



Facts About...

Herron Areas 1 – 4
(Voluntary Cleanup Program – Herron Areas 1-3 Withdrawn)

Site Location

Herron Areas 1 - 4, known as Elkton Farm, is a 397-acre property located on both sides of Zeitler Road and west of Blue Ball Road in Elkton, Cecil County, Maryland. The farm is bordered by an industrial area (Triumph Industrial Park) to the south and mixed residential/agricultural areas to the north, west, and east.

The Little Elk Creek and Laurel Run flow south through the property. Gravely Run, an intermittent stream, flows along the north side of Zeitler Road and into Little Elk Creek. The land in the vicinity of the property slopes generally towards Laurel Run and Little Elk Creek and the regional groundwater flow is to the southeast. The property is located in a groundwater use area.

Background

In 2006, the Herron Family sold their farm to Herron 393, LLC, a development corporation unrelated to the Herrons. Herron 393 purchased the property with the intention to develop it into a residential community. Herron 393 has divided the farm into four operational areas identified as Herron Area 1, Area 2, Area 3, and Area 4. Area 1 includes the lands west of Laurel Run; Area 2 is located north of Zeitler Road between Laurel Run and Little Elk Creek; Area 3 is located south of Zeitler Road between Laurel Run and Little Elk Creek; and Area 4 is located east of Little Elk Creek. Areas 1 and 4 are a mix of wooded sections and open fields, while Areas 2 and 3 are open fields used for agricultural purposes. Farm buildings are located in the southeast section of Area 2 and in the northeast section of Area 3 adjacent to Zeitler Road.

Site History

Elkton Farm was a working dairy farm prior to the mid 1940s when Triumph Explosives, Inc. (TEI), a manufacturer of military ordinance, acquired ownership from the Zeitler family. During its ownership of the property, TEI disposed of waste explosive materials and munitions in the firehole, a portion of Herron Area 3. This disposal involved the open burn/open detonation of waste explosives and ordnance material in shallow pits scattered across the site.

From 1948 until 2006, the property was owned by the Herron family (later MARVA Limited Partnership). Under their ownership, the property reverted to a working farm with the fields leased and planted by Spry Brothers. Mr. Martin Herron operated small-scale waste hauling business from the 183 Zeitler Road address.

In the late 1950s, the Thiokol Corporation leased a one-acre parcel in Area 3, south of the firehole, and constructed a facility for testing and recovering rocket motors (known as the Thiokol Motor Recovery Area) (TMRA). In 1962, an explosion at this facility led to its abandonment. The total quantity of hazardous waste generated and disposed at the testing facility is unknown.



In the 1980s, the property owner illegally stored hazardous wastes in a former dairy barn and a chicken coop building located on Area 2. These wastes included drums of ash recovered from the Thiokol area, ordnance debris from the TEI operation, and drums of wastes from Galaxy Chemical Company, a nearby solvent recycler.

Environmental Investigations

An October 1991 site investigation, conducted under Maryland Department of the Environment (MDE) supervision, identified hazardous wastes in the former dairy barn and a chicken coop located in Area 2. The investigation led to the February 1992 U.S. Environmental Protection Agency (EPA) emergency removal action. Drums containing hazardous materials and several tons of bulk-contaminated soil were removed from the site for proper disposal.

In April 2001, MDE completed a site survey report which concluded that further action was required at the site in order to document hazards associated with the release of contaminants resulting from the open burning of ordnance and explosives waste at the site (Elkton Farm Site, MD-433).

NAEVA Geophysics, Inc. conducted a geophysical survey in July 2002 that defined a 32-acre area in Area 3 that contained several distinct fireholes. MDE completed an expanded site investigation of the firehole area in September 2002, and a site investigation of the TMRA in May 2003.

A Formerly Used Defense Site (FUDS) inspection report, addressing portions of Areas 3 and 4, was completed by MDE in September 2004. The purpose of this investigation was to document potential sources of contaminant plumes identified south of the Elkton Farm property. The results of the investigation indicated that the area was neither a waste source nor did the G.E. Rail (MD-294) volatile organic compounds groundwater plume impact it.

A geophysical survey completed for part of Area 3 in June 2005 by Tetra Tech EM Inc. concluded that anomalies were present throughout the firehole area and that a majority of the anomalies encountered were most probably related to munitions and explosives of concern (MEC).

In August 2005, a FUDS investigation of the firehole area was completed. VOCs were detected in groundwater samples and trinitrotoluene, perchlorate, arsenic, asbestos, chromium, mercury, lead, polychlorinated biphenyls, and trichloroethene were detected in soil samples above the MDE residential cleanup standards.

Environmental Resources Management (ERM), the environmental consultant for Herron 393, LLC, completed a Phase I environmental site assessment (ESA) of Areas 1 through 4 in June 2005 and a Phase II ESA of Area 4 in August 2005. ERM concluded that no recognized environmental conditions were identified in Area 4 and that it did not pose an unacceptable risk under future residential land use. There were recognized environmental conditions reported in Areas 2 and 3.

Between February and September 2006, EPA, with the U.S. Army Corps of Engineers, oversaw the removal and detonation of several thousand pieces of waste military ordnance collected from approximately 28 acres of the defined firehole area of the Elkton Farm property under an EPA Phase I planned removal. Ordnance items recovered at the property included 40 mm antiaircraft shells and components, 81 mm practice mortars, rifle grenades, hand grenades, various fuses, float lights, aircraft signals, detonators, primer caps, pentolite, and four-pound incendiary bombs.



In April 2007, EPA remobilized to the site to complete MEC identification, avoidance, and disposal activities. Site activities address the remaining EPA Phase I areas and the more heavily contaminated EPA Phase II areas of the firehole. Ordnance items recovered include: various fuses, detonators, detonator leads, primer caps, as well as incendiary bombs, and 40 mm antiaircraft shells and components. In March 2009, EPA completed the removal action and demobilized all site equipment and personnel. EPA anticipated that regrading and vegetating site would be completed by the property owner. All EPA activities at Elkton Farm Firehole site are described on the EPA On-Scene Coordinator web site at http://www.epaosc.net/site_profile.asp?site_id=1299.

Current Status

The Herron 393, LLC, as an inculpable person, submitted four Voluntary Cleanup Program (VCP) applications; one for Area 4 in May 2006, and one each for Areas 1, 2, and 3 in June 2006. The VCP issued comments on the application packages in June and August 2006. Response to the VCP comments was submitted by the developer in April 2007. The VCP issued a No Further Requirements Determination for Area 4 in January 2008 with the only requirement that groundwater use is prohibited for the property. Areas 1, 2 and 3 were accepted into the VCP on January 16, 2008 with the requirement that a response action plan (RAP) be developed to address elevated levels of contamination in soil and groundwater. The VCP applications for Areas 1, 2, and 3 were withdrawn and all prior VCP correspondence was void on October 28, 2009.

Contact

For additional information, please contact the Land Restoration Program at (410) 537-3493.

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