



## DEPARTMENT OF THE ARMY

OFFICE OF ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT  
U.S. ARMY FORT MONMOUTH  
P.O. 148  
OCEANPORT, NEW JERSEY 07757

November 16, 2011

Mr. Matt Turner  
State of New Jersey  
Department of Environmental Protection  
Division of Responsible Party Remediation  
401 East State Street  
P.O. Box 028  
Trenton, NJ 08625-0028

Subject: Comments on the Baseline Ecological Evaluation Report  
Fort Monmouth Main Post and Charles Wood Area

Reference: Correspondence dated September 23, 2011

Dear Mr. Turner:

Attached for your review are responses to comments received from the NJDEP on the Fort Monmouth Main Post and Charles Wood Area Baseline Ecological Evaluation (BEE). The Army will revise the BEE report to address Comments #2 - #6 as proposed in the attached responses to comments spreadsheet. We are also updating tables contained in the report with the additional background statistical information requested in Comment #8. The spreadsheet also explains our rationale in answers to Comments #1, 7, 8 and 9.

The Work Plan for the Ft. Monmouth BEE was the product of a focused, 1-year collaborative effort of the NJDEP and the Fort Monmouth project team. During the work plan development stage extensive discussions were held with the NJDEP to determine the sites that required a BEE. The NJDEP reviewed the work plan and provided comments in a letter dated September 1, 2009, and the Final BEE Work Plan was approved in a letter from NJDEP (Larry Quinn, Site Manager, dated April 28, 2010). Both letters are attached for your reference. The Work Plan presented the culmination of our work together with the NJDEP and presented tables that discussed each site and the rationale for either including or excluding each site in the BEE. This information was also summarized in the BEE in Tables 2-7 and 2-8.

We are currently reviewing the BEE report to determine if additional justification is available/required to support the No Further Ecological Assessment recommendations.

At your earliest convenience, we would like to schedule a meeting to discuss the comments in greater detail in order to get your feedback on what the NJDEP's specific issues might be with respect to individual sites and determine the proper path forward for each site. We will forward the revised tables and a summary of additional justification for no further ecological assessment prior to the meeting for your review.

If you have any questions pertaining to this submittal, please contact me at 732-380-7064 or by email at [wanda.s.green2.civ@mail.mil](mailto:wanda.s.green2.civ@mail.mil).

Sincerely,

A handwritten signature in cursive script that reads "Wanda Green".

Wanda Green  
BRAC Environmental Coordinator

Enclosures

cc:

**Baseline Ecological Evaluation Report Review  
Draft Comments  
FORT MONMOUTH - Main Post/Charles Wood Area**

Comment Number	Commentor-ORG	Page Number	Section/ Figure/ Table/ Appendix	Line Number	Comment	Response By	Response
1	NJDEP	ES-1	Executive Summary		The Report states that the objective of the BEE at FTMM is to examine the 23 identified sites and assess whether the presence of constituents of concern in sediment, surface water, soil and groundwater on the Main Post and Charles Wood has the potential for adverse effects to biological receptors. In addition to the 23 identified AOCs (8 ECP parcels and 15 IRP sites), an assessment and discussion of the entire Fort Monmouth property should be presented in the BEE, and details on the justification for eliminating the other sites. The Department anticipated that the BEE would assess all potentially contaminated conditions throughout the Base where there was a potential for contamination migration and impacts to ecological receptors.	Duh/Magness	Section 2.5 addresses the remaining IRP and ECP sites. Tables 2-7 and Table 2-8 summarize the overall rationale for inclusion or exclusion of all sites on Main Post and Charles Wood Area from the BEE process. Note that the entirety of the Ft Monmouth Main Post and Charles Wood Area is accounted for within the ECP parcels and IPR sites included in Tables 2-7 and 2-8. These tables were reviewed by NJDEP in the draft Fort Monmouth Main Post and Charles Wood Area Baseline Ecological Evaluation Work Plan (WP), commented on by NJDEP, reviewed with the NJDEP via teleconference prior to finalization, and incorporated into the final WP (as Work Plan Tables 3-1 and 3-2). The final WP was approved by NJDEP in a letter dated April 28, 2010 that is included as Appendix I of the BEE report.
2			Section 2.5.1.6 Landfill 12 (FTMM-12)		The BEE states that "the bank of Husky Brook along Landfill 12 (FTMM-12) has undergone stabilization;" however, in the first paragraph, the BEE states that "metal, concrete, and other types of landfill debris can be observed protruding from the stream bank along Husky Brook." These two statements appear to be in conflict. Fort Monmouth should clarify these statements.	Duh/Magness	The sentence should read, "metal, concrete, and other types of landfill debris had previously been observed protruding from the stream bank along Husky Brook; the bank has since undergone stabilization and landfill debris no longer protrudes from the stream bank."

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Comment Number	Commentor-ORG	Page Number	Section/ Figure/ Table/ Appendix	Line Number	Comment	Response By	Response
3			Section 3.1		Review of Available Site Data – The BEE states that “the data from the samples collected as part of this BEE, and not previous IRP sediment samples, are evaluated in this BEE.” Given that previous data can provide an historic perspective and indicate whether contaminants trends are increasing, decreasing or staying the same, all data should be provided in the BEE in accordance with N.J.A.C. 7:26E-3.11(a)1, which states that “all identified or collected” must be evaluated.	Duh/Magness	N.J.A.C. 7:26E-3.11(a)1 directs one to “evaluate all data identified or collected in the preliminary assessment and the site investigation.” As the IRP sites are well past the PA or SI stage, this should not be as applicable. The previous IRP sediment data was analyzed only for PCBs. The rationale for not evaluating the previous IRP sediment data but, instead collecting samples under an expanded analytical program is described in the NJDEP approved final BEE work plan in Section 4.1 and in Section 3.1 of the BEE report. The samples evaluated during the BEE were within the biotic zone (top six inches of sediment) and are considered the most pertinent for evaluation within the BEE in order to capture the potential impact to ecological receptors. The Final WP and approved by NJDEP in a letter dated April 28, 2010 which is attached as Appendix I of the BEE report. [ Note: It is also stated in Section 3.1 that: "Sediment data are also available from the SI Report (Shaw, 2008) for applicable ECP sites...and are evaluated in this BEE." ]
4			Section 3.2.6.6		Method Detection Limits – The BEE states that “the MDLs for Aroclor 1016 and Aroclor 1254 were greater than the MDLs in some of the samples.” A similar statement is made in the following paragraph. For clarification purposes Fort Monmouth should indicate that the MDLs were greater than the ESCs.	Duh/Magness	The sentence should have read, “the MDLs for Aroclor 1016 and Aroclor 1254 were greater than the DQOs in some of the samples,” as expressed in the previous statements. This should also be changed in the following paragraph.
5			Section 3.3.2		Identification of Standards and Benchmarks for Surface Water – The BEE states that “the minimum hardness detected in a surface water body during the BEE investigation near an individual site where freshwater criteria are potentially applicable was used to calculate the site-specific BEE for the individual site.” For clarification purposes Fort Monmouth should identify whether a site-specific ESC was calculate for the individual site.	Duh/Magness	This should have read “the minimum hardness detected in a surface water body during the BEE investigation, near an individual site where freshwater criteria are potentially applicable, was used to calculate the site-specific ESC for the individual site.”

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Comment Number	Commentor-ORG	Page Number	Section/ Figure/ Table/ Appendix	Line Number	Comment	Response By	Response
6			Section 3.4.1		The report should provide an analysis and justification for the background samples collected along Mill Creek since this creek is located downstream from two surface water bodies on the Charles Woods Area identified as Parkers Creek and Wampum Brook.	Duh/Magness	The samples along Mill Creek were collected to provide information regarding the constituents and concentrations that may enter the Main Post from upgradient natural or anthropogenic sources and may not be related to the individual sites along Mill Creek. There are numerous anthropogenic sources along Mill Creek down gradient of the Charles Wood Area. Samples were also collected immediately downgradient of the Charles Wood Area on Parkers Creek and Wampum Brook to provide additional information.
7			Section 4.1.1 landfill 2 (FTMM-2) through 4.1.6 Building 900 (ECP Parcel 69) and 4.2.1 Landfill, Site CW-3A (FTMM-25) through 4.2.5 Building 4.2.5 (ECP Parcel 28)		The BEE states that "the site itself was typical of upland habitat." The BEE further states that "though identified as COPECs in near surface soil or groundwater, VOCs and pesticides were not identified as COPECs in surface water or sediment where exposure may occur." Fort Monmouth is advised that upland habitat is also considered an environmentally sensitive natural resource (ESNR) as it supports a host of ecological receptors (i.e. American robin, woodcock). Therefore, exposure does occur in near surface soils and these contaminants must be evaluated against the appropriate ESC.	Duh/Magness	The statement, "the site itself was typical of upland habitat" does not apply to all the sites listed in the comment, but only to Landfill 2. The intent of the statement is to describe the habitat at the site based on the site visit, which differs from that listed in the GIS digital data available through the NJDEP, which indicates it is an herbaceous wetland. The soil data is not surface soil data. The soil data is at least 6" below the surface. Thus, direct exposures to the soils are infrequent. All the contaminants identified in near-surface soils were evaluated against the appropriate ESC. These are summarized in the subsections of Section 3.4.2 for the Main Post and Section 3.4.3 for the Charles Wood Area [e.g., 3.4.2.1.1 COPECs for Soil at Landfill 2 (FTMM-2)]. This information is also summarized in the tables provided in Appendix A, as well as some tables in Appendix B and Appendix D.

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8			Section 4.1.1 Landfill 2 (FTMM-2) through 4.1.16 Building 900 (ECP Parcel 69) and 4.2.1 Landfill, Site CW-3A (FTMM-25) through 4.2.5 Building 4.2.5 (ECP Parcel 28) -		The BEE states that "COPECS . . . are at low concentrations relative to the ESC and similar to background concentrations. Based on these conditions . . . it is concluded that . . . additional ecological assessments at Landfill 2 (FTMM-2) are not warranted or recommended." Within the report and tables, frequency of detection and average detection is provided for samples within an investigation area; however, only maximum background is provided. In order to make a proper comparison with background values, frequency of detection and average must be provided for the background samples as well. Ideally, in addition to frequency of detection and average, the 95% UCL of the mean and other statistics, as necessary, should be provided. After the sample data are screened against the ESC, then a proper comparison to background is made to further reduce the number of COPECS. Any COPECS remaining after comparison to ESC and background, must then be evaluated via a desktop exposure model or other method to determine if a full ecological risk assessment (ERA) is required.	Duh/Magness	The Final WP, which was approved by NJDEP in a letter dated April 28, 2010, states that "several samples are to be collected either upgradient or downgradient of a site. These samples can be used to provide a general characterization of background concentrations present that may not be related to the sites under investigation. This information will be used in comparisons to site data in order to assist in risk management decisions. These data are not intended to provide a statistically rigorous background study, which is outside the scope of a BEE." (See Final BEE Work Plan, January 2010, Section 4.2, Field Investigation, top of p. 4-5). Though the data as presented meet this objective, the additional statistics (e.g., UCL) will be provided as additional information in Tables 4-1 through 4-41. An evaluation via "desktop exposure models" is outside the description / definition of a BEE as defined in N.J.A.C. 7:26E-3.11 and is not recommended to be conducted as part of the BEE report. The Army will distribute the Tables 4-1 through 4-41 upon completion of the requested enhancements outlined in this comment. The Army proposes to schedule a meeting with the NJDEP to review the recommendations for all sites included in the BEE upon completion of the requested edits so a consensus for all sites can be reached.
9			Section 5.0		Summary and Conclusions – The BEE states that "additional ecological assessments at FTMM are not warranted or recommended." The Department cannot concur with this conclusion until the issues above are addressed.	Duh/Magness	See above responses. Upon completion of the table enhancements proposed in Response #8, the Army would like to meet with the NJDEP to discuss individual site conclusions, reach consensus on the required path forward, and finalize the BEE.



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SITE REMEDIATION, PUBLICLY FUNDED REMEDIATION ELEMENT  
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CHRIS CHRISTIE  
*Governor*

KIM GUADAGNO  
*Lt. Governor*

BOB MARTIN  
*Commissioner*

April 28, 2010

Ms. Wanda Green  
BRAC Environmental Coordinator  
Directorate of Public Works  
ATTN: IMNE-MON-PWE  
167 Riverside Ave.  
Fort Monmouth, NJ 07703

RE: Final Baseline Ecological Evaluation Work Plan  
Fort Monmouth, NJ

Dear Ms. Green:

The NJDEP Site Remediation Program (SRP) has reviewed the Final Baseline Ecological Evaluation (BEE) Work Plan, Fort Monmouth Main Post and Charles Wood Area, dated January 2010, by Shaw Environmental, Inc.

As all of our previous comments have been addressed, the NJDEP hereby approves the Final BEE Workplan.

You may contact me at 609-633-0766 with any questions on the BEE Work Plan, or any other site remediation matters at Fort Monmouth.

Sincerely,

Larry Quinn, P.E., Site Manager  
Bureau of Investigation, Design and Construction



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
PUBLICLY FUNDED REMEDIATION ELEMENT  
P.O. BOX 413  
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JON S. CORZINE  
Governor

MARK N. MAURIELLO  
Acting Commissioner

September 1, 2009

Ms. Wanda Green  
BRAC Environmental Coordinator  
Directorate of Public Works  
ATTN: IMNE-MON-PWE  
167 Riverside Ave.  
Fort Monmouth, NJ 07703

RE: Draft Final Baseline Ecological Evaluation Work Plan  
Fort Monmouth, NJ

Dear Ms. Green:

The NJDEP Site Remediation Program (SRP) has completed its review of the Draft Final Baseline Ecological Evaluation (BEE) Work Plan, dated July 2009, by Shaw Environmental, Inc. Our comments on the document are attached.

As you will see in the comments, we feel that a justification should be documented for the site remediation areas of concern (AOCs) that aren't proposed for inclusion in the BEE. Aside from that, the SRP is generally pleased with the Draft Final BEE Work Plan and the Army's initiative in conducting the BEE. The sampling and analyses that are proposed in the Draft Final BEE Work Plan go beyond the minimum requirements for a BEE. The resulting data will be useful in assessing the need for additional investigations and/or remedial actions at many of Fort Monmouth's AOCs.

You or your staff may contact me at 609-633-0766 with any questions on the enclosed comments, or any other site remediation matters at Fort Monmouth.

Sincerely,

Larry Quinn, P.E., Site Manager  
Bureau of Investigation, Design and Construction

Attachment