



# FACT SHEET



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

September 2011

### Overview

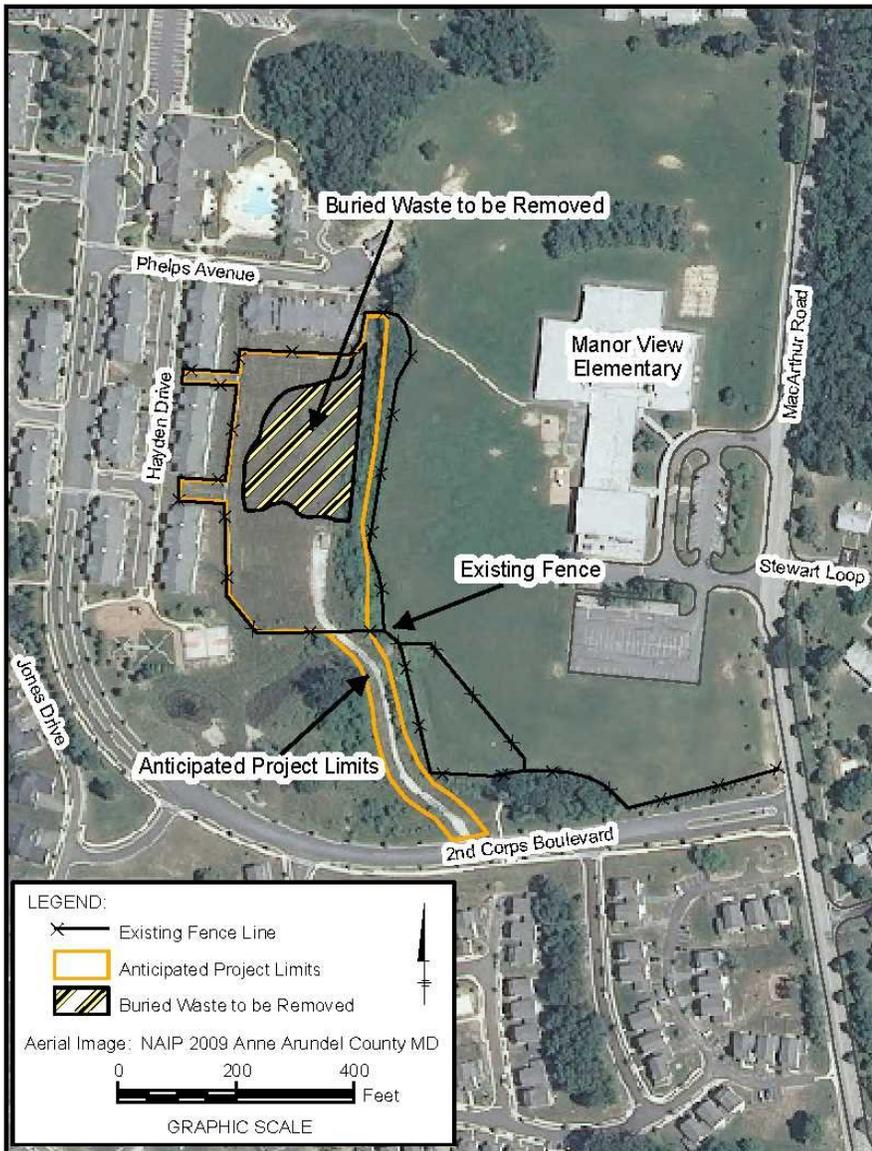
The U.S. Army at Fort George G. Meade is planning to remediate safety hazards associated with methane at the Manor View Dump Site. This fact sheet provides information on the Site, explains the hazards of methane, and discusses the safety measures being taken to ensure protection of Potomac Place, Manor View Elementary School, and surrounding communities.

### 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 northern 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 wastes. 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 site. The investigations found organic material buried in the western portion of the Site in an area about one acre in size (striped area in figure at left). The rest of the Site contains construction debris. Some of the waste is from the 1940s. The decomposition of the organic material in the one-acre area is generating methane.



## **Current Site Conditions**

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. The specific concern at this Site is the potential for methane to accumulate in the immediately adjacent housing units on Phelps Avenue and Hayden Drive. As a precaution, the Army evacuated these homes in 2005 so there is no risk to residents.

## **Existing Safety Measures**

The Army has taken extensive actions to ensure the safety of Potomac Place, Manor View Elementary School, and the surrounding communities. First, the Army installed methane monitors within the evacuated 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 is then safely discharged to the atmosphere at very low concentrations. To monitor the methane levels, the Army collects 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.

## **Developing a Permanent Solution**

The current remedy is temporary and only controls the migration of methane generation within the landfill. It does not address the source of the methane. Unless the wastes that are capable of generating methane are removed, the source of the problem will remain. Removal of the waste that generates methane would be a permanent solution. The Army plans to excavate the waste and dispose of the waste in an off-site landfill specifically designed to accept these wastes. Excavation and removal of the methane generating waste provides the following advantages:

- It is a permanent solution.
- Removal of the methane generating waste would allow the Site to be returned to the Army community for beneficial use. Upon completion of the remedy, the fence surrounding the Site will be removed. The final layout of the Site will be designed in a manner that would be suitable for recreational uses, reforestation, or other urban open space (see photo on page 3).
- The houses that are currently evacuated will be available for re-occupancy upon the completion of the removal action and confirmatory sampling.
- The waste will be transferred to a facility with the proper permits and controls to handle this material. Also, removal of these wastes will allow for the energy intensive migration control system to be shut down.

## **Moving Forward With a Permanent Solution**

The Army anticipates starting the proposed excavation during the winter of 2011/2012. The work, including site preparation, system modification, excavation and backfill, site restoration, and cleanup, is anticipated to take about 12 weeks. The excavation and backfill activities are expected to take nine weeks. A detailed health and safety plan will be prepared and approved prior to work starting and will provide for air monitoring during the work. As with any construction project, there will be inconveniences during the work. However, the Army will take the following actions to minimize these inconveniences:

- Noise: Operation of the heavy equipment will be restricted from 8 a.m. to 5 p.m. Work will not occur on holidays and work on weekends will be restricted to exceptional circumstances. The type of noises to be expected from the Site include those from the operation of heavy equipment (engine noise and audible back up alarms), operation of generators, and the delivery of materials (e.g., stone being dumped from a dump truck).

- **Traffic:** There will be increased traffic to and from the construction site. It is anticipated that approximately two to four trucks per hour will be removing waste and delivering materials over the nine weeks. To the extent possible, trucks will be routed away from residential areas. Also, the operation of trucks will be prohibited during certain periods, such as when school buses are in operation.
- **Odor:** There is the potential that odors may be generated during waste excavation. The generation of odors will be minimized by conducting the work during cooler weather, using construction methods that minimize the area of exposed waste (which minimizes odor generation), and through the application of odor masking and/or odor neutralizing products.
- **Dust control:** Dust generation is always a potential at construction sites involving the handling of soil. The generation of dust at the Site will be minimized through the use of hygienic construction practices (e.g., covering trucks hauling waste with tarps). Dust meters will be located throughout and along the perimeter of the Site to monitor the amount of dust being generated and to verify that dust is not moving off the Site. Also, workers will apply water to the soil to minimize dust.

The construction activities at the Site will not interfere with the daily operation of Manor View Elementary School and will not interfere with the ability of residents to use the nearby recreational facilities (e.g., the basketball courts and community center). The construction activities will be limited to the immediate area surrounding the former dump and access road, and the site activities will take place within the currently fenced off area. The Site will continue to be monitored for methane after completion of the waste removal to ensure the removal action was effective at removing the methane generating waste.

Below is an artist's rendition of the Site when all work has been completed.



## Questions & Answers

### Will there be odor or dust?

Odor and dust are a potential with any construction project, and the Army is taking steps to minimize odor and dust. Odor and dust will be monitored throughout the entire project.

### What does this project mean to my family?

No significant impacts to daily routines are expected.

### Is my drinking water impacted?

No. Drinking water at Fort Meade is supplied by a community water system which does not draw water from this area.

### What are the future plans for the Site?

The Army will be restoring the Site to a level grass field.

<p><b>Timeline</b></p> <p><b>September — October 2011:</b> Prepare an Engineering Evaluation/Cost Analysis document and make it available for regulator and public review and comment.</p> <p><b>October – December 2011:</b> Prepare Removal Action Work Plan, conduct environmental sampling, and continued planning and coordination with all stakeholders.</p> <p><b>January – March 2012:</b> Excavate methane generating waste followed by site grading and restoration.</p>	<p><b>Additional Information Available</b></p> <p>Additional project information is available on Fort Meade's Environmental Management System website at <a href="http://www.fortmeade-ems.org">www.fortmeade-ems.org</a> (click on the link for Installation Restoration). Fort Meade has established an information repository which contains various documents available for the public's review at the West County Area Library, 1325 Annapolis Road, Odenton, MD, 21113; for library hours call 410-222-6277.</p> <p>This project and other environmental projects are discussed at meetings of Fort Meade's Restoration Advisory Board. These meetings are held approximately every other month. Meetings are announced in local papers and on the Fort Meade Environmental website (<a href="http://www.fortmeade-ems.org">www.fortmeade-ems.org</a>; click on the link for RAB). Interested community members are always welcome at the meeting and to consider applying to be a Board member.</p> <p><b>Contact Information</b></p> <ul style="list-style-type: none"> <li>• <b>Fort Meade Public Affairs Office:</b> 301-677-1301</li> <li>• <b>Fort Meade Project Hotline:</b> 410-441-9979</li> <li>• <b>US Environmental Protection Agency:</b> John Burchette, Project Manager, 215-814-3378</li> <li>• <b>Maryland Department of the Environment:</b> Elisabeth Green, Project Manager, 410-537-3045 or Public Affairs, 410-537-3045</li> </ul>
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