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Ser 08-125
April 17, 2008

Mr. Michael J. Daly
Remedial Project Manager
Federal Facilities Superfund Section
U.S. Environmental Protection Agency (EPA)
1 Congress Street, Suite 1100 (HBT)
Boston, MA 02114-2023

Ms. Claudia Sait
Remedial Project Manager
Maine Department of Environmental Protection (MEDEP)
Bureau of Remediation and Waste Management
17 State House Station
Augusta, ME 04333-0017

Dear Mr. Daly and Ms. Sait:

**SUBJECT: COMMENT RESPONSE LETTER ADDRESSING EPA AND
MEDEP COMMENTS ON THE DRAFT WORK PLAN/QAPP FOR
SITE INSPECTION OF MUNITIONS AND EXPLOSIVES OF
CONCERN AREAS (FORMER MUNITIONS BUNKER WEST
AREA, SITE 12 EOD AREA AND QUARRY), NAVAL AIR
STATION (NAS) BRUNSWICK, MAINE**

Enclosed please find the Comment Response Letter addressing EPA and MEDEP comments on the Draft Site Inspection Work Plan/QAPP for the three MEC Sites at NAS Brunswick. As discussed with and agreed to by Ms. Sait and Mr. Daly on April 16, 2008, the Navy is forwarding an electronic "preview" version the draft document in "Revisions Mode" so that all changes to the plan can be easily viewed. This "preview" copy will serve the role of a draft final version of the document. Upon Agreement from Ms. Sait and Mr. Daly, the electronic version will be modified as necessary and finalized in hard copy form as the Final MEC Workplan. If follow-up comments are warranted, please provide a formal comment letter for documentation purposes and the Navy will respond formally before finalizing the document.

If you have any questions or comments, please contact the Navy's Remedial Project Manager, Todd Bober at (215) 897-4911.

Sincerely,



Paul F. Burgio
BRAC Environmental Coordinator
By direction of BRAC PMO

Enclosure:
Comment Response Letter

Copy to:

MEDEP (C. Evans)

NASB (L. Joy, M. Fagan)

Lepage Environmental (C. Lepage)

BRAC PMO Northeast (P. Burgio)

NAVFAC MIDLANT (T. Bober)

NAVFAC ATLANTIC (A. Van Dercook, J. Wright, B. Capito, D. Barclift)

MRRA (V. Boundy)

Gannet Fleming (D. McTigue, P. Golonka)

TtNUS (L. Klink, R. Brooks, C. Race, J. Trepanowski)

ECC (A. Easterday, G. Calderone, H. Cavanagh)

Copy to: (w/o enclosure)

BASCE (E. Benedikt)

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BRAC PMO (distribution)

**RESPONSE TO UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA)
COMMENTS FEBRUARY 12, 2008
DRAFT WORK PLAN/QAPP FOR SITE INSPECTION OF MUNITIONS AND EXPLOSIVES OF
CONCERN AREAS [SITE 12 EOD AREA, FORMER MUNITIONS BUNKER WEST AREA, AND
QUARRY] DATED JANUARY 2008
NAVAL AIR STATION BRUNSWICK, MAINE**

Note that where the comment response provides revised text, text additions are shown in italics and deleted text is shown as strikethrough.

In addition to the revisions to address regulatory comments below, Worksheet #1 Title and Approval Page will be updated to reflect a decision made at the 1,4-dioxane DQO meeting of February 2008 concerning approval signatures. In accordance with that meeting, the EPA (Michael Daly) signature will remain. The MEDEP (Claudia Sait) signature will be removed. Navy BRAC PMO NE (Todd Bober) signature will be added. At the request of the Navy, the NAVFAC QAO/Chemist (Sherri Eng) signature will be removed since no sampling and analysis is included in this MEC work plan.

General Comment

- 1. Comment:** EPA is perplexed as to why the Navy is not proposing to conduct a 100% coverage-wide geophysical survey of the site 12 cleared area but is proposing 100% coverage of the Former Munitions Bunker West Area (open area \approx 15 to 20 acres) and the Quarry site (open area \approx 2 acres). It is stated several times throughout the document that the likelihood of MEC potentially existing at the FMBWA and the Quarry site is significantly lower than at Site 12. EPA agrees with the Navy on this point. In fact, EPA believes the level of effort proposed for the FMBWA and Quarry could be considered overly robust given the low impact munitions-related activities that reportedly took place at the FMBWA and the very limited evidence that the Quarry was used to dispose of small arms munitions. The substantial surface metal debris across the Quarry that was identified during the October 2007 walkover and the site's reported historical use as a dump also poses significant limitations on the use of magnetometer and EM surveys to locate any potentially buried munitions.

The Navy's proposal to only conduct geophysical surveys of the current and historical EOD berm areas, which represents a very small percentage of cleared Site 12 land area, has a high possibility of missing large numbers of MEC items. The Navy is only relying on a magnetometer sweep for the vast majority of the cleared land area which can detect only ferromagnetic objects. Surface sweeps using this method would miss items such as small arms and 20 mm cannon cartridges that are listed on Table 10-A of the Work Plan because they are typically made of nonferrous brass, copper, and lead. Given the long operational period of the EOD area, potentially undisclosed operational practices, and the potential likelihood that known disposal practices (controlled detonation of MEC items) could have resulted in some of the nonferrous MEC items being scattered across the site, EPA strongly recommends that a geophysical survey of the whole Site 12 cleared area be conducted. EPA found this to be the only essential Site 12 field investigation component that was not sufficiently robust in the work plan.

Response: The EPA is correct in saying that the planned investigations at the Former Munitions Bunker West and the Quarry are robust. It is because these sites are speculated to have low probabilities of MEC that robust investigations are planned to confirm the lack of

MEC (i.e., to prove a negative). The objective of the extensive coverage of the Former Munitions Bunker West and the Quarry is to collect enough data that, if supported by a preponderance of evidence (no MEC are present on the surface, no anomalies are seen which indicate MEC is subsurface, and MC results to not indicate contamination), then the site(s) may be recommended for no further action if agreed upon among the Stakeholders.

The situation at the Site 12 EOD Area is the opposite, considering there is a high likelihood that MEC are present at the site and, therefore, would require the site to be recommended to proceed to the next phase. As stated on Worksheet #11, Decisions of Rules for Decision Making (Step 5), the Site 12 EOD Area will automatically advance to an Interim Measure (IM) and/or RI/FS for MEC considering its known history. The objective of the SI is to aid the planning for the next phase by obtaining additional data of the types and distribution of MEC at the site, refining the site boundaries, and determining if MEC are buried in and around the historical and existing berm areas. The magnetometer is the best instrument to meet the SI objectives for the planned surface sweep since it will "see" deeper than the all-metals detector. Additionally, most items associated with the site would have been ferrous warheads; items like brass cartridge cases would not pose an MEC hazard. In the future, during an IM and/or RI, both a magnetometer and an all-metals detector would be employed.

The planned Site 12 investigation focuses on the operational area (historical and existing berm areas) where munitions would have been buried for detonation. The detector-aided munitions sweep and geophysical survey for this area is planned for 100 percent coverage. Outside of this area, most kickouts from the detonations would likely be found on the ground surface or shallow subsurface and a partial coverage detector-aided sweep and no geophysical surveying is planned here. Of note, Tetra Tech was originally scoped to include clearance of munitions from Site 12. Our approach was modified to comply with a Naval Ordnance Safety and Security Activity (NOSSA) request to practice avoidance during the SI phase of projects. NOSSA recommended for the SI that very limited geophysics be conducted and recommended that the detector-aided munitions sweep be aimed at reconnoitering the site to see what size problem we might have (how widespread the site may be). When the time comes for munitions clearance, Tetra Tech is currently funded for this task. The munitions clearance task will include 100 percent coverage for detector-aided munitions sweep, geophysical surveying, anomaly reacquisition, and intrusive investigation and removal of MEC, MPPEH and MD, implemented across the site.

Specific Comments

- 2. Comment:** Page 62, Section 10.1.2.3, second bullet. The added note elaborates on the pond on the east side of Site 12, and its possible relationship (or lack thereof) to groundwater. Some detail might be added here, too, on the location and direction of the outlet stream from the pond.

Response: Agree. The bulleted item will be revised as follows: "Added note that the pond on the eastern side of the site is located in a rocky area and the pond surface water may not be connected to groundwater. *The pond outlet stream is located on the northern end of the pond, runs in a northerly direction, and has been observed to be intermittently dry.*"

3. **Comment:** Page 62, Section 10.1.2.3, last paragraph. The text states, "Private drinking water wells are located 300 meters west of the site." Should this read "...east of the site?" Please check this statement.

Response: Agree. The sentence will be corrected as follows: "Private drinking water wells are located 300 meters west east of the site."

4. **Comment:** Page 66, Section 10.2.1.2. The text notes that Marines swept the Former Munitions Bunker West Area for munitions debris following training exercises. Are there any records or anecdotal reports of what was done with such debris? This may be useful information with respect to identifying potential MEC sites at NASB.

Response: There are no available records to document where the debris was disposed.

5. **Comment:** Page 67, Section 10.2.2.1. This section summarizes the purpose of the SI for the Former Munitions Bunker West, and states, "Findings will result in one or a combination of several decision options....," including NFA, LUCs, proceeding to a RI/FS, and interim measures. While the wording is fairly clear that the decision will follow the full SI, it seems possible that some readers of this Work Plan will take away the impression that these decisions may be made on the basis of the MEC survey alone. However, it will be necessary to complete the MC assessment, as well, through soil sampling, etc., regardless of the outcome of the MEC survey. This should be made very clear here and throughout the document. There is a general need to define carefully the role of the MEC survey in the larger scheme of the SI.

Response: Agree. The following paragraph will be added to the end of Section 10.2.2.1, associated with the Former Munitions Bunker West:

"In accordance with Worksheet #11, Decisions of Rules for Decision Making (Step 5), if no anomalies are present and no suspect MEC are visually observed, then proceeding to a No Further Action (NFA) decision for MEC is possible only if supported by MC results."

6. **Comment:** Page 77, Section 10.3.2.1. Please see comment immediately above regarding the possible inference that the MEC survey alone could support a decision regarding further action.

Response: Agree. The last paragraph of Section 10.3.2.1, associated with the Quarry will be expanded as follows:

"In accordance with Worksheet #11, Decisions of Rules for Decision Making (Step 5), if no anomalies are present and no suspect MEC are visually observed, then proceeding to a No Further Action (NFA) decision for MEC is possible only if supported by MC results. An NFA decision is highly unlikely or at the very least would be deferred until after an RI is completed for advancement of the MC investigation."

7. **Comment:** Page 110, Section 17.2.2. The first bullet states, "Transects will cover the cleared areas. Transects may extend into the tree line...." At the October 2007 Project Stakeholder

Scoping Meeting, Tetra Tech personnel stated that a walkthrough of the wooded area would be considered if significant anomalies are found in the cleared areas. The nature of the survey to be done in the wooded area should be clarified, and the decision points should be identified.

Response: Agree. The sentence will be clarified as follows:

“Transects may extend into the tree line to a maximum of 200 feet, as determined in the field in accordance with Section 17.2.11 Team Decision Points. If the UXO Team encounters anomalies or MEC in a grid near the wooded area, a detector-aided surface sweep of transects into the woods will be employed in an attempt to delineate the extent of the anomalies/MEC.”

8. **Comment:** Page 119, Section 17.3.1.3. The Work Plan states, “...intrusive investigation will be conducted at selected anomalies...” Please elaborate in the Work Plan the criteria that will be used to select the anomalies for intrusive investigations.

Response: Agree. The second paragraph of Section 17.3.1.3 will be expanded as follows:

“Geophysical anomalies can result from a variety of sources. Site features, such as underground utilities or above ground metallic objects, can result in anomalies that obviously do not warrant investigation. For the Quarry, there are small areas of above-ground scrap metal that will not warrant intrusive investigation for MEC. Anomalies that will be investigated include large anomalies, moderate to high response signature anomalies, and MEC suspected anomalies based on anomaly shape signature similar to MEC and considering that a spectrum of different anomalies are possible. Due to the nature of the site use for garbage-refuse dumping, the number of anomalies could be extensive (beyond the allotted SI budget for this task) and it may not be practicable to investigate every anomaly at the SI level of effort. This situation would likely result in a recommendation to proceed to an interim measure or RI to further address MEC. Locations for intrusive investigation will be determined in the field and recommended by Tetra Tech, in accordance with Section 17.3.11 Team Decision Points. Statistics may be used to support the decision making if a large number of anomalies are encountered.”

9. **Comment:** Page 119, Section 17.3.2. Please provide an approximate estimate of land area that will undergo UXO and geophysical surveys.

Response: Agree. The text will be revised as follows:

Section 17.3.2, 1st bullet: *“Clearing and grubbing (minus trees greater than 2 inches in diameter, and water and rock obstructions) over 100 percent of the site, estimated as 3 to 4 acres.”*

RESPONSE TO MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION (MEDEP)
COMMENTS FEBRUARY 22, 2008
DRAFT WORK PLAN/QAPP FOR SITE INSPECTION OF MUNITIONS AND EXPLOSIVES OF
CONCERN AREAS [SITE 12 EOD AREA, FORMER MUNITIONS BUNKER WEST AREA, AND
QUARRY] DATED JANUARY 2008
NAVAL AIR STATION BRUNSWICK, MAINE

Note that where the comment response provides revised text, text additions are shown in italics and deleted text is shown as strikethrough.

General Comments

- 1. Comment:** The work plan overall provides for adequate visual and magnetic survey coverage of the 3 areas of concern. MEDEP has some concerns or comments regarding the portions of the sites ruled out for the survey. The decision rules are somewhat unclear, implying that a no-further-action decision may be reached after this initial munitions and explosives of concern (MEC) work plan is implemented, prior to the munitions constituents (MC) investigation being implemented. MEDEP has generally limited comments to those aspects affecting the MEC investigation. There are aspects of the site profiles and analytical/contaminant lists that may need to be revised for the MC investigation work plan.

Response: No site decisions will be made until after both the MEC and MC results are available and have been evaluated. Moreover, the Stakeholders will be involved in the decision process.

Please refer to Worksheet #11, Decisions of Rules for Decision Making (Step 5). This paragraph states that if no anomalies are present and no suspect MEC are visually observed, then proceeding to a No Further Action (NFA) decision for MEC is possible only if supported by MC results. The text also notes that the Site 12 EOD Area will automatically advance to an Interim Measure (IM) and/or RI/FS for MEC considering its known history.

- 2. Comment:** It is not clear from the workplan exactly how much area will be covered by the geophysical survey. It appears that it will not be 100% as stated by the workplan but in most cases coverage will be closer to 10%. (For example for a 50 foot transect the equipment will sweep 5 feet swath.) This needs to be made clear in the workplan.

Response: It is true that each site has its own considerations. A summary, which will be added as an introduction to Worksheet #17 is provided as follows:

"Sampling Design and Rationale varies from site to site, summarized as follows and further detailed in this worksheet:

Site 12 EOD Area (Worksheet #17.1)

- o 100 percent coverage of the operational area (historical and existing berms extending 10 feet outside the berms) with a detector-aided munitions sweep followed by geophysical surveying is planned. In addition, for the entire central (non-vegetated) area of the site (estimated as 20 acres of the total 112.7 acres area within the currently shown site boundary), partial coverage with a detector-aided sweep (5 foot*

wide transects along generally straight lines will be covered with each transect 50 foot apart) with no associated geophysical surveying. MEC items discovered during the sweep will be located using GPS, or direction and distance from a transect.

As stated on Worksheet #11, Decisions of Rules for Decision Making (Step 5), the Site 12 EOD Area will automatically advance to an Interim Measure (IM) and/or RI/FS for MEC considering its known history. When the time comes for munitions clearance, 100 percent coverage for detector-aided munitions sweep, geophysical surveying, anomaly reacquisition, and intrusive investigation and removal of MEC, MPPEH and MD will be implemented across the site.

Former Munitions Bunker West (Worksheet #17.2)

- The open areas within the site boundary will receive 100 percent coverage with a detector-aided munitions sweep followed by geophysical surveying over the same area. The open area is estimated at 15 to 20 acres (the entire site is approximately 29 acres in size). Grids will be established of 100 feet square for identification purposes. Lanes of approximately 5 feet wide within each grid will be used 100 percent coverage within each grid, to the extent possible. The wooded areas will generally not be addressed, although transects may extend into the woods for a detector-aided munitions sweep, as justified based on field findings, to a maximum of 200 feet. Transects, if used, will start at a grid corner and proceed in a generally straight line.

Quarry (Worksheet #17.3)

- The Quarry (approximately 4 acres in size) will be cleared of brush to the extent possible in conjunction with conducting near 100 percent coverage of the resulting entire open area with a detector-aided munitions sweep. Then the same area will receive the same coverage by geophysical surveying."

3. **Comment:** The workplan should make it clear that the remaining bunkers in the Munitions Bunkers Area West will not be investigated as part of this investigation but will likely be investigated as part of the RCRA closure.

Response: Section 10.2, last paragraph, will be revised as follows:

"Two former munitions bunkers remain within the area boundary and are currently empty. These two remaining bunkers will not be investigated as part of the SI but will likely be investigated as part of the RCRA closure....."

4. **Comment:** While MEDEP was reviewing the spill reports for the Quarry, it came across a spill report (P-91-95) regarding the EOD team blowing up cars at Site 12 with batteries and fuel still in them. This may necessitate additional analyses at Site 12.

Response: Base Personnel from NAS Brunswick investigated the spill resulting from the subject activity by EOD personnel. Specifically, radiator fluid and battery acid were spilled. The battery acid was neutralized. No petroleum products were spilled.

If encountered, areas of stressed vegetation and/or stained soils will be identified in the field. Further options will then be discussed with the regulatory agencies to determine the most appropriate path forward, which may include a removal action or a recommendation to proceed to an RI.

5. **Comment:** As part of the Site 12 DQO's the Navy should identify the percent probability of detection and the percent confidence level the detecting MEC anomalies of within 1 foot of the ground surface, 2 feet of the ground surface, 3 feet of the ground surface and 4 feet of the ground surface. (Determine, with _____ percent probability of detection at _____percent confidence level, the amount of MEC found in the top 1, 2, 3 and 4 feet of soil.)

Response: The depth that an anomaly can be detected varies with the size, material, and orientation of the anomaly as well as the soil characteristics and interferences such as an underground utility. Generally, the estimated detection depth (meters) = 11 x diameter (mm)/1000. For example, an underground drum at 8 feet below ground surface may be detected much more readily than a bolt at 2 feet below ground surface. This is why a project-specific geophysical technology demonstration (GTD) is conducted prior to conducting the geophysical survey. Please refer to Worksheets #12 and #18 which provide details on the GTD and methods/SOP requirements, respectively. Note that two geophysical surveying instruments will be tested for use. Tetra Tech will seed inert items or surrogates of similar shape, size, and mass for MEC items suspected at the expected depths. Clutter items may also be included in the GTD.

6. **Comment:** For the Quarry the DQO's must include the percent probability of detection, and the percent confidence level of detecting buried MEC anomalies. (Verify that there are no buried UXO/MEC in the Quarry with _____percent probability of detection, _____percent confidence level.)

Response: Please refer to the response to MEDEP General Comment #5.

7. **Comment:** MEDEP suggests that the transects and grids systems to be used for the geophysical work have a site designation added to each of the alphanumeric designations.

Response: Agree. Each map and dig sheet created for each site will be labeled for that site. The following sections will be impacted: Sections 17.1.5, 17.2.5, and 17.3.5 describing transect and/or grid identification for the Site 12 EOD Area, Former Munitions Bunker West Area, and the Quarry.

The revised text will read..."Each transect.....and labeled *first by site designation (xxxx) followed by*" , where xxxx will be 12, MBW, and QRY, respectively.

Specific Comments

8. **Comment:** Page 18, Worksheet #3 and Pages 23 & 24, Worksheet #5: The Navy personnel need to be updated in these worksheets.

Response: Agree. Both Worksheets #3 and #5 (text and Table 5-A), as well as Worksheet #6, will be updated to reflect current Navy project personnel. Also, Victoria Boundy will be added to the SAP document distribution request.

9. **Comment:** Page 29, Section 7.3.2.1, Anticipated MEC, Site 12: Please add the Munitions Explosive Constituents (MEC) and Munitions Constituents (MC) that are suspected of being at Site 12.

Response: Information on both MEC and MC is provided in the Conceptual Site Model of Worksheet #10. Worksheet #7, Section 7.3.2.1 specifically addresses MEC, the subject of the Work Plan although this Worksheet can be revised to add a reference for MC information. The Site 12 discussion will also be expanded as requested to repeat information from Worksheet #10 on MEC. The changes are provided below:

“7.3.2.1 Anticipated MEC

The MEC that may be encountered varies depending on the given site, as follows. *Also refer to the Conceptual Site Models of Worksheet #10. For reference purposes, note that Worksheet #10 additionally describes associated MC, which is addressed in detail as the subject of a separate follow-on SI work effort.*

Site 12

Site 12 EOD Area is suspected to contain MEC items and munitions debris remaining on the site following EOD disposal operations. The potential for MEC items to have been fired in the area is known. *As noted on Table 10.1-1, munitions types included ordnance, pyrotechnics, privately manufactured explosive devices, and war souvenirs. Therefore, complete munitions and partial items that might contain boosters, bursters, or components may be encountered.”*

10. **Comment:** Page 30, Section 7.3.2.2, Procedures, para 1: Please add who is responsible for notifying regulators and the stakeholders if ordnance is encountered.

Response: Agree. The following sentence will be added to the end of the 2nd paragraph of Section 7.3.2.2:

“The Navy BRAC PMO Remedial Project Manager will be responsible to make all necessary notifications if ordnance is encountered.”

11. **Comment:** Page 30, Section 7.3.2.2, Procedures, para 4, 2nd sentence: Please change sate to state.

Response: Agree. Section 7.3.2.2, paragraph 5, 2nd sentence will be revised as follows:

“This identification will consist of fuze type by function and condition (armed or unarmed) and physical sate/~~condition~~ state/condition.....”

12. **Comment:** Page 38, WP/QAPP Worksheet 9.3, Consensus Decisions: “It is presumed that an Explosives Safety Submission (ESS) will not be necessary because MEC has very little

probability of being encountered. In addition,...included during the SI MC investigation, such as volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs)..."

a.) There are no records pertaining to ordnance and/or munitions being disposed of at the Quarry and a portion of the quarry has been used for waste disposal and for land spreading of petroleum contaminated soil. The use of the quarry for disposal of munitions/ordnance was corroborated and the possibility of MEC must be treated as an unknown and not downplayed.

Response: The Quarry was reportedly used for disposal of small arms and this information has been included in the Work Plan. There is no corroboration with regard to other munitions and so it is not anticipated that MEC larger than small arms will be discovered on the site. The indication of only small arms resulted in an Explosives Safety Submittal (ESS) Determination that allows for intrusive investigation of anomalies for characterization/identification purposes.

A detector-aided surface sweep is being conducted on the site. Geophysical surveying over as close to 100 percent of the Quarry will be conducted with UXO Escort. If no MEC or indications of MEC are observed to this point, then anomalies will be intrusively investigated. Should MEC or evidence of MEC be encountered at any time during the field work at this site, intrusive investigation will NOT be conducted or if already started intrusive operations will stop. An ESS would be required (as part of a future RI) prior to additional intrusive operations if MEC is present.

b.) Since the area was used for dumping in addition to VOCs and SVOCs, it will be necessary to analyze for metals, PCBs, herbicides and pesticides.

Response: The types and amounts of trash in the Quarry are unknown. According to NAS Brunswick Base personnel, visual observation of trash items at the ground surface indicates trash items specific to the Commissary. There is no indication of disposal of solvents or other hazardous waste at this time; however, to address the possibility, the SI is being conducted to determine the presence or absence of a full range of contaminants.

The sentence will be revised as follows; note that herbicide analysis is not planned:

"In addition to contaminants associated with munitions constituents (MC), additional contaminants associated with a garbage dump would need to be included during the SI MC investigation, ~~such as consisting of~~ volatile organic compounds (VOCs), ~~and~~ semivolatile organic compounds (SVOCs), *metals, pesticides, and polychlorinated biphenyls (PCBs)*; this will also impact the QAPP/HASP requirements."

13. **Comment:** Page 48, Hydrology, para 1, last two sentences: Merriconeag Stream is the tributary that flows into Mere Brook which flows into Harpswell Cove. Please revise.

Response: Agree. The Hydrology section text, 1st paragraph, 3rd sentence from the end will be revised as follows:

~~"Mere Brook joins a Merriconeag Stream, a tributary, as well as a number of other very small, intermittent streams flow into Mere Brook, which flows into to form Merriconeag Stream, which is the stream entering Harpswell Cove at the head of the cove."~~

14. **Comment:** Page 49, Hydrogeology, para 1: Please correct the spelling of screened.

Response: Agree. Hydrogeology, 2nd paragraph, 1st sentence will be revised as follows:

“Well informationfrom wells ~~screened~~ screened....”

15. **Comment:** Page 51, Table 10-A: To be appropriately prepared this table should be expanded to include all the munitions class/categories from 1946 to 2004 when the EOD was closed.

Response: The table is extracted from the Final PA Addendum (Malcolm Pirnie, July 2007), which summarized historical information about the installation and was prepared based on available information regarding munitions use at NAS Brunswick.

16. **Comment:** Page 54, Site Location Map: This aerial is for the rake stations not for Site 12, former munitions bunker and Quarry. Please replace.

Response: Figure 10-A provides the locations of the MEC sites. Figure 10-B provides the rake station locations. Both figures are referenced in Location and Setting, 1st paragraph, last sentence. No revisions are necessary.

17. **Comment:** Page 55, Section 10.1.1.1, and Appendix C-1: Please add a figure showing the 1990 test pit locations in relation to the present day configuration of the site for reference.

Response: Agree. The figure was inadvertently not included, although referenced in the Work Plan as being included in Appendix C-1. The figure will be provided in the revised Work Plan for Appendix C-1. (The source of the figure is the Final PA Addendum by Malcolm Pirnie dated July 2007, Appendix C-1, back side of the 2nd page).

18. **Comment:** Page 57, Section 10.1.1.4, Kickoff Meeting...: MEDEP recollects that blast cord was noted during the recent MMRP site visit along the road that is located south and east of the pond. This suggests that the distribution of materials related to site 12 activities may be more wide-spread than the current conceptual site model predicts.

Response: Blast cord was not discovered on the site; instead what was observed was thin wire similar to blasting cap wire. This wire is debris left over after an electric blasting operation. The wire has a tendency to get stuck in mud and on vehicle tires which would explain its presence on the road.

19. **Comment:** Page 57, Section 10.1.2.1, Purpose and Conceptual Site Model for Site 12 EOD Area: “For Site 12 EOD Area, the primary focus is the berm area...”

MEDEP assumes this refers to both the historic and most recently used berms at the site, all of which have potential for MEC. Please revise.

Response: Agree. Section 10.1.2.1, 2nd paragraph, 2nd sentence, will be revised as follows:

"For Site 12 EOD Area, the primary focus is the berm area (*both historical and existing*)..."

20. **Comment:** Page 58, Table 10.1 and 10.3, Geology: Additional detail could be added to the Site 12 and Quarry description, based on the published material available from the Maine Geologic Survey, and from previous work supported by USEPA in 2003 that evaluated fracture and foliation of the rock at Site 12. Although perhaps not critical to the MEC investigation, this information will be important to consider when the MC investigations are planned.

Response: Agree. The following information will be added to both Section 10.1.2.3 and 10.3.2.3 (3rd bulleted item Physical Profile; Geology for each section):

“o *Based on published material available from the Maine Geologic Survey and from previous work supported by USEPA in 2003 that evaluated fracture and foliation of the rock at Site 12, the bedrock is mapped as the Cape Elizabeth Formation – generally a quartz-plagioclase – mica – garnet schist. Bedrock depressions are oriented NNE and NE and range in size from 50 to 130 feet in width and 5 to 20 ft in depth. Bedrock ridges display steep west-facing slopes. Joints strike WNW and dip steeply to the SSW or NNE.*”

21. **Comment:** Page 59, PA Findings, 2nd item: “Since none of the munitions were fired at the site, the maximum probability penetration depth is approximately 1 foot below ground surface.”

This statement from the Preliminary Assessment is contradicted by the information on page 55 which states: “The third test pit (TP-1201) was excavated to 6 feet bgs; bedrock was not encountered. Instead, the lithology consisted of 2 feet of disturbed soil/fill overlying a dessicated, very stiff, gray, silty clay. Just above the silty clay, a used solid rocket-fuel booster (a “JATO” bottle) was unearthed.” This information indicates that penetration is at least 2 feet depth.

Response: Section 10.1.2.3, 2nd bulleted item, of the Work Plan revised the Conceptual Site Model originally presented in the Final PA Addendum. As noted in this section of the Work Plan, the detonation areas (i.e., within the berm(s)) could have a 4-foot penetration depth considering the practice of burying munitions shots before detonation to reduce kickouts.

22. **Comment:** Page 61, Section 10.1.2.3, Physical Profile, update to hydrogeology: What is the basis for the statement that the pond surface may not be connected to groundwater? MEDEP accepts that the ponded water adjacent the site may not infiltrate the bedrock aquifer, but additional information such as an evaluation of the surface water drainage and local bedrock surface are needed to support this statement. The site sits on a ridge with a drainage divide, suggesting downward vertical gradients, and given the fracturing observed at the bedrock surface elsewhere at NASB in this rock formation, water that temporarily ponds near the site may well infiltrate the bedrock or overburden aquifer directly to the east or south.

Response: According to NAS Brunswick base personnel, the water level in the pond does not appear to vary much and it may be possible that this pond is spring fed from elsewhere. The Navy will look closer at this issue as required to better understand hydrogeology concerns.

The bulleted Physical Profile; Hydrogeology statement will be revised as follows:

“...pond surface water *may or may not* be connected to groundwater *depending on the nature of the hydraulic connection between the pond and the groundwater system.*”

23. **Comment:** Page 62, Revised Conceptual Site Model, para 1: This paragraph pertains to the Quarry; please delete from this section.

Response: Agree. The text, 1st sentence following the bulleted items, will be corrected as follows:

“Soil provides a potentially complete MEC exposure pathway for both human and ecological receptors. The MEC (and MC) exposure pathways for the CSM of the ~~Quarry~~ *Site 12* are illustrated in Appendix ~~C-3-C-1.~~”

24. **Comment:** Page 64, Site 12 EOD Area: It would be helpful if the different features seen in photo could be identified on the figure.

Response: Agree. Labels will be added to the figure to identify the pits and the berm.

25. **Comment:** Page 72, Revised Conceptual Site Model: Since the Malcolm Pirnie PA did not include a list of indigenous species for this site; please add the list to the revised CSM.

Response: Protected species that are known to, or have the potential to, inhabit NAS Brunswick are listed in Table 10-B and described on pages 49 and 50 of the Work Plan.

26. **Comment:** Page 77, Evaluation of Historical Aerial Photographs: The paragraph states that looking at a 1978 aerial photo evidence of the land spreading in the northeast is seen. The land spreading did not occur until the 1990s. Please change the statement to say that soil disturbance in the northeast is visible unless there is another explanation.

Response: The paragraph will be revised as follows:

“The site plan was generated using the most recent aerial photographs of 2003. A 1978 historical aerial photograph for the Quarry (Appendix C-3) included with the PA Report shows that in earlier times, the area was less vegetated than it is today. A road cuts through the Quarry and ends in a lot where nearby indications of disturbance are evident (i.e., ~~the land-spreading area in the northeastern area of the area~~ *site that was later used for land spreading in the 1990s*). Other man-made disturbances are also present throughout the southern end of the Quarry.”

27. **Comment:** Page 81, Revised Conceptual Site Model for the Quarry, Munitions/Release Profile, bullet 4: “Added note that only small arms are expected, if at all, and there is no evidence that other MEC were treated at the area.”

Since no records are available and only verbal confirmation of the Quarry as a disposal site for munitions exists MEDEP cautions that the potential for both MC and MEC should be used to design the investigation and the health and safety plan.

Response: Please refer to the response to MEDEP Specific Comment #12 a.

28. **Comment:** Page 81, Revised Conceptual Site Model for the Quarry, Munitions/Release Profile, bullet 5: Both diesel range organics and gasoline range organic need to be included in the analyses.

Response: The comment is more pertinent to the MC Work Plan rather than the subject MEC Work Plan.

For analysis associated with trash dumping at the site, analytes such as benzene, toluene, ethylbenzene, and xylenes (BTEX) will serve as an indicator of gasoline range organics (GRO) and PAHs will serve as an indicator of diesel range organics (DRO). The project is at the SI stage. If BTEX and/or PAHs (or other analytes) are encountered at concentrations exceeding criteria, the recommendation will be to proceed to an RI, at which time DRO and GRO analysis will be added. However, the MC SI Work Plan can be expanded to add data validator review from gas chromatography to identify the presence of DRO and/or GRO during the SI phase.

If encountered, areas of stressed vegetation and/or stained soils will be identified in the field. Further options will then be discussed with the regulatory agencies to determine the most appropriate path forward, which may include a removal action or a recommendation to proceed to an RI.

29. **Comment:** Page 83, Project Quality Objectives/Systematic Planning Process Standards, Worksheet #11:

a.) Bullet 5 and Appendix F: In order to demonstrate the effectiveness of the geophysical methods at detecting the expected potential MEC at all three sites, the Geophysical Prove-Out may require two different test strips, based on the conditions at the Quarry and Site 12 (shallow irregular bedrock surface with locally thin to absent soils) as compared to the Munitions Bunker West (MBW) site where soils are potentially many tens of feet thick over the bedrock surface. There should be some attempt to define the limits of detection for small arms munitions, reportedly the only MEC disposed of at the Quarry. Unless there is a large quantity in a small area, such items may not be detectable except at very shallow depth.

Response: Site conditions such as irregular bedrock depth and landfill materials are not practical to simulate in a test plot because too many combinations of variables are present to allow useful quantitative statements after a test or even a few tests are completed (i.e., conditions can vary widely across such a site as the Quarry). Moreover, munitions types (if any) at the Quarry are not documented; only a verbal undocumented testimony of small arms munitions. MEDEP's last statement that "Unless there is a large quantity in a small area, such items may not be detectable except at very shallow depth" is true of all sites with small items at depth and wouldn't need to be tested. The planned Geophysical Technology Demonstration (GTD) plot will provide data as to what buried items look like in this environment; results can be compared to the anomaly map to make some estimates as to the density, depth and type of munitions at the site.

b.) Worksheet #11 - Bullet 7, Step 4 Delineation of Study Boundary: What is the rationale for not performing a detector-aided survey of the MBW areas that are wooded or "brushy"? This topic was briefly discussed at the October 2007 MMRP meeting but there is no clear explanation provided here. Is there direct testimony to support that no training was completed in those areas? If surface sweeps were conducted, it seems likely that any remaining MEC that may have been missed would not be in open areas.

Response: The cleared and open area of the Former Munitions Bunker West Area will receive both a detector-aided surface sweep and geophysical survey. The wooded area will only receive detector-aided surface sweeps if anomalies are indicated near the boundary limits of the cleared and open area. As this project is an SI, there is no requirement to collect data over 100 percent of the site. Recommendations as to whether the wooded area will require an investigation will be determined during the analysis of the data from the SI. In summary, the equipment used for detector-aided sweeps and geophysical surveys are impeded by vegetation. Considering the low probability of MEC being present at the site based on information presented in the PA, it is not warranted at this time to clear and grub the extensive forested area.

30. **Comment:** Page 84, Worksheet 11, Problem Definition, Quarry: "Suspect MEC are not anticipated at this AOC, and excavations will be conducted at selected anomaly locations for confirmation purposes."

a.) See comment 27 above.

Response: Please refer to the response to MEDEP Specific Comment #12 a (and Specific Comment #27).

b.) Please describe here or at an appropriate place in the workplan how the anomaly locations will be selected for excavation.

Response: The following response is a repeat of the response to EPA Specific Comment #8:

"Geophysical anomalies can result from a variety of sources. Site features, such as underground utilities or above ground metallic objects, can result in anomalies that obviously do not warrant investigation. For the Quarry, there are small areas of above ground scrap metal that will not warrant intrusive investigation for MEC. Anomalies that will be investigated include large anomalies, moderate to high response signature anomalies, and MEC suspected anomalies based on anomaly shape signature similar to MEC *and considering that a spectrum of different anomalies are possible*. Due to the nature of the site use for ~~garbage~~ refuse dumping, the number of anomalies could be extensive (*beyond the allotted SI budget for this task*) and it may not be practicable to investigate every anomaly at the SI level of effort. *This situation would likely result in a recommendation to proceed to an interim measure or RI to further address MEC. Locations for intrusive investigation will be determined in the field and recommended by Tetra Tech, in accordance with Section 17.3.11 Team Decision Points. Statistics may be used to support the decision making if a large number of anomalies are encountered.*"

31. **Comment:** Page 85, Worksheet #11, Decisions for Rule Making, (Step 5): This paragraph is a little unclear, a decision-tree figure would be helpful to clarify the if-then “next-steps” for each site.

Response: Agree. A decision tree will be added to Worksheet # 11, Figure 11-1, to illustrate the text. The last sentence of Decisions of Rules for Decision Making (Step 5) will be revised as follows:

“If anomalies are present, proceed to the RI/FS they will be further evaluated to determine the most appropriate path forward. See Figure 11-1 for decision tree.”

32. **Comment:** Page 86, Section 12.1, Geophysical Technology Demonstration: MEDEP accepts that the proposed EM-61 is a well-established tool for such investigations, and should be capable of achieving the needed level of confidence that any MEC will be detected. However, given the likely detection of MEC at Site 12, and justification #1 that “no intrusive anomaly investigation is planned to encounter MEC” MEDEP suggests that whatever Geophysical Technology Demonstration (GTD) is proposed be adequate to support the likely intrusive investigation of anomalies at Site 12. Alternatively additional geophysical work may be needed if the site advances to the remedial investigation (RI) stage.

Response: Intrusive investigation to address MEC is NOT advocated by Naval Ordnance Safety and Security Activity (NOSSA) during the SI phase of projects. Based on its site history, Site 12 will advance to either an interim measure or RI to continue addressing MEC following the SI. When the time comes for munitions clearance, Tetra Tech is currently funded for this task. The munitions clearance task will include 100 percent coverage for detector-aided munitions sweep, geophysical surveying, anomaly reacquisition, and intrusive investigation and removal of MEC, MPPEH and MD, implemented across the site. Data collection from the SI will be usable for follow-on work.

33. **Comment:** Page 91, SAP Worksheet #14—Summary of Project Tasks: This worksheet summarizes the geophysical portion of the investigation but excludes sample collection. Without sample collection a finding of no further action cannot be made.

Response: Sample collection is addressed in the SI MC Work Plan under separate cover. The need for MC results to support a No Further Action decision is stated in Worksheet #11, Decisions of Rules for Decision Making (Step 5). Also, please refer to the response to MEDEP General Comment #1.

34. **Comment:** Page 96, Section 16.1, Project Schedule and Submittals: This section should be updated to reflect the revised schedule for Site 12 and the MMRP areas of concern dated January 22, 2008.

Response: Section 16.1 Project Schedule and Submittals will be replaced with the following:

“16.1 PROJECT SCHEDULE AND SUBMITTALS

Tetra Tech has developed a draft schedule that projects completion of the draft SI MEC Report in January 2009:

SI MEC Work Plan regulatory agency comments
Resolve Comments/Finalize Work Plan
Mobilization
SI MEC Field Work
Draft SI MEC Report

Feb 22, 2008
June 2008
June 2008
July through September, 2008
January 2009"

35. **Comment:** Page 98, Section 17.1.1 & Figures 17.1-2 and 17.1-3: "For Site 12, the areas for geophysical survey is within the existing berm, including the berm itself and 10 feet outside the berm and tow historical berms (see figure 17.1-2)."

Neither Figure 17.1-2 nor Figure 17.1-3 indicated that there will be a tight geophysical survey within the existing berm and outside the berm. Please correct.

Response: There is no Figure 17.1-3. Figure 17.1-1 already includes Note 2 stating that "No geophysical surveying is planned outside of the berm areas" and the Figure 17.1.2 title "SITE 12 EOD AREA – MEC PLANNED WORK (AT FORMER AND EXISTING BERM AREAS)" and notes indicate that the work is specific to the berm areas.

36. **Comment:** Page 98, Worksheet #17 – Section 17.1.1.1 and 17.1.2, and Figure 17.1-1:

a.) MEDEP is concerned that the area proposed for detector aided and geophysical surveys is too limited. The scope as described provides less coverage of this area known to have MEC disposal than is proposed for the MBW area, where chances of detection are low. The "leveled area" to the east and adjacent the pond should at least be included in the detector-aided UXO sweep. MEDEP recalls that "blast-cord" was found along the road at the south and southwest ends of the pond, so expanding the surface sweep (at least) to that vicinity is warranted. The "ground-scar" area at the south end of the pond should be included unless Navy provides justification for its omission.

Response: Please refer to the response to MEDEP Specific Comment #32 concerning scope for detector-aided and geophysical surveys at Site 12 and also refer to the response to MEDEP Specific Comment #18 concerning wire encountered along the road. Also, please refer to the response to EPA General Comment #1.

b.) If the 1997 visual EOD sweep was documented well enough to justify reduced evaluation of Site 12 surface conditions that information must be provided. MEDEP also believes that the geophysical coverage should include a transect near the pond, possibly along the perimeter road, to evaluate potential anomalies in that portion of the site that appears to have been reworked or filled. The data would also help support planning for the MC investigation.

Response: The requested documentation of the 1997 visual EOD sweep is not available. Please refer to the response to MEDEP Specific Comment #32 concerning scope for detector-aided and geophysical surveys at Site 12. For the SI at Site 12, the MEC geophysical surveying will focus on the bermed areas as described in the Work Plan. For the UXO sweep, an additional transect will be added to Figure 17-1.1 to cover the area between the perimeter road and the pond.

c.) The figure shows transects extending outside the defined boundary for the UXO sweep, please revise or clarify the distinction between the orange bounded area and the white transects.

Response: Agree. The legend for Figure 17-1.1 will be clarified to label the orange boundary as the perimeter road and the white transects as the area for the UXO sweep.

37. **Comment:** Page 99, Section 17.1.1.2, Prediction of MEC Present, para 3: "All suspect items that were found were disposed by detonation..."

It would be helpful if a figure showing the area swept in 1997 and if that information is available, and detail on whether significant items were found and destroyed, if that is known.

Response: There are no available records to document the 1997 visual EOD sweep.

38. **Comment:** Page 100, Section 17.1.2, Scope, Bullets:

a.) Bullet 1: It is unclear if the Navy is proposing a 5-10% surface sweep of the areas outside of the historic berms and the existing berm (5 foot wide swaths in a 50 foot wide transect or 5 foot wide swaths in 100 foot wide transect-east west) or if there will be multiple sweeps within each grid to cover the entire 50/100 wide transect. This needs to be made clear in the text. If only ten percent coverage is being proposed it will not provide adequate data on where the potential MEC is buried; provide a safe work environment to collect samples; or provide a good basis for making a no further action finding.

Response: Please refer to the response to MEDEP General Comment #2 for the Site 12 EOD Area.

b.) Bullet 2: The 100% coverage within the existing berm including the berm and 10 foot perimeter around the berm is not shown on Figure 17.2 or Figure 17.1-3. Please correct. See comment 35 above.

Response: Please refer to the response to MEDEP Specific Comment #35. The coverage is addressed in the footnote and Work Plan text.

39. **Comment:** Page 103, Sections 17.1.5, para 1 and 17.1.6, item 1: These sections seem to contradict one another. Section 17.1.5 states: "The military munitions will be visually examined for markings and other external features..." while Section 17.1.6 states: "If any complete munitions or ordnance-related material is encountered, the item will be avoided during this phase of the project. The UXO Technician will not attempt to identify the type or condition of the ordnance." Please correct as necessary. (This also occurs in sections 17.2.5 and 17.2.6 and sections 17.3.5 and 17.3.6.)

Response: Section 17.1.5 addresses the detector-aided surface sweep of the transects (white transects shown on Figure 17.1.1). Munitions, if encountered will be *visually* examined but not handled. Section 17.1.6 addresses UXO Escort operations for avoidance purposes, which could be conducted by a lower level Technician (UXO Technician II) than the UXO Technician III to be used for munitions identification purposes. The UXO technician will sweep

the area planned for geophysical survey during the MEC investigation (and later provide escort for soil sample collection, or other operations which he is escorting) and mark for avoidance any MEC items. He will report items to the UXO Team Leader, a UXO Technician III. (This response also addresses Sections 17.2.5 and 17.2.6 and Sections 17.3.5 and 17.3.6). Also refer to Worksheet #8 Special Personnel Training Requirements Information for responsibilities and requirements of project personnel, including the UXO Technicians.

40. **Comment:** Page 102, Section 17.1.5, UXO Detector..., para 1: Please confirm that the geophysical coverage will be 100% (i.e., 5-10 foot lanes within the 50 foot wide transects).

Response: Please see the response to MEDEP General Comment #2 for the Site 12 EOD Area.

41. **Comment:** Page 104, Section 17.1.7: "The berm areas will be divided into grids as shown on Figure 17.1-2."

Figure 17.1-2 does not indicate that there will be a tight geophysical survey within the existing berm and outside the berm. Please correct.

Figure 17-1-1: The notes indicate each transect is a 5 ft sweep. Again it is not clear exactly what is being proposed. See comments 36, 38 and 40.

Response: In and around the berm areas, 100 percent coverage is planned and the large open area outside of the berm areas will have partial coverage. Please see the response to MEDEP General Comment #2 for the Site 12 EOD Area, and Specific Comments #35 and #36 (and #38 and #40).

42. **Comment:** Figure 17.2-1: Please revise the figure to show the estimated areas that will be excluded from the SI investigation due to vegetation, tree cover, or other factors.

Response: The area for coverage will be determined in the field, considering that it is difficult to judge the type of vegetation (grasses, trees) from the aerial photograph. Generally, the areas with green tree cover will not be investigated. The UXO team will establish the grid system over the site in all areas where it is safe to do so. The detector-aided surface sweep and geophysical survey will cover the open areas to the greatest extent possible where data can be safely collected.

43. **Comment:** Page 105, Section 17.1.9, Software: "All geophysical data will be process after the day they are collected or as soon as possible."

Should this say "All geophysical data will be process *the day after* they are collected or as soon as possible."? Please correct. (Also correct in section 17.3.9.)

Response: Section 17.1.9, 17.2.9, and 17.3.9, 1st sentence of each section, will be revised as follows:

"All geophysical data will be processed ~~after the day they are collected~~ or as soon as possible, which allows for decisions to be made in the field and, if there are data gaps, the geophysical team can collect the data again without an additional mobilization."

44. **Comment:** Page 105, Section 17.1.10, Anomaly Reacquisition: "When necessary to meet project objectives, Tetra Tech will reacquire..."

This statement seems to contradict the statement in section 17.1.6. Please rectify.

Response: Section 17.1.6 addresses UXO Escort Operations only. Section 17.1.10 Anomaly Reacquisition was included for Site 12 to allow return to the site for reacquisition of an anomaly that could be on the surface, or to reacquire an anomaly to aid in positioning an MC sample location.

45. **Comment:** Page 106, Section 17.1.11, Team Decision Points, Bullet 1: Please add that the Navy will notify EPA and MEDEP and other stakeholders.

Response: The notifications in this bullet are so the Navy and Tetra Tech can first and foremost arrange for emergency treatment of MEC items to protect personnel.

The following sentence will be added to the end of the 1st bullet:

"The Navy BRAC PMO Remedial Project Manager will be responsible to make all necessary notifications if ordnance is encountered."

46. **Comment:** Page 110, Section 17.2.2, Scope, Bullet 1: Please clarify that the 5 foot wide transects provide 100 % coverage within each 100-foot square grid or if it is 5% coverage within each 100-foot square grid.

Response: Coverage of 100 percent is planned. Please refer to the response to MEDEP General Comment #2 concerning the Former Munitions Bunker West.

47. **Comment:** Page 111, Section 17.2.3, Governing Regulation..., Para. 2: Please clarify how the surface sweep will potentially identify areas for the follow-on geophysical mapping. It is unclear if this indicates areas that will be added or avoided by the geophysical mapping.

Response: Section 17.2.3, 2nd paragraph, 3rd sentence will be revised as follows; Sections 17.1.3 and 17.3.3 for the other two MEC sites will also be revised:

"The detector-aided surface sweep will be performed to locate MEC and MPPEH on the surface and identify areas for follow-on geophysical mapping of subsurface anomalies; considering that MEC/MPPEH is not to be moved at the SI phase of this project, discrete locations where the UXO Team identifies MEC or other hazards must be avoided by the geophysical survey team."

48. **Comment:** Page 115, Section 17.2.11, Team Decision Points, para. 1: If criteria are established for extending the transects into the wooded areas of the site that information is needed in this SAP document.

Response: Section 17.2.2 Scope, end of 1st bullet will be revised as follows (note that the response is a repeat of the response to EPA Specific Comment #7):

“Transects may extend into the tree line to a maximum of 200 feet, as determined in the field in accordance with Section 17.2.11 Team Decision Points. If the UXO Team encounters anomalies or MEC in a grid near the wooded area, a detector-aided surface sweep of transects into the woods will be employed in an attempt to delineate the extent of the anomalies/MEC.”

49. **Comment:** Page 119, Section 17.3.1.3, Rationale for Intrusive Investigation, para 1: “Therefore, intrusive investigation will be conducted at selected anomalies to confirm the absence of MEC...”

The way the sentence is written it appears biased toward not finding MEC, therefore please rewrite the sentence *to confirm the presence or absence of MEC.*

Response: There is a bias toward not expecting MEC based on the site history, although it is possible MEC will be encountered. Section 17.3.1.3, 1st paragraph, 4th sentence, will be revised as follows:

“Therefore, intrusive investigation will be conducted at selected anomalies to ~~confirm the absence of MEC and to~~ characterize/identify the given anomaly.”

50. **Comment:** Page 128, Worksheet #18:

a.) According to Section 17.1.2 the spacing is to be 5 feet wide, please correct as necessary.

Response: Worksheet #18 only addresses geophysical survey operations and does not address UXO detector-aided surface sweeps. For geophysical surveying, 2-1/2 foot line spacing equals 100 percent coverage.

b.) Please revise the Matrix field for the Former MBW Area and the Quarry to remove the “berms” references and to reflect the proposed coverage and associated area.

Response: Agree. For the Former Munitions Bunker West Area, “open areas” will replace “berms” and for the Quarry, “accessible portions of the site after clearing and grubbing” will replace “berms.”

Also on this table, the depth for Site 12 EOD Area will be changed from “2 to 5 ft depth” to “1 to 4 ft depth.”

51. **Comment:** Page 145, Worksheet #29 – Section 29.1: For site-specific obstacles, please add the pond/wetland area to the Site 12 section, as it is unclear at this point how this area will be swept for MEC if the proposed investigation finds widespread anomalies.

Response: Section 29.1, Site 12 EOD Area; the following sentence will be added to the end of the paragraph:

"If it becomes necessary to evaluate the pond/wetland for MEC, then the Navy will consider appropriate assessment methodologies and discuss a path forward with the EPA and MEDEP."

52. **Comment:** Appendix C, Preliminary Assessment Conceptual Model: MEDEP questions some of the assumptions for the receptors for the MEC exposure pathways. However since these are from the final Preliminary Assessment they do not need to be changed for this workplan but will need to be refined for the remedial investigation/feasibility study reports, if necessary.

Response: Agree. The Conceptual Site Models will be updated for each site as part of the SI Report.

53. **Comment:** Appendix E, MEC Health and Safety Plan:

a.) Table 2-1: MEDEP suggests that since the sites are within secure areas on the Base that the appropriate phone numbers for the weapons officer and/or security be added to the table in case of an emergency.

Response: Agree. For Appendix E, Table 2-1, the following information will be inserted for the Explosives Safety Officer:

"Lt. James P. Scott - Phone (207)921-2859"

b.) Table 3-1: Please update with the new Navy Remedial Project Manager.

Response: Agree. For the Appendix E HASP, Table 2-1, "*Todd Bober*" will replace Orlando Monaco and "*Michael Fagan*" will replace Dale Mosher.

Another clarification to the Appendix E HASP, Section 3.1.1, 2nd paragraph, last sentence will be made, as follows: "The NASB also provides support for.....the Navy Security Group at Winter Harbor (*closed as an organization in the early 2000s*)....."

Additionally, several changes will be made to Figure 3-1 of the Accident Prevention Plan (attachment to the HASP). The Navy personnel will be updated; "*Todd Bober*" will replace Orlando Monaco and "*Michael Fagan*" will replace Dale Mosher. Also, the figure will be revised to highlight the UXO Team Leader box and a text note will be added stating "*Overall responsibility for MEC health and safety.*"