



# FACT SHEET



## Fort George G. Meade, Maryland Manor View Dump Site

March 2014

### Overview

The U.S. Army at Fort George G. Meade has released a Proposed Plan for public comment on the final environmental response plan for the Manor View Dump Site (Site). This fact sheet summarizes the investigations performed by the Army, past actions, alternatives presented in the Proposed Plan, and the preferred alternative. This fact sheet also provides information on how you can submit your comments.

### Site History & Background

The Manor View Dump Site is an approximately 10-acre site near the intersection of MacArthur Road and 2nd Corps Boulevard in the central portion of Fort Meade (see map to left). The Site is surrounded by residential housing (Potomac Place) to the north along Phelps Avenue, to the west along Hayden Drive, and to the south along 2nd Corps Boulevard. Manor View Elementary School is to the east.

In 2003, construction workers discovered buried wastes and fill material when moving soil during the construction of military housing. Fort Meade began environmental investigations at the Site to determine the nature and extent of buried waste. As a result of the investigations, methane was detected at the Site in 2004, and safety measures were implemented.

Fort Meade has not found any records describing the operation of the dump or identifying the nature of the waste placed in the dump. The Army conducted several environmental investigations to categorize the age, type, and location of waste within the former dump. The investigations found organic material buried in the western parcel of the Site in an area about one acre in size (pink striped area in figure at left). Some of the waste is from the 1940s. The rest of the Site (eastern parcel) contains construction debris. The decomposition of the organic material in the one-acre area was generating methane, and the Army's initial actions focused on the methane.



LEGEND:  
 DEBRIS/FILL FOOTPRINT  
 METHANE GENERATING WASTE FOOTPRINT  
 REMOVED DURING THE 2012 NON-TIME CRITICAL REMOVAL ACTION (LOCATION IS APPROXIMATE)  
 GRAPHIC SCALE  
 0 200 400 Feet

## Extensive Safety Measures Taken

The Army has taken extensive actions to ensure the safety of Potomac Place housing, Manor View Elementary School, and the surrounding community. First, the Army installed methane monitors within some of the military houses and Manor View Elementary School. Methane has not been detected at hazardous levels inside the homes or above normal background levels at the school. Second, the Army installed a temporary landfill gas migration control system to prevent the methane from moving beyond the Site boundary. The system consists of a vacuum blower which draws methane from the landfill and away from the residential properties. The methane was then safely discharged to the atmosphere at very low concentrations. To monitor the methane levels, the Army collected samples weekly from the system and from soil locations surrounding the Site. Third, when it was determined the control system was not capturing all the methane, the Army relocated military families in the houses nearest the Site, while it sought a more permanent solution.

## Developing a Permanent Solution

To address the source of the methane, the Army excavated the methane-generating waste at the site and disposed of it in an off-site landfill specifically designed to accept these wastes. The Army removed approximately 30,000 tons of waste, soil, and materials during the removal action in 2012. Air monitoring was conducted during the more than two-months of excavation activities, and no readings exceeded an action level.

The excavated area was backfilled and covered with 18 inches of clean imported fill and 6 inches of clean, imported topsoil. The remaining portion of the site containing the construction debris also has a soil cover ranging from two feet to eight feet in depth.

The Army has continued to sample and monitor for methane. Almost all locations now show no detection, while a few have continued to detect low-levels of residual methane. The Army will continue to sample and monitor.

## Methane Facts

Methane (also known as natural gas) is an odorless and colorless gas. Methane can form within landfills as a natural byproduct when organic waste biodegrades. Although methane is not toxic, methane from landfills can pose a safety hazard at certain concentrations in the atmosphere that make it potentially flammable or explosive in the presence of an ignition source. To be dangerous, the methane would have to be at a significant concentration and have contact with an ignition source. Methane may displace oxygen in an enclosed space and present an asphyxiation hazard.



*Photo of the site during the excavation of the approximately 30,000 tons of waste.*

## COMPREHENSIVE INVESTIGATIONS COMPLETED

While the Army took interim actions to protect the community from the methane detected at the Site, it also conducted the full environmental investigations required by law, specifically the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The Army conducted a thorough Remedial Investigation of the Site to determine if any residual contamination was present, and if so, whether the contamination presented a risk to human health or the environment. It also developed a Feasibility Study to look at alternatives for addressing any identified risks.

The investigations found some sporadic detections of metals and solvents in the groundwater. However, drinking water is not impacted because drinking water at Fort Meade is supplied by a community water system which does not draw water from this area.

Trichloroethylene (TCE), a solvent, was detected in one sample collected in 2005 during indoor air sampling at the Manor View Elementary School in a crawl space and could present a risk if the crawl space was ever occupied on a full-time basis by a student or teacher in the future. TCE was not detected in 12 other samples of occupied spaces at the school, nor was it detected in five sub-slab samples collected from beneath occupied spaces.

The Army's Feasibility Study looked at alternatives for controlling these potential future risks and continuing to provide protection from the waste still buried at the Site. The removal of approximately 30,000 tons of soil and methane-generating waste substantially addressed the methane issue; however, inspections and long-term monitoring will continue to ensure the effectiveness of the action.

## RESPONSE ALTERNATIVES EXAMINED

The Army conducted a detailed analysis of various response alternatives and associated costs for the Site. The selected alternative will include a five-year review as required by CERCLA to ensure it continues to be effective.

**Alternative 1: No Action.** The law requires the Army evaluate taking no action to establish a baseline for comparison with other alternatives. **Cost: \$0.**

**Alternative 2: Maintenance of Existing Soil Cover, Land Use Controls, and Long-Term Monitoring.** The existing soil cover over the Site will be inspected and maintained. Land use controls include signage at the Site, fencing, prohibiting residential use of the Site, prohibiting groundwater use throughout the Site, prohibiting full-time occupancy of the crawl space at the Manor View Elementary School, and developing and enforcing provisions for the construction of buildings within 100 feet of the Site to prevent the possibility of vapor intrusion. The long-term monitoring would include soil gas monitoring for methane, groundwater sampling, indoor air sampling in the crawl space at the school, and site inspections. **Cost: \$241,000.**

**Alternative 3: Installation of a Low Permeability Cap, Land Use Controls, and Long-Term Monitoring.** A low permeability cap would be installed over the eastern parcel of the Site where buried construction debris remains (approximately nine acres). Land use controls and long-term monitoring would be similar to the activities discussed for Alternative 2. **Cost: \$6,566,105.**



*Photo of the site after the removal action*

## ALTERNATIVES EVALUATED AGAINST CRITERIA

As required by law, the Army evaluated the above alternatives against nine criteria. The criteria are:

1. Overall protection of human health and the environment
2. Compliance with applicable or relevant and appropriate requirements
3. Long-term effectiveness and permanence
4. Reduction of toxicity, mobility, and volume
5. Short-term effectiveness
6. Implementability
7. Cost
8. State acceptance
9. Community acceptance

## PREFERRED ALTERNATIVE SELECTED

The Army's preferred alternative is **Alternative No. 2, Maintenance of Existing Soil Cover, Land Use Controls, and Long-Term Monitoring**. The existing soil cover prevents direct contact with the buried waste and sub-surface soil. The land use controls would mitigate other Site risks, and long-term monitoring would ensure the soil cover continues to be effective and provide ongoing groundwater data.

## OPPORTUNITIES FOR PUBLIC INPUT

The Army, in consultation with the U.S. Environmental Protection Agency and the Maryland Department of the Environment, can change the preferred alternative based on public comments. The Army encourages interested citizens to review and comment on the proposed action.

The Proposed Plan, can be viewed online, at [www.ftmeade.army.mil/environment](http://www.ftmeade.army.mil/environment); click on "Clean-up Program", and then "Program Sites."

The Proposed Plan, as well as the full Administrative Record, also can be viewed at:

### Fort Meade Environmental Division

4215 Roberts Avenue, Suite 320  
Fort Meade, MD 20755  
(301) 677-9559  
Hours: 8 a.m. to 4 p.m.  
(Monday—Friday)  
(photo I.D. required to gain access onto Fort Meade)

### Anne Arundel County Library West County Area Branch

1325 Annapolis Road  
Odenton, MD 21113  
(410) 222-6277  
Hours: 9 a.m. to 9 p.m. (Monday-Thursday)  
9 a.m. to 5 p.m. (Friday and Saturday)  
1 p.m. to 5 p.m. (Sunday)

The 30-day public comment period on the proposed action extends from March 20 to April 19, 2014. Written comments, postmarked by April 19, can be mailed to the address below (a comment form is enclosed for convenience) or sent by email to:

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