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U S NAVY RESPONSES TO REGULATOR COMMENTS ON DRAFT SECOND FIVE-YEAR
REVIEW REPORT NAS SOUTH WEYMOUTH MA (PUBLIC DOCUMENT)

07/11/2014
TETRA TECH



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July 11, 2014

Project Number G04642

Mr. Brian Helland, RPM
BRAC PMO, East
4911 South Broad Street
Philadelphia, Pennsylvania 19112

Reference: CLEAN Contract No. N62472-03-D-0057
Contract Task Order (CTO) No. 166

Subject: Responses to Comments on Draft Second Five-Year Review Report
Former Naval Air Station South Weymouth, Weymouth, Massachusetts

Dear Mr. Helland:

Provided attached are the Navy's responses to the U.S. Environmental Protection Agency (EPA) comments dated June 2, 2014 and July 3, 2014, and the Massachusetts Department of Environmental Protection (MassDEP) comments dated March 12, 2014 on the February 2014 Draft Second Five-Year Review Report, Former Naval Air Station South Weymouth, Weymouth, Massachusetts.

An electronic copy of the responses to EPA comments dated June 2, 2014 and MassDEP comments dated March 12, 2014 was emailed to the EPA and MassDEP on June 25, 2014. An electronic copy of the responses to EPA comments dated July 3, 2014 was emailed to the EPA and MassDEP on July 8, 2014.

The Final Second Five-Year Review Report will be completed and executed by July 13, 2014, in order to comply with the statutory requirement. Any questions regarding the responses should be directed to your attention at (215) 897-4912. Please contact me at (978) 474-8434 should you have any questions.

Very truly yours,

Stephen S. Parker, LSP
Project Manager

SSP/nfs

Enclosures:

1. Response to MassDEP Comments Dated March 12, 2014 on the Draft Second Five-Year Review Report
2. Response to EPA Comments Dated June 2, 2014 on the Draft Second Five-Year Review Report
3. Response to EPA Comments Dated July 3, 2014 on the Draft Second Five-Year Review Report

c: D. Barney, Navy (w/encl. – 1 paper, 1 CD)
C. Keating, EPA (w/encl. – 3 paper, 1 CD)
D. Chaffin, MassDEP (w/encl. – 1 paper, 1 CD)
P. Sortin, Abington (w/encl. – 1 CD)
M. Brennan, Weymouth (w/encl. – 1 CD)
M. Parsons, Rockland (w/encl. – 1 CD)
Tufts Library, Weymouth (w/encl. – 1 CD)
Public Library, Abington (w/encl. – 1 CD)
Public Library, Rockland (w/encl. – 1 CD)

Public Library, Hingham (w/encl. – 1 CD)
Chief Executive Officer, South Shore Tri-town
Development Corp. (w/encl. – 1 paper, 4 CD)
R. Daniels, Starwood LLC (w/encl. – 1 CD)
J. Logan, Tetra Tech (w/encl. – 1 paper, 1 CD)
J. Trepanowski, Tetra Tech (w/o encl.)
G. Glenn, Tetra Tech (w/o encl.)
File G04642-3.2 (w/o encl.);
G04642-8.0 (w/encl. - 1 each) Tetra Tech, Inc.

**NAVY RESPONSES TO MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL
PROTECTION (MassDEP) COMMENTS (DATED MARCH 12, 2014) ON THE
SECOND FIVE YEAR REVIEW REPORT
FORMER NAVAL AIR STATION SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS**

Navy responses to the MassDEP comments on the Draft Second Five Year Review Report, Former Naval Air Station South Weymouth, Weymouth, Massachusetts (February 2014) are presented below. The MassDEP's comments are presented first (in italics) followed by Navy's responses.

COMMENTS

Comment 1: *Page F-2 and Section 5.8: Currently planned groundwater assessment sampling (refer to Section 5.3.3) should be recommended for AOC Hangar 1.*

Response: The groundwater assessment sampling for AOC Hangar 1 was completed in April 2014; however, an evaluation of the validated data has yet to be completed. A recommendation will be added to Page F-2 and Section 5.8 recommending that an evaluation of the validated data for the groundwater assessment be completed.

Comment 2: *Page F-4, Section 4.9, and Section 5.9: Long-term protectiveness at FFTA and AOC Hangar 1 depends on future performance of monitoring activities (groundwater, surface water, sediment, and LUCs monitoring at FFTA, and groundwater assessment sampling and LUCs monitoring at AOC Hangar 1); consequently, the protectiveness statements for FFTA and AOC Hangar 1 should include text similar to that provided for WGL and RDA (“...in order for the remedy to be protective in the long term, the following actions need to be taken to ensure long-term protectiveness...”) to identify the specific actions required to ensure long-term protectiveness.*

Response: For the RDA and WGL, monitoring activities have been underway for a while so it is appropriate to identify activities that should continue. For the FFTA where limited monitoring will have occurred before the Five Year Review is finalized, the existing statement — “Long-term protectiveness of the remedial action will be verified by completion of annual LUC inspections, implementation of the LTM program, and evaluation of the LTM data consistent with the LTM SAP.” —already meets the intent of the comment. Likewise, for AOC Hangar 1, the existing statement — “the long-term protectiveness of the remedial action will be verified by completion of annual LUC inspections and voluntary collection of additional groundwater samples to fully evaluate potential migration of the contaminant plume.”—already meets the intent of the comment. Therefore, no change to text is recommended.

However, the text for the RDA and WGL will be modified to remove redundancy as follows: “Long term monitoring activities are being conducted and will continue to be conducted after property transfer. The following actions will be taken to ensure long-term protectiveness of the remedy:”

Comment 3: *Figure 1-1 was not cited in Section 1, does not identify the locations of all the sites addressed in the report, and duplicates information presented in Figure 6-1.*

Response: Information on Figure 1-1 and Figure 6-1 will be combined onto one figure (revised Figure 1-1). The revised Figure 1-1 will be cited in Section 1 and will identify all sites addressed in the report.

Comment 4: *Figure 2-1: Features shown north of the landfill do not reflect current conditions (e.g., abandoned railroad tracks).*

Response: Figure 2-1 will be updated to show current conditions north of the WGL.

Comment 5: *Figure 5-1 should show the full extent of the AOC Hangar 1 PFCs plume (e.g., intercepted at well locations MW05-306, MW05-307, and MW05-308).*

Response: The approximate extent of the PFC plume (PFOA/PFOS) will be added to Figure 5-1.

Comment 6: *Exhibit 3-8: The graph for RDA vent GV-02 should include results from 2012 and 2013.*

Response: The graph for RDA gas probe GP-02 will be revised to include results from May 2012. Specifically, the May 2012 % methane result for GP-02 (40.5%) will be added to the GP-02 graph in Exhibit 3-8. Also, all graphs in Exhibit 3-8 will be updated with the September 2013 results.

Comment 7: *Appendix B: FFTA monitoring well MW-46 should be secured with a protective casing and padlock (or converted a to flush-mounted protective box installation).*

Response: Comment noted.

**RESPONSE TO EPA COMMENTS DATED JUNE 2, 2014
ON THE DRAFT SECOND FIVE-YEAR REVIEW REPORT
FORMER NAVAL AIR STATION SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS
February 2014**

Navy responses to the EPA comments on the Draft Second Five-Year Review Report, Former Naval Air Station South Weymouth, Weymouth, Massachusetts (February 2014) are presented below. The EPA's comments are presented first (in italics) followed by Navy's responses.

General Comments

1. *CERCLA § 121 mandates that FYRs be conducted for each operable unit at which a decision document has been issued and a remedial action has been initiated (i.e. is under construction), is operating or has been completed. In accordance with Section 1.1 of EPA's "Comprehensive Five Year Review (FTR) Guidance" (OSWER No. 9355.7-03B-P, January 2001), "The purpose of the Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy is or will be protective of human health and the environment." Upon conclusion of the evaluation (i.e., technical assessment), a "protectiveness statement" should be developed [for each OU] to support the determination that: (1) the remedy is protective (or will be protective), (2) the remedy is not protective, or (3) additional information is warranted before a determination can be made (i.e., protectiveness deferral). Based on the above, EPA requests that the draft second FYR report be amended to include the former Sewage Treatment Plant (STP). Specific details supporting this request are discussed in the page-specific comments below.*

Response: The second FYR will be amended to include a full evaluation of the former STP.

2. *There appear to be many exceedances of NRWQC associated with WGL and RDA surface water, as well as exceedances of sediment benchmarks. Although EPA agrees that lack of significant impact as shown in site-specific toxicity tests was a better measure of impact than generic benchmarks, EPA also agrees with the recommendations in Appendix H that "...it is recommended that the monitoring of surface water and sediment quality be continued and if increasing trends are observed, the need to re-evaluate the risk assessment be considered". To this end, EPA requests that trend analyses in surface water and sediment at WGL and RDA be conducted during the next five year review period and be reported in the next five year review report, including a comparison with updated benchmarks if increasing trends are observed.*

Response: Trend analyses for contaminants in surface water and sediment exceeding criteria (NRWQC for surface water and either PALs or Base Background levels for sediment) will be conducted during the next five-year review period and included in the report. If increasing trends are observed benchmarks will be re-evaluated and, if necessary, updated.

3. *The continued delay in the release of laboratory data (and/or relevant field data) from recent sampling events to assess current (groundwater), is limiting EPA's ability to fully evaluate current conditions (and related draft LTMPs) at many of the site. For example, EPA (conditionally) approved the Hangar 1 SAP and FFTA LTMP in February, but has not yet seen data from either site.*

Response: Comment noted.

4. *Updated/corrected maps should accompany the data (when provided), in addition to those typically submitted as part of the Five-Year Review (FYR) submittal (e.g. zoning, land use plans, etc.), that identifies each sample location and contaminants detected, if any.*

Response: Comment noted.

5. *EPA continues to support the MassDEP's efforts to secure a GERE for the RDA, WGL and other contaminated sites with permanent restrictions. Environmental restrictions written into deeds are ineffective, under Massachusetts law, and a GERE will ensure the long-term protectiveness of the remedies requiring permanent restrictions (i.e., institutional controls).*

Response: Comment noted.

Page-Specific Comments

6. *Page v, Table of Contents, Tables - Please add, "4-3 – FFTA - Summary of Groundwater Analytical Results"*

Response: The spring 2014 LTM sampling event for FFTA was completed after the submittal of the Draft FYR and, therefore, will be included in the next FYR (2019). Analytical data collected prior to the 2013 ESD is included in the Decision Document and is already summarized in the second FYR. A Table 4-3 – FFTA – Summary of Groundwater Analytical Results will not be added to the TOC/report.

7. *Page v, Table of Contents, Tables – Please add, "5-3 – Hangar 1 NON-APD - Summary of Groundwater Analytical Results"*

Response: The spring 2014 groundwater sampling event for Hangar 1 was completed after the submittal of the Draft FYR and, therefore, will be included in the next FYR. Analytical data collected prior to the 2013 ESD is included in the Decision Document and is already summarized in the second FYR. A Table 5-3 – Hangar 1 NON-APD – Summary of Groundwater Analytical Results will not be added to the TOC/report.

8. *Page v, Table of Contents, Tables – Please add, "6-1 – STP Chronology of Site Events"*

Response: Table 6-1 – STP Chronology of Site Events will be added to the TOC/report.

9. *Page v, Table of Contents, Tables – Please add, "6-2 – STP Sampling Locations"*

Response: Table 6-2 – STP Sampling Locations will be added to the TOC/report.

10. *Page v, Table of Contents, Tables – Please add, "6-3 – STP Summary of Soil, Groundwater and Sediment Analytical Results"*

Response: Data tables summarizing in-place soil and sediment results exceeding the Post-ROD specified cleanup goals will be added to the report. Specifically, Table 6-3 – STP Summary of In-Place Soil Analytical Results and Table 6-4 – STP Summary of In-Place Sediment Analytical Results will be added to the TOC/report.

11. *Page v, Table of Contents, Figures – Please add "6-1 - Page Site Plan and Sample Locations – STP" (and change current 6-1 to 7-1).*

Response: A new Figure 6-1 – Site Plan and Sample Locations – STP will be added to the report. The previous Figure 6-1 will be removed from the report; the information provided on the previous Figure 6-1 will be added to Figure 1-1.

12. *Page v.i - Abbreviations and Acronyms – Please amend "ESD – Explanation of Significant Differences", "PFOA – Perfluorooctanoic Acid", "SAP – Sampling and Analysis Plan", and add "TCL - Target Compound List".*

Response: The Abbreviations and Acronyms list will be checked and revised accordingly.

13. Page F-1, Type of Review - Please amend to "Post-SARA Statutory Review"

Response: "Post-SARA Review" on page F-1 will be revised to read "Post-SARA Statutory Review."

14. Page F-1, Identification of Review Status Sites - As discussed above, FYRs should be conducted for each operable unit at which a decision document has been issued and a remedial action has been initiated, is operating, or has been completed. For OUs where the remedial action has been initiated (and physical construction has been initiated but is not yet complete), the FYR review report would include (in addition to the site chronology and background sections) a description of the remedy selected, the status of remedy implementation, a technical assessment (using the "Three Questions Used to Determine Whether a Remedy is Protective" (Section 4.0, OSWER No. 9355.7-03B-P, January 2001)), identification/discussion of issues identified during the technical assessment and statement of whether the issues affect current or future protectiveness, and list of recommendations, including additional response or follow-up actions deemed necessary to ensure protectiveness, and a schedule for completion.

As you aware, a Record of Decision (ROD) for the STP OU was signed in 2008 and remediation commenced shortly thereafter. Unfortunately, the extent of contamination encountered during remedy implementation was much larger than originally anticipated, and remedial actions were temporarily suspended until supplemental soil delineation studies could be performed to more accurately define the nature and scope of the necessary response action. Data collected during these supplemental studies necessitated modification of the originally scoped remedial action to incorporate additional COCs, expand the originally targeted excavation areas, incorporate the removal of existing drainage piping (identified as potential continuing source) and perform maintenance (i.e., cleanout) actions in the associated drainage ditch. A ROD Amendment or ESD will follow to add LUCs and LTM. Based on the aforementioned, EPA recommends that the draft report be amended to include the STP OU and that the protectiveness statement reflect the fact that while the remedy is protective in the short-term, follow-up actions are necessary to ensure long-term protectiveness.

Response: The second FYR will be amended to include an evaluation of the former STP. Page F-1, Identification of Review Status Sites will be revised accordingly. The protectiveness statement for STP will reflect that the remedy is currently in process and not yet complete. Recommendations will include additional remedial action (i.e. soil excavation), follow-up actions (LUCs and a LTM plan), and a ROD Amendment or ESD to document any changes in the remedy for STP.

15. Page F-2 – Issues – Rubble Disposal Area – Please include a "determination of whether the issues affect current or future protectiveness" at the end of the discussion.

Response: The following sentence will be added to Page F-2 – Issues – Rubble Disposal Area:

"These issues do not affect the protectiveness of the remedy. The remedy for RDA currently protects human health and the environmental because exposure pathways that could result in unacceptable risks are being controlled by institutional controls, and long-term protectiveness is ensured by long-term monitoring activities."

16. Page F-2 – Issues – Fire Fighting Training Area – For consistency with the text in Section 4.3.1 (Page 4-5), please modify the bullet for FFTA to read, "Develop and Implement long-term monitoring program" In addition, please keep in mind that there are unresolved issues (identified during EPA's review of the draft LTMP work plan) related to monitoring gaps (need for additional data collection points) and the existing monitoring well networks ability to effectively capture the migrating plumes, that will need to be addressed. While the Navy has agreed to discuss these issues after the results from recent sampling effort were available, the data has yet to be provided to EPA for evaluation.

Response: The bullet on Page F-2 – Issues – Fire Fighting Training Area will be revised to read "The first LTM event specified in the ESD commenced in April 2014 but an evaluation of the

validated data has yet to be completed.” Monitoring gaps and the existing monitoring well network will be assessed upon completion of the evaluation of the validated data collected in April 2014.

17. Page F-2 – Issues – Hangar 1 (non-APD) – As discussed above, there are unresolved issues (identified during EPA’s review of the draft LTMP work plan) related to monitoring gaps (need for additional data collection points) and the existing monitoring well networks ability to effectively capture the migrating plumes, that will need to be addressed. While the Navy has agreed to discuss these issues after the results from recent sampling effort were available, the data has yet to be provided to EPA for evaluation.

Response: Comment noted. Monitoring gaps will be assessed upon completion of the evaluation of the validated data collected in April 2014.

18. Page 1-1, Section 1.0 – For reasons previously discussed, please add “Sewage Treatment Plan (STP)” to the list of sites evaluated in the five-year review. This change should be made throughout the document, where necessary.

Response: STP will be added to the list of sites evaluated in the second FYR and this change will be made throughout the document.

19. Page 1-4, Section 1.1 – Please amend “National Priorities List (NPL)”.

Response: The above revision will be made on Page 1-2, Section 1-1.

20. Page 1-5, Section 1.3 – For reasons previously discussed, please amend the last sentence as follows, “The following five sites (four IR sites and one AOC...”

Response: The last sentence on page 1-5, Section 1.3 will be amended accordingly.

21. Page 1-6, Section 1.3 - Please change “four” to “five” in the first sentence and amend the last sentence to read, “... reviews once “RODs are finalized and the ROD-specified...”

Response: The first sentence on Page 1-6, Section 1.3 will be revised to read “three” instead of “four”, and the last sentence will be revised to read “...reviews once RODs are finalized and the ROD-specified...” as suggested.

22. Page 1-6, Section 1.3 – For reasons previously discussed, please move “IR Site 7, OU-7, Former Sewage Treatment Plant” to the table of IR sites “with ROD-specified remedies” and change its “Status” to “ROD-specified remedy implemented and on-going”.

Response: On Page 1-6, Section 1.3, “IR Site 7, OU-7, Former Sewage Treatment Plant” will be moved to the table of IR sites and its “Status” changed to “ROD-specified remedy implemented and on-going.”

23. Page 1-6, Section 1.3 - Please change “Status” of “OU11 - Building 82 (Hangar 2)” to “ROD signed but remedy not yet completed”.

Response: The “Status” of “OU11 - Building 82 (Hangar 2)” will be changed to “ROD signed but remedy not yet completed.”

24. Page 1-6, Section 1.3 - Please change “Status” of “OU14 Solvent Release Area” to “ROD signed but remedy not yet completed”.

Response: The “Status” of “OU14 Solvent Release Area” will be changes to “ROD signed but remedy not yet completed.”

25. Page 1-7, Section 1.5 – Please insert “the STP” after “the FFTA” in reference to Sections 2 – 5 and summaries in Appendix B, E, F and ERA evaluations in Appendix G.

Response: “the STP” will be inserted after “AOC Hangar 1 Non-APD parcel” in Sections 2-6 and summaries in Appendix B, E, F and ERA evaluations in Appendix G.

26. Page 2-9, Section 2.3.2, Institutional Controls - The section discusses the purpose and objectives of the WGL ROD-imposed LUCs. Specifically, the first paragraph lists two objectives, the second of which is to “Prohibit activities or uses of the site that would disturb or otherwise interfere with the integrity or function of the cap” and is preceded by “The purpose of these ICs is to control or restrict certain kinds of property uses to prevent potential exposure to hazardous substances.” Please explain, from a remedy protectiveness/IC effectiveness standpoint, why/how the construction of a roadway intersecting the site (Section 2.2.2, Land Use and Resource Use) could ever be considered a viable, potential reuse, consistent with the aforementioned LUC purpose and objectives.

Response: A road way would not be a viable use under the current Land Use Controls. There is no language in the document to suggest that it is a viable use.

27. Page 2-27, Section 2.6.2, Changes in Toxicity and Other Contaminants Characteristics, ¶ 1 - Please change “1, 4-dioxance” to “1, 4-dioxane”.

Response: 1,4-dioxance will be revised to 1,4-dioxane.

28. Page 3-21, Section 3.5.4, Other Detected Compounds, ¶ 2 – Please change “...detected frequently...” to “... detected infrequently...”

Response: Page 3-21, Section 3.5.4, Other Detected Compounds, 2nd paragraph “...detected in frequently...” will be revised to read “...detected infrequently...”

29. Page 3-35, Section 3.8 - The last issue (action in mitigating landfill gas exceedances) has no entry under the “Affects Protectiveness” column. Please revise.

Response: The formatting of the in-text table will be revised so the entry under “Affects Protectiveness” is visible. The entry under “Affects Protectiveness” is “No” for the last issue (action in mitigating landfill gas exceedances).

30. Page 4-2, Section 4.2.2 – Please explain the meaning of “reservations” as one of the open space uses.

Response: According to the Reuse Plan, the primary purposes of the Open Space – Rockland District (OS-R) are “to provide an open space area along the Rockland perimeter of the NAS South Weymouth boundary, encourage the preservation of large, contiguous wetland areas, and open space for park land, active and passive recreation, reservations, community gardens, rivers and streams, and similar uses.” The definition of “reservations” is not further explained in the Reuse Plan.

31. Page 4-5, Section 4.3.1 – The second sentence states, “The Navy will develop a LTM plan for PFOA and PFOS and implement an annual monitoring program in accordance with the plan.” It should be amended to reflect the fact that groundwater samples have been collected in accordance with the recently approved [Hangar 1] and FFTA LTMP, but data is not yet available for evaluation.

Response: Agree. The sentence will be revised as suggested.

32. Page 4-7, Section 4.5.4 - The text states that, “The SAP and LTM reports will be reviewed during the next five-year review.” This is contrary to the FFTA ESD (Section 6.0) which commits the Navy, USEPA, and MassDEP to review site conditions, monitoring data and the effectiveness of LUCs during five-year reviews to determine whether the continued implementation of the remedy is

appropriate. Since the ESD was signed in August 2013 and groundwater water samples were collected (prior to issuance of the draft Five-Year Review Report), these data should be “evaluated” in the 2014 draft report.

As you may recall, when EPA “conditionally approved” the “HANGAR 1 SAP AND FFTA LTM PLAN - PERFLUORINATED COMPOUNDS” via email on February 11, 2014, it expressed concern that the existing monitoring well networks might not be screened at depths to effectively capture the migrating plumes. The Navy responded that it would “evaluate” the need to sample additional existing wells or install additional monitoring points during the “course of the monitoring program” at FFTA (i.e., “after the results from the planned sampling effort are available”). In light the above, EPA requests that all PFC groundwater data, beginning with the 2010 – RIA PFC Investigation, be compiled for evaluation as part of the 2014 Five-Year Review Report.

In addition, the FFTA LUCIP (Attachment 1 of the ESD) states that, “The next Five-Year Review for former NAS South Weymouth will include an evaluation of this remedy for the LUC Area.” The Navy also agreed, in Section 6.0 of the ESD, to conduct an assessment of “new groundwater extraction wells in the general vicinity [i.e., beyond the site/LUC boundaries] of the FFTA”. Accordingly, the EPA requests that the Navy include its “determination” in the 2014 Five-Year Review Report.

Response: The Draft Second Five-Year Review Report was submitted for review on February 18, 2014, prior to the Final Hangar 1 SAP and FFTA LTM Plan (February 19, 2014) and prior to the first sampling event conducted in early April 2014. Therefore, the validated analytical results for the first sampling event were not available at the time of the draft submittal of the Second Five-Year Review Report and will be included in the next five-year review report.

Comment noted. The existing monitoring well network for Hangar 1 and FFTA will be assessed upon completion of the evaluation of the validated data collected during the April 2014 sampling event.

The first Annual LUC Inspection for FFTA was completed in June 2014 which is within the first year of the implementation of the selected remedy as documented in the August 2013 ESD. No violations of the Land Use Controls were noted.

33. Page 4-10, Section 4.6.2, Expected Progress Towards Meeting RAOs – Please amend the discussion to reflect the fact that the IC and deed restriction is to restrict the use of groundwater for drinking water purposes and to also restrict the use of groundwater for non-drinking purposes unless the Navy, USEPA and MassDEP provide their prior written consent.

Response: The discussion on Page 4-10, Section 4.6.2, Expected Progress Towards Meeting RAOs will be revised to clarify that the land use control will take the form of an IC and deed restriction to restrict the use of groundwater for drinking water purposes and to also restrict the use of groundwater for non-drinking water purposes unless the Navy, USEPA, and MassDEP provide their prior written consent.

34. Page 4-11, Section 4.8 – Please amend the table based on resolution of the Section 4.0 comments above.

Response: The “Recommendation/Follow-up Actions” in the embedded table in Section 4.8 will be amended to read, “Evaluate validated data collected during the first sampling event (April 2014) of the LTM program in order to monitor potential contaminant migration.”

35. Page 5-4, Section 5.2.5, ¶ 3 – The first sentence states, “These compounds are “emerging contaminants” and are not part of the TCL (USEPA, 2012).” EPA has been unable to locate this document. Please provide a copy of the cover page and amend the citation in Appendix A, if warranted.

Response: The referenced EPA Fact Sheet (May 2012) was provided to the EPA and MassDEP in an email dated Monday June 9, 2014.

36. *Page 5-5, Section 5.3.1 - Change the last sentence of the second paragraph from “The remedy will be evaluated as part to the five-year reviews...” to “The remedy will be evaluated as part of the five-year reviews...”*

Response: The last sentence of the 2nd paragraph in Section 5.3.1 on Page 5-5 will be revised to read “The remedy will be evaluated as part of the five-year reviews...”

37. *Page 5-6, Section 5.3.2, Institutional Controls – The discussion should be corrected to reflect the fact that the institutional control only restricts the use of groundwater for drinking water purposes. However, EPA recommends that the ESD be amended to expand the scope of the IC to include the uses identified in this discussion.*

Response: The discussion on Page 5-6, Section 5.3.2, Institutional Controls will be revised to reflect that ICs only restrict the use of groundwater for drinking water purposes. Navy notes that no new information has been uncovered to cause a change to the remedy selected in the 2011 Hangar 1 ESD. However, a “Recommendation/Follow-up Action” will be added stating the annual LUC inspection will be expanded to monitor for any construction of any groundwater well in the restricted area.

38. *Page 5-8, Section 5.3.3, Long-Term Monitoring - The text states that, “LTM requirements were not included in the ROD or ESD for the Non-APD parcel at AOC Hangar 1, although sampling will be conducted at the Site in conjunction with LTM monitoring for FFTA. Sampling activities at AOC Hangar 1 will be initiated in 2014. The Navy is in the process of finalizing the SAP.” Please update this section to reflect the current status of these activities. Specifically, the Hangar 1 SAP [and FFTA LTMP] was tentatively approved February 2014 and sampling has been completed to assess current groundwater conditions related to PFCs. The results will aid in the selection of a final remedy for Hangar 1, specifically relative to PFC’s in the Aquifer Protection District (APD).*

As you may recall, when EPA “conditionally approved” the “HANGAR 1 SAP AND FFTA LTM PLAN - PERFLUORINATED COMPOUNDS” via email on February 11, 2014, it expressed concern that the existing monitoring well networks might not be screened at depths to effectively capture the migrating plumes. The Navy responded that it would “evaluate” the need to sample additional existing wells or install additional monitoring points during the “course of the monitoring program” at FFTA (i.e., “after the results from the planned sampling effort are available”). In light the above, EPA requests that all PFC groundwater data, beginning with the 2010 – RIA PFC Investigation, be compiled for evaluation as part of the 2014 Five-Year Review Report.

Response: Page 5-8, Section 5.3.3, Long-Term Monitoring will be updated to reflect that the SAP and LTM Plan were finalized in February 2014 and the groundwater assessment sampling for AOC Hangar 1 was conducted in April 2014. A sentence will also be added stating “Groundwater assessment results will aid in the selection of a final remedy for AOC Hangar 1 – APD.”

39. *Page 5-9, Section 5.6.2, Changes in Exposure Pathways – As discussed above, since issuance of the Hangar 1 ESD in December 2012, previously unconsidered groundwater uses (and associated exposure pathways and risks) were identified that necessitated the broadening of groundwater-related ICs in recent decision documents to ensure remedy protectiveness. Therefore, in order to ensure the continued protection of human health and the environment, the Hangar 1 Non-APD ESD must be expanded beyond the current drinking water restriction, to prohibit the extraction of groundwater for production, supply or irrigation purposes and to require regulatory approval of construction dewater plans prior to conducting construction dewatering at the site.*

Response: See response to Comment #37. Note: Hangar 1 ESD (December 2011).

40. *Page 5-10, Section 5.6.2 – Please clarify the intent and purpose of the last sentence of the section that states, “SSTTDC and the developer (Starwood) have consented to the establishment of the institutional control on groundwater use for the Hangar 1 Non-APD.”.*

Response: This sentence is included in the 2011 AOC Hangar 1 ESD (last sentence in Section 1.4) and supports the fact that groundwater in the Non-APD portion of the Site is not a viable drinking water source and, therefore, drinking water is not a reasonably foreseeable use of the groundwater. The sentence will be revised as follows:

“SSTTCD and the developer (Starwood) have consented to the establishment of the institutional control on groundwater use for the Hangar 1 Non-APD, further supporting the supposition that drinking water is not a reasonably foreseeable use.”

41. *Page 5-11, Section 5.8 – As stated above, EPA recommends that the Hangar 1 Non-APD ESD be expanded beyond the current drinking water restriction, to prohibit the extraction of groundwater for production, supply or irrigation purposes and to require regulatory approval of construction dewater plans prior to conducting construction dewatering at the site.*

Response: See response to Comment # 37.

42. *Page 6-1, Sections 6.1 and 6.1.1 – For reasons previously discussed, the former Sewage Treatment Plant (STP) should be removed from the discussion of “Other CERCLA Sites” and evaluated in the FYR report.*

Response: STP will be removed from “Other CERCLA Sites” and evaluated in the FYR report.

43. *Page 6-3, Section 6.1.2, ¶ 4 - Please change “early 2014” to “summer 2014”.*

Response: Page 6-3, Section 6.1.2, 4th paragraph will be revised to read “summer 2014” instead of “early 2014.”

44. *Page 6-4, Section 6.1.3, ¶ 5 – Please amend the second to last sentence to read, “Groundwater samples were collected to establish a new baseline level of contamination prior to commencing the pilot study on December 19, 2013.”*

Response: The second to last sentence will be revised to read “Groundwater samples were collected to establish a new baseline level of contamination prior to commencing the pilot study on December 19, 2013.”

45. *Pages 6-6 and 6-7, Sections 6.1.6 and 6.1.7 - Please add the following text to the last paragraphs, “The Navy conducted a field investigation in 2011 to assess data gaps in historical surface and subsurface soil sampling events. The results of the IOA data evaluation revealed detections of PAHs, arsenic, chromium, and Aroclor-1260 above risk-based cleanup goals. The Navy, EPA, and MassDEP agreed that a removal action should be for performed to protect human health and the environment, facilitate property transfer and allow for immediate site closure with unlimited use and unrestricted exposure for future property use.”*

Response: The following text will be added to Sections 6.1.6 and 6.1.7:

“The Navy conducted a field investigation in 2011 to assess data gaps in historical surface and subsurface soil sampling events. The results of the IOA data evaluation revealed detections of PAHs, arsenic, chromium, and Aroclor-1260 above risk-based cleanup goals. The Navy, EPA, and MassDEP agreed that a removal action should be for performed to protect human health and the environment, facilitate property transfer and allow for immediate site closure with unlimited use and unrestricted exposure for future property use.”

46. Page 6-6, Section 6.1.6 – As indicated in the last paragraph of this section, an *Explanation of Significant Differences (ESD)* was issued for the Hangar 1 ROD in December 2012, to incorporate a prohibition on the use of groundwater for drinking water purposes. Several previously unconsidered groundwater uses (and associated exposure pathways and risks) necessitate the broadening of existing ICs to ensure protectiveness. Consistent with recent, groundwater-focused decision documents, the Hangar 1 non-APD ESD must be expanded beyond the current drinking water restriction, to prohibit the extraction of groundwater for production, supply or irrigation purposes and to require regulatory approval of construction dewater plans prior to conducting construction dewatering at the site.

In addition, an interim groundwater restriction is recommended for the APD portion of Hangar 1 to prevent the potential use of and exposure to PFC-contaminated groundwater, until completion of the proposed remedial investigation and subsequent remedy evaluation, selection and implementation (if warranted) and attainment of cleanup goals (if applicable). Similar to the existing LUC language discussed above, interim restrictions would be established to prohibit the extraction of groundwater from within the Hangar 1 APD area for production, supply or irrigation purposes and to require EPA and MassDEP approval of construction dewatering plans prior to conducting construction dewatering at the Site.

Response: See response to Comment # 37. The APD portion of the site remains under Navy control and all uses of groundwater are prohibited without prior approval from Navy. LUCs will be evaluated during the FS following completion of the RI. Note: Hangar 1 ESD (December 2011).

47. Appendix A – Please see Comment 35 above.

Response: See response to Comment 35.

**RESPONSE TO EPA COMMENTS ON
NAVY'S 6/25/14 RESPONSE TO EPA 6/2/14 COMMENTS -
DRAFT SECOND FIVE-YEAR REVIEW REPORT
FORMER NAVAL AIR STATION SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS
February 2014**

Navy responses to the United States Environmental Protection Agency (EPA) comments dated July 3, 2014 on Navy's response to EPA comments dated June 2, 2014 on the Draft Second Five-Year Review Report, Former Naval Air Station South Weymouth, Weymouth, Massachusetts (February 2014) are presented below. The EPA's comments are presented first (in italics) followed by Navy's response.

- 1. RTCs #3 and #4 – The response is unacceptable. Although the Navy has “noted” EPA’s concerns related to the “continued delay in the release of laboratory data (and/or relevant field data) from recent sampling events to assess current (groundwater)”, the response should be amended to specifically explain how the Navy intends to address this matter.*

Response: The draft validated data for samples collected during the April 2014 sampling event at Fire Fighting Training Area (FFTA) and Area of Concern (AOC) Hangar 1 were provided to the Navy, EPA, and Massachusetts Department of Environmental Protection (MassDEP) on June 16, 2014, but the analysis and report is pending. The Navy has had to establish a cut-off date for incorporation of information to be evaluated in the Second Five-Year Review (as opposed to minor edits) and needs to meet the deadline for submission of the Second Five-Year Review. In order to do so, and given the timing of input, the timing of the receipt of draft validated data, and the time constraints associated with meeting the July 13, 2014, statutory deadline, the draft validated data for the April 2014 sampling event will be provided in the final five year review report as a new appendix (Appendix I). The Navy will continue to endeavor to keep to schedules agreed upon in the Site Management Plan and provide data in a timely manner as it becomes available.

- 2. RTC #6 & 7 – The responses are unacceptable. Please insert “Table 4-3 – FFTA - Summary of Groundwater Analytical Results” and “Table 5-3 – Hangar 1 NON-APD - Summary of Groundwater Analytical Results” to the TOC/report, as requested (see RTC #38). It is irrelevant that “the spring 2014 LTM sampling event for FFTA was completed after the submittal of the Draft FYR” since the draft FYR can be amended to include any and/or information deemed necessary to complete the FYR, prior to the date of approval by the regulators.*

Response: The Navy's approach in preparing the Second Five-Year Review has been to use post-decision document results [i.e., long-term monitoring (LTM) data, annual LUCIP reports] to assess the effectiveness of the Record of Decision (ROD)-specified remedies that have been implemented/in-place, and to summarize data that had been used to support the decision documents. The 2010/2011 perfluorinated compound (PFC) data was used to help determine the necessary response actions for FFTA and AOC Hangar 1

(pre-decision data). The 2010/2011 PFC data was presented and evaluated in the RIA 11 – Releases of Aqueous Film Forming Foam in Hangar 1 Decision Document (August 2012). A summary of the 2010/2011 PFC investigation is provided in Sections 4.2.5 and Section 5.2.5 of the Second Five-Year Review, as appropriate. However, as is consistent with the above-stated approach, data collected pre-decision document is not included in summary tables in the five-year report.

The draft validated data for samples collected during the April 2014 sampling event at FFTA and AOC Hangar 1 (post-decision data) were provided to the Navy on June 16, 2014. Given the timing of input, the timing of the receipt of draft validated data, and the time constraint for meeting the July 13, 2014 deadline, the draft validated data for the April 2014 sampling event will be incorporated into the Second Five-Year Review as an appendix for reference (Appendix I).

The FFTA April 2014 LTM event was the first event in the LTM program established for the site. Additional LTM events for FFTA are scheduled and will be evaluated in the next five-year review. The April 2014 sampling event conducted for AOC Hangar 1 will provide baseline data to help assess the response action for the AOC Hangar 1 Aquifer Protection District (APD), and the data does not change the evaluation of the effectiveness of the ROD-specified remedy [land use controls (LUCs)] for AOC Hangar 1 Non-APD.

3. *RTC #26 - – The response is unclear and warrants further discussion. The Navy’s response states that “A road way would not be a viable use under the current Land Use Controls” and “There is no language in the document to suggest that it is a viable use”. Although EPA agrees that a roadway is not and would not be a viable use, it is unclear why it is acknowledged as such in the 2014 FYR (i.e. “Previous potential reuse considerations suggested a roadway may intersect the Site.”).*

Response: Section 2.2.2 will be revised to reflect that construction of a roadway intersecting the site is not a current plan. Section 2.2.2 will be revised as follows:

“The reuse zoning for the WGL area is a combination of open space and mixed use which could allow a range of uses from residential, commercial, and retail uses such as convenience stores, restaurants, and shops (SSTTDC, 2005) to open space.”

4. *RTCs #32 and #38 - The responses are unacceptable. Upon further evaluation and consideration of the limited data that is available to adequately “determine whether the continued implementation of the remedy is appropriate”, EPA is willing to forego the “evaluation” of the monitoring program and effectiveness of LUCs until the next (2019) Five-Year Review. However, the Navy should include an update on current site conditions (including a discussion of any activities that have occurred in the area since the issuance of the August 2013 ESD) and summary of existing groundwater analytical results (i.e. from 2010–RIA PFC Investigation to recent spring 2014 LTM event) as Table 4-3 in the 2014 FYR (see RTCs #6 and #7). It is irrelevant that “the spring 2014 LTM sampling event for FFTA was completed after the submittal of the Draft FYR” since the draft FYR can be amended to include any and/or information deemed necessary to complete the FYR, prior to the date of approval by the regulators.*

Response: An update on the current site conditions will be included in the final five-year review report. The first Annual LUC Inspection for FFTA was completed in July 2014; no violations of the LUCs were noted, and no changes in land use have occurred. The results of the 2014 FFTA LUC inspection will be included in the final report. Section 4.5.4, Annual LUC Compliance Inspections will be revised to specify that no violations of the LUCs were noted.

Additionally, the draft validated data for samples collected during the April 2014 sampling event at FFTA and AOC Hangar 1 were provided to the Navy, EPA, and MassDEP on June 16, 2014 and will be placed in the final report as an appendix for reference (Appendix I).

5. *RTC #38 - For reasons previously discussed (see RTCs #6, #7 and #32), EPA requests that a summary of existing groundwater analytical results (i.e. 2010–RIA PFC Investigation to recent Spring 2014 LTM event) be included (as a data summary table) in the 2014 Five-Year Review Report. Please amend the proposed text to state, “Groundwater assessment results are provided in attached Table 5-3 and will aid in the selection of a final remedy for AOC Hangar 1 – APD.”*

Response: As noted above, the draft validated data for samples collected during the April 2014 sampling event at FFTA and AOC Hangar 1 were provided to the Navy, EPA, and MassDEP on June 16, 2014 and will be placed in the final report as an appendix for reference (Appendix I).

The proposed text in Section 5.3.3, Long-Term Monitoring, 1st paragraph, 4th sentence will be revised as follows:

“Groundwater sampling results from the April 2014 event will be used to complete a groundwater assessment and aid in the selection of a final remedy for AOC Hangar 1 – APD.”

6. *RTCs #37, #39, #41, and #46 - The revised text should be revised to state, “... for construction of any groundwater extraction wells in the restricted area.”*

Response: The 2nd “Recommendation/Follow-Up Action” for AOC Hangar 1 Non-APD will be revised to state, “Expand the annual LUC inspection to monitor for construction of any groundwater extraction well in the restricted area.”