

Reuse Situation Assessment

Drake Chemical Superfund Site – Lock Haven, Pennsylvania

October 2024



Overview

The Drake Chemical Superfund site (the Drake Site) and the adjacent Former American Color & Chemical Facility (the AC&C Facility) are in Lock Haven, Clinton County, Pennsylvania. The 58-acre Drake Site is managed under the Superfund program. The 38-acre AC&C Facility is managed under the RCRA program. The EPA considers current and future land use throughout the cleanup process to help ensure future uses are compatible with cleanups and protective of human health and the environment. This Reuse Situation Assessment outlines remedy-related considerations at the Drake Site and the AC&C Facility to inform future use planning for both areas.

Background

Investigations by the EPA and the Pennsylvania Department of Environmental Protection in the 1980s found contamination at the Drake Site. Surface water, soil and groundwater were contaminated with over a hundred compounds, including beta-naphthylamine, benzene, trichloroethene and other hazardous substances. The AC&C Facility, which treated, stored, and disposed of many of the same chemicals, also contributed to soil and groundwater contamination. More information about each site and their cleanup status is provided below.

The Comprehensive Environmental Response, Compensation, and Liability Act (also known as Superfund) and the Resource Conservation and Recovery Act are two environmental laws. They guide the federal government's response to managing and cleaning up hazardous waste sites and facilities. Both laws share an overarching focus on protecting human health and the environment. The EPA oversees both programs.

The Superfund cleanup program addresses abandoned and uncontrolled hazardous waste sites using short-term removal actions and long-term remedial actions. The RCRA cleanup program regulates land-based disposal of waste, including hazardous waste. One of its goals is reducing waste and encouraging recycling. The EPA may use either Superfund or RCRA cleanup authorities at hazardous waste sites.



The groundwater extraction and treatment building at the Drake Site.



A storage shed at the Drake Site.

Drake Chemical Superfund Site

A chemical plant was active at the Drake Site from the 1960s to 1981. Chemical sludge and contaminated soils filled in open areas. Activities contaminated soil, groundwater and structures with hazardous chemicals, including beta-naphthylamine, 1,2-dichloroethane and trichloroethene. The EPA added the area to the Superfund program's National Priorities List in 1983. The Drake Site includes the former Drake facility and downgradient areas affected by contaminated groundwater. Construction of the remedy finished in 2000. Operation and maintenance activities are ongoing.

Cleanup Status

The remedy includes the following components:

- *Leachate Stream Excavation* – Removal of contaminated soil and sediment, construction of a French drain and an underground sewer line to collect and carry the stormwater runoff to Bald Eagle Creek, and construction of a clay cap to cover the sewer line and adjacent surface soil.
- *Building Demolition* – Draining and removing of the two lined wastewater treatment lagoons, removing of tanks, buildings and debris, incineration of chemicals stored on-site, decontamination of salvageable material, and disposal of all material removed, other than decontaminated material, at an approved off-site facility.
- *Soil Incineration* – Installation of flood control measures, removal of leachate waste, installation of stormwater controls, excavation of contaminated sludge, soil and sediment, decontamination using a rotary kiln incinerator and consolidation of the ash in a pile, grading, and placement of clean fill cover.
- *Groundwater* – Groundwater extraction and treatment with granular activated carbon and discharge to Bald Eagle Creek or a sewage treatment facility. In May 2019, the EPA issued an Explanation of Significant Differences to include the requirement to discharge treated groundwater to an infiltration gallery.

Remedial action is complete for the lagoon/leachate stream. A cap placed over the sewer line and nearby soil prevents rainfall infiltration. The EPA removed structures and took them off-site for disposal. The ash pile is on the southern part of the Drake Site. It is covered with clean fill and vegetated.

The EPA defined three groundwater administrative zones to reflect the current and past use of the property's parcels. A groundwater contamination containment and treatment system is on-site. The system consists of three recovery wells, a treatment system building and an infiltration gallery.

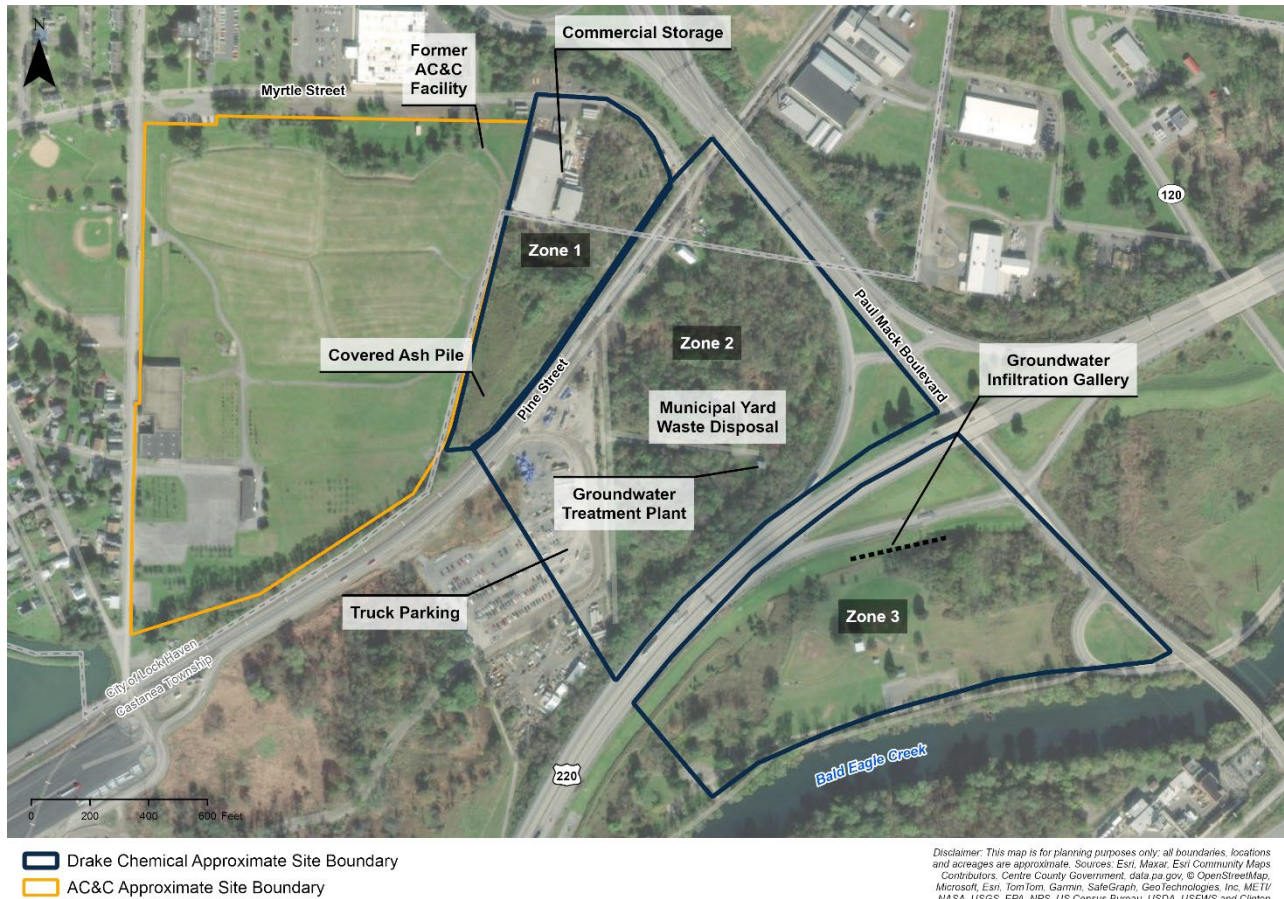
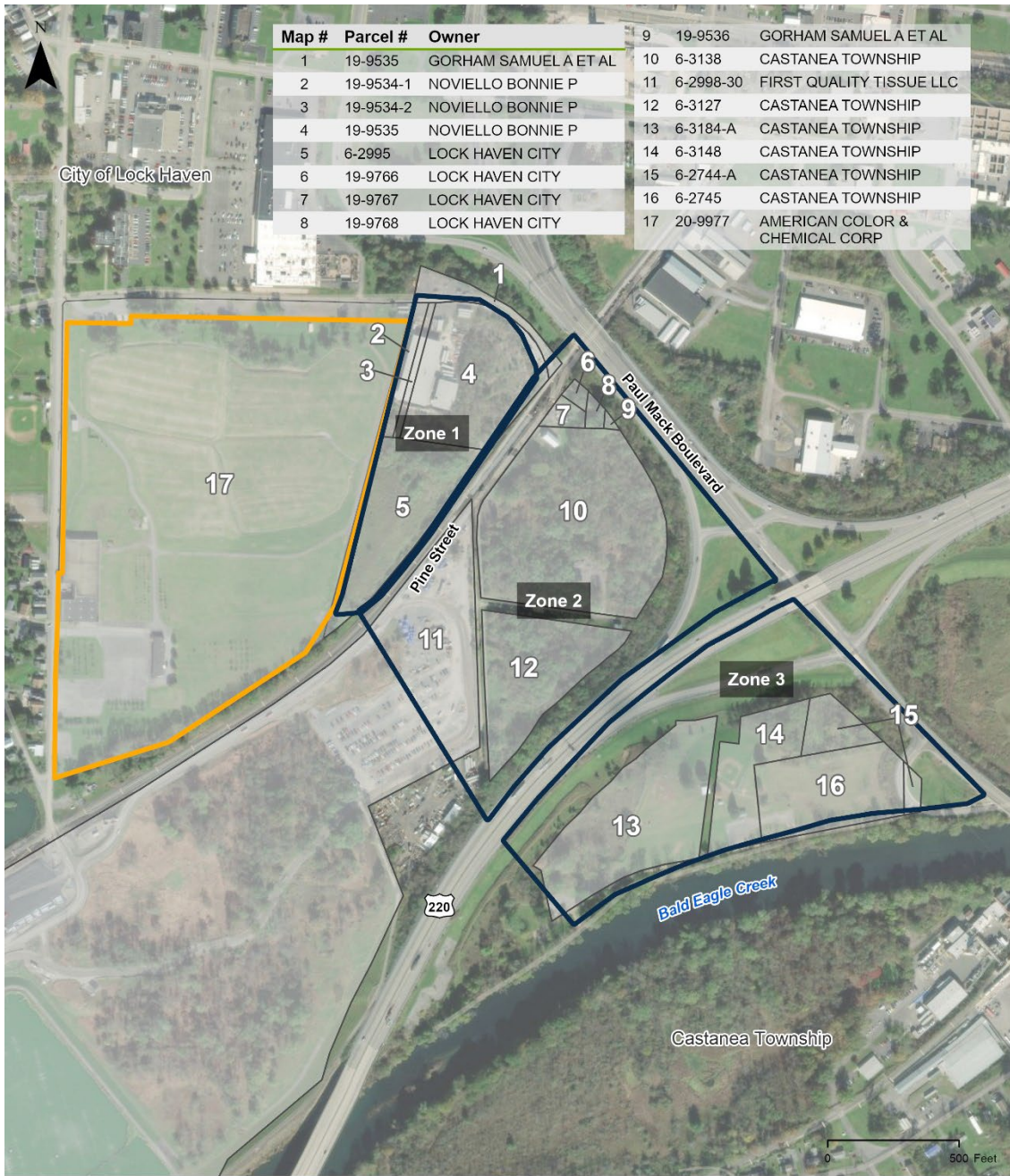


Figure 3: Map highlighting the locations of the Drake Site and the AC&C Facility.

Current Uses

The three administrative zones include parcels owned by the city of Lock Haven, Castanea Township and private owners.

- *Zone 1 (8-acre Drake Chemical Company facility property)* – Includes an 8-acre property where the Drake Chemical Company facility was located. It includes four privately owned parcels that are vacant or used for commercial storage. A city-owned parcel includes the covered ash pile.
- *Zone 2 (Area South of Zone 1)* – Includes the groundwater treatment plant and monitoring wells. Parcels are privately owned, owned by the city of Lock Haven or Castanea Township. Privately owned parcels are vacant or occupied by a truck parking area. Parcels owned by Castanea Township contain the groundwater treatment system and monitoring wells. The township also uses the area for residential disposal of yard waste for mulching.
- *Zone 3 (Area South of Zone 2)* – Includes five parcels owned by Castanea Township that have been used for recreation. The area was once a public park with baseball fields. It has not been in use in several years. Plans to renovate and reopen the park have not moved forward.



- Drake Chemical Approximate Site Boundary
- AC&C Approximate Facility Boundary
- Parcel

Disclaimer: This map is for planning purposes only, all boundaries, locations and acreages are approximate. Sources: Esri, Maxar, Esri Community Maps Contributors, Centre County Government, data.pa.gov, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS and Clinton County, PA Department of Planning, Grants, Zoning.

Last Modified: 7/26/2024

Figure 4: Property ownership map.

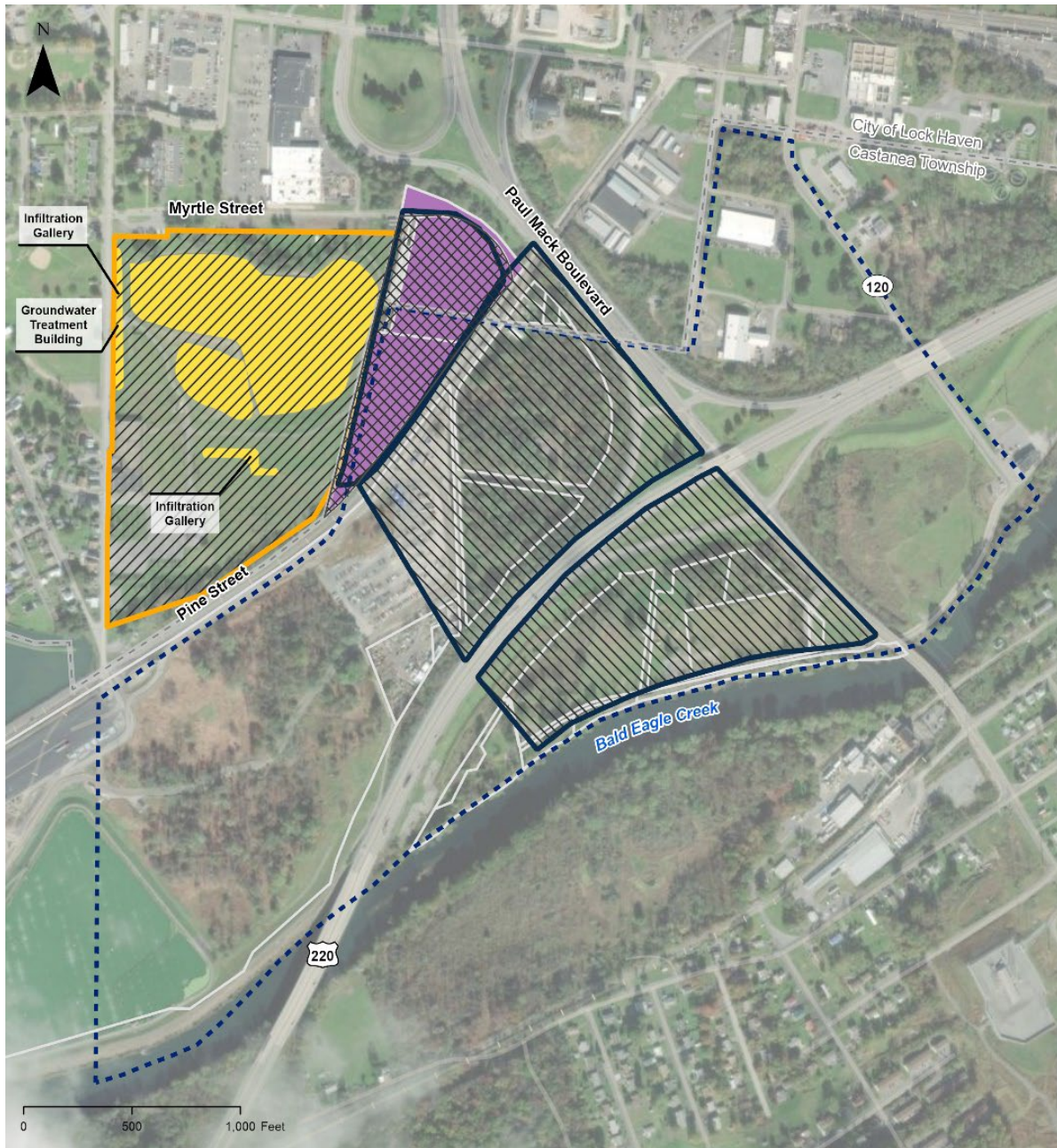
Summary of Remedy and Future Use Considerations for the Drake Site

Parcel Number	Remedy Considerations	Current Use / Zoning
Zone 1		
5 (6-2995)	Owned by the city of Lock Haven Covered ash pile Institutional controls: <ul style="list-style-type: none"> • Restricts disturbance of covered ash pile. • Requires vegetative cover to be maintained. • Groundwater use restrictions. 	Zoned Industrial
2, 3, 4 (19-9534-1, 19-9534-2, 19-9534)	Private ownership Institutional controls: <ul style="list-style-type: none"> • Restricts disturbance of covered ash pile. • Requires vegetative cover to be maintained. • Groundwater use restrictions. 	Commercial Storage Zoned Industrial
1 (19-9535)	Private ownership Institutional controls: <ul style="list-style-type: none"> • Restricts disturbance of covered ash pile. • Requires vegetative cover to be maintained. • Groundwater use restrictions. 	Vacant Zoned Industrial
Zone 2		
9 (19-9536)	Private ownership Institutional controls: <ul style="list-style-type: none"> • Groundwater use restrictions. 	Vacant Zoned Industrial
6, 7, 8 (19-9766, 19-9767, 19-9768)	Owned by the city of Lock Haven Institutional controls: <ul style="list-style-type: none"> • Groundwater use restrictions. 	Zoned Industrial
12 (6-3127)	Owned by Castanea Township Institutional controls: <ul style="list-style-type: none"> • Groundwater treatment system and monitoring wells. • Groundwater use restrictions. 	Zoned Industrial
10 (6-3138)	Owned by Castanea Township Institutional controls: <ul style="list-style-type: none"> • Groundwater treatment system and monitoring wells. • Groundwater use restrictions. 	Municipal Yard Waste Disposal Zoned Industrial
11 (6-2998-30)	Private ownership Institutional controls: <ul style="list-style-type: none"> • Groundwater monitoring wells. 	Truck Parking Zoned Industrial
Zone 3		
13, 14, 15, 16 (6-3184-A, 6-3148, 6-2744A, 6-2725)	Owned by Castanea Township Institutional controls: <ul style="list-style-type: none"> • Groundwater use restrictions. • Groundwater monitoring wells. 	Vacant (Previously Recreational Fields) Zoned Public/Open Space
Right of way north of parcels 13, 14, 15, 16	Owned by Castanea Township Institutional controls: <ul style="list-style-type: none"> • Groundwater infiltration gallery. 	Zoned Public/Open Space

Institutional Controls

Institutional controls for the Drake Site restrict disturbance of the covered ash pile and require vegetative cover and erosion control. Institutional controls also restrict groundwater use.

- *Pennsylvania HSCA Section 512 Order (11/8/2006)* – Restricts disturbance of the covered ash pile, requires maintenance of the current vegetative cover to provide adequate erosion and sedimentation control and restricts extraction or use of groundwater.
- *Pennsylvania HSCA Section 512 Order (8/21/2007)* – Restricts disturbance of the covered ash pile and restrictions extraction or use of groundwater.
- *Town of Castanea Ordinance Number 02-2010 (2010)* – Restricts groundwater for potable use, prohibits installation of monitoring wells and requires abandonment of current potable supply wells and connection to city water service.
- *City of Lock Haven Ordinance Number 853* – Restricts groundwater for potable use, prohibits installation of monitoring wells and requires abandonment of current potable supply wells and connection to city water service.



- Drake Chemical Approximate Site Boundary
- AC&C Approximate Facility Boundary
- RCRA Remedial Area
- Castanea Township Groundwater Use Restriction Area
- Parcel
- Parcel under Administrative Orders pursuant to Section 512 of the Hazardous Sites Cleanup Act
- Parcel under Groundwater Use Restrictions including Township of Castanea Ordinance No. 02-2010
- Parcel under Groundwater Use Restrictions including City of Lock Haven Ordinance No. 853
- Parcel under Groundwater Use Restrictions including Castanea Township Ordinance No. 02-2010 and City of Lock Haven Ordinance No. 853

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Figure 5: Institutional controls map.

Former American Color & Chemical Facility

The American Color & Chemical Company made clay pipes and various chemicals, such as phenols and dyes, on-site until 1982. The AC&C Facility is currently under its second Administrative Order of Consent for carrying out corrective measures. The cleanup has two parts: removal of waste from wastewater management surface impoundments and remediation of groundwater. Remedial activities are ongoing.

Cleanup Status

Cleanup of surface impoundments finished in March 2022. It included the construction of a cap over a 14.4-acre area. Hazardous materials were disposed of properly and non-hazardous materials were used to refill the impoundments. The impoundments were then capped. Under a PADEP closure plan, AC&C cleaned out all surface impoundments. This effort completed sitewide soil investigations and remediation activities. AC&C put in a groundwater pump-and-treat system in 2000. It consists of a treatment building housing controls and granular activated carbon units, two infiltration galleries, and associated pumping and monitoring wells and piping. In addition, in 2018, AC&C installed several injection wells in the southeast part of the property for in-situ chemical oxidation remedial measures.

Current Uses

The AC&C Facility is vacant. Cleanup activities are ongoing.

Institutional Controls

Institutional controls for the AC&C Facility include deed restrictions, permanent industrial/commercial zoning and groundwater use restrictions for the property and nearby downgradient areas. Institutional controls, enforceable through local ordinances, restrict land and groundwater use for the part of the property in the city of Lock Haven and the property in Castanea Township.

Engineering Controls

A PADEP-approved closure plan established engineering controls. The plan addresses capping soils exceeding established cleanup standards with impervious covers. Other engineering controls include the groundwater pump-and-treat system, infiltration galleries, monitoring wells and injection wells to remediate contaminated groundwater and prevent off-site migration.

Financial Assurance

RCRA requires financial assurance. AC&C maintains financial assurance through a Standby Trust Agreement.

Summary of Remedy and Future Use Considerations for the AC&C Facility

Remedy Features	Remedy Considerations	Current Use / Zoning
<ul style="list-style-type: none"> • Infiltration galleries • RCRA cap • Soil cover area • Groundwater treatment system, infiltration galleries and injection and monitoring wells 	<ul style="list-style-type: none"> • Permanent industrial/commercial zoning • Groundwater use restrictions • No disturbance of the soil cover and RCRA cap (active PADEP post-closure care permit) • Deed notice • Financial assurance 	<ul style="list-style-type: none"> • Undeveloped • Zoned Industrial

Looking Forward

This Reuse Situation Assessment Report provides information about the future use of the property and to assist the EPA and the community in considering future use options. Parties who are interested in developing properties at the sites should contact the EPA Region 3 Superfund redevelopment coordinator or remedial project manager to better understand next steps for acquiring and developing the property and available Superfund liability protections.

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EPA Superfund Redevelopment Program: www.epa.gov/superfund-redevelopment

EPA Site Profile Page for the Drake Site: www.epa.gov/superfund/drake

EPA Fact Sheet for the AC&C Facility: www.epa.gov/hwcorrectiveactioncleanups/hazardous-waste-cleanup-american-color-and-chemical-lock-haven