

2005 BRAC

Fort Monmouth

Baseline Ecological Evaluations

October 1, 2008



Tracking Number



Overview

- **What is a Baseline Ecological Evaluation (BEE)?**
- **What is the Purpose of the BEE for Fort Monmouth?**
- **How is the BEE Performed?**
- **How will the Results of the BEE be used?**



What is a BEE?

- **Established in the Technical Requirements for Site Remediation N.J.A.C. 7:26E**
- **Tier 1 of the tiered approach developed by Site Remediation Program (SRP) for conducting ecological evaluations and ecological risk assessments**
- **An efficient and cost effective screening process to address sites for potential ecological effects**
 - Sites without Ecological Concern quickly eliminated from further ecological investigations
 - Sites that present potential for adverse ecological effect are further investigated at Tier II Level.



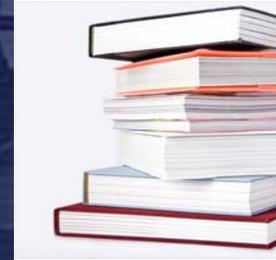
Basic Elements of the BEE

- **Examine the Site for Co-occurrence of**
 - Contaminants of Potential Ecological Concern (COPECs)
 - Environmentally Sensitive Areas
 - Chemical Migration Pathways



Sources Used in BEE

- Existing Site Documents
- Existing Analytical Data
- Qualitative Site Visit



BEE Report

- **Brief Report to Document Conditions**
- **Stand-Alone or Part of SI Report – Stand-Alone will be developed for Ft Monmouth**
- **Presents Decision Regarding the Need for Further Studies**
 - Based on Technical Information and Best Professional Judgment



The BEE at Fort Monmouth

- **Currently 27 Active/Open Installation Restoration Program (IRP) Sites**
- **No Further Action (NFA) Determinations have been Requested at Several Sites**
- **NJDEP has indicated the need at some of these sites for BEEs before an NFA Determination can be considered.**
 - Examples: M-12, M-14, and M-18 Landfills and Building 283 Gasoline UST
 - These sites are adjacent to surface water bodies (e.g., Husky Brook, Parkers Creek)



The BEE at Fort Monmouth

- **14 of 27 IRP Sites considered to require further evaluation through the BEE process**
- **Additionally, 9 sites identified through the Environmental Condition of Property (ECP) process considered to require further evaluation through the BEE**



IRP Sites - CWA



CW-3A Landfill (Parcel 21)

CW-6 - Former Pesticide Storage Area (Parcel 7)

IRP Sites - Main Post



Landfills M-3, M-4, M-5, M-8
(Parcel 44)

Bldg 283, Leaking UST
(Parcel 50)

M-18 Former Training
Area/Landfill (Parcel 48)

Water Tank M-15
(Parcel 78)

M-16 - Bldg 498 -
Former pesticide
Storage (Parcel 81)

M-12 and M-14
Landfills (Parcel
71)

M-2 Landfill (Parcel 40)

Bldg 1122 (Parcel 41)

Tracking Number

ECP Sites - CWA



Parcel 15 –
Building 2700

Parcel 28 –
Building 2525

Parcel 27 – Buildings
2507 and 2704

Tracking Number

ECP Sites - Main Post



Tracking Number



Facility-wide BEE or Individual Site BEEs?

- **Facility-wide BEE**
 - Most likely to indicate Tier II needed
 - Results not site specific – facility-wide
- **Individual Site BEEs**
 - Screen out sites where appropriate
 - Focus additional ecological investigations on required sites
 - Focus additional investigations on data needs where BEE indicates (site, media, ecological receptors, endpoints, etc.)
- **One BEE Report addressing all individual sites**
 - Increased Efficiency
 - Lower Costs



Data Gaps

- **Missing Information may automatically trigger Tier II investigations**
 - Example: Site has subsurface contaminants; creek flows adjacent to site; potential migration pathway from subsurface to surface water
 - Potential for Ecological Impact May Exist
- **Fill Obvious Data Gaps Prior to BEE**
 - Data is there to help screen out sites
 - Data is there to help focus additional investigations
 - Eliminate additional or unnecessary steps



Steps for BEE Completion

- **Review for Data Gaps**
- **Sample to Fill Data Gaps**
- **Qualitative Site Visit**
- **Compile Tables of Analytical Data**
 - By Medium and Chemical Fraction
 - Compare to Screening Values
- **Prepare Appropriate Maps**
 - Major Ecological Habitats
 - Land Use
- **Prepare Report with Recommendations**



Environmentally Sensitive Areas (Generic Examples)

- **Surface Waters**
- **Water Resources**
- **Bay Islands**
- **Beaches**
- **Dunes**
- **Wetlands and wetland transition areas**
- **Critical wildlife habitat**
- **Prime fishing areas**
- **Finfish migratory pathways**
- **Submerged vegetation habitat**
- **Shellfish waters**
- **Forest areas**
- **Habitat for Federal and State Endangered or Threatened Species**
- **Federal and State wilderness areas**
- **Wild and scenic river corridors**



Environmentally Sensitive Areas

- **Identified Through**
 - Site Visits
 - Reports
 - NJDEP Resources
- **Report includes map indicating environmentally sensitive areas**



Analytical Data

- **Existing Data**

- Quite Extensive for some sites in some media
 - e.g., quarterly groundwater samples over several years
- Compare to screening levels
 - Screening levels recommended by NJDEP
 - Screening levels are conservative
 - For screening purposes only, not considered regulatory values or cleanup numbers
 - Weight-of-evidence approach



Migration Pathways

- **Identified through**
 - Site Visit
 - Existing Reports
- **Documented within Report**

Tracking Number



Report Results and Discussion

- **Summarize results**
- **Interpret findings of the evaluation**
- **Present recommendations**
 - No further ecological evaluations required
 - Further ecological evaluation required (filling of data gaps, Tier II, etc.)



Path Forward

- **Development of BEE Work Plan**
- **Schedule – TBD – pending funding**

Tracking Number

