

Site Fact Sheet
Little Elk Creek
Area-Wide One Cleanup Program Pilot Project
Dwyer Property
North of Routes 549 and 275
Elkton, MD 21921

Property Description

The Dwyer Property site is located north of the corner of Maryland Routes 549 and 275, in Elkton, Maryland. The approximate 72.86 acre property is located on the northwest side of Elkton, just within the city limits.

An underutilized industrial park located along the Little Elk Creek in Cecil County, Maryland has been selected as an Area-Wide Pilot Project under U.S. EPA's One Cleanup Program and Land Revitalization initiatives. The goals of the Little Elk Creek Pilot Project is to address a widespread groundwater contamination problem stemming from multiple industrial sources within a geographic area and support development and reuse needs of the surrounding community.

Property History

According to Department records, the property was agricultural prior to 1933. In 1933, the property was purchased by Triumph Fusee and Fireworks Company and used to produce "fusees," a type of signal flare, and fireworks. In 1938, the company changed its name to Triumph Explosives, Inc. and production was geared to the manufacture of various munitions and trinitrotoluene-based explosives.

To satisfy growing demand for munitions during the early years of World War II, Triumph Explosives, Inc. changed the company name to Triumph Industries and expanded their operation to include the land located west of Blue Ball Road. Triumph Industries used the original property (the Dwyer Property site) to produce Army munitions, and the facilities west of Blue Ball Road to produce naval munitions.

In 1942, the Department of the Navy assumed control of operations at Triumph Industries for six months. The Navy took over operations by executive order resulting from internal management problems in the company. Triumph Industries continued munitions production until the end of World War II.

In 1946, the Bowers Battery & Spark Plug Company purchased the site. This company used the land to manufacture carbon batteries. In 1948, the property was sold to Aerial Products, Inc., a fireworks and munitions manufacturer. Mr. Martin Dwyer was President of Aerial Products, Inc. throughout the life of the company, which ceased operations in 1958.

Mr. Dwyer purchased the property in 1958 and possibly used the property for the manufacture of incendiary flares until 1972. Maryland Department of the Environment (MDE) records also

indicate that Mr. Dwyer may have utilized the property as grazing land for a nearby dairy farm. Mr. Dwyer transferred the property to Mr. Andrew Dwyer, et al., with Mr. Andrew Dwyer as the current contact, in 1986.

Since then, the property has become overgrown with vegetation. Unpermitted dumping of household waste has occurred in various portions of the property.

Environmental Investigations

In March 1989, MDE completed a Preliminary Site Assessment of the property. The property came to the attention of MDE as a result of a real estate transaction. As part of the Preliminary Site Assessment, three groundwater monitoring wells were installed on the property. Results of the laboratory analysis of the collected groundwater samples indicated high concentrations of volatile organic contamination in the parts per million range.

In December 1989, after completing the Preliminary Site Assessment of the property, MDE completed a Screening Site Investigation (SSI). The SSI reiterated the results of the Preliminary Assessment.

In September 1994, MDE completed an Expanded Site Inspection (ESI) of the Dwyer Property. This investigation included sampling of surface water, sediment, soil, and groundwater. Analysis of samples indicated the presence of chlorinated solvents and inorganic contaminants in the groundwater beneath the property and various chlorinated solvents in the surface water located in Dogwood Run. However, no contaminants were detected in any of the neighboring residential wells at that time.

In June 1999, MDE completed a Site Survey report to reassess the status of the site previously designated No Further Remedial Action Planned by the U.S. Environmental Protection Agency (EPA). MDE recommended the site be considered for further investigation by EPA under a future Cooperative Agreement.

In January 2001, MDE completed an ESI that revealed the presence of high concentrations of chlorinated solvents in the upper part of the aquifer. This may indicate the presence of Dense Non-aqueous Phase Liquid (DNAPL) onsite.

In April 2002, MDE contracted ENSAT Corporation to manage an exploratory soil boring program as the initial phase of further characterization and potential remediation of the VOC contamination of the groundwater onsite. Nine borings were advanced to the overburden/saprolite interface to gain stratigraphic information across the site. Groundwater samples collected during boring advancement revealed elevated levels of VOCs (up to 726,574 parts per billion).

In April 2003, the second phase of the groundwater investigation began with the installation of ten additional monitoring wells in the areas explored during the April 2002 investigation.

In January 2004, Membrane Interface Probe Technology identified two distinct plumes of chlorinated solvents onsite.

In August 2005, Tetra Tech, under contract with MDE, completed a Remedial Investigation/Feasibility Study (RI/FS). The RI confirmed the presence of the two chlorinated solvent phases and established that one of the plumes is migrating offsite in a southwest direction. Elevated levels of perchlorates were also detected offsite. The FS recommended additional characterization of the offsite plume and chemical injections to remediate the chlorinated solvent contamination of the groundwater onsite.

Contaminants

VOCs have been detected in the groundwater and in nearby Dogwood Run.

Cleanup and Next Steps

MDE is currently utilizing MIPS technology to investigate the offsite plume and is developing a bid to contract the chemical injection remediation of the groundwater onsite.

Lead Agency and Contacts

MDE is the lead agency and will be conducting further investigation of this site under the State Superfund program.

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