

PUBLIC MEETING PROPOSED PLAN FOR SEVEN LANDFILL SITES FORT MONMOUTH, OCEANPORT NJ MARCH 2, 2017 AT 7 P.M. BUILDING 455 AT FORT MONMOUTH

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U.S. Army

"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."



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AGENDA

Proposed Plan & Project Team Overview

Site Background

Remedial Investigation Results

Summary of Risks at the Seven Landfills

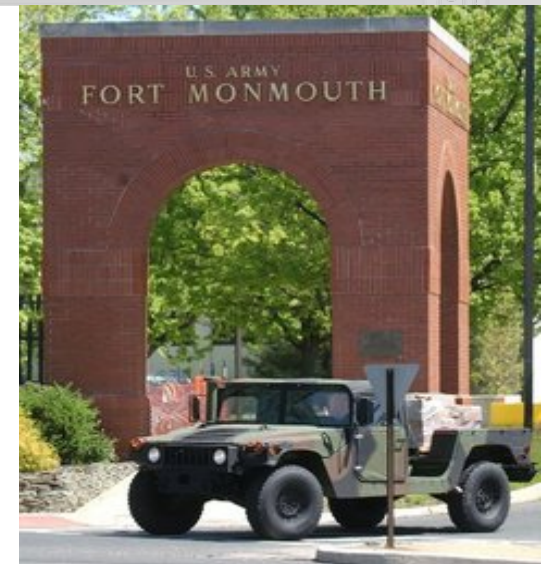
Preferred Remedial Alternative for the Seven Landfills

Components of Remedial Measures for Select Landfills

May Include

Public Participation

Questions and Public Comments



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PROPOSED PLAN & PROJECT TEAM OVERVIEW

- The Proposed Plan presents the preferred alternative for seven former landfills (LF) at Fort Monmouth (FTMM): FTMM-03, FTMM-04, FTMM-05, FTMM-12, FTMM-14, FTMM-18, and FTMM-25
- The U.S. Army is the lead agency under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- New Jersey Department of Environmental Protection (NJDEP) is the state support agency for FTMM



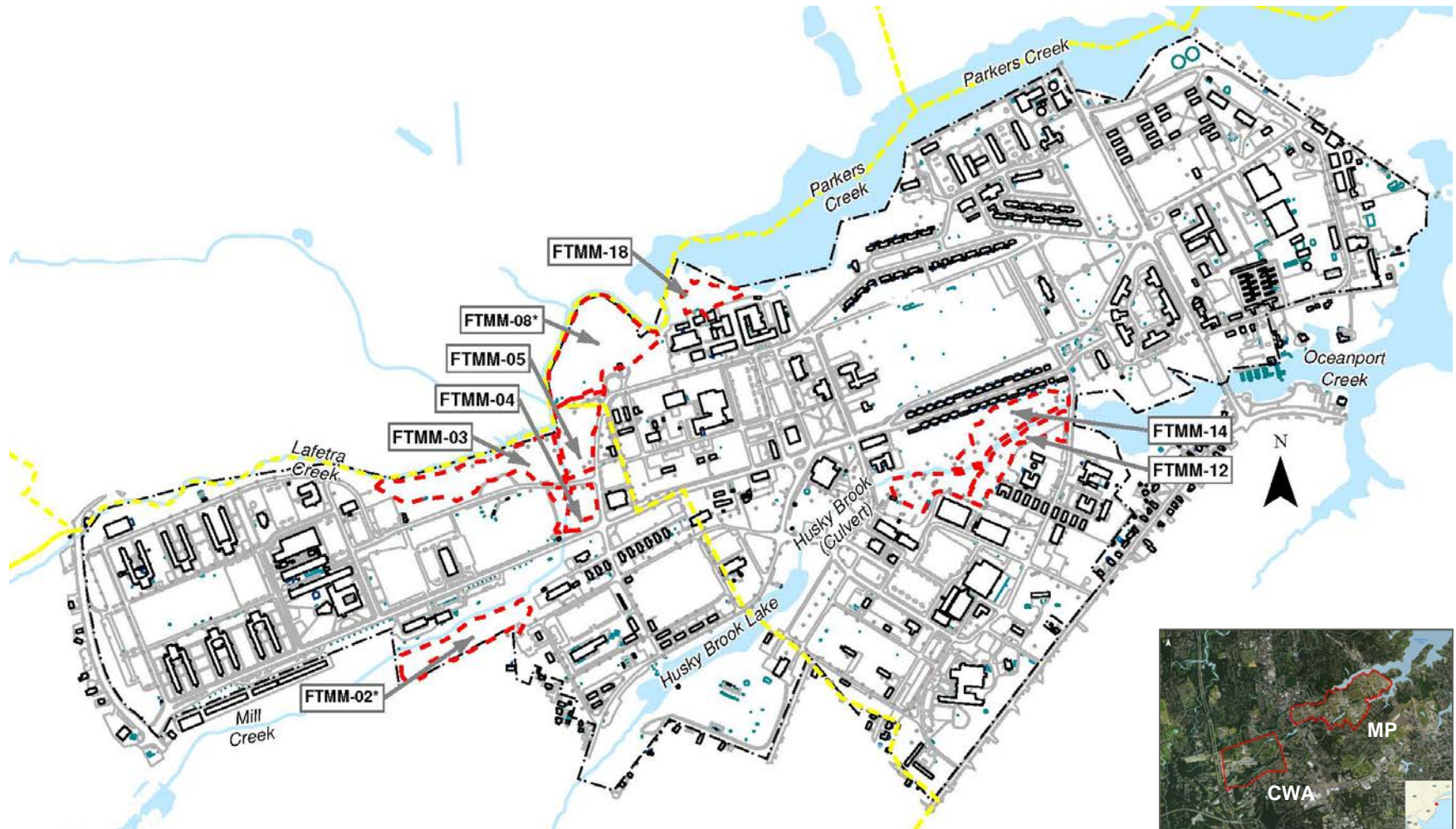
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PROPOSED PLAN & PROJECT TEAM OVERVIEW

LANDFILL LOCATIONS – MAIN POST



*FTMM-02 and FTMM-08 will be addressed in a separate document.

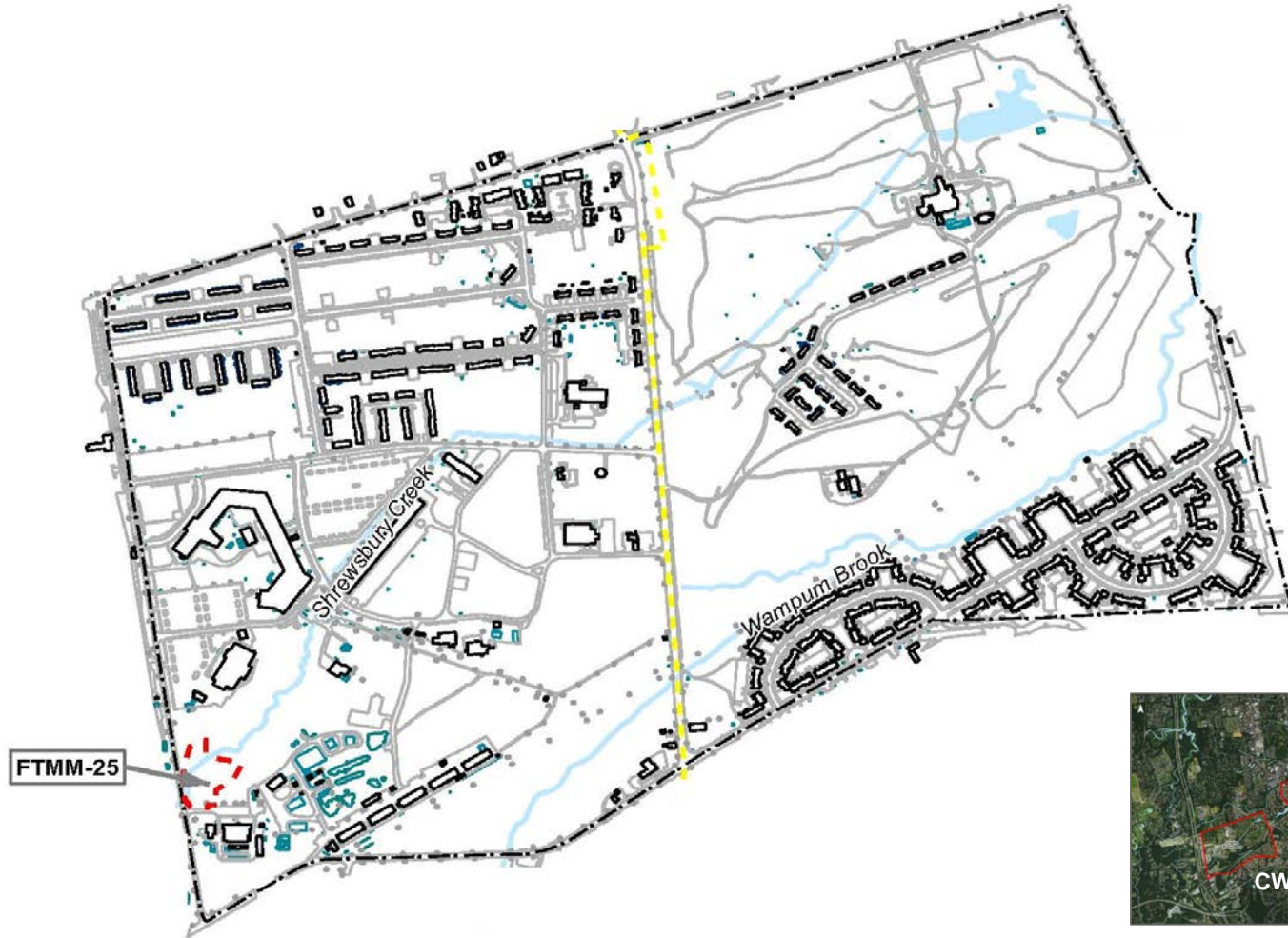


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PROPOSED PLAN & PROJECT TEAM OVERVIEW

LANDFILL LOCATION – CHARLES WOOD AREA (CWA)



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PROPOSED PLAN & PROJECT TEAM OVERVIEW

- Remedial Investigations (RIs) conducted in 2014 and 2015 for each of the seven landfills:
 - Review of previous investigations and sampling results
 - Comparison of contaminant concentrations to NJDEP criteria for soil, groundwater, surface water, and sediment
 - Conducted human health risk assessments (HHRAs)
- HHRA is an evaluation of the potential adverse health effects caused by exposure to contaminants in the soil, groundwater, surface water, and sediment
- No unacceptable risk to human health and the environment was found at the landfills for the current and future intended land use (passive open spaces)



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PROPOSED PLAN OVERVIEW

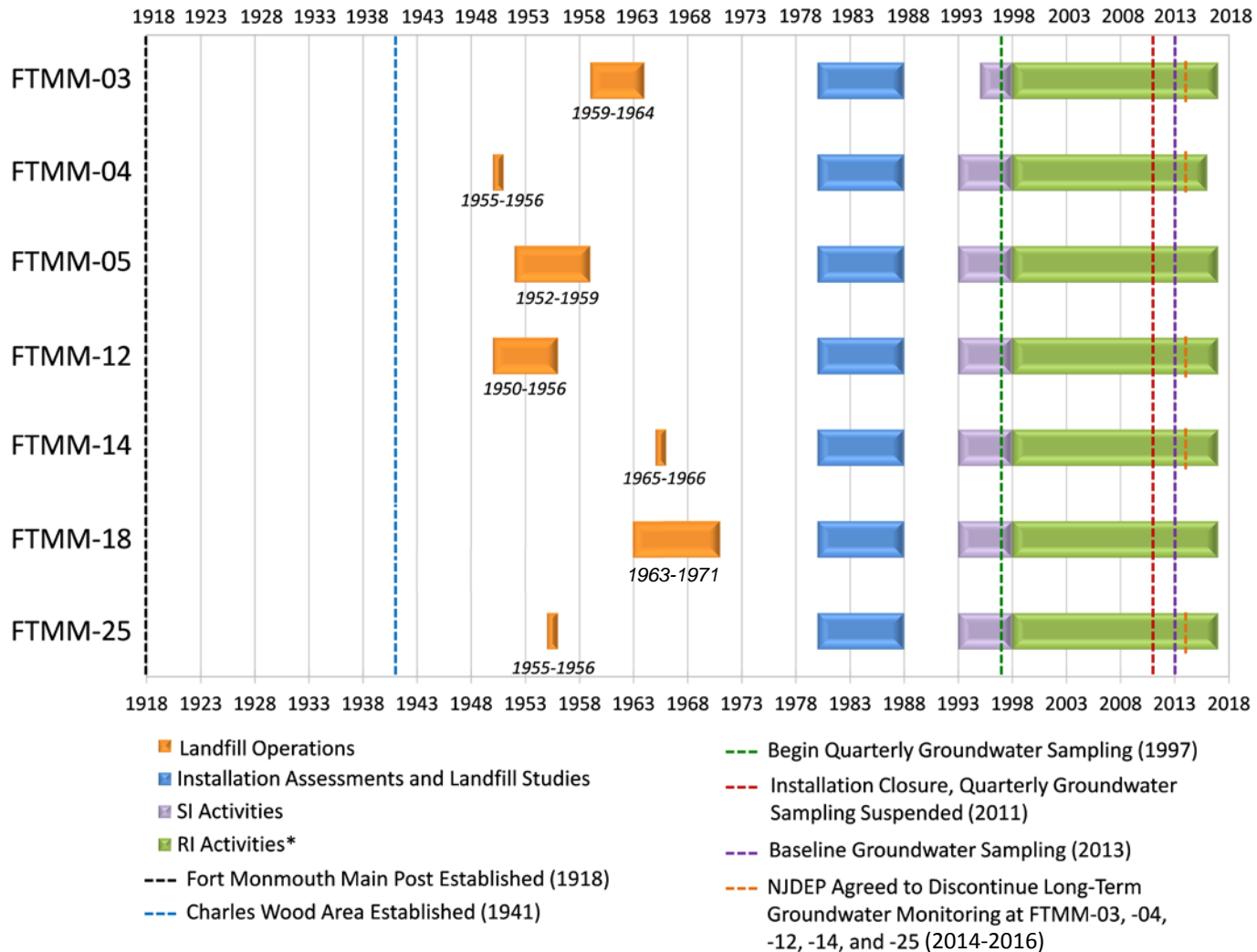
- Although there is no CERCLA risk and no need for a CERCLA action, a vegetated soil cover will be installed to provide safety protection from potential exposure to solid waste for future non-residential user
- Land Use Controls to maintain the soil cover and prevent residential land use will be implemented through a Land Use Control Implementation Plan (LUCIP)



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SITE BACKGROUND



*End date denotes NJDEP acceptance or anticipated acceptance of RI Report.



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SITE BACKGROUND

Sample Collection History

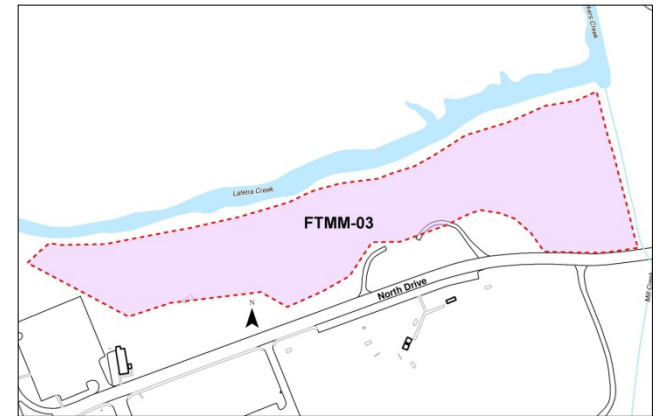
	Soil	Groundwater	Surface Water	Sediment
FTMM-03	425 samples collected from 205 borings from September-November 1998	Sampled quarterly from 1995-2011, annually 2013-2014	Sampled quarterly from 1996-2010	25 samples collected in April 2000
FTMM-04	66 samples collected from 63 borings in March 1998	Sampled quarterly from 1997-2011, annually 2013	Sampled quarterly from 1996-2010	6 samples collected in April 2000, 6 more collected in June 2010
FTMM-05	296 samples collected from 254 borings from April-December 1998	Sampled quarterly from 1997-2011, annually 2013-present	Sampled quarterly from 1996-2010	16 samples collected in April 2000
FTMM-12	193 samples collected from 147 borings from March 1998 - September 1999	Sampled quarterly from 1997-2011, annually 2013	Sampled quarterly from 1996-2010	25 samples collected in April 2000 (<i>FTMM-12 and -14</i>)
FTMM-14	124 samples collected from 119 borings from December 1998 - January 1999	Sampled quarterly from 1997-2011, annually 2013	Sampled quarterly from 1996-2010	25 samples collected in April 2000 (<i>FTMM-12 and -14</i>)
FTMM-18	62 samples collected from 65 borings in from January-February 1999	Sampled quarterly from 1997-2011, annually 2013-present	Sampled quarterly from 1996-2010	8 samples collected in April 2000
FTMM-25	100 samples collected from 48 borings in December 1998	Sampled quarterly from 1997-2011, annually 2013	Sampled quarterly from 1996-2010	12 samples collected in April 2000



REMEDIAL INVESTIGATION RESULTS

- FTMM-03

- Operated from 1959 to 1964
- Final RI Report submitted to NJDEP in February 2016
- Soil: 4 volatile organic compounds (VOCs), 7 semi-volatile organic compounds (SVOCs), 1 polychlorinated biphenyl (PCB), and 16 metals evaluated in the HHRA
- Groundwater: Last eight sampling rounds evaluated as representative of recent conditions for HHRA and included 3 VOCs. NJDEP agreed to discontinue long-term monitoring (LTM) in 2016 since concentrations below criteria
- Surface water: No contamination originating from FTMM-03
- Sediment: No PCBs detected in samples above NJDEP criteria



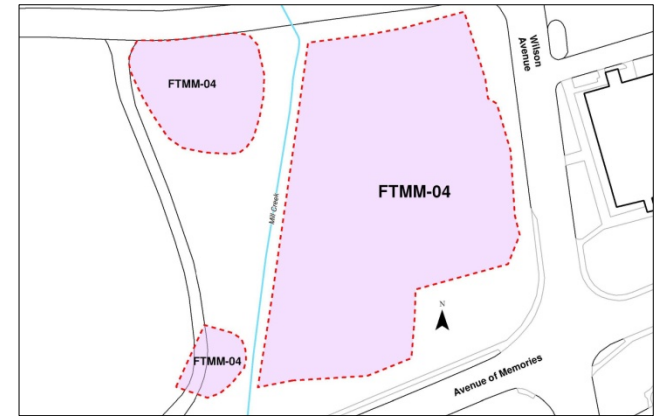
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REMEDIAL INVESTIGATION RESULTS

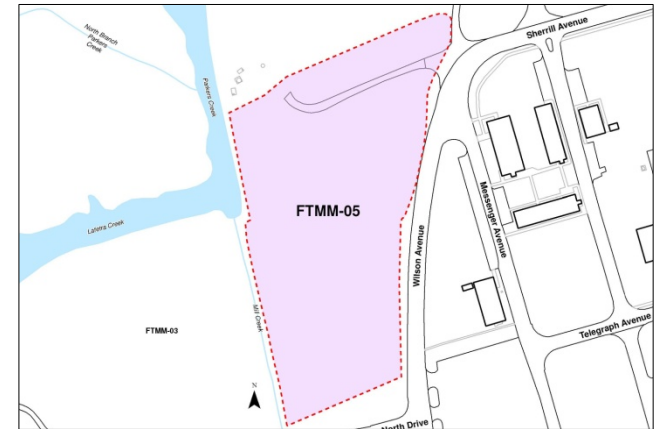
- FTMM-04

- Operated from 1955 to 1956
- Final RI Report submitted to NJDEP in July 2014
- Soil: 7 SVOCs, 9 metals, and 2 pesticides evaluated in the HHRA
- Groundwater: Last eight sampling rounds evaluated as representative of recent conditions for HHRA; no compounds evaluated in HHRA. NJDEP agreed that metal concentrations are representative of background and to discontinue LTM in 2014
- Surface water: No contamination originating from FTMM-04
- Sediment: No VOCs, SVOCs, pesticides, PCBs, and metals detected in samples above NJDEP criteria



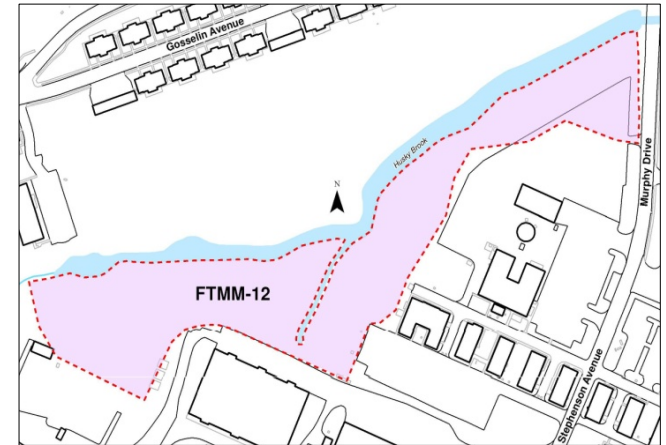
REMEDIAL INVESTIGATION RESULTS

- FTMM-05
 - Operated from 1952 to 1959
 - Final RI Report submitted to NJDEP in August 2015
 - Soil: 2 VOCs, 6 SVOCs, 2 pesticides, and 13 metals evaluated in the HHRA
 - Groundwater: Most recent sampling data indicate VOCs are present above NJDEP criteria; sampling at select wells for VOCs will continue annually
 - Surface water: No contamination originating from FTMM-05
 - Sediment: No PCBs detected in samples above NJDEP criteria



REMEDIAL INVESTIGATION RESULTS

- FTMM-12
 - Operated from 1950 to 1956
 - Final RI Report submitted to NJDEP in August 2015
 - Soil: 2 VOCs, 8 SVOCs, 7 pesticides, 1 PCB, and 15 metals evaluated in the HHRA
 - Groundwater: Last eight sampling rounds evaluated as representative of recent conditions for HHRA; no compounds evaluated in HHRA. NJDEP agreed to discontinue LTM in 2014 since concentrations below criteria
 - Surface water: No contamination originating from FTMM-12
 - Sediment: One PCB detected above NJDEP criteria located upstream and not related to FTMM-12



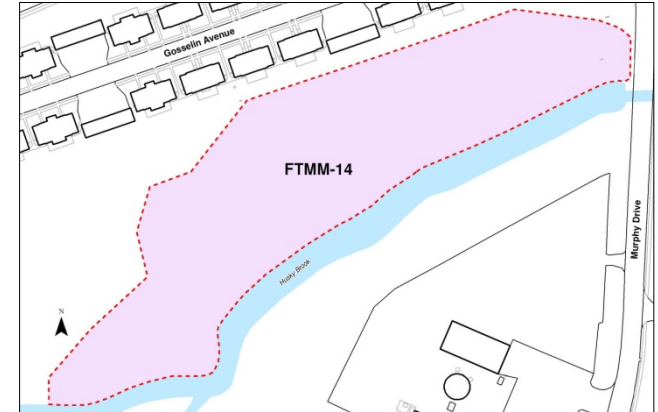
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REMEDIAL INVESTIGATION RESULTS

- FTMM-14

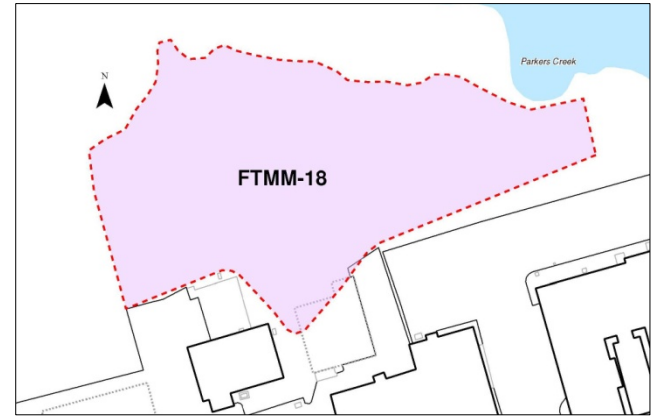
- Operated from 1965 to 1966
- Final RI Report submitted to NJDEP in July 2015
- Soil: 7 SVOCs, 1 pesticide, and 7 metals evaluated in the HHRA
- Groundwater: Last eight sampling rounds evaluated as representative of recent conditions for HHRA; no compounds evaluated in HHRA. NJDEP agreed to discontinue LTM in 2014 since concentrations below criteria
- Surface water: No contamination originating from FTMM-14
- Sediment: One PCB detected above NJDEP criteria located upstream and not related to FTMM-14



REMEDIAL INVESTIGATION RESULTS

- FTMM-18

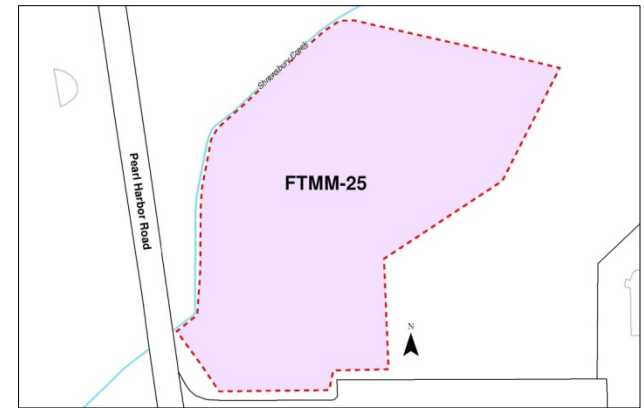
- Operated from 1963 to 1971
- Final RI Report submitted to NJDEP in October 2015
- Soil: 6 SVOCs, 2 PCBs, and 5 metals were evaluated in the HHRA
- Groundwater: Most recent sampling data indicate VOCs are present above NJDEP criteria; sampling for VOCs at select wells will continue annually
- Surface water: No contamination originating from FTMM-18
- Sediment: 1 PCB detected slightly above criteria at two sample locations was evaluated in the HHRA



REMEDIAL INVESTIGATION RESULTS

- FTMM-25

- Operated from 1955 to 1956
- Final RI Report submitted to NJDEP in August 2016
- Soil: 6 SVOCs and 5 metals evaluated in the HHRA
- Groundwater: Last eight sampling rounds evaluated as representative of recent conditions for HHRA; NJDEP agreed that metal concentrations are representative of background and agreed to discontinue LTM in 2014
- Surface water: No contamination originating from FTMM-25
- Sediment: No PCBs detected in samples above NJDEP criteria



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SUMMARY OF RISKS AT THE SEVEN LANDFILLS

- HHRA evaluated risks from human exposure to contaminants in soil, groundwater, surface water, and sediment at each landfill

USEPA Regional Screening Levels (RSLs) for soil and groundwater used for comparison purposes because the Army performed CERCLA-compliant RI/HHRA



RSLs used to identify those contaminants that are contaminants of potential concern (COPCs)



COPCs evaluated in HHRA



No COPCs were determined to be contaminants of concern (COCs) at the seven landfills



SUMMARY OF RISKS AT THE SEVEN LANDFILLS

- No COPCs were identified in surface water
- HHRAs evaluated exposure of current/future outdoor workers, future utility workers, and future recreational users to COPCs in soil, groundwater, and sediment through dermal contact, incidental ingestion, and/or inhalation of particulates
- Groundwater at FTMM is not used as a source of drinking water since municipal water is provided



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SUMMARY OF RISKS AT THE SEVEN LANDFILLS

- No unacceptable potential risks to:
 - Current/future outdoor or utility workers or future recreational users from exposure to soil (through dermal contact, incidental ingestion, and inhalation of particulates)
 - Current/future utility workers from exposure to groundwater (through dermal contact or incidental ingestion)
 - Current/future outdoor workers or future recreational users from exposure to sediment (through dermal contact, incidental ingestion, and inhalation of particulates)
- Risk to human health and the environment from the soil, groundwater, and sediment are within the CERCLA risk range for the current and future intended land use (passive open spaces)



SUMMARY OF RISKS AT THE SEVEN LANDFILLS

- A Baseline Ecological Evaluation (Shaw, May 2012) was conducted at FTMM to assess whether the presence of constituents of concern in sediments, surface water, soil and groundwater has the potential for adverse effects to wildlife
- It was concluded that constituents at FTMM are unlikely to have adverse effects on the wildlife or their habitats and additional ecological assessment are not warranted.
- In an August 2012 letter, the NJDEP accepted the 2012 BEE report's recommendations and conclusions and concurred that no further evaluation of ecological risk is required



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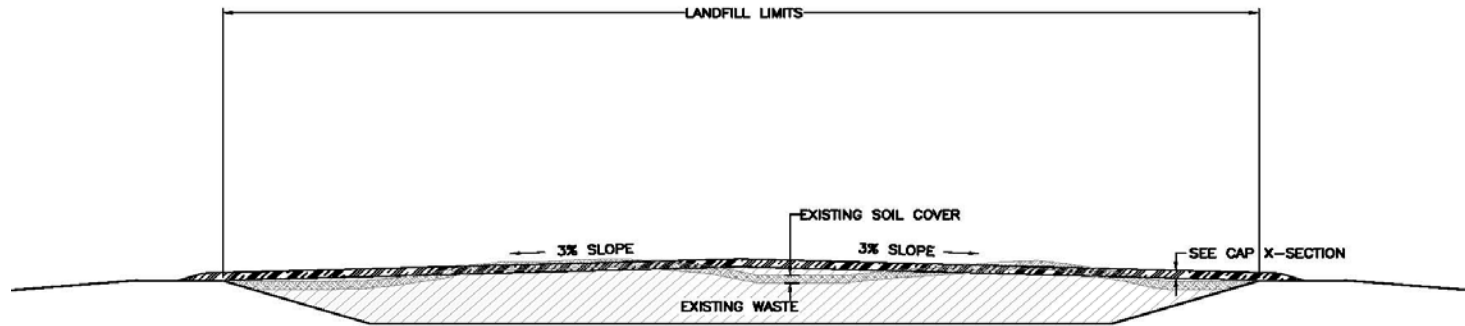
PREFERRED REMEDIAL ALTERNATIVE FOR THE SEVEN LANDFILLS

- A vegetated soil cover will be placed over each landfill area consistent with the NJDEP Solid Waste regulations
- Additional soil will be added to the existing soil cover to have a minimum “two” feet of soil between the ground surface and landfilled debris
- Vegetated soil cover will offer safety protection to non-residents from potential future exposure to solid waste at the landfill and will also control surface water runoff and erosion

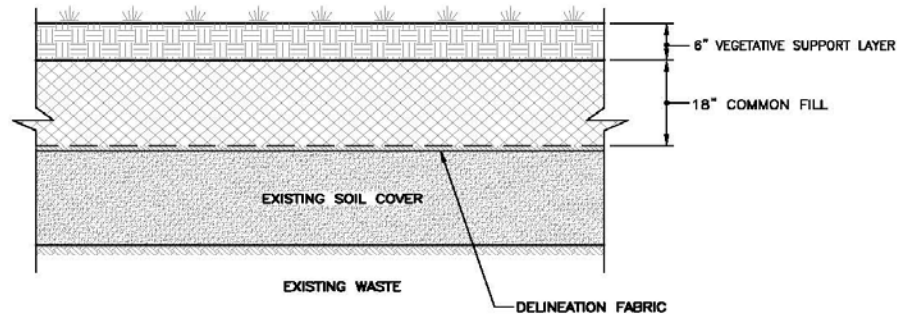


PREFERRED REMEDIAL ALTERNATIVE FOR THE SEVEN LANDFILLS

Landfill Cover System Design



CAP SECTION
N.T.S.



CAP X-SECTION
N.T.S.



PREFERRED REMEDIAL ALTERNATIVE FOR THE SEVEN LANDFILLS

- LUCIP will be prepared to:
 - Implement the LUC (e.g., maintain soil cover and prevent residential land use)
 - Document the location of engineering control (e.g., soil cover)
 - Identify procedural responsibilities including cover inspections and maintenance, monitoring and reporting and long term management requirements
- The Army will be responsible for documenting and implementing the LUCs through filing of a deed notice at the time of property transfer
- New owner will be responsible for complying with the LUCs, however the Army will retain ultimate responsibility for remedy integrity



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COMPONENTS OF THE REMEDIAL MEASURES FOR SELECT LANDFILLS MAY INCLUDE

- Institutional Controls in the form a Classification Exception Area (CEA) will be established for groundwater at FTMM-05 and FTMM-18 and will remain in place until NJDEP Groundwater Quality Standards are achieved
- Methane gas mitigation systems
- Walking paths, access roads and parking areas
- Maintenance and Inspection of landfill caps



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PUBLIC PARTICIPATION

- Public participation is an important component of remedy selection
- The Army is soliciting input from the community on the preferred alternative identified for the seven landfills
- Public comments will be included in the Decision Document and will be added to the FTMM Information Repository at the Monmouth Eastern Branch Library
- Comments accepted from February 8 through March 9, 2017



QUESTIONS

Comments can be submitted **verbally tonight** (in meeting transcript) or in writing (forms are available).

By mail:

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OACSIM - U.S. Army Fort Monmouth
Attn: Mr. William Colvin
P.O. Box 148
Oceanport, NJ 07757

By email: william.r.colvin18.civ@mail.mil

Written comments must be postmarked or emailed by the comment period close on March 9, 2017.



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