4-46, Section 4.4, Overall Protection of Human Health and the Environment; 1<sup>st</sup> paragraph; 1<sup>st</sup> (continued) sentence on page

Please indicate in this section that RIDEM believes that Alternative 4 would restrict the use of the port and depth of the vessels utilizing the port. See general comment #1.

**Navy Response:** The referenced sentence is referring to the capped area beneath Pier 2, which would not limit the use of the port. The Navy understands that the regulatory agencies have concerns regarding backfill being considered cover, and hence result in depth restrictions for ship traffic. Under Alternative 4 depths do not change and there is no reason to restrict the depth of vessels utilizing the port. The comment is noted for future development of the PRAP but this section will not be revised based on this comment.

**RIDEM Specific Comment 14:** p. 4-48, Section 4.4, 1<sup>st</sup> paragraph, last sentence

Please see general comment #1.

**Navy Response:** See the response to General Comment 1.

**RIDEM Specific Comment 15:** Tables in Sections 2 and 4

Please correct the spelling of “Feasibility” in the header of the tables.

**Navy Response:** The requested revision will be made.

**RIDEM Specific Comment 16:** Table 4-16, p 2 of 3, Row – Environmental Impacts, Column – SD3.

Please correct the spelling of “temporary”.

**Navy Response:** The requested revision will be made.



### PART 3: EPA Comment 3/24/14 (Electronic Mail)

a) <Paraphrased: Suggest to revise the RAOs in the offshore FS as follows>

- Reduce human health risk associated with ingestion of shellfish in sediment impacted by benzo(a)pyrene by reducing sediment concentrations to PRGs
- Reduce the risk to aquatic organisms from sediment impacted by lead, PCB, and HMW PAHs by reducing sediment concentrations to PRGs
- Ensure minimal risk to human health associated with exposure to asbestos that may be present in sediment

b) Are there ACM covered pipes under Pier 2 also? I'm curious if we need to extend the LUC there as well.

#### Navy Response:

After discussions held on 4/3/14, the Navy and EPA reached agreement to revise the first two RAOs as follows:

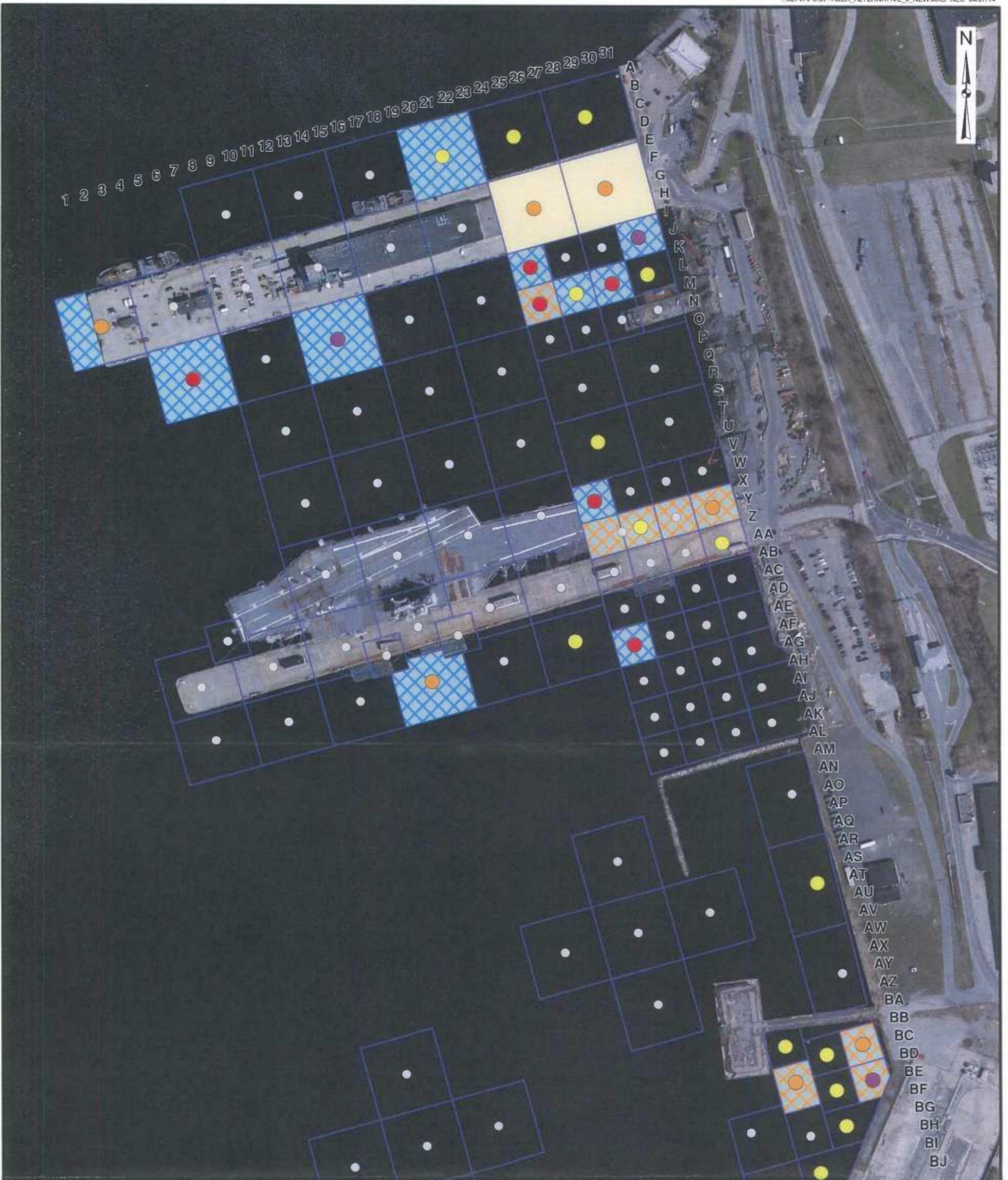
- Reduce human health risk associated with ingestion of shellfish impacted by benzo(a)pyrene by reducing exposure concentrations in sediment.
- Reduce risk to aquatic organisms from sediment impacted by lead, PCBs, and HMW PAHs by reducing exposure concentrations.

Regarding the third, the Navy proposes to address asbestos in sediment as a separate constituent but not identify it as a COC since no risk is measured for it. The Navy proposes to replace the third RAO on page 2-13 of the Draft Final FS with the following text:

“To address the potential for a future risk from exposure to asbestos in the marine sediments during the implementation of the proposed remedy and future dredging of Site 19, the Navy will:

- Prevent exposure to potential asbestos in dredged shipyard sediment through development of documented precautionary measures and safe work practices.”

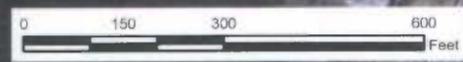




**Legend**

**Max COC Exceedance in Surface Sediment at Location**

- 1 to 2x PRG
- 2 to 5x PRG
- 5 to 10x PRG
- > 10x PRG
- Sample Location
- Sampling Grid
- 1-Foot Dredge
- 2-Foot Dredge
- Dredge
- In-Situ Cap



**Tt TETRA TECH**

NAVAL STATION NEWPORT  
NEWPORT RHODE ISLAND

**ALTERNATIVE 5**

SITE 19 - DERECKTOR SHIPYARD, MARINE SEDIMENT  
FEASIBILITY STUDY

|                            |               |
|----------------------------|---------------|
| FILE                       | SCALE         |
| I:\_IDER_ALTERNATIVE_6.MXD | PER SCALE BAR |
| FIGURE NUMBER              | REV DATE      |
| 4-4                        | 0 04/07/14    |