



BRANDYWINE DEFENSE REUTILIZATION AND MARKETING OFFICE

Joint Base Andrews
Prince George's County, Maryland



FACT SHEET: DECEMBER 2016

UPDATE ON ENVIRONMENTAL RESTORATION ACTIVITIES AT BRANDYWINE

This fact sheet provides an overview of ongoing environmental restoration efforts being conducted at the Brandywine Defense Reutilization and Marketing Office (DRMO) site, Prince George's County, Maryland.

Introduction

Past Department of Defense (DOD) activities used the Brandywine DRMO site for storage from 1943 to 1987. Unfortunately, spills, leaks, and storage practices common to that era resulted in the release of solvents and fuels into the environment. Those releases resulted in the Brandywine DRMO being listed on the National Priorities List in 1999. A Federal Facilities Agreement was negotiated for the subsequent work to be conducted at Brandywine between the DOD and U.S. Environmental Protection Agency (USEPA), effective 2010.

Previous environmental investigations discovered that: trichloroethylene (TCE), a type of volatile organic compound (VOC) or solvent, had leaked into the subsurface; and polychlorinated biphenyls (PCBs) had leaked into the soil. The Air Force has completed numerous studies and response actions to address historic releases at the Brandywine site, dating back to 1985. In 2006, Air Force (AF) and the USEPA signed an Interim Record of Decision to address historic releases to groundwater based on the information and findings of these studies.

Three soil removal actions driven by the presence of PCBs resulting from the historic storage of electrical transformers occurred at the Brandywine site in 1988, 1993/1994, and 2006/2007. These removal actions achieved the cleanup goals and no additional action is required.

Multiple groundwater cleanup actions have occurred with updates to these activities provided in the following section.

Interim Groundwater Remedy Update

As described in previous fact sheets, the groundwater remedy chosen in the 2006 Interim Record of Decision consisted of 2 elements: (1) the injection of non-toxic food-grade materials (similar to carbohydrate and vegetable oil), iron, and/or vitamin B-12 into the groundwater to promote the production and growth of microbes to break down the VOCs into harmless byproducts, and (2) construction and operation of a groundwater pump and treat system to prevent

contaminated groundwater from the most affected area (beneath the former DRMO Yard and CSX tracks) from re-entering the areas treated by injection. The initial round of 1,200 injections was performed in 2008, with a little over ½ of these locations receiving further treatment via injections in 2010.

The groundwater pump and treat system was operated between December 2008 and May 2013, with over 12.5 million gallons of groundwater treated and over 90 pounds of VOCs removed from the groundwater. Periodic groundwater sampling has been performed at nearly 50 monitoring wells to monitor the progress of the remedy. ***Prior to remedy implementation, the area of groundwater contamination was 20.7 acres. Monitoring results indicate that the extent of the primary contaminants in the groundwater has decreased overall on average by 92%, and the area of groundwater contamination is now only 1.5 acres.***

In May 2013 the USEPA, Maryland Department of Environment (MDE), and Prince George's County agreed that operation of the pump and treat system could be suspended to support another round of injections in an area that had previously not been treated. These injections were conducted in 2013/2014 at 200 locations. Annual groundwater monitoring continues to measure the effectiveness of the remedy to date; the most recent monitoring event was conducted in March 2015.

Steps Towards Final Remedy

A supplemental Remedial Investigation Report finalized in 2013 documented that clays 30 feet below the ground surface at the northwest corner of the DRMO and adjacent CSX tracks remain as a continuing source of contamination to the groundwater. Consequently, the Government has focused on developing a final, more aggressive cleanup strategy for the site. Cleanup of this remaining source poses several challenges, as it is deep, below the water table, in a low permeability zone, and beneath active railroad tracks. Cleanup technologies were evaluated in a report known as the Feasibility Study, which has just been completed for Brandywine and reviewed by USEPA, MDE, and Prince George's County. Within the Feasibility Study, several cleanup technology alternatives for groundwater and the source zone were identified, evaluated, and compared to assess

which alternative will best meet cleanup objectives. The Feasibility Study was finalized in September 2016.

Proposed Plan

The Proposed Plan was released for public comment on December 1 2016. The Proposed Plan describes the cleanup technologies evaluated in the Feasibility Study and the rationale for recommendation of a preferred cleanup alternative. The cleanup technology believed best suited to site conditions and therefore recommended in the Proposed Plan as the preferred alternative is Electrical Resistance Heating (ERH). ERH involves the installation of electrodes into the ground. Electricity is applied to the electrodes and current flows between them within the treatment volume. Soil is naturally resistant to the flow of electrical current, heating the soil and groundwater. This heat causes the underground contaminants and water to evaporate, creating steam and vapor in the subsurface, which is then captured and treated. This technology is capable of rapidly achieving a 99.9% reduction of TCE contamination. The release of the Proposed Plan was announced in a public notice published in the Prince George's Sentinel on December 1st, announcing the availability of the Proposed Plan for review and comment through January 9 2017 and the time and location of an information session on the Proposed Plan. The Proposed Plan and all supporting documents are available for review at the Prince George's County Library System, Surratts-Clinton Branch, 9400 Piscataway Road, Clinton, Maryland (301-868-9200). The proposed Plan is also available electronically at the following link: [hyperlink](#)

The information session will be held on December 12, 2016, from 7:30 to 8:30 p.m. at the Brandywine Fire Department, 14201 Brandywine Road, Brandywine, Maryland. The USAF will present and explain the Proposed Plan and will receive oral and written comments at the meeting. Written comments may be submitted by mail or e-mail to:

11th Wing Public Affairs Office
William A. Jones III Building
1500 West Perimeter Road, Room 2330
Joint Base Andrews, MD 20762
Email: community.relations@us.af.mil

Upcoming Work

The final Record of Decision for the Brandywine site will follow the Proposed Plan, and is forecasted for early 2017. The final Record of Decision will include public comments and responses received during the Proposed Plan public comment period and at the information session, and with consideration of these comments, document the final cleanup plan for the site. Remedial Design, the engineering phase in which the technical specifications are developed for the remedial action, will follow in summer 2016. Final remedy implementation is anticipated in 2017-2018.

Public Outreach

Joint Base Andrews Environmental Restoration Program (JBA ERP) continues to actively engage the Brandywine community and is committed to maintaining an open dialogue. Representatives of the JBA ERP have attended multiple public meetings and distributed over a dozen fact sheets; and were featured in 2 newspaper articles and an EPA video. The JBA ERP utilizes the Brandywine North Keys Civic Association (BNKCA) as a forum to communicate updates on the status of Brandywine restoration efforts, in lieu of a Restoration Advisory Board. This provides the Air Force with the opportunity to hear direct feedback from the community. The Air Force has been successful in engaging with BNKCA as a means to interface with the public and disseminate information. JBA ERP would like to thank Mr. Earl Mitchell, President of the BNKCA, for his continued support as well as the opportunity to allow JBA ERP to present at their venue.

For questions or concerns about restoration activities at the site, please contact any of the following points-of-contact below.

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