



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION I

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May 17, 2010

Mr. James Gravette
Remedial Project Manger (Code OPTE3-1)
Environmental
Naval Facilities Engineering Command Mid-Atlantic
Bldg. Z-144
9742 Maryland Avenue
Norfolk, VA 23511-3095

Re: Revised Remedial Investigation Update/Feasibility Study for Sediment at the Area A
Wetland – Site 2B

Dear Mr. Gravette:

EPA reviewed the revised *Remedial Investigation Update/Feasibility Study for Sediment at Area A Wetland – Site 2B* at the Naval Submarine Base in Groton, Connecticut, dated April 2010. The submittal included revised text in redline-strikeout, selected revised figures and tables, and revised cost estimates with cost assumptions. Detailed comments are provided in Attachment A.

The revised RI/FS should be dated May (or June) 2010 and Revision 1.

EPA understands that the Navy plans to create wetlands adjacent to the existing wetlands to compensate for the impacts to the existing wetlands during remediation. Since it has been a long time since the wetland boundary was delineated, a pre-remedial wetland delineation should be considered to confirm the current wetland boundary.

In the response to EPA comments, a 1:1 mitigation ratio was stated to be appropriate for Alternative 3 (excavation and backfill). EPA maintains that a minimum of 2:1 is required for restoration of emergent wetlands per the New England District Compensatory Mitigation Guidance. Moreover, as we have discussed, mitigation ratios between 3:1 and 10:1 are required for enhancement of emergent wetlands. EPA notes that the revised cost estimate does not include any mitigation for Alternative 3. The costs need to be updated and the text should clarify what mitigation is proposed for the impacts from remediation.

The RI/FS does not include any mitigation for the temporary impacts to the wetlands from the temporary access roads through the wetlands. The New England District Compensatory Mitigation Guidance requires mitigation as a percentage of the standard permanent impacts. This should be mentioned in the FS.

Please proofread the document to correct the grammatical errors throughout. Some of the errors are mentioned in Attachment A.

Some figures that required edits were not submitted. Is this because the changes requested by EPA were agreed to? Please submit them for EPA review.

Add 33 CFR 332, Compensatory Mitigation for Losses of Aquatic Resources, as an ARAR.

Include a figure for Alternative 2 that depicts the area of the proposed cover and a figure for Alternative 3 showing the area of proposed excavation (and the associated proposed dewatering area).

Regarding Figure 11-4, any LUC boundary needs to be limited to where there is remaining CERCLA contamination under each alternative that poses a risk, not the entire wetland.

I look forward to working with you and the Connecticut Department of Environmental Protection to select a final remedy for the Area A Wetland. Please do not hesitate to contact me at (617) 918-1385 should you have any questions.

Sincerely,

Kymerlee Keckler, Remedial Project Manager
Federal Facilities Superfund Section

cc: Mark Lewis, CTDEP, Hartford, CT
Dick Conant, NSBNL, Groton, CT
David Peterson, USEPA, Boston, MA
Todd Finlayson, Gannett Fleming, Orono, ME

ATTACHMENT A

<u>Page</u>	<u>Comment</u>
p. ES-7, §E.7.1	Please edit the text in each of the two RAOs to refer to COCs in surface sediment because that is the only medium requiring remediation. Make the same change in Section 9.2.2. After the first RAO, refer to the PRGs listed on pages ES-6 and 9-2.
p. ES-8, §E.7.2	At the end of this section, insert “LUCs would be in the form of a Base Instruction as long as the Site is under the control of the Navy and would be converted into deed restriction, meeting State recording standards, if the property were ever transferred.”
p. ES-9, §E.7.4	Under <i>Long-Term Effectiveness and Permanence</i> , it is unclear why Five-Year Reviews would be required for Alternative 3 to “... ensure the adequacy of the remedy to provide continuing protection for ecological receptors and (the) downstream watercourse?” Alternative 3 would remove contamination that poses a risk to ecological receptors. The FS should note that Five-Year Reviews would be required for Alternative 2, but it is unclear whether they would be required for Alternative 3. While the requirement for LUCs to prevent residential exposures infers there will be a residual residential risk after the excavation is completed, if all of the contaminated sediment is removed down to the dredged material layer residual risks could be acceptable if demonstrated with a human health risk assessment using a residential scenario on the sediments that remain in place after the excavation.
p. ES-9, ¶2	Please remove the parenthetical text “except where noted.” The PRGs address all areas where a CERCLA risk is present and therefore the PRGs need to be met throughout the wetland, unless they will be met through some other remedial measure.
p. ES-9, ¶3	Please replace ‘Alternatives 2 and 3 would prevent’ with “Alternative 2 would prevent disturbance of the cover and prevent site development that could pose unacceptable exposure to future site users (including residential users) from site contamination and Alternative 3 would also require LUCs to prevent....”
p. ES-10, ¶2	At the end of this paragraph, please note that Five-Year Reviews for Alternative 2 would be easily implementable.
Table ES-1	a) For Alternative 2, under <i>Implementability</i> , please correct the grammar in the last sentence in the first paragraph. b) Regarding Alternative 3, some clarification is required regarding mitigation requirements. The discussion under <i>Compliance with ARARs</i> mentions the need for adequate mitigation whereas the discussion under

Implementability states that no mitigation is required for Alternative 3.

p. 1-5, ¶3

Please note that the PRGs were developed for ecological receptors.

Figure 1-3

Please correct the location of the culvert near the rip rap channel. It should be located entirely to the west of the rip rap channel.

Figure 1-4

a) This figure implies that dredged material is not present in upland areas within and surrounding the wetland. However, this seems unlikely. Has investigation confirmed the absence of dredged material except in the wetland areas?

b) The groundwater elevation is not up to the pavement surface or even to the surface of the upland soil, so this figure should be corrected.

c) Finally, for accuracy the outlet from the wetland is actually a weir structure with several culverts. Therefore, the water elevation in the wetlands can apparently be manipulated.

p. 3-4, ¶3

Replace 'is within' with "as."

p. 6-12, §6.2.3.3

Define what 'Gross Alpha' is in the last bullet.

p. 7-12, §7.4.1

a) Please correct the sample name in the added sentence, it should be 2WSD72.

b) Please revise the two sentences added to the second paragraph. The sentences as added do not adequately address the uncertainty. More importantly, the number of chemicals present in 2WSD47 was significantly greater than the number found in 2WSD72 indicating that 2WSD72 is not representative of the contamination found at 2WSD47. Additionally, the PAH concentration (in the average of the original and duplicate samples at 2WSD47) also exceeded the PRG for PAHs. Please modify the text to include these considerations.

c) At the end of the second paragraph, it may be worth mentioning that a pre-design investigation will be conducted that will help refine the areas targeted for remediation.

p. 7-13

At the end of the first and second paragraphs, it may be worth mentioning that a pre-design investigation will be conducted that will help refine the areas targeted for remediation.

p. 7-15, §7.5.1

Please correct the last sentence in the first paragraph by deleting the words *risk to* in the second half of the sentence.

Replace the last sentence of the third paragraph with the following: "If a remedial action were to occur to either cover or remove contaminated sediment, risks to wildlife would decrease."

- p. 7-15, §7.5.2 Please correct the last sentence in the first paragraph by adding “due” after ‘toxic.’
- p. 8-1, §8.1 At the beginning of the first sentence under *Groundwater*, insert “Although groundwater in the area is addressed by a separate Operable Unit, future....”
- p. 9-1 Please consider adding an RAO to prevent residential exposure to the contaminated sediments. This could provide the basis for LUCs or Five-Year Reviews (repeat for page ES-7).
- p. 9-4 In the Location-specific bullet, insert “and state” after ‘federal’ in the second sentence.
- p. 9-6, ¶2 Change the heading to “State ARARs.” Replace ‘This TBC provides’ with “These ARARs provide” in the first sentence.
- p. 9-8, ¶1 At the end of the penultimate sentence, add “and surface water monitoring would be conducted to ensure that adverse impacts did not occur.”
- p. 9-8, ¶2 Replace ‘allows for sampling’ with “allows for risk-based sampling.”
- p. 9-8, ¶4 In the first sentence replace ‘parallel’ with “incorporate” and replace ‘regulations’ with “regulatory requirements.”
- p. 9-9 Move the third paragraph to the State ARARs Section.
- p. 9-10, §9.4 Please correct the sample name in the second inserted sentence to 2WSD76.
- p. 10-6 At the end of the first sentence under *Effectiveness*, insert “, but not for protecting ecological receptors.”
- p. 10-9, §10.3.3 Replace the end of the last sentence in the first paragraph with “would require a risk-based finding by the USEPA that the proposed cover will not pose an unreasonable risk of injury to human health or the environment.”
- In the forth sentence under *Effectiveness*, insert “and monitoring” after ‘long-term maintenance.’ Replace the end of the penultimate sentence with “loss of wetlands and flood storage because of elevation changes that would require mitigation.”
- In the second sentence under *Implementability*, insert “and flood storage” at the end. Insert “and flood storage” after ‘wetlands’ in the third sentence and change ‘create 10’ to “enhance as much as 10.”
- p. 10-19, §10.3.7.1 In the first sentence, replace ‘as fill’ with “as off-site fill.” Make this same change to the first sentence under *Implementability*.
- p. 11-7 Please state that the No Action alternative will not comply with the

Connecticut RSRs either.

- p. 11-11, ¶1 At the end of the first paragraph, insert “Control of invasive species within the area of remediation will also meet standards under Executive Order 13112 regarding the control of invasive species.”
- p. 11-11, ¶2 Replace ‘TBCs’ with “ARARs and TBCs” in the second sentence. In the third sentence, replace ‘if’ with “by meeting standards for constructing and maintaining the cover and conducting.” At the end of this paragraph, insert “LUCs, long-term operation and maintenance, and monitoring will ensure ongoing compliance with ARARs.”
- p. 11-12, §11.2.3.1 Replace ‘soil’ with “sediment” in the first sentence. Change ‘wetland vegetation’ to “native wetland vegetation” in the first two sentences.
- p. 11-13 At the end of the first sentence, insert “and invasive species do not recolonize the remediated area.” Replace ‘TBCs’ with “ARARs and TBCs” in the second sentence.
- At the end of the *Excavation* paragraph, replace ‘establish wetland vegetation’ with “establish native wetland vegetation and prevent invasive species from recolonizing the remediated area.”
- p. 11-14 Under site restoration, replace ‘wetland vegetation’ with “native wetland vegetation” in the first sentence. Begin the second sentence with “Since the wetland will be restored” and end it after ‘impact to the wetland.’ Start the third sentence with “Restoration of the remediated wetland through Alternative 3....” Replace ‘Executive Order 13112’ with “in compliance with federal and state standards.”
- p. 11-15, §11.2.3.2 In the new text in the first paragraph, replace ‘wetland vegetation’ with “native wetland vegetation” in the fifth sentence. At the end of the sixth sentence, insert “and invasive species prevented from recolonizing the remediated area.” At the end of the paragraph, insert “and federal control of invasive species under Executive Order 13112.”
- Under Compliance with ARARs and TBCs, replace ‘TBCs’ with “ARARs and TBCs” in the first sentence. At the end of the paragraph, insert “that regulate work in wetlands and excavation/dewatering remedial alternatives. The Navy has determined that Alternative 3 is the least damaging practicable alternative for protecting wetland resources from site contamination as required under Section 404 of the Federal Clean Water Act. The Navy will also seek public comment in the proposed plan that the proposed PCB cleanup level will not pose an unreasonable risk of injury to health or the environment in accordance with regulations under the Toxic Substances Control Act.”

- p. 11-16 In the last line on the page, replace 'wetland vegetation' with "native wetland vegetation."
- p. 11-17, ¶1 In the second sentence, replace 'establishing vegetation' with "establishing native wetland vegetation."
- p. 12-1, §12.1.2 At the end of the paragraph, insert "Alternative 3 will include the establishment of native wetland vegetation and the control of invasive species as mitigation for alteration of the wetlands in compliance with Executive Order 11990 (Protection of Wetlands) and Executive Order 13112 (Control of Invasive Species)."
- p. 12-1, §12.1.2 Replace 'TBCs' with "ARARs and TBCs" in the first and third sentences. In the third sentence, replace 'as long as adequate mitigation is' with "since the cover for Alternative 2 will be built and maintained under all applicable or relevant and appropriate standards and adequate mitigation will be..." After the third sentence, insert "Alternative 3 meet all applicable and relevant and appropriate standards for sediment excavation, dewatering, and off-site disposal."
- p. 12-2 In the first line on the page, delete '(except where noted).'
- p. 12-2, §12.1.3 In the last sentence replace with 'both alternatives' with "Alternative 2."
- p. 12-3 In the penultimate sentence of the first paragraph, replace 'wetland vegetation' with "native wetland vegetation."
- Figure 9-1
- a) EPA accepts the limits of contamination identified in this figure for the RI/FS provided that the ROD requires that the boundary to be confirmed by sampling during the planned Pre-Design Investigation (PDI) wherein the excavation/cap limits are defined and established at the location of clean samples at the perimeter of each contaminated area.
 - b) Sample location 2WSD76 is not located correctly. As stated in the revised RI/FS text (§9.4), this sample was collected at the foot of the gabion basket as close as possible to sample location T5A. Please correctly locate 2WSD76 and extend the excavation boundary around it. Please plan to collect samples around 2SWD76 during the PDI to confirm the extent of impacted sediment in this area.
- Table 9-1 The CT RSRs were issued effective January 1996 as cited in Table 11-2 of this RI/FS. Please correct the citation in Table 9-1.
- Table 10-1 Please correct the grammar in the second Screening Comment box by inserting "preventing" before 'disturbance.'
- Figure 11-4 A minor correction to the pavement extent is needed. The pavement extends east of the deployed parking area to the wetland boundary. That area is not

gabion baskets.

Table 12-1

a) For Alternative 2, under *Implementability*, please correct the grammatical error in the last sentence in the first paragraph.

b) Regarding Alternative 3, some clarification is required regarding mitigation requirements. The discussion under *Compliance with ARARs* mentions the need for adequate mitigation whereas the discussion under *Implementability* states that no mitigation is required for Alternative 3.

Appendix I,
Cost Assumptions

a) No costs have been included for the mitigation associated with Alternative 3. However, mitigation is required beyond enhancement of the existing wetland.

b) No costs have been included for Alternatives 2 and 3 for mitigation of the temporary impacts associated with the temporary access road. However, mitigation is required per the New England District Compensatory Mitigation Guidance.

c) p. 3 of 4: Please confirm the excavation volume for Alternative 3. If 1.3 acres are excavated to a two-foot depth the volume would be 4,195 cubic yards (cy), not 3,240 cy.

Appendix I,
Cost Estimates

a) The cost estimate for Alternative 3 has a line item for Preparation of LUC Documents. If correct, an ongoing O&M cost would also be required for LUC inspections and reporting, which was not included for Alternative 3. Please review the RI/FS text to ensure consistency among the discussions of LUCs associated with Alternative 3.

b) Please add the following corrections for Alternative 2: 1) add analytical costs to test common fill and topsoil before importing to site, and 2) the excavate associated with wetland mitigation may need analytical testing before long-term storage or reuse on Naval property. Also, excavate stockpiles (16,000+ cy) must have erosion controls (*e.g.*, poly covers and hay bale/silt fence barriers). Finally, it may not be realistic to store such a large volume of excavate on Naval property long-term.