N62578.AR.003260
NCBC DAVISVILLE
5090.3a

U S NAVY RESPONSES TO RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT COMMENTS DATED 18 MARCH 2016 ON QDC OUT FALL 001 DRAFT REMEDIAL ALTERNATIVES EVALUATION AND SITE INSPECTION REPORT FORMER NCBC DAVISVILLE RI

04/22/2016

RESOLUTION CONSULTANTS

NAVY RESPONSES TO
RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
COMMENTS DATED MARCH 18, 2016
ON QDC OUTFALL 001 DRAFT REMEDIAL ALTERNATIVES EVALUATION AND SITE INSPECTION REPORT,
FORMER NAVAL CONSTRUCTION BATTALLION CENTER (NCBC) DAVISVILLE,
NORTH KINGSTOWN, RHODE ISLAND
(APRIL 22, 2016)

RIDEM comments on the Navy's QDC Outfall 001 Draft Remedial Alternatives Evaluation and Site Investigation Report (March 2016), are presented below. The RIDEM comments are presented first, followed by the Navy responses (*italics*).

1. Page 7-EBS Review Item 53 -It is stated that VOCs, metals, and pesticides were below United States Environmental Protection Agency and RIDEM industrial/commercial screening criteria. Given that this is a recreational it would be relevant to compare to RIDEM recreational standards (residential direct exposure criteria).

Navy Response – This language was taken directly from the Remedial Investigation Report. The conclusions presented in that document were previously agreed to by RIDEM and USEPA. No additional screening or analysis of data from the EBS investigation will be made in this document.

2. Page 10, Section 2.0, Trans-chlordane in Sediment - Please define what are considered shallow soil and sediment samples. Based on this section shallow sediments appear to be in the 0-1' depth as it is noted that trans-chlordane was not detected in the shallow sediment but were detected in the 1 - 2' interval. Please confirm.

Navy Response – Shallow sediment generally refers to the 0-1' depth. The overall theme for this section is that concentrations of pesticides in sediment generally decrease with depth with some anomalies such as at the wetland discharge to the drainage ditch. For the soil, shallow soil generally refers to the 0-2' depth, although a pattern for concentration by depth is less definitive in the drainage ditch. The last two sentences to this paragraph will be revised as follows:

"In the drainage ditch, the distribution of trans-chlordane is more random and concentrations of trans-chlordane were highest in the most downgradient sample. These anomalies may be the result of the reworking of soil in this area as part of the demolition of the former structures within the area and/or the grubbing of the drainage ditch by QDC in 2013."

3. Page 10, Section 2.0, Metals in Groundwater - Please provide the source that states both arsenic and iron are commonly detected in regional groundwater.

Navy Response – The word "regional" in the statement should have been better defined, as it was meant to describe New England and not Rhode Island in particular. Following review of multiple references documenting analysis results of arsenic in Rhode Island groundwater, the conclusion is that arsenic detections in background Rhode Island groundwater appear to be limited and typically low. Note that the statement was one

line of evidence in documenting that these two metals were not necessarily site-related. Upgradient detections of these two metals is a stronger line of evidence. The text will be updated to include references which show detections of arsenic and iron in Rhode Island groundwater as follows:

"While both arsenic and iron are commonly detected in regional (i.e., New England) groundwater, arsenic detections in background Rhode Island groundwater appear to be limited and typically low (Johnston and Barlow, 1987; Stone & Webster, 1996). Similar to regional groundwater, iron is commonly detected in background Rhode Island groundwater (Stone & Webster, 1996)."

Johnston, Herbert E. and Barlow, Paul M. 1987. Rhode Island Ground-Water Quality. U.S. Geological Survey Open-File Report 87-0750.

Stone & Webster, 1996. Basewide Ground Water Inorganics Study Report NCBC Davisville, Rhode Island. September 6, 1996.

4. Page 16, Section 4.2.1, Alternative 1 - No Action, Protection of Human Health and the Environment, Second Sentence - Please change "TPH impacted and soil and sediment..." to "TPH impacted soil and sediment..."

Navy Response – The change has been made as indicated.

5. Page 16, Section 4.2.1, Alternative 1 - No Action, Long-term Effectiveness and Permanence, Second Sentence- Please change "TPH impacted and soil and sediment..." to "TPH impacted soil and sediment..."

Navy Response – The change has been made as indicated.

6. Page 16, Section 4.2.2, Alternative 2 - Excavation, Solid Waste Dewatering, and Disposal, Sentence 3 -This sentence states that compliance sampling will be completed prior to mobilization. Please state what step-out samples will be taken and at what interval both horizontally and vertically.

Navy Response – The Navy intends to conduct limited compliance sampling to supplement the data collected in the RI in accordance with Section 8.10, A, ii of the Remediation Regulations. Specific details (including sampling locations) associated with the compliance sampling will be presented in the Remedial Action Work Plan. The compliance sampling will be conducted to refine the excavation footprint delineated in the RI prior to remedial action mobilization. Step out sampling will be completed as necessary to delineate the extent of the excavation. It is necessary to determine the extent of excavation prior to mobilization, so that excavation and water management activities are executed efficiently to minimize disturbance of the wetland, construction duration, and volume of water managed.

The Navy anticipates that if additional, horizontal step out samples are needed, they will be completed by stepping out 10 feet laterally, as necessary, to delineate the extent of the excavation. Vertical step out sampling locations will be completed at 1 foot increments up to a maximum depth of 4 feet. Sufficient data was collected during the

Remedial Investigation to characterize the total depth of impact to 4 feet. Given the location of the excavation area (within the wetland and drainage ditch), excavation at any greater depth will dramatically impact the remedy. Excavation to depths greater than 4 feet would significantly increase the amount of groundwater to be managed and would potentially require the need for excavation support.

The following paragraph will be included after the first paragraph in Section 4.2.2 and Section 4.2.3 for clarification.

"Compliance sampling will be conducted in accordance with Section 8.10,A,ii of the Remediation Regulations. Specific details pertaining to location, sampling frequency, and analyte list will be provided in the Remedial Action Work Plan. Compliance sampling will consist of sufficient soil boring and sample locations necessary to delineate the extent of excavation in the wetland and the drainage ditch to a maximum depth of 4 feet. If needed, horizontal step out sampling will be completed at 10 foot intervals, laterally, as necessary to delineate the extent of the excavation. Vertical step out sampling locations will be completed at 1 foot increments up to a maximum depth of 4 feet."

7. Page 16, Section 4.2.2, Alternative 2 - Excavation, Solid Waste Dewatering, and Disposal - Please explain in greater detail (such as done for Alternative 3) how the dewatering of the soil and sediment would take place and how the resulting water stream would be treated prior to discharge back into the environment.

Navy Response – The Navy intended to provide additional detail in the Water Management Plan. For clarification, the following text will be included as paragraph 4 of Section 4.2.2.

"If it is necessary to manage any surface water/groundwater during the implementation of the remedial action, water would be managed, as appropriate, using trash pumps, sumps, collection tanks, and onsite treatment. Any collected surface water/groundwater will be pumped through onsite treatment and discharged to the culvert at Former Westcott Road (Figure 4-1) that leads to Allen Harbor downgradient of the drainage ditch. The need for and make up of a groundwater treatment system will depend on characterization data, but likely consist of a sedimentation tank, particulate filters, and carbon treatment to remove suspended solids, metals, and potential contaminants that may desorb from soil and sediment during excavation. Additional detail will be provided in a Water Management Plan."

8. Page 17, Section 4.2.2, Alternative 2, Paragraph 1, Sentence 2-Excavation, Solid Waste Dewatering and Disposal - "To mitigate this potential, excavation activities will be conducted in small cells and backfilled immediately upon completion." - Please state what material will be used to backfill excavations:

Navy Response – Specifications on the backfill material will be presented in the technical specifications that will be included as part of the Remedial Action Work Plan. The Navy's intent is to match native material as backfilling in the wet will allow. The following sentence will be added for clarification.

"Backfill material will match native soils as conditions will allow."

9. Page 17, Section 4.2.2, Alternative 2, Paragraph 1 - Please confirm that detailed storm, surface water, groundwater and sediment management plans will be developed at a later date. A brief description of each should be included in this document so one can get an idea of what is being contemplated.

Navy Response – A detailed Water Management Plan (storm water, surface water, and groundwater) and a Sediment Management Plan will be developed during the remedial design. Detail on the storm water management plan was included in response to Comment 7. To address the sediment management plan, the following sentence will be amended in Section 4.2.2, Paragraph 1:

"Sediment control measures will also be implemented and managed in accordance with a Sediment Management Plan. The Sediment Management Plan will contain details on the type and location of provisions to be used such as sediment traps, silt fence, and turbidity curtains."

10. Page 17, Section 4.2.2, Alternative 2, Paragraph 2, Sentence 1 - Please provide a brief description of how the wetland will be restored.

Navy Response – Additional detail on wetland restoration will be provided in the technical specifications that will be included as part of the Remedial Action Work Plan. The Navy intends to restore the wetland to pre-excavation conditions. Clarification will be provided in Paragraph 5 of Section 4.2.2. Text will be revised as follows:

"Upon conclusion of the remedial activities, the wetland and drainage ditch will be restored to pre-existing conditions."

11. Table 4-1 - Please include for action-specific ARARs -Rules and Regulations <u>for Hazardous Waste Management, 2014 (DEM OWM-HW 01-14)</u> Rule 3 (Hazardous Waste) which defines hazardous waste.

Navy Response – The requested ARAR has been added to Table 4-1.

12. Table 4-1 - Please include for action-specific ARARs - Rules and Regulations for Hazardous Waste Management, 2014 (DEM OWM-HW 01-14) Rule 5 which establishes manifesting, pre-transport and record keeping requirements for hazardous waste.

Navy Response – The requested ARAR has been added to Table 4-1.

13. Table 4-1 - Please include for action-specific ARARs- Rules and Regulations for the Rhode Island Pollution Discharge Elimination System, 2003- Rule 15- Limitations, Standards & Other Permit Conditions in addition to Rule 31 Storm Water Discharges which is already listed.

Navy Response – The requested ARAR has been added to Table 4-1.

14. Appendix B, Remedial Cost Estimates, Alternative 3 - Section 4.2.3 (Alternative 3) states that excavation activities will be conducted in the dry as localized dewatering would take place. If this is the case, please explain why 2 sediment dewatering areas 200' x 200' are needed for this alternative which is the same requirement for Alternative 2 where sediment is being excavated in the "wet". In addition, please state where these two dewatering areas would be located and how they would be constructed.

Navy Response – The dewatering areas (or stations) are to dewater the excavated sediment, prior to transportation and disposal. It is expected that even with localized dewatering, the excavated sediments would not be suitable for direct loading and transport. The note in Appendix B will be revised as below to clarify.

"Two dewatering stations will be constructed (approx. 200' x 200' each) to dewater sediment prior to transportation and disposal."