

Lord-Shope Landfill

EPA Region 3

Pennsylvania

Erie County

17 miles west of Erie

EPA ID# PAD980508931

3rd Congressional District

Last Update: August

2002

Other Names:

Shope Melvin Property

Current Site Status

The U.S. Environmental Protection Agency (EPA) is overseeing the cleanup of the Lord-Shope Landfill site. Currently, construction is complete and certain components of the remedy are operational. EPA is assessing pilot studies of other components that are considered new technologies.

Site Description

The Lord Shope Landfill, located in Erie County, Pennsylvania had approximately four million cubic feet of waste disposed on the privately owned five-acre site between 1959 and 1979. Wastes deposited on the landfill consisted principally of solid debris, and included rubber scrap, organic and inorganic chemicals, solvents, cooling oils, acids, and caustic agents. Land use in the immediate vicinity includes agricultural areas, a golf course, orchards, vineyards, and wooded areas. The nearest residences are situated several

hundred feet from the site. Approximately 125 people reside within one-mile of the site, and about 5,700 people live within three miles of the contamination area. Elk Creek, into which site runoff discharges, has a water intake located approximately 4,800 feet downstream of the contamination area. The water from this intake is used to irrigate food crops.

Site Responsibility


This site is being addressed through federal, state, and potentially responsible parties' (PRPs) actions.

NPL Listing History

Our country's most serious, uncontrolled, or abandoned hazardous waste sites can be cleaned using federal money. To be eligible for federal cleanup money, a site must be put on the National Priorities List. This site was proposed to the list on December 30, 1982 and formally added to the list September 8, 1983.

Threats and Contaminants

Due to the spillage or disposal of liquid wastes and leaching of contaminants, the soils, landfill materials, and groundwater are contaminated with VOCs and various heavy metals including lead. Sediments of a nearby stream are contaminated with low-level VOCs, barium, and arsenic. Arsenic and copper have been identified in off-site surface water, although not at significant levels. Long-term risks are posed by the potential for consumption of contaminated groundwater. Currently there are no drinking water wells in the area of contamination. Direct contact with landfill materials and soil is limited by a cap and re-vegetation of the area.

Contaminant descriptions and associated risk factors are available on the Agency for Toxic Substance and Disease Registry, an arm of the CDC, web site at <http://www.atsdr.cdc.gov/hazdat.html> 

Cleanup Progress

In 1983, the Lord Corporation, the potentially responsible party (PRP) for the site, removed contaminated exposed drums, containerized 20,000 gallons of landfill leachate, removed it, regraded and capped

the landfill with a synthetic liner, and installed a subsurface wall to divert ground water from coming in contact with contaminated materials in the landfill. These actions were pursuant to a Consent Order with the Pennsylvania Department of Environmental Resources.

In 1987, the Environmental Protection Agency (EPA) and the Lord Corporation entered into a Consent Order for the Remedial Investigation/Feasibility Study of the site. In 1990, the EPA selected the remedy for cleanup of the entire site that included removal of volatile organic compounds (VOCs) from the landfill materials and surrounding soils through in-situ vapor stripping and extraction, treatment of contaminated ground water by pre-treatment of iron and other metals, air stripping for removal of the VOCs, and discharge of treated groundwater to a nearby tributary of Elk Creek. The design of the cleanup technologies was finalized in July 1994, and construction began in the fall, 1994. The in-situ vapor stripping component of the remedy became operational in November 1995. The groundwater treatment component was completed and started operating in June 1996. EPA classified the site as construction complete in September 1996. The groundwater treatment is expected to reach remediation goals in 40 years. The in-situ soil vapor stripping component of the remedy is anticipated to reach its remediation goal prior to 2005. In November 1999, EPA's Five Year Review of the remedy determined that the remedy is still protective of human health and the environment. The Lord Corporation conduct an in-situ pilot study on a limited area at the site to determine if vinyl chloride degradation can be accelerated under anaerobic conditions with the introduction of hydrogen. The study showed that the introduction of hydrogen had limited effectiveness under the current geologic conditions.

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Detailed public files (Administrative Record) on EPA's actions and decisions for this site can be examined at the following locations:

Wilcox Library

8 Main Street

Girard, PA 16417

U.S. EPA Region III

6th Floor Docket Room

1650 Arch Street

Philadelphia, PA 19107

215-814-3157

Please call to schedule an appointment.