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LETTER REGARDING U S EPA REGION I REVIEW COMMENTS AND CONCURRENCE  
WITH DRAFT SAMPLING AND ANALYSIS PLAN AND WITH RECOMMENDATIONS FOR  
SEPARATING CARR POINT INTO TWO OPERABLE UNITS NS NEWPORT RI  
12/20/2012  
U S EPA REGION I



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

5 POST OFFICE SQUARE, SUITE 100  
BOSTON, MASSACHUSETTS 02109-3912

December 20, 2012

Maritza L. Montegross  
Remedial Project Manager  
NAVFAC MIDLANT, Code OPNEEV  
9742 Maryland Avenue, Bldg. Z-144  
Norfolk, VA 23511-3095

Re: Draft Sampling and Analysis Plan  
Former Carr Point Shooting Range (MRP Site 1, OU9) and  
Former Carr Point Storage Area (IR Site 22, OU10)  
NAVSTA Newport, RI  
November 5, 2012

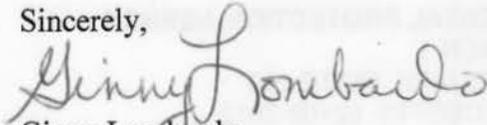
Dear Ms. Montegross:

EPA has completed its review of the "Draft Sampling and Analysis Plan, Former Carr Point Shooting Range (MRP Site 1, OU9) and Former Carr Point Storage Area (IR Site 22, OU10), NAVSTA Newport, RI," dated November 5, 2012, as prepared by Resolution Consultants, on behalf of Naval Station Newport, RI (hereafter referred to as Draft SAP). Based on the findings of the Site Investigation Report (TetraTech, May 2010), the Navy concluded that there were contaminants at the Carr Point site that may pose potential for risk to human health and the environment and Navy recommended, and EPA concurred, that the Carr Point site should be broken out into 2 separate operable units and that an RI should be performed. The Draft SAP serves as the Draft Remedial Investigation (RI) Work Plan for both the Former Carr Point Shooting Range and Storage Area (OU9 and OU10).

Pursuant to our discussions on the conference call held on December 17, 2012, it is EPA's understanding that Navy will be revising the approach presented in the Draft SAP related to the collection of sediment samples for background/reference characterization. EPA will await the Navy's documentation supporting the revised approach and looks forward to participating in future conference calls, if needed, to finalize the SAP elements of that effort.

Enclosed please find EPA's comments on the Draft SAP. If you have any questions, please contact me at (617) 918-1754 or at [lombardo.ginny@epa.gov](mailto:lombardo.ginny@epa.gov).

Sincerely,



Ginny Lombardo  
Remedial Project Manager



Attachment

- cc: Pamela Crump, RI DEM
- Darlene Ward, NAVSTA Newport
- Melissa Cannon, Resolution
- Mark Kauffman, Resolution
- Ken Munney, USF&W
- Chau Vu, EPA
- Bart Hoskins, EPA
- Greg Kemp, Mabbett & Associates, Inc.

**EPA Comments on  
Draft Sampling and Analysis Plan  
Former Carr Point Shooting Range (MRP Site 1, OU9) and  
Former Carr Point Storage Areas (IR Site 22, OU10)  
Naval Station (NAVSTA) Newport, RI  
November 5, 2012**

**GENERAL COMMENTS**

1. Surface water is not included in the SAP as a media of concern. In Worksheet 10-1 and 10-2, or elsewhere where it would be appropriate, include a discussion supporting the Navy's position that surface water is not a media of concern. EPA agrees that surface water does not need to be included as a media of concern, but requests that Navy clarify the basis for that conclusion in the SAP.
2. The SAP does not include a data collection effort to evaluate bedrock groundwater. All of the proposed groundwater monitoring wells are to be located in the overburden aquifer. Clarify how the Navy will delineate the vertical distribution of contaminants in groundwater within the study areas. Provide support for locating all of the proposed monitoring well screens in the shallow aquifer at the water table. EPA will need to evaluate the Navy's response to this comment before we will concur with an RI Work Plan that does not investigate groundwater at depth and within the bedrock aquifer.
3. Although there is an extensive References Section provided in Appendix C, there does not appear to be a References Section for the SAP. Confirm whether all documents referenced in the SAP are included in the Appendix C References Section or provide a References Section for the SAP.

**SPECIFIC COMMENTS**

1. Worksheet 10-1, Page 47, Nature and Extent of Contamination: The SAP does not identify propellants as a contaminant of concern (COC), although propellants were identified as a contaminant that could pose a potential for human health risk at the site in the "Site Investigation for MRP Site 1- Carr Point" (TetraTech, May 2010). The SAP states: "Although propellant residues (i.e., nitroglycerin) were reported during the prior investigations (TetraTech, 2010a), they are considered to be limited to the clay pigeon launching/firing arc area, which will be addressed via a planned removal action (TetraTech, 2012), and not considered a potential compound of interest for other areas of the MRP Site 1." Thus, it is EPA's understanding that the Navy is taking the position that the planned removal action will remove all propellant residues in soils to a level that will be protective; therefore, propellant constituents (i.e., nitroglycerin) do not need to be carried forward as a COC in the RI effort. This position should be further clarified in the SAP. EPA reserves our concurrence on this position until after completion of the removal action and evaluation of post-removal confirmatory data.
2. Worksheet 14-1 and 14-2, Page 145 and 156, Clearing: The SAP indicates that prior to the initiation of field work, the Navy, its contractors, and the regulatory agencies will conduct a site visit to mark out locations of the proposed soil borings and monitoring wells. EPA

concur that this would be a valuable opportunity to ensure consensus on the RI WP implementation. As soon as this can be scheduled, please propose dates for our consideration.

4. Worksheet 14-1 and 14-2, Page 148 and 158, Sediment Sampling; and Worksheet 30, Page 332: EPA did not review the analytical SOP listed in Worksheet 30 for grain size analysis of sediment. However, a full breakdown, beyond the broad categories of cobbles, sands, silts and clays, may be unnecessarily detailed, unless it would be needed for engineering purposes later. Particularly for the selection of suitable background locations, the Navy may find that a less detailed grain size analysis is adequate.
3. Worksheet 14-1, Page 148-150, Sediment Sampling: This section describes core sampling for chemical analysis of sediment and other devices (e.g., ponar, Eckmann samplers) for sampling of sediment for toxicity testing. EPA suggests that in order to harmonize the results of toxicity and chemistry sampling, the toxicity testing sample should also be made up of a homogenized composite of a sufficient number of cores to obtain a toxicity test sample. Alternatively, and ideally, both chemistry and toxicity should come from the same composited bowl. Sampling devices such as a ponar grab samplers rarely achieve their nominal sampling depth of 0-6 inches unless the sediment is very soft. The discrepancy between sampling depths created by different collection methods may cause difficulty in data interpretation.
4. Worksheet 14-1 and 14-2, Page 152 and 159, Sediment Sampling, Background/Reference Locations: With respect to the sediment background data collection effort, EPA recommends locating some of the background sediment samples in an area near the Carr Point site, but outside the likely extent of lead shot and other site impacts, in order to better match with site conditions such as grain size.
5. Appendix C, Page 14, Chemical-Specific Information: EPA does not agree with the Navy's position articulated here that "in the absence of speciated chromium results, chromium will be evaluated as trivalent chromium in the HHRA if there are no known current of former sources of hexavalent chromium at the site." Note that, in the absence of chromium speciation data, it is EPA's risk assessment practice to assume that chromium at a site is hexavalent chromium (Cr +6), not trivalent chromium (Cr +3), to be conservative. EPA encourages doing chromium speciation for a site to get site-specific data, but where there is no specific information, Cr +6 should be considered in the evaluation.
6. Appendix C, Section 4.2, Page 23 and Table 11: The Herring Gull is selected as a representative receptor species for purposes of the ecological risk assessment. The Risk Assessment Work Plan Technical Memorandum states that the "diet will be assumed to be 100% of its most contaminated prey item". In this instance, it seems the only available option will be to use a literature-based sediment-to-biota accumulation factor (BSAF) and model to a generic food item. Although this food chain modeling approach was not discussed in the SAP, it is EPA's understanding that the data collected through the SAP would be utilized in the ecological risk assessment process detailed in Appendix C. Considering the proposed data collection effort detailed in the Draft SAP, several questions emerge related to the application of the proposed food chain model for consideration and discussion.

- If the home range is taken into account, is there any receptor species, BSAF, and sediment concentration combination based on existing data that could trigger a risk, or is the entire exercise moot in the absence of higher detected contaminant concentrations than have been found to date?
- Is there any biota that could be collected for a “reality check” of the BSAF? Could collection of some kind of biota be worked into the scuba work? If so, would it be infauna such as clams or worms, or epifauna such as crabs, which is a more realistic food item for the herring gull, but possibly less susceptible to uptake of contaminants from bedded sediment?
- Is there any proxy, such as pore water analysis (filtered), that could provide clarity on whether concentrations of lead in sediment are biased high due to small fragments of lead in the chemistry sample? Such lead may not be bioavailable, but may influence the findings of the chemical analysis.

Marine sites like Carr Point present a challenge for food chain modeling because it is difficult to determine the best receptor species and food items to sample. EPA suggests collecting an additional line of evidence to further evaluate risk based on BSAF/food chain modeling should this be needed.