Maryland Department of the Environment

Kane and Lombard Site

What You Need to Know

Site Location

The Kane and Lombard site is located in Baltimore City at the intersection of Kane and Lombard Streets. The site consists of approximately 8 acres south of Lombard Street and approximately 17 acres north of Lombard Street. The 8-acre portion, which is adjacent to Patterson High School, is currently a golf driving range and parking lot. The 17-acre portion is used by several commercial properties, including PICORP Inc., which stores shipping containers.

Site History

Between 1962 and 1964, excavation and dumping occurred on the 17-acre portion, north of what later became Lombard Street. These disposal practices proceeded further south, past the line that would later become Lombard Street, between 1964 and 1966. By 1971, much of the disturbed area had been filled and construction of Interstate 95 was underway. Fill materials may have included construction debris, domestic wastes, and industrial materials. Between 1971 and 1982, the excavated areas west, north, and east of the 8-acre portion had been filled and developed. In December 1980, PICORP acquired approximately 17 acres of the former landfill area north of Lombard Street. This land is currently leased to PICORP and other businesses.

On September 19, 1996, ownership of the 8-acre portion was transferred to Someday, Inc. On February 18, 1998, pursuant to a prospective purchaser agreement with EPA, Double Eagle Enterprises acquired the property from Someday, Inc. and subsequently constructed a golf driving range on the property. Bayview Golf Center, Inc. currently operates the driving range. A cell tower was erected next to the parking lot in 2001.

Environmental Investigations and Actions

In 1980, several hundred drums were discovered on the 8-acre parcel. After several unsuccessful attempts to compel action by the site owners, the State requested assistance from the U.S. Environmental Protection Agency (EPA). In 1984, EPA removed 1,163 drums and the upper six inches of soil beneath the drums and transported these wastes to permitted disposal facilities. Approximately 800 drums were classified as empty, while the contents of the other drums included aromatic compounds, polycyclic aromatic hydrocarbons, phthalates, polychlorinated biphenyl compounds (PCBs), cyanide and metals. Following the removal action, a compacted clay layer was installed in the base of the excavation where the drums and soils had been removed.

The site was included on the EPA's National Priorities List (NPL) in June 1986. In order to facilitate the investigation and cleanup process, the site was divided into two operable units. Operable Unit 1 (OU1) addresses contamination in soils and shallow groundwater beneath the

site's 8-acre portion. OU2 addresses the remainder of the former landfill and the groundwater impacted by the wastes disposed in OU1 and OU2.

EPA issued the Record of Decision (ROD) for OU1 on September 30, 1987, which specified the cleanup action. The selected remedy was a multi-layer cap and slurry wall around the site, combined with dewatering of the first water-bearing zone contained within the wall. Construction of the remedy was completed in August of 1990. Operations and maintenance activities are ongoing for OU1. Any water withdrawn from the extraction wells is discharged to the City of Baltimore sanitary sewer system following pre-treatment.

Investigation of OU2 began in 1985 with a preliminary assessment of the PICORP property by the Maryland Waste Management Administration. During this investigation, miscellaneous debris, including wood, tires, construction debris and crushed, empty 55-gallon drums were identified. In addition, fourteen intact 55-gallon drums were identified; nine were empty and the remaining five reportedly contained waste oil. In 1990, the Maryland Department of the Environment commenced an RI/FS at OU2. This study was discontinued in 1993, when EPA and several potentially responsible parties (PRPs) associated with the Kane and Lombard site entered into a Consent Order to perform an RI/FS at OU2. The OU2 RI/FS was completed in July 2002.

The main contaminants of concern, chlorinated organic compounds, were detected in the subsurface soils and in the groundwater in the Upper Patuxent aquifer. EPA issued a Proposed Remedial Action Plan for OU2 in late December 2002 and a public meeting was held in January 2003. The OU2 ROD was finalized in September 2003.

The 2003 OU2 ROD specified Enhanced Reductive Dechlorination (ERD) for the contaminated groundwater plume. The contaminated groundwater is re-circulated in wells screened within the aquifer and a carbon nutrient source periodically added to these wells. The nutrient source promotes the growth of indigenous microbes that are expected to enhance the dechlorination process. The specified remedy also includes a soil management plan, institutional controls and groundwater use restrictions.

A pilot study of the ERD was conducted which concluded that the planned ERD method is not sufficient to meet the cleanup objectives. Accordingly, EPA re-evaluated the alternative remedial options to select a more effective action for the groundwater. A second pilot study is planned using ozone to treat the chlorinated organic compounds and a flocculation and sludge dewatering process to reduce inorganic content in the groundwater. The system will discharge the treated groundwater to a local surface water body under a Maryland National Pollutant Discharge Elimination System permit.

EPA asked the PRPs to evaluate the potential for vapor intrusion into buildings above the plume. The commercial buildings on the 17-acre portion were sampled and a Sub-Slab Depressurization System was installed in buildings at two of these properties.

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Current Status

A Pilot Pump and Treat system was constructed and began operation in 2016. The system is being studied to determine whether ozone treatment of the chlorinated hydrocarbons in the groundwater is a viable remedy for the OU2 groundwater.

Planned or Potential Future Action

The results of the current pilot study will be evaluated and EPA will determine whether ozone treatment will be the remedy for the contaminated groundwater.