



FACT SHEET

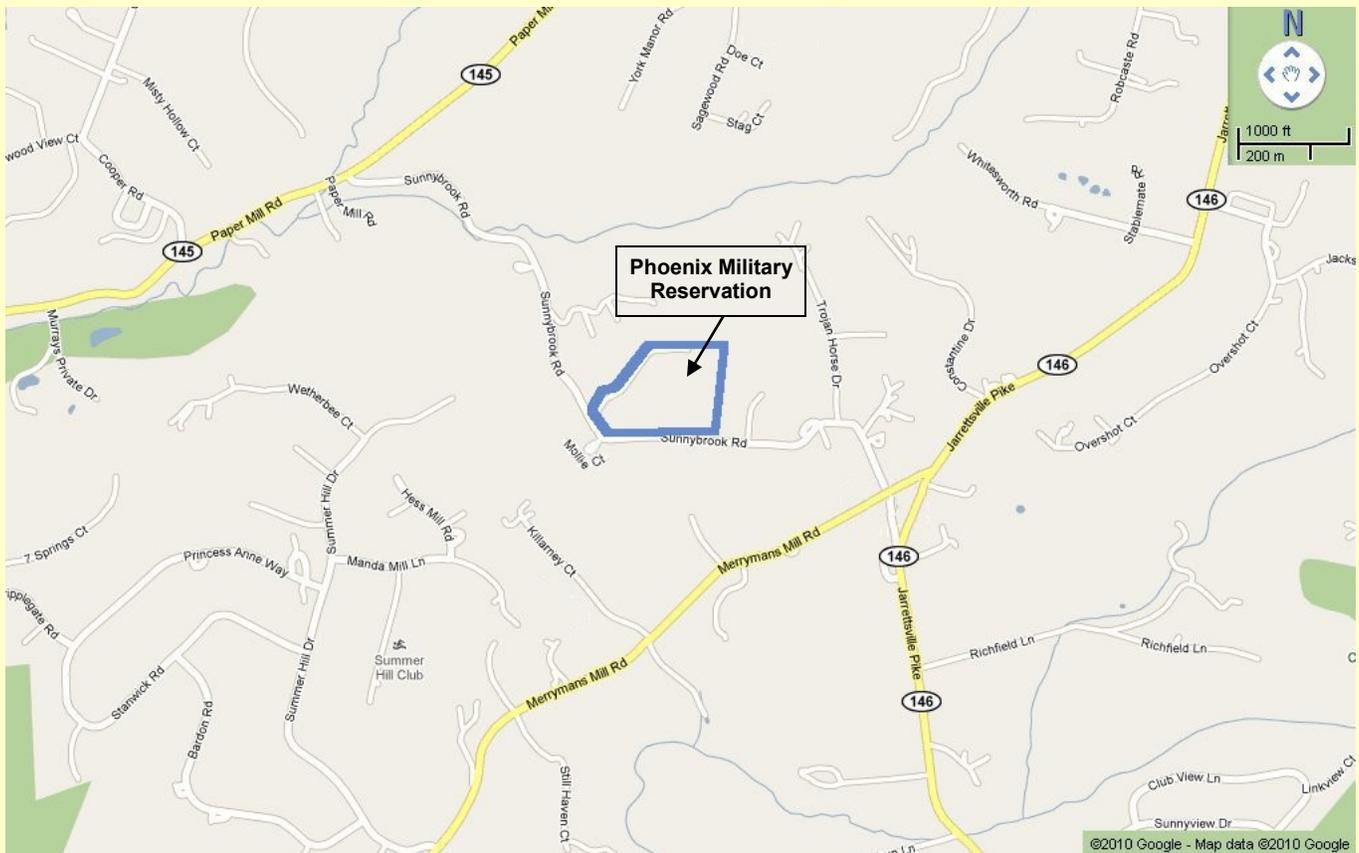
Phoenix Military Reservation Baltimore County, Maryland

Overview

The U.S. Army at Fort George G. Meade (Army) invites the community to comment on the proposed remedy for the Phoenix Military Reservation, a sub-installation of Fort Meade, located approximately one-half mile west of Jacksonville, Baltimore County, Maryland. This fact sheet provides a brief history of the site and environmental investigations and summarizes opportunities for the community to provide input on the selection of the appropriate environmental remedy.

Site Used as Nike Missile Fire Control Area and National Guard Training Facility

The Phoenix Military Reservation consisted of two parcels of land: the Fire Control Area and the Launch Control Area, each occupying about 17 acres. The two parcels are one-half mile apart, on adjacent hilltops, separated by a valley through which the Greene Branch flows. The Launch Control Area is no longer owned by the Army and no longer part of the Phoenix Military Reservation. This fact sheet and corresponding investigation only relate to the Fire Control Area.



The Phoenix Military Reservation was developed in 1954 as a Nike Ajax missile battery site. In 1958, the site was modified to support an upgraded variant called the Hercules missile. In 1966, the Nike missile program was terminated, and the site remained relatively inactive until 1974. In 1974, the Maryland Army National Guard was granted a five-year lease of the property from the U.S. Army. The Guard used the facility as a year-round training ground for its military police. In 1979, the Guard requested, and was granted, a five-year extension. The Guard ceased operations in 1982. The buildings were demolished shortly thereafter, and the site has remained unoccupied.

Comprehensive Environmental Investigations Begun in 1980s

In the 1980s, a series of environmental investigations were conducted by Baltimore County Health Department and the Army. They collected soil and groundwater samples, including some from nearby homes, to determine the nature and extent of the site-related compounds in soil and groundwater. Trichloroethene (TCE) was detected in groundwater and found to be migrating off-site; the investigations did not find contamination remaining in the soil. TCE is a common industrial solvent used to remove grease from metal parts. It is also an ingredient in adhesives, paint removers, typewriter correction fluids, and spot removers. Heating oil and its constituents were also found in the drinking water of nearby residents. In 1994, the Army funded a water supply system to provide permanent and safe drinking water to the homes on Sunnybrook Road affected by the heating oil release from ruptured tanks on the Phoenix Military Reservation. This water supply, known as the Phoenix Community Supply, is not affected by the contamination.

Additional environmental investigations have occurred, including groundwater sampling in 2011 and 2012 of wells installed on the Phoenix Military Reservation and nearby residential wells. Sampling found the TCE in the shallow groundwater has decreased to levels below regulatory criteria. In the deeper portion of the aquifer under the Phoenix Military Reservation, some exceedances of the regulatory criteria have been detected. There were no detections of TCE in the residential wells sampled. Soil, surface water, sediment and air have not been impacted by activities at the Phoenix Military Reservation.

The human health risk assessment showed that if the Phoenix Military Reservation property was developed for residential use in the future and the impacted deeper groundwater was the drinking water source, there would be an unacceptable potential health risk.



View of the Phoenix Military Reservation from the intersection of Mollie Court and Sunnybrook Road looking north onto the site.

Response Alternatives Examined

The Army's objectives for the site are to prevent anyone from being exposed to the groundwater over the duration of the response action and to achieve levels of solvents in the groundwater that meet the regulatory criteria in a reasonable timeframe and, thus, restore the groundwater to its potential beneficial use.

To accomplish these objectives, the Army evaluated four remedial alternatives:

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: Monitored Natural Attenuation and Land-Use Controls. Currently, natural attenuation processes are controlling migration and steadily reducing concentrations in the groundwater. Groundwater would be sampled annually to confirm the continued effectiveness of natural attenuation. Land-use controls already in place would be maintained and enhanced by installing additional signage. Annual inspections would be conducted to ensure land-use controls remain in good condition. **Cost: \$532,000**

Alternative 3: In-Situ Chemical Oxidation, Monitored Natural Attenuation and Land-Use Controls. Under this alternative, injections of sodium persulfate solution into the groundwater would help degrade the solvents. Groundwater would be sampled annually to confirm the continued effectiveness of natural attenuation. Land-use controls already in place would be maintained and enhanced by installing additional signage. Annual inspections would be conducted to ensure land-use controls remain in good condition. **Cost: \$859,000**

Alternative 4: Directed Groundwater Recirculation, Monitored Natural Attenuation, and Land-Use Controls. An extraction well would remove the groundwater for treatment and three additional wells would re-inject the clean groundwater into the aquifer. Groundwater would be sampled annually to confirm the continued effectiveness of natural attenuation. Land-use controls already in place would be maintained and enhanced by installing additional signage. Annual inspections would be conducted to ensure land-use controls remain in good condition. **Cost: \$837,000**

Alternatives Evaluated Against Criteria

As required by law, the Army evaluates the above alternatives against nine criteria:

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; and,
9. Community acceptance.

Preferred Alternative Selected

The preferred alternative is **Alternative 4, Directed Groundwater Recirculation, Monitored Natural Attenuation, and Land-Use Controls**. This alternative provides the highest level of overall protection because of the treatment and control of the groundwater flow, as well as a shorter timeframe to achieve the objectives than the other alternatives.

Opportunities for Public Input

The Army, in consultation with 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 and the Administrative Record are available for review at the Cockeyville Branch Library, 9833 Greenside Drive, Cockeyville, MD, 21030. The Proposed Plan also is available at the Fort Meade Environmental Division, 4215 Roberts Ave., Room 320, Fort Meade, MD, 20755.

The 30-day public comment period on the proposed action extends from August 15 to September 13, 2013. Comments must be postmarked by September 13, 2013 and sent to Ms. Mary Doyle, U.S. Army Garrison Fort George G. Meade, Public Affairs Office, 4409 Llewellyn Ave., Fort Meade, MD, 20755-7058.

Following the 30-day comment period, written responses will be prepared and included in the Administrative Record.

Contact Information

- **Fort Meade/Phoenix Military Reservation Public Affairs Office:** 301-677-5592
- **Maryland Department of the Environment:** Elisabeth Green, Project Manager, 410-537-3346 or Public Affairs, 410-537-3003

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