

DECISION DOCUMENT

1. PURPOSE OF REMEDIAL ACTION

This decision document describes the remedial alternative for sites M-2, M-3, M-5, M-8, M-12 and M-14 (former landfill sites) located on the Main Post of Fort Monmouth. The selected remedial alternative was chosen in accordance with the following regulatory requirements: the Clean Water Act, Section 404, the New Jersey Solid Waste Management Act (N.J.A.C. 7:26 et seq.), the New Jersey Coastal Permit Program Rules (N.J.A.C. 7:7 et seq.), the New Jersey Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A et seq.) and the New Jersey Soil Erosion and Sediment Control Act (N.J.S.A. 4:24-39 et seq.), and AR 200-1, as applicable.

The six former landfill sites encompass a combined area of 31.1 acres. Said landfills operated between 1952 and 1981. In general, individual sites did not operate concurrent with each other during this time frame. According to the Installation Assessment Report (USATHAMA, 1980), materials generally found in the Main Post landfills include unwashed pesticide/herbicide cans, batteries, fluorescent tubes, electronic components, oil in cans, sand and other related materials from oil spills, soot and boiler scale, sludge from the sewage treatment plants, small quantities of outdated drugs, outdated photographic chemicals in glass bottles, building rubble (including asbestos containing materials), incinerator ash, routine trash and garbage.

Each landfill site borders a freshwater stream or a brackish, tidally influenced stream. Since the closure of these landfill sites, moderate to severe soil erosion has occurred along the stream banks which border these sites. The soil erosion in several cases has exposed the waste materials placed within the landfills. During the Site Investigation (SI) phase and subsequent Remedial Investigation (RI) phases, environmental contaminants in the form of benzene, chlorobenzene, 1,2-dichloroethene, trichloroethene and tetrachloroethene have been identified within site ground water and surface water. The ongoing soil erosion control problems are having two basic effects; the first being the exposure of waste materials placed within the landfills, the second being new pathways are being created to allow easier migration of the above referenced contaminants into the adjacent streams. The selected remedial alternative involves using a combination of hard and soft engineering practices to stabilize 8,175 linear feet of stream bank at multiple locations. The hard engineering will involve the placement of stone (rip-rap) in selected areas. The soft engineering will involve the placement of vegetative bio-mats and the individual planting of a variety of flora species.

This decision document was developed by the Directorate of Public Works Environmental Office, Fort Monmouth. All documentation has been submitted and approved by the NJDEP.

2. SUMMARY OF SITE RISK

As previously mentioned, benzene, chlorobenzene, 1,2-dichloroethene (DCE), trichloroethene (TCE) and tetrachloroethene (PCE) have been identified within site ground water above the New Jersey Department of Environmental Protection's (NJDEP) Ground Water Quality Criteria (GWQC). Peak levels of benzene have been quantified as high as 538.24 ug/L. The NJDEP GWQC for benzene is 1 ug/L. Peak levels of chlorobenzene have been quantified as high as 107.81 ug/L. The NJDEP GWQC for chlorobenzene is 4 ug/L. Peak levels of DCE have been quantified as high as 16.47 ug/L. The NJDEP GWQC for DCE is 10 ug/L. Peak levels of TCE have been quantified as high as 4.4 ug/L. The NJDEP GWQC for TCE is 1 ug/L. Peak levels of PCE have been quantified as high as 169.54 ug/L. The NJDEP GWQC for PCE is 1 ug/L. In addition, chlorobenzene, DCE, TCE and PCE have been consistently identified within the surface water bodies that border the landfill sites.

The soil erosion that is taking place at these sites is creating new pathways for these environmental contaminants to exit the landfills and enter the adjacent surface water bodies. The streams which border these landfill sites provide food, shelter and a breeding area for numerous species of shellfish, fish, waterfowl and mammals. Areas downstream from these locations are utilized by local residents for fishing and crabbing purposes.

3. SUMMARY OF REMEDIAL ALTERNATIVES

The selected remedial alternative involves using a combination of hard and soft engineering practices to stabilize 8,175 linear feet of stream bank at multiple locations. The hard engineering will involve the placement of stone (rip-rap) in selected areas. The soft engineering will involve the placement of vegetative bio-mats and the individual planting of a variety of flora species. Plants in general provide an excellent means for stabilizing and holding soils in place. Hard and soft engineering practices will be intermixed to achieve the best soil stabilization results.

4. PUBLIC/COMMUNITY INVOLVEMENT

At the present time, the Directorate of Public Works (DPW) Environmental Office is working with the NJDEP, the U.S. Army Corps of Engineers and the Freehold Soil Conservation District. As part of the permit application process, the DPW has placed a one time public notice in a newspaper with a wide circulation in this area. The complete permit application was made available for public review for a period of fifteen working days. Three locations were made available to the general public for the purpose of reviewing said documents, the three locations are as follows: the Directorate of Public Works building (173), Fort Monmouth, NJ, and the city hall (borough clerk's office) offices of both Eatontown and Oceanport townships.

5. DECLARATION

Because this remedy will result in hazardous substances remaining on-site above levels that allow for unlimited use and unrestricted exposure, a review will be conducted within five-years after commencement of remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment.



MARK H. JOHNSON
LTC, MI
Garrison Commander

This Decision Document has been reviewed and approved.

Ian Curtis
Case Manager
NJDEP, Bureau of
Federal Case Management
Name, Title


Signature

7/9/99
Date