

Rhinehart Tire Fire

EPA Region 3

Virginia

Frederick County

6 miles west of

Winchester

EPA ID# VAD980831796

10th Congressional District

Last Update:

August 2002

Other Names:

Winchester Tire Fire

Current Site Status

The U.S. Environmental Protection Agency (EPA) is currently implementing the final phase of cleanup at the Rhinehart Tire Fire Site. Funding for this final phase has been secured, and work started on March 11, 2002 and is expected to be completed by September 2002. EPA completed a site-wide study in the winter of 2000 that provided the information needed to select the final site closure remedy. EPA and the Virginia Department of Environmental Quality (VADEQ) selected the final site closure remedy in September 2000. The final remedy includes removal of the sediments in Rhinehart's Pond and 150 feet of the adjacent stream (Massey Run) that flows from the site, and decommissioning the previously constructed facilities. The decommissioning activities include removal of the dam at Rhinehart's Pond, removal of the water treatment plant, removal of the oil/water separator, abandoning the storm sewer, removal of the fencing, either removal of the shotcrete or covering the shotcrete with soil, and re-vegetating the slopes. EPA initiated the design of the final

remedy in January 2001 and completed it in September 2001. Based on an analysis performed during the design, EPA is covering the shotcrete with soil and re-vegetating the areas.

Site Description

The Rhinehart Tire Fire site located in Frederick County, Virginia, is a 22-acre site situated in a sparsely populated rural area. Between 1972 and 1983, the site owner conducted a tire disposal operation which consisted of transporting discarded tires from various locations and storing them in the natural drainage swale of a wooded slope behind his home. By October 1983, an estimated five to seven million tires had been accumulated. On October 31, 1983 a fire broke out in the five-acre tire storage area and burned until July 4, 1984. Due to the magnitude of the fire, assistance from the EPA was requested by State officials. The burning tires produced a free flowing oily-tar which ultimately contaminated sediment and surface water of an adjacent stream. Approximately 75 people live within a one mile radius of the site, and one person lives on the site itself.

Site Responsibility

Cleanup for this site is the responsibility of the Federal and State governments.


NPL Listing History

This site was proposed to the National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites requiring long term remedial action on October 15, 1984. The site was formally added to the list June 10, 1986, making it eligible for federal cleanup funds.

Threats and Contaminants

The levels of contaminants in the soil and groundwater are comparable to background levels. The sediments of the on-site pond (Rhinehart's Pond) and adjacent stream system and the surface water of the pond are contaminated with elevated levels of zinc. Test results revealed the surface water and sediments to be acutely and chronically toxic to the ecosystem. Human exposure to contaminants may occur by coming into direct contact with, or incidentally ingesting contaminated surface water or sediments. Without removal of the

contaminated sediments, eating trout with bioaccumulated contaminants from Hogue Creek may be a health threat.

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 November 1983, during the fire fighting operations, EPA's Emergency Response Team constructed a lined containment basin (Dutchman's Pond). The basin allowed EPA to collect over 800,000 gallons of the oily waste which was subsequently removed from the site and recycled into fuel oils. In 1988, EPA issued a Record of Decision (ROD) which documented a remedy to control the contaminants leaving the site via surface water runoff. The remedy included soil erosion controls, raising the height of the existing dam on Rhinehart's Pond, collecting and treating surface water runoff, and implementing a groundwater collection and oil/water separation system. Construction of the remedy was completed in April 1992. To date, the on-site treatment plant has treated over 75 million gallons of water contaminated with heavy metals that otherwise would discharge directly to the adjacent stream.

In 1992, EPA completed a study exploring methods to remove Dutchman's Pond. The selected remedy to close this impoundment was documented in a ROD signed in 1992. Remedial action to implement the clean closure of this basin was completed in 1995.

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The detailed Administrative Record can be examined at the following locations:

Handley Library

100 West Piccadilly Street

Winchester, VA 22601

U.S. EPA Region III

6th Floor Reading Room

1650 Arch Street

Philadelphia, PA 19103

215-814-3157